SUBSURFACE INVESTIGATION
STERLING HIGHWAY
MILE 84 TO SOLDOTNA

Prepared for

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Prepared by

DOWL ENGINEERS

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SUBSURFACE SOILS INVESTIGATION
STERLING HIGHWAY
MILE POST 84 TO SOLDOTNA

INTRODUCTION

A subsurface soil investigation was performed by DOWL Engineers along the Sterling Highway alignment from the City of Sterling westward, to the City of Soldotna a distance of approximately 12 miles. The general project location is shown on Figure 1. The drilling was accomplished in two phases. In Phase I, test borings were drilled during the period of November 11 to 17, 1980 at intervals of approximately 500 feet along the highway alignment. Phase II test borings, drilled from March 31 to April 4, 1981, were located between Phase I borings to better define the soil interfaces.

The drilling program began at Station 15 within the Soldotna city limits and extended to Station 600 lying just west of the Moose River bridge abutment. The test borings were located approximately six to seven feet right of centerline, or when possible, just off the pavement edge.

GEOLOGY

The Sterling Highway project lies within the confines of the Nikishka Lowlands which is part of the Kenai Lowlands, the physiographic subprovince that borders Cook Inlet in Southcentral Alaska. The entire area has undergone glaciation in the past, leaving a lowland which is poorly integrated, with numerous lakes, marshes, and muskeg areas. The area is generally well-drained with irregular topography having strong linear elements, including end, lateral, and interlobate moraines

associated with marginal channels, and somes of closely spaced terraces.[1] The observable presence of erratic boulders and the reworked alluvial, fluvial, and aeolian granular soils give further evidence of localized glacial and stream activity in the area.

SUBSURFACE CONDITIONS

Highway Section

The existing highway section consists of four layers including in order:

1) Asphalt Pavement
2) Base Course Fill
3) Subbase Fill
4) Subgrade Soils

The base course fill consists of a thin layer of crushed granular soil having a trace of some silt. It is non-frost-susceptible to slightly frost-susceptible. Non-frost-susceptible (NFS) soils are defined as granular soils having less than 3 percent particles finer than 0.02 mm. Soils with less than 5 percent silt generally meet this criteria. The base course fill soils were generally thin (on the order of 6 inches or less), thus, sampling of this soil layer was difficult. In the Phase I drilling program the base course fill thickness was often not logged. During the Phase II program attempts were made to accurately sample this layer and to determine its silt content.

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[1] Karlstrom, Thor N.V., 1964, U.S. Geological Survey, Quaternary Geology of Kenai Lowland and Glacial History of the Cook Inlet Region, Alaska Geological Survey Professional Paper 443, pagew 12-13.

The subbase is a classified or select fill consisting of granular NFS soil. The thickness of this layer is variable, depending on the subgrade soils. It varies from not-present where natural soils consist of NFS soils to 3 feet or more where subgrade soils are less competent.

Subgrade Soils

The subgrade soils are defined as either virgin or imported unclassified materials on which the subbase soil rests. Because of the differences in surficial geology in the relatively large area covered, the subgrade soils are highly variable. They vary from peat and organic topsoil to NFS gravels.

A survey of the observable topsoils along the road cuts from Sterling to Soldotna was conducted during Phase II. Characteristically the topsoil layer ranges from 2 to 4 feet in thickness. The topsoil is primarily a sandy silt with a thin organic matte and root systems throughout. The topsoil appears to vary from 2 to 4 feet near Soldotna to a few inches thick toward Sterling. Figure 2 shows locations where samples were taken from the road cuts for laboratory testing. The results of the tests are shown on Sheet 1 of Appendix B. In the low muskeg areas the depth of peat may vary from a few inches to four or more feet.

In general, the soils along the Sterling Highway are well drained where vegetation is dominated by birch and large black spruce trees. The poorly drained soils are usually found where small black spruce and muskeg areas are present.

In addition to the numerous test holes drilled in the highway or shoulders, six random samples were taken of the natural soils underlying the topsoil in the road cuts. The location of

these samples are shown on Figure 2. The grain size distribution of these samples is illustrated on Sheet 1 in Appendix B.

Sheets 1-23 after the Recommendations section show the test boring location and a simplified log of the test borings. More complete soils logs are attached as Appendix A. The boring numbers correspond to the station numbers. Except where noted otherwise on the boring logs the borings were drilled at an offset distance of 6 to 7 feet right of highway centerline.

Table A contains a description of subsurface conditions on a section-by-section basis. Appendix B contains the grain size distribution values, moisture and organic contents and Atterberg limits for selected samples. Laboratory test results including moisture contents and Atterberg limits are also shown on the boring logs. Unless the logs indicate that a mechanical analysis was conducted on a sample, the classifications are based on visual analysis.

Frozen Soil

Seasonal frost was encountered while drilling. The frost penetration increased from November 1980 (Phase I) to March and April 1981 (Phase II). From a maximum depth of approximately 3 feet to a maximum depth of 5 to 6 feet. Frost penetrations of 10 feet to 12 feet are possible during "cold" winters in dry granular soils.

No permafrost was observed while drilling. Permafrost is any soil, subsoil, or other surficial deposit, or even bedrock, in which a temperature below freezing has existed continuously over two full years. Though no permafrost was detected on the Sterling Highway alignment, it is possible that isolated, discontinuous pockets may exist in virgin areas.

Groundwater Conditions

Groundwater was encountered while drilling in some of the test borings. Due to seasonal changes in precipitation and melt runoff the actual surface and subsurface ground water levels may fluctuate during the year.

SUBSURFACE DRILLING PROCEDURE

Drilling was accomplished with a truck-mounted B61 Mobile drill rig using a 6-inch, continuous, solid flight auger. The rig was owned and operated by Denali Drilling, Inc. The operation was supervised and test borings were logged by Terry L. Barber, Alaska Testlab engineering geologist. The borings were expended through fill and organics, if present, into natural, in-situ soil a distance of approximately 5 feet. Samples were obtained by retrieving material brought to the surface by the auger. The samples were placed in plastic bags to preserve the natural moisture content, and returned to Alaska Testlab for testing. The depth of sample shown on the laboratory test results and boring lots is the average depth of sampling. The sample interval generally varied from 6 to 12 inches.

"R" VALUES

"R" value evaluations were performed on each distinct soil type. The tests were conducted using the Alaska Test Method T-24 (Rev. 7-79). Composite samples had to be used because of the difficulty of retrieving a large enough individual sample beneath the existing highway. Due to the sampling procedure some of the coarser gravel was also not retrieved. The removal of a portion of the gravel was often enough to change the grain size analyses from sandy gravel to gravelly sand. Therefore,

at some locations, the material is actually a sandy gravel even though the sieve analysis results show that the material is a gravelly sand.

Sample No.	Location	Material	Classif-ication	"R" Value
1	Sta. 97, Sa. 2 @ 2.5' Sta. 122, Sa. 1 @ 2.5' Sta. 157, Sa. 2 @ 2.5'	Gravelly Sand (SW/SM)	A-1-a	66
2	Sta. 97, Sa. 1 & 3 Sta. 102 +50, Sa. 1 Sta. 127 +50, Sa. 1	Gravelly Sand (SP/SM)	A-1-b	75
3	Sta. 182, Sa. 3 & 4 Sta. 257 +50, Sa. 3	Silty Sand (SM)	A-2-4	56
4	Sta. 577, Sa. 3	Sand (SP/SM)	A-3	62
5	Sta. 577, Sa. 2 Sta. 592, Sa. 2	Silty Sand (SM)	A-2-4	62
6	Sta. 167, Sa. 2 Sta. 232, Sa. 3	Sandy Silt (ML)	A-4	15

RECOMMENDATIONS

Pavement Structural Section

The recommended overlay of subgrade soils is based on Figure 3 of the Alaska State Department of Transportation, "Guide for Flexible Pavement," 1978. For a further explanation of design procedures refer to "Location & Design Study Report, Sterling Highway M.P. 94 to M.P. 81," prepared by DOWL Engineers and to be submitted the first week of August 1981. The overlay includes the asphalt pavement, base course and subbase materials. The design asphalt concrete thickness pavement is 3 inches on the roadway and 2 inches on the shoulder. The base will be 9 inches of crushed NFS aggregate. The thickness of the subbase

varies depending on the subgrade soil type. Recommended thicknesses of the overlay are listed on Table A. They are based on the following criteria:

Minimum Overlay Thickness (Inches)	Frost Classification of Subgrade Material
12	NSF
18	F1
21	F2
32	F3
44	F4

Filter Fabric

Filter fabric is recommended in many areas where highly frost-susceptible subgrade soils are present. The purpose of this fabric is to prevent contamination of the NFS subbase soils by the fine-grained soils, to reduce pumping, and to promote drainage. Table A lists areas where filter fabric is recommended.

Over Excavation

It is recommended that all peat and organics be removed in the area of the new highway prism and the toe of the old highway prism. Whether the peat should be removed under the old highway prism is dependent on the thickness of the fill and the grade of the new highway. Table A lists those areas identified by the test borings where the organics should be removed.

Reuse of Existing Fill Soils

Most, if not all, of the existing fill can be used as unclassified fill under the subbase. Reuse of existing fill material as subbase material should be evaluated on a station-by-station basis. The material may be reused if it is NFS, free of organics, and the moisture content is such that the specified compaction can be achieved. Frozen soil should not be used for any fill.

The recommendations in this report for overlay thickness, filter fabric, and reuse of existing soils are based on the soils data collected. These recommendations should be used for estimation purposes and as a general guide for design and construction. Actual field conditions should be determined by the project engineer during construction and appropriate design changes made where required.

Cut Slopes and Erosion Control

Recommended cut and fill slopes based on slope stability and erosion control considerations are as shown below. These are applicable for all mineral soils found in the project area.

Cut Slope	Height	Slope
	3' - 10'	3:1
	10'+	2:1
Fill Slope	3' - 10'	6:1
	10' - 20'	4:1
	20'+	2:1

TABLE A

SUBSURFACE CONDITIONS & DESIGN RECOMMENDATIONS

Station	Description	Subbase	Subgrade	Ground Water	Comments - Existing Conditions	Recommendations	
						Min. Overlay Requirements	Other
15-20 (B.O.P.)	Cut Section	Not distinguishable from subgrade	A-1-a, NSF Sandy Gravel	None observed	Natural soils in cut consist of 2.5' of F-4 Sandy Silt overlying NFS Sandy Gravel	12"	
20-73	Hwy crosses hill	3.5-8', A-1-b, NFS Sand & A-1-a, NSF Sandy Gravel	A-4, F-4 Sandy Silt	None observed	From Sta.31+100 to 33+50 & Sta.40+50 to 56 pavement is distressed	44"	Use filter fabric
73-77+50	Hwy crosses a ravine approx. 450' wide & 25' deep, with a small ravine draining north to south beneath roadway	2', A-1-a NSF Sandy Gravel	Up to 24', layered A-2-b, NSF Sands & A-4, F-4 Sandy Silts (unclassified fill) overlying 2.5' of F-4 Peat overlying F-4 Sandy Silts	25.5' @ Sta. 75+30	Pavement distressed in this area	12"	Remove all peat under new road areas and from the toe of the slope to the shoulder of the existing road prism. All F-4 soils soils in the existing subgrade fill should be removed.
77+50-100	Hwy grades uphill	3-4', A-1-a NFS Sandy Gravel	A-1-b, A-3, NFS Sands & A-1-a, NSF Sandy Gravels	None observed		12"	
100-138+50	Hwy grades uphill to Sta.128 & then slopes downhill	3.5-4.5', A-1-a, NSF Sandy Gravel	A-4, F-4 Sandy Silt	5.5' @ Sta.125	Pavement distressed - Sta.100+00 - 112+50	44"	Use filter fabric
138+50-247	Hwy crosses gently rolling hills w/ low lying,poorly drained areas at Sta's. 157-160, 166-168,181-187 & between Sta.228 & 230 where hwy constr. @ south edge of Peat bog	3.5-6', A-2 A-3, NFS Sand & A-1-a, NFS Sandy Gravel	A-4, A-2, F-4, Silts & Sands	8' @ Sta. 140, 155 & 195	Pavement distressed Sta.138+50 - 142+50	44"	Organic soils should be excavated from beneath road prism. Use filter fabric.
247-255	Hwy crosses a Peat bog approx. 600' wide w/up to 15' of fill to top of Peat bog surface.	5-6' A-1-b, A-3, NFS Sand	10' unclassified A-4, F-4 Silt fill. Overlying 2.5' of Peat, overlying A-4, F-4 Silts	14.5' @ Sta.250		12" overlay above NSF fill mat'l	New road areas will require removal of all organic soils beneath road prism.

TABLE A

SUBSURFACE CONDITIONS & DESIGN RECOMMENDATIONS
(Continued)

Station	Description	Subbase	Subgrade	Ground Water	Comments - Existing Conditions	Recommendations	
						Min. Overlay Requirements	Other
255-260	Hwy grades uphill from Sta. 253	1.5-4', A-1-b A-3, NSF Sand	A-1-b, A-2, A-3, A-4, F-2 Silts and Sands	None observed		12" over NFS fills. For cut or fill sections--21" above F-2 subgrade soils	Excavated mat'ls from subbase may be reused as classified fills. Excavated subgrade mat'l may be selectively used as as unclassified fill.
260-268	Hwy continues to grade uphill	1.5-2.5', A-3, NFS Sand & A-1-a, NFS Sandy Gravel	A-3, NSF Sands	None observed	Pavement distressed Sta. 262+00 - 268	12" Sta.260-262, 44" Sta. 262-268	Use filter fabric Sta. 262-268
268-283	Hwy grades downhill	2.5-4.5', A-3, NFS/F-2 Sands & A-1-a NFS Sandy Gravel	2-5', A-4, F-4 Silts underlain by A-3, NFS Sands	None observed	Pavement distressed Sta. 268-275	44"	Use filter fabric from Sta. 268-276
283-300	Hwy gradually grades downhill to 287 then uphill to 287	2.8-3.3', A-1-a, NFS Sandy Gravel	A-4, F-4 Silt	None observed		44"	
300-310		3', A-1-a, NFS/ F-1 Sandy Gravel	A-1-a, NFS Sandy Gravel	None observed		12"	
310-319	Hwy crosses ravine approx. 800'wide & 17'deep	17.5' layered A-1-b, A-2, NFS, F-2 Sands & A-1-a, F-1 Sandy Gravels	A-2-4, F-4/F-2 Silts & Sands	20' @ Sta. 315		21"- F-2 soil 44"- F-4 soil	F-1 subbase mat'l may be used as unclassified fill.
319-327	Hwy grades uphill	4', A-1-b, F-2 Sand & A-1-a, F-1 Sandy Gravel	A-3, F-2 Silty Sand	None observed		21"	Existing subbase mat'l may be used as unclassified fill.
327-334		4', A-1-a Sandy Gravel	1' Peat underlain by A-3, F-2 Silty Sand	None observed		21"	Remove organic soils from beneath entire proposed road prism. Subbase mat'l may be used as unclassified fill.
334-358	Hwy gradually grades downhill	2-4' primarily A-1-a, NFS Sandy Gravel	A-4, F-4 Silts & A-3, F-2 Sands	None observed		44"- F-4 soil 21"- F-2	
358-370		1.5', A-1-a, NFS Sandy Gravel	1.5-2.5', A-2-4, A-1-b, F-2 Silty Sand underlain by A-3, NFS Sand	None observed	Pavement distressed Sta. 367-370	21" except Sta. 367-370 should have 44"	Use filter fabric Sta. 367-370

TABLE A

SUBSURFACE CONDITIONS & DESIGN RECOMMENDATIONS
(Continued)

Station	Description	Subbase	Subgrade	Ground Water	Comments - Existing Conditions	Recommendations	
						Min. Overlay Requirements	Other
370-380	Hwy is flat lying	1.5', A-1-a Sandy Gravel underlain by 5.5-6.5' layered A-3, F-2, NFS Sands	A-2-4, F-2 Silty Sand	None observed	Pavement distressed Sta. 370-380	44"	Use filter fabric.
380-383	Hwy is flat lying	1.3', A-1-a, NFS Sandy Gravel underlain by 4.5' layered A-2-4, A-3, F-2, NFS Sands	0.5' Peat underlain by A-4, F-4 Silt & A-3, NFS Sand	None observed	Much pavement in area is distressed	44"	Use filter fabric. Remove all organic soils from beneath road prism.
383-387	Hwy is flat lying	A-1-a, NFS Sandy Gravel	A-1-a, NFS Sandy Gravel	None observed	Pavement distressed Sta. 386-387	12" over NFS subgrade soil	Overexcavate from Sta. 386-387, remove frost suscept. soils & create adequate overlay above exist. subgrade soils.
387-395	Hwy is flat lying & then grades uphill @ Sta. 388 to Sta. 402 & then grades downhill to Sta. 430	1.3', A-1-a Sandy Gravel underlain by 4.5' A-1-b, F-2 Sand	0.5' Peat underlain by A-1-b, NFS Gravelly Sand	None observed	Pavement distressed Sta. 387-391+50	12" over well compacted NFS classified fill & 21" over F-2 unclassified fill	Remove organic soils from beneath the proposed road prism.
395-425		3', A-3, NFS Sand & A-1-a, NFS Sandy Gravel	A-2-4, F-2 & A-4, F-4 Silt overlying A-1-b, A-3, NFS Sand -- except Sta. 415 where subbase is A-2, F-2 Sand underlain by subgrade A-4, F-4 Silt	None observed		44" over F-4 subgrade soil & 21" over F-2 subgrade soils	Existing NFS subbase mat'l may be reused as classified fill.
425-432+50	Hwy is flat lying to Sta. 447	2.8-3.3', A-1-b, A-1-a, F-2 Sand	2.5', A-4, F-4 Silt underlain by A-3, A-1-b, F-2, NFS Sand	None observed		44"- F-4 soil 21"- F-2 soil	Existing subbase may be reused as classified fill.
432+50-440		1.3', A-1-a, NFS Sandy Gravel overlying 1.5-4.5', A-3, NFS Sand	A-4, F-4 Silt	9.5' @ Sta. 435		44"	Existing NFS subbase soils may be reused as classified fill. Use filter fabric.

TABLE A

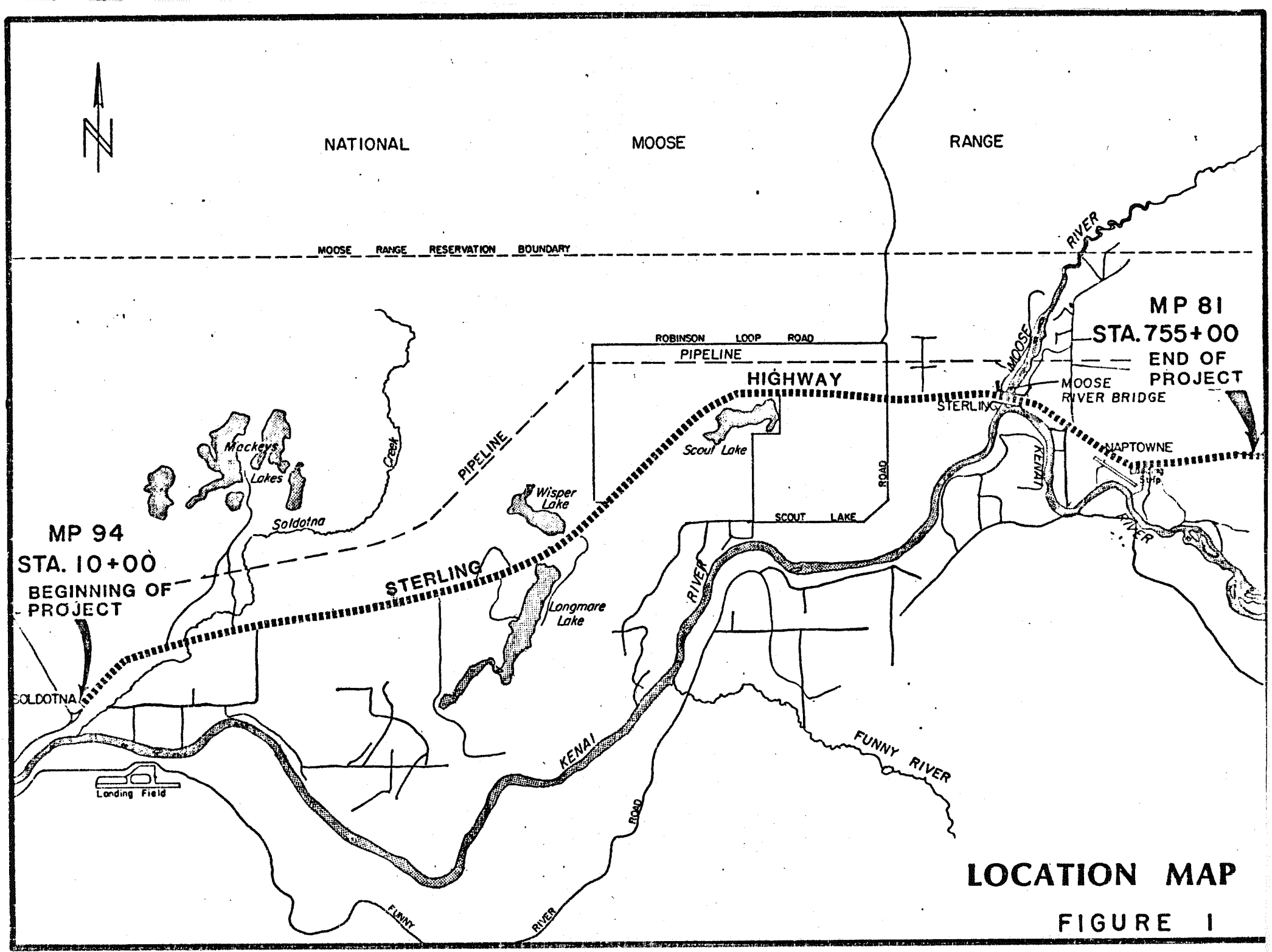
SUBSURFACE CONDITIONS & DESIGN RECOMMENDATIONS
(Continued)

Station	Description	Subbase	Subgrade	Ground Water	Comments - Existing Conditions	Recommendations	
						Min. Overlay Requirements	Other
440-445		3.3', A-1-a, NFS Sandy Gravel	Layered A-2-4, F-2 Sands & A-4, F-4 Silts (fill). overlying A-4, F-4 Silts & A-3, NFS Sands	None observed		44"- F-4 soil 21"- F-2 sand	Existing NFS subbase soils may be used as classified fill.
445-458		3.3-5.3', A-1-b, NFS Sands & A-1-a, NFS Sandy Gravels	1-1.5' Peat underlain by A-4, F-4 Silts & A-2, F-2 Sands	9' @ Sta. 455		44"	Remove organic soil from beneath proposed road prism. Use filter fabric. Existing NFS subbase maybe reused as classified fill.
458-463	Hwy crosses a shallow swale with a fill section. Max. thickness 10'	1.5-5.3', A-1-a, NFS Sandy Gravel	1.5-4.5', A-4, F-4 Silt underlain by A-1-a, NFS Sandy Gravel	None observed		44"	Existing NFS subbase mat'l may be reused as classified fill.
463-473	Hwy is generally flat lying to Sta. 473	2.8', A-1-b, A-3, F-2/NFS Sand & A-1-a Sandy Gravel	A-1-a, NFS Sandy Gravel	None observed		21"	Existing NFS subbase mat'ls may be reused as unclassified fill.
473-479	Hwy gradually grades downhill to Sta. 582+50	2.3', A-1-a, F-1 Sandy Gravel underlain by 4', A-1-a, NFS Sandy Gravel	2' Peat & organic silt underlain by 2', A-4, F-4 Silt with A-1-a, NFS Sandy Gravel below	7.5' @ Sta. 475		44"	Remove organic soils beneath proposed road prism. Exist. subbase may be reused as unclassified or classified fill.
479-487		1.8-2.8', A-1-a, NFS Sandy Gravel	A-4, F-4 Silts & A-1-b, F-2 Sand, with A-3, F-2, NFS Sand & A-1-a, NFS Sandy Gravel lying below	None observed		44"	Exist. subbase mat'l may be reused as classified fill.
487-532+50		1.8-4', A-1-a, NFS Sandy Gravel	0.5-4' Peat overlying A-4, F-4 Silts underlain by A-3, NFS Sands & A-1-a, NFS, F-1 Sandy Gravel	9' @ Sta. 505	Pavement distressed Sta. 579-582	44" over F-4 soils; 18" over F-1 soil; 12" over NFS soils	Remove organic soils from beneath proposed road prism. Use filter fabric.
532+50-550		1.5', A-1-a, NFS Sandy Gravel underlain by 1.5-5' of A-2, A-4, F-2/ F-4 Silty Sand	2.5-6', A-2-4, A-4, F-4 Silt underlain by A-3, NFS Sands & A-1-a NFS Sandy Gravel	None observed		44"	Subbase mat'l may be selectively used as unclassified fill mat'ls.

TABLE A

SUBSURFACE CONDITIONS & DESIGN RECOMMENDATIONS
(Continued)

Station	Description	Subbase	Subgrade	Ground Water	Comments - Existing Conditions	Recommendations	
						Min. Overlay Requirements	Other
550-564		1.3-3', A-1-a, NFS Sandy Gravel	1' Peat underlain by 2', A-4, F-4 Silts with A-1-b, A-3, NFS, F-2 Sands below	Non observed	Pavement distressed Sta. 563-564	21" above F-2 subgrade soils	Organic soils should be removed from below proposed road prism. Subbase may be reused as classified fill. Overexcavate & backfill from Sta. 563-564 with classified fill as field conditions warrant.
564-582+50		1.8-4', A-1-a Sandy Gravel	A-3, A-2, F-2, NFS Sands, except @ Sta. 568+50-577 where exist. subbase A-1-a, NFS Sandy Gravel is underlain with 6-11.5', A-2-4, F-2 Sand	17.5' @ Sta. 570	Pavement distressed Sta. 564-565 & Sta. 579-582	21"	Overexcavate & backfill from Sta. 564 to 565 & Sta. 579-582 with classified fills as field conditions warrant.
582+50-600+59.81 (E.O.P.)	Hwy steeply grades downhill to Moose River Bridge	2.8-4.8', A-4, F-2 Sands & A-1-a, F-1, NFS Sandy Gravels	A-4, F-4 Silts & A-1-2, F-2 Sands	6' @ Sta. 590-592	Pavement distressed Sta. 590-600+50	44" above F-4 subgrade soils; 21" above F-2 soils	Use filter fabric.



LOCATION MAP

FIGURE 1

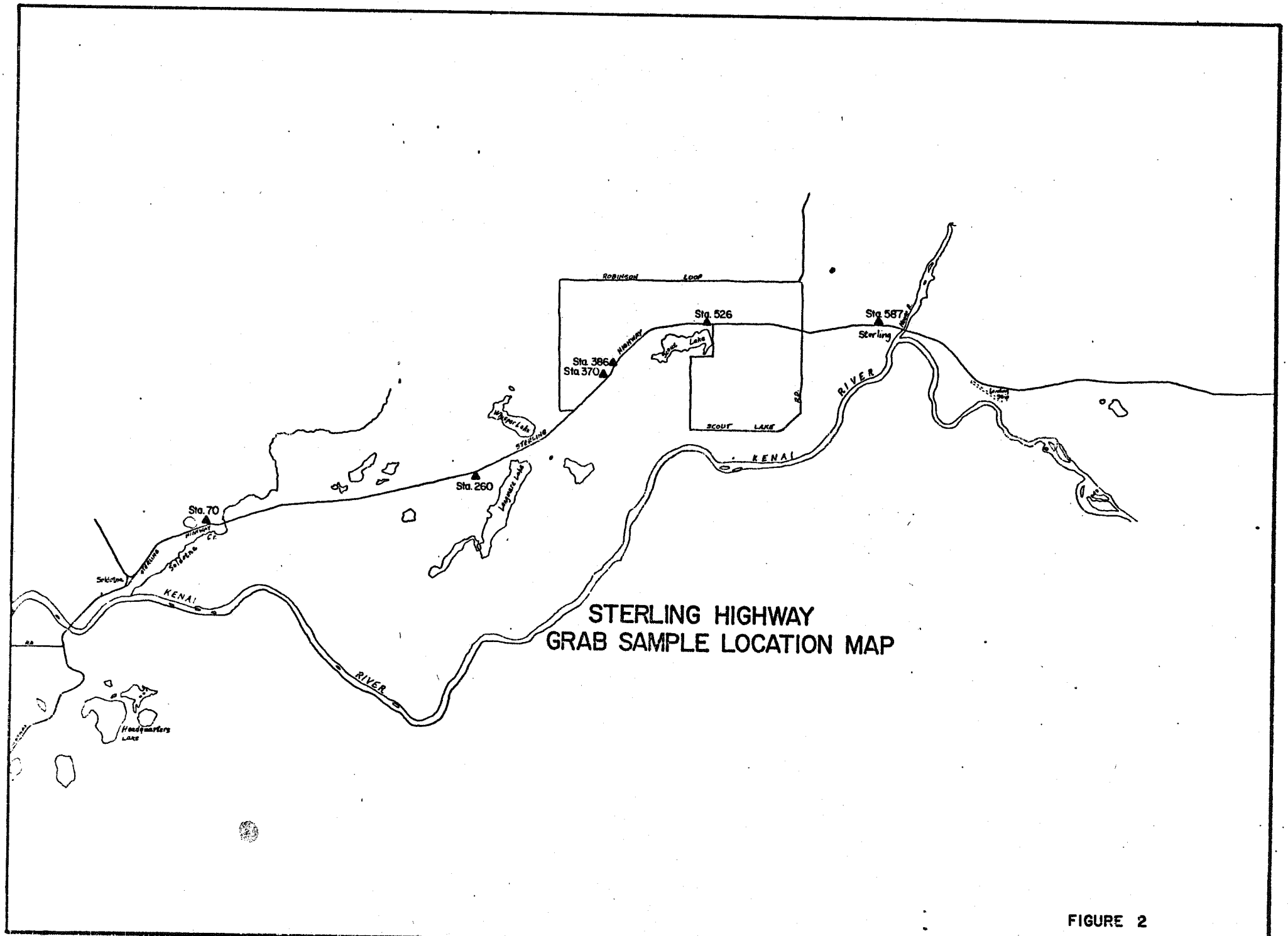

ROBINSON LOOP
Sta. 526
Sta. 587
Sterling
Sta. 386
Sta. 370
HIGHWAY
SCOUT LAKE
STERLING
Sta. 260
Sta. 70
KENAI
RIVER
Headquarters Lake
STERLING HIGHWAY
GRAB SAMPLE LOCATION MAP

FIGURE 2

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			1	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
ALIGNMENT CHECKED
POINT OF VIEW CHECKED

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
B M's NOTED
STRUCTURE ADDITIONS CHKD
NOTE BOOK
NO.
DATE

FARMER PROPERTY

FARNSWORTH PROPERTY

HEATH PROPERTY

TREES

BRUSH

N 36°04' 12" E 1000

TH 15

TH 20

TH 25

TH 28

TH 30

TH 35

SHARK AHM AVE.
N 89°39' 48" W

CS 1/16

PACE'S PLEASANT BLOCK 1 HAVEN SUBDIVISION

18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3

N 36°46' 32" E

100'

Scale 1" = 100'

200 190 180 170 160 150 140 130 120 110 100

5+00 10+00 15+00 20+00 25+00 30+00 35+00

A-1-a, NFS
A-4, F-4

A-1-a, F-
A-4, F-4

Mapped by: NORTH PACIFIC AERIAL SURVEYS, INC.
ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			2	

PLAN — SURVEYED / PLOTTED / GRADES CHECKED / NOTE BOOK / NO

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / NOTE BOOK / NO / STRUCTURE NOTATIONS (H+D)

E 312,000 N 2,375,000 E 313,000 E 313,500 N 2,375,500 E 314,000 E 314,500 E 315,000

N 2,374,500 N 2,374,000

BRUSH TREES TREES TREES TREES BRUSH TREES

W.S. 190.3

OWEN HEATH HOMESTEAD TRACT 1

TH 35 4000 TH 40 TH 45 N 70°41'22"E 5000 TH 50 TH 55 TH 58 TH 60

N 0°41'22"E

N 0°48'32"E

28 1/4 COR. 27

Scale 1" = 100'

210 200 190 180 170

A-1-a NFS A-4, F-4

A-1-a, NFS A-4, F-4 A-2-4, F-1 A-4, F-4 A-2-4, F-2

A-1-a, NFS A-4, F-6

A-1-a, NFS A-2, F-2 A-4, F-4 A-4, F-4

A-1-a, NFS A-4, F-4 A-4, F-4

A-3, F-2 A-3, NFS

A-1-a A-4, F-6

35+00 40+00 45+00 50+00 55+00 60+00 63+00

Mapped by NORTH PACIFIC AERIAL SURVEYS, INC. ANCHORAGE ALASKA

Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA			3	

PLAN	
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
NOTE BOOK	
RIGHT OF WAY CHECKED	
NO	
DATE	

N 2,376,000

E 314,500 E 315,000 E 315,500 E 316,000 E 316,500 E 317,000 E 317,500

N 2,375,500

N 2,375,000

N0°47'22"E

LOREN HEATH HOMESTEAD TRACT 1

TREES

MACKEYS LAKES ROAD

U/T

TH 60 TH 62 TH 65 TH 70 7000 N 79°31'23"E TH 75+30 8000 TH 80 N 75° 05'49" E TH 85

100'

150'

DENSE TREES

GRAVEL PIT

28 1/4 COR. 27

Scale 1" = 100'

PROFILE	
SURVEYED	
PLOTTED	
GRADES CHECKED	
NOTE BOOK	
R/W & MONUMENTS CHKD	
NO	
DATE	

200 190 180 170 160 150 140 130

A-1-a, NFS
A-4, F-3/F-4

A-1-b, F-2
A-1-a, NFS
A-3, F-3
A-3, F-3

A-1-a, NFS
A-4, F-4
A-2-4, F-2
A-4, F-2
A-1-a, NFS
A-2-4, F-2

A-1-a, NFS
A-3, NFS

A-1-a, NFS
A-1-b, NFS
A-4, F-4
A-2-a, NFS
▽ A-4, F-4
Peat
A-4, F-4

A-1-a, NFS
A-1-a, F-1
A-1-b, NFS

A-1-a, NFS
A-1-b, NFS

60+00 65+00 70+00 75+00 80+00 85+00 89+00

Mapped by NORTH PACIFIC AERIAL SURVEYS, INC. ANCHORAGE ALASKA

Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			4	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO
DATE
BY
CHECKED
CHECKED
CHECKED

N 2,376,000
N 2,375,500
E 317,000
E 317,500
E 318,000
E 318,500
E 319,000
E 319,500
E 320,000
E 1/16

N 10°45' 24" E
N 0°52' 21" E
N 75° 05' 48" E
N 75° 05' 49" E

TH 85
9000
TH 90
TH 95
TH 97
10000 U/T
TH 100
TH 102±50
TH 105
11000
TH 110
U/T
TH 115

180'
100'
40'
60'

TREES
BRUSH
RUINS
GARDEN
PAVED

ON PAR LANE
FAIRWAY DR.
BLK 2
BLK 1
FAIRWAY ESTATES SUBDIVISION
4
3
2
1
5
6
7

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO
DATE
BY
STA. & ELEV. NOTATIONS CHKD

Scale 1" = 100'

230
220
210
200
190
180
170
160
150

A-1-a, NFS
A-1-a, F-1
A-1-b, NFS
A-1-a, NFS
A-3, NFS
A-1-a, NFS
A-1-a, F-1/F-2
A-1-a, F-1
A-1-a, NFS
A-2, F-2
A-4, F-4
A-3, NFS
A-1-b, NFS/F-2
A-1-a, NFS
A-1-b, F-1
A-3, F-4/F-2
A-1-a, NFS
A-4, F-4
A-1-a, F-2
A-4, F-4
A-1-a, NFS
A-4, F-4
A-1-a, NFS

85+00
90+00
95+00
100+00
105+00
110+00
115+00

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ANCHORAGE ALASKA

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ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			5	

PLAN
PLOTTED
PLOTTED
ALIGNMENT CHECKED
PART OF MAP CHECKED
NOTE BOOK
NO.

PROFILE
PLOTTED
PLOTTED
GRADES CHECKED
STRUCTURE LOCATIONS CHKD
NOTE BOOK
NO.

N 2,377,000
N 2,376,500
E 320,000
E 320,500
E 321,000
E 321,500
E 322,000
E 322,500

22 23
27 26

BLK 1 SHADY GROVE ESTATES 1-B 1-A SUBDIVISION 2 BLK 2

SHADY ST.

TRACT 1
FLOYD R. KEELER HOMESTEAD

UNSUBDIVIDED

SOUTH SHADY ST.

SHADY GROVE ESTATES SUBDIVISION ADDT'N NO. 1

N 75° 05' 19" E
TH 115
N 75° 54' 28" E
12000
TH 120
TH122
UT
TH 125
TH127+50
50'
50'
13000
TH 130
N 85° 14' 59" E
TH 135
14000
TH 140
N 0° 54' 13" E
35'
N 0° 50' 13" E
W.L. 240
W.L. 234.9
W.L. 233.5
TREES
TANK
P.O.B.
P.O.C.
P.U.E.

Scale 1" = 100'

260
250
240
230
220
210

A-1-a, NFS
A-4, F-4
A-1-a, NFS
A-4, F-4
A-3, F-4
A-2-4
A-1-a, NFS
A-4, F-4
A-1-a, NFS
A-2, F-2
A-1, NFS
A-4, F-4
A-1-a, F-1
A-1-a, NFS
A-3, F-4
A-1-a, F-1
A-4, F-4
A-1-a, NFS
A-2-4, F-4
A-4, F-4
A-1-a, NFS
A-4, F-4
Peat
A-4, F-4
A-4, F-4
A-4, F-4

112+00
115+00
120+00
125+00
130+00
135+00
140+00
142+00

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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			6	

PLAN
SURVEYED
PLOTTED
NOTE BOOK ALIGNMENT CHECKED
NO. PLANS NOTED
STRUCTURE NOTHING OMIT
BY
DATE

N 2,377,500
E 323,500
E 324,000
E 324,500
E 325,000
N 2,377,000
1/4 COR.
23
26
N 0°20' 13" E
TREES
BRUSH
W/T
N 89°05' 22" W
E 1/16
N 89°06' 55" W
E V64 LINE
N 85° 14' 59" E
14000
TH 140
TH 145
TH 150
5000
N 85° 16' 18" E
TH 152+50
TH 155
TH 157
16000
TH 160
TH 165
N 89° 06' 55" W
23
24
26
25
180'
10'
N 0°30' 18" E
P.I. 233+5
McSMITH SUBDIVISION
TR. "A"
N 2,376,500

Scale 1" = 100'

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO. PLANS NOTED
STRUCTURE NOTHING OMIT
BY
DATE

300
290
280
270
260
250
240
230

A-1-a, NFS
A-4, F-4
A-1-b, F-2
F-6 Organic
A-4, F-4
A-4, F-4
A-1-a, NFS
A-2-4, F-2/F-4
A-1-a, F-1/F-2
A-4, F-2/F-4
A-4, F-2/F-4
A-4, F-4
A-1-a, NFS
A-2-4/A-2, F-4
A-4, F-4
A-1-a, NFS
A-1-a, F-1
A-2-4, F-2
A-4, F-4
A-6
Peat
A-4, F-4
A-4, F-4
A-4, F-4

139+00
140+00
145+00
150+00
155+00
160+00
165+00
169+00

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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			7	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO
DATE
BY
PLANS CHECKED
CHANGES NOTED
R.M.'s NOTED
STRUCTURE ADDITIONS CHKD

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO
DATE
BY
GRADES CHECKED
R.M.'s NOTED
STRUCTURE ADDITIONS CHKD

E 325,000 E 325,500 E 326,000 E 326,500 E 327,000 E 327,500

N 2,377,500 N 2,378,000 E 328,000

W 1/64 LINE

SCOTT PROPERTY UNSUBDIVIDED

SHULZ ROAD

N 0°30'55" E

TREES BRUSH UT

N 2,377,000

TH 168 TH 170 TH 175 TH 178 TH 180 TH 182 N 77°59'55" E TH 185 TH 190 TH 195

17000 18000 19000

100' 150' 150' 150

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			8	

PLAN
SURVEYED
PLOTTED
QUANTITIES CHECKED
NOTE BOOK
NO
DATE
BY
RIGHT OF WAY CHKD
ESTIMATE JOINTING CHKD

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO
DATE
BY
ESTIMATE JOINTING CHKD

N 2,378,000
N 2,377,500
N 2,378,500
E 324,000
E 324,500
E 325,000
E 325,500
E 330,000
E 330,500

STERLING ESTATES
BERGSRUD SUBDIVISION
STERLING ESTATES
BERGSRUD SUBDIVISION
BERGSRUD SUBDIVISION
TRACT 1
BURNS LANE
SOUTH MILLER LANE
N 0° 50' 33" E
N 0° 50' 33" E
N 77° 59' 33" E
N 0° 30' 23" E

15 14 13 12 11 10 9 8 7 6 TR A TR B TR C 5 4 3
BLK 2
BLK 1
TRACT 1

TH 195 20000 TH 200 TH 205 TH 210 TH 215 22000 TH 220

TREES BRUSH UT TRAIL

Scale 1" = 100'

290
280
270
260

A-1-a, NFS
A-4, F-4
A-1-a, NFS
A-1-b, NFS
A-4, F-4
A-2/A-4, F-2
A-1-a, NFS
A-2-4, F-2
A-4, F-4
A-2, F-2
A-1-a, NFS
A-3, NFS
A-2, F-2
A-2, F-1
A-2, F-2
A-4, F-4
A-1-b, F-2
A-1-b, NFS
A-3, NFS
A-4, F-4
A-3, NFS
A-4, F-4
A-1-b, NFS
A-3, NFS
A-4, F-4

195 + 00 200 + 00 205 + 00 210 + 00 215 + 00 220 + 00 224 + 00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET No.	TOTAL SHEETS
ALASKA			9	

PLAN
SURVEYED
PLOTTED
PLOTTED BY CHECKED
NOTE BOOK
NO. POINT OF WAY CHECKED

PROFILE
SURVEYED
PLOTTED
PLOTTED BY CHECKED
NOTE BOOK
NO. STRUCTURE POINTS CHKD

STERLING ESTATES

DAHLER SUBDIVISION

TRACT G

TRACT H

TRACT I

TRACT J

DAHLER UNSUBDIVIDED

SEAGOS SUBD.

DAHLER SUBD. ADDN. NO. 1

TRACT K

GARDEN

UNSUBDIVIDED

TREES

BRUSH

W. DAHLER RD.

FOREST LN.

RIDGE STREET

N 77° 59' 53" E

TH 225

TH 230

TH 232

TH 235

TH 240

TH 245

TH 250

23000

24000

UVT

N 2,378,500

N 2,378,000

E 330,500

E 331,000

E 331,500

E 332,000

E 332,500

E 333,000

E 333,500

24 19
25 30

W 1/16

Scale 1" = 100'

310
300
290
280
270
260

A-2, NFS
A-1-b, F-2
A-2-4, F-2
A-4, F-4

A-1-a, NFS
A-1-b, NFS
A-1-b, F-2
A-4, F-4

A-1-b, NFS
A-1-b, NFS
A-3/A-4, F-2/F-4
A-3, F-2

A-1-b, NFS
A-3, NFS
A-3, F-2, NFS

A-1-a, NFS
A-3, NFS
A-4, F-4
A-3, NFS

A-1, NFS
A-3, NFS
A-1-b, F-2
A-4, F-4

A-1-b, NFS
A-3, F-2
A-4, F-3/F-4

P&T
A-4, F-4

221+00
225+00
230+00
235+00
240+00
245+00
250+00

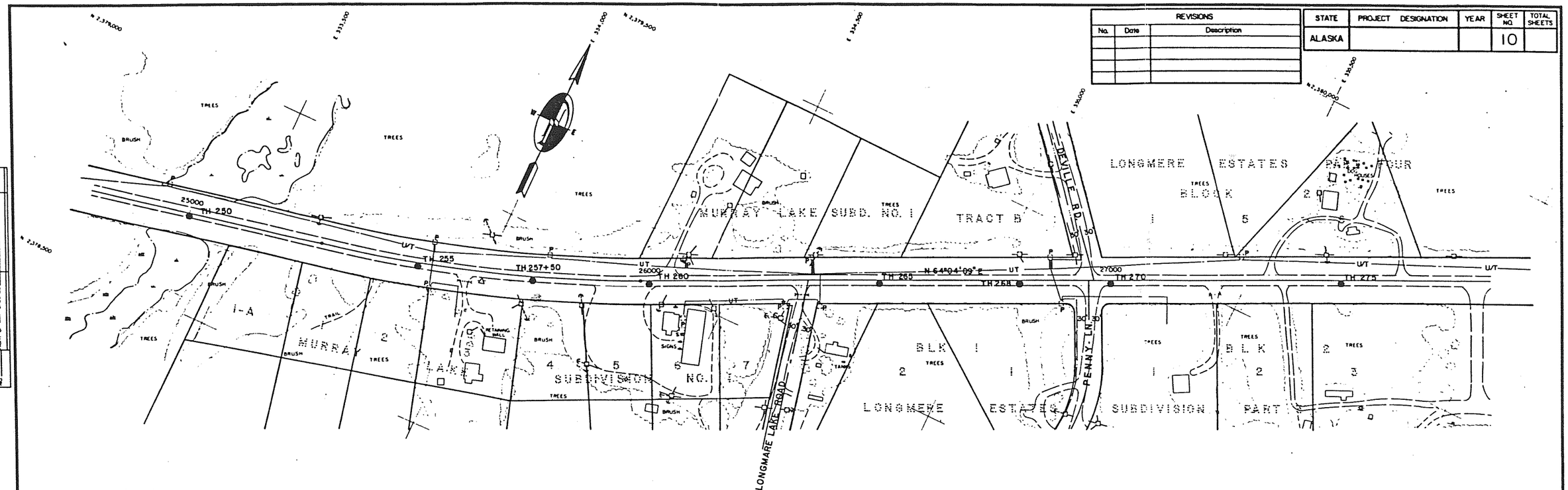
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ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

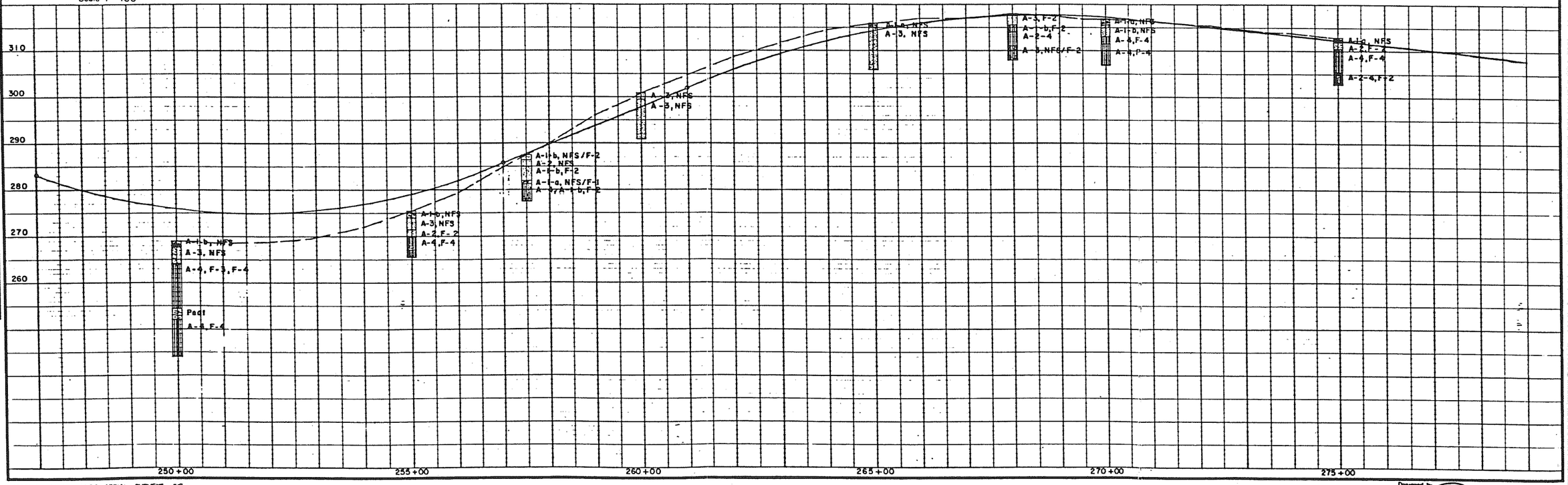
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			10	

PLAN — SURVEYED / PLOTTED / NOTE BOOK / NO / PLOTTED / CHECKED / BLM / NOTED / STRUCTURE / ADTSTS / CHKD / DATE



Scale 1" = 100'

PROFILE — SURVEYED / PLOTTED / NOTE BOOK / NO / PLOTTED / CHECKED / BLM / NOTED / STRUCTURE / ADTSTS / CHKD / DATE



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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			11	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
ALIGNMENT CHECKED
POINT OF VAR CHKD/D

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
ALIGNMENT CHECKED
POINT OF VAR CHKD/D
STRUCTURE NORTH NO. CHKD

LONGMERE ESTATES PART FOUR

WHISPER LN.

WHITTEN ACRES SUBDIVISION

N.LYNN LINE

N 89° 14' 25" W

N 64° 04' 49" E

WEST DR.

LONGMERE WAY

BLK 19 1/4 COR.

BLK 1

LONGMERMERE ESTATES SUBD. PART ONE

TRAILS

RETAINING WALL

TH 279 | TH 280 | TH 282 | TH 285 | TH 290 | TH 295 | TH 300 | TH 305

58000 | 29000 | 30000

Scale 1" = 100'

A-1-a, NFS
A-2, F-2
A-4, F-4
A-3, NFS

A-1-a, NFS
A-3, NFS, F-2
A-2, F-2
A-3, NFS

A-1-b, NFS
A-3, F-2
A-4, F-4
A-5, NFS

A-1-a, NFS
A-3, F-2

A-1-b, F-2
A-4, F-4

A-2-4, F-2
A-4, F-3/F-4

A-1-a, NFS
A-2-4, F-2

A-1-a, NFS

320
310
300

275 + 00 | 280 + 00 | 285 + 00 | 290 + 00 | 295 + 00 | 300 + 00 | 305 + 00

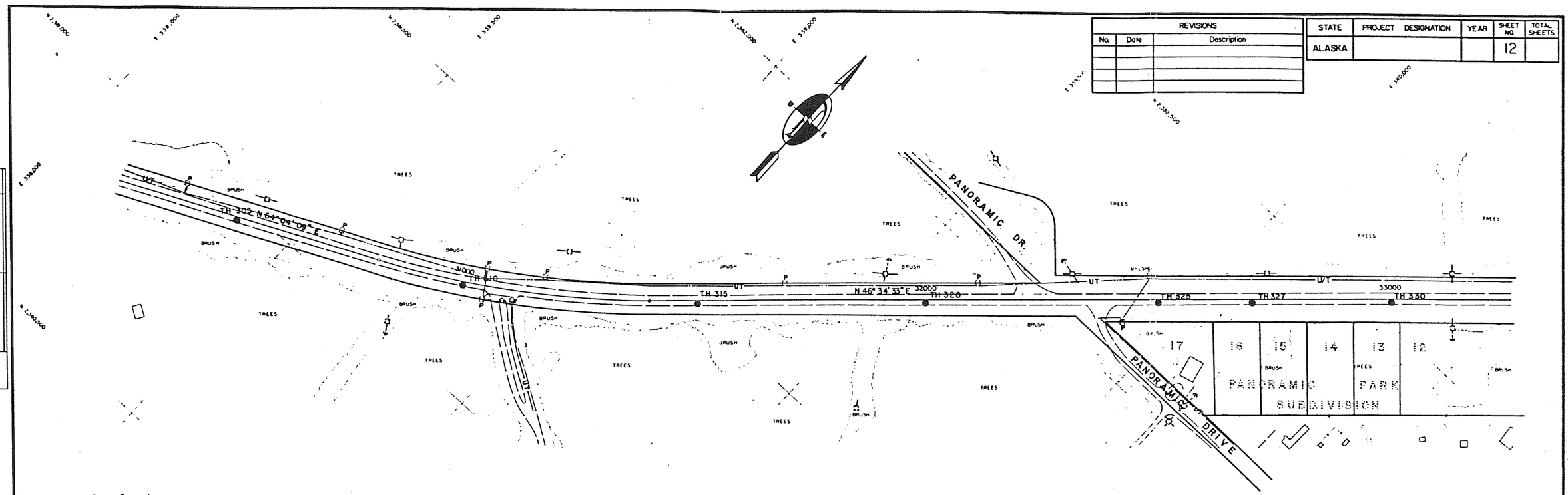
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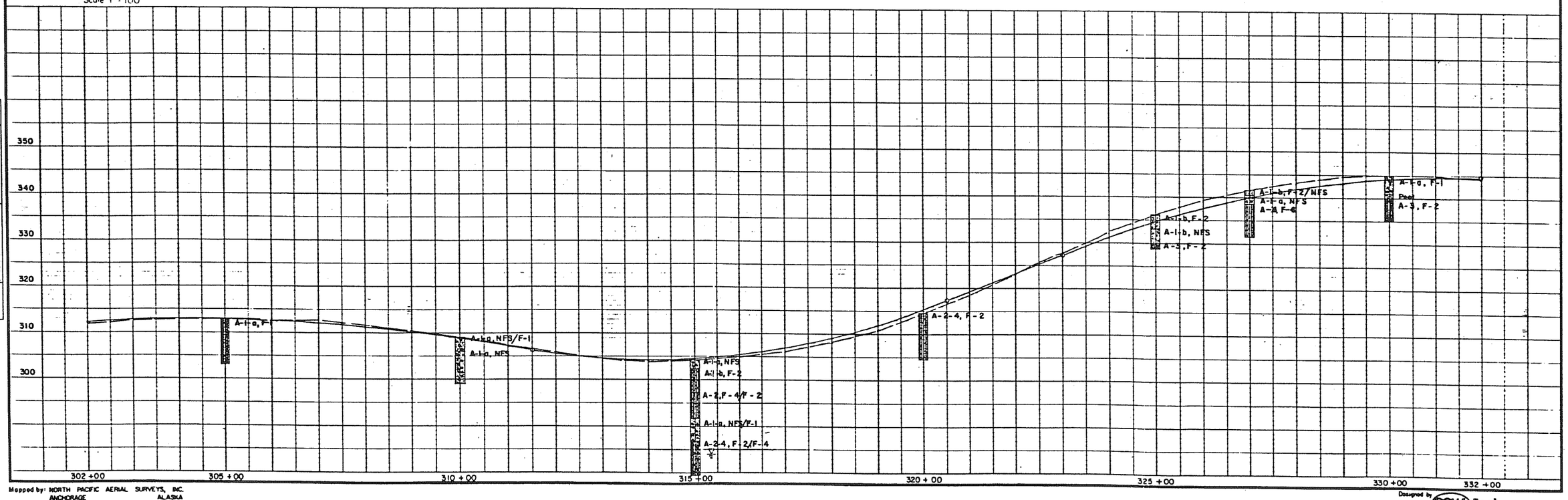
REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			12	

PLAN	
SURVEYED	
PLOTTED	
NOTE BOOK	DRAWN BY CHKD
NO.	CHIEF OF SURV CHKD



PROFILE	
SURVEYED	
PLOTTED	
NOTE BOOK	GRADES CHECKED
NO.	ALIGNMENT CHKD
	STRUCTURE NOTATNS CHKD



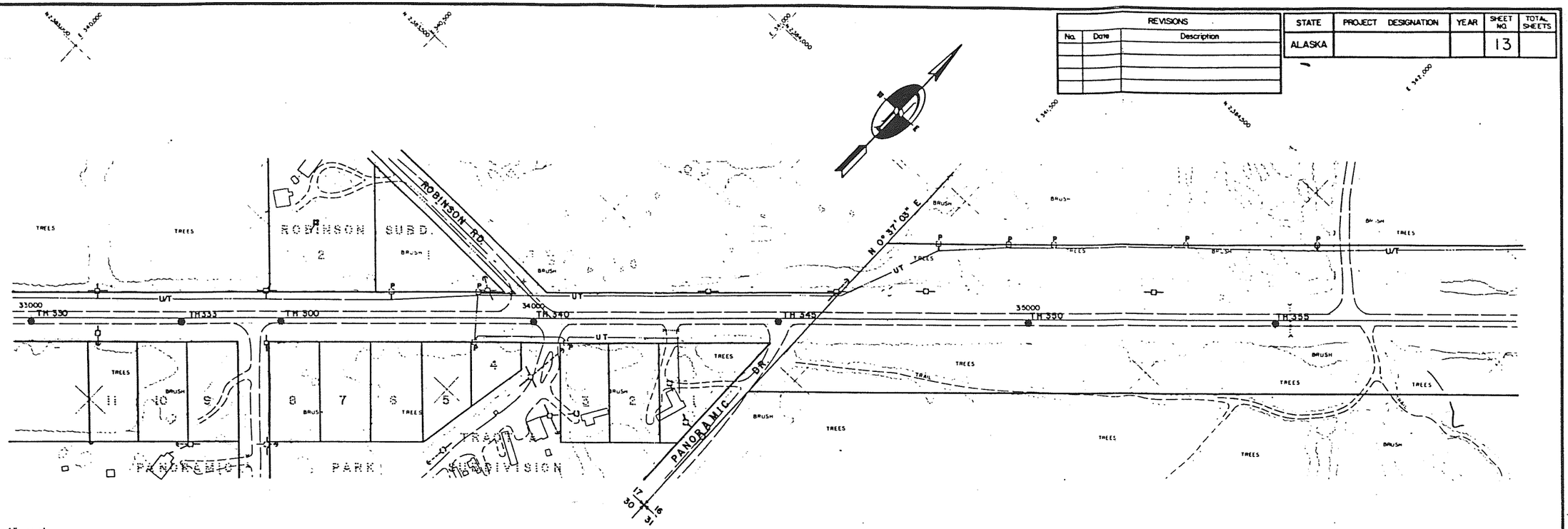
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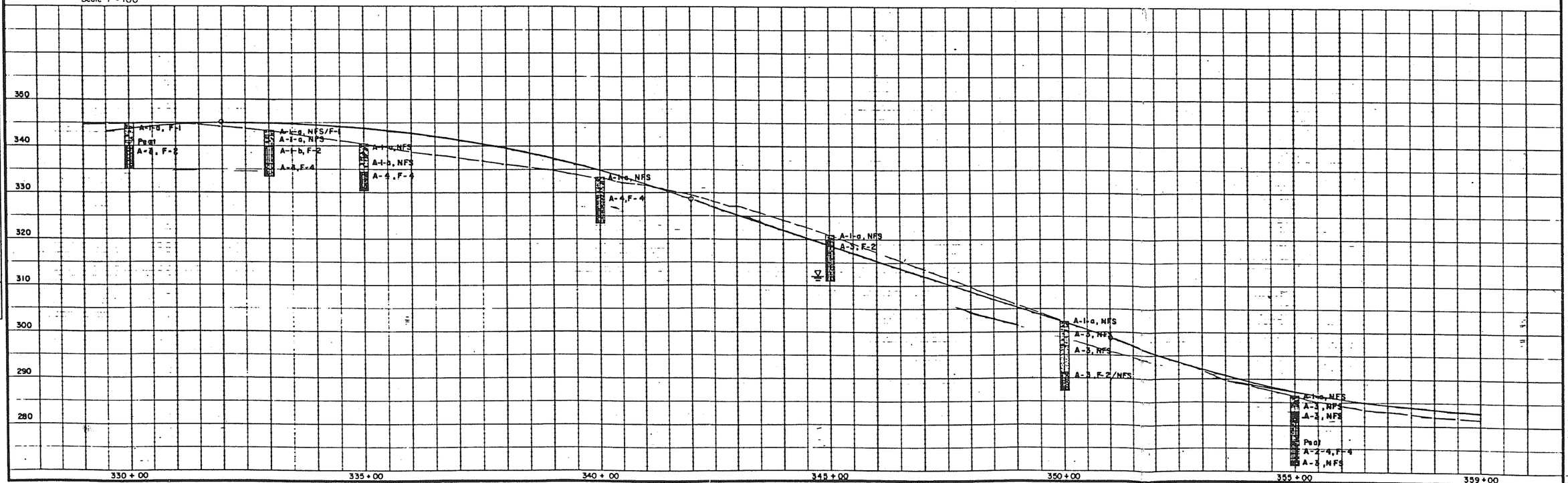
REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			13	

DATE
BY
PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO
CHECKED
ALIGNMENT CHECKED
RIGHT OF WAY CHECKED



Scale 1" = 100'



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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			14	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO
ALIGNMENT DECHD
PROF DECHD
DATE

PROFILE
SURVEYED
PLOTTED CHECKED
NOTE BOOK
NO
GRADE NOTED
STRUCTURE NOTED
DATE

UNSUBDIVIDED

TREES

BRUSH

TRAIL

U/I

P

TH 360

TH 365

TH 370

TH 375

TH 380

TH 383

36000

37000

38300

180'

Scale 1" = 100'

290

280

A-1-a, NFS
A-2-4, F-2
A-3, NFS

A-1-b, NFS
A-1-b, F-2
A-1-b, NFS

A-1-a, NFS
A-3, F-2
A-3, NFS
A-2-4, F-2

A-1-a, NFS
A-3, NFS
A-2-4, F-2

A-1-a, NFS
A-2-4, F-2
A-3, NFS
A-1-a, NFS
Pad
A-4, F-4
A-3, NFS

A-1-b, NFS, F-2
A-3, F-2
A-1-a, NFS

360+00

365+00

370+00

375+00

380+00

385+00

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ANCHORAGE ALASKA

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ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			15	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
PLANS OF MAP CHECKED
PLANS OF MAP CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
PROFILES CHECKED
B.M.'S NOTED
STRUCTURE NOMINUS CHKD

E 345,500
N 2,387,000
E 344,000
N 2,387,500
E 344,500
N 2,388,000
E 345,000
N 2,388,500
E 345,500
N 2,388,500
E 345,500
N 2,389,000

N 89°22'22" W

AUTUMN

LOT 3

BLK 4

LOT 2

LOT 1

PARK

TREES

BRUSH

TRAIL

UT

P

UE

EVERGREEN DRIVE

BLK 1

LOT 2

LOT 1

SUBDIVISION

UNSUBDIVIDED

GRAVEL PIT

S V16 LINE

39000

40000

41000

TH 385

TH 387

TH 390

TH 395

TH 400

TH 405

TH 410

100

SECTION LINE

LOT 2

LOT 1

BLK 5

AUTUMN PARK SUBD.

