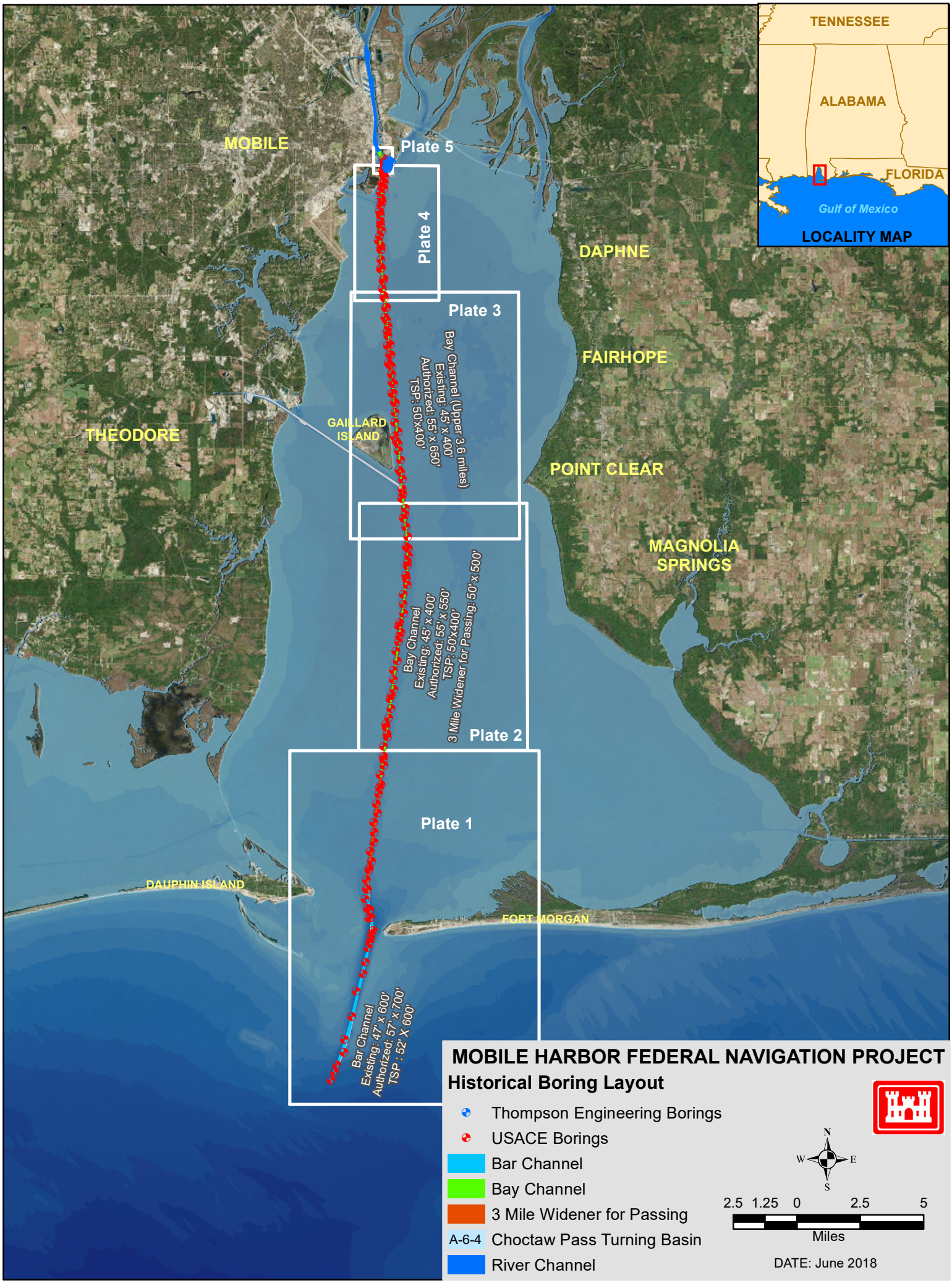
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