N 00°38'07" E

E V16 LINE

UNSUBDIVIDED

Scale 1" = 100'

330
320
310
300
290
280

A-1-a, NFS
A-1-a, NFS/F-
A-1-a, NFS
A-1-a, NFS
A-1-b, NFS
A-1-b, F-2
Peat
A-1-b, NFS
A-1-a, NFS
A-3, NFS
A-2-4, F-2
A-1-b, NFS
A-3, F-2
A-1-a, NFS
A-2-4, F-2
A-1-b, NFS
A-1-a, NFS
A-4, F-4
A-1-b, NFS
A-1-a, NFS
A-4, F-4
A-1-b, NFS

382+00
385+00
390+00
395+00
400+00
405+00
410+00
412+00

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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			16	

PLAN — SURVEYED / PLOTTED / ALIGNMENT CHECKED / NOTE BOOK / NO. / DATE / BY

PROFILE — SURVEYED / PLOTTED / GRADES CHECKED / NOTE BOOK / NO. / STRUCTURE NOTATIONS CHKD / DATE / BY

N-S 1/64 LINE

E 346,000 E 346,500 E 347,000 E 347,500 E 348,000 E 348,500

N 2,389,500 N 2,389,000 N 2,388,500

UNSUBDIVIDED

TREES

UT

TH 415 TH 420 TH 425 TH 430 TH 435

42000 43000

N 80°25'33"E

N 89°23'13"W

S 1/16 LINE

SECTION LINE N 0°37'40"E

SEC

GRAVEL PIT

100'

Scale 1" = 100'

310 300 290 280 270 260

A-2, F-2
A-4, F-4

A-2-4, F-1
A-2-4, F-2
A-3, NFS

A-4, F-4
A-1, NFS

A-1-a, F-2
A-3, F-2
A-4, F-4
A-3, F-2

A-1-a, F-1
A-3, NFS

A-1-a, NFS
A-3, NFS
A-2, F-2
A-4, F-4

413+00 415+00 420+00 425+00 430+00 435+00 438+00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			17	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
CHECKED
PLOTTED BY
MAP CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
DATE
BY
CHECKED
PLOTTED
STRUCTURE NOTATIONS CHKD

E 348,000
E 348,500
E 349,000
E 349,500
E 350,000
E 350,500

N 2,389,500
N 2,389,000

UNSUBDIVIDED
TREES
UT
P
TH 435
TH 437+50
TH 440
TH 445
TH 450
TH 455
TH 460
N 80°25'33" E
44000
45000
46000
N 89°30'57" W
100'

Scale 1" = 100'

280
270
260
250

A-1-a, NFS
A-3, NFS
A-2, F-2
A-4, F-4
A-1-a, NFS
A-1-b, NFS
A-4, F-4
A-4, F-2/F-4
A-3, NFS/F-2
A-4, F-4
A-1-a, NFS
A-2-4, F-2
A-4, F-4
A-3, NFS
A-4, F-4
A-3, NFS
A-2, F-4
A-1-b, NFS
A-4, F-4, Organic
Peat
A-4, F-4
A-1-a, NFS
A-1-b, NFS
Peat
A-2, F-2
A-1-a, NFS
A-2-4, F-2
A-1-a, NFS

435 + 00
440 + 00
445 + 00
450 + 00
455 + 00
460 + 00
464 + 00

Mapped by NORTH PACIFIC AERIAL SURVEYS, INC.
ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			18	

PLAN
SURVEYED
PLOTTED
DRAWN CHECKED
NOTE BOOK
NO.
BY
DATE

E 350,500 N 2,390,000
E 351,000
E 351,500
E 352,000
E 352,500
E 353,000
E 353,500
N 2,389,500
N 2,389,000

W E

TREES
UNSUBDIVIDED
U
UT
P

30 Mc CALL STREET
33 LOIS ST.
PATTERSON SUBDIVISION NO. 2
TRACT 1
TRACT 2
TRACT 3
GOV'T LOT 14
GOV'T LOT 13
S 35 E

TH 465
TH 467
47000
TH 470
S 89°30' 57" E
TH 475
48000
TH 480
100'
TH 485
TH 487
49000
TH 490

SCOUT LOOP RD.
SECTION LINE N 00° 03' W
33'
PATTERSON SUBD. TRACT 1
GOV'T LOT 12

Scale 1" = 100'

PROFILE
SURVEYED
PLOTTED
DRAWN CHECKED
NOTE BOOK
NO.
BY
DATE
STRUCTURE NOTATIONS CHKD

280
270
260

A-1-a, NFS
A-3, NFS
A-1-a, NFS
A-1-a, NFS / F-1
A-1-a, F-2
A-1-a, NFS
A-1-a, F-1
A-1-a, NFS
Peat
A-4, F-4
A-1-a, NFS
A-1-a, NFS
A-1-a, F-2
A-4, F-4
A-1-a, NFS
A-1-a, F-3
A-4, F-4
A-3, NFS
A-1-a, F-3
A-2-4, F-3
A-4, F-4
A-1-b, F-2
A-1-a, NFS
Peat
A-4, F-4
A-3, NFS

462+00
465+00
470+00
475+00
480+00
485+00
490+00
492+00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			19	

PLAN
SURVEYED
PLOTTED
RIGHT OF WAY CHECKED
NOTE BOOK
NO.
DATE
BY

E 355,500 E 354,000 E 354,500 E 355,000 E 355,500 E 356,000

GOV'T LOT 11 GOV'T LOT 10 GOV'T LOT 9 GOV'T LOT 8 GOV'T LOT 7 GOV'T LOT 6 GOV'T LOT 5

TREES BRUSH

W/T U/T

N 2,389,500

49000 TH 490 TH 493 TH 495 S 89°30'57"E 50000 TH 500 TH 505 TH 507 51000 TH 510 S 77°50'05"E TH 515

100' 100'

SHADY LANE

BAYLESS-KEELER PROPERTY

GOV'T LOT 18 GOV'T LOT 19

LOT 8 LOT 7 HANDLEY SUBD.

LOT 1 BLK 2 BARKER SUBD.

N 2,389,000

Scale 1" = 100'

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
NOTE BOOK
NO.
DATE
BY
R.W.S. NOTED
STRUCTURE QUANTITIES CHKD

270
260
250
240
230

A-2-4, NFS
Peat
A-8, F-4
A-2, NFS
A-1-a, NFS
A-4, F-4
A-2, NFS
A-1-a, NFS
A-2-4, F-2
A-1-a, NFS
A-2-4, F-8
A-2, F-2 / F-4
A-2-4, F-2
A-1-a, F-1 / F-2
Peat
A-7-6, F-4
A-1-a, NFS
A-4, F-4
A-1-a
Peat
A-7-6, F-4
A-1-a, NFS
A-1-b, F-2
Peat
A-8, F-3, Organic
F-1
A-3, NFS

490 + 00 495 + 00 500 + 00 505 + 00 510 + 00 515 + 00 519 + 00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			20	

PLAN — SURVEYED / PLOTTED / CROSS CHECKED / ALIGNMENT CHECKED / POINT OF BEG. CHECKED / NOTE BOOK / NO. / DATE / BY

PROFILE — SURVEYED / PLOTTED / CROSS CHECKED / NOTE BOOK / NO. / ELEVATIONS CHKD. / DATE / BY

1/4 COR.

STERLING SCHOOL SITE

GOV'T LOT 3

GOV'T LOT 12

GOV'T LOT 11

GOV'T LOT 10

GOV'T LOT 13

SECTION LINE N 0° 42' 32" E

SWANSON RIVER RD.

SCOUT LAKE RD.

STERLING DR.

BARKER SUBDIVISION

LOT 1 BLK 2 | LOT 1 | LOT 2 | LOT 3 | LOT 4 | LOT 5

BASKETBALL COURT

BRUSH

TREES

Beaver Dr.

N 2,389,500

S 77° 29' 39" E

N 80° 21' 16" E

52000

53000

TH 520

TH 525

TH 529 + 80

TH 535

TH 540

TH 542

UT

P

Scale 1" = 100'

250

240

230

220

A-1-a, NFS
A-2-4, F-2

Peat
A-1-a, NFS
A-3, NFS

A-1-a, NFS
Peat
A-4, F-4

A-1-a, NFS
Peat
A-7-6, F-4

A-1-a, NFS
A-3, NFS
A-2-4, F-2
A-4, F-4
A-3, NFS

A-1-a, NFS
A-2-4, F-2
A-4 Organic
A-4, F-4
A-3, NFS
A-1-b, NFS

A-1-a, NFS
F-2
A-1-b, F-2
A-1, F-4
A-1-a, NFS

518 + 00 | 520 + 00 | 525 + 00 | 530 + 00 | 535 + 00 | 540 + 00 | 545 + 00 | 548 + 00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			21	

PLAN — SURVEYED / PLOTTED / DRAWN / CHECKED / NOTE BOOK / NO. / DATE

PROFILE — SURVEYED / PLOTTED / DRAWN / CHECKED / NOTE BOOK / NO. / DATE

N 2,389,500

E 328,500 — C-W 1/16 COR.

E 329,000

E 339,500

E 340,000 — C 1/4 COR.

E 340,500

E 341,000

GOV'T LOT 8 | GOV'T LOT 7 | GOV'T LOT 6 | GOV'T LOT 5 | GOV'T LOT 4 | GOV'T LOT 3 | GOV'T LOT 2 | GOV'T LOT 1

TREES

N 2,389,000

UT

TH 545 — TH 547 — 55000 N 80° 21' 16" E — TH 550 — TH 555 — 56000 TH 560 — TH 565 — TH 568 — 57000 TH 570

30'

LOT 5 | BLK 4 | LOT 1 | 60' LEE STREET | LOT 5 | BLK 3 | LOT 1 | 60' BARBARA ST. | LOT 5 | BLK 2 | LOT 1 | 60' MARILEE ST | LOT 6 | BLK 1 | LOT 1 | ELVA STREET

SUMPTER SUBDIVISION

N 2,388,500

Scale 1" = 100'

230

220

210

A-1-a, NFS
A-2-4, F-2
A-4, F-4
A-1-a, NFS

A-1-a, F-1/F-2
A-4, F-4
A-1-a, NFS/F-1

A-1-a, NFS
A-2-4, F-2
A-4, F-4
A-2, NFS

A-1-a, NFS
A-3, NFS
A-2-4, F-2
Peat
A-3, F-2
A-1-b, NFS
Trace Organics

A-1-a, F-1
A-1-a, NFS
Peat
A-4, F-4
A-2-4, A-3
NFS/F-2

A-1-a, NFS
A-2, F-2
A-3, NFS

A-1-a NFS/F-1
A-1-a, NFS
A-3, F-2
A-1-b, F-2

A-1-a, NFS
A-2-4, F-2
A-3, NFS

541+00 | 545+00 | 550+00 | 555+00 | 560+00 | 565+00 | 570+00

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Designed by DOWL Engineers ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			22	

PLAN	
SURVEYED	
PLOTTED	
NOTE BOOK	CHECKED
NO.	HEIGHT OF INSTR. CHECKED

PROFILE	
SURVEYED	
PLOTTED	
NOTE BOOK	CHECKED
NO.	B.M.'S NOTED
	STRUCTURE NOTATIONS CHKD

N 89° 22' 55" W
1/4 COR.
TOWNSHIP LINE
N 00°39' 60" E
S 89 36' 10" E
TRACT 1
GREAT [illegible] LAND
AIRCRAFT LANDING AREA
TRACT 2
ESTATES NO. 2
K.S. SLATER PROPERTY
PEDERSEN'S TRACT 1
PEDERSEN RD.
RIVER SUBDIVISION NO. 2
TRACT 2
LOT 1
LOT 2
MOOSE RIVER DRIVE
GOLF COURSE
TANK
AIR STRIP
TREES
BRUSH
UT
TH 570
TH 575
TH 577
TH 580
TH 582+50
TH 585
TH 590
TH 592
TH 595
57000
58000
59000
N 2,389,500
N 2,389,000
E 342,000
E 342,500
E 343,000
E 343,500
E 344,000

Scale 1" = 100'

220
210
200
190
180
170
160

A-1-a, NFS
A-2-4, F-2
A-3, NFS
A-1-a, NFS
A-2-4, F-2
A-2-4, F-4
A-4, F-4, Organic
A-2-4, F-2
F-3
A-1-a, NFS
A-3, F-2
A-3, NFS
A-1-a, NFS
A-3, NFS/F-2
A-1-a, NFS
A-3, NFS/F-2
A-4, F-2
A-4, F-4
A-4, F-8
A-4, F-4
A-1-b, F-8
A-1-a, NFS
A-4, F-2
A-4, F-4
A-1-a, F-1
A-4, F-2
A-1-a, F-1
A-4, F-4

570+00
575+00
580+00
585+00
590+00
595+00
599+00

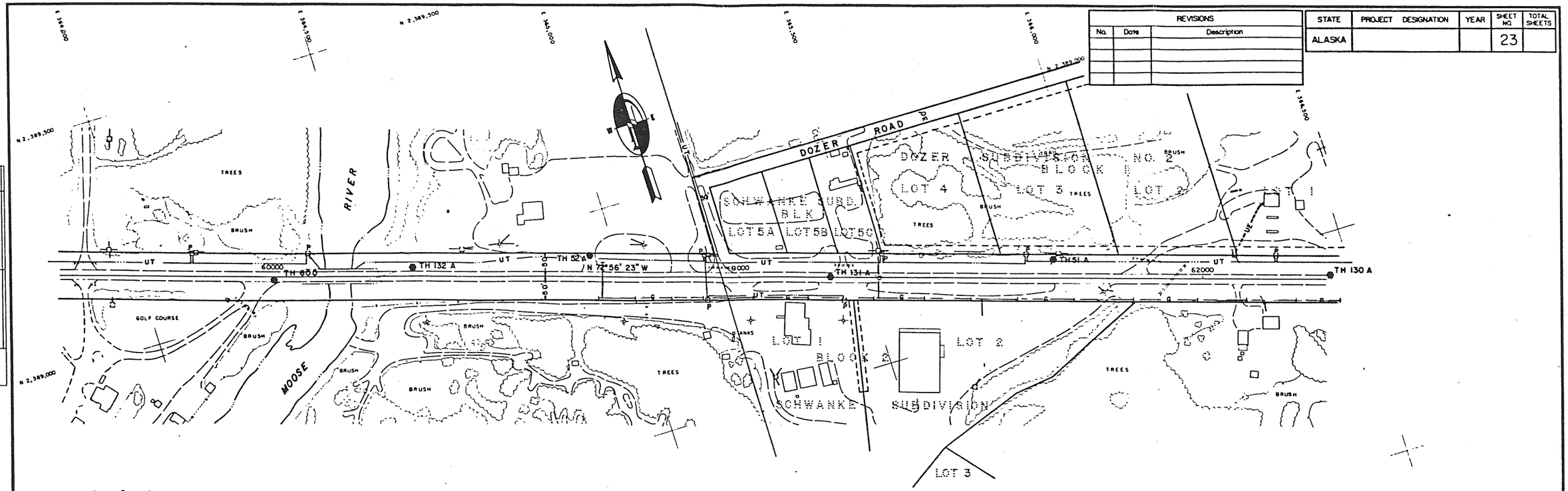
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ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

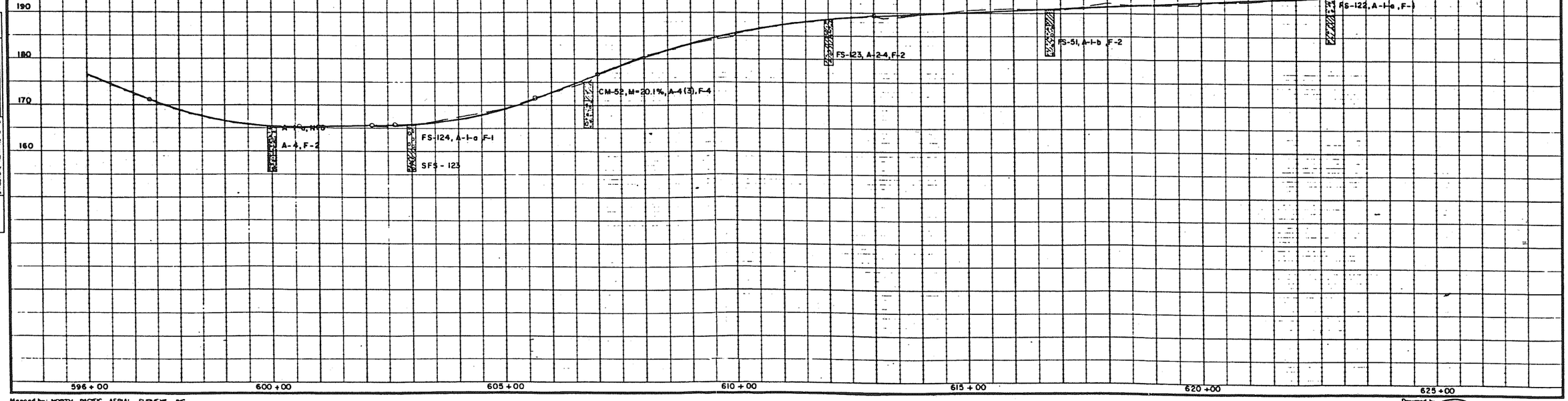
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			23	

PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
GRADES CHECKED
R/W MONUMENTED
RIGHT OF WAY CHECKED
NOTE BOOK
NO



Scale 1" = 100'

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
R/W MONUMENTED
NOTE BOOK
NO
STRUCTURE NOTATIONS CHKD



Mapped by NORTH PACIFIC AERIAL SURVEYS, INC.
ANCHORAGE ALASKA

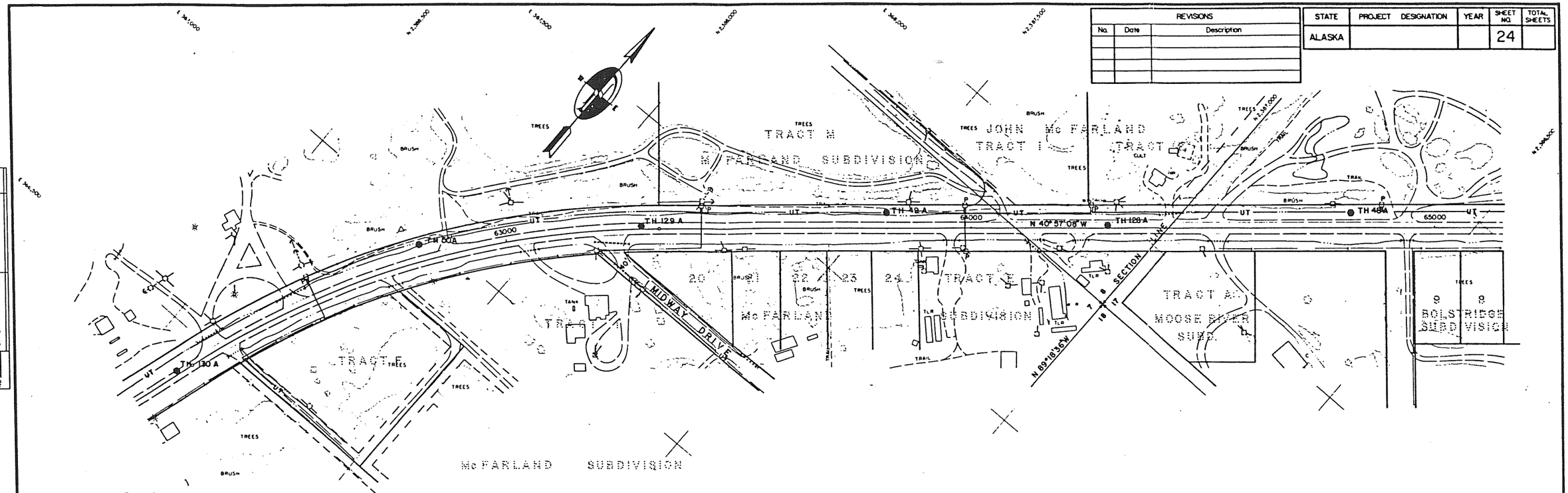
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ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			24	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO
DRAWN
CHECKED
PLOT OF MAP CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO
DRAWN
CHECKED
BMs NOTED
STRUCTURE NOTATIONS CHKD



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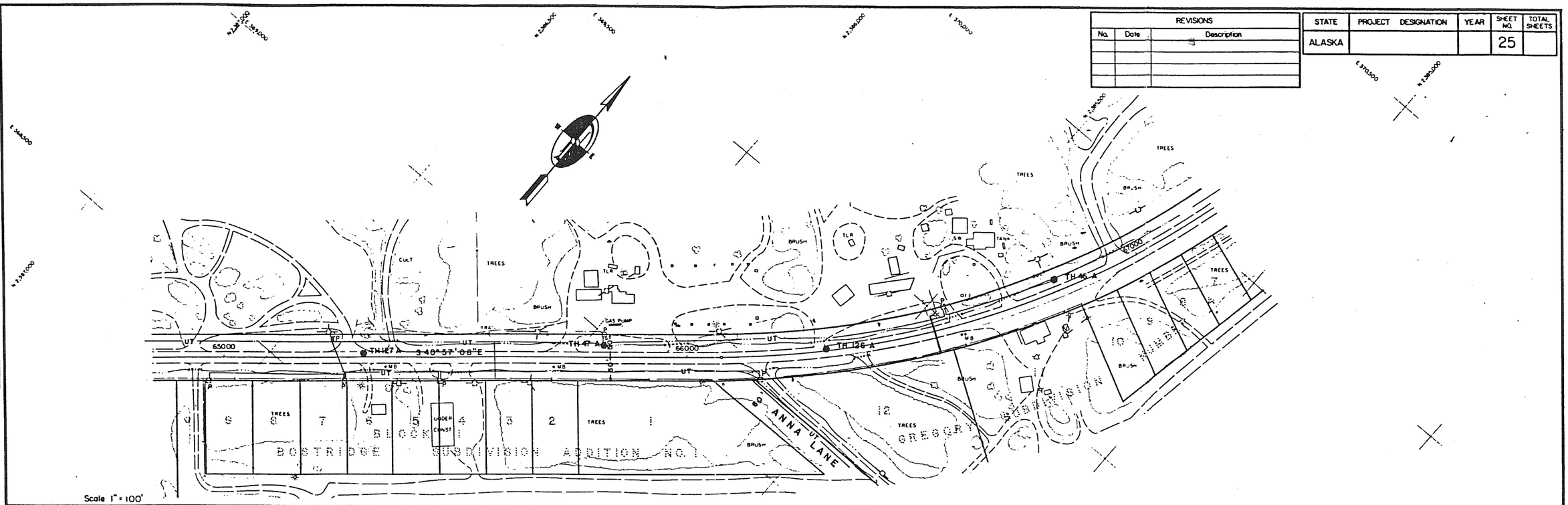
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ANCHORAGE, ALASKA

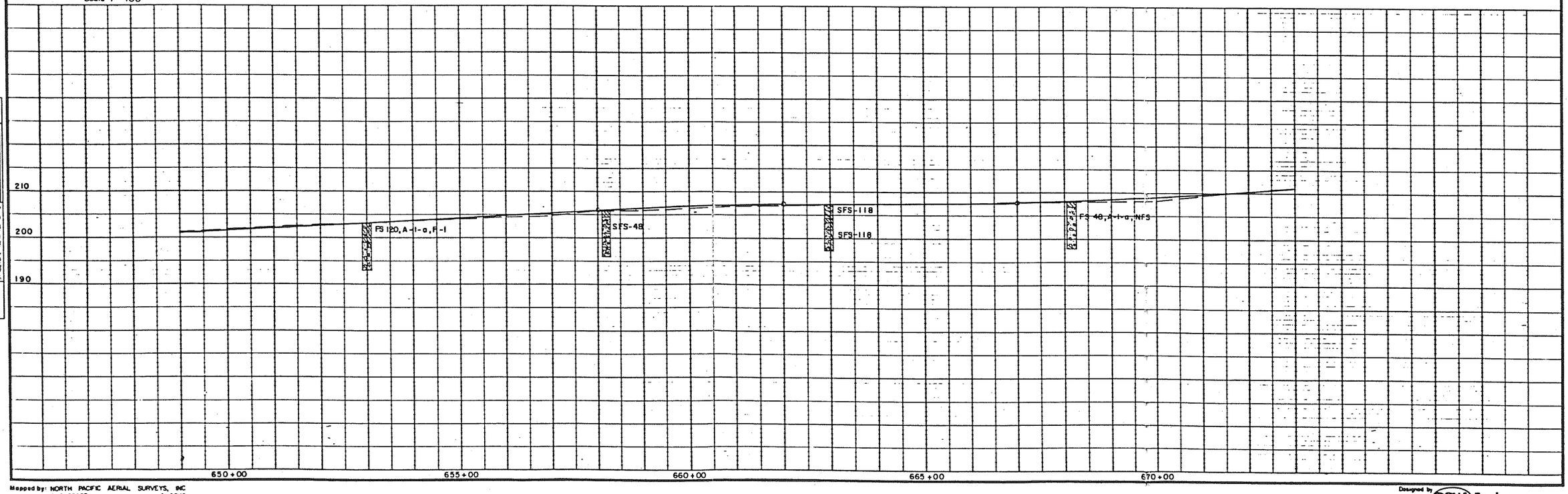
REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			25	

PLAN
SURVEYED
PLOTTED
ORIGINALS CHECKED
FIELD NOTE BOOK
NO.
DATE
BY

PROFILE
SURVEYED
PLOTTED
GRADES CHECKED
FIELD NOTED
NO.
DATE
BY





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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			26	

PLAN — DATE — SURVEYED — PLOTTED — DRAWN & CHECKED — RIGHT OF WAY CHECKED — NOTE BOOK — NO.

JUNE DRIVE
AUDREY CIRCLE
TIFFANY CIRCLE
KELLANE
GREGORY SUBDIVISION
ADDITION NO. 4
BLOCK 8 SUBDIVISION
BLOCK 7 ADDITION NUMBER FOUR
TH 125 A
TH 45 A
TH 124 A
TH 44 A
TH 123 A
S 79°48' 57" E
TREES
BRUSH
CULT
TRAIL
UT

Scale 1" = 100'

PROFILE — DATE — SURVEYED — PLOTTED — DRAWN & CHECKED — RIGHT OF WAY CHECKED — NOTE BOOK — NO. — STRUCTURE NOTATIONS CHKD

240
230
220
210
200

SFS-118
M=46, M = 31.5 %
FS-47, A-1-b, F-1
FS-118, A-1-a, F-1
FS-45, A-2-4, F-4
SFS-117
A-4, F-4

670+00 675+00 680+00 685+00 690+00 695+00

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ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA			27	

PLAN
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
MAP OF SURVEY CHECKED
MAP OF MAP CHECKED

PROFILE
SURVEYED
PLOTTED
NOTE BOOK
NO.
BY
DATE
GRADES DETAILED
B.M.'S NOTED
STRUCTURE POSITIONS CHKD

N 2,385,000
N 2,384,500
E 372,000
E 372,500
E 373,000
E 373,500
E 374,000
E 374,500
E 375,000

B-B-B TRANSMISSION LINE

TREES
BRUSH
UT
P

70000 TH 43 A
TH 122 A
71000 TH 42 A
N 80° 01' 22" E
TH 121 A
72000 TH 41 A

100'
100'
150'
150'

Scale 1" = 100'

290
280
270
260
250
240

SFS-43
FS-117, A-1-a, F-1
FS-44, A-1-b, F-2
SFS-115
CM 42, M = 21%, A-4(8), F-6
FS-43, A-1-b, F-2

695+00
700+00
705+00
710+00
715+00
720+00

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ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			28	

PLAN
SURVEYED
PLOTTED
NOTE BOOK ALIGNMENT CHECKED
NO PLANT OF WAY CHECKED
DATE

PROFILE
SURVEYED
PLOTTED
NOTE BOOK GRADES CHECKED
NO STRUCTURE ADJUSTING CHKD
DATE

N 2,365,300
E 374,500
E 375,000
E 375,500
E 376,000
E 376,500
E 377,000
N 2,366,000
E 377,500
N 2,365,200

TREES
BRUSH
UT
P
TRAIL
180'
72000
TH 120 A
N 80°01' 22" E
TH 40 A
73000
TH 119 A
74000
TH 39A
S 84° 37' 23" E
TH 118 A

Scale 1" = 100'

300
290
280

FS-116, A-1-b, F-2
FS-41, A-1-b, F-1
SFS-115
SFS-38
FS-39, A-2-4, F-2
FS 40, A-1-b, F-1
FS 115, A-1-b, F-2

720+00
725+00
730+00
735+00
740+00
745+00

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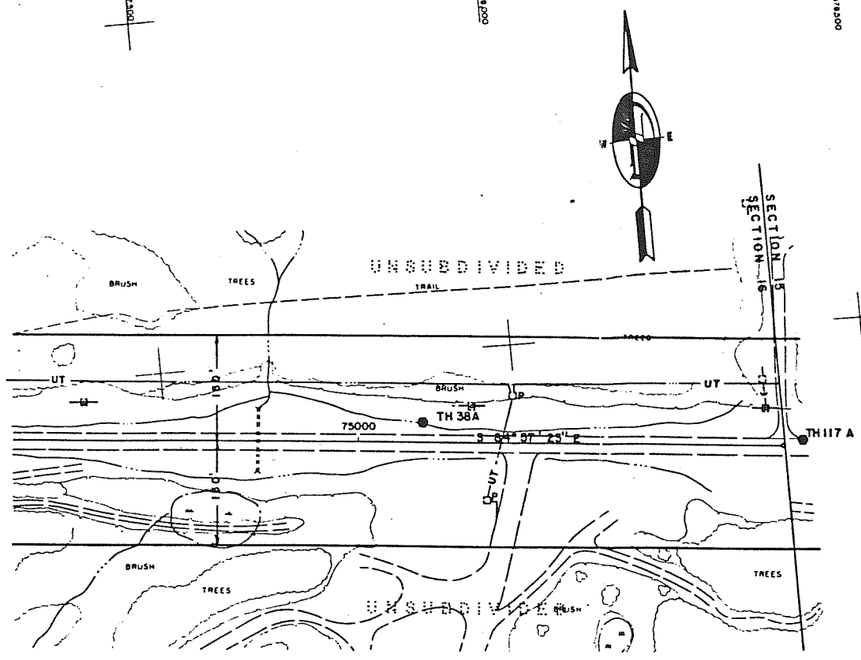
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REVISIONS		
No.	Date	Description

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA			29	

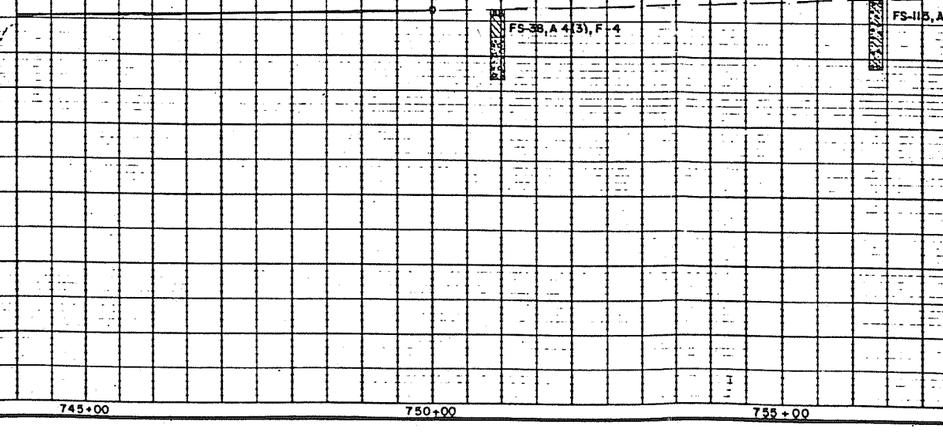
N 2,384,000 E 375,000 E 375,500 N 2,384,500 E 376,000 E 376,500

N 2,383,500



PLAN
SURVEYED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
PROF. NOTED
NO.
PLAN CHECKED
DATE

Scale 1" = 100'



PROFILE
SURVEYED
PLOTTED
ALIGNMENT CHECKED
NOTE BOOK
PROF. NOTED
NO.
STRUCTURE NOTED
DATE

Mapped by NORTH PACIFIC AERIAL SURVEYS, INC.
ANCHORAGE ALASKA

Designed by DOWL Engineers
ANCHORAGE, ALASKA

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 15

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
0					
5			MA		
10				GP	
15			MA		

ELEVATION = [illegible] feet - 15' Right of Centerline DEPTH

ASPHALT 0.2'

A-1-a, NFS, SANDY GRAVEL, 2% MAXIMUM SILT, 1-1/2" SUBROUNDED GRAVEL, MOIST

BOTTOM OF BORING = 15.0'. COMPLETED 11/11/80. 15.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 20

Offset - 9' Right of Centerline

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH

ELEVATION = DEPTH

ASPHALT 6"

GW — A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED, 2% SILT, MOIST (FILL) 3.5'

ML — A-4, F-4, BROWN SANDY SILT, PLASTIC MOIST TO SATURATED — MA

WITH TRACE OF GRAVEL BY 15.0' — MA

BOTTOM OF BORING = 15.0'. COMPLETED 11/11/80. 15.0'

DEPTH (FEET): 0, 5, 10, 15

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 25

Offset - 9' Right of Centerline

ELEVATION = DEPTH

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH

0 — ASPHALT

GW — A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, (FILL) — 0.2'

5 — A-4, F-4, BROWN SANDY SILT, PLASTIC +, MOIST TO SATURATED, STIFF (FILL?) — 3.5'

ML

10

15 — ▽ GROUND WATER LEVEL WHILE DRILLING

DEPTH (FEET)

20 — MA — BOTTOM OF BORING = 20.0'. COMPLETED 11/11/80. — 20.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

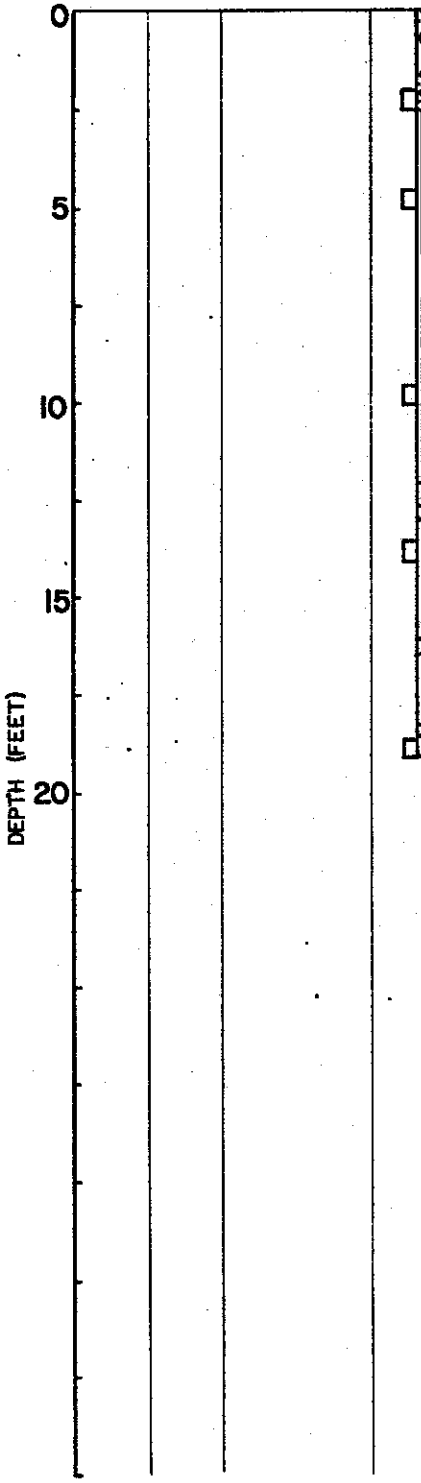
W.O. NO. D12352
LOGGED BY T.B.

BORING 28

Offset - 20' Left of Centerline

ELEVATION =

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH



DEPTH

A-1-a, F-1, BROWN, SANDY GRAVEL, SUBROUNDED 1 1/2" (FILL)

2.5'

A-4, F-4, BROWN SANDY SILT WITH TRACE (1") GRAVEL, SLIGHTLY PLASTIC, WET, STIFF

12.0'

A-4, F-4, LAYERED, FINE, SANDY SILT WITH TRACE GRAVEL AND BROWN , SLIGHTLY SILTY, FINE SAND, MOIST, STIFF

19.0'

BOTTOM OF BORING = 19.0' COMPLETED 3/31/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 30

Offset - 7' Right of Centerline

ELEVATION = DEPTH

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	DEPTH (FEET)
					0
				GW	ASPHALT — 0.2'
				GW	A-1-a, NFS, SANDY GRAVEL, 1-1/2" SUBROUNDED GRAVEL (FILL) — 3.5'
		MA		SM	A-4, F-4, BROWN FINE TO MEDIUM SILTY SAND, NON-PLASTIC SILT, WET, DENSE
					5
					10
					BOTTOM OF BORING = 7.5'. COMPLETED 11/11/80. — 7.5'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 35

ELEVATION = ' DEPTH

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	DEPTH (FEET)	
					0	ASPHALT 0.2'
				GW		A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, DENSE (FILL) 3.5'
				GW	5	A-1-a, NFS, TAN SANDY GRAVEL, DENSE (FILL) 7.0'
				ML		A-4, F-4, BROWN SANDY SILT, SLIGHTLY PLASTIC TO NON-PLASTIC, WET TO SATURATED, STIFF
					10	BOTTOM OF BORING = 10.0'. COMPLETED 11/11/80. 10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 40

Offset - 6' Right of Centerline

ELEVATION =

DEPTH	
	ASPHALT
0.2′	A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, DENSE (FILL)
3.5′	A-4, F-4, BROWN SANDY SILT, PLASTIC, STIFF (FILL)
11.5′	A-2-4, F-1, BROWN SILTY SANDY GRAVEL , DENSE (FILL)
12.5′	A-4, F-4, BROWN SANDY SILT, PLASTIC +, MOIST TO WET, STIFF
23.0′	A-2-4, F-2, BROWN SILTY SAND, LAYERED WITH SILT, FINE TO MEDIUM SAND, WET, MEDIUM DENSE
25.0′	BOTTOM OF BORING = 25.0'. COMPLETED 11/11/80.

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

DEPTH (FEET): 0, 5, 10, 15, 20, 25

GW | ML | GM | ML | SM

MA

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 45

Offset - 6' Right of Centerline

ELEVATION = ' DEPTH

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	
0						ASPHALT — 0.2'
					GM	A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, DENSE (FILL)
5					SM	A-4, F-4, BROWN VERY SILTY SAND, PLASTIC, BECOMING SANDIER WITH DEPTH, SATURATED, STIFF — 3.5'
10			MA			BOTTOM OF BORING = 10.0'. COMPLETED 11/11/80. — 10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

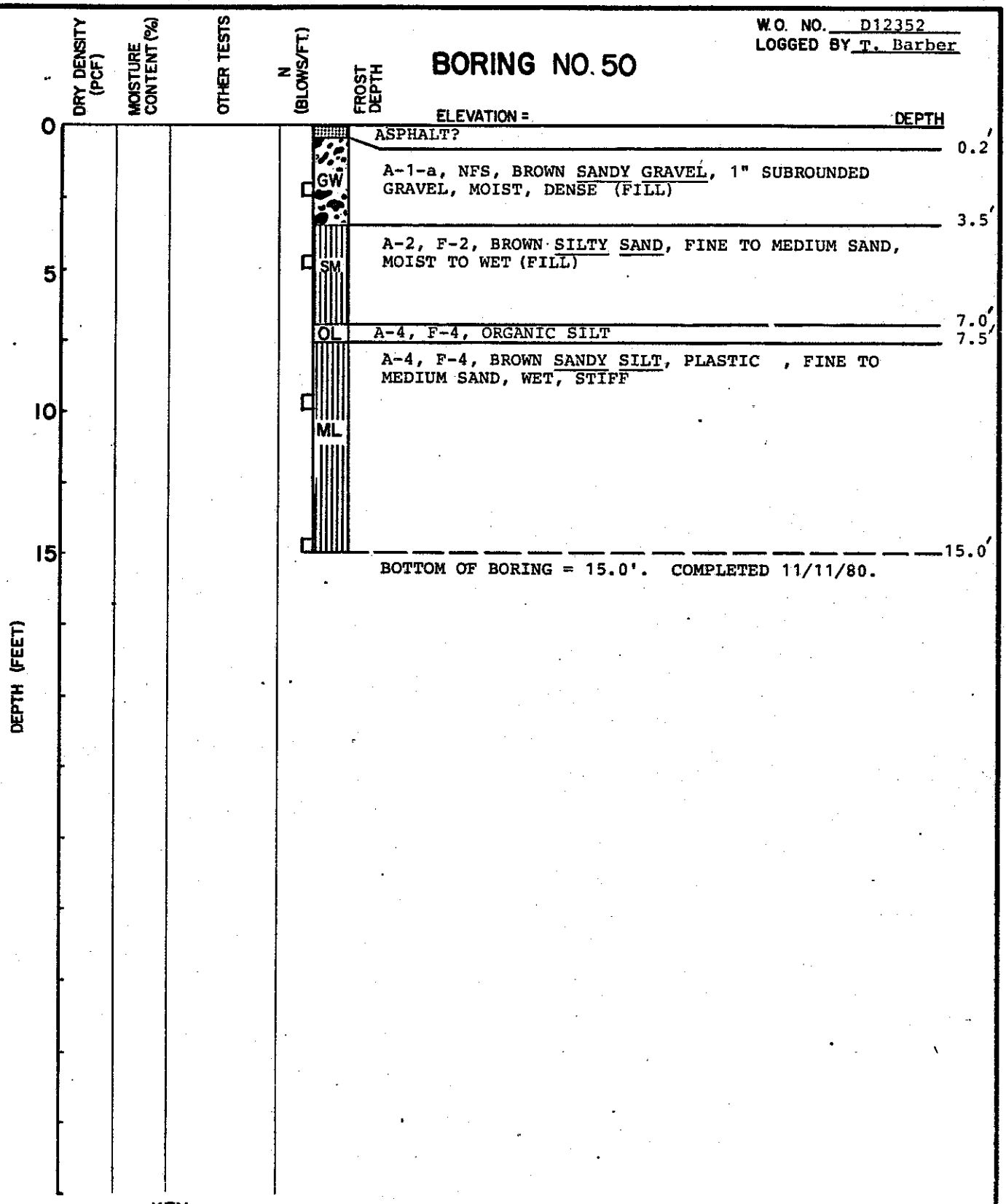
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 50



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 55

Offset - 6' Right of Centerline

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.2'
		MA		GW	A-1-a, NFS, BROWN SANDY GRAVEL, MOIST (FILL) A-1-b, NFS/F-2	3.5'
				ML	A-4, F-4, BROWN SANDY SILT WITH FINE TO MEDIUM SAND, MOIST (FILL)	9.0'
		MA L_w = 22 PI = 6.4		SM	A-4, F-4, TAN GRAVELLY SANDY SILT/SILTY SAND, SLIGHTLY PLASTIC, MOIST TO WET	15.0'
					BOTTOM OF BORING = 15.0. COMPLETED 11/12/80.	

DEPTH (FEET)

0
5
10
15

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

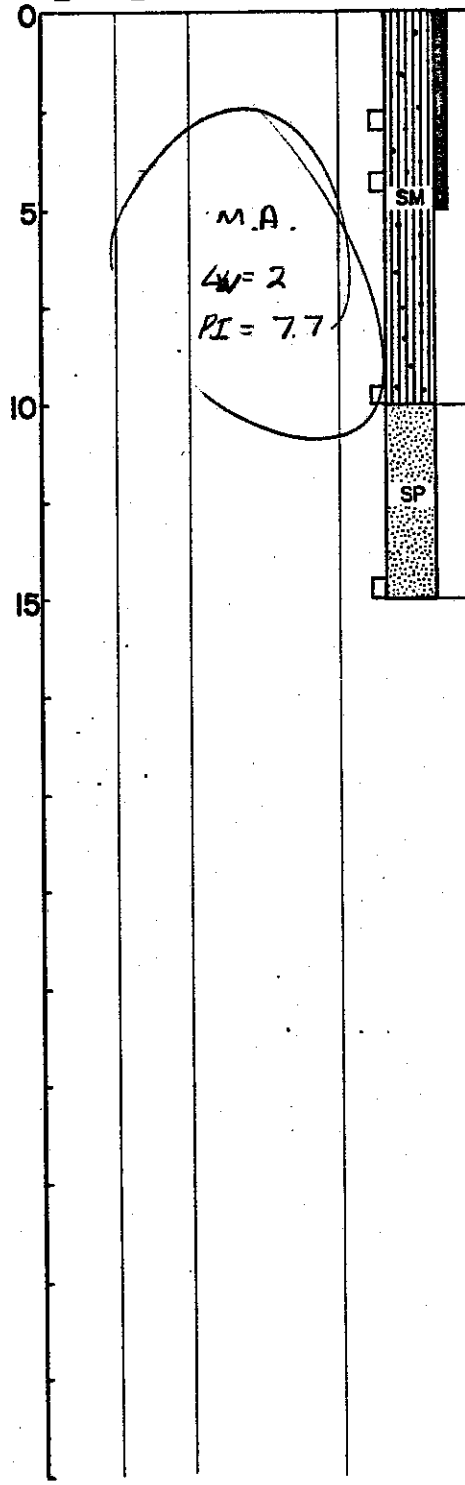
W.O. NO. D12352
LOGGED BY T.B.

BORING 58

Offset - 20' Left of Centerline

ELEVATION = DEPTH

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH



DEPTH (FEET)

A-3, F-2, SILTY, GRAVELLY SAND, SUBROUNDED 3/8" GRAVEL

10.0'

A-3, NFS, BROWN, FINE SAND, MOIST

15.0'

BOTTOM OF BORING = 15.0' COMPLETED 3/31/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 60

Offset - 20' Left of Centerline

ELEVATION = ' DEPTH

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH
		MA		

ASPHALT — 0.2'

GW — A-1-a, NFS, BROWN SANDY GRAVEL (FILL) — 3.5'

ML — A-4, F-4, LIGHT GRADING TO DARK BROWN FINE SANDY SILT, PLASTIC, STIFF

MA
L_w = 30
PI = ~~7.6~~
PI = 3.7

BOTTOM OF BORING = 10.0'. COMPLETED 11/12/80. — 10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

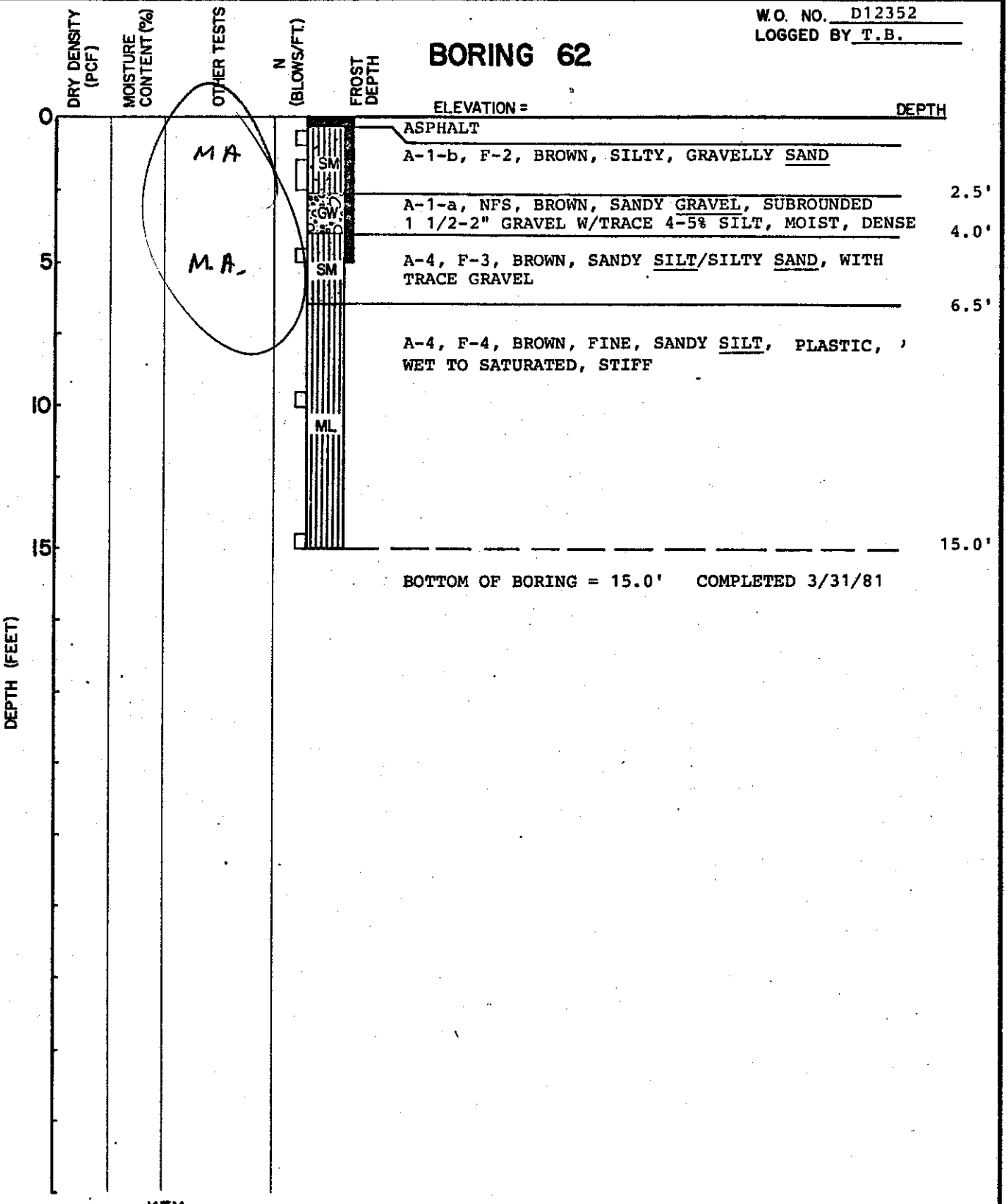
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 62



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

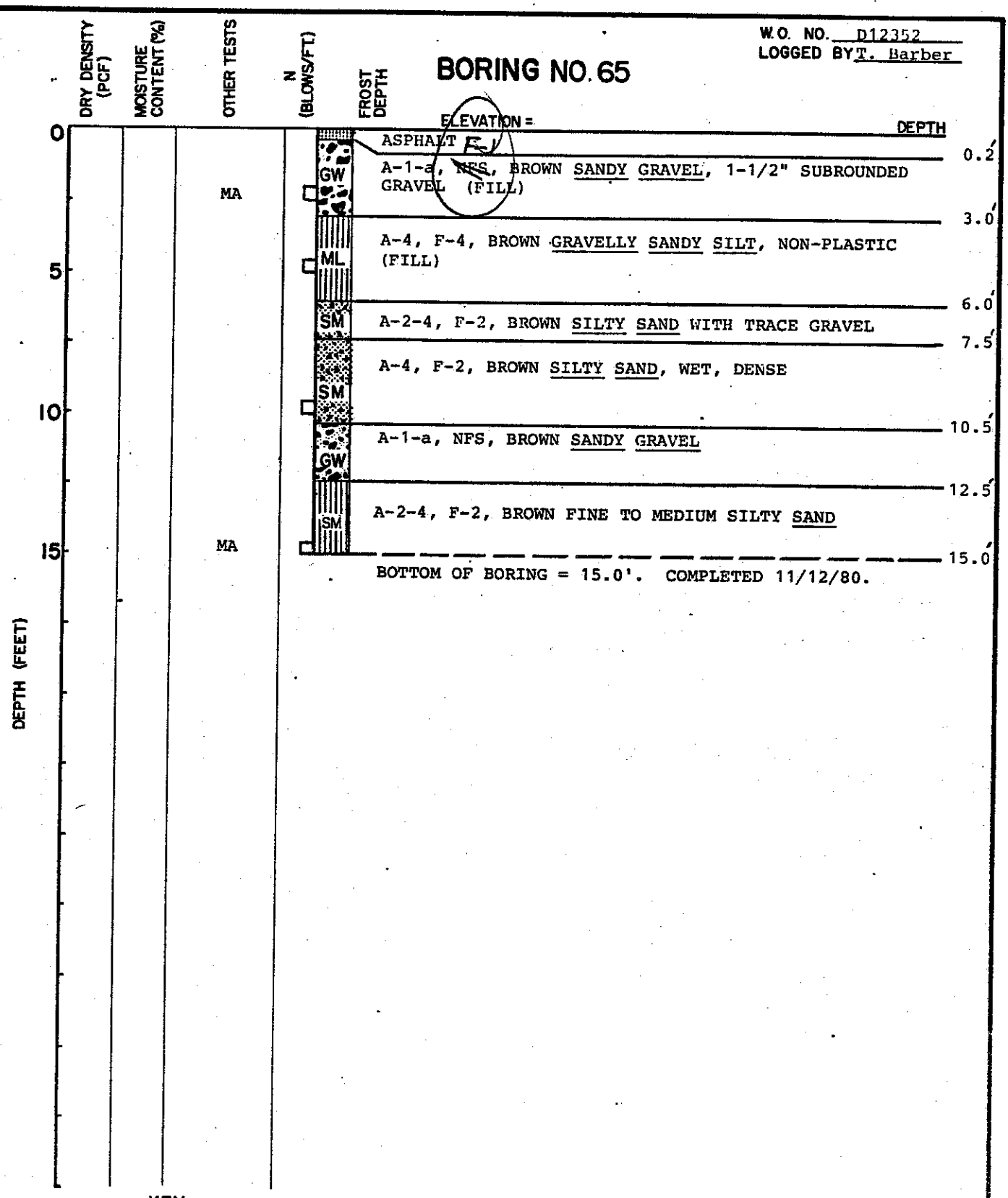
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 65



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

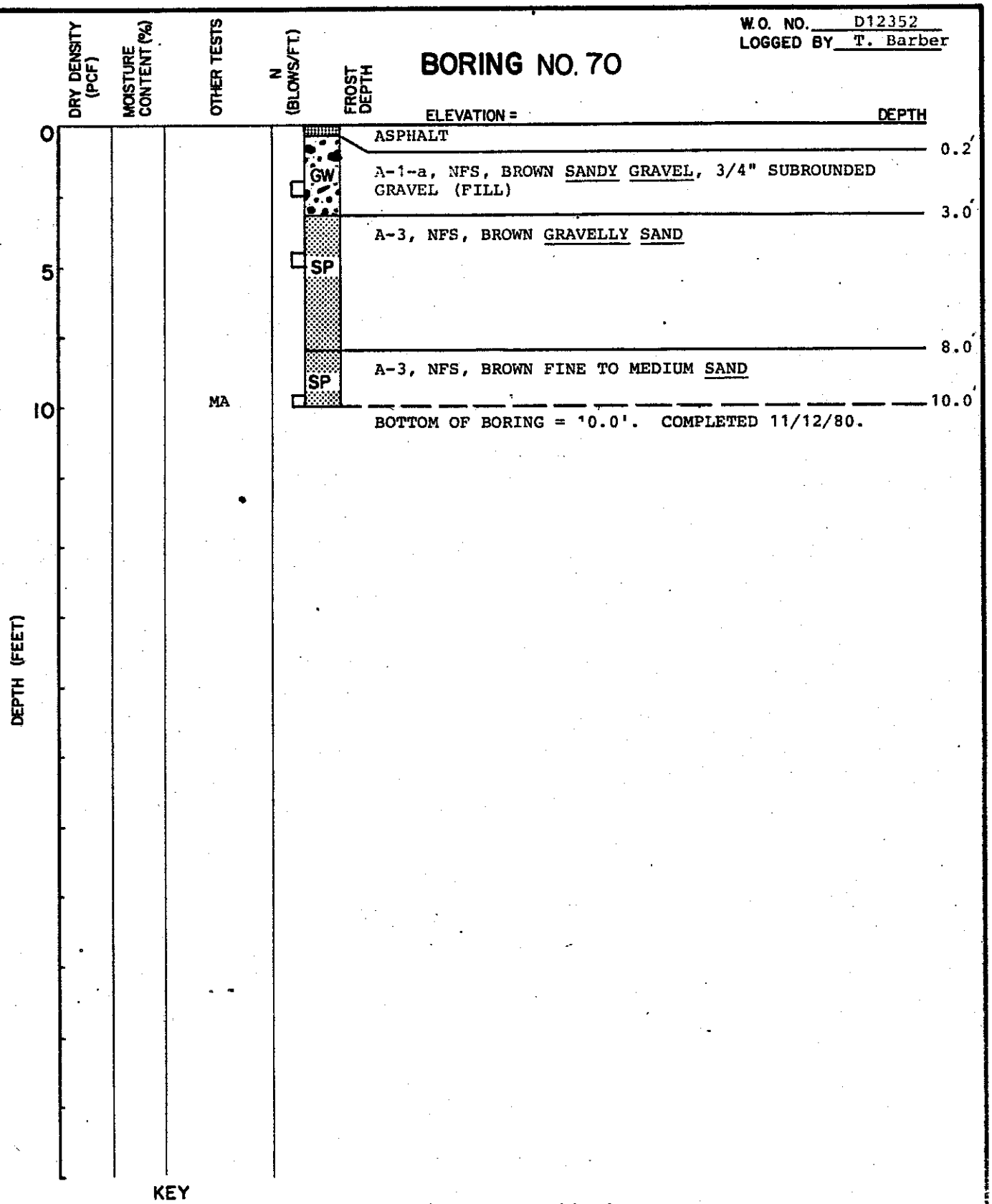
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 70



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

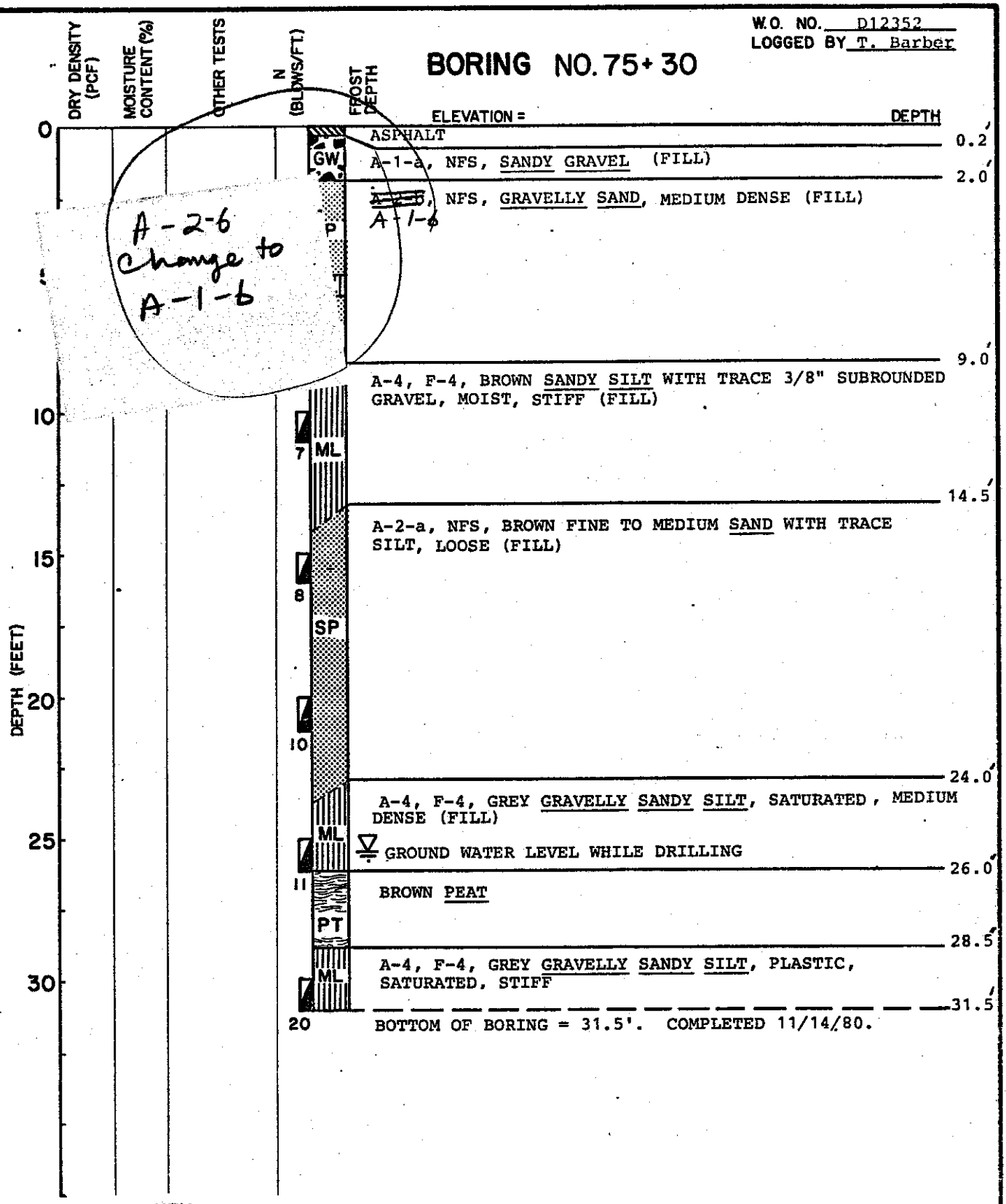
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 75+30



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.80

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
		MA		

ELEVATION = DEPTH

ASPHALT 0.2'

GP — A-1-a, NFS, BROWN SANDY GRAVEL (FILL) 1.5'

SW — A-1-b, NFS, BROWN GRAVELLY SAND WITH LAYERS OF SANDY GRAVEL

BOTTOM OF BORING = 7.5'. COMPLETED 11/12/80. 7.5'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 85

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = | DEPTH

ASPHALT — 0.2'

GW — A-1-a, NFS, BROWN SANDY GRAVEL (FILL) — 2.5'

GP / GM — A-1-a, F-1, BROWN SLIGHTLY SILTY SANDY GRAVEL, 10% TO 12% SILT — 7.0'

SP — A-1-b, NFS, BROWN FINE TO MEDIUM SAND, MOIST, DENSE — 10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/12/80.