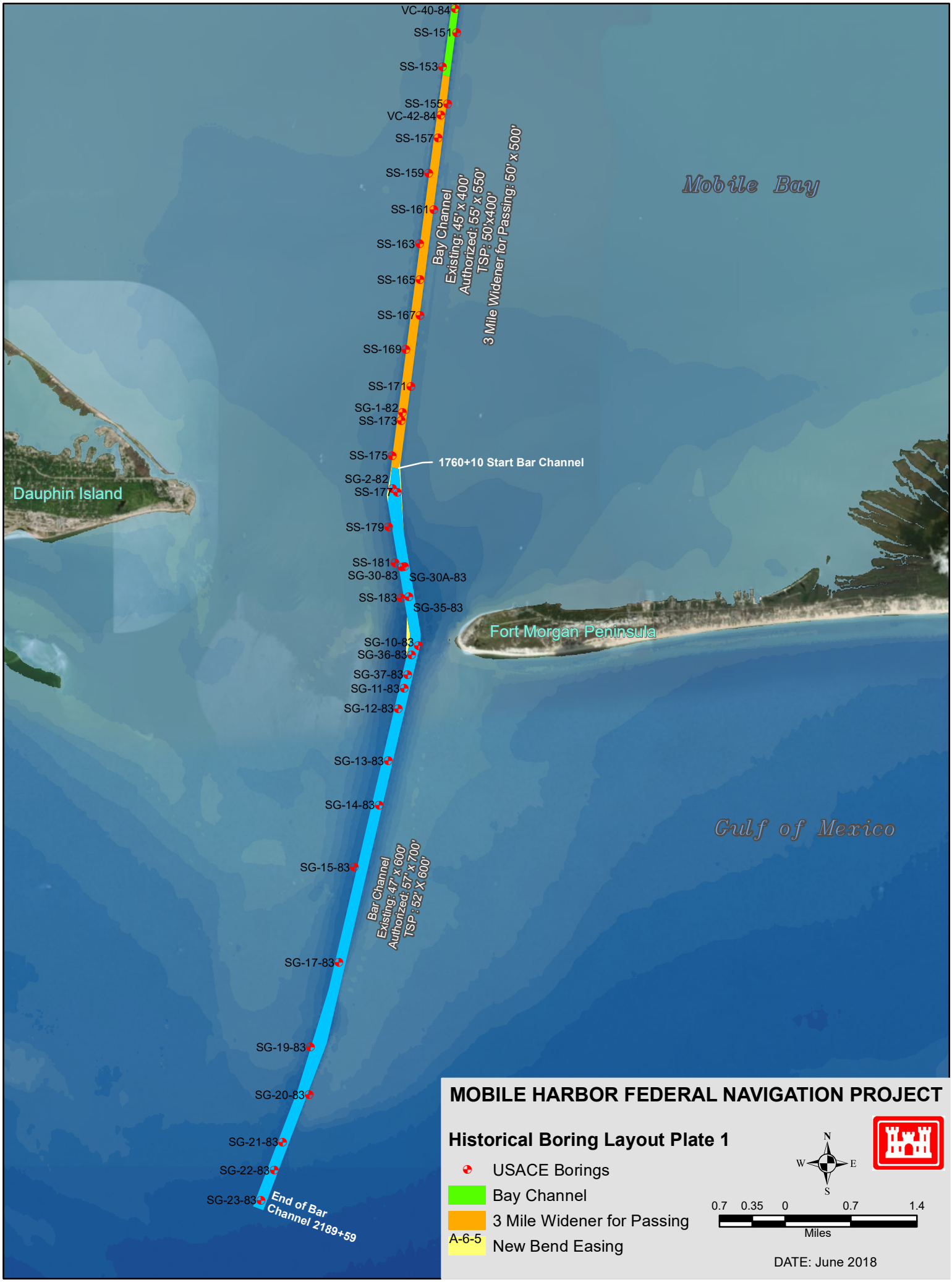
BORING LOGS AND LAB DATA

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SECTION 1. Historical Boring Location Maps


TENNESSEE
ALABAMA
FLORIDA
Gulf of Mexico
LOCALITY MAP
MOBILE
Plate 5
Plate 4
Plate 3
Plate 2
Plate 1
DAPHNE
FAIRHOPE
POINT CLEAR
MAGNOLIA SPRINGS
THEODORE
GAILLARD ISLAND
DAUPHIN ISLAND
FORT MORGAN
Bay Channel (Upper 3.6 miles)
Existing: 45' x 400'
Authorized: 55' x 650'
TSP: 50'x400'
Bay Channel
Existing: 45' x 400'
Authorized: 55' x 550'
TSP: 50'x400'
3 Mile Widener for Passing: 50' x 500'
Bar Channel
Existing: 47' x 600'
Authorized: 57' x 700'
TSP : 52' X 600'
MOBILE HARBOR FEDERAL NAVIGATION PROJECT
Historical Boring Layout
Thompson Engineering Borings
USACE Borings
Bar Channel
Bay Channel
3 Mile Widener for Passing
A-6-4
Choctaw Pass Turning Basin
River Channel
N
W
E
S
2.5 1.25 0 2.5 5
Miles
DATE: June 2018


VC-40-84
SS-151
SS-153
SS-155
VC-42-84
SS-157
SS-159
SS-161
SS-163
SS-165
SS-167
SS-169
SS-171
SG-1-82
SS-173
SS-175
SG-2-82
SS-177
SS-179
SS-181
SG-30-83
SG-30A-83
SS-183
SG-35-83
SG-10-83
SG-36-83
SG-37-83
SG-11-83
SG-12-83
SG-13-83
SG-14-83
SG-15-83
SG-17-83
SG-19-83
SG-20-83
SG-21-83
SG-22-83
SG-23-83
Bay Channel
Existing: 45' x 400'
Authorized: 55' x 550'
TSP: 50'x400'
3 Mile Widener for Passing: 50' x 500'
1760+10 Start Bar Channel
Bar Channel
Existing: 47' x 600'
Authorized: 57' x 700'
TSP : 52' X 600'
End of Bar Channel 2189+59
Mobile Bay
Dauphin Island
Fort Morgan Peninsula
Gulf of Mexico
MOBILE HARBOR FEDERAL NAVIGATION PROJECT
Historical Boring Layout Plate 1
USACE Borings
Bay Channel
3 Mile Widener for Passing
A-6-5
New Bend Easing
N
W
E
S
0.7 0.35 0 0.7 1.4
Miles
DATE: June 2018