DEPTH (FEET)

0
5
10

MA

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 90

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = DEPTH

		DEPTH
GP	ASPHALT	0.2'
GW	A-1-a, NFS, SANDY GRAVEL, 1" SUBROUNDED (FILL)	4.5'
GM	A-1-a, F-1, BROWN SANDY GRAVEL, VERY COARSE GRAVEL	7.5'
SP	A-3, NFS, BROWN FINE TO MEDIUM SAND WITH TRACE 3/8" GRAVEL	10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/12/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 95

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH

ELEVATION = DEPTH

0

ASPHALT — 0.2'

A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL

GW

5

10

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/12/80.

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 97

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0				GM		ASPHALT	0.2'
			MA			A-1-a, F-1/F-2, BROWN SANDY GRAVEL/GRAVELLY SAND, SOME SILT (FILL)	5.0'
5			MA	GM		A-1-a, F-1, BROWN, SANDY GRAVEL Lab says F 2 Sand	
10							10.0'

BOTTOM OF BORING = 10.0' COMPLETED 3/31/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

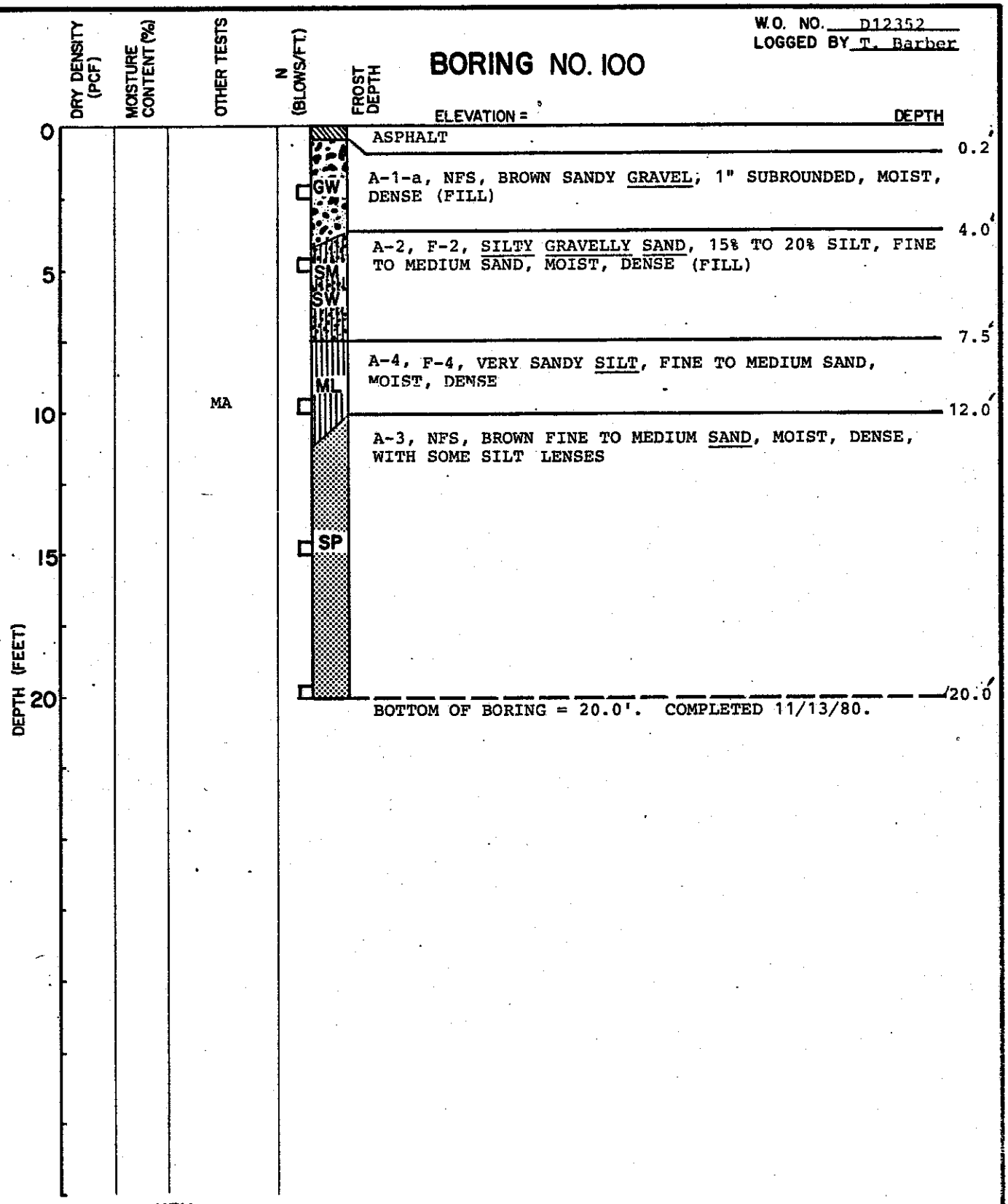
DCW

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 100



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 102+50

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = DEPTH

		DEPTH
SW	ASPHALT	0.2'
	A-1-b, NFS/F-2, BROWN, GRAVELLY SAND, W/TRACE SILT	1.5'
GP GW	A-1-a, NFS, BROWN, SANDY GRAVEL, SUBROUNDED 1" GRAVEL, MOIST, DENSE	4.5'
SM	A-1-b, F-1, BROWN, SILTY, GRAVELLY SAND, SUB-ROUNDED 3/4" GRAVEL, MOIST, DENSE	7.0'
	A-4, F-4/F-2, BROWN, SILTY, F-M, SAND, WITH LAYER OF NFS F-M SAND, MOIST, DENSE	10.0'

BOTTOM OF BORING = 10.0' COMPLETED 3/31/81

MA

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

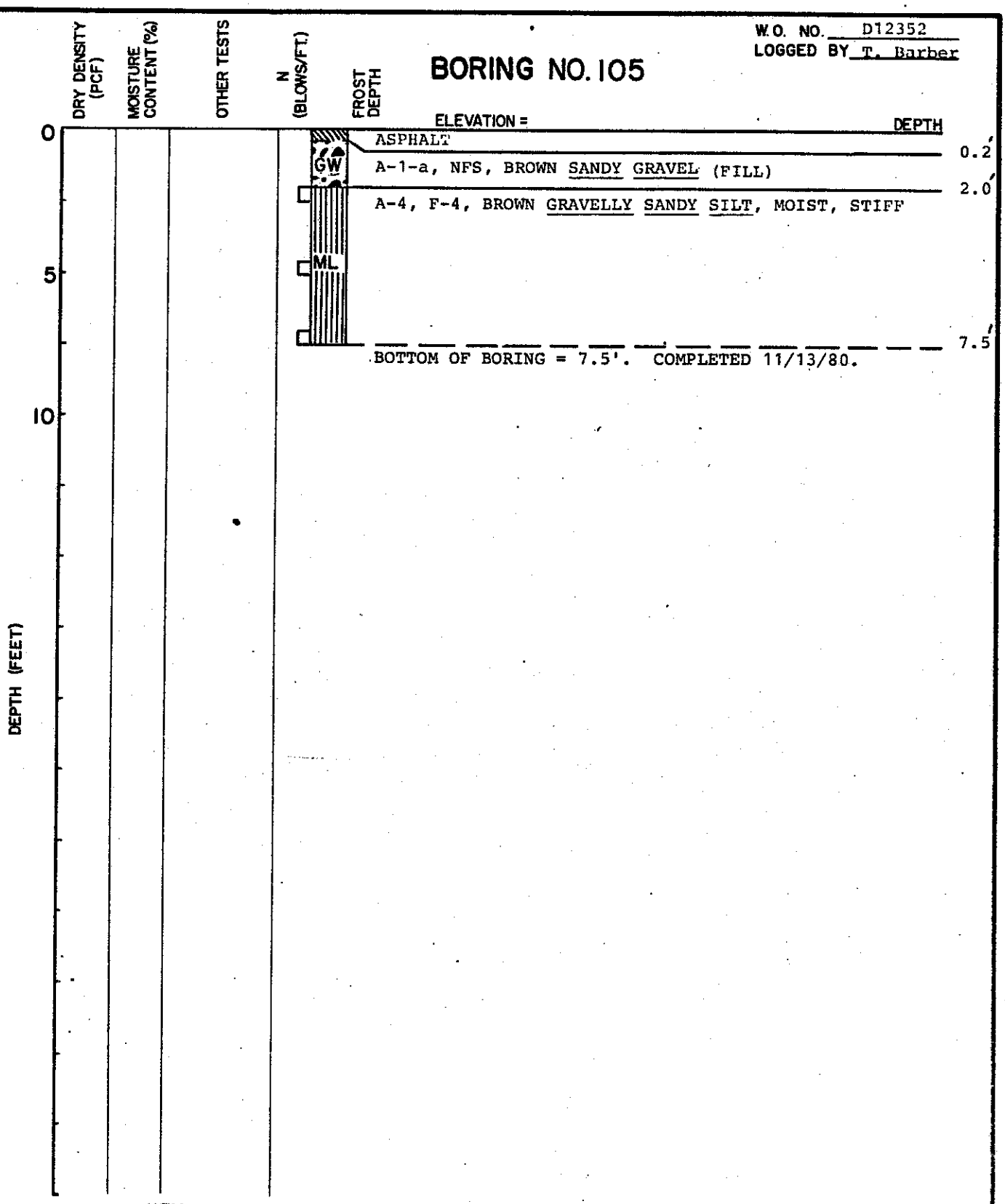
DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 105



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 110

ELEVATION = DEPTH

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

DEPTH (FEET)

0

SW SM — A-1-a, F-2, BROWN GRAVELLY SAND (FILL)

MA

3.0'

5

ML — A-4, F-4, BROWN SANDY SILT, NON-PLASTIC, WET TO MOIST, STIFF WITH LAYERS OF FINE SAND

MA Say A4,F3/F4

MA
L_w = 17
PI = 0.7

8.0'

10

BOTTOM OF BORING = 8.0'. COMPLETED 11/13/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 115

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.2'
				GM	A-1-a, NFS, SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, DENSE (FILL)	4.0'
				ML	A-4, F-4, BROWN GRAVELLY SANDY SILT, WITH SILTY SAND LAYERS, NON-PLASTIC, MOIST TO WET, STIFF	
				SM		
				GM		
		MA		SM		
				ML		
					BECOMES STIFF	15.0'
				GP GM	A-1-a, NFS, BROWN SANDY GRAVEL	
					BOTTOM OF BORING = 17.5'. COMPLETED 11/13/80.	17.5'

DEPTH (FEET)

0
5
10
15

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 120

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					GW	A-1-a, NFS, BROWN SANDY GRAVEL WITH TRACE SILT, 6% TO 8% SILT, 1" SUBROUNDED GRAVEL, MOIST (FILL)	3.5'
5		11.4	MA		ML SP	A-4, F-4, BROWN SILTY SAND (FILL)	4.5'
					ML	A-4, F-4, SANDY SILT, NON-PLASTIC, FINE TO MEDIUM SAND, MOIST, MEDIUM DENSE	
10							10.0'
					ML	A-4, F-4, WITH TRACE GRAVEL AT 10.0', PLASTIC, BECOMING MORE GRAVELLY WITH DEPTH F-2	14.0'
15			MA		SM	A-2-4, BROWN FINE TO MEDIUM SILTY SAND	15.0'
						BOTTOM OF BORING = 15.0'. COMPLETED 11/13/80.	

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 122

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH

ELEVATION = DEPTH

0 — A-1-a, NFS, BROWN, SANDY GRAVEL, SUBROUNDED 1" GRAVEL, MOIST, LOOSE (GP)

3.5'

5 — 22.6 MA — A-4, F-4, YELLOWISH- BROWN, SANDY SILT, PL+, WET TO SATURATED, STIFF (ML)

10 — 10.0'

BOTTOM OF BORING = 10.0' COMPLETED 3/31/81

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

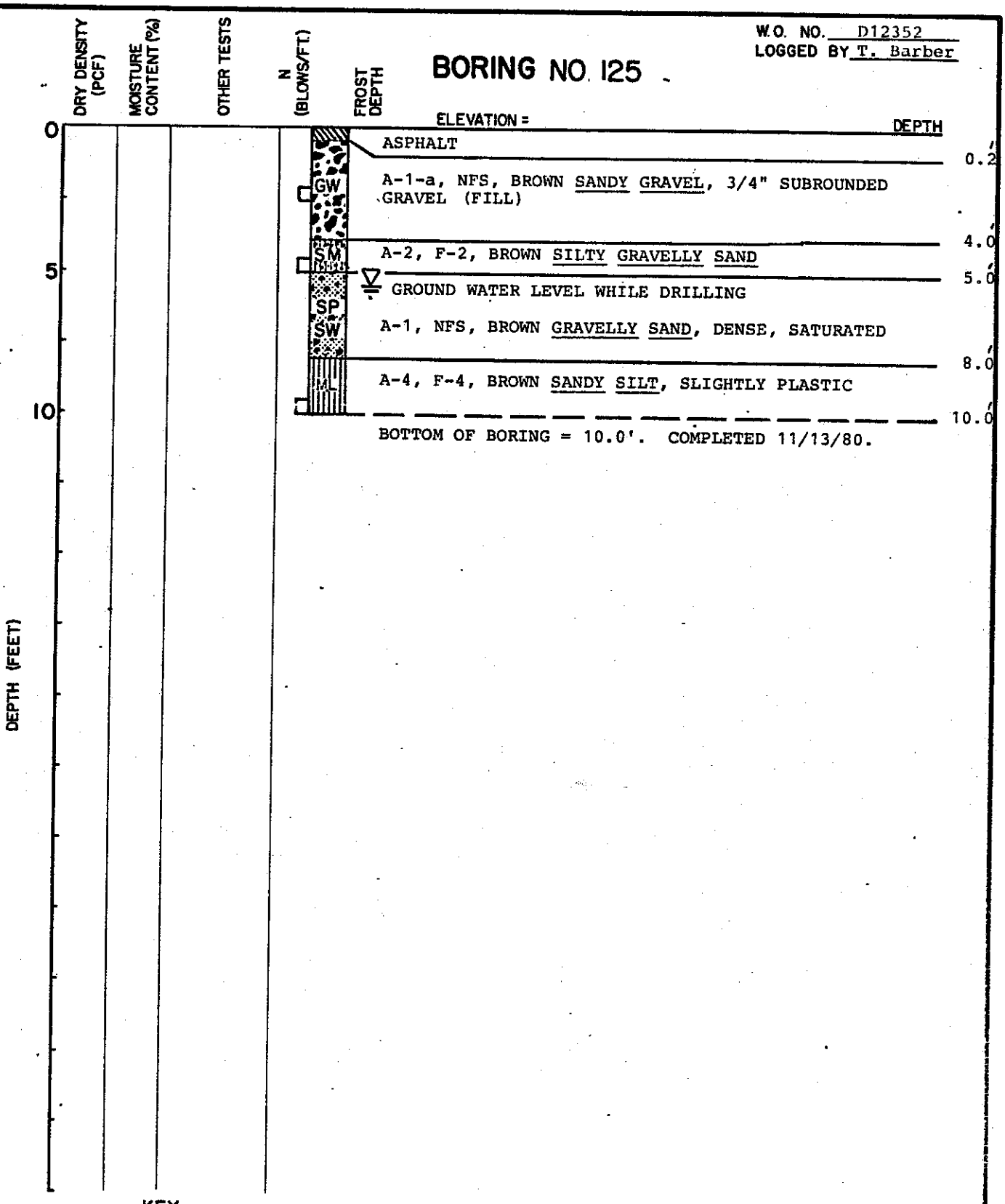
DOW

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 125



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

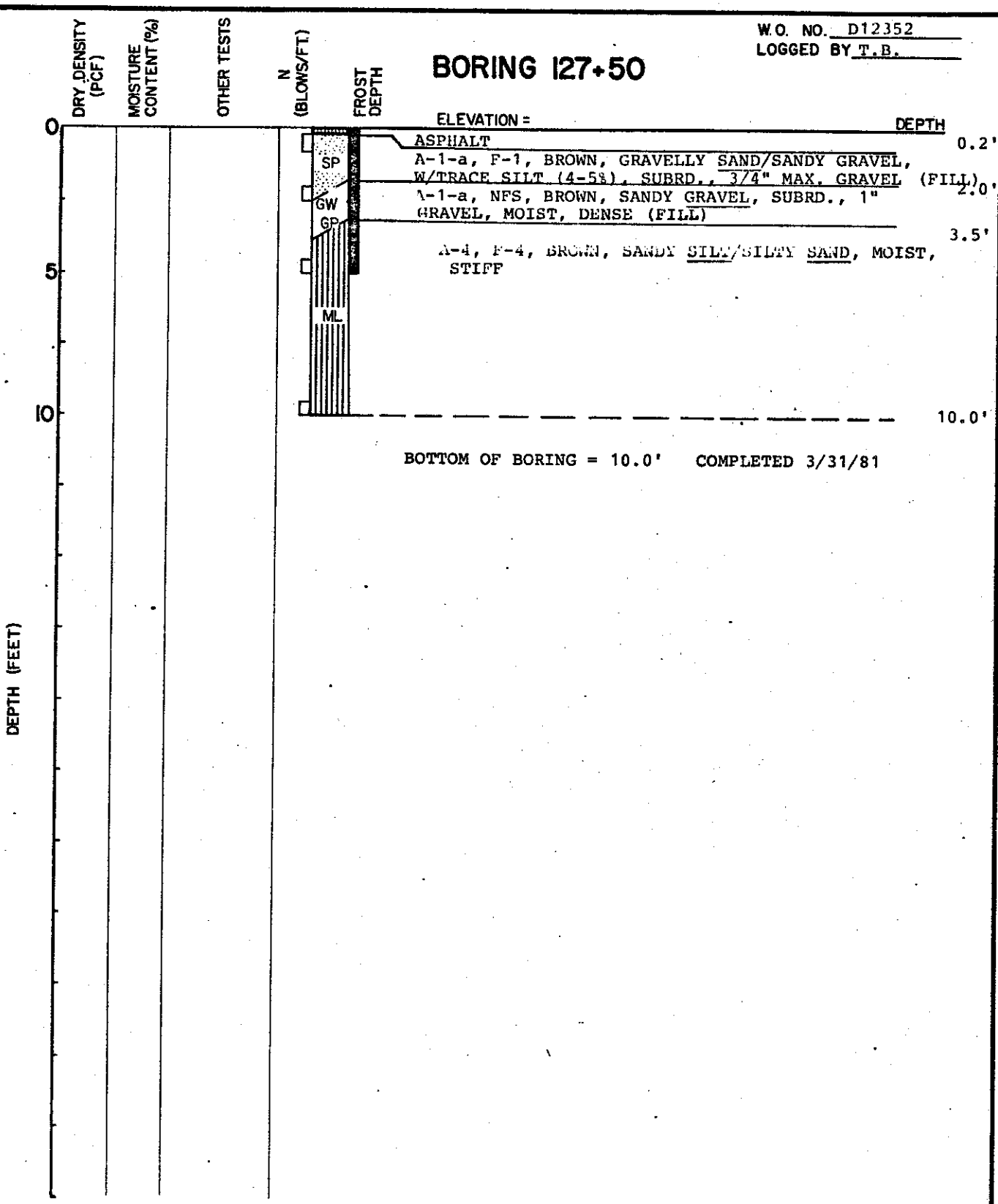
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 127+50



ELEVATION = DEPTH

ASPHALT 0.2'

A-1-a, F-1, BROWN, GRAVELLY SAND/SANDY GRAVEL, W/TRACE SILT (4-5%), SUBRD., 3/4" MAX. GRAVEL (FILL) 2.0'

A-1-a, NFS, BROWN, SANDY GRAVEL, SUBRD., 1" GRAVEL, MOIST, DENSE (FILL) 3.5'

A-4, F-4, BROWN, SANDY SILT/SILTY SAND, MOIST, STIFF

10.0'

BOTTOM OF BORING = 10.0' COMPLETED 3/31/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 130

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION = DEPTH
0						ASPHALT 0.2'
			MA		GW	A-1-a, F-1, BROWN SANDY GRAVEL, 3/4" SUBROUNDED GRAVEL, (FILL) 3.5'
5					CL	A-4, F-4, LIGHT BROWN SANDY SILT, NON-PLASTIC TO PLASTIC, GRADES TO BROWN MOIST TO WET
		16.6	MA L_w = 24.8 PI = 5.3		ML	8.5'
10						BOTTOM OF BORING = 8.5'. COMPLETED 11/13/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

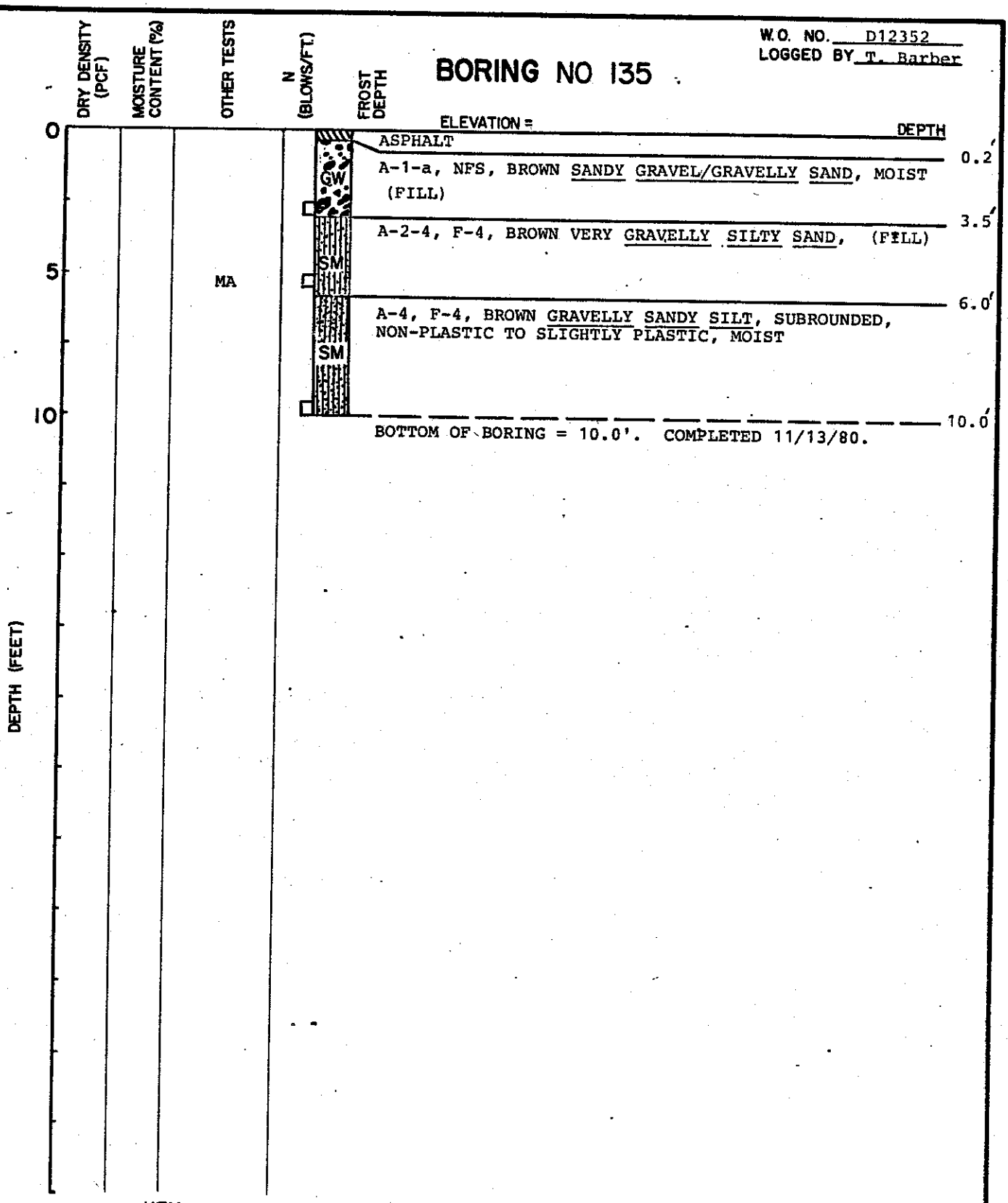
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 135



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

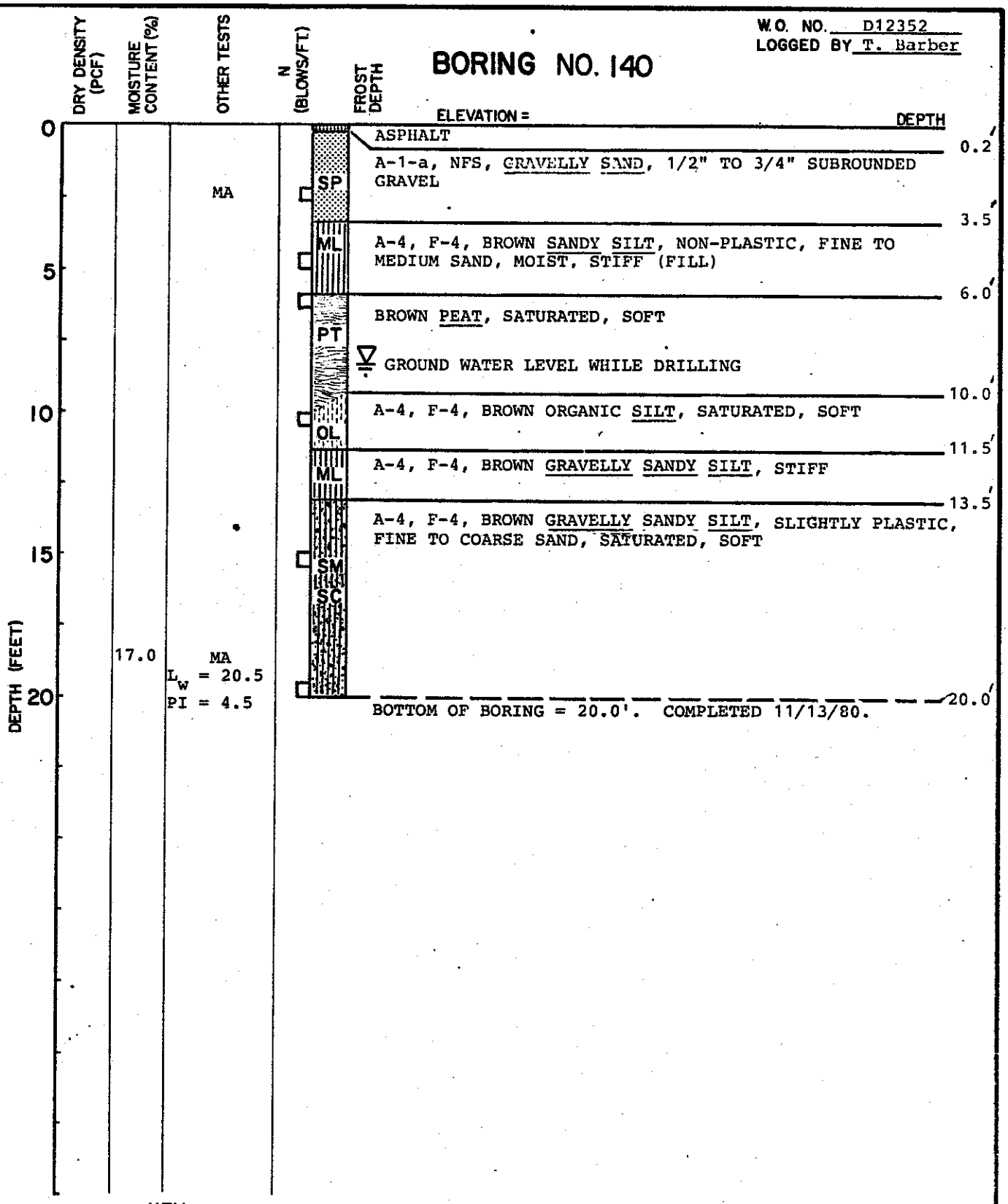
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 140



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

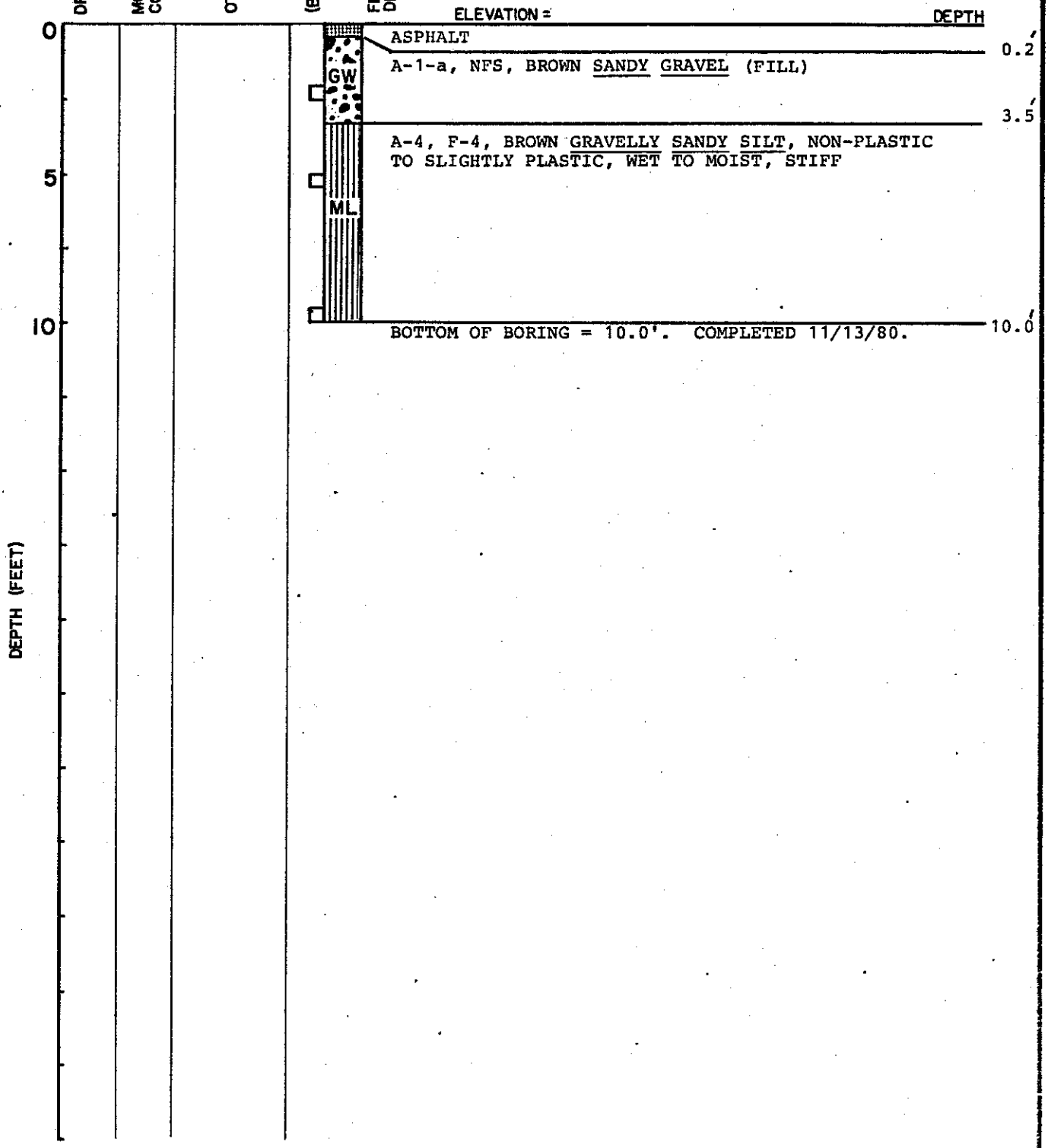
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 145



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

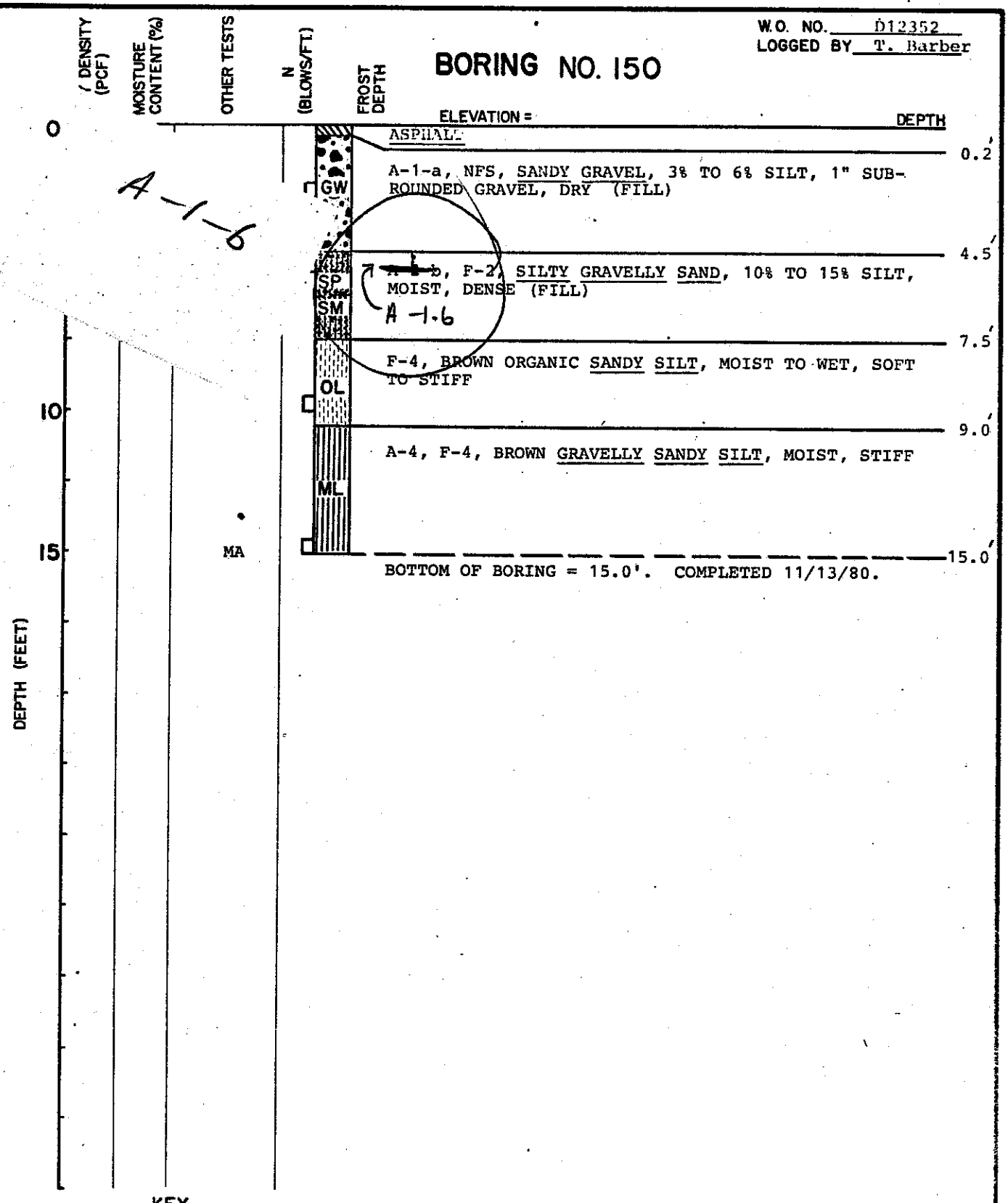
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 150



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

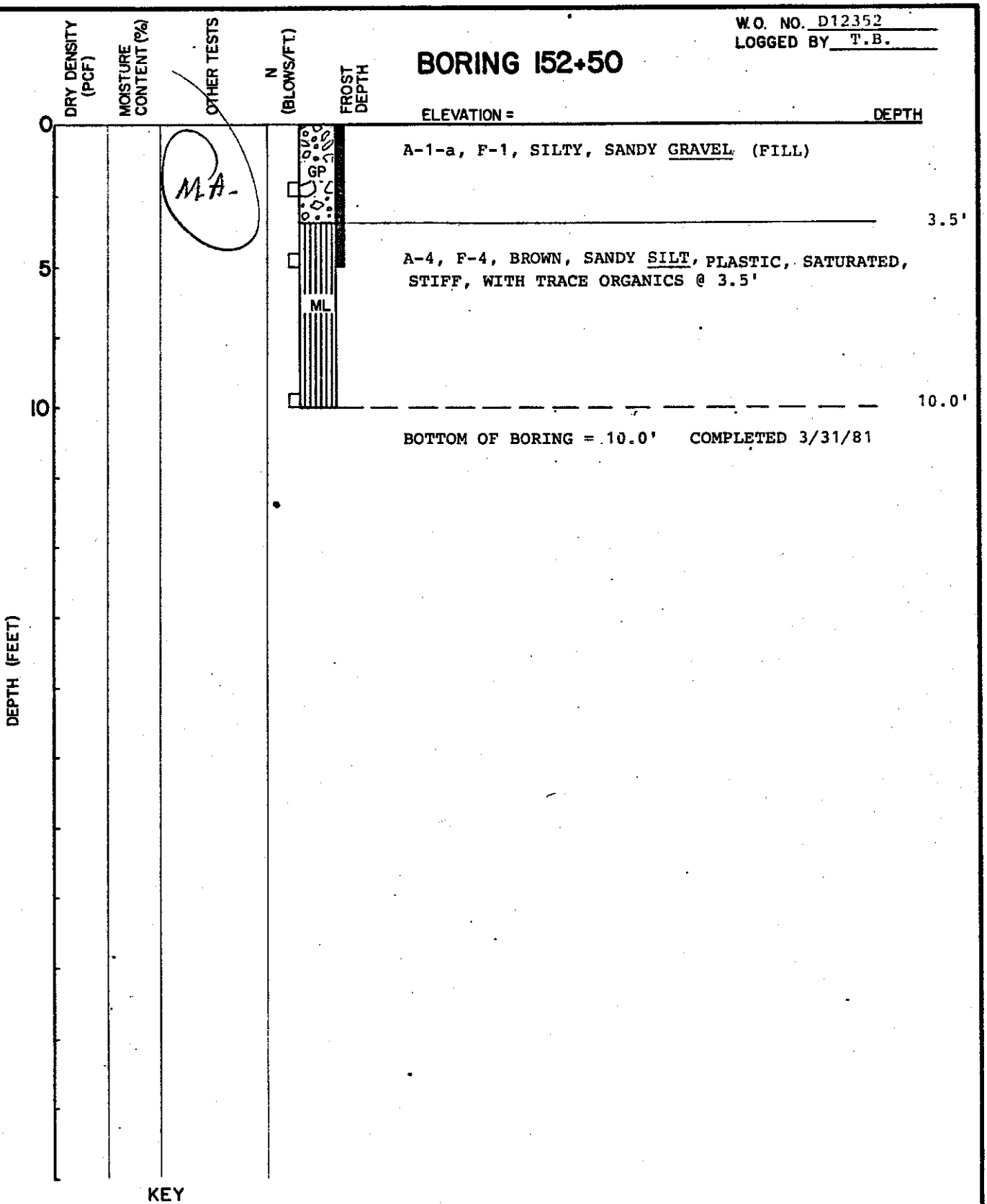
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 152+50



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

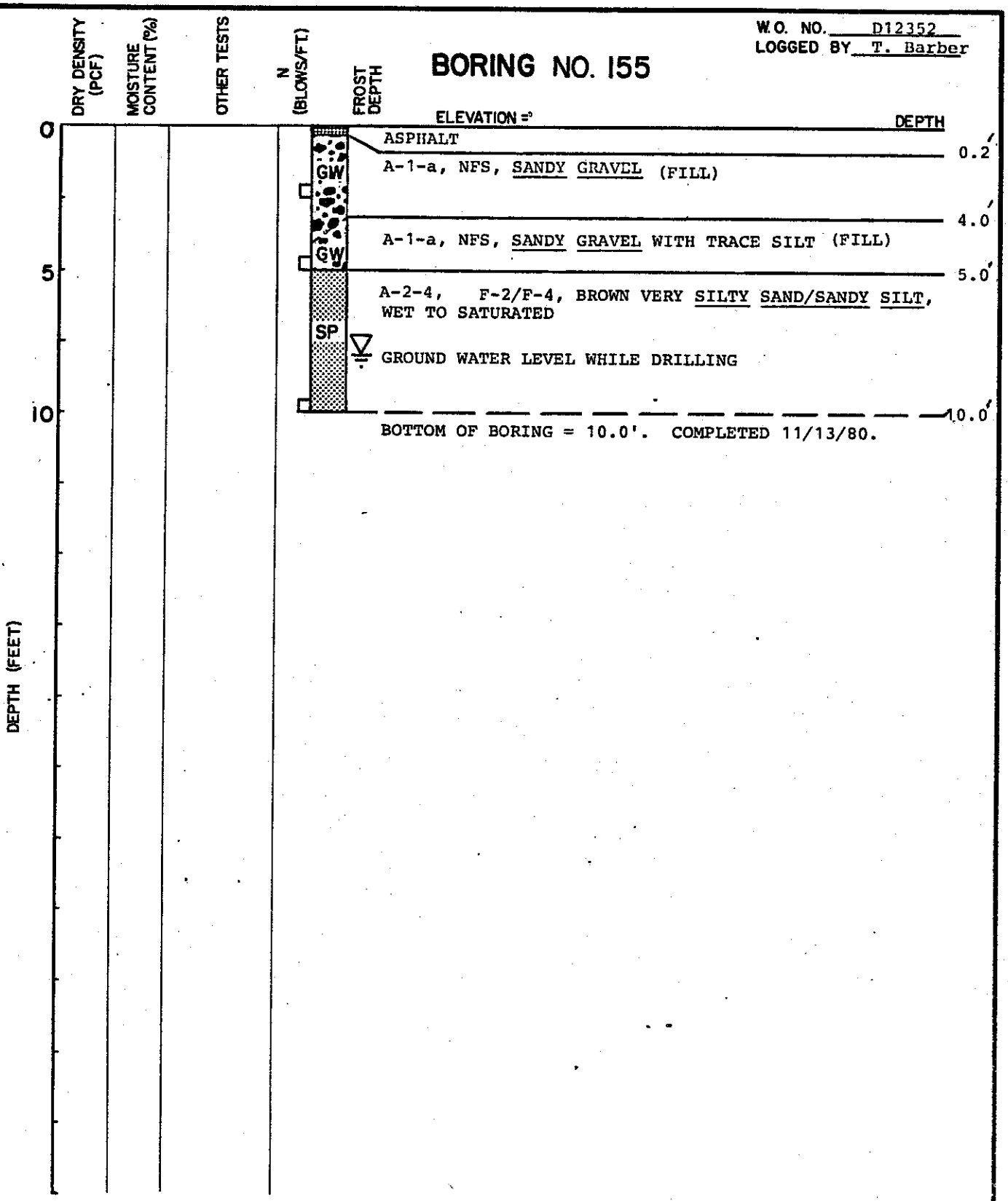
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 155



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 157

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.3'
	3.1	MA			GP GW A-1-a, F-1/F-2, BROWN, SANDY GRAVEL, SUBROUNDED, 1 1/2" GRAVEL, MOIST (FILL)	2.5'
					A-4, F-2/F-4, BROWN, VERY SILTY SAND, F-M, SAND, MOIST (FILL)	7.0'
					SM A-4, F-2/F-4, BROWN VERY SILTY SAND WITH TRACE GRAVEL, FINE TO MEDIUM SAND, MOIST (NATURAL SOILS)	12.0'
					ML SM A-4, F-4, BROWN SANDY SILT	15.0'

BOTTOM OF BORING = 15.0' COMPLETED 3/31/81

DEPTH (FEET)

0
5
10
15

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

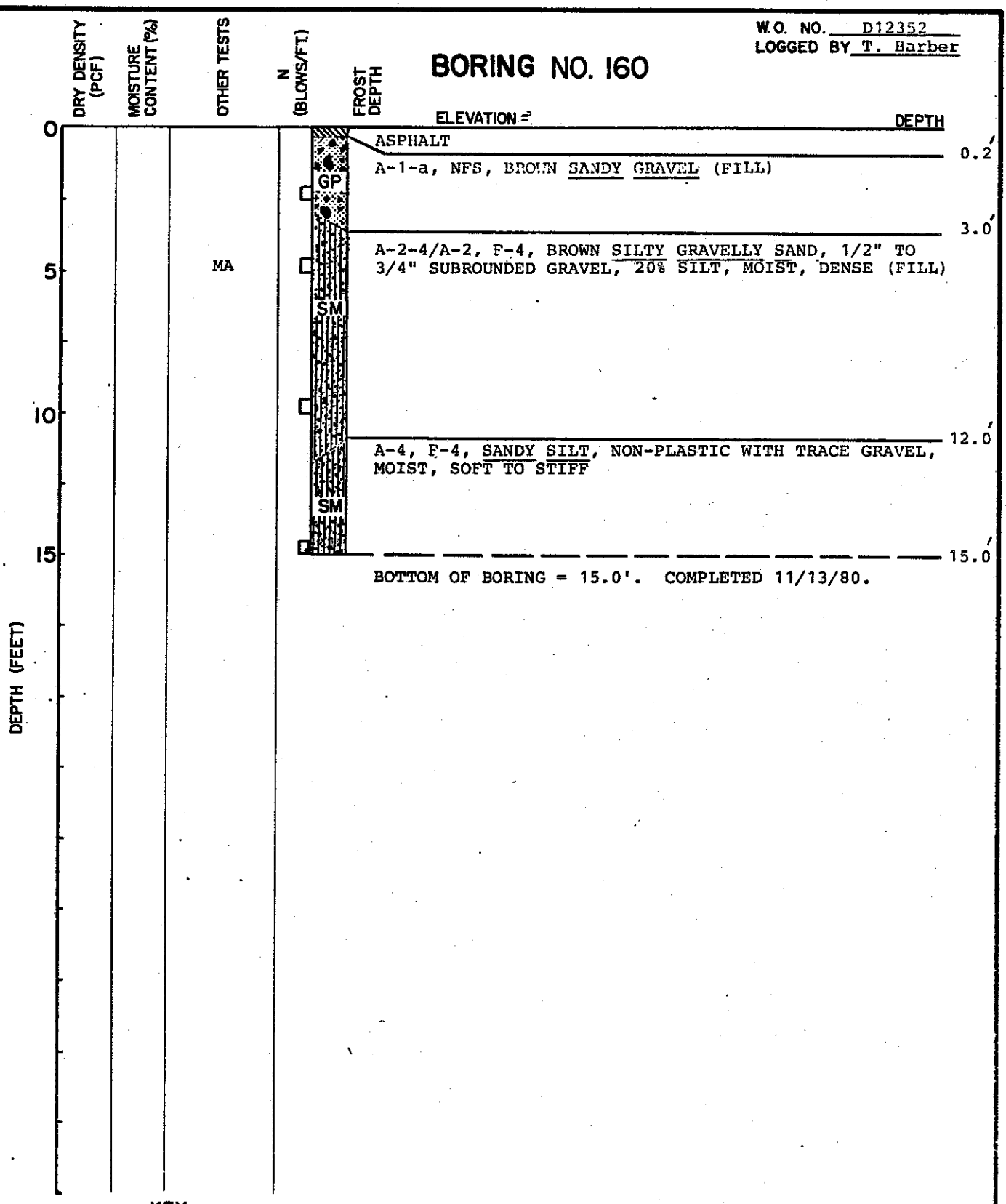
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 160



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

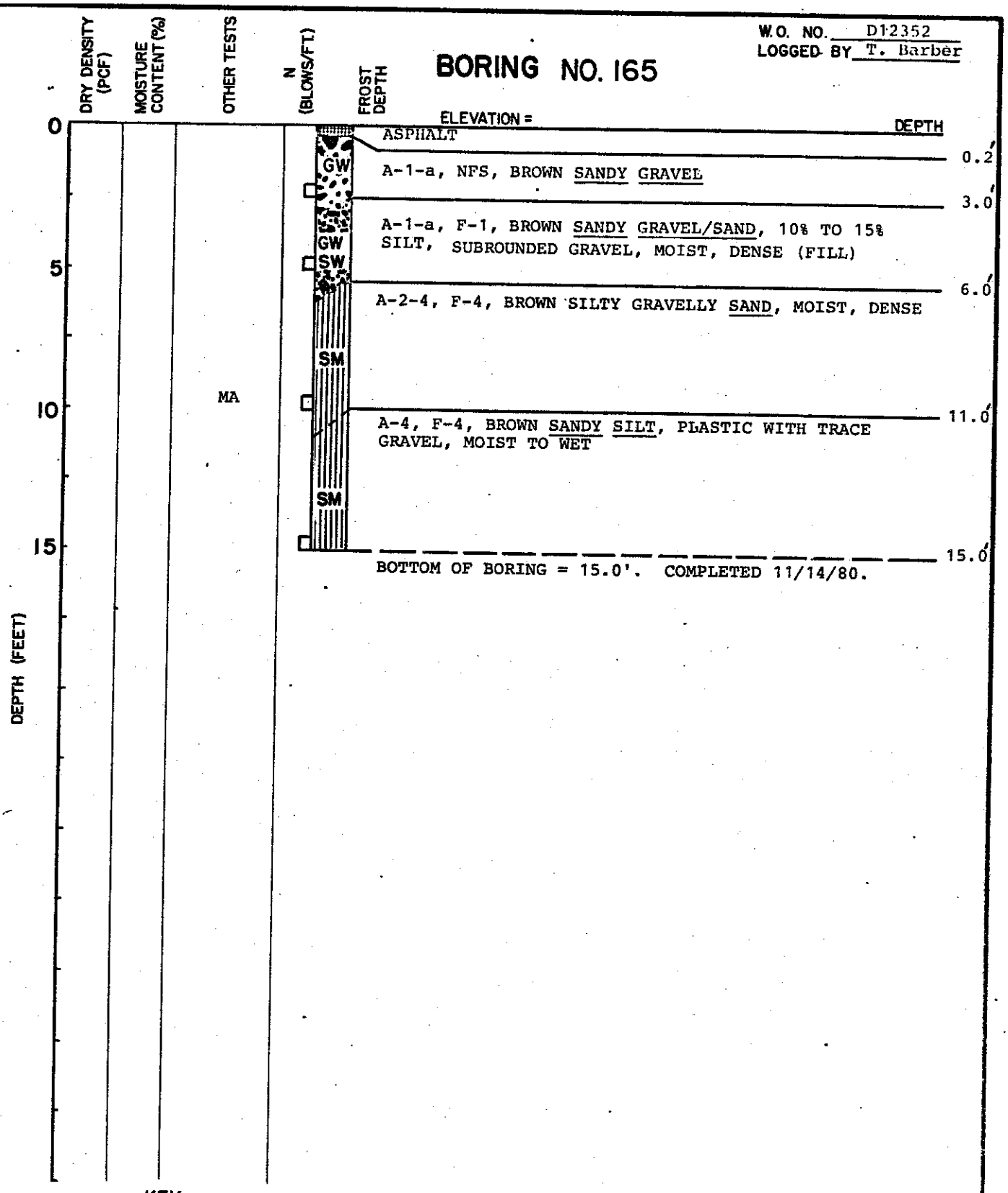
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 165