MOBILE HARBOR FEDERAL NAVIGATION PROJECT

Historical Boring Layout Plate 2

USACE Borings

Bay Channel

A-6-6 3 Mile Widener for Passing

N

W E

S

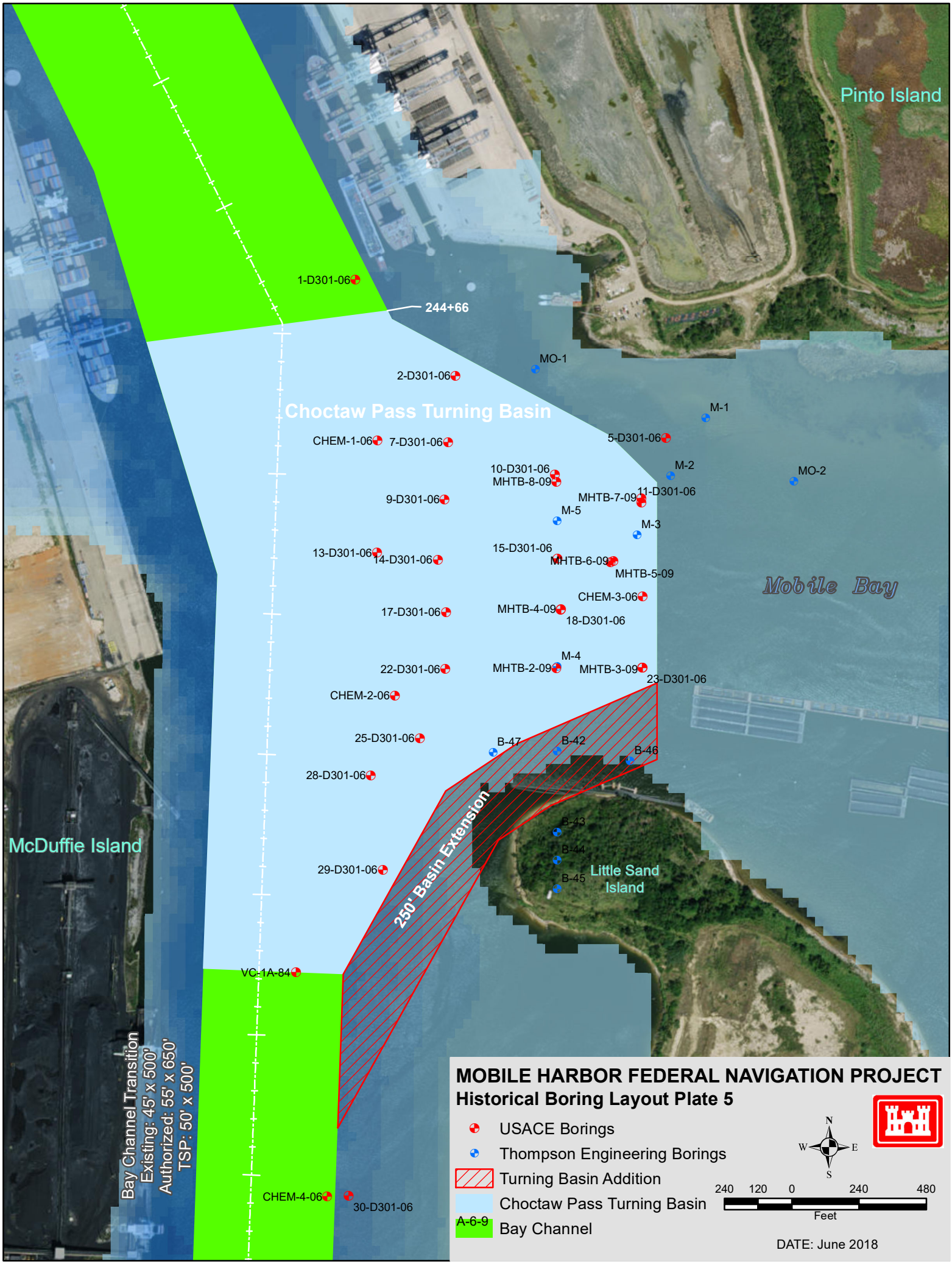
0.55 0.275 0 0.55 1.1

Miles

DATE: June 2018


SS-53
VC-10-84
SS-55
VC-11-84
SS-57
VC-12-84
SS-59
VC-13-84
SS-61
VC-14-84
SS-63
Dog River Channel
VC-15-84
SS-65
CD-2-72
SS-67
VC-16-84
SS-69
VC-17-84
VC-18-84
SS-71
VC-19-84
SS-73
VC-20-84
SS-75
SS-77
Mobile Bay
SS-79
SS-81
Gaillard Island
CD-3-72
SS-83
VC-21-84
Bay Channel
Existing: 45' x 400'
Authorized: 55' x 550'
TSP: 50'x400'
SS-85
SS-87
Theodore Ship Channel
SS-89
VC-22-84
SS-91
POINT CLEAR
SS-93
VC-23-84
SS-95
SS-97
VC-24-84
SS-99
SS-101
SS-103
SS-105
1073+60
VC-26-84
SS-222-84
SS-107
VC-27-84
SS-109
MOBILE HARBOR FEDERAL NAVIGATION PROJECT
Historical Boring Layout Plate 3
USACE Borings
A-6-7
Bay Channel
N
W
E
S
0.55 0.275 0 0.55 1.1
Miles
DATE: June 2018


29-D301-06
VC-1A-84
Little Sand Island
CHEM-4-06
30-D301-06
SS-3-70
McDuffie Island
SS-4-70
SS-29
CHEM-6-06
VC-1-84
SS-5-70
SS-31
VC-2-84
Arlington Channel
SS-33
VC-3-84
SS-35
VC-4-84
SS-37
VC-5-84
Mobile Bay
SS-39
VC-6-84
SS-41
423+47
SS-203-84
VC-7-84
SS-43
Bay Channel
Existing: 45' x 400'
Authorized: 55' x 550'
TSP: 50'x400'
SS-45
VC-8-84
SS-47
SS-49
VC-9-84
SS-51
VC-10-84
SS-53
MOBILE HARBOR FEDERAL NAVIGATION PROJECT
Historical Boring Layout Plate 4
USACE Borings
Bay Channel
3 Mile Widener for Passing
A-6-8
Choctaw Pass Turning Basin
N
W
E
S
0.3 0.15 0 0.3 0.6
Miles
DATE: June 2018


Pinto Island
1-D301-06
244+66
MO-1
2-D301-06
Choctaw Pass Turning Basin
M-1
CHEM-1-06
7-D301-06
5-D301-06
M-2
MO-2
10-D301-06
MHTB-8-09
MHTB-7-09
11-D301-06
9-D301-06
M-5
M-3
13-D301-06
14-D301-06
15-D301-06
MHTB-6-09
MHTB-5-09
Mobile Bay
CHEM-3-06
17-D301-06
MHTB-4-09
18-D301-06
M-4
22-D301-06
MHTB-2-09
MHTB-3-09
23-D301-06
CHEM-2-06
25-D301-06
B-47
B-42
B-46
28-D301-06
250' Basin Extension
B-43
B-44
McDuffie Island
29-D301-06
B-45
Little Sand Island
VC-1A-84
Bay Channel Transition
Existing: 45' x 500'
Authorized: 55' x 650'
TSP: 50' x 500'
CHEM-4-06
30-D301-06
MOBILE HARBOR FEDERAL NAVIGATION PROJECT
Historical Boring Layout Plate 5
USACE Borings
Thompson Engineering Borings
Turning Basin Addition
Choctaw Pass Turning Basin
A-6-9
Bay Channel
N
W
E
S
240 120 0 240 480
Feet
DATE: June 2018

SECTION 2. Boring Legend

USACE BORING LOGS AND TEST DATA

1. While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local minor variations in characteristics of the subsurface materials are anticipated, and, if encountered, such variations will not be considered as differing materially from the description shown with the logs or profiles.

2. Soils are classified in accordance with the Unified Soil Classification System, ASTM-D-2487, Classification of Soils for Enfineering Purposes.

3. Driving resistances (blow counts or N values) are determined with a standard splitspoon sampler (1-3/8" I.D.) and a 140-lb driving hammer with a 30" drop, unless otherwise noted on the boring logs. N values, shown numerically on the logs, are the sum of blows for the lower two of three 0.5-foot drives that make up the 1.5-foot standard penetration test, except when refusal occurs. Refusal of the splitspoon is defined as 50 blows in less than a 0.5-foot drive. Refusal is shown on the logs as indicated in the following examples:

   50/0.3 - Indicates 50 blows (refusal) after 0.3' penetration in the first drive.

   20, 50/0.2' - Indicates 20 blows in the first drive and refusal after 0.2' penetration in the second drive.

   20, 85/0.8' - Indicates 20 blows in the first drive, 35 blows in the second drive and refusal (50 blows) after 0.3' penetration in the third drive.

4. "Max size" of gravel or rock fragments shown on the boring logs represents the maximum size of material recovered in the drive sampler and/or core barrel or observed from augering, unless otherwise noted. Note that the maximum logged size of gravel or rock fragments is likely to be smaller than the maximum size of the in-place material, especially when the maximum logged size is more than approximately one-half the diameter of the drive sampler or core barrel, or more than one-third the diameter of the auger.

5. Classifications shown in column "D" of the boring logs are from the drilling inspector's field visual classification of samples unless otherwise indicated on the log. When available, laboratory classifications of samples are shown in column "G" (Remarks Column) unless otherwise indicated.

SOIL CLASSIFICATION LEGEND

COARSE-GRAINED SOILS - MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE

GW		WELL GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
GP		POORLY GRADED GRAVELS OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
SW		WELL GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
SP		POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
SM		SILTY SANDS, SAND-SILT MIXTURES
SM-H		SAME AS ABOVE WITH HIGH LIQUID LIMIT
SC		CLAYEY SANDS, SAND-CLAY MIXTURES
SC-H		SAME AS ABOVE WITH HIGH LIQUID LIMIT

NOTE: DUAL CLASSIFICATIONS, E.G. SP-SM, GP-GM, ML-CL AND SM-SC, ARE SHOWN BY PLACING BOTH SYMBOLS SIDE BY SIDE.

FINE-GRAINED SOILS - MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE

ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SANDY SILTS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDS OR SILTY SOIL, PLASTIC SILTS
OL		ORGANIC SILTS AND ORGANIC SILT-CLAYS OF LOW PLASTICITY
OH		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
PT		PEAT AND OTHER HIGHLY ORGANIC SOILS
		BITUMEN, ASPHALT, OR ASPHALTIC CONCRETE
		CONCRETE