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS.
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

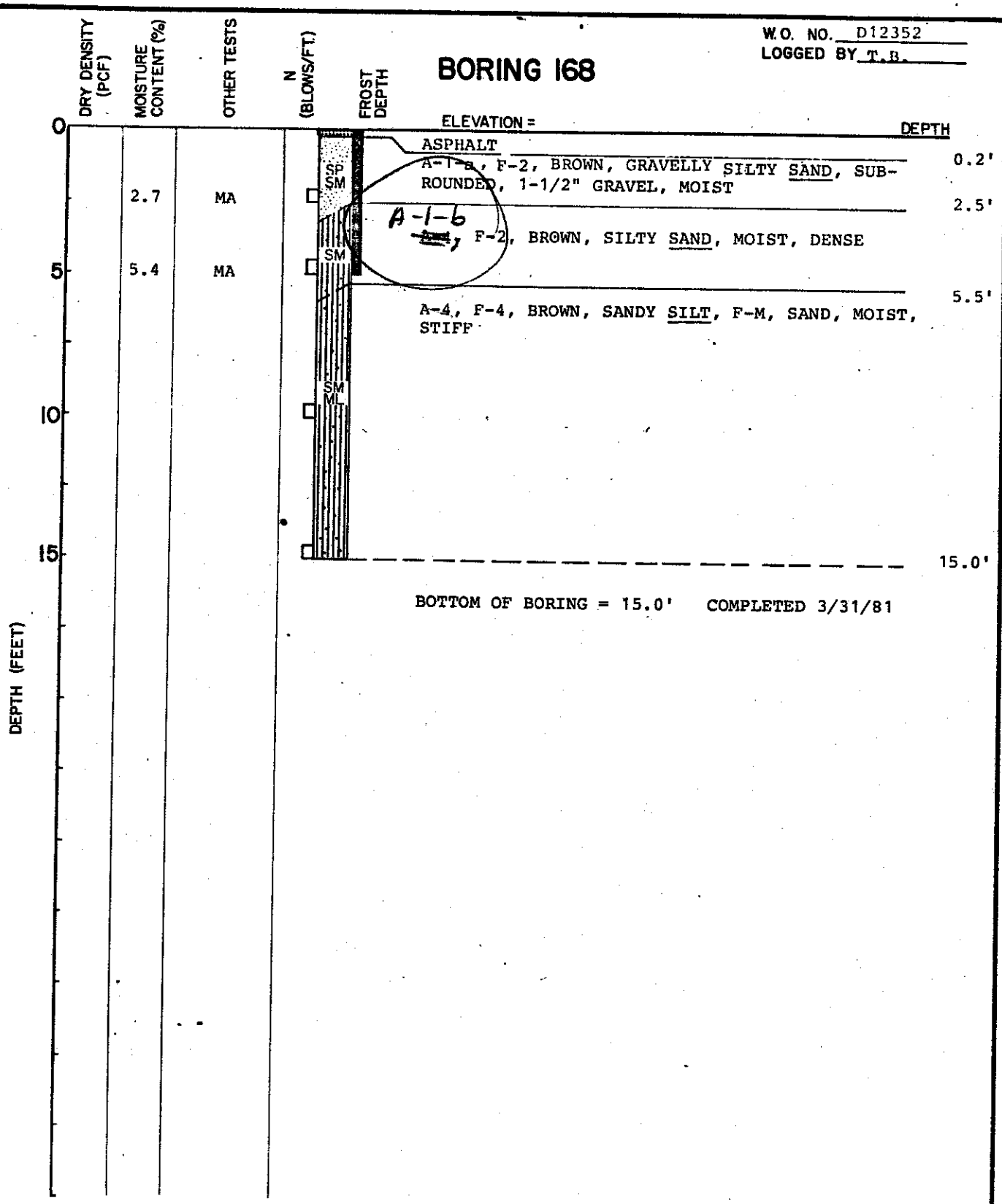
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 168



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 170

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION = DEPTH
0						ASPHALT 0.2'
			MA			SW SM A-1-a, F-2, BROWN GRAVELLY SAND
						A-4, F-4, BROWN GRAVELLY SILTY SAND, MOIST, STIFF 3.5'
5						SM
10			MA			10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/14/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
[S] - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

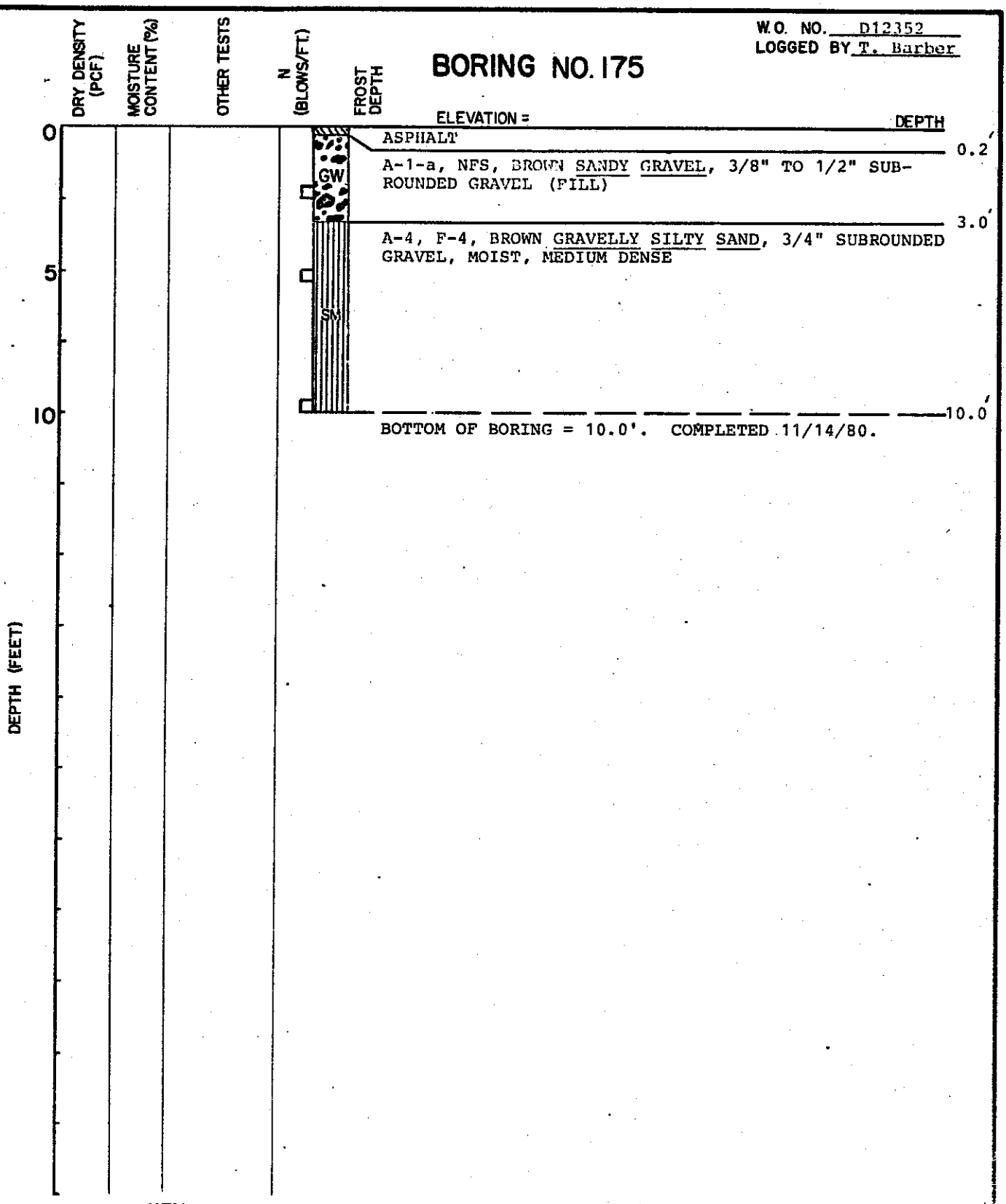
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 175



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

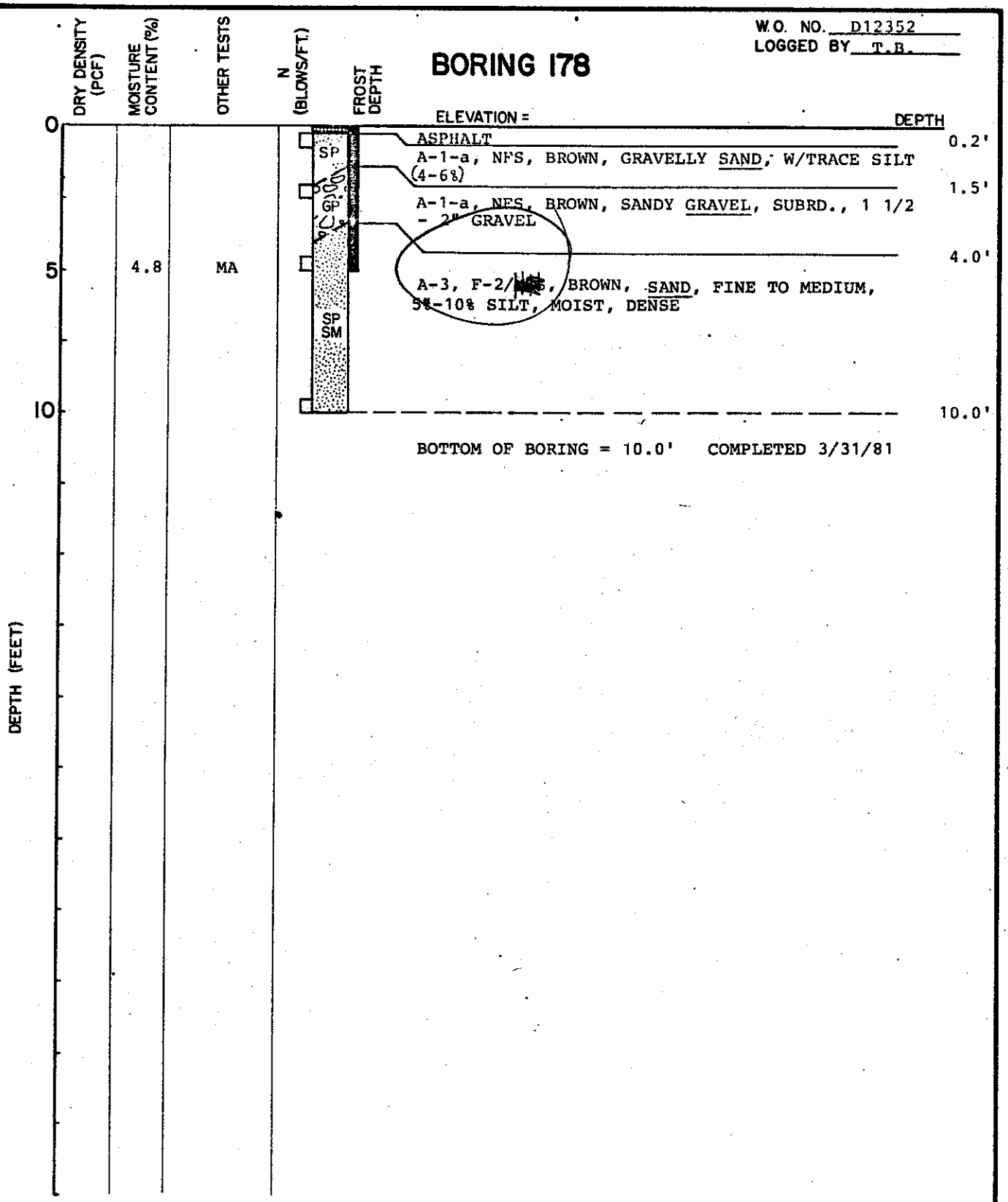
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 178



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

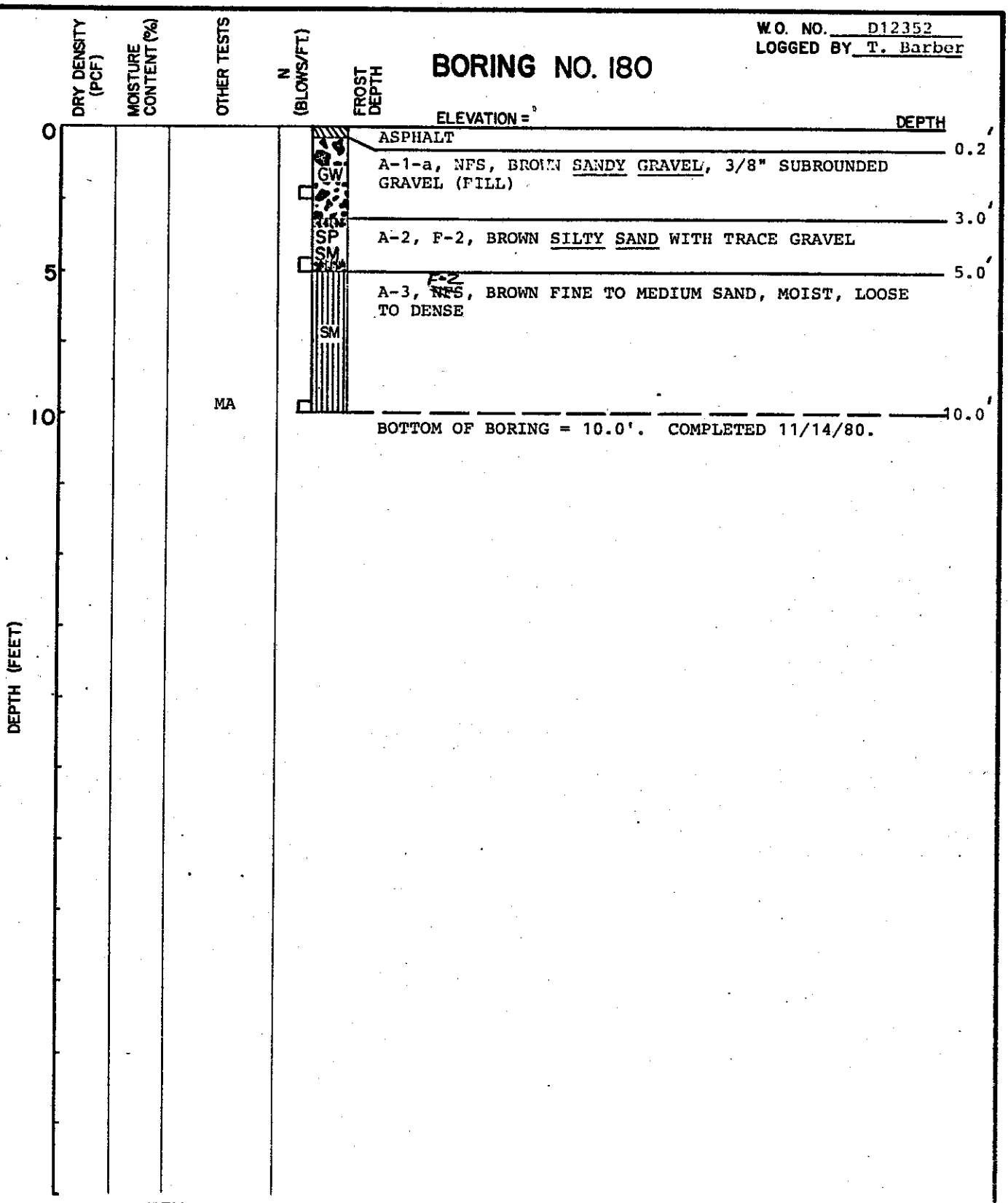
DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 180



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

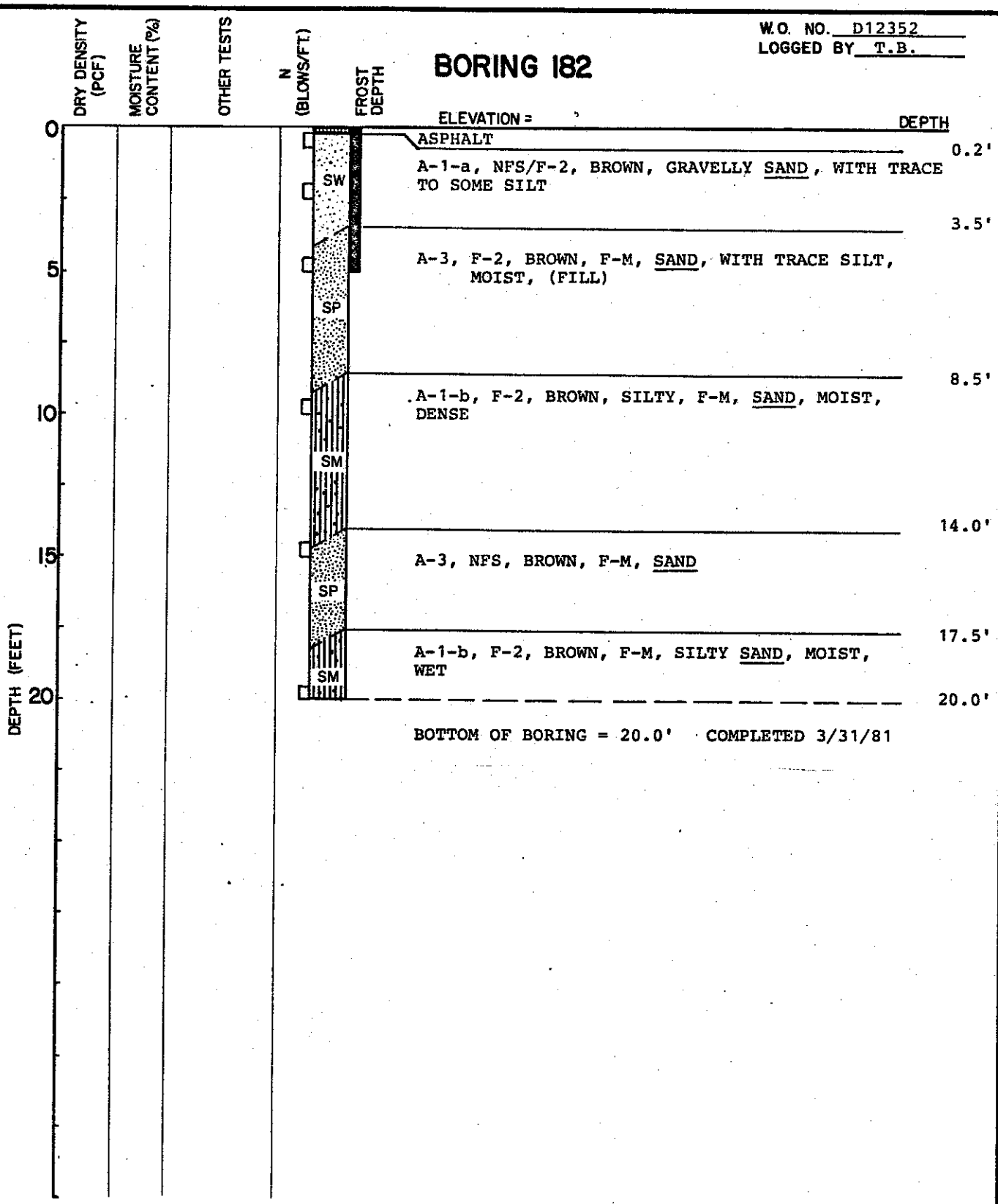
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 182



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOW

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 185

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = DEPTH

DEPTH (FEET)

0 — ASPHALT — 0.2'

GP — A-1-a, NFS, BROWN SANDY GRAVEL (FILL) — 4.5'

A-4, F-4, BROWN SILTY SAND, FINE SAND, 40%-50% SILT, TRACE GRAVEL, MOIST TO WET, MEDIUM DENSE (FILL)

5 — MA — 30 — SM

10 — 27

SM — 15 — 15

19.0'

A-3, NFS, BROWN FINE TO MEDIUM SAND

20 — SP — 12

21.5'

BOTTOM OF BORING = 21.5'. COMPLETED 11/14/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

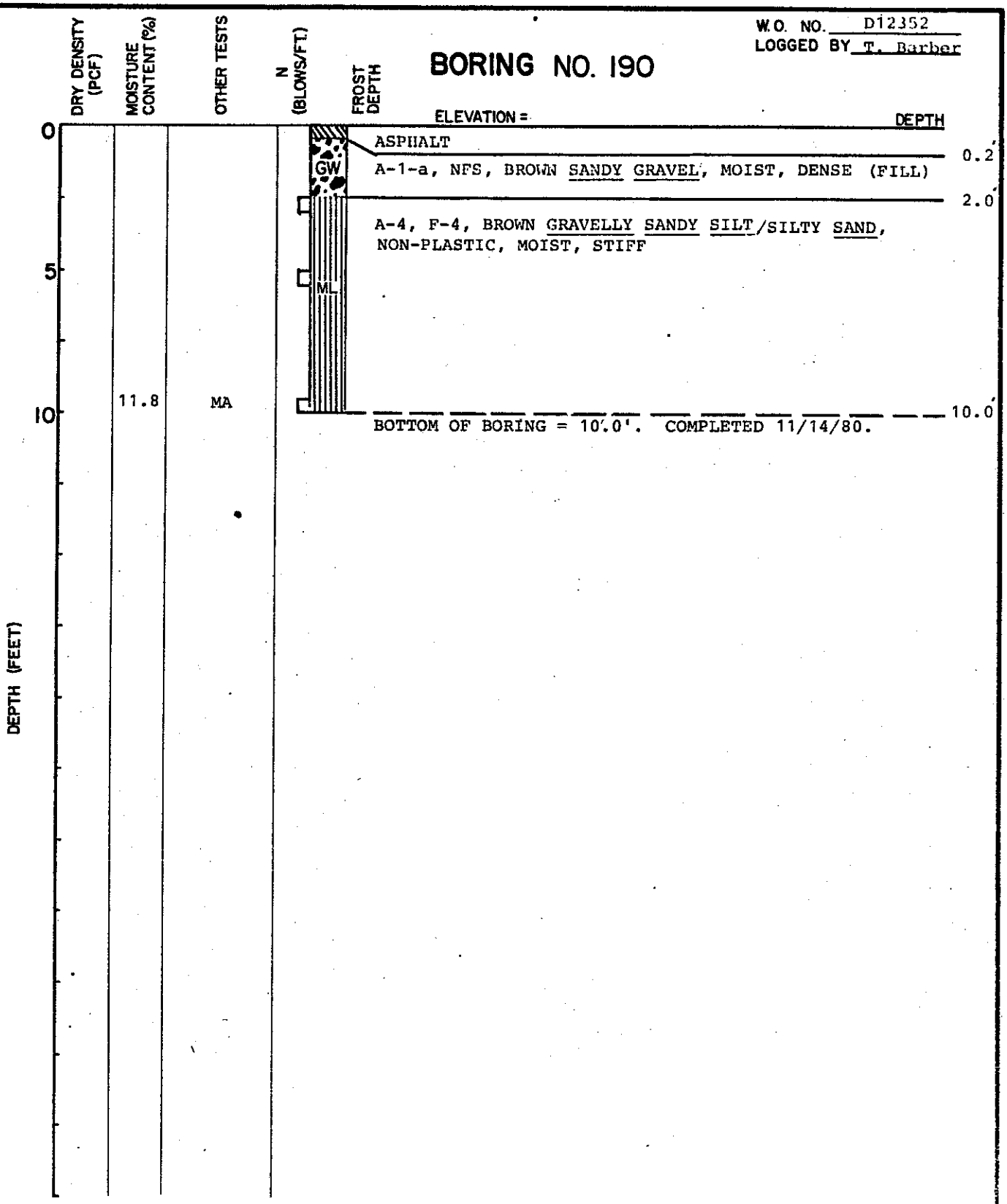
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 190



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 195

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH

ELEVATION = ' DEPTH

0

ASPHALT — 0.2'

GW

.A-1-a, NFS, BROWN SANDY GRAVEL (FILL)

GM

GRADES SILTIER WITH DEPTH — 4.5'

5

A-4, F-4, BROWN SANDY SILT

ML

▽ GROUND WATER LEVEL WHILE DRILLING

10

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/14/80.

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 200

Offset - 21' Left of Centerline

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
				GW	ASPHALT A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	0.2' 1.5'
		MA		SP	A-1-b, NFS, BROWN FINE TO MEDIUM SAND (FILL) F-2	2.5'
				ML	A-4, F-4, GRAVELLY SANDY SILT, 1" SUBROUNDED GRAVEL, MOIST, STIFF (FILL)	5.0'
				SM	A-2/A-4, F-2, BROWN SILTY SAND/SILT, MOIST, WET, DENSE	
					BOTTOM OF BORING = 10.0'. COMPLETED 11/14/80.	10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

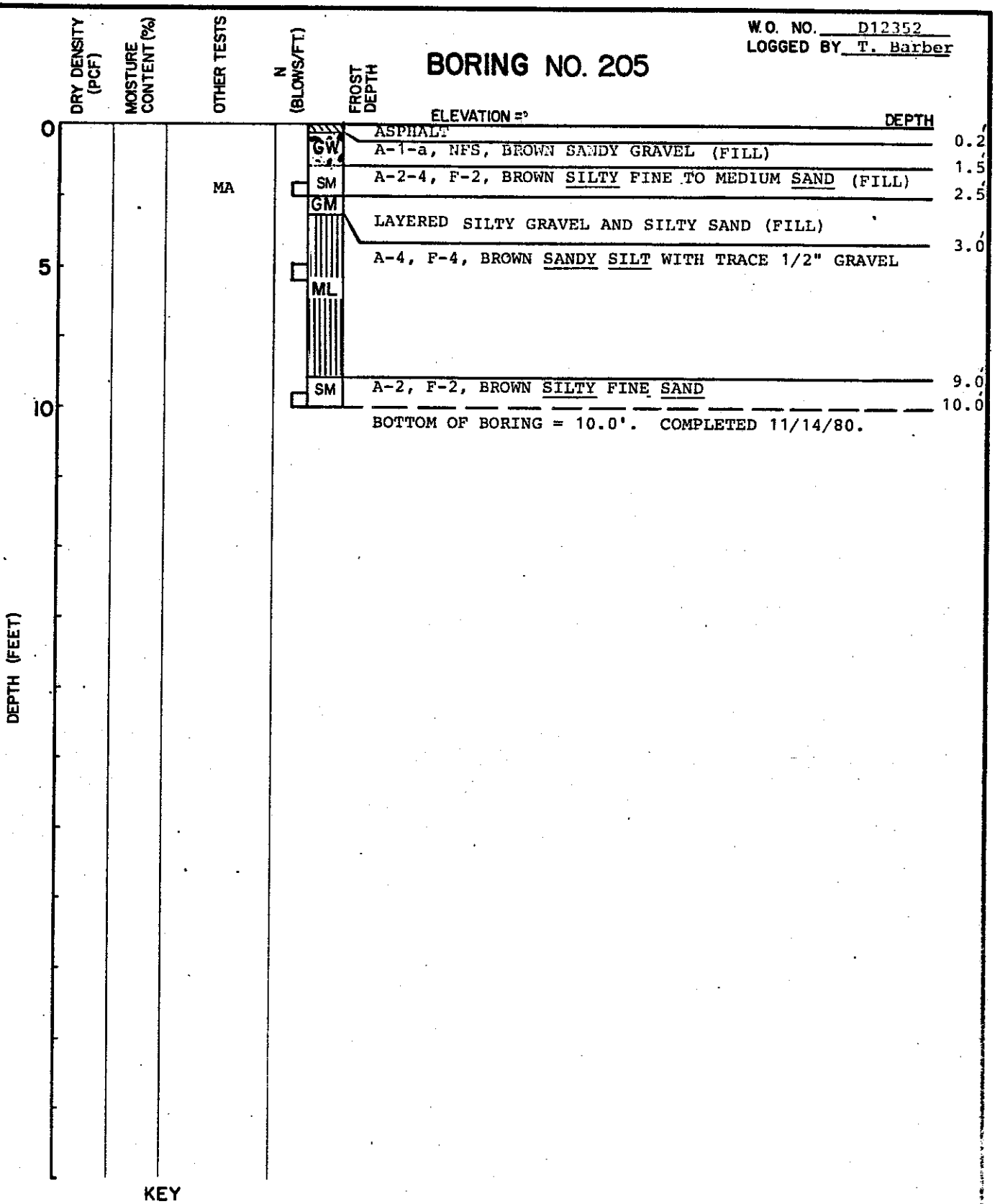
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 205



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

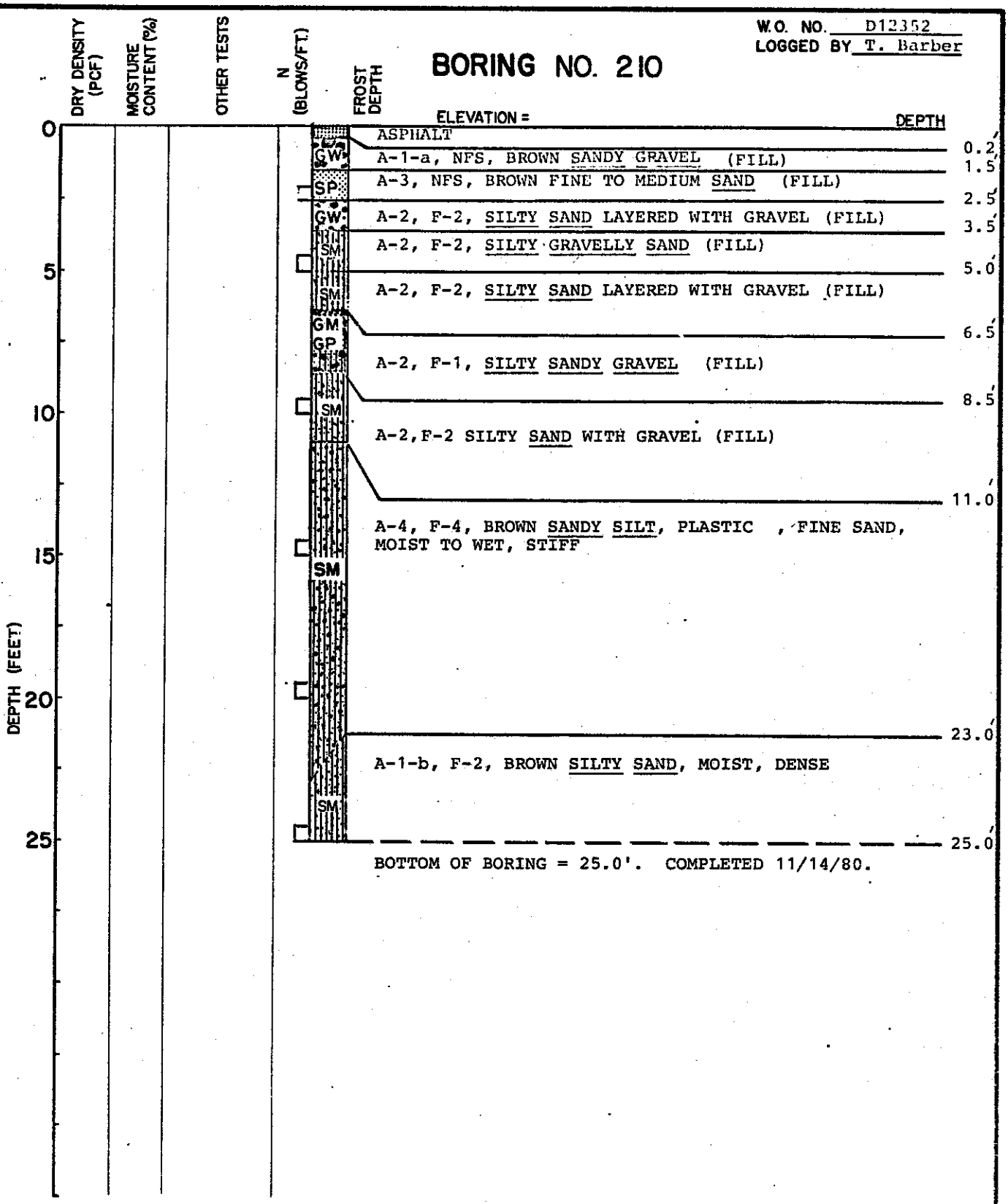
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 210



ELEVATION =		DEPTH
	ASPHALT	0.2'
	A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	1.5'
	A-3, NFS, BROWN FINE TO MEDIUM SAND (FILL)	2.5'
	A-2, F-2, SILTY SAND LAYERED WITH GRAVEL (FILL)	3.5'
	A-2, F-2, SILTY GRAVELLY SAND (FILL)	5.0'
	A-2, F-2, SILTY SAND LAYERED WITH GRAVEL (FILL)	6.5'
	A-2, F-1, SILTY SANDY GRAVEL (FILL)	8.5'
	A-2,F-2 SILTY SAND WITH GRAVEL (FILL)	11.0'
	A-4, F-4, BROWN SANDY SILT, PLASTIC , FINE SAND, MOIST TO WET, STIFF	23.0'
	A-1-b, F-2, BROWN SILTY SAND, MOIST, DENSE	25.0'

BOTTOM OF BORING = 25.0'. COMPLETED 11/14/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

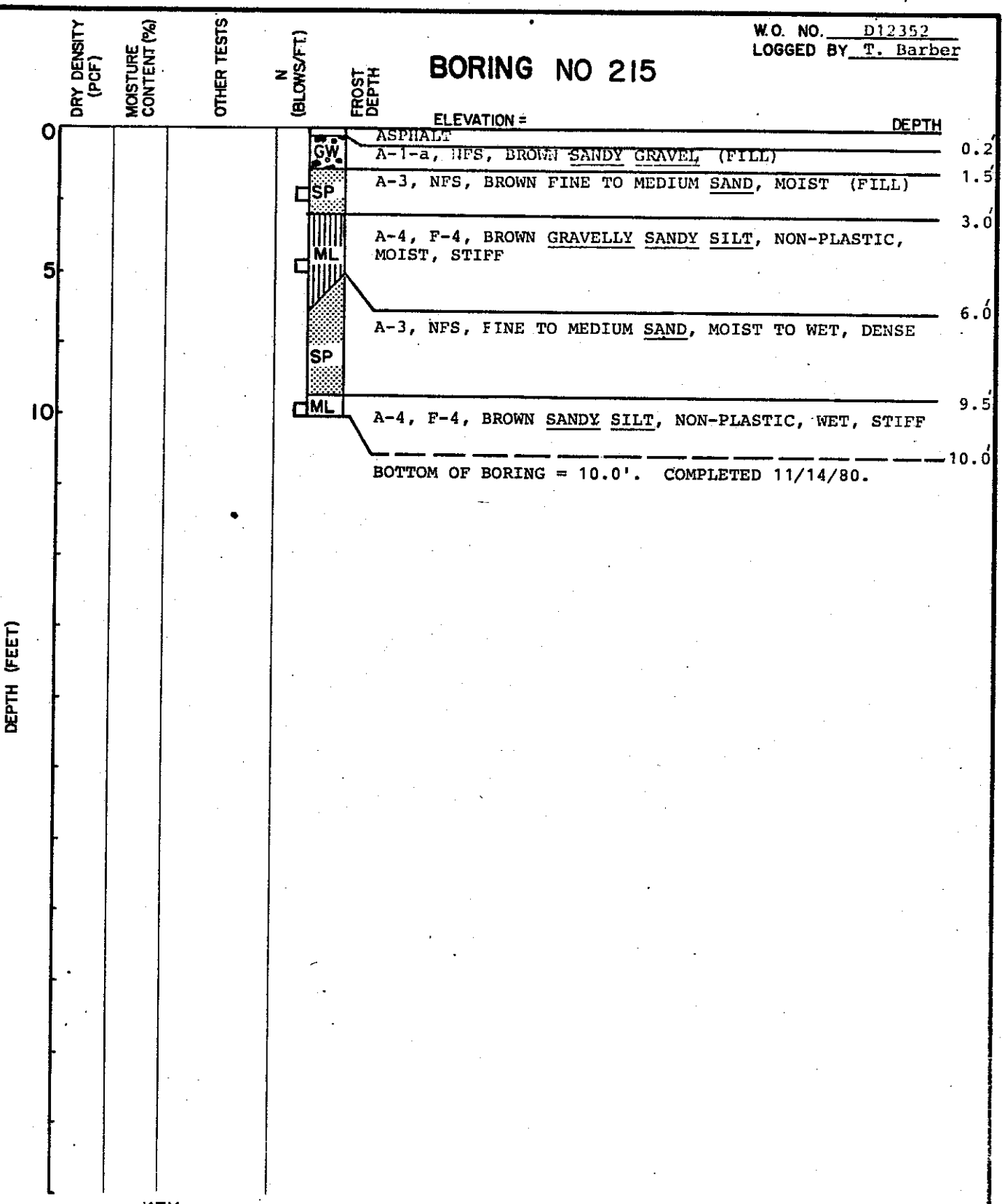
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 215



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

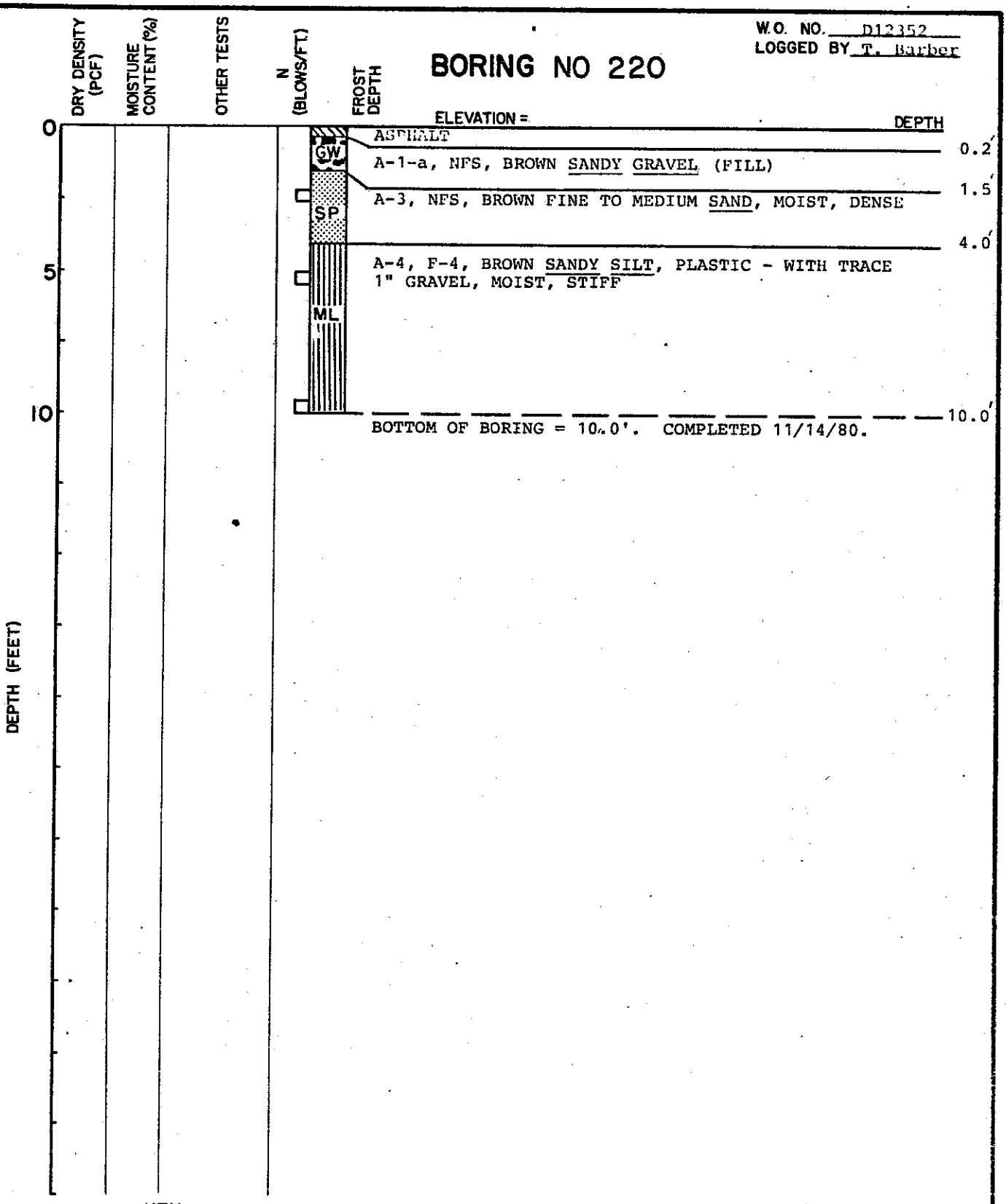
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 220



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 225

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION = °	DEPTH
0						ASPHALT	0.2'
					SP	A-2, NFS, BROWN GRAVELLY SAND	2.0'
			MA		SM	A-1-b, F-2, BROWN SILTY GRAVELLY SAND	3.0'
					SP	A-2-4, GRADES INTO F-2, BROWN SILT, FINE TO MEDIUM SAND, MOIST (FILL)	5.0'
5					ML SM	A-4, F-4, BROWN FINE SANDY SILT, PLASTIC +, WET, STIFF	
10						BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

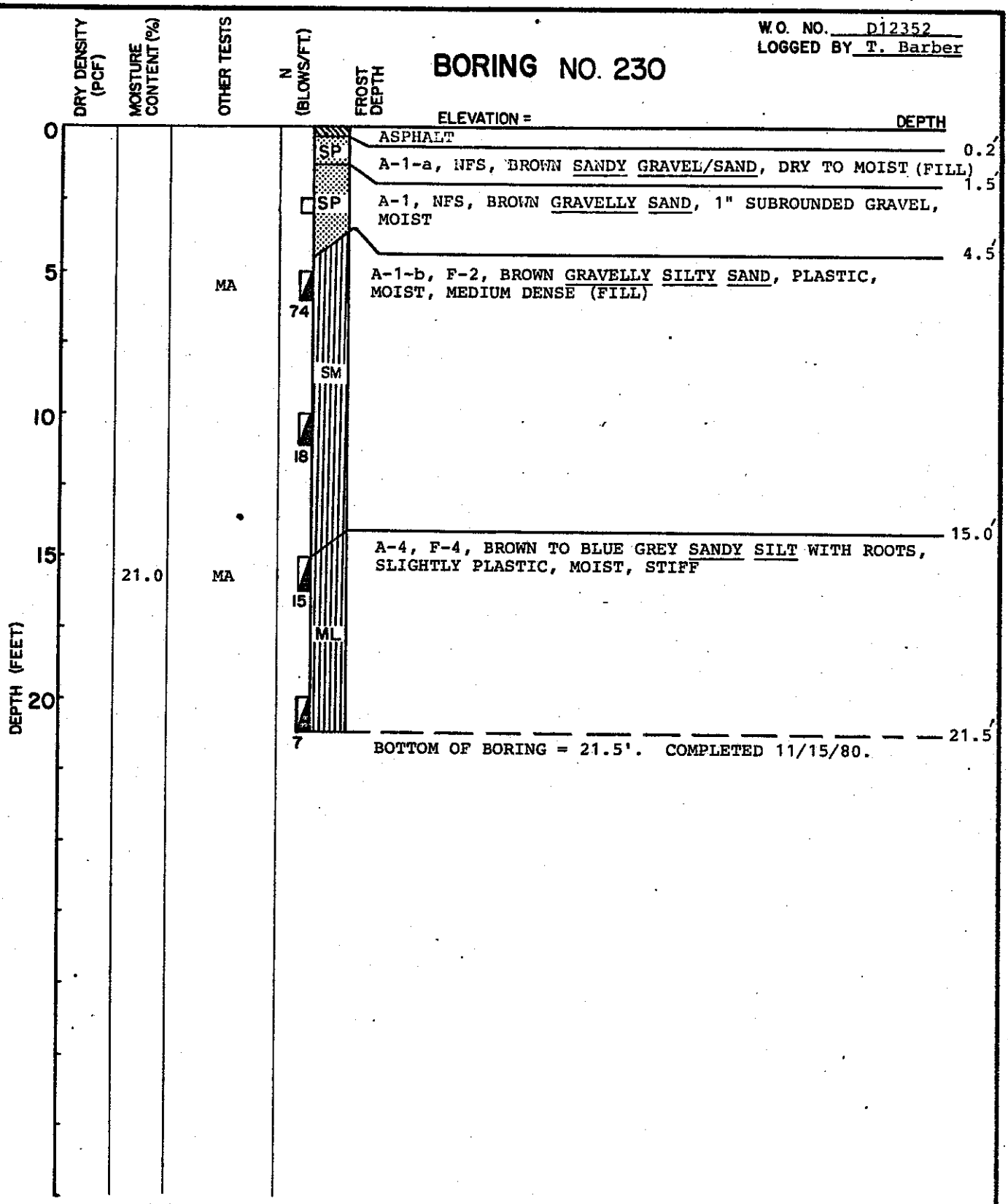
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 230



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

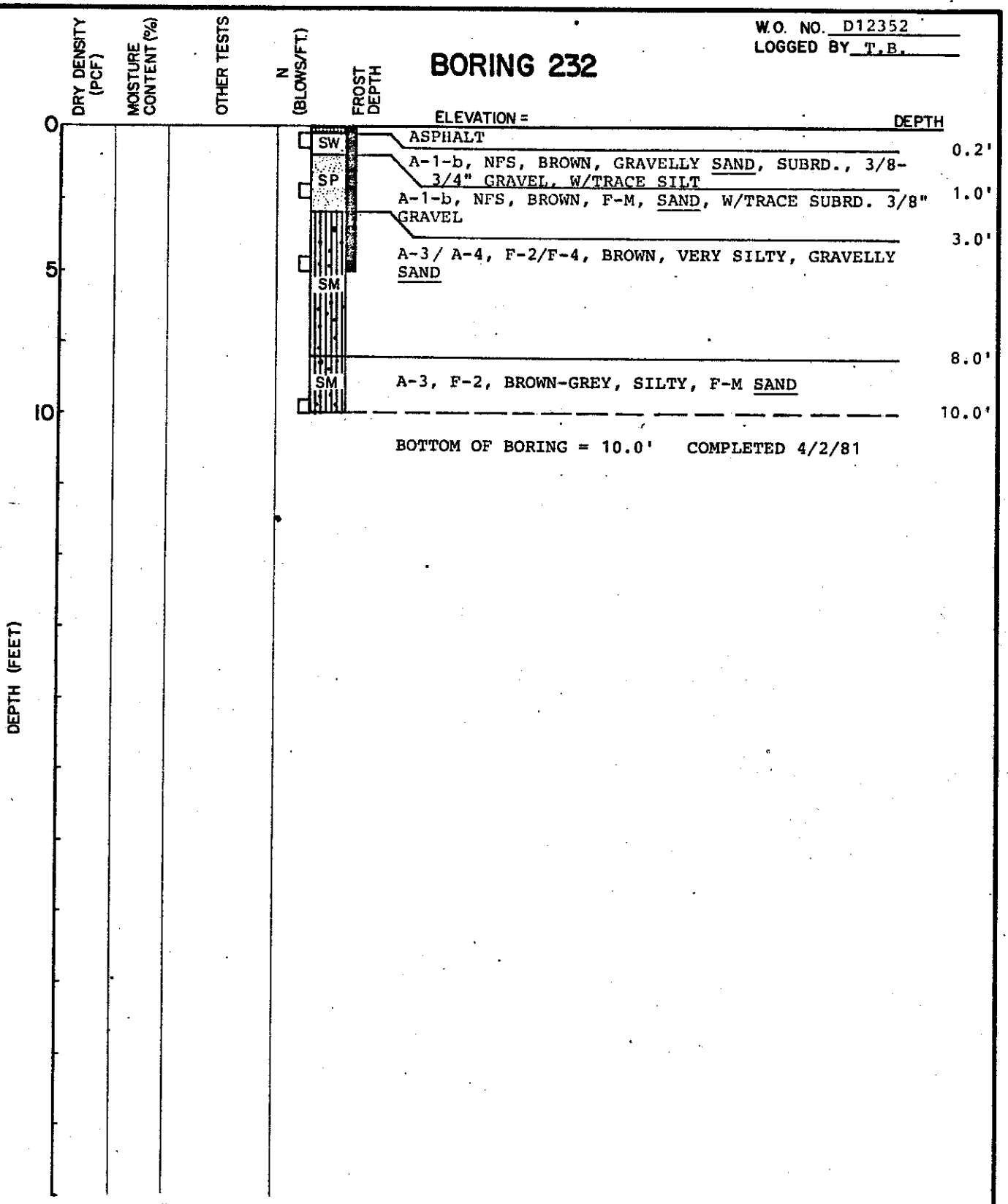
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 232



ELEVATION = DEPTH

ASPHALT 0.2'

A-1-b, NFS, BROWN, GRAVELLY SAND, SUBRD., 3/8-3/4" GRAVEL, W/TRACE SILT 1.0'

A-1-b, NFS, BROWN, F-M, SAND, W/TRACE SUBRD. 3/8" GRAVEL 3.0'

A-3/ A-4, F-2/F-4, BROWN, VERY SILTY, GRAVELLY SAND 8.0'

A-3, F-2, BROWN-GREY, SILTY, F-M SAND 10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 235

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = ?

	DEPTH
ASPHALT	0.2'
A-1-b, NFS, BROWN SANDY GRAVEL	1.5'
A-3, NFS, BROWN FINE TO MEDIUM SAND (FILL)	4.5'
A-3, F-2/NFS, BROWN SLIGHTLY SILTY SAND, MOIST, DENSE WITH SANDY SILT LENSES	
BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

GW
SP
SM

0
5
10

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 240

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					GW	A-1-a, NFS, BROWN SANDY GRAVEL	1.5'
					SP	A-3, NFS, BROWN FINE TO MEDIUM SAND (FILL)	
5							5.5'
					ML	A-4, F-4, BROWN SANDY SILT, PLASTIC , WET, STIFF	8.0'
		21.0	MA L_w = 21.7 PI = 6.4		SP	A-3, NFS, BROWN FINE TO MEDIUM SAND, WET, LOOSE TO DENSE	
10						BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 245

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION = DEPTH
0						ASPHALT — 0.2'
					GW	A-1, NFS, BROWN SANDY GRAVEL — 1.5'
					SP	A-3, NFS, BROWN FINE TO MEDIUM SAND, MOIST, LOOSE TO MEDIUM DENSE (FILL) — 3.0'
5					SP	A-1-b, F-2, BROWN SILTY SAND WITH TRACE GRAVEL, MOIST, DENSE — 5.0'
					SM	A-4, F-4, BROWN SILTY SAND WITH TRACE GRAVEL, 40% NON-PLASTIC SILT, SHARP TO SUBROUNDED GRAVEL, MOIST, STIFF
10		12.1	MA			BOTTOM OF BORING = 10.0'. COMPLETED 11/14/80. — 10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

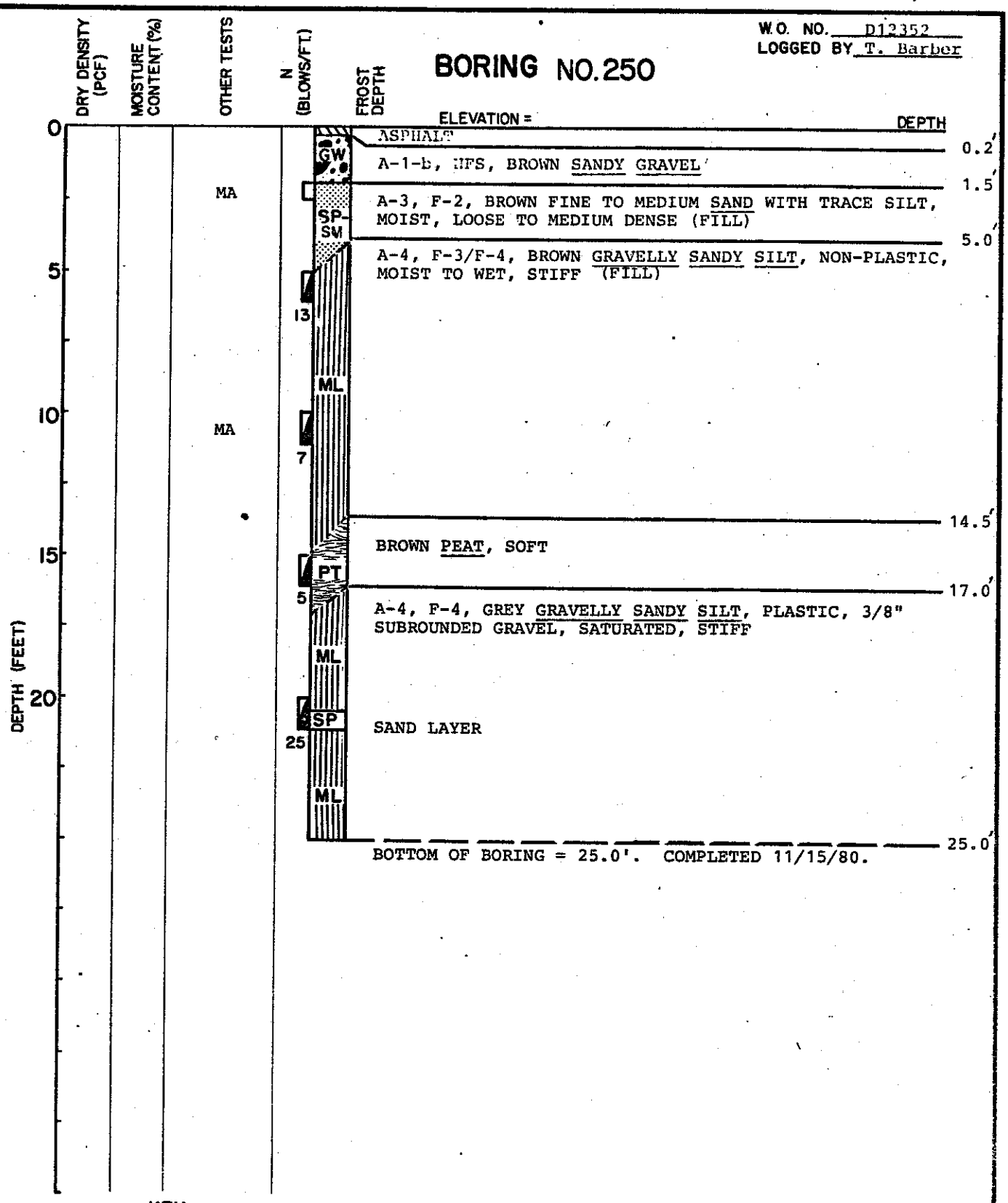
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 250



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

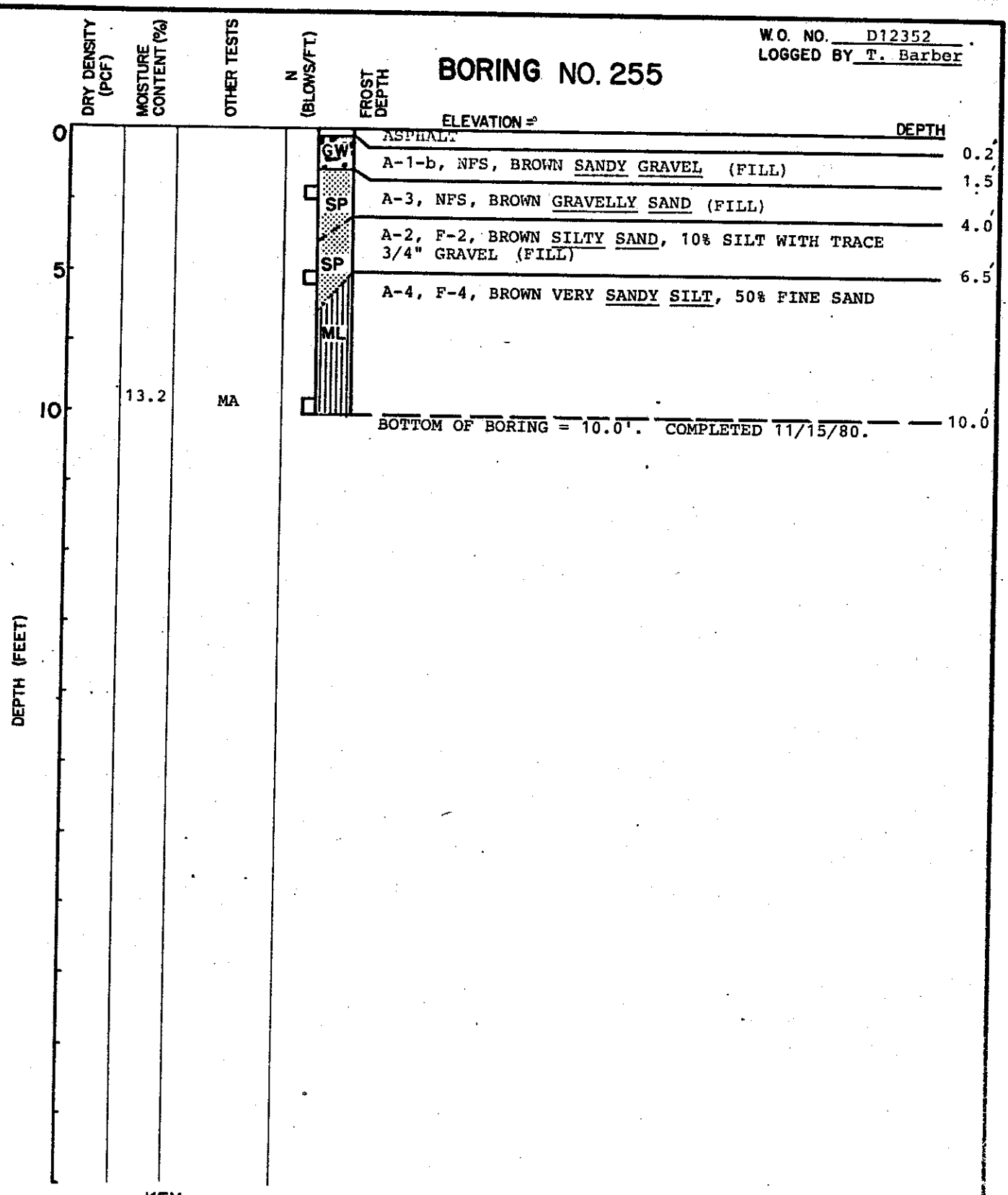
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 255



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

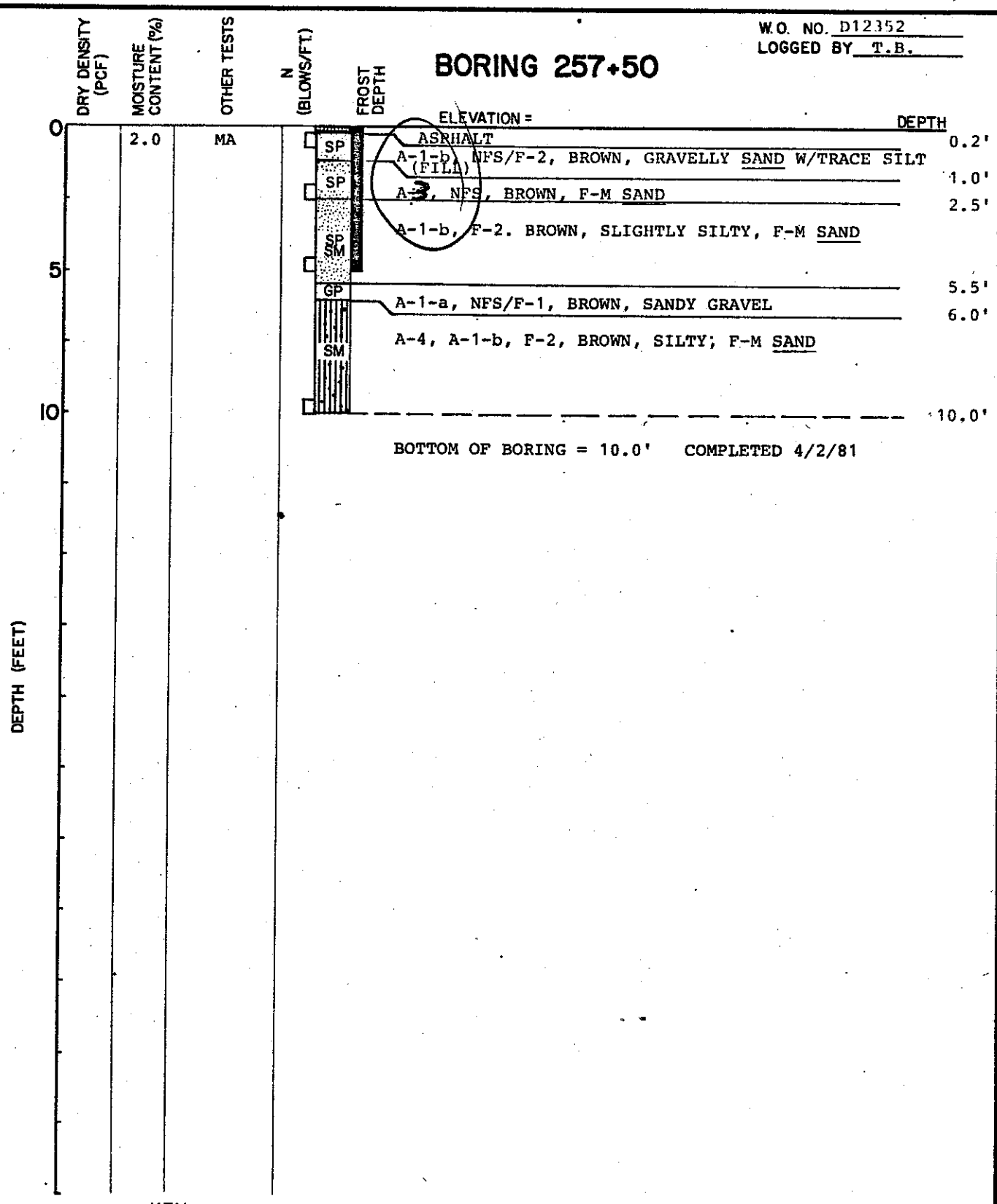
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 257+50



BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 260

Offset - 16' Right of Centerline

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION = ?	DEPTH
					ASPHALT	0.2'
				SP	A-3, NFS, BROWN GRAVELLY SAND (FILL)	1.5'
		MA			A-3, NFS, BROWN FINE TO MEDIUM SAND, MOIST, LOOSE TO DENSE	
				SP		
					BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

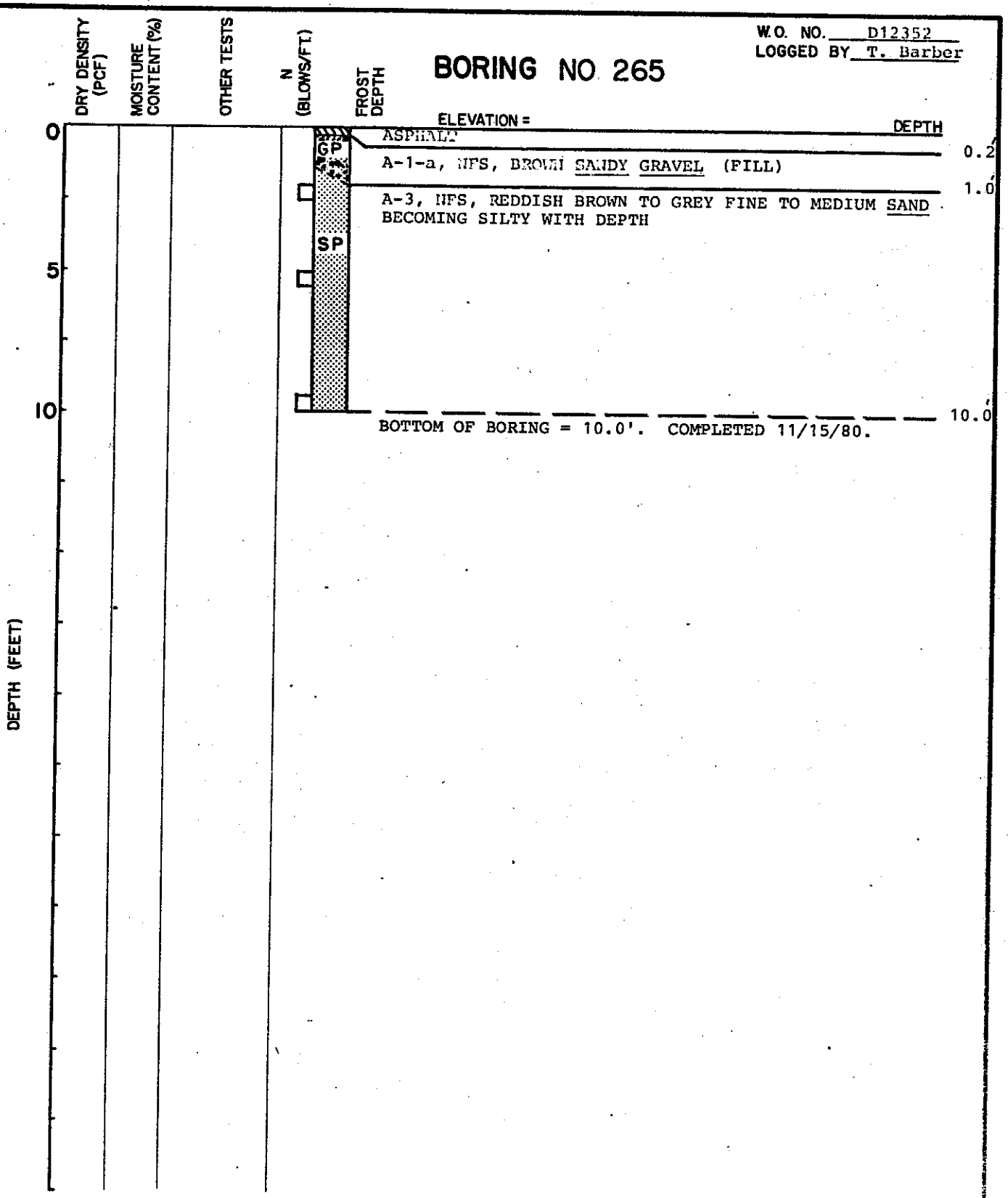
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 265



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS-
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 268

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION = DEPTH
0						ASPHALT 0.2'
					SP	A-3, F-2, BROWN, GRAVELLY SAND 2.5'
		4.3	MA		SM	A-2-4 A-1-b, F-2, BROWN, GRAVELLY SAND, SUBROUNDED, 1/2" GRAVEL, W/SOME SILT TO 12%
5		7.1	MA		SM	SILT CONTENT INCREASES TO 20% (A-2-4) 4.0'
					SM	7.0'
					SM	A-3, NFS/F-2, BROWN, F-M SAND, WITH TRACE SILT (4-6%)
10						10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- □ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
- [S] – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

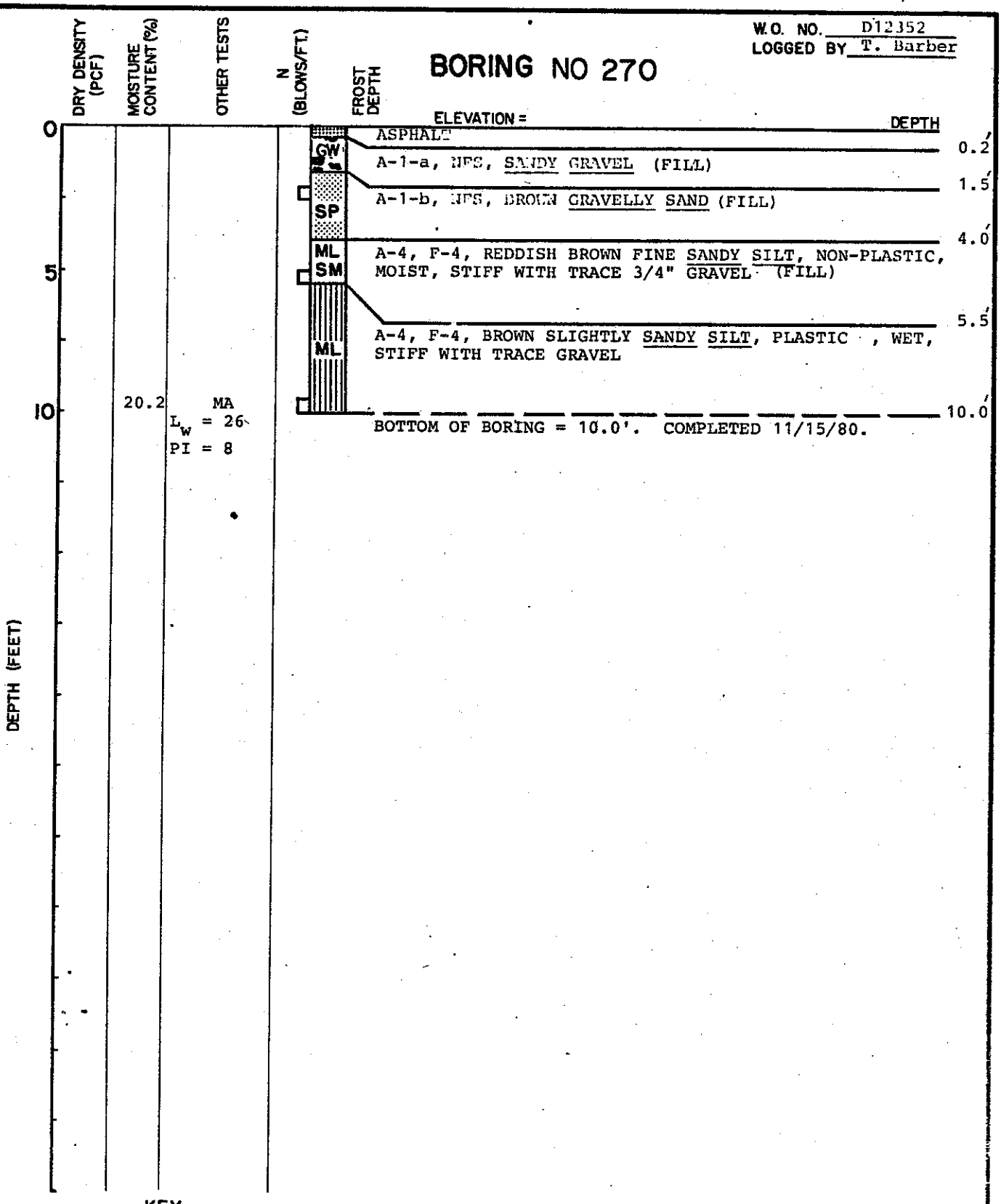
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 270



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 275

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH

ELEVATION = ' DEPTH

ASPHALT 0.2'

GW A-1-a, NFS, BROWN SANDY GRAVEL (FILL) 1.0'

SP SM A-2, F-2, BROWN TO GREY SILTY SAND (FILL) 2.5'

ML A-4, F-4, BROWN SANDY SILT, NON-PLASTIC, WET, SOFT

GM GRAVEL LAYER.

ML

7.5'

SM A-2-4, F-2, BROWN FINE TO MEDIUM SAND WITH SOME SILT, MOIST TO WET, LOOSE TO DENSE

MA

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

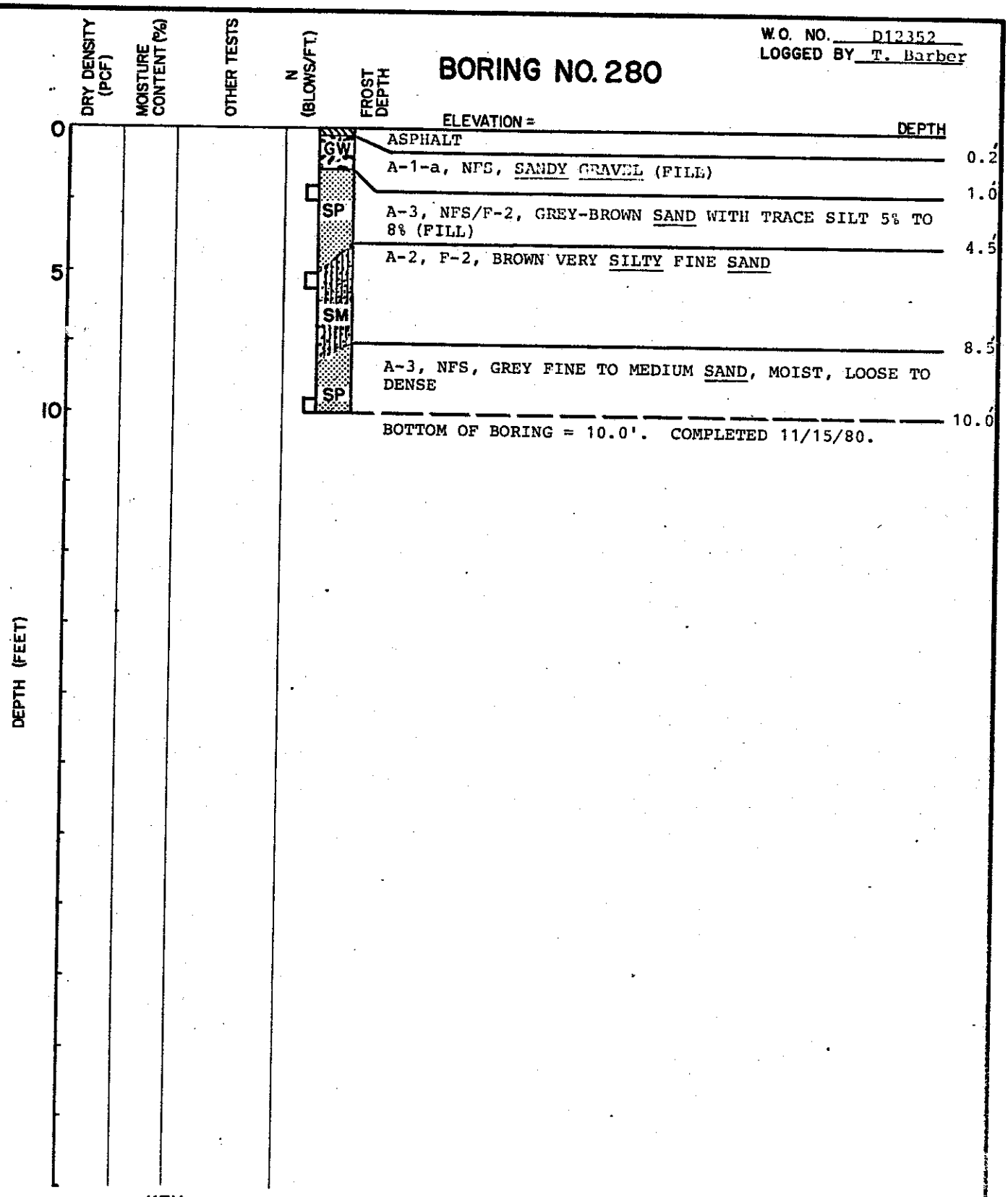
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 280



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 282

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					SW	A-1-b, NFS, BROWN, GRAVELLY SAND	1.0'
					SP	A-3, F-2, BROWN, F-M SAND, WITH TRACE 3/4" GRAVEL, WET	3.5'
5		26.6	MA		ML	A-4, F-4, BROWN, F-M, SANDY SILT	6.0'
					SP	A-3, NFS, BROWN, F-M SAND, MOIST	
10							10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.310

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
		MA		

ELEVATION = DEPTH

ASPHALT 0.2'

SW GW A-1-a, NFS/F-1, GRAVELLY SAND/GRAVEL WITH TRACE SILT, APPROXIMATELY 10% SILT (FILL)

3.0'

GW A-1-a, NFS, BROWN SANDY GRAVEL, 1-1/2" SUBROUNDED GRAVEL, MOIST, MEDIUM DENSE TO VERY DENSE

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 285

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH
	6.0	MA		

ELEVATION = ° DEPTH

ASPHALT 0.2'

A-1-a, NFS, BROWN SANDY GRAVEL (FILL) — SP — 3.5'

A-3, F-2, BROWN FINE TO MEDIUM SAND WITH TRACE TO SILTY 5.0' TO 10.0', WET, MEDIUM DENSE WITH SILTY SAND LENSING BY 6.5' — SP SM

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80. — 10.0'

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

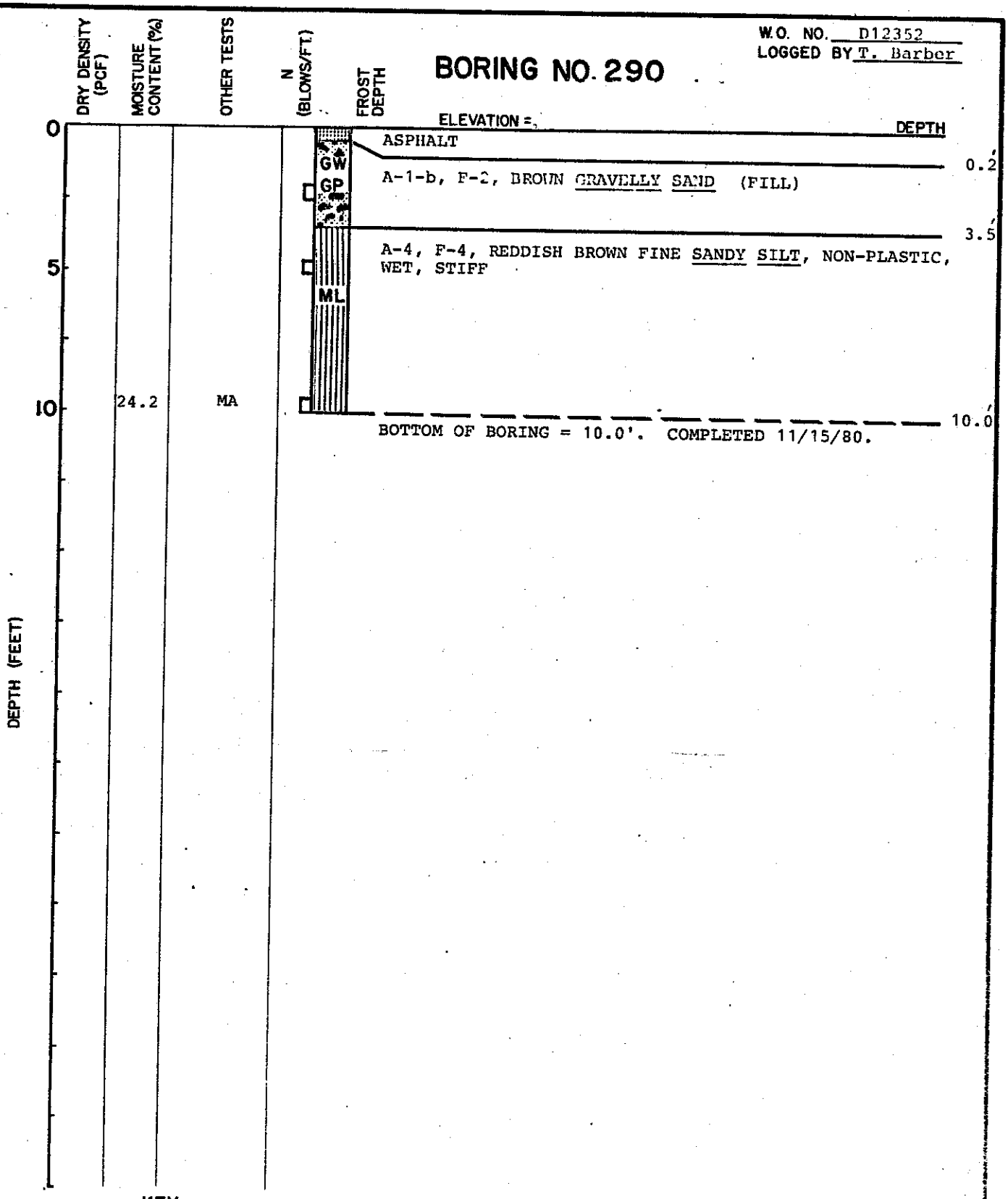
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 290



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 295

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
	3.3	MA		

ELEVATION = ° DEPTH

ASPHALT 0.2'

A-2-4, F-2, BROWN SILTY GRAVELLY SAND/GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, DENSE (FILL) GM 3.0'

A-4, F-3/F-4, REDDISH BROWN SILTY SAND, FINE TO MEDIUM SAND, 20% TO 30% SILT, MOIST TO WET, LOOSE TO DENSE SM

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80. 10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 300

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = ?

	DEPTH
ASPHALT	0.2'
A-1-a, NFS, SANDY GRAVEL (FILL)	2.0'
A-2-4, F-2, BROWN-REDDISH BROWN SILTY SAND WITH TRACE GRAVEL, MOIST	
GRAVELLY LAYER	
BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

0
5
10

DEPTH (FEET)

GW
SP
SM
GW
SP

6.9

MA

MA Reports F-4

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 305

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH

ELEVATION = ' DEPTH

ASPHALT 0.2'

A-1-a, F-1, BROWN SANDY GRAVEL/SAND, 3/4" TO 1" SUBROUNDED GRAVEL, MOIST, DENSE TO MEDIUM DENSE

GP GM

MA

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80. 10.0'

DEPTH (FEET)

0 5 10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 315

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0				GW		ASPHALT	0.2'
			MA			A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, DRY (FILL)	2.0'
5				SM		A-1-b, F-2, BROWN FINE TO MEDIUM SILTY SAND WITH TRACE GRAVEL, MOIST, DENSE (FILL)	7.0'
10				SM		A-2, F-4/F-2, BROWN SILTY SAND WITH TRACE 3/4" GRAVEL, MOIST TO WET, DENSE (FILL)	12.5'
15				GW		A-1-a, NFS/F-1, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST, MEDIUM DENSE (FILL)	17.5'
20		9.8	MA	SM		A-2-4, F-2/F-4, GREY SILTY GRAVELLY SAND, WET TO SATURATED, DENSE	
						GROUND WATER LEVEL WHILE DRILLING	
25						BOTTOM OF BORING = 25.0'. COMPLETED 11/16/80.	25.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.320

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
		MA		

ELEVATION = DEPTH

ASPHALT 0.2'

A-2-4, F-2, LAYERED FINE TO MEDIUM SAND AND SANDY GRAVEL WITH LENSES OF SILTY SAND, MOIST TO WET, MEDIUM DENSE

SM

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80. 10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 325

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH

ELEVATION = DEPTH

ASPHALT 0.2'

A-1-b, F-2, BROWN GRAVELLY SAND (FILL) SM 3.0'

A-1-b, NFS, BROWN GRAVELLY SAND LAYERED WITH SANDY GRAVEL SW 6.5'

A-3, F-2, MEDIUM SILTY SAND, MOIST, MEDIUM DENSE SM 7.5'

BOTTOM OF BORING = 7.5'. COMPLETED 11/15/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

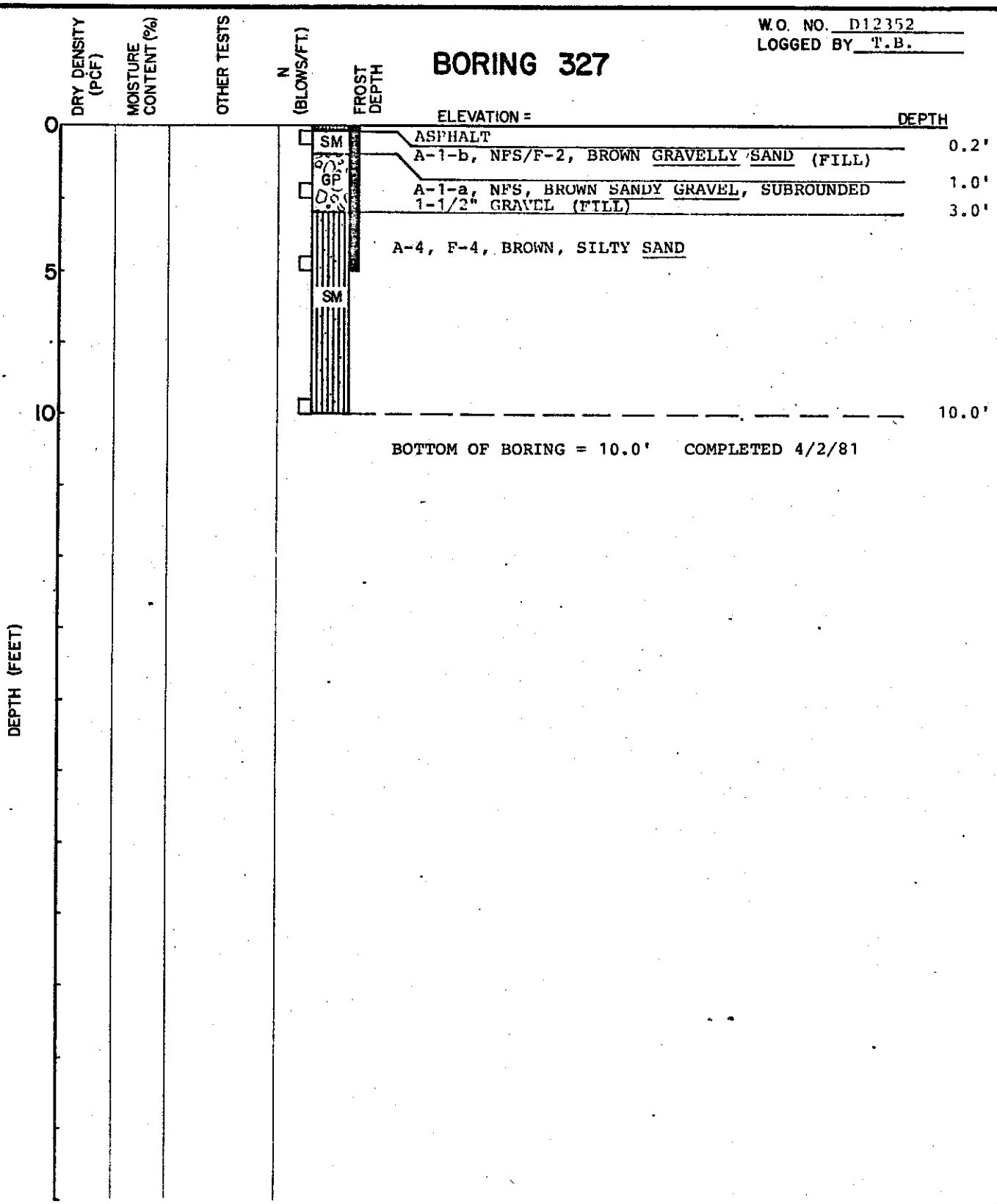
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 327



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- [S] – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 330

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = DEPTH

ASPHALT — 0.2'

A-1-a, F-1, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, DRY TO MOIST (FILL) — GW GP — 4.0'

BROWN PEAT — PT — 5.0'

A-3, F-2, GREY SILTY SAND, FINE TO MEDIUM SAND WITH TRACE GRAVEL LAYERING, WET TO SATURATED, LOOSE — SP SM

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80. — 10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

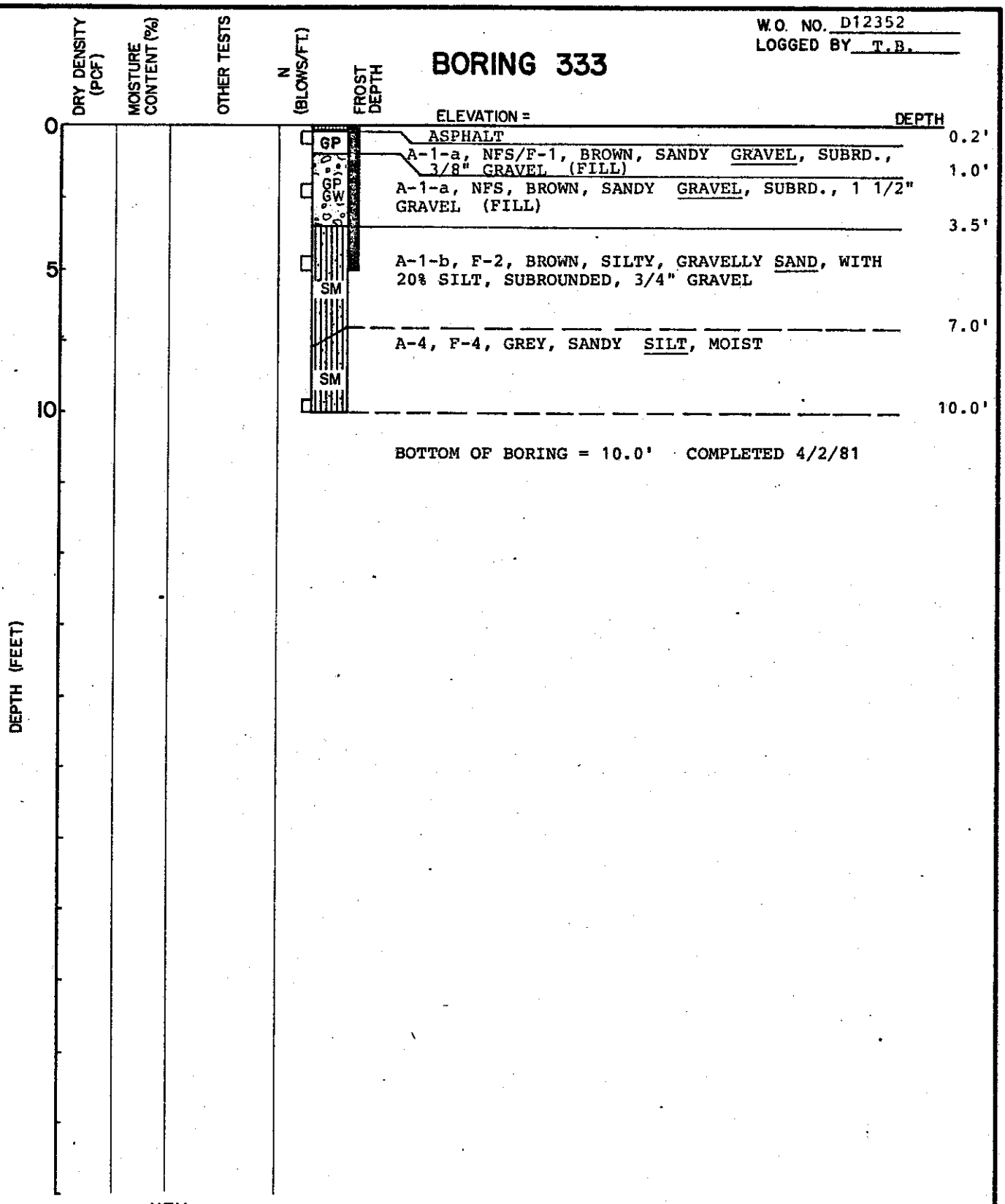
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 333



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

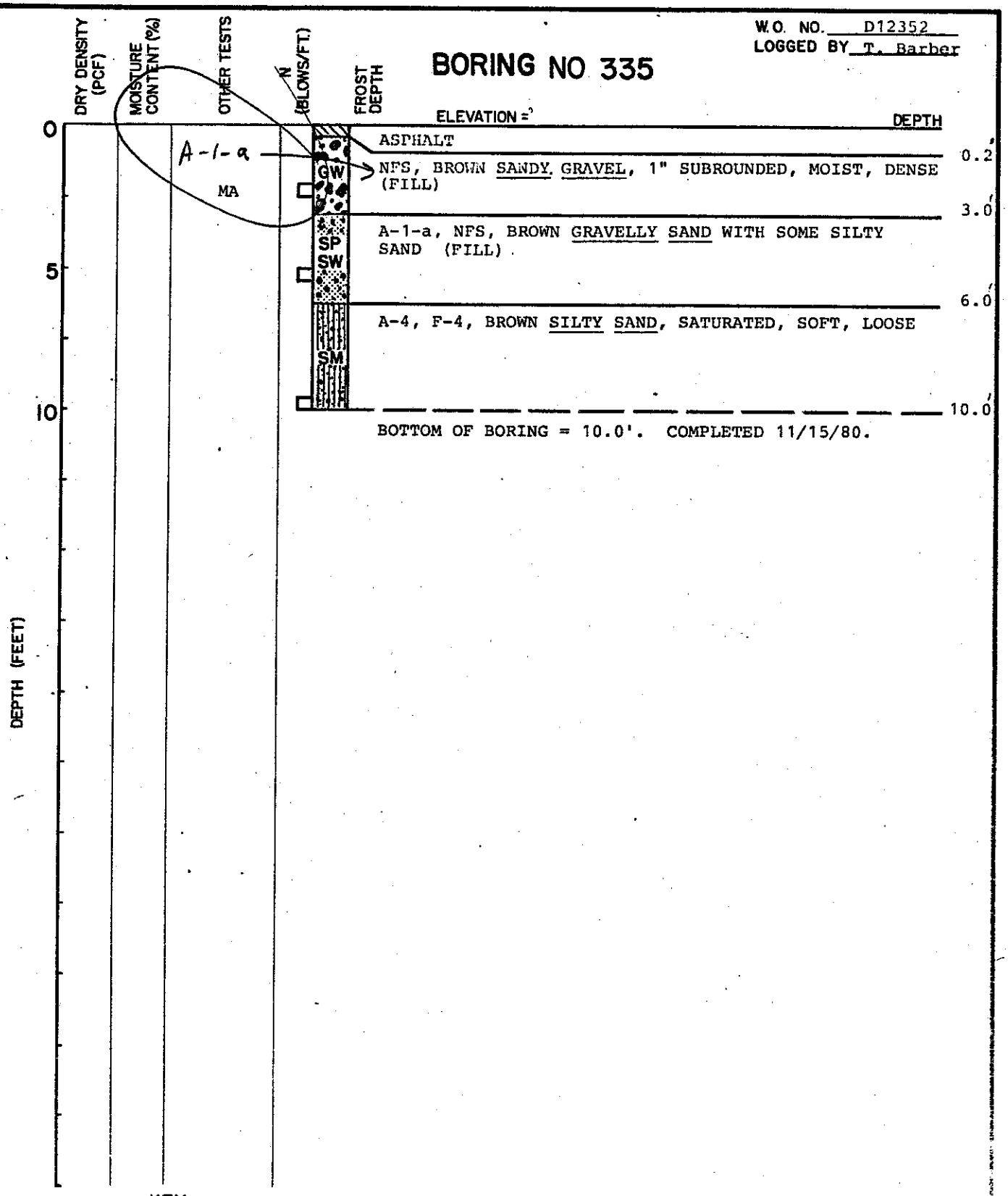
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 335



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 340

Offset - 18' Left of Centerline

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
						GW — A-1-a, NFS, BROWN SANDY GRAVEL, 1" SUBROUNDED GRAVEL, MOIST (FILL)	4.0'
5		14.5	MA			SM — A-4, F-4, BROWN TO GREY SILTY SAND, NON-PLASTIC, FINE SAND WITH GRAVEL LAYERING, MOIST	
10						BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 345

Offset = 17' Right of Centerline

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
				GW	ASPHALT	0.2'
					A-1-a, HPS, BROWN SANDY GRAVEL (FILL)	1.5'
				SM	A-3, F-2, BROWN SILTY SAND/SILT WITH TRACE GRAVEL	
					GROUND WATER LEVEL WHILE DRILLING	
					BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

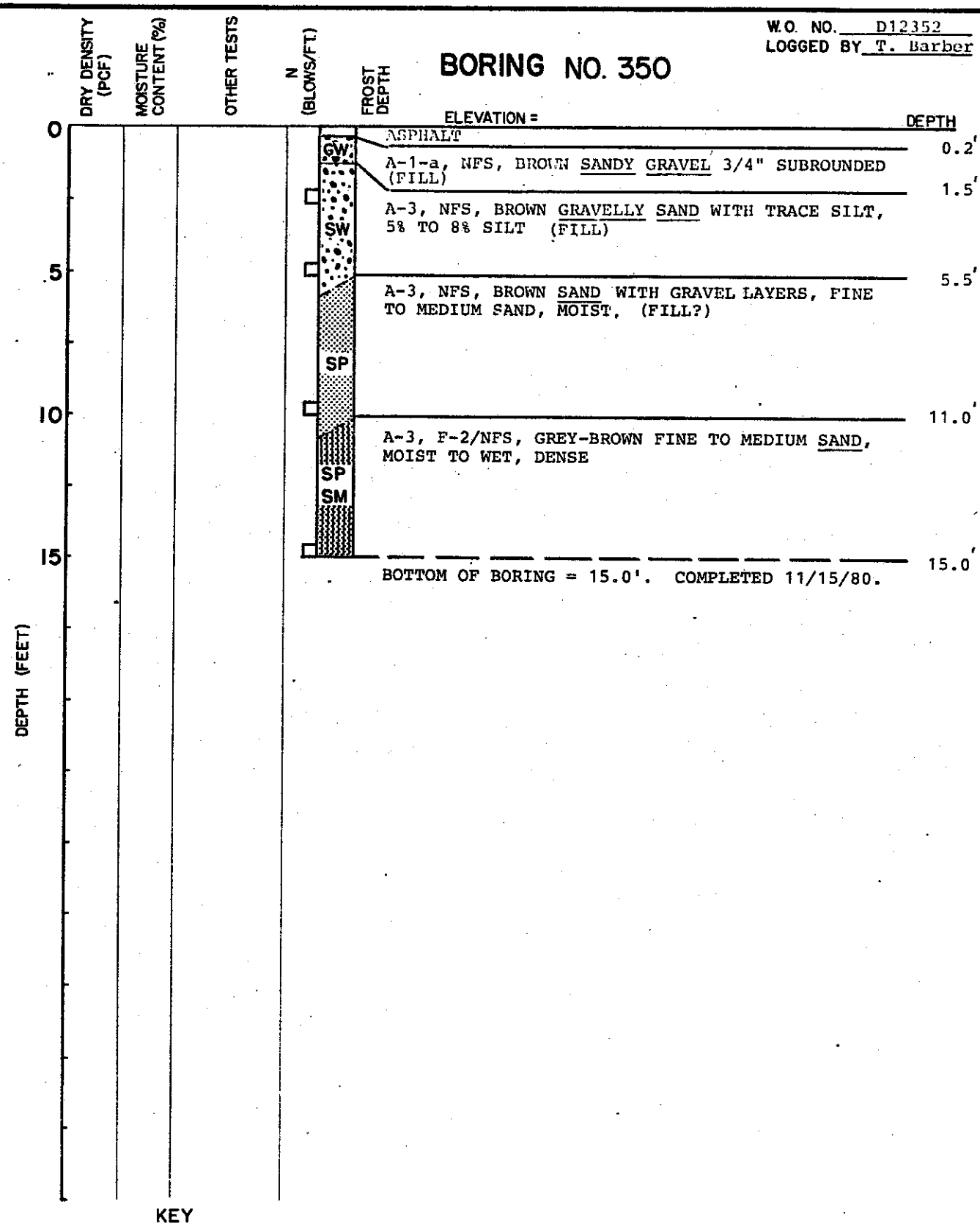
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 350



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 355

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =>	DEPTH
0						ASPHALT	
					GW	A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	0.2'
					SP	A-3, NFS, BROWN MEDIUM SAND (FILL)	2.0'
5					SP SM	A-3, NFS, BROWN LAYERED GRAVELLY SAND AND SANDY GRAVEL, 3/4" TO 1" PARTICLES, MOIST, LOOSE TO DENSE (FILL)	3.5'
						GRADES SILTIER (F-2)	10.0'
10	15.7		MA		PT	BROWN PEAT, CONTAIMINATED WITH SAND, SOFT	
					SM	A-2-4, F-4, BROWN SILTY SAND, MOIST TO WET, DENSE	10.5'
							14.0'
15					SP	A-3, NFS, BROWN MEDIUM SAND	15.0'
						BOTTOM OF BORING = 15.0'. COMPLETED 11/15/80.	

KEY

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Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

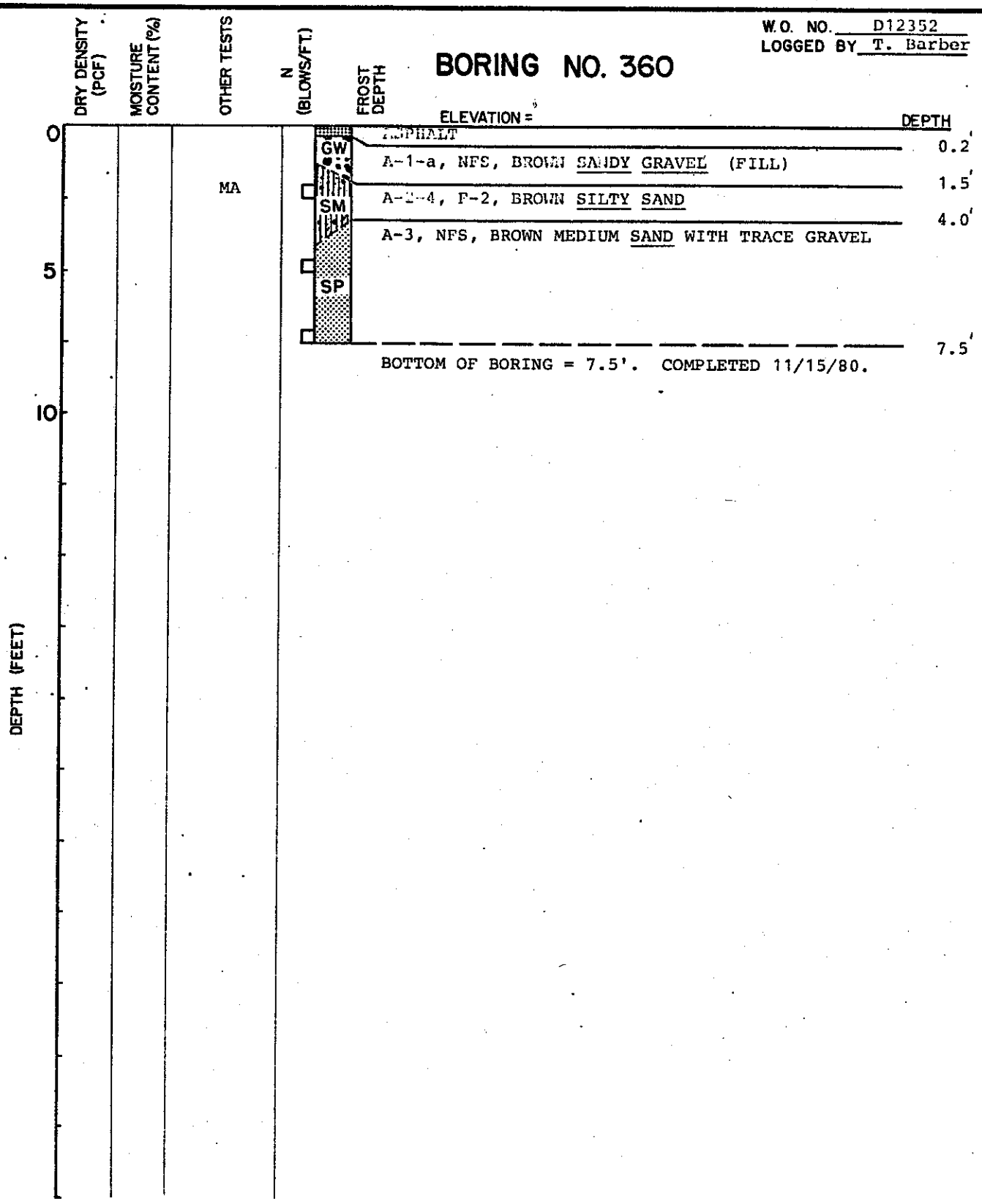
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 360



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

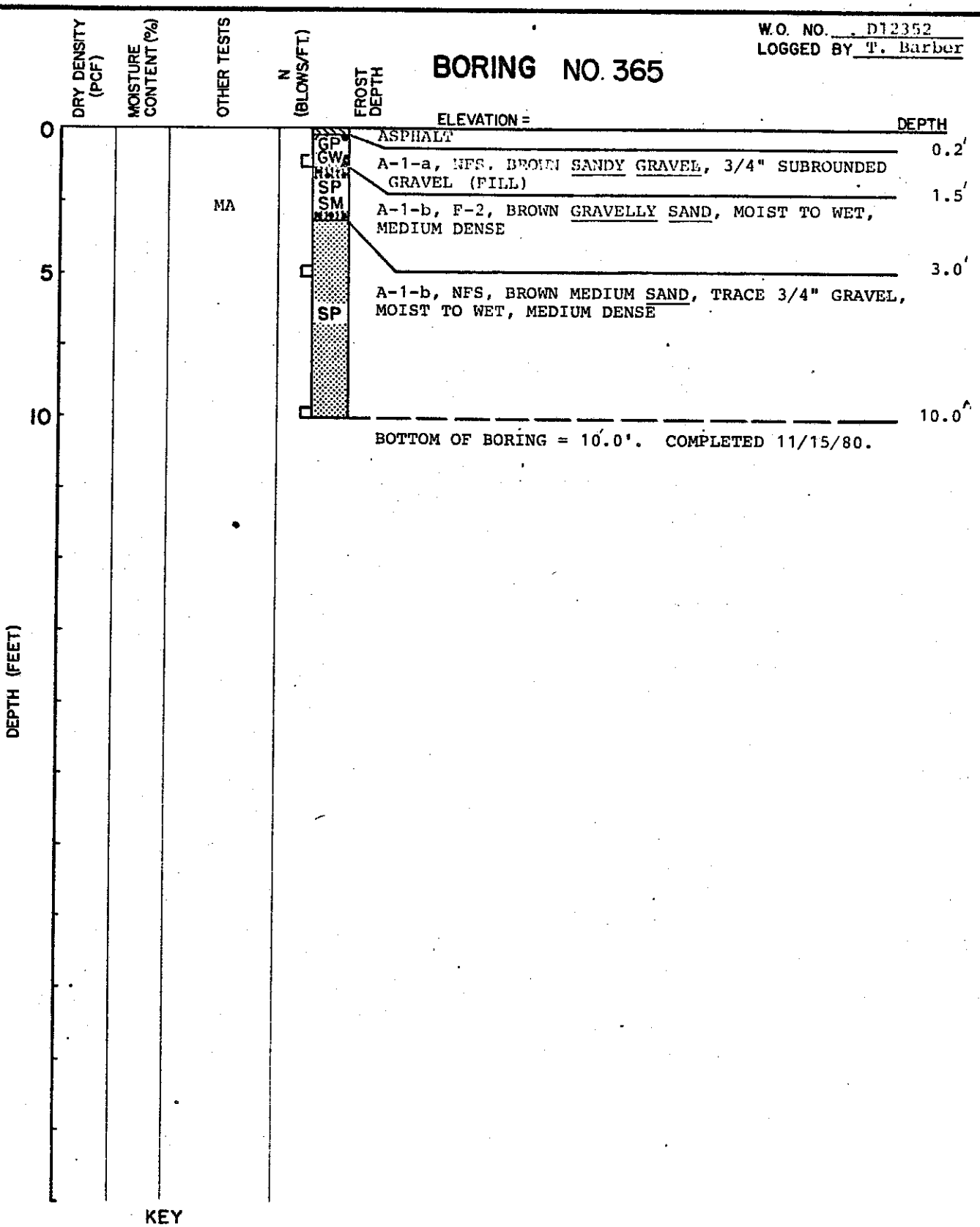
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 365



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

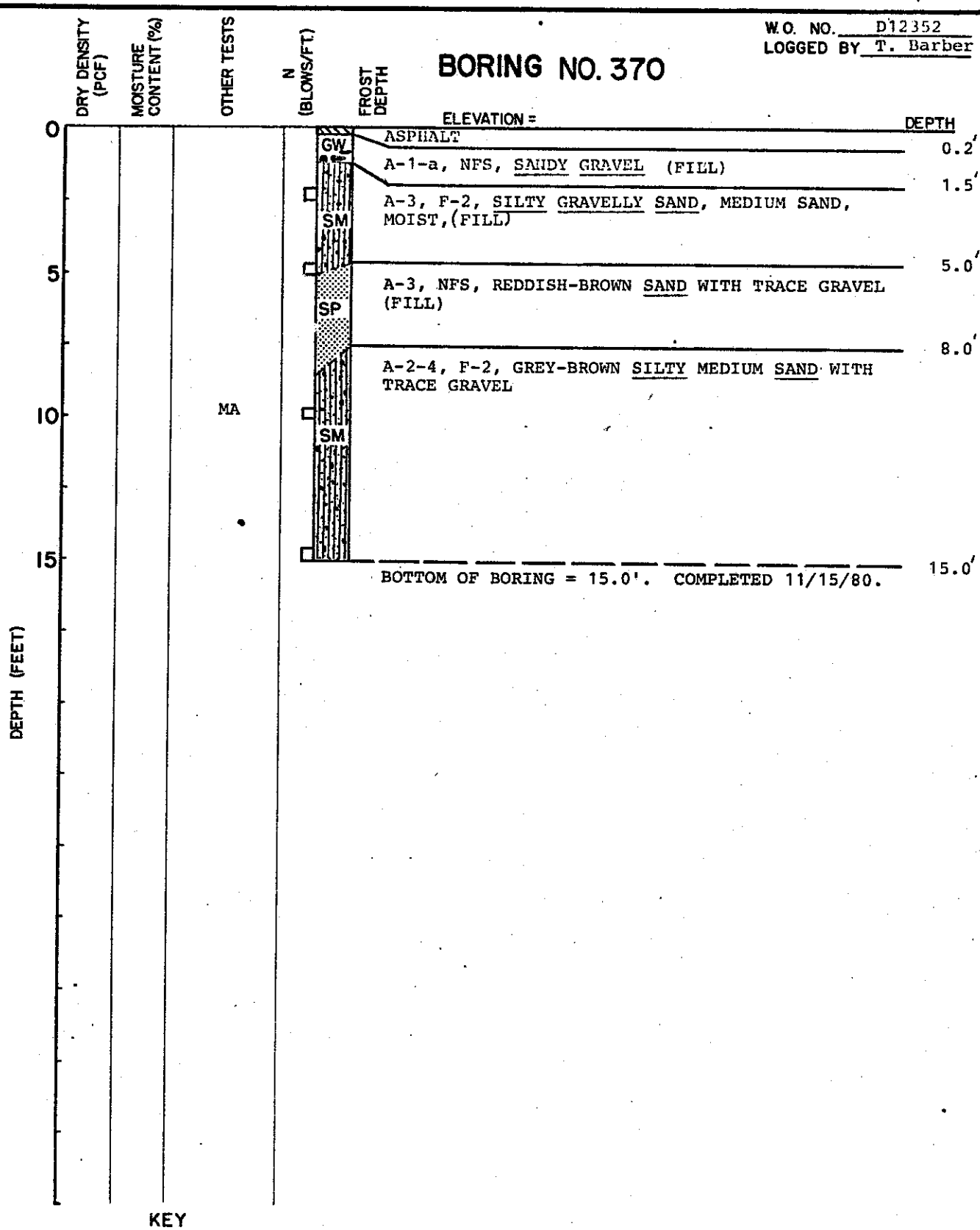
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 370



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

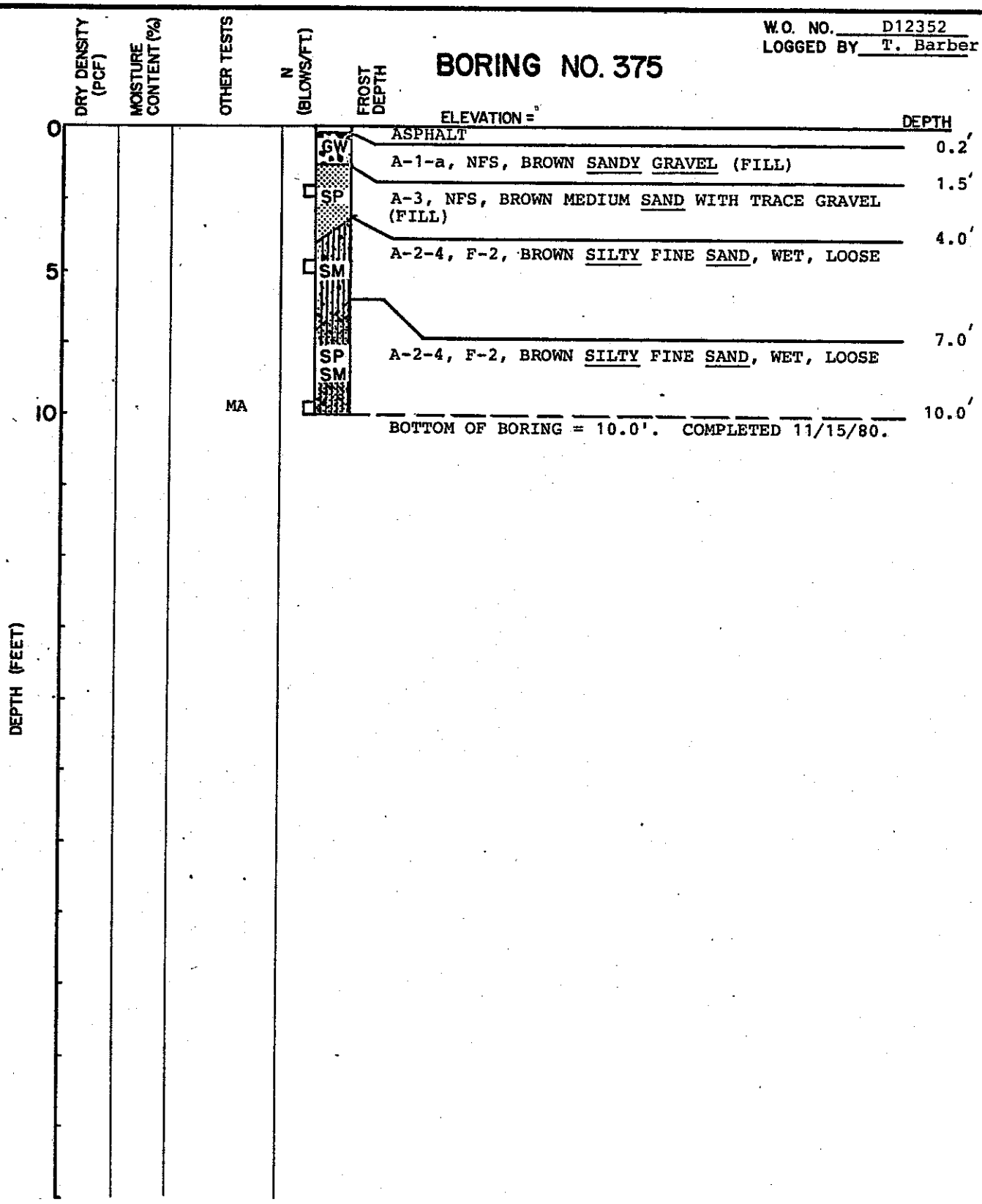
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 375



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 380

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0					GW	ASPHALT	0.2'
					SP SM	A-1-a, NFS, BROWN SANDY GRAVEL, 3/4" TO 1" SUB-ROUNDED GRAVEL	1.5'
			MA			A-2-4, F-2, BROWN SILTY SAND WITH TRACE GRAVEL	3.0'
5					SP	A-3, NFS, LIGHT BROWN MEDIUM SAND LAYERED WITH GRAVEL	5.0'
					GW	A-1-a, NFS, BROWN SANDY GRAVEL	6.0'
					PT	BROWN PEAT (FILL)	6.5'
					ML SM	A-4, F-4, BROWN SANDY SILT, NON-PLASTIC, WET	8.0'
10					SP	A-3, NFS, BROWN MEDIUM SAND	10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 383

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0		2.8	MA			ASPHALT	0.2'
					GP	A-1-b, NFS/F-2, BROWN, SANDY GRAVEL, WITH TRACE SILT	1.5'
					SM	A-4, F-3, BROWN, VERY SILTY SAND, WITH TRACE GRAVEL	
5		21.7	MA				5.0'
					GP	A-1-a, NFS, BROWN, SANDY GRAVEL, SUBROUNDED, 1" GRAVEL	
10		4.1	MA				10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

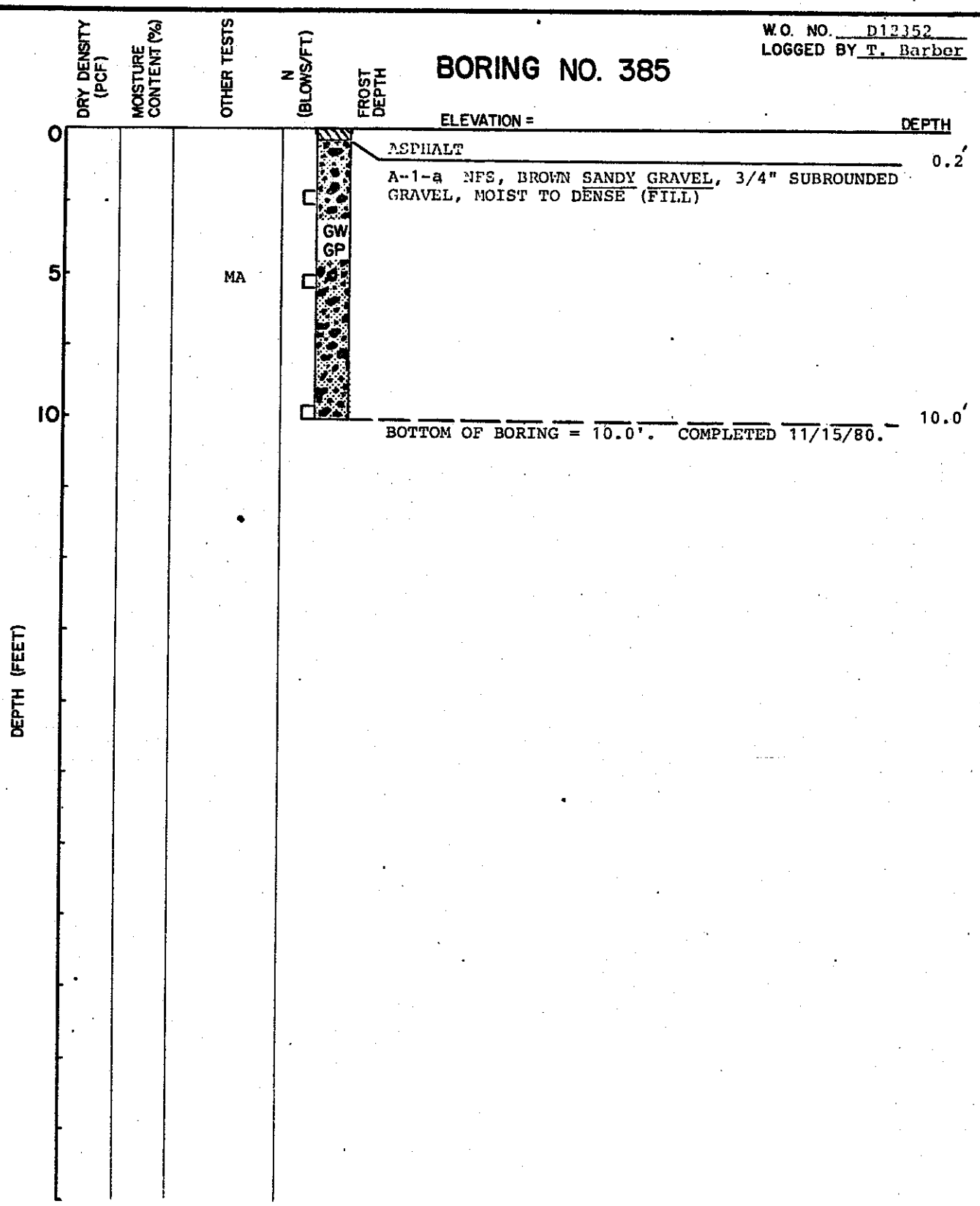
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 385



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE -

W.O. NO. D12352
LOGGED BY T.B.