ABBREVIATIONS

@	AT
ACCUM	ACCUMULATED
ALT	ALTERNATING
ANG	ANGULAR
APPROX.	APPROXIMATE (LY)
ARGIL	ARGILLACEOUS
AUG	AUGER
AVG	AVERAGE
B.A.	BASE OF ALLUVIUM
B.I.	BREAKAGE INTERVAL
B.O.H.	BOTTOM OF HOLE
BBL	BARREL
BDD	BED (ED) (DING)
BDR	BEDROCK
BENT.	BENTONITIC
BGE	BEIGE
BKY	BLOCKY
BL	BLACK (ISH)
BLD	BOULDER
BR	BROWN (ISH)
BREC.	BRECCIATED
BRK	BROKEN. BREAKAGE
C.D.	CORRECTED DEPTH
CAL	CALCITE. CALCAREOUS
CARB	CARBONACEOUS
CAV	CAVITY
CBL	COBBLE
CEM	CEMENT
CHT	CHERT
CIRCLE.	CIRCULATION
CLY	CLAYEY
CMT'D	CEMENTED
CNTR (S)	CONCENTRATION (S)
COMP	COMPACT
CONC	CONCRETE
CONCR	CONCRETIONS
CONGL	CONGLOMERATE
CONT.	CONTINUED
CR'D	CRUSHED
CRM	CRUMBLY
CSE	COARSE
CTD	COATED
D.	DENSE
d.	DEPTH
D.A.	DRILL ACTION
D.T.	DRILL TIME
D.W.L.	DRILL WATER LOSS
D.W.R.	DRILL WATER RETURN
DECOM	DECOMPOSED
DIAG	DIAGONAL
DIS.	DISSEMINATED
DK	DARK
DOL.	DOLOMITE. DOLOMITIC
DRL	DRILLING
DSTG	DISINTEGRATE (D)
EL	ELEVATION
ENC	ENCOUNTERED
EST	ESTIMATE (D)
EXCL	EXCLUDING
EXTR	EXTREMELY
F.	FINE (LY)
F.R.	FLUID RETURN
F/T	FISHTAILED
FE	IRON
FERR	FERRUGINOUS
FIS	FISSILE
FLD	FILLED
FM	FORMATION

ABBREVIATIONS

FOLIA.	FOLIATION
FOS	FOSSIL (IFEROUS)
FRAC	FRACTURE
FRAG	FRAGMENT (S)
G.W.	GROUNDWATER
GEN.	GENERALLY
GLAU	GLAUCONITE (ITIC)
GR	GRAY (ISH)
GRA	GRAIN (ED)
GRAD	GRADATIONAL
GRN	GREEN (ISH)
GRT	GROUT
GVL	GRAVEL (LY)
GYP	GYPSUM
H/A	HIGH ANGLE
H/B	HAMMER BREAK
HD	HARD
HI	HIGH (LY)
HLD	HEALED
HMR	HAMMER
HOR	HORIZONTAL
HYD	HYDRAULIC
INCL	INCLUDING (ED)
INDT	INDURATED
INIT	INITIAL (LY)
INTBDD	INTERBED (DED)
INTLAM	INTERLAMINATED
IRR	IRREGULAR (LY)
JT'S	JOINT'S
JTD	JOINTED
L.C.	LOSE CORE
L.D.W.	LOST DRILL WATER
L/A	LOW ANGLE
LAB.	LABOR
LAM	LAMINATED. LAMINA (NAE)
LAY.	LAYER
LEA	LEACHED
LGE	LARGE
LIG	LIGNITIC
LIT	LITTLE
LL	LIQUID LIMIT
LN. (S)	LENSE (S)
LO	LOOSE
LS	LIMESTONE
LT	LIGHT
MAS	MASSIVE
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MIC	MICACEOUS
MIN	MINIMUM
MINR	MINERALIZED (IZATION)
MIX.	MIXTURE
MOD	MODERATE (D)
MOT	MOTTLED (ING)
MST	MOIST
MTL	MATERIAL
MTX	MATRIX
N/A	NOT APPLICABLE
N/E	NOT ENCOUNTERED
N/R	NO RECOVERY
NOD.	NODULE
NUM	NUMEROUS
OB	OVERBURDEN (UNCLASSIFIED)
OBS	OBSERVED
OCC	OCCASIONAL (LY)
OOL	OOLITE. OOLITIC
OP	OPEN (ED)
OR	ORANGE