BORING 387

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
	2.5	MA		

ELEVATION = DEPTH

0 — GP — ASPHALT — 0.2'

A-1-a, NFS/F-1, BROWN, SANDY GRAVEL W/TRACE SILT — 1.0'

A-1-a, NFS, BROWN, SANDY GRAVEL, SUBROUNDED, 1/2 - 1" GRAVEL

5 — GP GW

7.5'

BOTTOM OF BORING = 7.5' COMPLETED 4/2/81

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- [S] – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 390

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH
		MA		

ELEVATION = ?

	DEPTH
ASPHALT	0.2'
GW — A-1-a, NFS, BROWN SANDY GRAVEL, 3/4" SUBROUNDED GRAVEL (FILL)	1.5'
SP — A-1-b, NFS, BROWN GRAVELLY SAND AND LAYERED WITH SANDY GRAVEL (FILL)	6.0'
SM — A-1-b, F-2, BROWN SILTY GRAVELLY SAND WITH SOME SILT (FILL)	10.0'
PT — BROWN PEAT, WET, SOFT	10.5'
SP — A-1-b, NFS, BROWN GRAVELLY SAND, 1/2" SUBROUNDED GRAVEL, MOIST TO WET, MEDIUM DENSE	15.0'

BOTTOM OF BORING = 15.0'. COMPLETED 11/15/80.

DEPTH (FEET): 0, 5, 10, 15

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

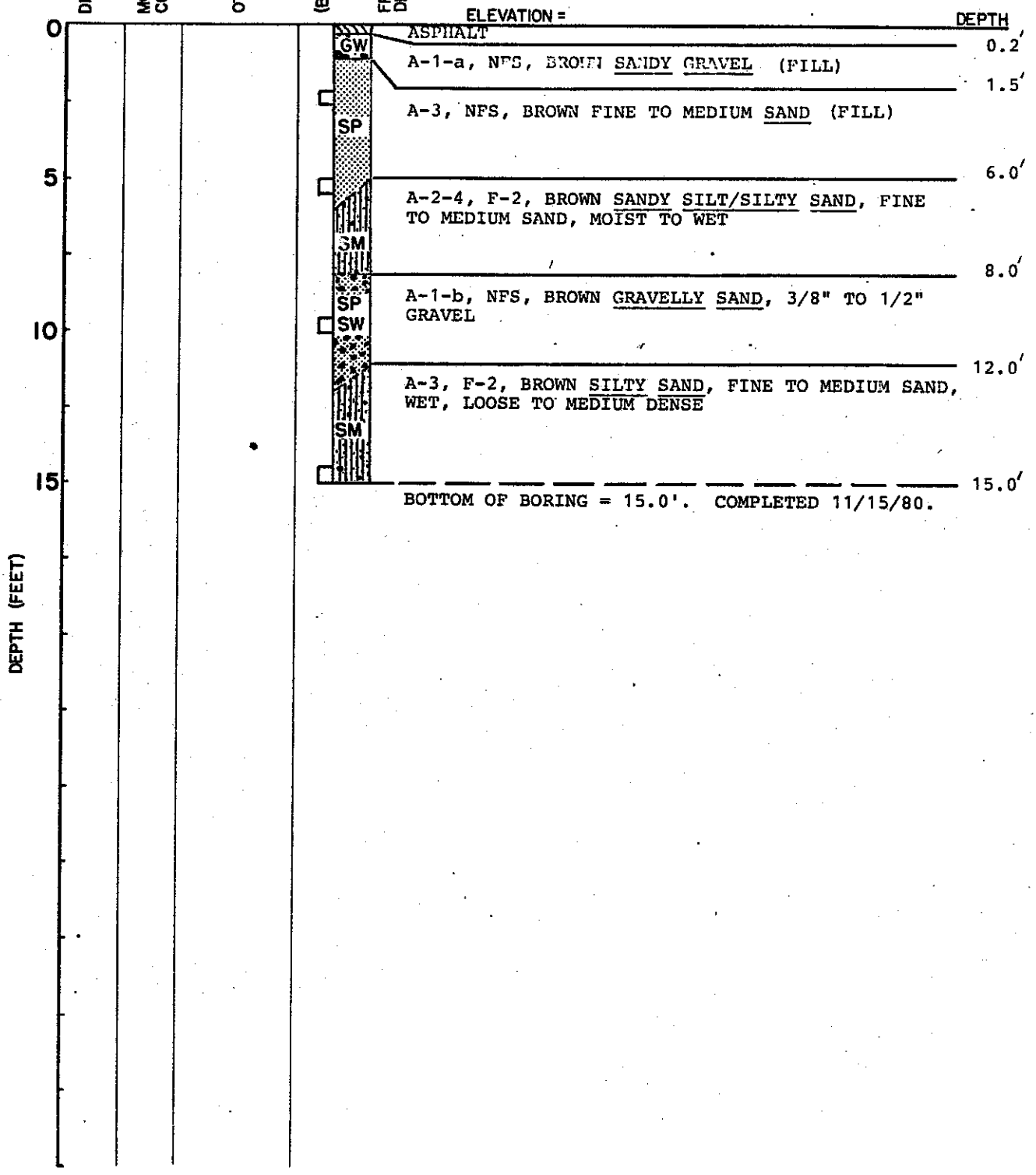
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 395



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

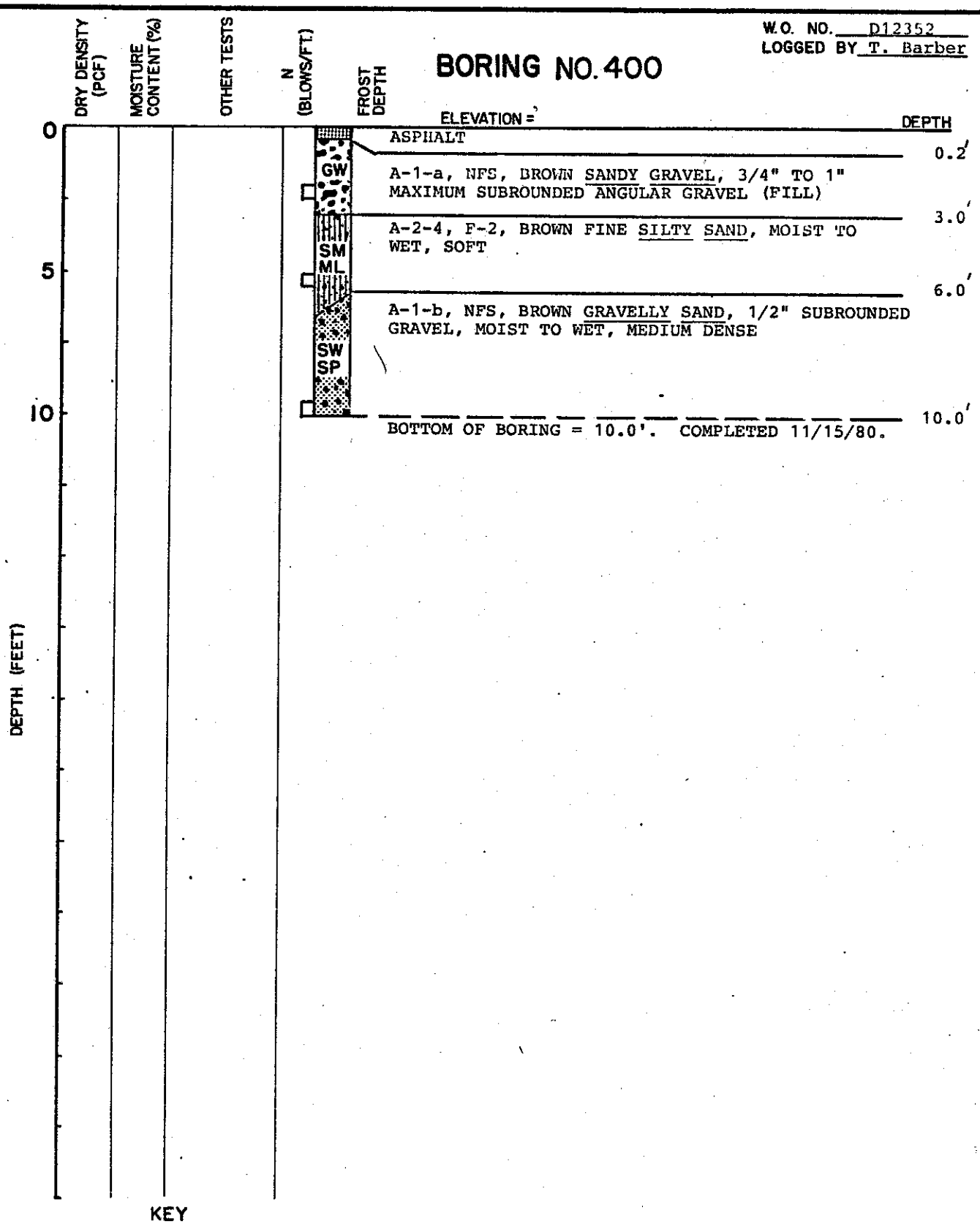
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 400



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 405

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
			MA		GM	A-1-a, F-1/F-2, BROWN SANDY GRAVEL/GRAVELLY SAND WITH SOME SILT, (FILL)	3.0'
					SM	A-4, F-4, BROWN FINE SANDY SILT, MOIST, SOFT TO STIFF	4.5'
5					SP	A-1-b, NFS, BROWN GRAVELLY SAND	6.0'
					SP	A-1-b, NFS, BROWN MEDIUM SAND WITH TRACE 3/8" WELL ROUNDED GRAVEL, MOIST TO WET	
10			MA			BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

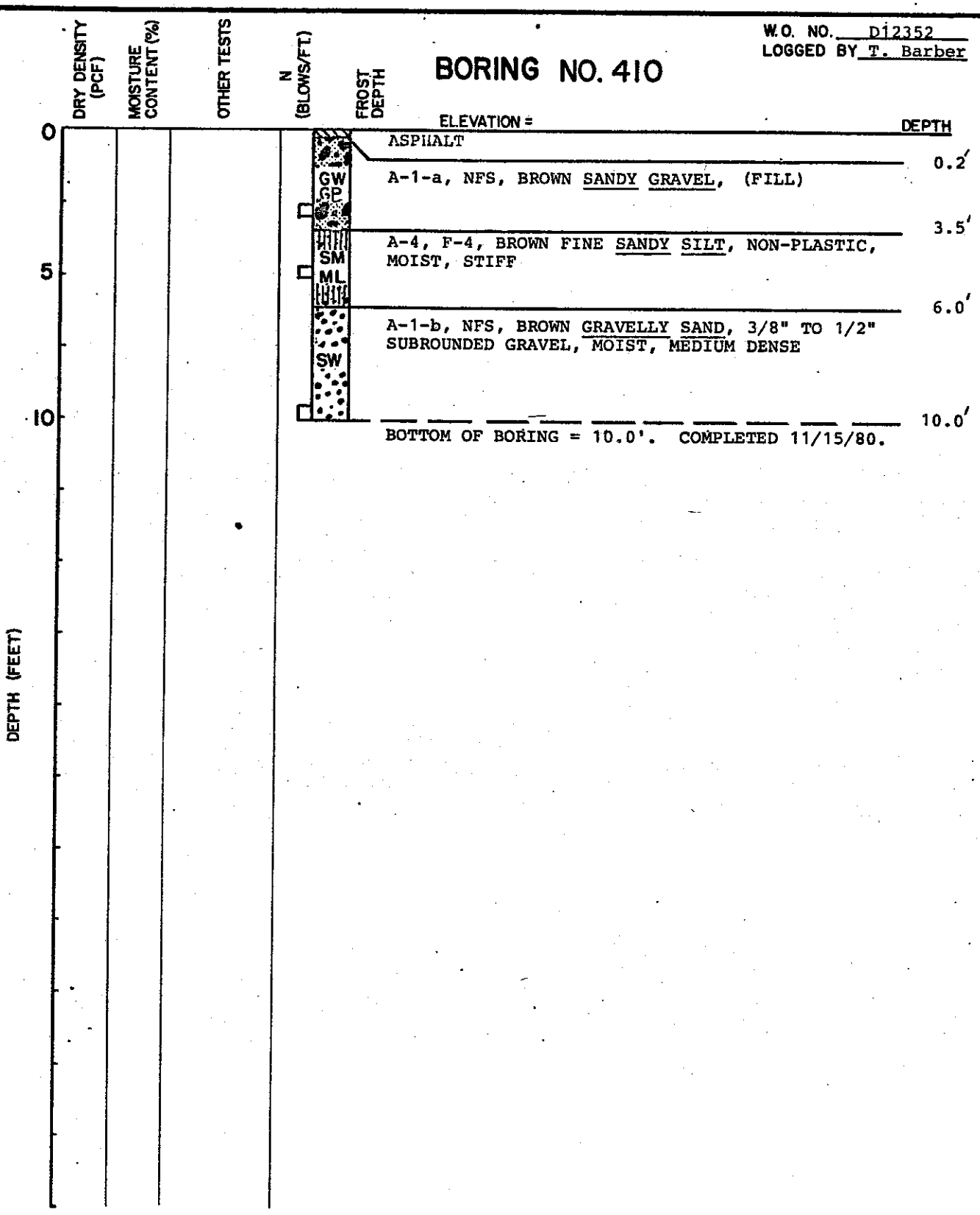
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 410



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
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Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

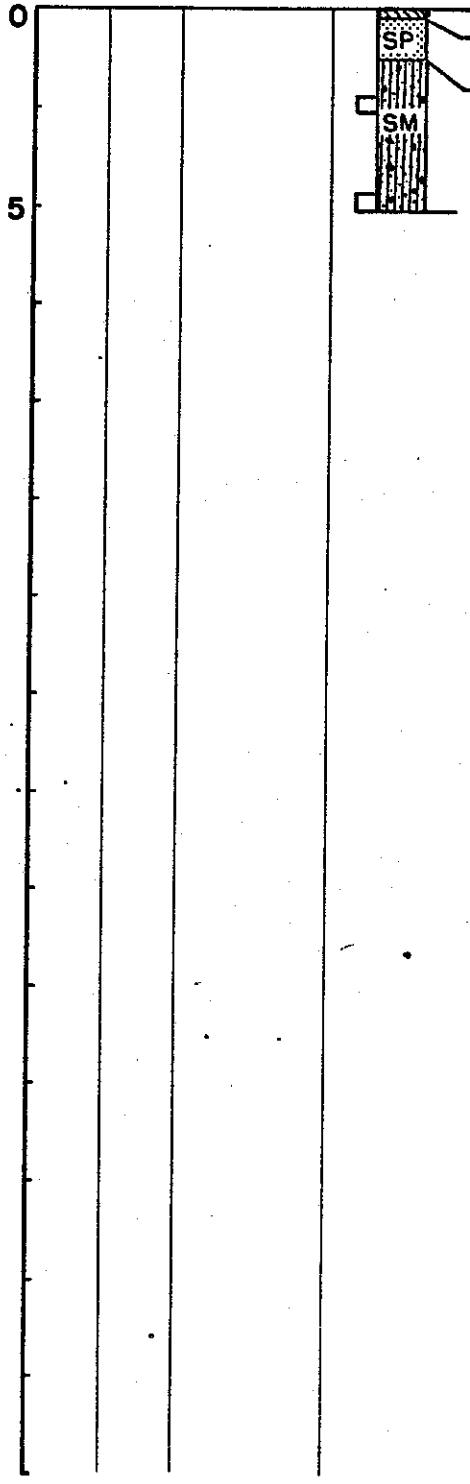
W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 415

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = °

	DEPTH
ASPHALT	0.2′
A-2, F-2, SILTY GRAVELLY SAND (FILL)	1.0′
A-4, F-4, BROWN GRAVELLY SANDY SILT	
BOTTOM OF BORING = 5.0'. COMPLETED 11/15/80.	5.0′



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

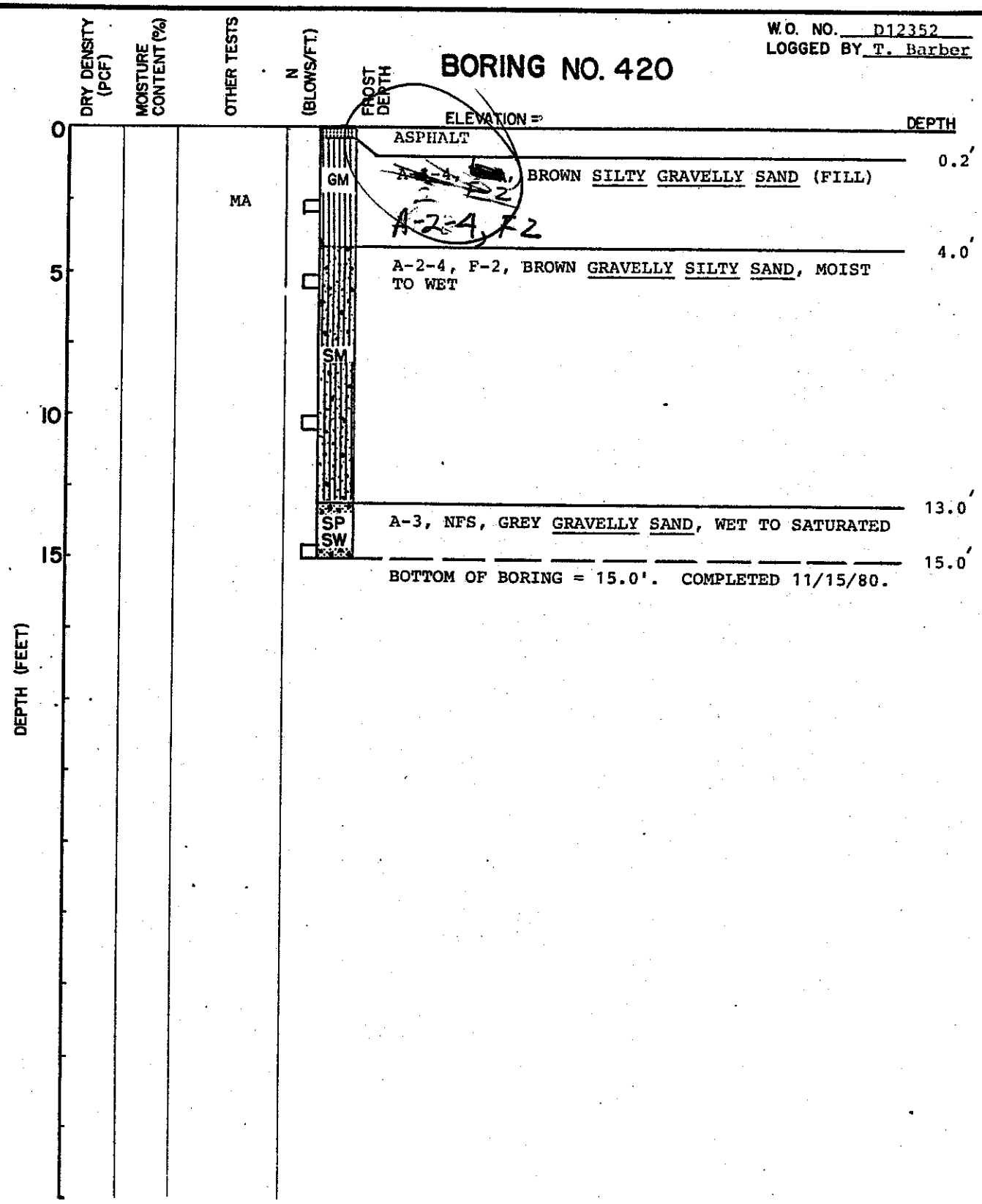
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 420



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 425

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.2'
		MA		SP SM	A-1-a, F-2, BROWN GRAVELLY SAND, 1/2" TO 3/4" SUBROUNDED GRAVEL (FILL)	3.5'
				SM	A-4, F-4, BROWN FINE SANDY SILT, NON-PLASTIC, MOIST TO WET; STIFF (FILL?)	6.0'
				SP SW	A-1, NFS, BROWN TO GREY GRAVELLY SAND, 3/4" SUBROUNDED GRAVEL	10.0'
					BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.	

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 430

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.2'
		MA			SM A-1-b, F-2, BROWN SILTY GRAVELLY SAND, 3/4" MAXIMUM SUBROUNDED GRAVEL, MOIST (FILL)	3.0'
					SP A-3, F-2, BROWN FINE TO MEDIUM SAND WITH 10-15% SILT	4.0'
					ML A-4, F-4, BROWN SANDY SILT, NON-PLASTIC, MOIST, STIFF	7.0'
					SP A-3, F-2, GREY-BROWN MEDIUM SAND WITH TRACE 3/8" GRAVEL, MOIST, MEDIUM DENSE	
					BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80.	10.0'

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 432+50

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = DEPTH

0 — ASPHALT — 0.2'

GW — A-1-a, F-1, BROWN, SANDY GRAVEL WITH TRACE TO 10% SILT — 2.5'

SP — A-3, NFS, BROWN, F-M SAND, MOIST

5

10 — 10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

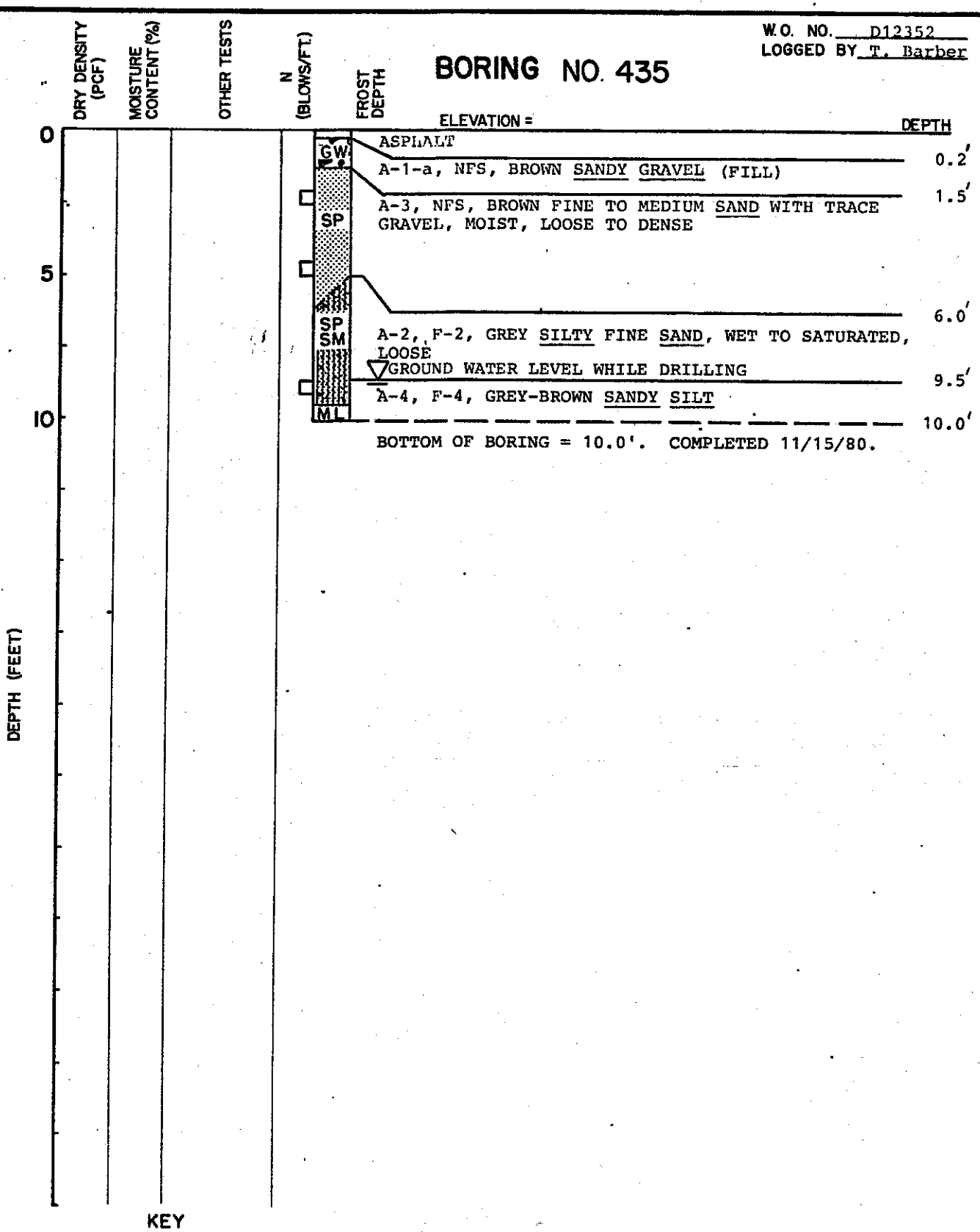
DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 435



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

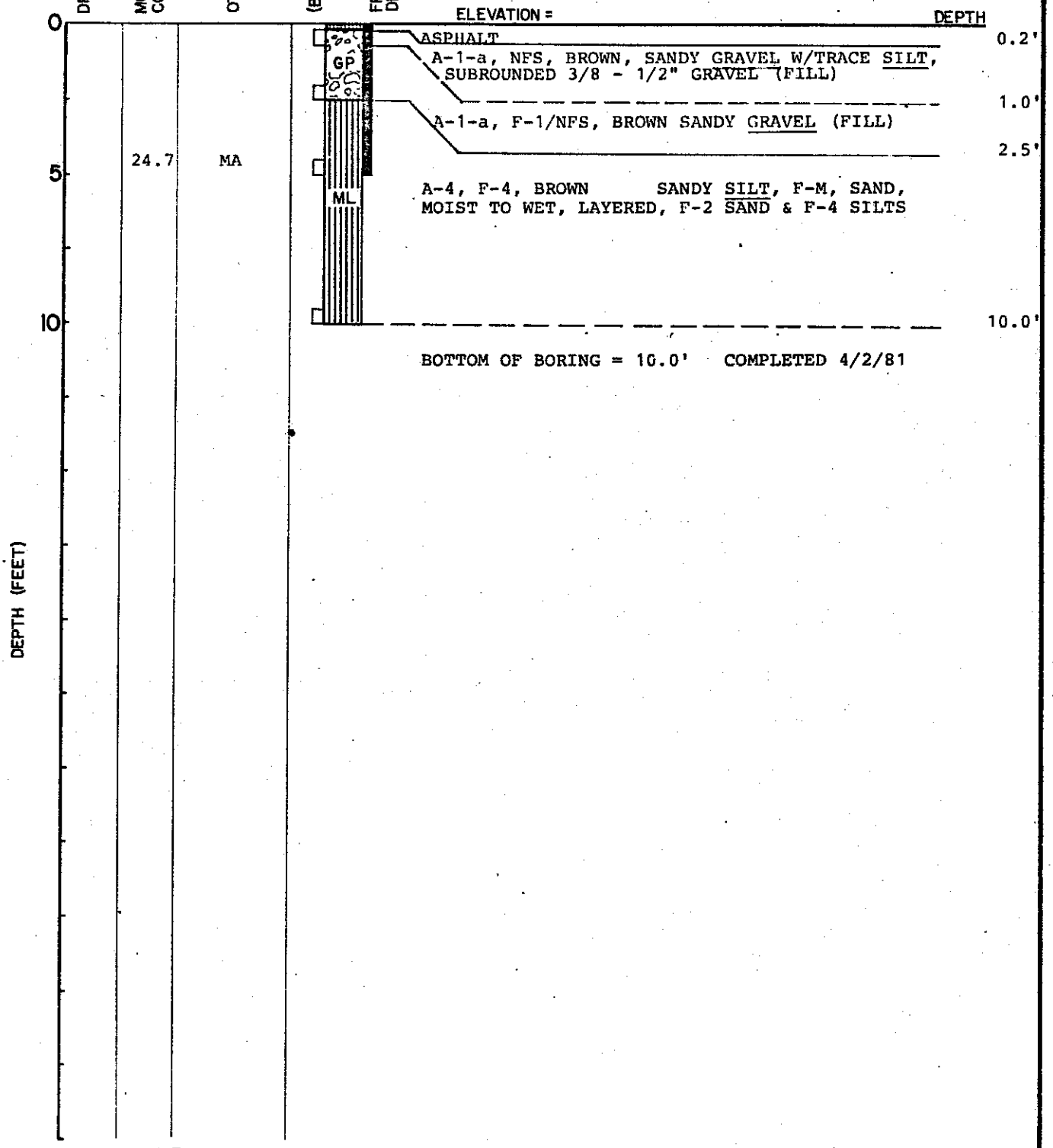
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 437+50



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ - GRAB SAMPLE
- ◪ - SPT SAMPLE
- ◙ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ - SHELBY TUBE - PUSHED
- ▽ - GROUND WATER TABLE WHILE DRILLING

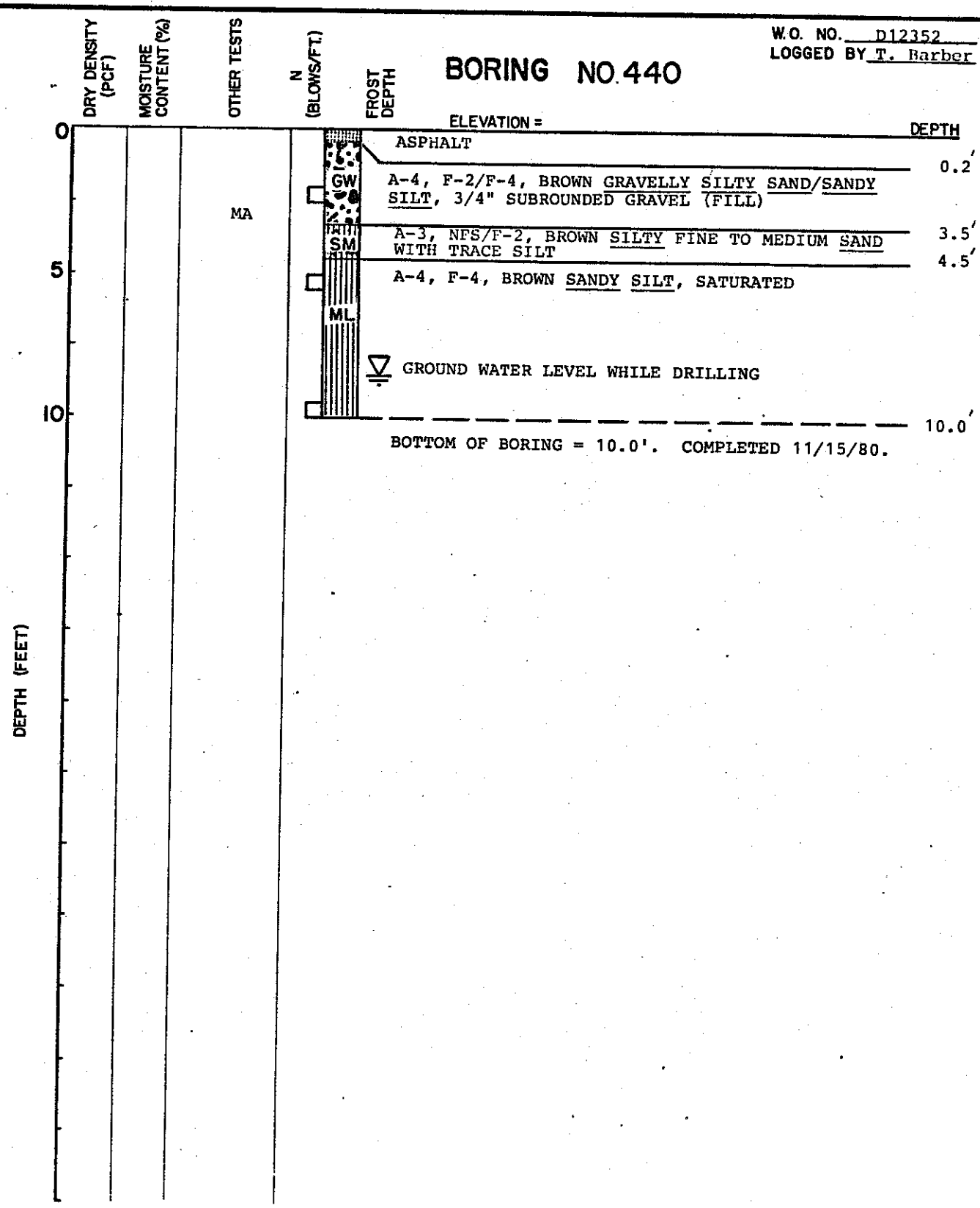
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 440



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

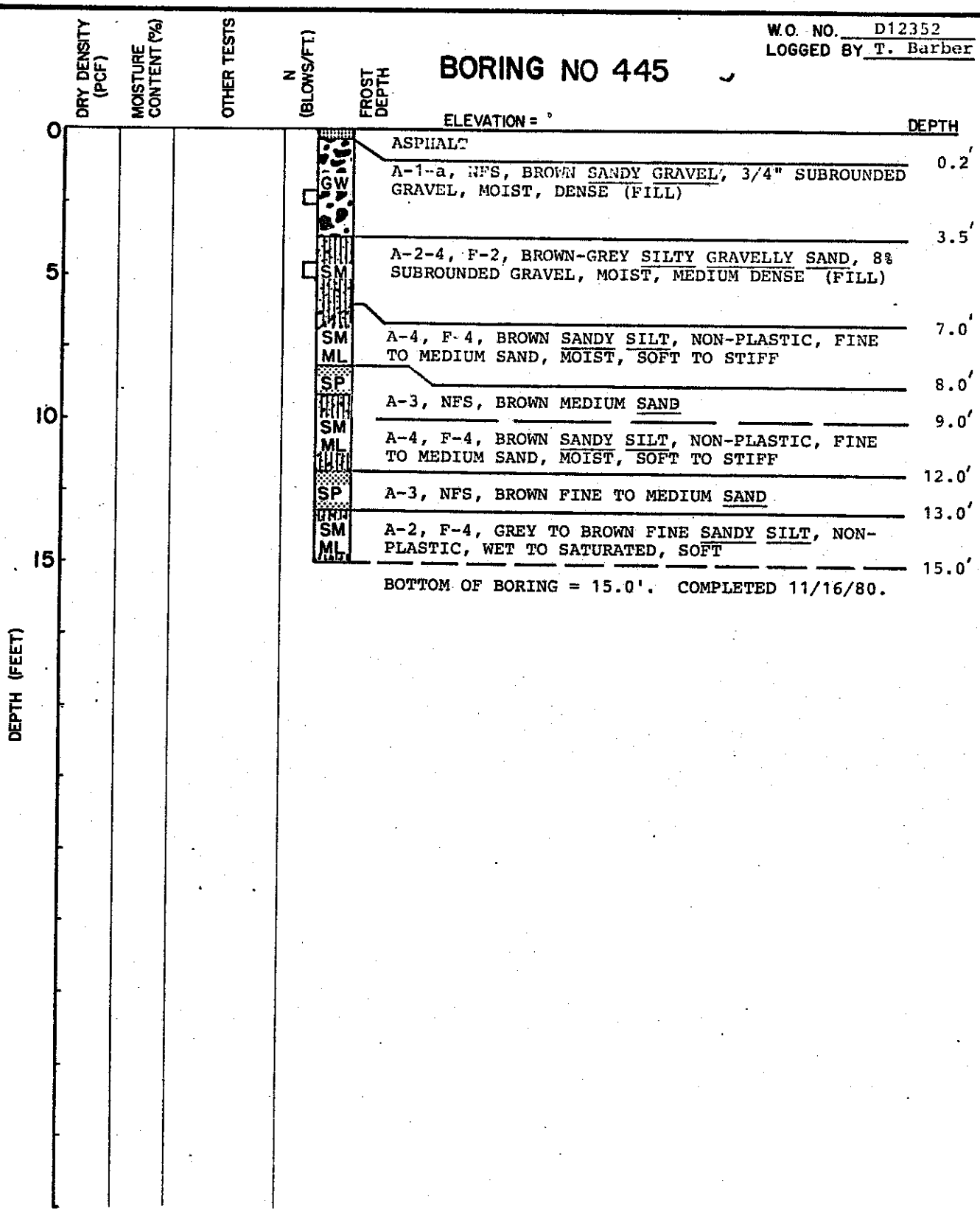
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 445



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 450

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					GP GM	A-1-a, BROWN SANDY GRAVEL, 3/4" SUBROUNDED GRAVEL (FILL)	
			MA				3.5'
					OL	A-4, F-4, REDDISH-BROWN ORGANIC SANDY SILT, NON-PLASTIC	4.5'
5					PT	BROWN PEAT, SOFT	6.0'
					SM	A-4, F-4, BROWN FINE SANDY SILT, NON-PLASTIC, WET, STIFF	
10		18.0	MA				10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- □ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

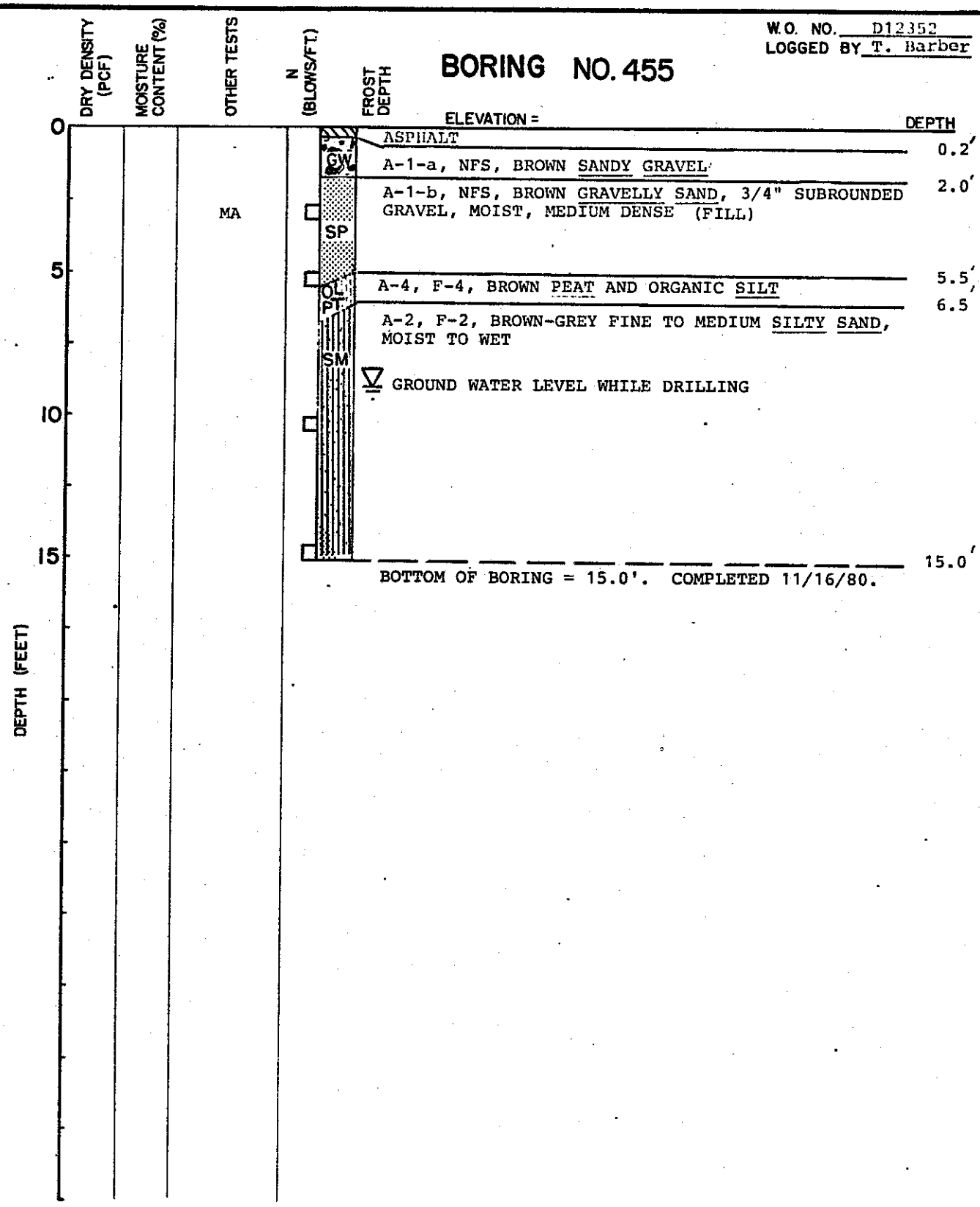
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 455



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

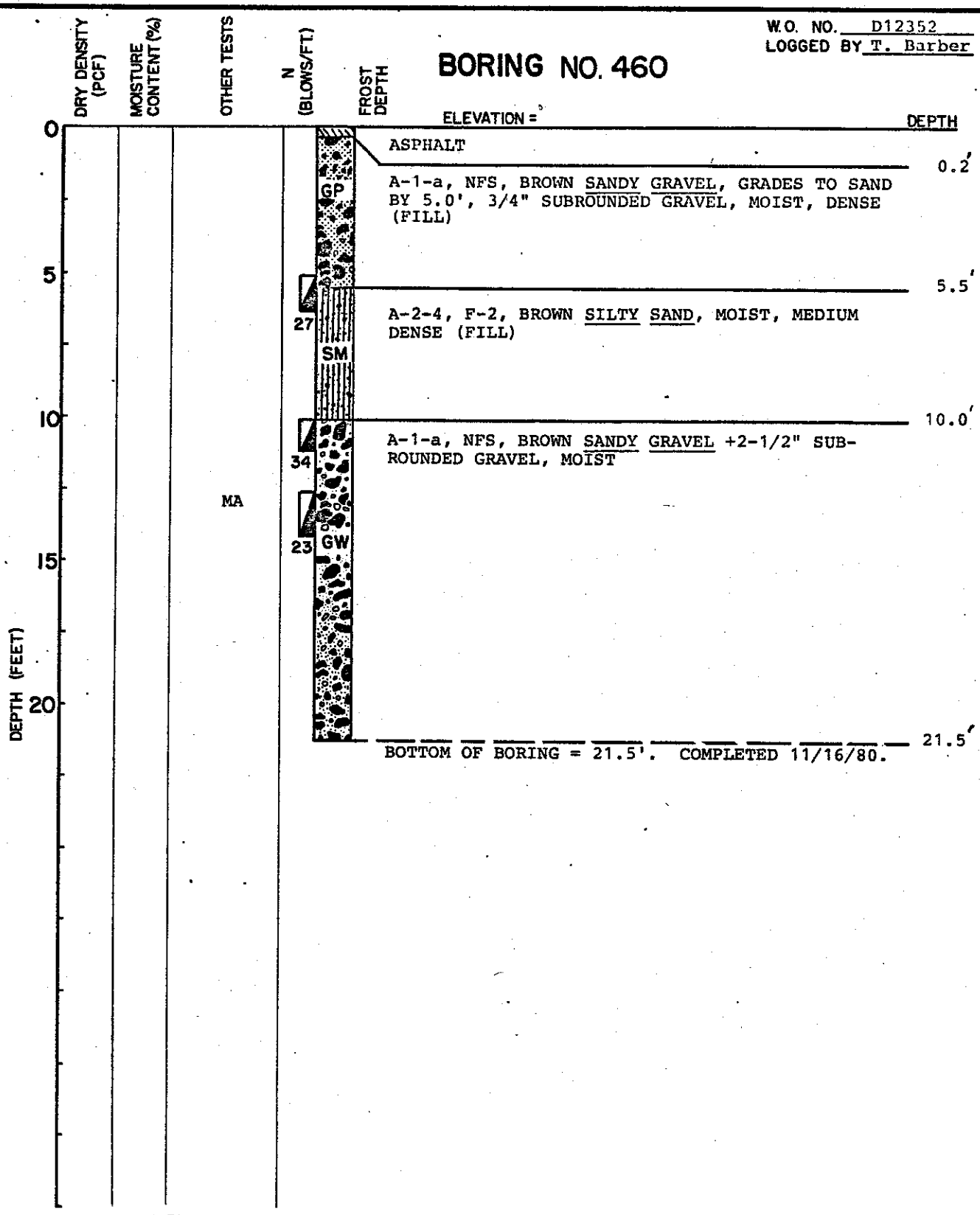
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 460



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

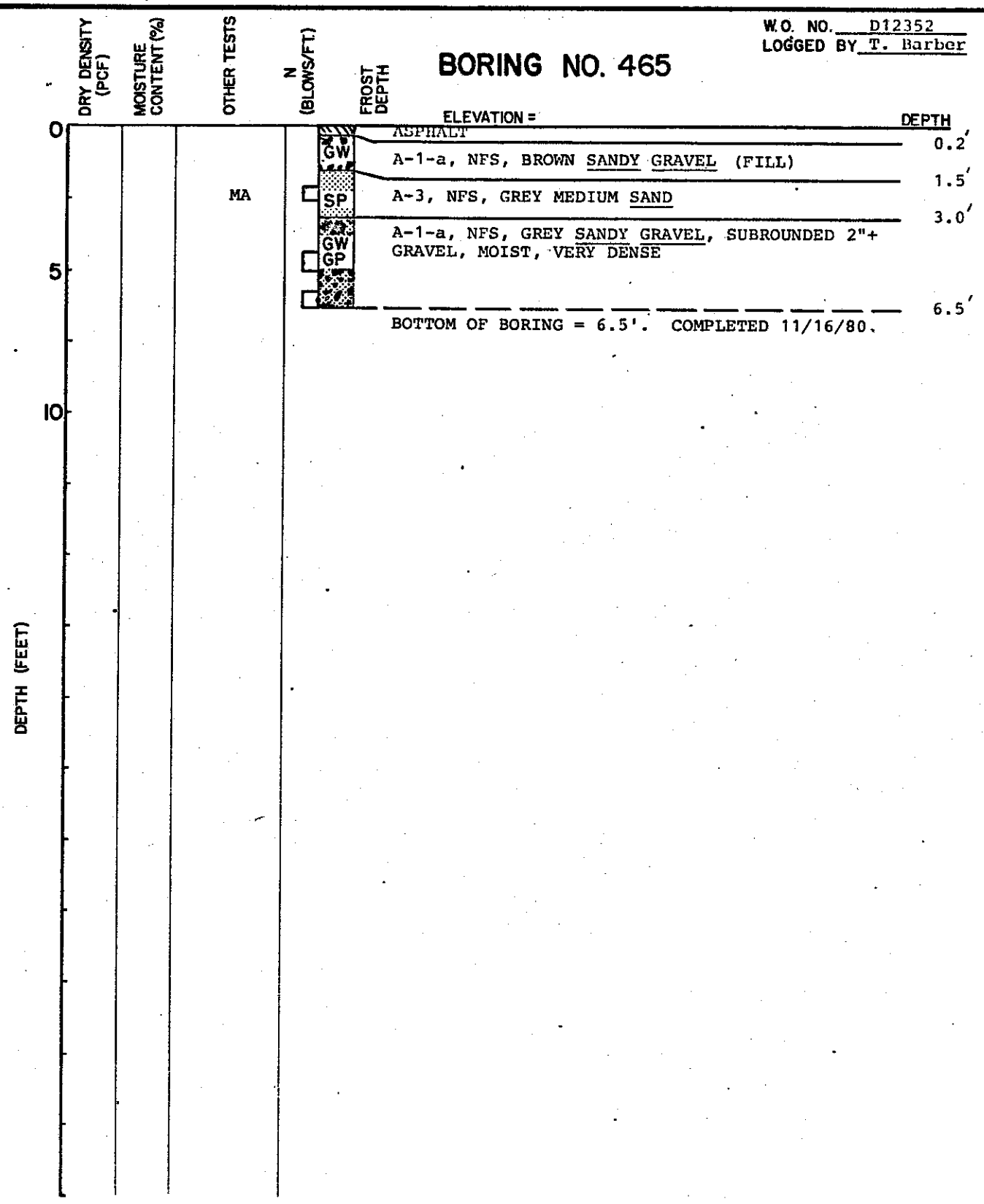
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 465



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

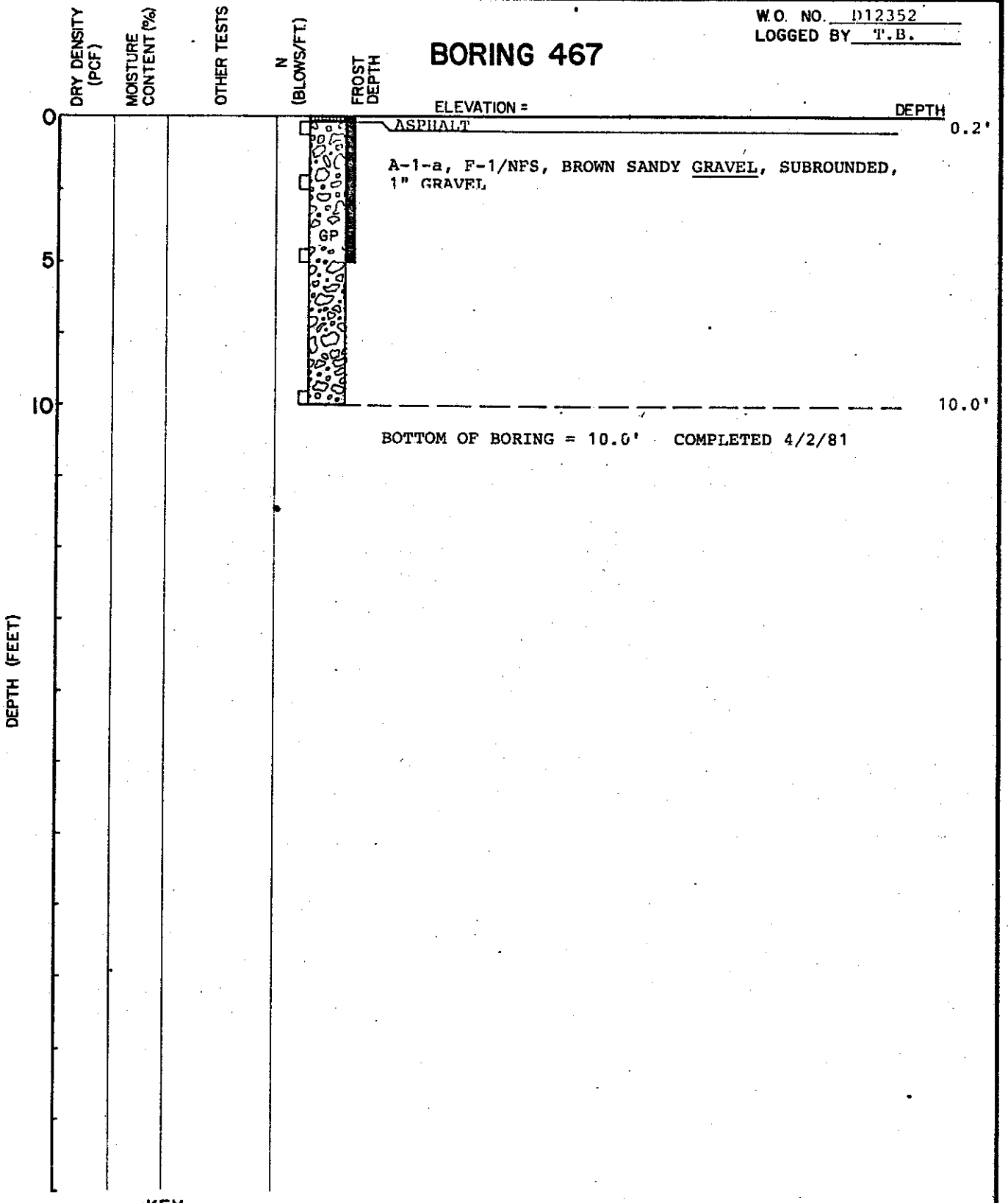
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 467



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

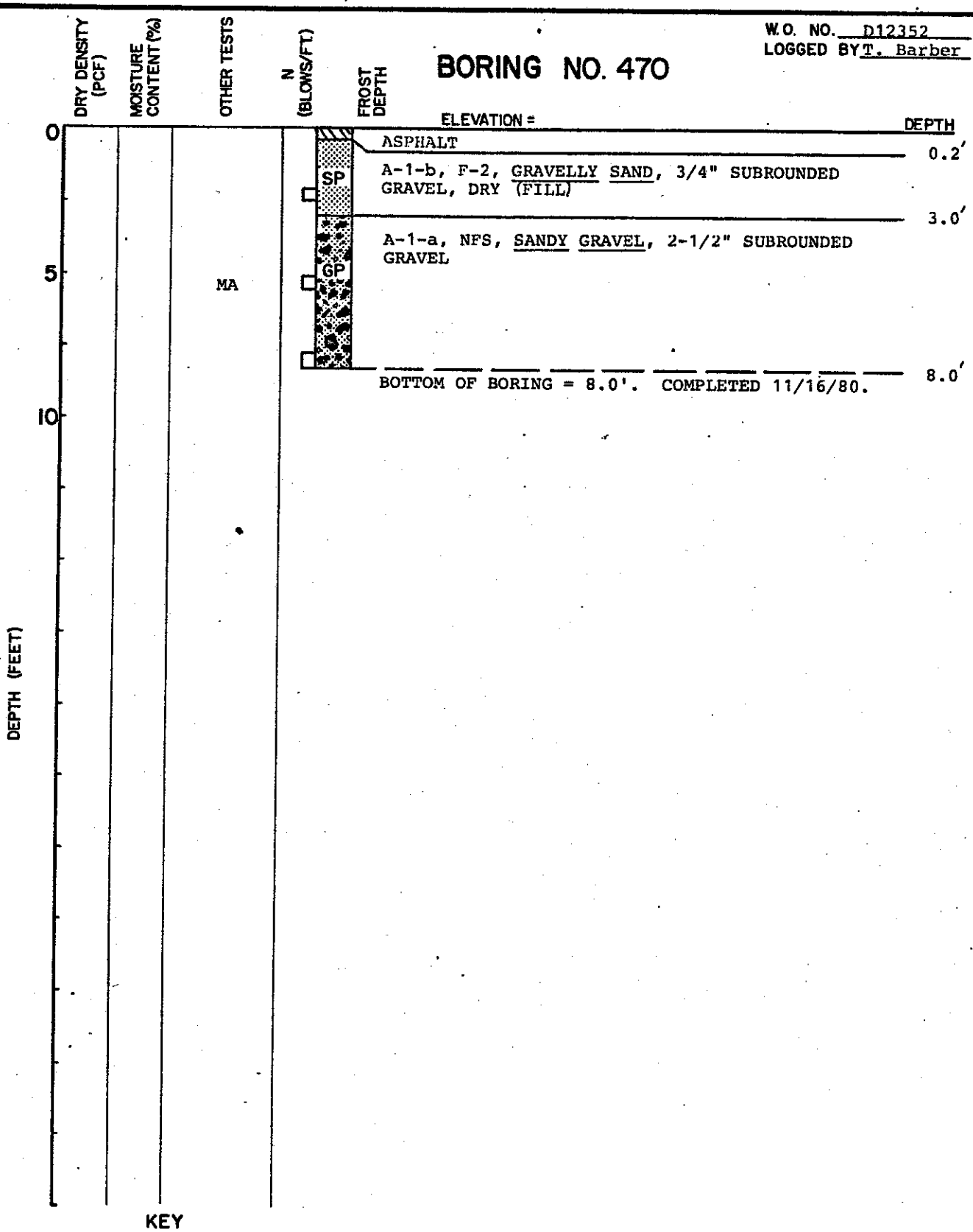
DOW

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 470



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

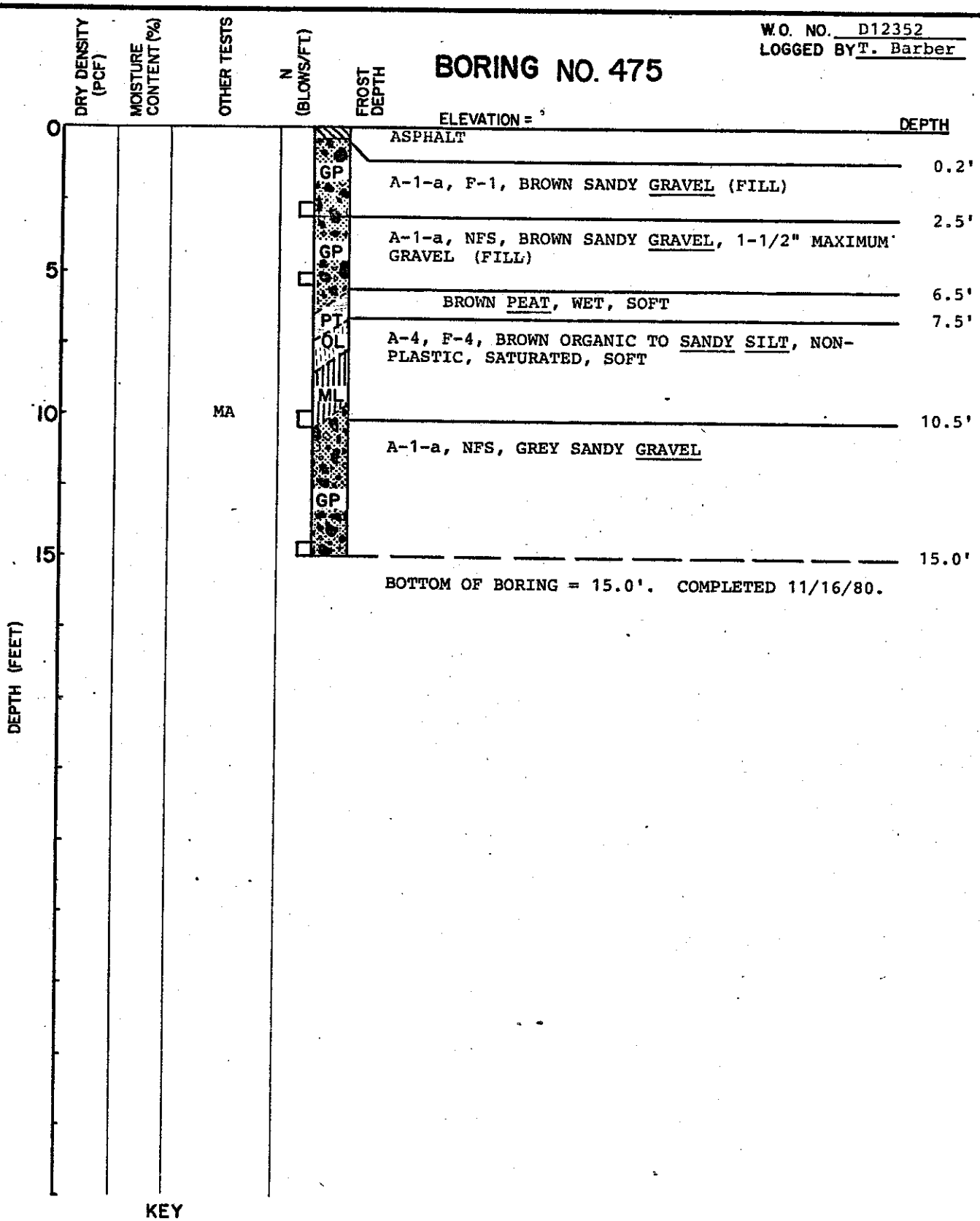
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 475



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 480

ELEVATION =

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH		DEPTH
0						ASPHALT	
					GW GP		0.2'
			MA			A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	
					SP SM	A-1-a, F-2, BROWN GRAVELLY SAND, 1" SUBROUNDED GRAVEL	2.0'
					SM		3.5'
5					SM	A-2, F-2, BROWN VERY SILTY SAND, FINE TO MEDIUM SAND, MOIST, DENSE	
						A-4, F-4, BROWN GRAVELLY SANDY SILT, NON-PLASTIC, MOIST, STIFF	4.5'
					GW GP		5.5'
						A-1-a, NFS, BROWN SANDY GRAVEL, 1-1/2" SUB-ROUNDED GRAVEL, MOIST, VERY DENSE	
10							10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80.

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

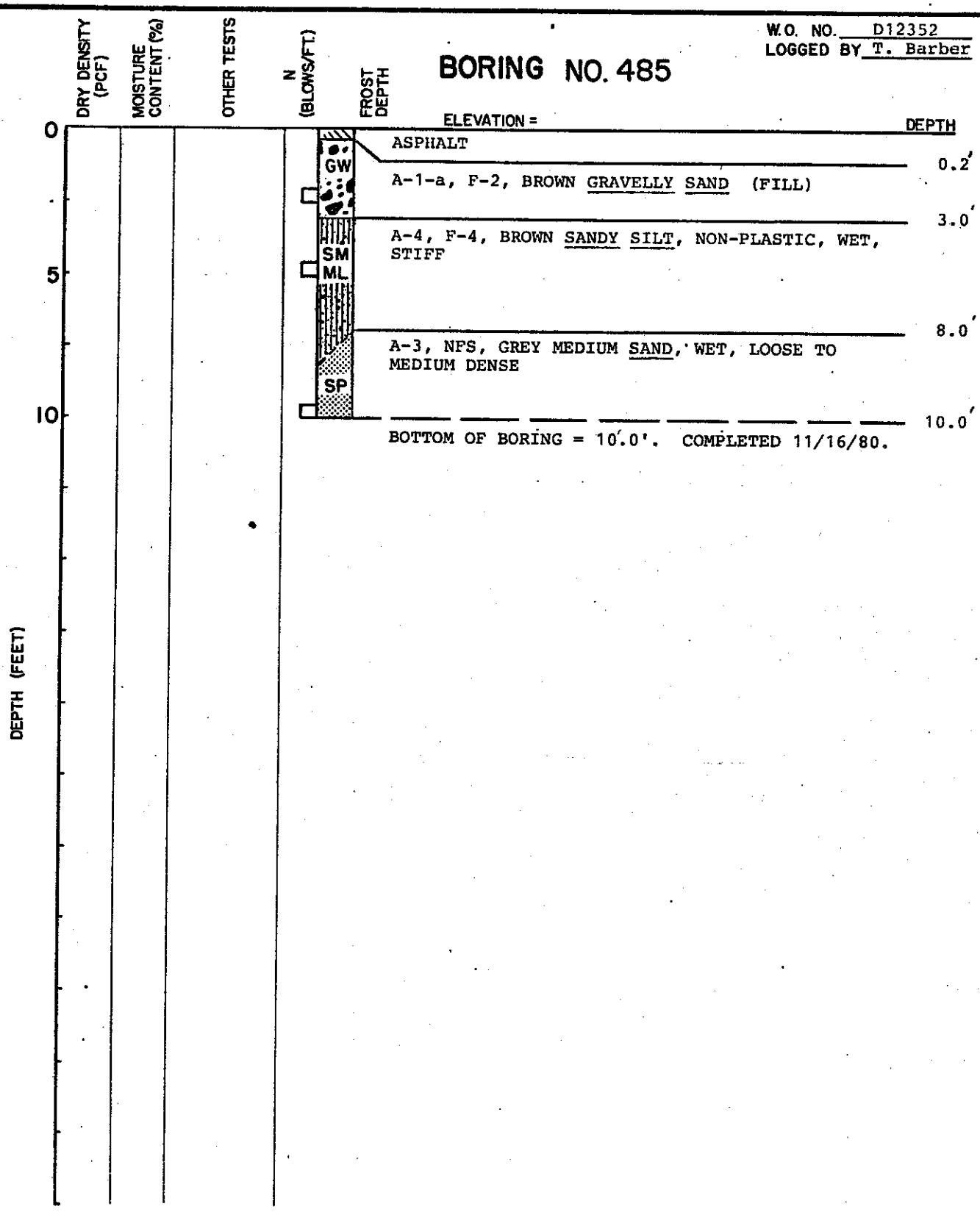
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 485



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

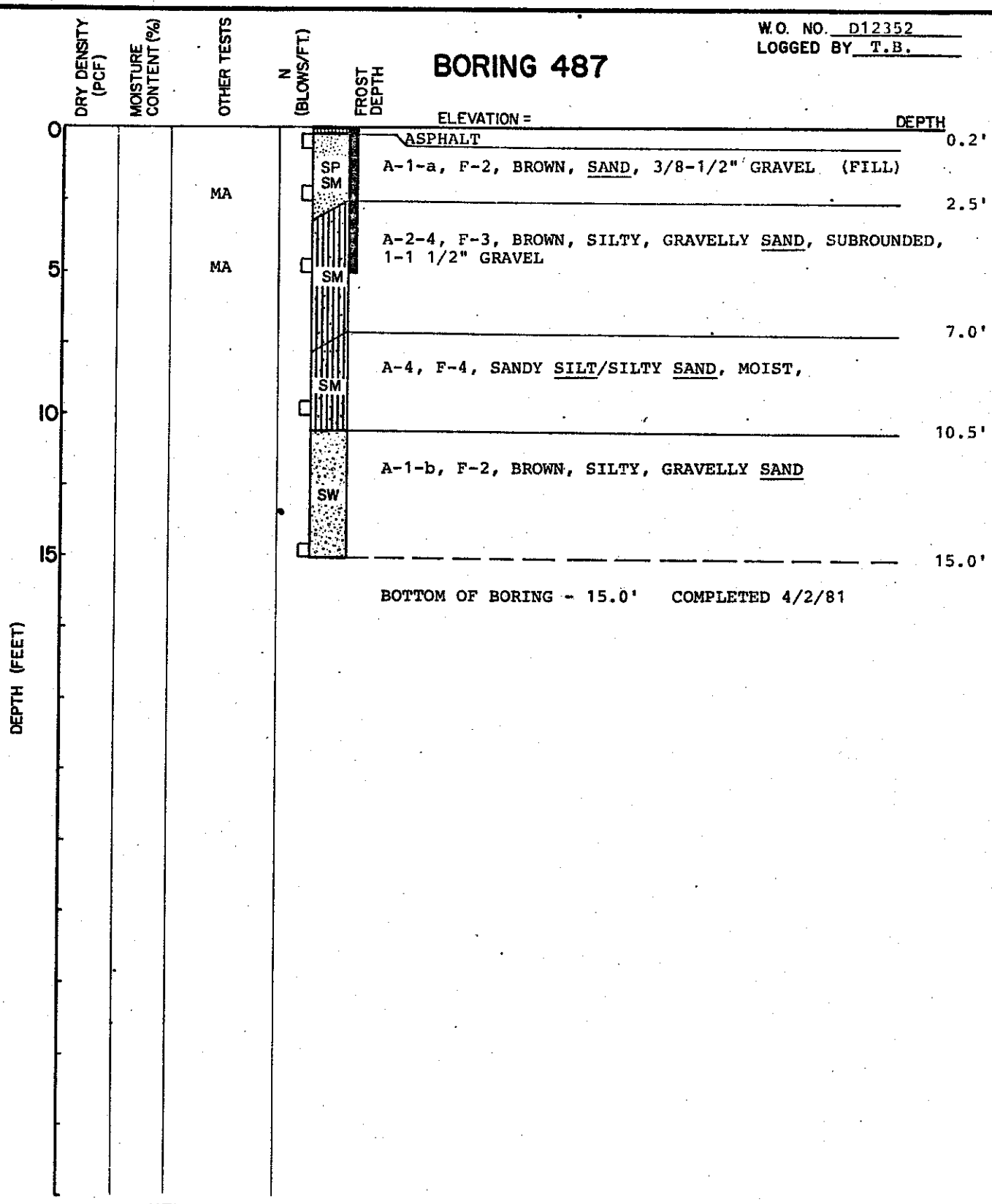
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 487



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 490

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0					GW GP	ASPHALT	0.2'
						A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	4.0'
5					PT OL	A-4, F-4, BROWN PEAT	7.5'
					ML CL	A-4, F-4, BROWN GRAVELLY SANDY SILT, PLASTIC, STIFF, MOIST	10.5'
10			MA L_w = 26.3 PI = 6.9		GM	GRAVEL LAYER	11.5'
					SP	A-3, NFS, BROWN FINE TO MEDIUM SAND	12.5'
						BOTTOM OF BORING = 12.5'. COMPLETED 11/16/80.	

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

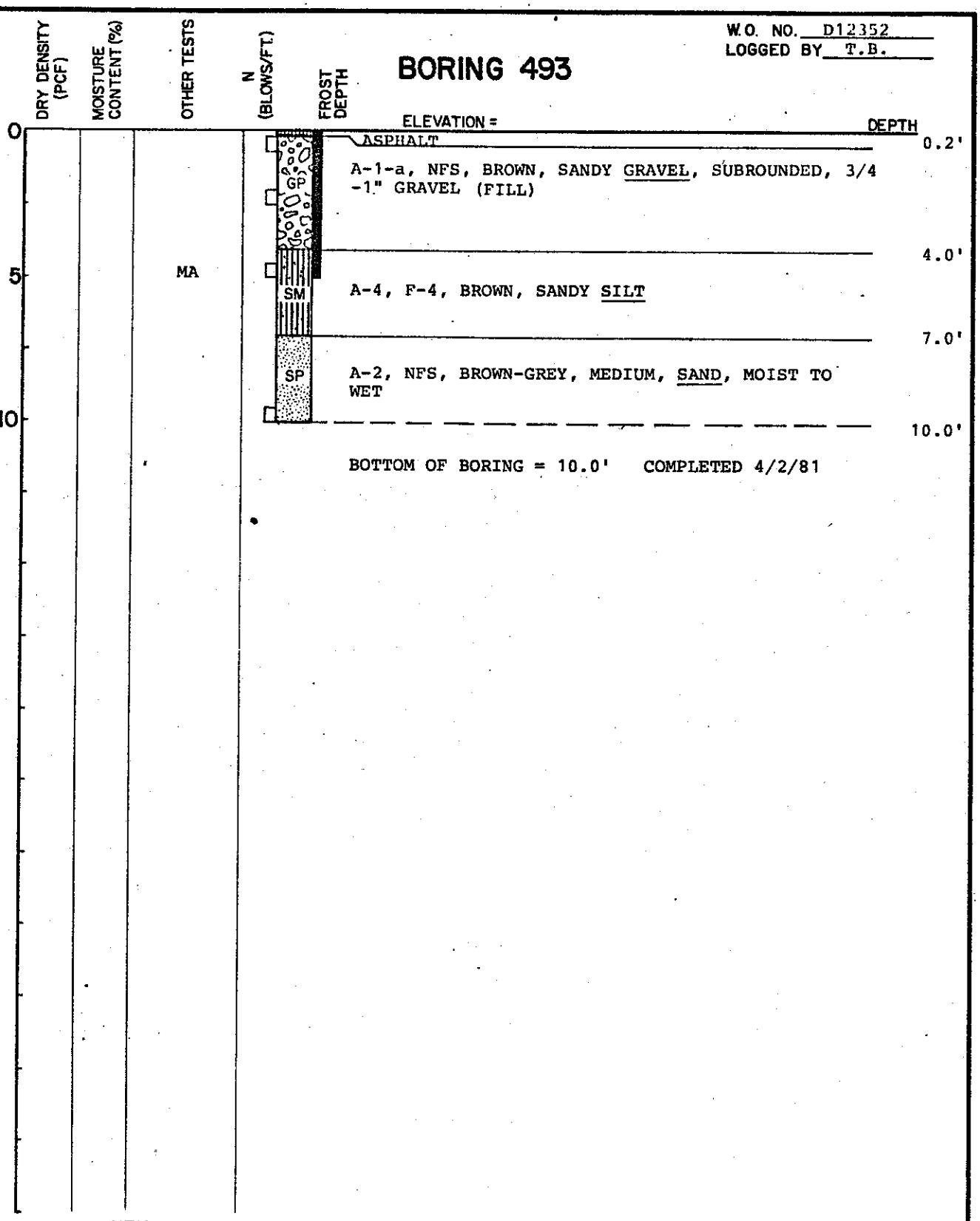
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 493



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

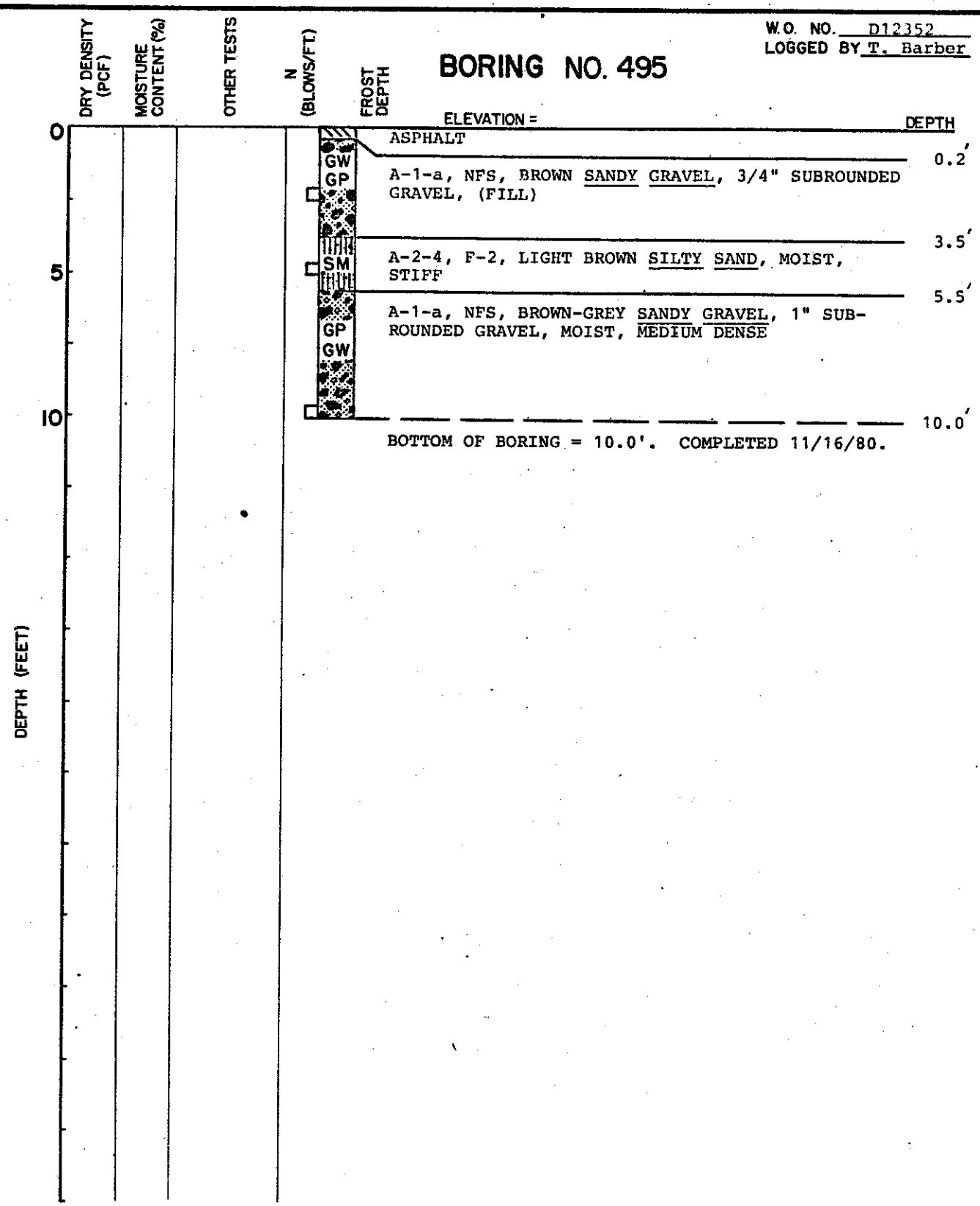
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 495



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 500

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = | DEPTH

DEPTH (FEET)

0

ASPHALT — 0.2'

SP SM — A-2-4, F-2, BROWN SILTY GRAVELLY SAND (FILL)

3.5'

5 — SM — A-2, F-2/F-4, BROWN SILTY SAND/SANDY SILT, MOIST, SOFT TO STIFF

5.5'

GP GW — A-2-4, F-2, BROWN-GREY GRAVELLY SAND, 1-1/2" TO 2" SUBROUNDED GRAVEL, DRY TO MOIST, VERY DENSE

10 — MA

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO 505

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION = DEPTH
0						ASPHALT 0.2′
			MA		GW GM	A-1-a, F-1/F-2, BROWN SANDY GRAVEL (FILL)
5					PT	BROWN PEAT 4.5′
					ML	A-7-6, F-4, BROWN SANDY SILT, PLASTIC, FINE TO MEDIUM SAND, WET TO SATURATED 5.5′
						▽ GROUND WATER LEVEL WHILE DRILLING
10		23.0	MA LL = 44 PI = 16			BOTTOM OF BORING = 10.0′. COMPLETED 11/16/80. 10.0′

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 507

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = DEPTH

0.2' ASPHALT

GP — A-1-a, NFS, BROWN, SANDY GRAVEL, WITH TRACE SILT, SUBROUNDED, 1 1/2" GRAVEL

2.5'

SM — A-4, F-4, BROWN, SANDY SILT

7.5'

BOTTOM OF BORING = 7.5' COMPLETED 4/2/81

DEPTH (FEET)

0

5

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- GRAB SAMPLE
- SPT SAMPLE
- 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- S — SHELBY TUBE – PUSHED
- GROUND WATER TABLE WHILE DRILLING

DCM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 510

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT.) | FROST DEPTH

ELEVATION = DEPTH

ASPHALT 0.2'

A-1-a, NFS, BROWN SANDY GRAVEL, (FILL) — GW

BROWN PEAT 4.5'

PT 5.0'

A-7-6, F-4, BROWN SANDY SILT, NON-PLASTIC, MOIST, STIFF — ML

MA

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

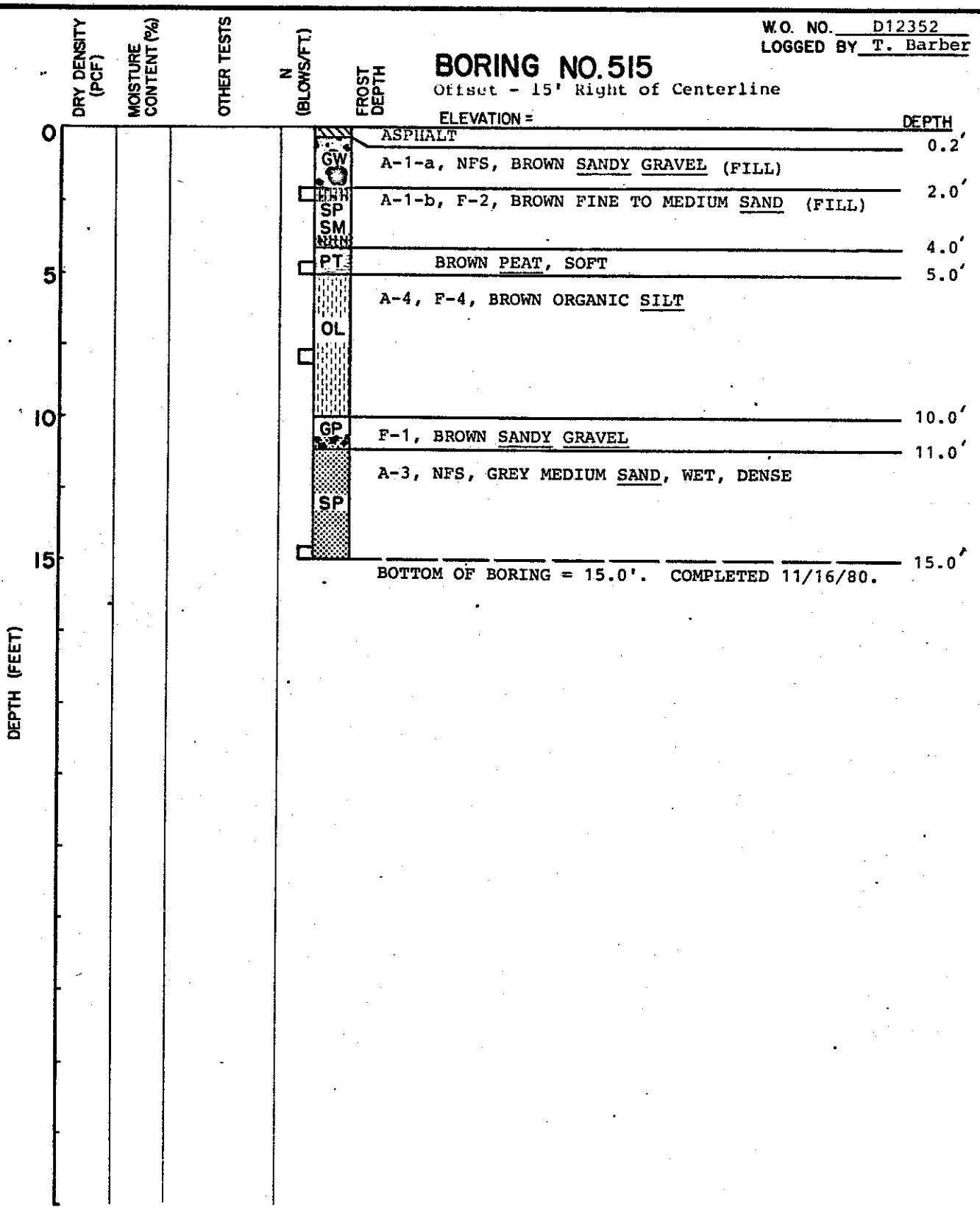
LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 515

Offset - 15' Right of Centerline



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

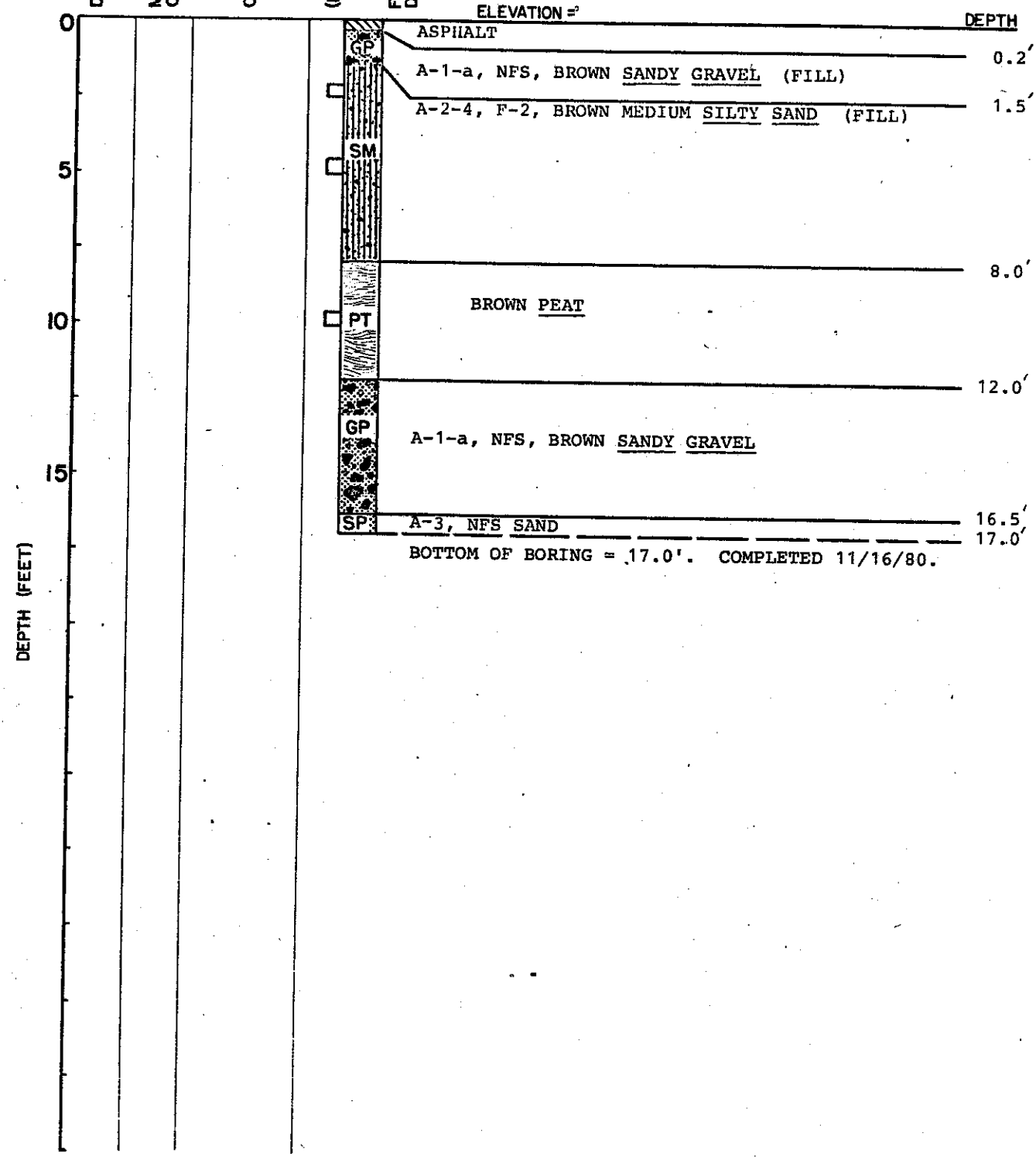
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 520



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
[S] – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

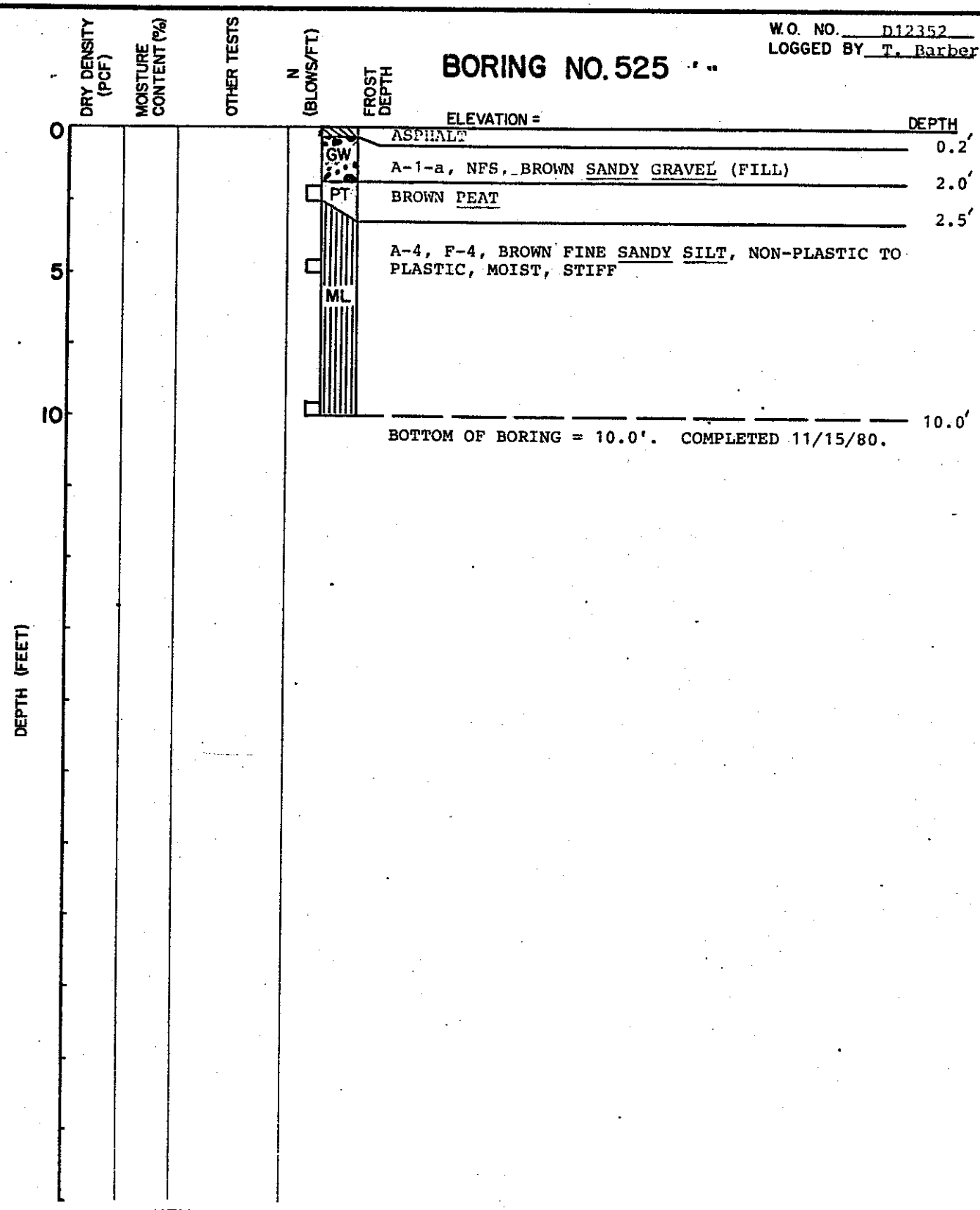
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 525



ELEVATION = DEPTH

ASPHALT 0.2'

A-1-a, NFS, BROWN SANDY GRAVEL (FILL) 2.0'

BROWN PEAT 2.5'

A-4, F-4, BROWN FINE SANDY SILT, NON-PLASTIC TO PLASTIC, MOIST, STIFF

10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/15/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 529+80

Offset - 16' Right of Centerline

ELEVATION =

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	DEPTH
0				GW		A-1-a, NFS, BROWN SANDY GRAVEL (FILL)
						4.5'
5			MA	PT		F-4, BROWN PEAT
						5.0'
				OL		A-7-6, F-4, BROWN ORGANIC SILT, PLASTIC, WET, STIFF
10		31.0	MA			BOTTOM OF BORING = 10.0'. COMPLETED 11/16/80. 10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

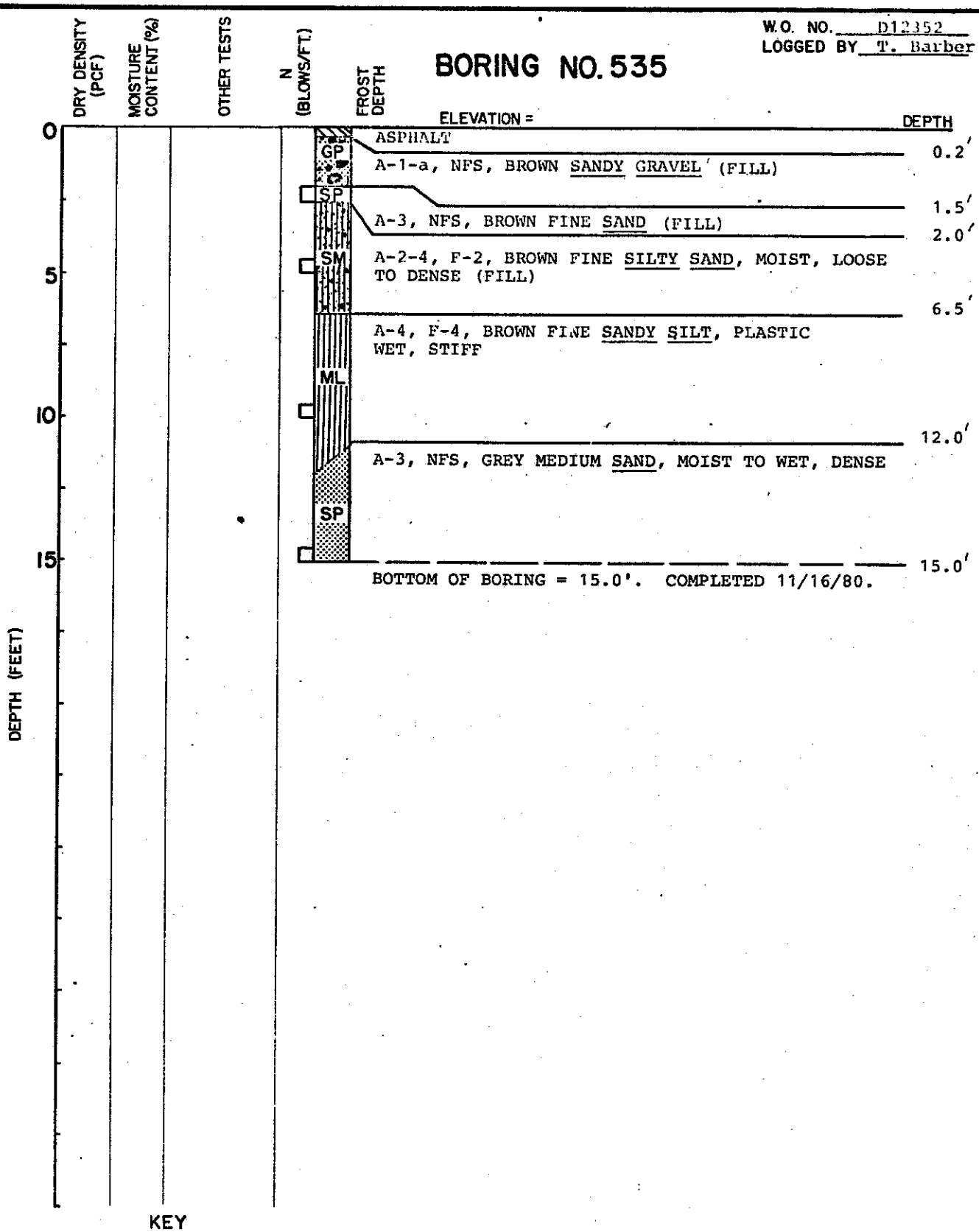
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 535



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

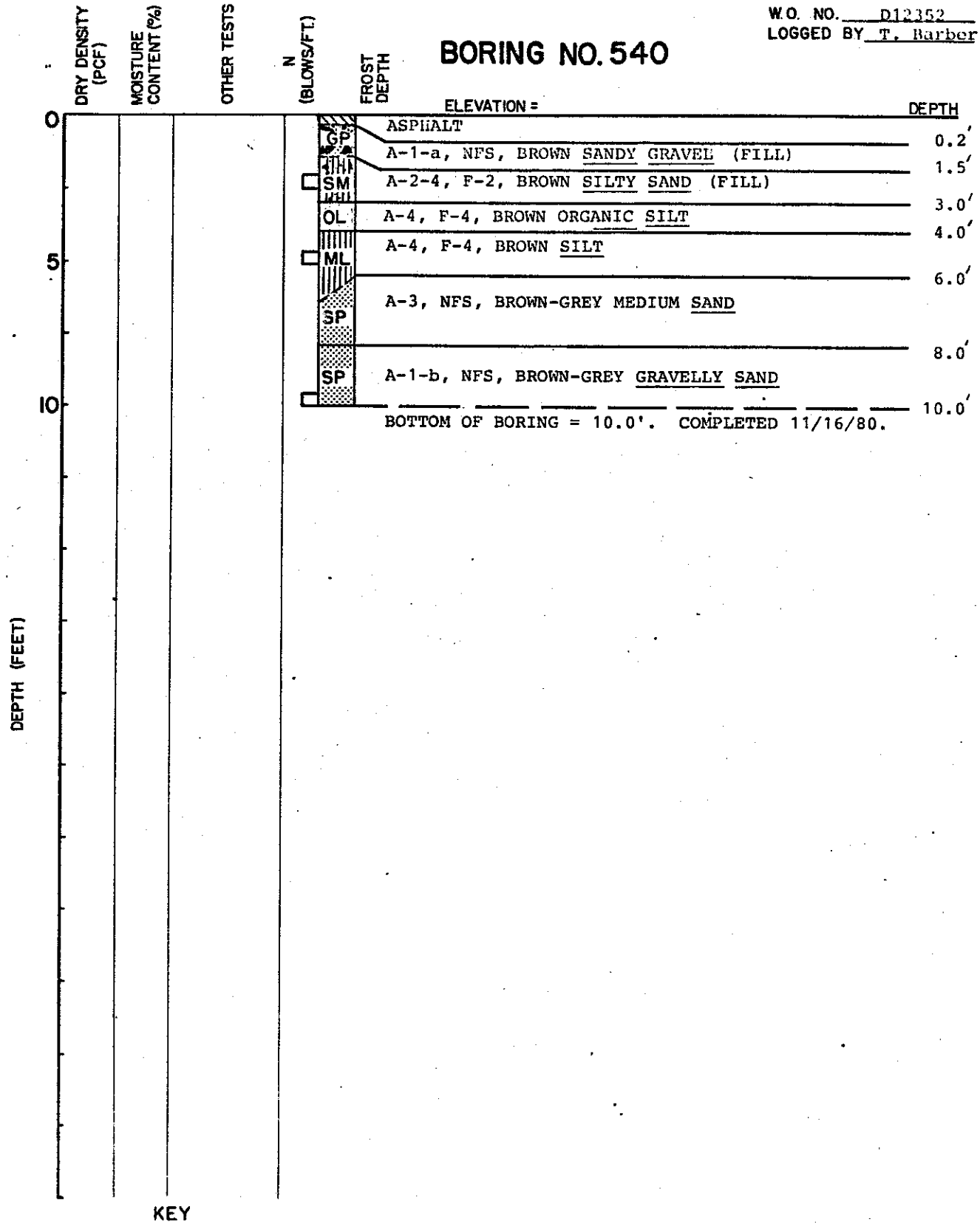
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 540



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 542

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					GW	A-1-a, F-1/NFS, BROWN, SANDY GRAVEL, W/TRACE SILT (5-12%) (FILL)	1.5'
					SM	A-1-b, F-2, BROWN SILTY SAND	4.0'
5		28.4	MA Organic Content = 4.1%		ML	A-4, F-4, BROWN SANDY SILT, AND TRACE ORGANICS	12.5'
10					GP	A-1-a, NFS, GREY SANDY GRAVEL, SUBROUNDED 3/4" TO 1" GRAVEL	15.0'
15						BOTTOM OF BORING = 15.0' COMPLETED 4/3/81	

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
(S) – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 545

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0					GP	ASPHALT	0.2′
		8.9	MA		SM	A-1-a, NFS, BROWN SANDY GRAVEL, 3/4" GRAVEL (FILL)	1.5′
						A-4, F-4, BROWN SILTY FINE TO MEDIUM SAND (FILL)	3.5′
5					SM	A-4, F-4, BROWN FINE SANDY SILT, NON-PLASTIC, MOIST, STIFF	5.0′
					GP	A-1-a, NFS, GREY SANDY GRAVEL, 2" SUBROUNDED GRAVEL, MOIST, DENSE	
10			MA				10.0′

BOTTOM OF BORING = 10.0′. COMPLETED 11/17/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

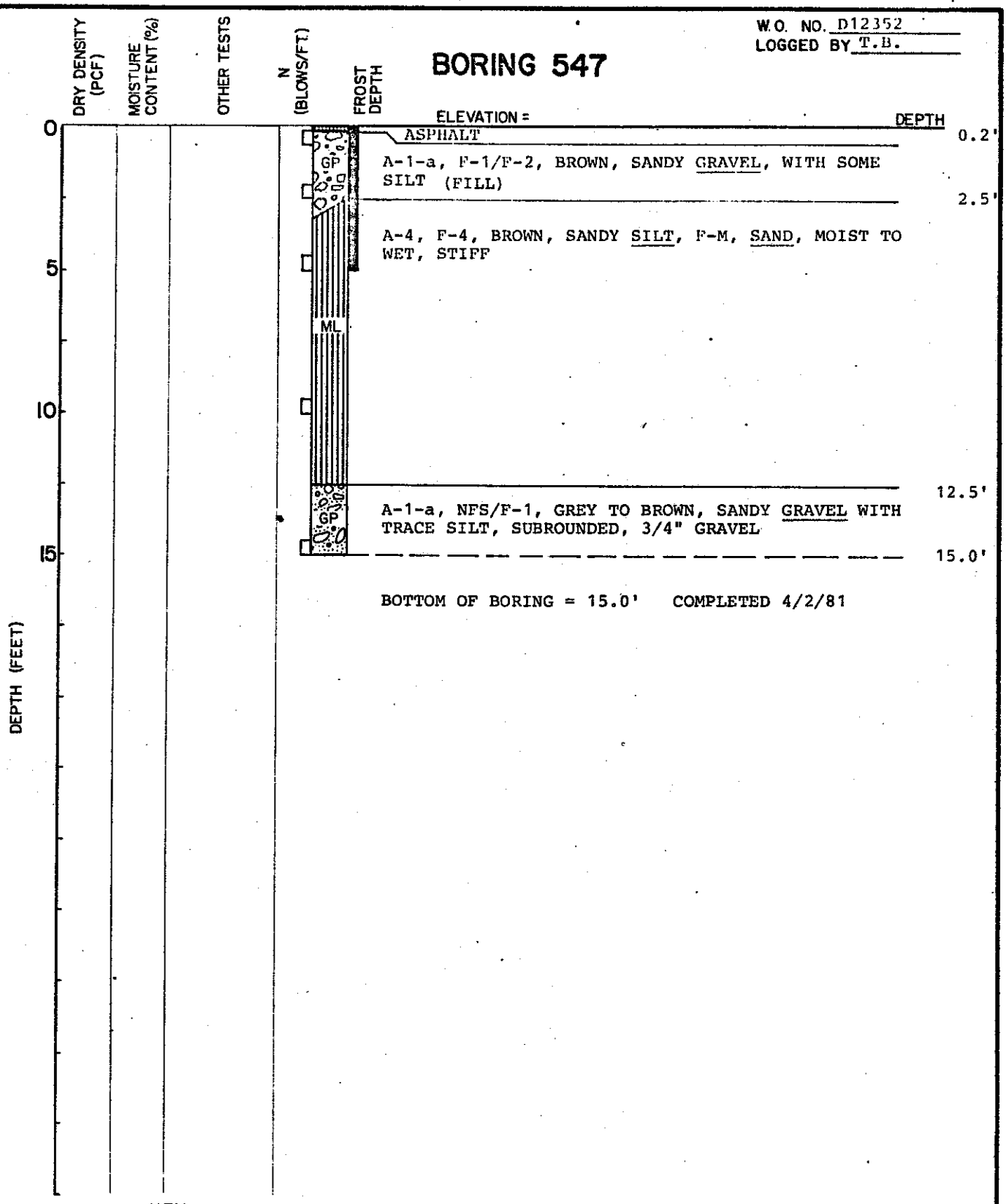
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 547



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
S - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

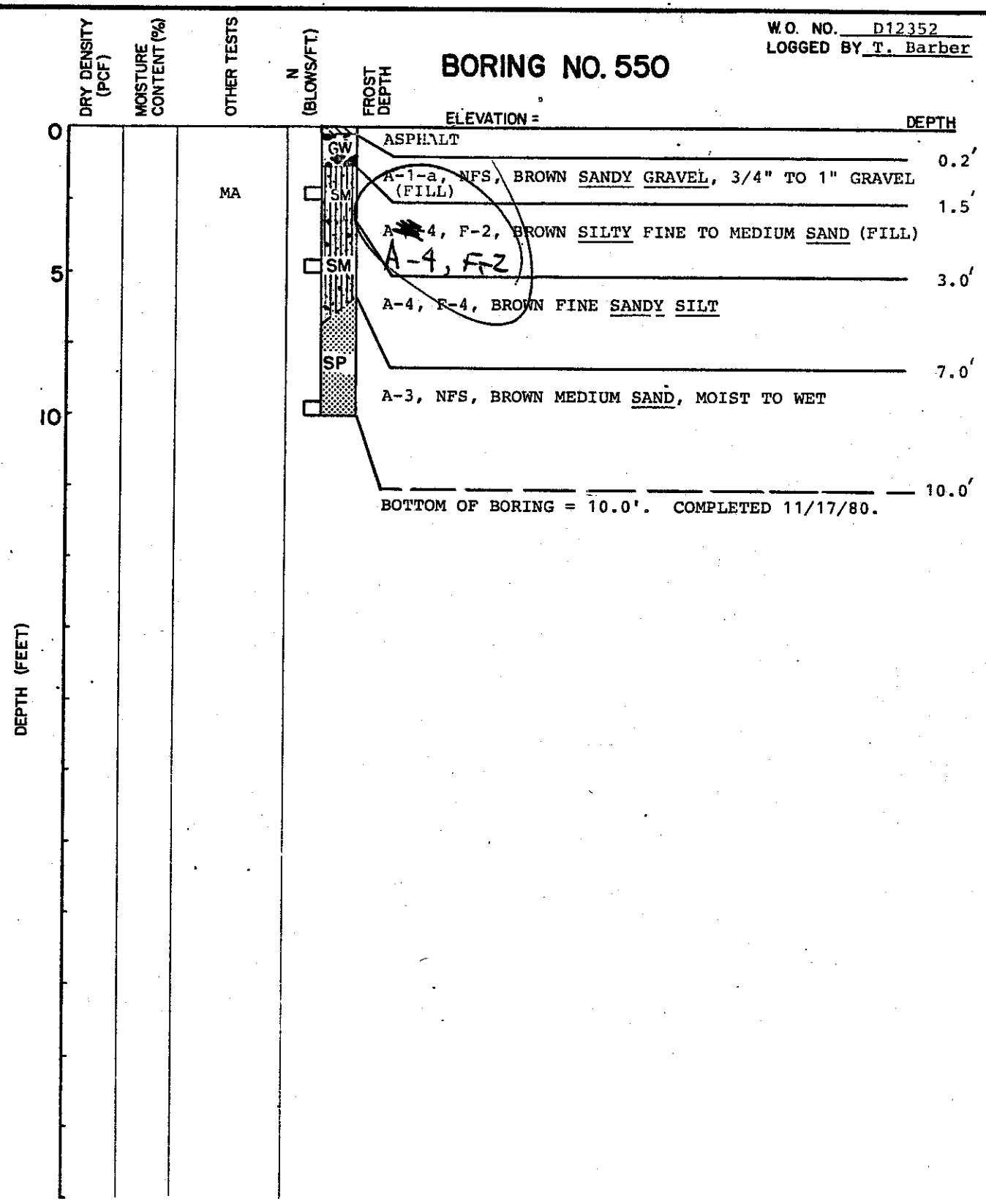
DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 550



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

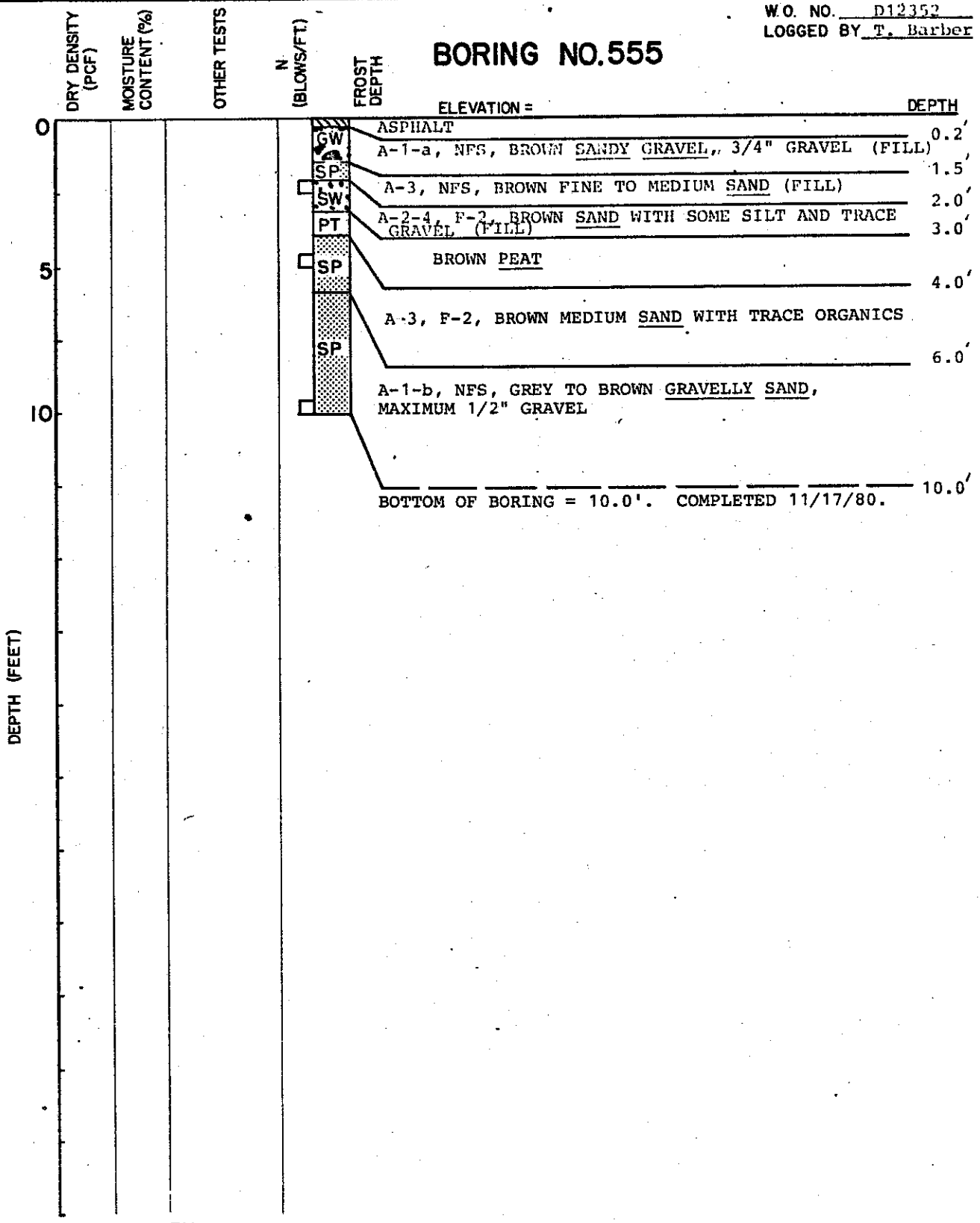
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.555



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 560

Offset - 18' Left of Centerline

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT)	FROST DEPTH	ELEVATION =	DEPTH
0					GM	A-1-a, F-1, BROWN SILTY SANDY GRAVEL	1.0'
			MA		GP	A-1-a, NFS, BROWN SANDY GRAVEL, 3/4" SUBROUNDED GRAVEL (FILL)	3.0'
					PT	BROWN PEAT	4.0'
5					SM	A-4, F-4, BROWN SANDY SILT	6.0'
					SP	A-2-4/A-3, NFS/F-2, BROWN FINE TO MEDIUM SAND	
10						BOTTOM OF BORING = 10.0'. COMPLETED 11/17/80.	10.0'

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ - GRAB SAMPLE
- ◪ - SPT SAMPLE
- ■ - 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
- Ⓢ - SHELBY TUBE - PUSHED
- ▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 565

ELEVATION = '

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH		DEPTH
0						ASPHALT	
					GW		0.2'
						A-1-a, NFS, BROWN SANDY GRAVEL (FILL)	
					SP		1.5'
						A-2, F-2, BROWN FINE TO MEDIUM SAND (FILL)	
5					SP		3.5'
						A-3, NFS, GREY MEDIUM SAND, 3/8" GRAVEL, MOIST, MEDIUM DENSE	
		5.1	MA				
10							8.0'
						BOTTOM OF BORING = 8.0'. COMPLETED 11/17/80.	

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- ☐ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 568

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH
	2.8	MA		

ELEVATION = DEPTH

	DEPTH
ASPHALT	0.2'
A-1-a, NFS/F-1, BROWN, SANDY GRAVEL (FILL)	0.5'
A-1-a, NFS, SANDY GRAVEL (FILL)	2.0'
GP / SP / SM — A-3, F-2, BROWN, SLIGHTLY SILTY SAND	4.0'
SW — A-1-b, F-2, BROWN MEDIUM GRAVELLY SAND, SUB-ROUNDED 1" GRAVEL	10.0'

BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

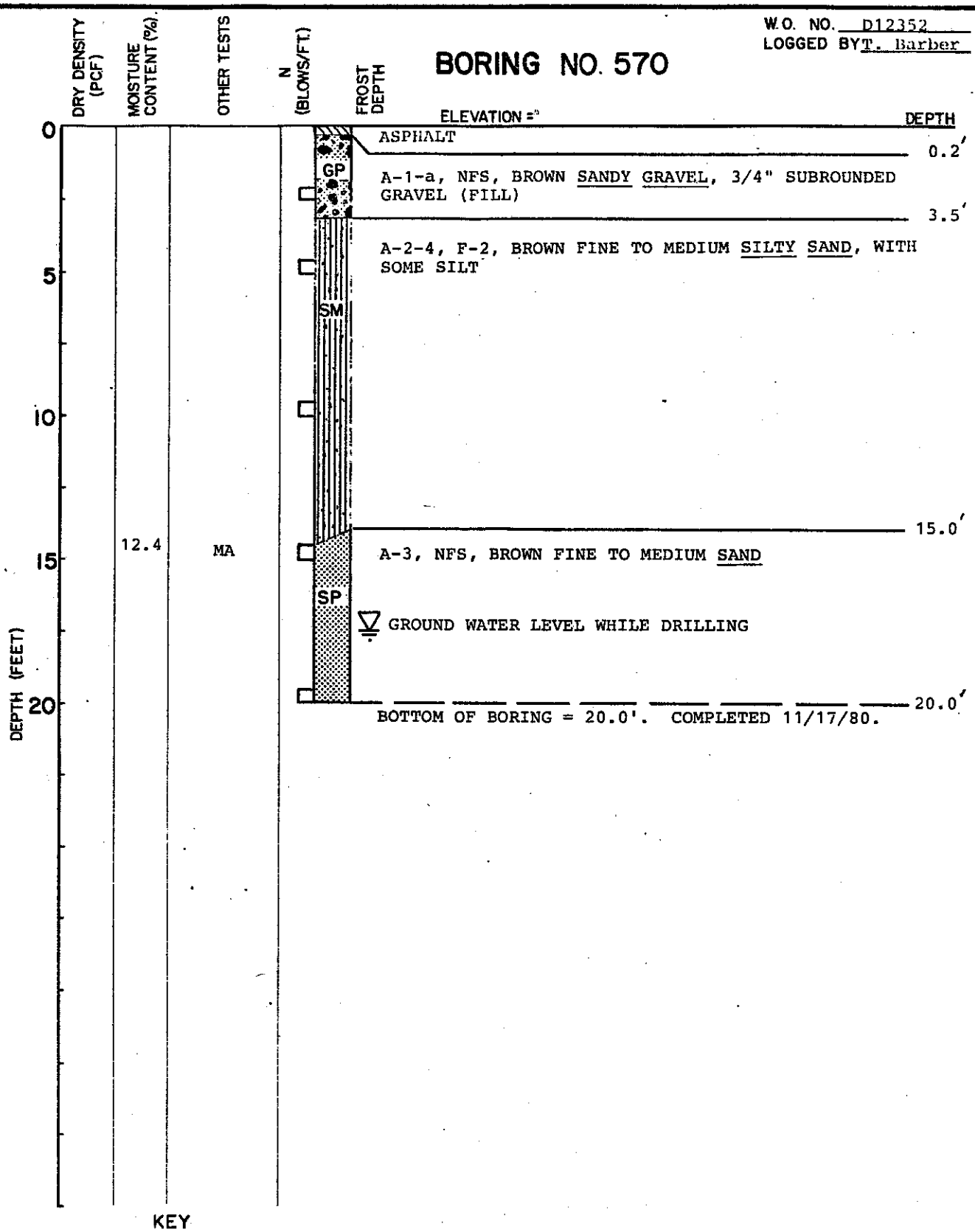
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 570



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

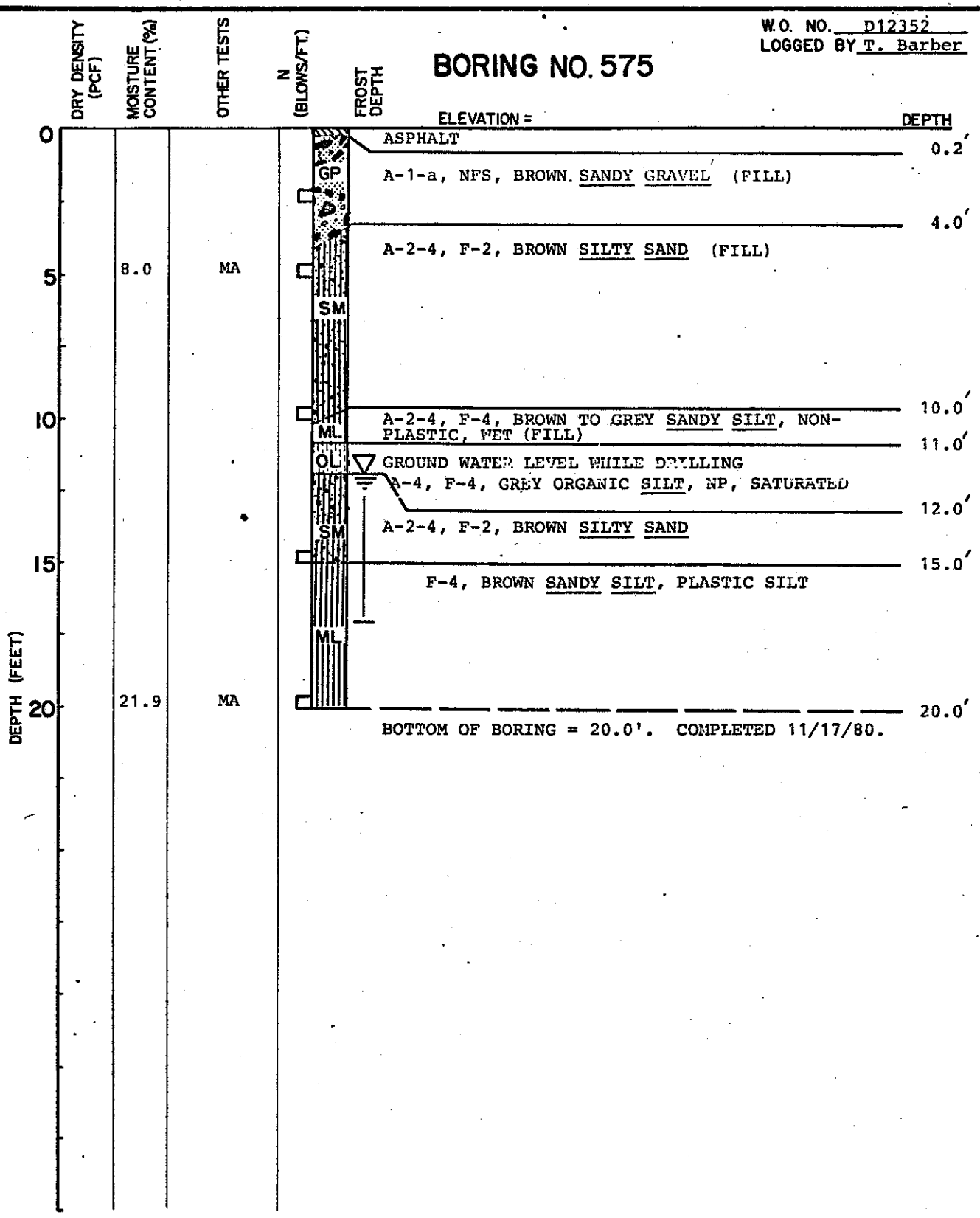
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 575



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX

- □ – GRAB SAMPLE
- ◪ – SPT SAMPLE
- ■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
- Ⓢ – SHELBY TUBE – PUSHED
- ▽ – GROUND WATER TABLE WHILE DRILLING

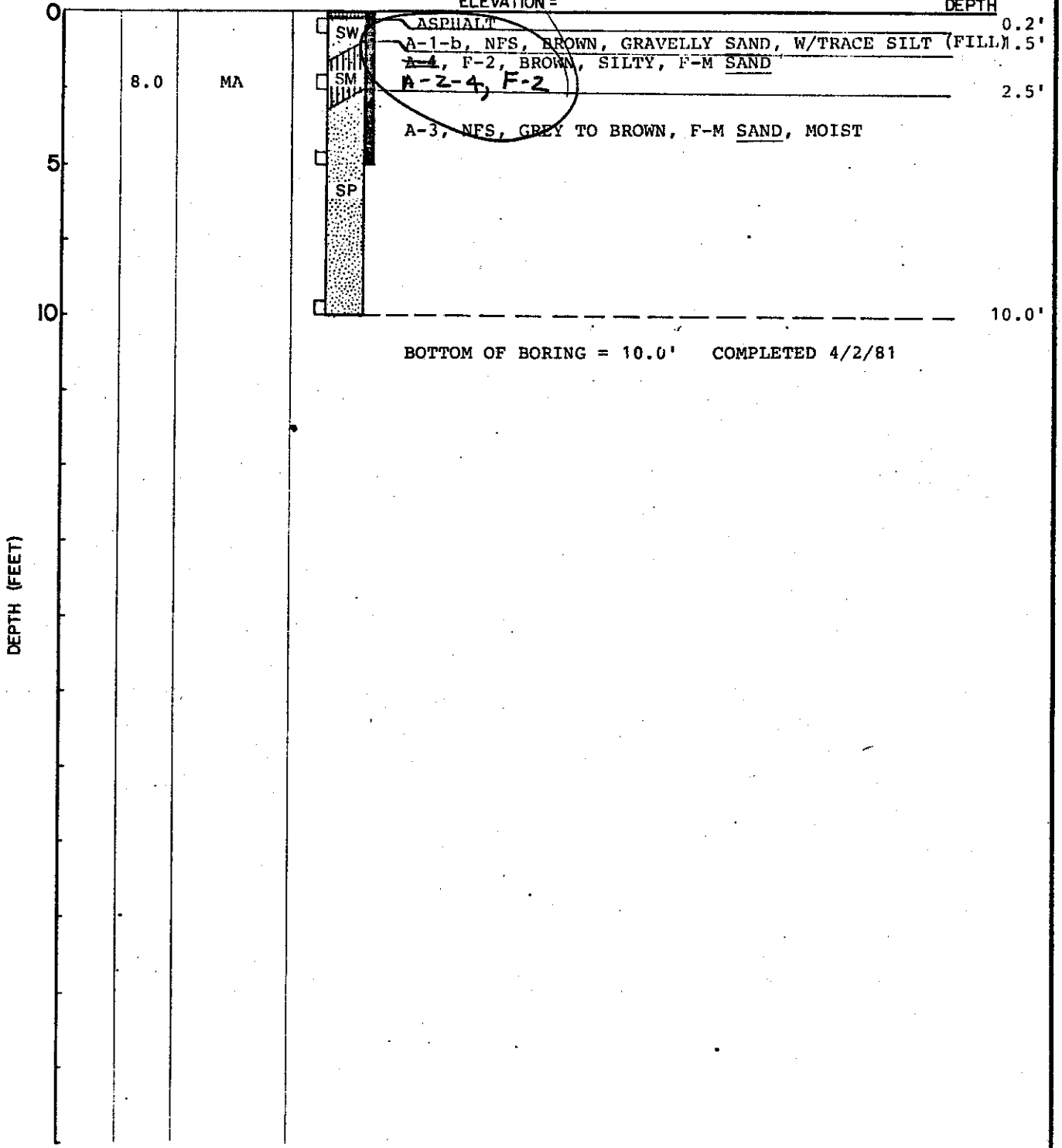
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 577



BOTTOM OF BORING = 10.0' COMPLETED 4/2/81

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
☐ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
(S) – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOM

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 580

DRY DENSITY (PCF) | MOISTURE CONTENT (%) | OTHER TESTS | N (BLOWS/FT) | FROST DEPTH

ELEVATION = | DEPTH

ASPHALT — 0.2′

GP — A-1-a, NFS, BROWN SANDY GRAVEL (FILL) — 2.0′

SP SM — A-3, NFS/F-2, BROWN TO GREY SAND, MOIST

7.5′

BOTTOM OF BORING = 7.5'. COMPLETED 11/17/80.

DEPTH (FEET)

0
5
10

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

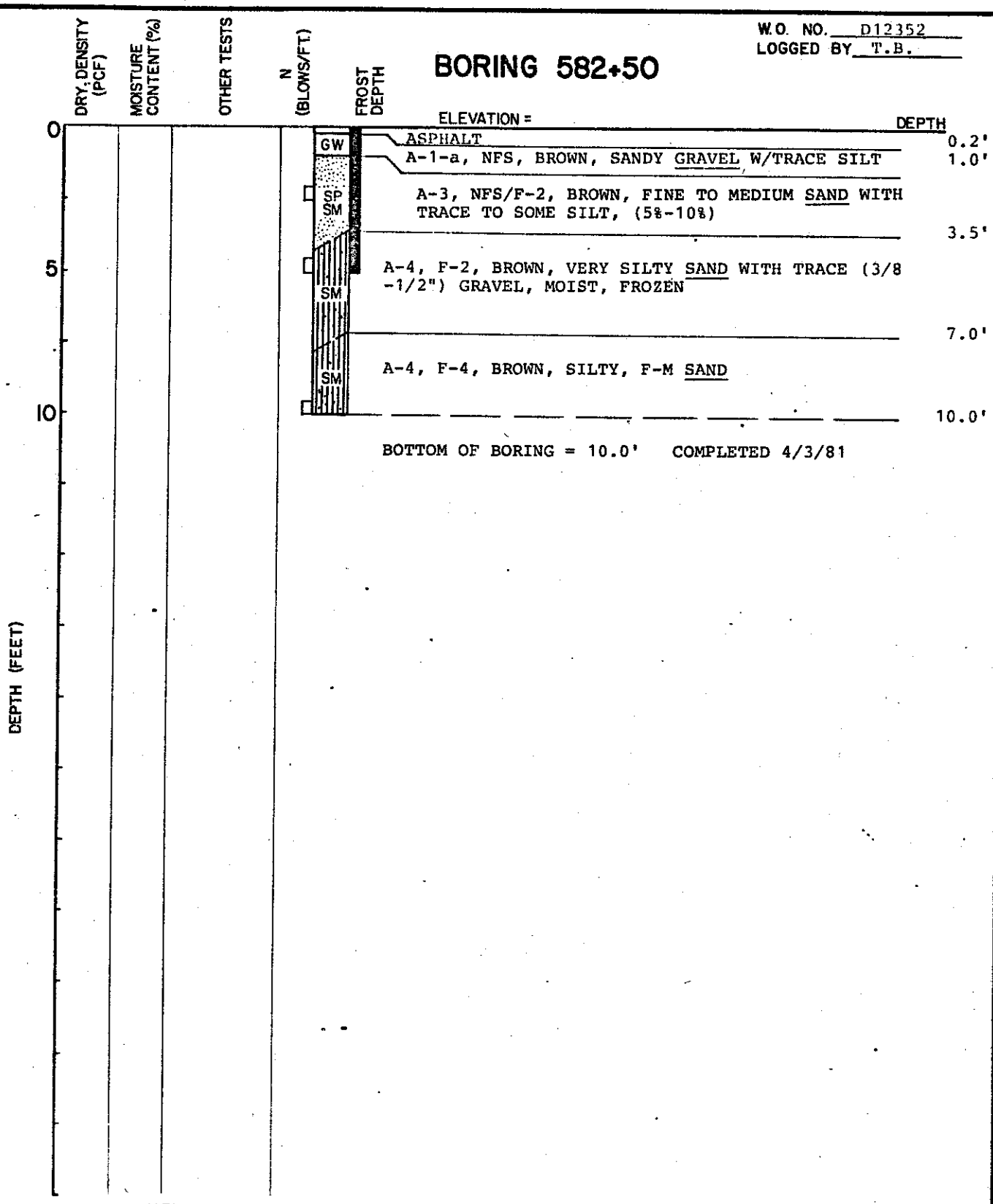
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 582+50



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

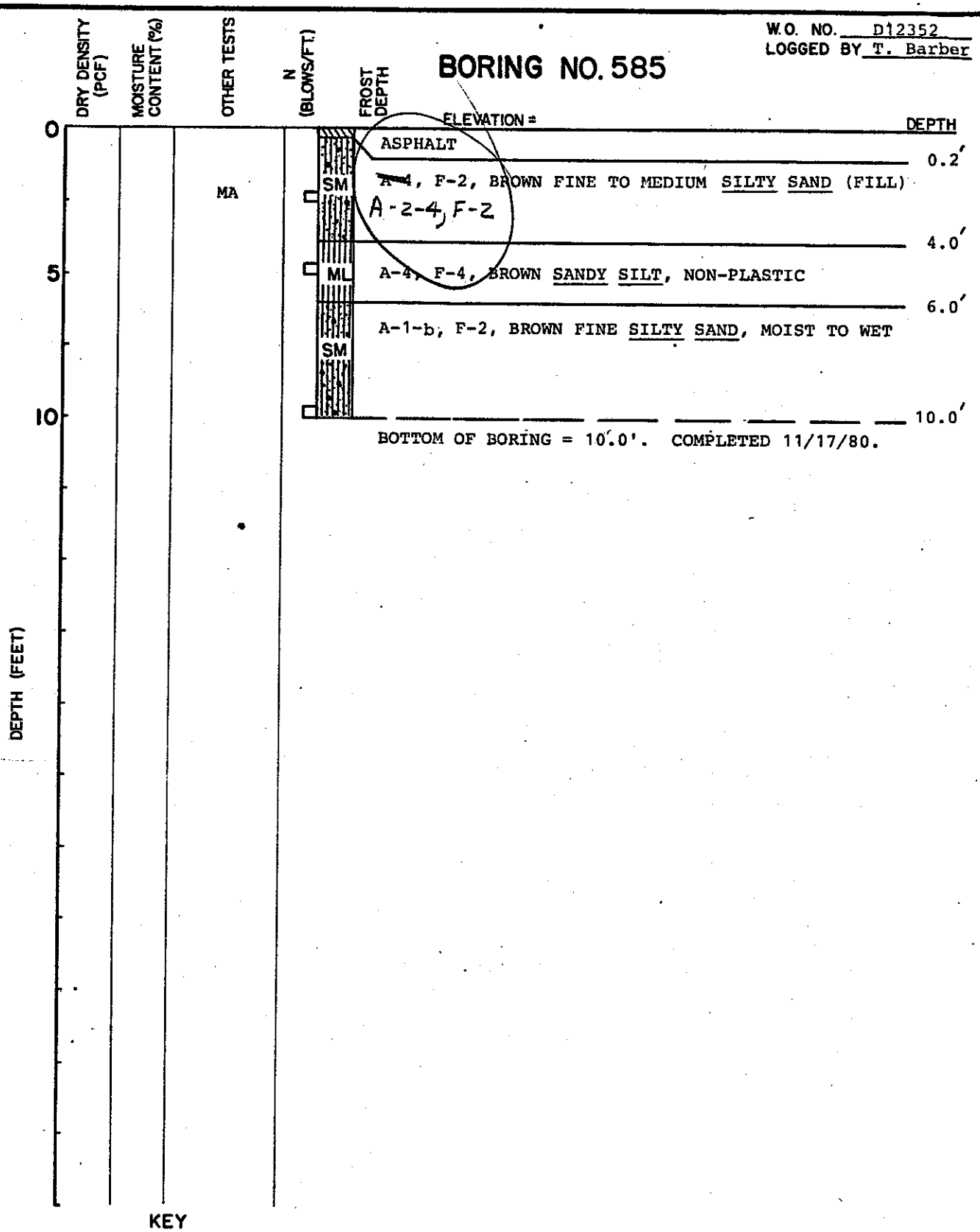
DOW

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 585



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

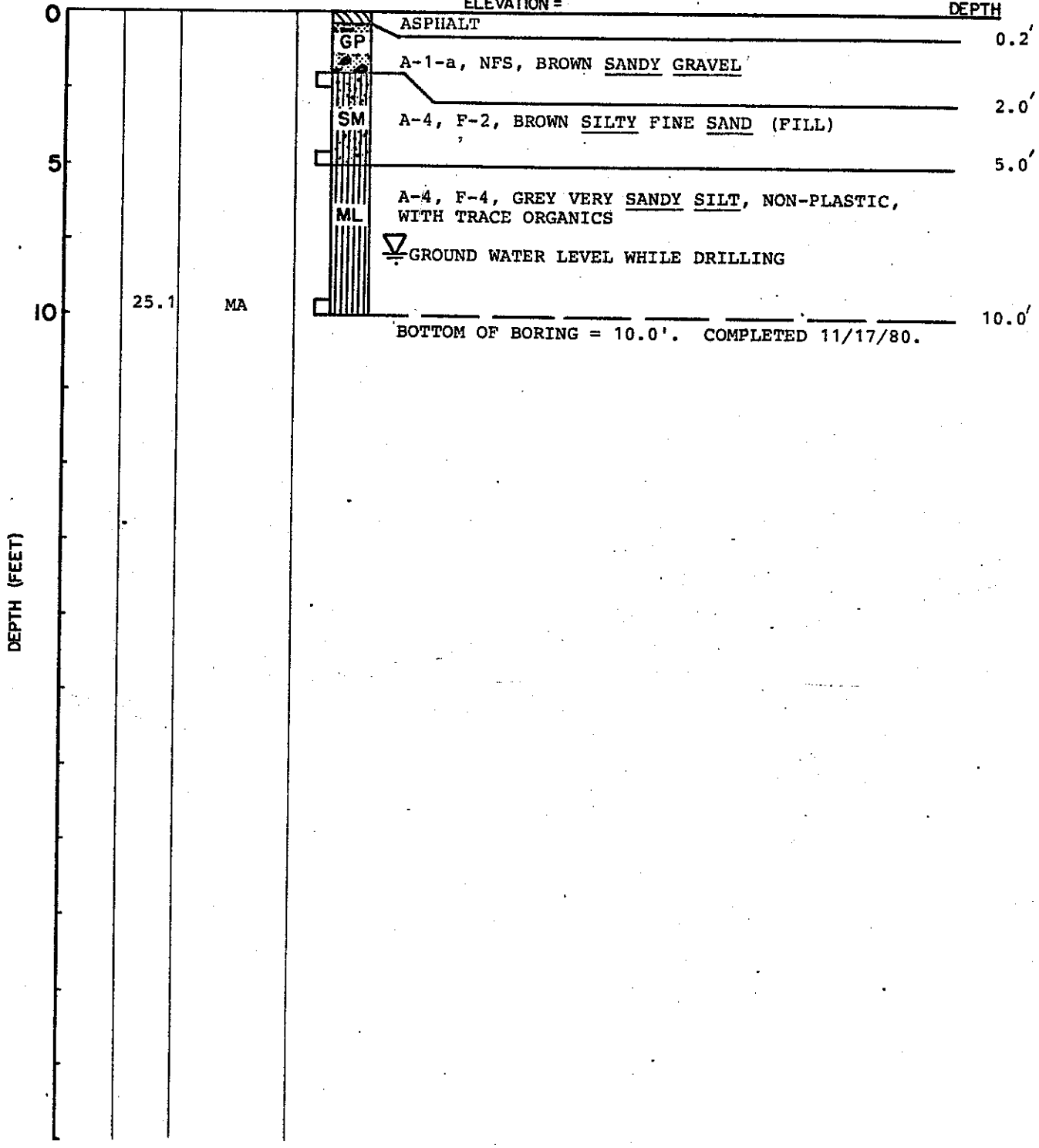
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.590



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T.B.

BORING 592

DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
					ASPHALT	0.2'
				SW	A-1-a, F-1, BROWN, SILTY, SANDY GRAVEL WITH TRACE TO SOME (10%) SILT .	2.5'
				GP	A-1-a, NFS, BROWN SANDY GRAVEL, SUBROUNDED, 1" GRAVEL	3.5'
	18.0	MA		SM	A-4, F-2, BROWN, SILTY SAND A-2-4, A2	
					BOTTOM OF BORING = 10.0' COMPLETED 4/2/81	10.0'

DEPTH (FEET)

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

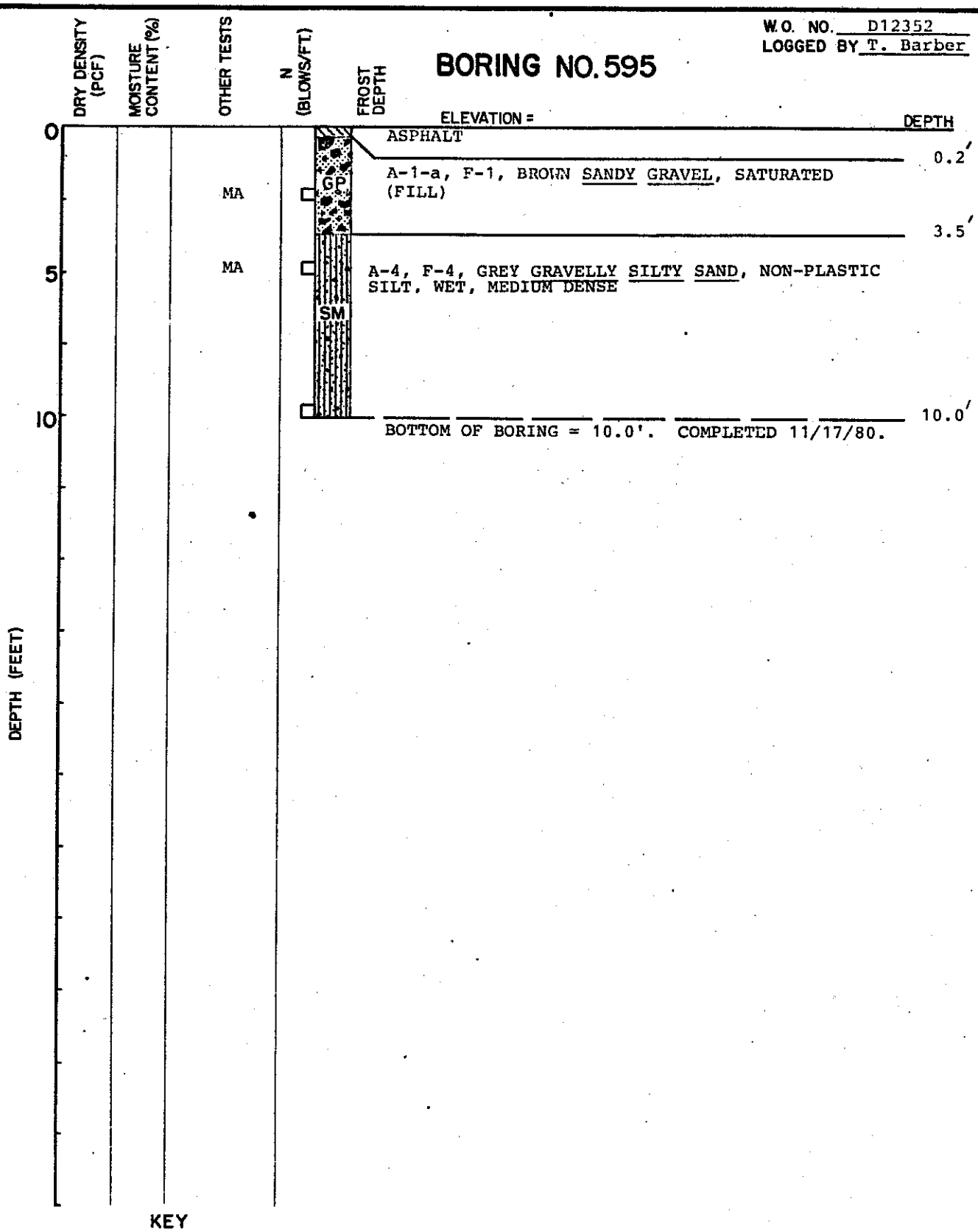
DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO. 595



KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ – GRAB SAMPLE
◪ – SPT SAMPLE
■ – 2.5" I.D. SPOON SAMPLE 340 # WEIGHT, 30" FALL
Ⓢ – SHELBY TUBE – PUSHED
▽ – GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

W.O. NO. D12352
LOGGED BY T. Barber

BORING NO.600

DEPTH (FEET)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	OTHER TESTS	N (BLOWS/FT.)	FROST DEPTH	ELEVATION =	DEPTH
0						ASPHALT	0.2'
					GP	A-1-a, NFS, BROWN SANDY GRAVEL, 3/4" GRAVEL, MOIST (FILL)	3.0'
5					SM	A-4, F-2, BROWN SILTY SAND	
10		11.1	MA				10.0'

BOTTOM OF BORING = 10.0'. COMPLETED 11/17/80.

KEY

PP = UNCONFINED COMPRESSIVE STRENGTH (PENETROMETER) (TSF)
TV = SHEAR STRENGTH (TORVANE) (TSF)
MA = MECHANICAL ANALYSIS
LL = LIQUID LIMIT (%)
PI = PLASTIC INDEX
□ - GRAB SAMPLE
◪ - SPT SAMPLE
■ - 2.5" I.D. SPOON SAMPLE 340# WEIGHT, 30" FALL
Ⓢ - SHELBY TUBE - PUSHED
▽ - GROUND WATER TABLE WHILE DRILLING

DOWL

LOG OF BORING

FIGURE

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		70	370	260	386	526	587
OFFSET (FEET)							
DEPTH (FEET)		Surface	Surface	Surface	Surface	Surface	Surface
DATE SAMPLED		11/12/80	11/15/80	11/15/80	11/15/80	11/15/80	11/15/80
LAB NUMBER		2075	2076	2080	2079	2077	2078
PERCENT PASSING	3"				100		
	2"				90	100	
	1-1/2"			97	90	98	
	1"			90	89	98	
	3/4"			85	86	95	
	1/2"		97	79	83	89	
	3/8"		96	68	78	79	
	#4	100	95	41	71	55	100
	#10	99.7	91	22	64	36	99
	#20	99.4	83	14	51	18	99
	#40	91	75	10	25	5	99
	#100	7	2.6	5	1.6	2	69
	#200	1.8	0.8	4.1	0.6	1.5	16.7
	.02mm						
LIQUID LIMIT		•					
PLASTIC INDEX							
NAT. MOISTURE							
AASHTO CLASS		A-3	A-3	A-1-a	A-1-b	A-1-a	A-2-4
F.S.V.		NFS	NFS	NFS	NFS	NFS	F-2
SOILS DESCRIPTION		Sa	Sa	Sa Grl	Grl Sa	Grl Sa	Si Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		15	15	20	20	25	28
OFFSET (FEET)*		15' Right	15' Right	9' Right	9' Right	9' Right	20'Left
DEPTH (FEET)		2.5	10.0	5.0	15.0	20.0	2.5
DATE SAMPLED		11/11/80	11/11/80	11/11/80	11/11/80	11/11/80	3/31/81
LAB NUMBER		A1415	A1417	A1419	A1421	A1426	A2091
PERCENT PASSING	3"						
	2"						
	1-1/2"	100	100				100
	1"	94.8	86.9				91
	3/4"	90.8	84.6				80
	1/2"	79.9	83.3				67
	3/8"	71.0	71.4	100			57
	#4	46.2	53.0	90.1	100	100	43
	#10	35.6	38.7	85.4	97.1	93.2	31
	#20	28.0	31.4	80.0	92.7	91.6	23
	#40	20.9	25.3	72.8	89.1	89.9	16
	#100	6.1	11.2	56.6	74.6	78.1	8
	#200	3.5	7.6	43.7	62.0	58.0	6.3
	.02mm		4.76	31.08	41.45	28.71	3.7
LIQUID LIMIT		•			21.3	17.6	
PLASTIC INDEX					5.7	2	
NAT. MOISTURE			16.5		14.8	17.8	5.8
AASHTO CLASS		A-1-a	A-1-a	A-4	A-4	A-4	A-1-a
F.S.V.		NFS	F-2	F-4	F-4	F-4	F-1
SOILS DESCRIPTION		Sa Grl	Sa Grl	Si Sa	Sa Si	Sa Si	Sa Grl
ORGANIC CONTENT (%)							

*Where no offset is indicated, test borings are 6' to 7' right of highway centerline.

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION	30	40	45	55	55	58
OFFSET (FEET)*						20' Left.
DEPTH (FEET)	5.0	10.0	10.0	2.5	15.0	3.0
DATE SAMPLED	11/11/80	11/11/80	11/11/80	11/12/80	11/12/80	3/31/81
LAB NUMBER	A1428	A1435	A1441	A1446	A1449	A2092
3"						
2"						
1-1/2"						
1"						
3/4"		100			100	
PERCENT 1/2"		96	100	100	94.8	
3/8"	100	96	94	86.1	93.5	100
PASSING #4	94	88	88	62.9	90.3	99
#10	87.7	81	83	44.3	84.6	99
#20	79.4	75	79	30.4	80.1	98
#40	70	70	72.8	20.9	74.3	93
#100	48	60	57.4	8.3	57.0	15
#200	37.9	54.6	45.0	5.5	49.3	9.5
.02mm	26.3	41.1	31.67		33.3	7.7
LIQUID LIMIT		24.6	20.4		22.2	
PLASTIC INDEX		9.8	4.4		6.4	
NAT. MOISTURE		15.9	15.8		13.0	
AASHTO CLASS	A-4	A-4	A-4	A-1-b	A-4	A-3
F.S.V.	F-4	F-4	F-4	NFS/F-2	F-4	F-2
SOILS DESCRIPTION	Si Sa	Sa Si	Si Sa	Grl Sa	Si Sa	Sa
ORGANIC CONTENT (%)						

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		58	60	60	62	62	65
OFFSET (FEET)*							
DEPTH (FEET)		5.0	2.5	10.0	.2 to .8	5.0	2.5
DATE SAMPLED		3/31/81	11/12/80	11/12/80	3/31/81	3/31/81	11/12/80
LAB NUMBER		A2122	A1450	A1452	A2169	A2123	A1453
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"						100
	3/4"		100	100	100		96
	1/2"	100	94.9	95.3	96.6	100	80
	3/8"	99	85.1	95.3	86.9	95	65
	#4	93	61.0	93.3	69.7	87	52
	#10	87	46.1	91.2	52.6	79	42
	#20	81	33.7	89.7	35.5	72	32
	#40	73	20.9	87.1	19.3	64	19
	#100	57	10.4	81.5	8.4	48	8.5
	#200	50	6.7	77.0	5.0	40.4	6.4
	.02mm	44	4.9	64.68		31.0	
LIQUID LIMIT		21		30.2			
PLASTIC INDEX		7.7		3.7			
NAT. MOISTURE		18.2		28.8	3.2	8.9	
AASHTO CLASS		A-4	A-1-a	A-4	A-1-b	A-4	A-1-a
F.S.V.		F-4	F-2	F-4	F-2/NFS	F-3	F-1
SOILS DESCRIPTION		Sa Si	Grl Sa	Sa Si	Sa	Si Sa	Sa Grl
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		65	70	75	80	85	97
OFFSET (FEET)*							
DEPTH (FEET)		15.0	10.0	5.0	2.5	10.0	2.5
DATE SAMPLED		11/12/80	11/12/80	11/14/80	11/12/80	11/12/80	3/31/81
LAB NUMBER		A1456	A1459	A1368	A1460	A1309	A2093
PERCENT PASSING	3"						
	2"						
	1-1/2"						100
	1"						96
	3/4"		100				91
	1/2"	100	94.9	100	100	100	81
	3/8"	99.5	93.1	96.0	99.5	96.2	74
	#4	95.9	91.1	88.8	96.9	88.8	57
	#10	92.8	87.2	84.4	91.3	80.6	45
	#20	90.5	77.8	79.8	71.6	67.7	30
	#40	86.2	58.3	64.9	24.0	45.1	18
	#100	20.1	3.1	31.3	5.5	7.0	8.0
	#200	13.4	1.1	23.0	3.7	2.5	6.2
	.02mm	5.29		14.44			4.5
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE		18.3		9.4			3.7
AASHTO CLASS		A-2-4	A-3	A-2-4	A-1-b	A-1-b	A-1-a
F.S.V.		F-2	NFS	F-2	NFS	NFS	F-2
SOILS DESCRIPTION		Si Sa	Sa	Si Sa	Sa	Sa	Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		97	100	102	110	110	115
OFFSET (FEET)*							
DEPTH (FEET)		5.0	10.0	5.0	2.5	8.0	10.0
DATE SAMPLED		3/31/81	11/13/80	3/31/81	11/13/80	11/13/80	11/13/80
LAB NUMBER		A2124	A1317	A2125	A1323	A1325	A1328
PERCENT PASSING	3"						
	2"	100					
	1-1/2"	93		100			
	1"	89		92			
	3/4"	79		81	100		
	1/2"	73		70	93.1		
	3/8"	66	100	64	80.4		100
	#4	53	94.8	53	52.5		80.6
	#10	40	86.9	44	32.2	100	72.4
	#20	28	80.0	36	20.3	99.4	64.1
	#40	19	72.1	30	13.6	95.5	57.2
	#100	10	60.0	21	6.8	81.4	43.4
	#200	8.5	52.0	16.9	5.0	72.4	36.5
	.02mm	6.5	38.09	12.0	3.1	43.79	22.66
LIQUID LIMIT						17.2	
PLASTIC INDEX						0.7	
NAT. MOISTURE				7.6		16.9	
AASHTO CLASS		A-1-a	A-4	A-1-b	A-1-a	A-4	A-4
F.S.V.		F-2	F-4	F-2	F-2	F-3/F-4	F-4
SOILS DESCRIPTION		Grl Sa	Sa Si	Si Grl Sa	Grl Sa	Sa Si	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		120	120	122	130	130	135
OFFSET (FEET)*						6' Right	
DEPTH (FEET)		5.0	15.0	5.0	2.5	8.5	5.0
DATE SAMPLED		11/13/80	11/13/80	3/31/81	11/13/80	11/13/80	11/13/80
LAB NUMBER		A1331	A1333	A2126	A1337	A1339	A1341
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"				100		
	3/4"	100		100	96.5		100
	1/2"	98.5	100	96	77.2	100	92.7
	3/8"	95.6	99.2	94	67.0	99.5	89.9
	#4	88.1	97.9	91	51.0	98.4	84.0
	#10	79.5	96.9	86	36.8	94.9	75.8
	#20	71.1	94.9	80	23.8	91.3	67.7
	#40	63.6	88.9	75	13.7	88.3	58.6
	#100	45.9	50.2	64	5.6	80.7	38.8
	#200	38.6	32.6	57.6	3.9	73.6	31.6
	.02mm	28.22			3.31	54.23	22.99
LIQUID LIMIT						24.8	
PLASTIC INDEX						5.3	
NAT. MOISTURE		11.4		22.6		16.6	
AASHTO CLASS		A-4	A-2-4	A-4	A-1-a	A-4	A-2-4
F.S.V.		F-4	F-2	F-4	F-2	F-4	F-4
SOILS DESCRIPTION		Si Sa	Si Sa	Sa Si	Sa Grl	Sa Si	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		140	140	150	152 +50	157	160
OFFSET (FEET)*							6' Right
DEPTH (FEET)		2.5	20.0	15.0	2.5	2.5	5.0
DATE SAMPLED		11/13/80	11/13/80	11/13/80	3/31/81	3/31/81	11/13/80
LAB NUMBER		A1343	A1348	A1355	A2094	A2095	A1360
PERCENT PASSING	3"						
	2"						
	1-1/2"				100	100	
	1"				96	93	100
	3/4"	100		100	91	85	93.7
	1/2"	85.8	100	92.7	79	78	88.7
	3/8"	79.7	92.1	88.5	68	69	84.9
	#4	63.6	87.7	83.1	49	53	71.5
	#10	47.0	83.0	77.5	37	38	59.5
	#20	29.2	78.2	72.4	28	25	53.5
	#40	17.0	73.4	67.1	22	17	47.3
	#100	6.8	56.4	52.6	14	8.6	34.4
	#200	4.2	47.6	44.6	11.8	6.4	28
	.02mm		33.12	28.72	7.6	4.2	19.21
LIQUID LIMIT			20.5	22.0			
PLASTIC INDEX			4.5	5.0			
NAT. MOISTURE			17.0	14.1		3.1	
AASHTO CLASS		A-1-a	A-4	A-4	A-1-a	A-1-a	A-2-4
F.S.V.		NFS	F-4	F-4	F-1	F-2	F-4
SOILS DESCRIPTION		Grl Sa	Si Sa	Grl Sa Si	Si Sa Grl	Grl Sa	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		165	168	168	170	170	178
OFFSET (FEET)*		6' Right			6' Right	6' Right	
DEPTH (FEET)		10.0	2.5	5.0	2.5	10.0	5.0
DATE SAMPLED		11/14/80	3/31/81	3/31/81	11/14/80	11/14/80	3/31/81
LAB NUMBER		A1376	A2096	A2172	A1378	A1380	A2127
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"	100	100		100		
	3/4"	94.5	91	100	97	100	
	1/2"	86.5	78	92	90	93	100
	3/8"	82.5	69	84	82	89	97
	#4	73.3	54	72	64	85	95
	#10	67.9	40	60	44	80	94
	#20	63	28	49	29	76	92
	#40	58.9	19	40	19	69	80
	#100	42	11	23	11	48	14
	#200	34.4	8.6	14.9	7.9	38.7	8.0
	.02mm	19.65	5.3	15.7	5.16	25.8	5.9
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE			2.7	5.4			4.8
AASHTO CLASS		A-2-4	A-1-a	A-1-b	A-1-a	A-4	A-3
F.S.V.		F-4	F-2	F-2	F-2	F-4	F-2
SOILS DESCRIPTION		Si Grl Sa	Grl Sa	Si Grl Sa	Grl sa	Si Sa	Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		180	185	190	200	205	225
OFFSET (FEET)*				6' Right	6' Right		6' Right
DEPTH (FEET)		10.0	5.0	10.0	2.5	2.5	2.5
DATE SAMPLED		11/14/80	11/14/80	11/14/80	11/14/80	11/14/80	11/15/80
LAB NUMBER		A1386	A1388	A1394	A1398	A1401	A1466
	3"						
	2"						
	1-1/2"						
	1"						
	3/4"				100		
PERCENT	1/2"	100	100	100	95	100	100
	3/8"	99.7	98	99	92	96	94
	#4	99.5	94	96	87	91	79
PASSING	#10	99	90	92	82	85	71
	#20	97	86	88	64	76	63
	#40	82	81	83	11.0	60	50
	#100	16	59	65	9.0	20	16
	#200	8.3	48.2	55.1	6	13.8	11.0
	.02mm	6.1	30.9		4.6	8.7	7.0
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE				11.8			
AASHTO CLASS		A-3	A-4	A-4	A-1-b	A-2-4	A-1-b
F.S.V.		F-2	F-4	F-4	F-2	F-2	F-2
SOILS DESCRIPTION		Sa	Si Sa	Sa Si	Sa	Si Sa	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		230	230	240	245	250	250
OFFSET (FEET)*		6' Right	6' Right				
DEPTH (FEET)		5 to 6.5	15 to 16.5	6 to 7	10.0	2.5	10 to 11.5
DATE SAMPLED		11/15/80	11/15/80	11/15/80	11/14/80	11/15/80	11/15/80
LAB NUMBER		A1470	A1472	a1478	A1482	A1483	A1485
PERCENT PASSING	3"						
	2"						
	1-1/2"	100					
	1"	93					
	3/4"	84					
	1/2"	75			100		
	3/8"	69			97	100	
	#4	57	100	100	91	99	100
	#10	51	98.9	97	86	97	98
	#20	46	98.9	95	81	95	96
	#40	40	97	90	75	83	92
	#100	27	81	70	52	13	71
	#200	21.8	62	62.1	38	7.8	51.1
	.02mm	11.2	28.3		23.3	4.1	31.1
LIQUID LIMIT				21.7			
PLASTIC INDEX				6.4			
NAT. MOISTURE			21.0	14.0	12.1		
AASHTO CLASS		A-1-b	A-4	A-4	A-4	A-3	A-4
F.S.V.		F-2	F-4	F-4	F-4	F-2	F-4
SOILS DESCRIPTION		Si Sa Grl	Sa Si	Sa Si	Si Sa	Sa	Sa Si
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		255	257 +50	257 +50	260	268	268
OFFSET (FEET)*		6' Right			16' Right		
DEPTH (FEET)		10.0	.2 to .8	2.5	2.5	2.5	5.0
DATE SAMPLED		11/15/80	4/2/81	4/2/81	11/15/80	4/2/81	4/2/81
LAB NUMBER		A1490	A2173	A2097	A1991	A2098	A2128
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"		100			100	100
	3/4"		99	100		95	96
	1/2"		94	98		91	93
	3/8"	100	87	97	100	88	88
	#4	99	68	94	98	85	78
	#10	98	51	89	97	81	69
	#20	97	37	85	94	77	62
	#40	92	26	71	77	61	54
	#100	60	13	16	9	12	32
	#200	52	8.5	9.7	3.9	7.8	24.7
	.02mm	41.7	7.5	7.0		5.6	14
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE		13.2	2.0	4.6		4.3	7.1
AASHTO CLASS		A-4	A-1-b	A-3	A-3	A-3	A-2-4
F.S.V.		F-4	F-2	F-2	NFS	F-2	F-2
SOILS DESCRIPTION		Sa Si	Grl Sa	Sa	Sa	Grl Sa	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		270	275	282	285	290	295
OFFSET (FEET)*		6' Right	6' Right		6' Right		
DEPTH (FEET)		10.0	10.0	5.0	10.0	10.0	2.5
DATE SAMPLED		11/15/80	11/15/80	4/2/81	11/15/80	11/15/80	11/15/80
LAB NUMBER		A1499	A1502	A2129	A1508	A1511	A1512
	3"						
	2"						
	1-1/2"						
	1"						
	3/4"						
PERCENT	1/2"						100
	3/8"				100	100	97
	#4	100		100	99.7	99.3	80
PASSING	#10	98	100	98	98	99.3	68
	#20	97	99	96	94	99.3	60
	#40	92	93	92	82	98.7	52
	#100	77	16	76	24	98	27
	#200	71	12	66.4	9.8	95	17.6
	.02mm	59.7	7.9	33.7	3.2	32.4	9.6
LIQUID LIMIT		25.6					
PLASTIC INDEX		8.0					
NAT. MOISTURE		20.2		26.6	6.0	24.2	3.3
AASHTO CLASS		A-4	A-2-4	A-4	A-3	A-4	A-2-4
F.S.V.		F-4	F-2	F-4	F-2	F-4	F-2
SOILS DESCRIPTION		Sa Si	Si Sa	Sa Si	Sa	Si	Si Gr1 Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		300	305	310	315	315	320
OFFSET (FEET)*							6' Right
DEPTH (FEET)		5.0	10.0	10.0	2.5	20	2.5
DATE SAMPLED		11/15/80	11/15/80	11/15/80	11/16/80	11/16/80	11/15/80
LAB NUMBER		A1516	A1520	A1523	A1529	A1533	A1534
PERCENT PASSING	3"						
	2"			100			
	1-1/2"			79			
	1"		100	67	100		100
	3/4"		93	53	97	100	98
	1/2"	100	88	47	95	93	89
	3/8"	91	78	38	89	89	84
	#4	82	50	21	79	82	79
	#10	74	38	13	68	75	72
	#20	68	31	9	57	69	66
	#40	60	22	6	42	61	59
	#100	34	6.6	3	17	42	27
	#200	26	5.1	1.5	11.4	34.1	13.4
	.02mm	16.4	3.3		7.3	22.4	6.8
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE		6.9				9.8	
AASHTO CLASS		A-2-4	A-1-a	A-1-a	A-1-b	A-2-4	A-2-4
F.S.V.		F-4	F-1	NFS	F-2	F-4	F-2
SOILS DESCRIPTION		Si Grl Sa	Sa Grl	Sa Grl	Si Grl Sa	Si Grl Sa	Si Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		335	340	355	360	365	370
OFFSET (FEET)*			18' Left	6' Right			
DEPTH (FEET)		2.5	5.0	10.0	2.5	2.5	10.0
DATE SAMPLED		11/15/80	11/15/80	11/15/80	11/15/80	11/15/80	11/15/80
LAB NUMBER		A1543	A1547	A1558	A1560	A1563	A1568
PERCENT PASSING	3"						
	2"			100			
	1-1/2"	100		93			
	1"	89		93	100		
	3/4"	83	100	93	96	100	100
	1/2"	72	97	90	93	95	96
	3/8"	64	91	87	92	93	95
	#4	51	85	83	89	87	92
	#10	40	79	78	84	80	89
	#20	30	72	72	75	69	82
	#40	21	62	56	55	39	52
	#100	8	45	31	32	10	16
	#200	5.1	38	26.4	30.3	6.9	13.2
	.02mm		19.7	15.5		5.2	6.7
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE			14.5	15.7			
AASHTO CLASS		A-1-a	A-4	A-2-4	A-2-4	A-1-b	A-2-4
F.S.V.		NFS	F-4	F-2	F-4	F-2	F-2
SOILS DESCRIPTION		Sa Grl	Si Grl Sa	Si Grl Sa	Si Sa	Sa	Si Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		375	380	383	383	383	383
OFFSET (FEET)*							
DEPTH (FEET)		10.0	3.0	.2 to .8	2.5	5.0	10.0
DATE SAMPLED		11/15/80	11/15/80	4/2/81	4/2/81	4/2/81	4/2/81
LAB NUMBER		A1572	A1573	A2168	A2099	A2130	A2171
PERCENT PASSING	3"						
	2"						
	1-1/2"				100		100
	1"		100	100	94		94
	3/4"		96	97	94		92
	1/2"	100	91	87	92	100	82
	3/8"	99.6	88	79	89	98	74
	#4	97	85	60	82	91	60
	#10	93	78	44	75	83	47
	#20	86	67	32	67	73	34
	#40	58	51	22	56	63	20
	#100	14	20	10	41	50	9
	#200	10.6	10.5	5.7	37	46.2	6.3
	.02mm		5.8	6.3	18	30.0	5.8
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE				2.8	21.7	33.3	4.1
AASHTO CLASS		A-2-4	A-2-4	A-1-a	A-4	A-4	A-1-b
F.S.V.		F-2	F-2	F-2	F-3	F-4	F-2
SOILS DESCRIPTION		Si Sa	Si Grl Sa	Grl Sa	Si Grl Sa	Si Sa	Sa
ORGANIC CONTENT (%)						5.1	

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		385	387	387	390	405	405
OFFSET (FEET)*							
DEPTH (FEET)		5.0	2.5	5.0	10.0	2.5	10.0
DATE SAMPLED		11/15/80	4/2/81	4/2/81	11/15/80	11/15/80	11/15/80
LAB NUMBER		A1577	A2100	A2131	A1581	A1590	A1592
PERCENT PASSING	3"						
	2"			100			
	1-1/2"		100	92			
	1"		92	76	100		
	3/4"	100	76	66	94		100
	1/2"	94	63	58	87	100	92
	3/8"	80	50	51	81	87	86
	#4	51	42	42	68	63	79
	#10	34	28	36	57	48	74
	#20	22	22	30	50	37	63
	#40	12	17	19	41	29	38
	#100	4	11	5	22	15	5
	#200	2.5	5.0	3.1	15.5	11.0	2.8
	.02mm		3.3	2.0	8.6		
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE			2.5	3.5			
AASHTO CLASS		A-1-a	A-1-a	A-1-a	A-1-b	A-1-a	A-1-b
F.S.V.		NFS	NFS	NFS	F-2	F-2	NFS
SOILS DESCRIPTION		Grl Sa	Sa Grl	Sa Grl	Si Grl Sa	Si Grl Sa	Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		420	425	430	437 +50	440	450
OFFSET (FEET)*							
DEPTH (FEET)		2.5	2.5	2.5	5.0	3.0	2.5
DATE SAMPLED		11/15/80	11/15/80	11/16/80	4/2/81	11/15/80	11/16/80
LAB NUMBER		A1599	A1603	A1607	A2132	A1615	A1620
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"						100
	3/4"		100	100			85
	1/2"	100	92	97.7			81
	3/8"	94	82	84	100	100	70
	#4	79	61	72	99.7	98	40
	#10	69	48	57	99	96	37
	#20	60	37	40	98	93	27
	#40	51	25	18	97	89	17
	#100	33	11	12.2	93	79	8
	#200	23.7	7.9	8.1	82.2	50.2	6.1
	.02mm				23.1	21.7	
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE					24.7		
AASHTO CLASS		A-2-4	A-1-a	A-1-b	A-4	A-4	A-1-a
F.S.V.		F-2	F-2	F-2	F-4	F-4	F-2
SOILS DESCRIPTION		Si Grl Sa	Grl Sa	Si Grl Sa	Si	Sa Si	Sa Grl
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		450	455	460	465	470	475
OFFSET (FEET)*							
DEPTH (FEET)		10.0	2.5	12.5	2.5	5.0	10.0
DATE SAMPLED		11/16/80	11/16/80	11/16/80	11/16/80	11/16/80	11/16/80
LAB NUMBER		A1622	A1623	A1630	A1632	A1636	A1640
PERCENT PASSING	3"					100	
	2"					84	
	1-1/2"			100		84	
	1"			94		70	
	3/4"		100	75		60	
	1/2"		93	68		43	
	3/8"	100	83	58	100	37	100
	#4	96	73	38	99	29	99
	#10	92	64	27	98	24	93
	#20	88	51	17	97	16	89
	#40	81	32	10	92	9	78
	#100	61	8	4	5	4	68
	#200	54	4.9	3.3	2.4	2.5	60
	.02mm	34.8					38
LIQUID LIMIT		24.6					
PLASTIC INDEX		7.8					
NAT. MOISTURE		18.0					
AASHTO CLASS		A-4	A-1-b	A-1-a	A-3	A-1-a	A-4
F.S.V.		F-4	NFS	NFS	NFS	NFS	F-4
SOILS DESCRIPTION		Sa Si	Grl Sa	Sa Grl	Sa	Sa Grl	Sa Si
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		480	487	487	490	493	500
OFFSET (FEET)*							
DEPTH (FEET)		2.5	2.5	5.0	10.0	5.0	10.0
DATE SAMPLED		11/16/80	4/2/81	4/2/81	11/16/80	4/2/81	11/16/80
LAB NUMBER		A1642	A2101	A2133	A1650	A2134	A1654
PERCENT PASSING	3"						
	2"						
	1-1/2"		100				
	1"		93				
	3/4"		88	100			
	1/2"	100	80	97			
	3/8"	90	74	89	100	100	100
	#4	73	60	78	95	99	65
	#10	62	49	67	90	97	55
	#20	51	36	59	87	95	45
	#40	38	23	51	77	93	33
	#100	13	9	36	64	89	19
	#200	8.7	7.1	29	59.0	82.6	15.1
	.02mm		5.0	17	43.5	61.56	
LIQUID LIMIT					26.3		
PLASTIC INDEX					6.9		
NAT. MOISTURE					18.7		
AASHTO CLASS		A-1-b	A-1-a	A-2-4	A-4	A-4	A-1-b
F.S.V.		F-2	F-2	F-3	F-4	F-4	F-2
SOILS DESCRIPTION		Grl Sa	Grl Sa	Si Grl Sa	Sa Si	Si	Grl Sa
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		505	505	510	529 +80	529 +80	542
OFFSET (FEET)*					16' Right	16' Right	
DEPTH (FEET)		2.0	10.0	10.0	10.0	10.0	5.0
DATE SAMPLED		11/16/80	11/16/80	11/16/80	11/16/80	11/16/80	4/3/81
LAB NUMBER		A1652	A1653	A1660	A1714	A1715	A2135
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"				100		
	3/4"	100			92	100	
	1/2"	94			82	97	100
	3/8"	80			77	97	98
	#4	59			65	97	97
	#10	44	100	100	58	96	96
	#20	34	99.3	98	51	96	94
	#40	23	99	97	44	95	91
	#100	12	92	96	29	93	82
	#200	8.6	58.3	94.6	22.5	89.5	72.7
	.02mm	6.0	17.7	89.8	11.1	81.0	35
LIQUID LIMIT		•	44			50.1	
PLASTIC INDEX			16.0			24.4	
NAT. MOISTURE			23.0			31.0	28.4
AASHTO CLASS		A-1-a	A-7-6	A-7-6	A-1-b	A-7-6	A-4
F.S.V.		F-2	F-4	F-4	F-2	F-4	F-4
SOILS DESCRIPTION		Grl Sa	Sa Si	Si	Si Grl Sa	Si	Sa Si
ORGANIC CONTENT (%)							4.1

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84

SAMPLED BY: Terry L. Barber

PROJECT NO.: F-021-2(19)

W.O. #D12352

STATION	545	545	550	560	565	568
OFFSET (FEET)*				18' Left		
DEPTH (FEET)	2.5	10.0	2.5	2.5	8.0	5.0
DATE SAMPLED	11/17/80	11/17/80	11/17/80	11/17/80	11/17/80	4/2/81
LAB NUMBER	A1723	A1720	A1726	A1732	A1737	A2136
PERCENT PASSING 3"		100				
2"		48				
1-1/2"		48		100		
1"		48		75		
3/4"		48		70		100
1/2"		46		61		94
3/8"	100	44	100	53		88
#4	98	36	98	36		84
#10	97	29	95	27	100	75
#20	96	21	92	21	99	66
#40	92	14	88	16	97	52
#100	58	6	58	9	78	29
#200	39.5	4.7	38.8	5.2	9	8
.02mm	15.7		14.0		3.1	5.0
LIQUID LIMIT						4.0
PLASTIC INDEX						
NAT. MOISTURE	8.9				5.1	2.8
AASHTO CLASS	A-4	A-1-a	A-4	A-1-a	A-3	A-1-b
F.S.V.	F-4	NFS	F-2	NFS	NFS	F-2
SOILS DESCRIPTION	Si Sa	Sa Grl	Si Sa	Sa Grl	Sa	Grl Sa
ORGANIC CONTENT (%)						

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		570	575	575	577	585	590
OFFSET (FEET)*							
DEPTH (FEET)		15.0	5.0	20.0	2.5	2.5	10.0
DATE SAMPLED		11/17/80	11/17/80	11/17/80	4/2/81	11/17/80	11/17/80
LAB NUMBER		A1741	A1744	A1747	A2102	A1750	A1755
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"						
	3/4"		100				
	1/2"		97		100		
	3/8"		93		98	100	
	#4		89		94	99	
	#10		84		91	96	
	#20	100	78		87	93	
	#40	97	71	100	81	88	100
	#100	41	46	93	34	54	98
	#200	19.4	31.7	82.9	20.2	12.5	86.8
	.02mm	6.3	14.2	49.2	9.8	6.0	27.8
LIQUID LIMIT				23.7			
PLASTIC INDEX				4.1			
NAT. MOISTURE		12.4	8.0	21.9	8.0		25.1
AASHTO CLASS		A-2-4	A-2-4	A-4	A-2-4	A-2-4	A-4
F.S.V.		F-2	F-2	F-4	F-2	F-2	F-4
SOILS DESCRIPTION		Si Sa	Si Sa	Si	Si Sa	Si Sa	Si
ORGANIC CONTENT (%)							

SOILS TESTING PROGRAM

PROJECT NAME: Soldotna to Mile 84 PROJECT NO.: F-021-2(19) W.O. #D12352

SAMPLED BY: Terry L. Barber

STATION		592	595	595	600		
OFFSET (FEET)*							
DEPTH (FEET)		5.0	2.5	5.0	10.0		
DATE SAMPLED		4/2/81	11/17/80	11/17/80	11/17/80		
LAB NUMBER		A2137	A1756	A1757	A1761		
PERCENT PASSING	3"						
	2"						
	1-1/2"						
	1"		100				
	3/4"	100	91	100			
	1/2"	98	81	98			
	3/8"	95	73	92	100		
	#4	93	57	82	95		
	#10	88	44	77	90.7		
	#20	66	32	72			
	#40	61	25	68	83.7		
	#100	41	15	51	69.9		
	#200	14.5	11.6	37.8	46.9		
	.02mm				15.64		
LIQUID LIMIT							
PLASTIC INDEX							
NAT. MOISTURE		18			11.1		
AASHTO CLASS		A-2-4	A-1-a	A-4	A-4		
F.S.V.		F-2	F-1	F-4	F-2		
SOILS DESCRIPTION		Si Sa	Si Sa Grl	Sa Si	Si Sa		
ORGANIC CONTENT (%)							