ABBREVIATIONS

ORG	ORGANIC
P.S.I.	POUNDS/SQ. IN.
P.T.	PRESSURE TEST
PART.	PARTIALLY
PCS	PIECES
PERTRO	PETROLEUM. PETROLIFEROUS
PHOS	PHOSPHATE (PHOROUS)
PI	PLASTICITY INDEX
PIT	PIT (TED) (TING)
PKT (S)	POCKET (S)
PL	PLASTIC LIMIT
PLA	PLATY
PLAS	PLASTIC
PLN	PLANE
PNK	PINK
PR	POORLY
PRED	PREDOMINATED
PRESS	PRESSURE
PROB	PROBABLE (ABILITY)
PTC	PARTICLES
PTG	PARTING
PUR	PURPLE
QTZ	QUARTZ
QTZE	QUARTZITE
R.Q.D.	ROCK QUALITY DESIGNATION
RBL	RUBBLE
RD	RED (DISH)
REC	RECOVERY
RECEM	RECEMENTED
RND	ROUND (ED)
RTS	ROOTS
S/S	SPLIT
SAP	SAPROLITE
SAT	SATURATED
SCAT.	SCATTEREDLY
SCH (S)	SCHIST (OS)
SD	SAND
SDY	SANDY
SH	SHALE
SI	SILT
SIS	SILTSTONE
SIY	SILTY
SL	SLIGHT (LY)
SLCES	SILICEOUS
SLICK.	SLICKENSIDE
SML	SMALL
SO	SOFT
SOL	SOLUTION (ED) (ING)
SPG	SPECIFIC GRAVITY
SPT	STANDARD PENETRATION TEST
SPT	STANDARD SPLITSPOON
SS	SANDSTONE
ST	STRAIN (ED) (ING)
STF	STIFF
STR	STRUCTURE
STRG	STRINGER
STYL	STYLOLITE (OLITIC)
SUR	SURFACED
T.F.R.	TOP OF FIRM ROCK
T.O.R.	TOP OF ROCK
T.S.R.	TOP OF SOUND ROCK
TEXT.	TEXTURE
THK	THICK
THN	THIN
TI	TIGHT
TN	TAN (NISH)
TR	TRACE
TRP	TRIPOLI

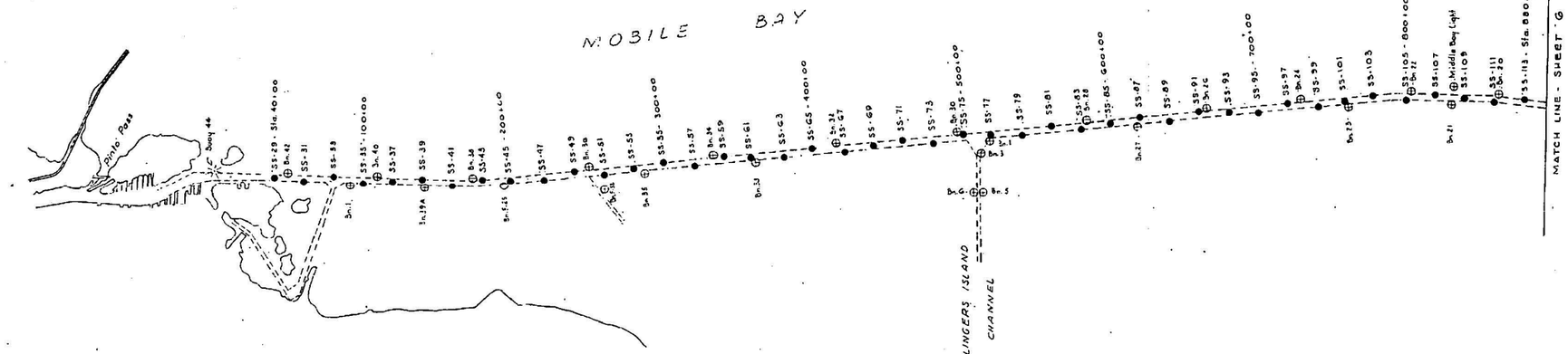
ABBREVIATIONS

UD	UNDISTUBED
UL	UNACCOUNTABLE LOSS
UNACC	UNACCOUNTABLE
UNWEA	UNWEATHERED
V/	VERY
VERT	VERTICAL
VGY	VUGGY
W.C.	WATER CONTENT
W.L.	WATER LEVEL
W/	WITH
W/H	WEIGHT OF HAMMER
W/R	WEIGHT OF ROD
WD	WOOD
WEA	WEATHERED
WG	WEIGH
WHT	WHITE
X-BDD	CROSS-BEDDED
XL	CRYSTAL
XLN	CYRSTALLINE
YEL	YELLOW

SECTION 3. 1963 to 1964 Subsurface Investigation Boring Profiles

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

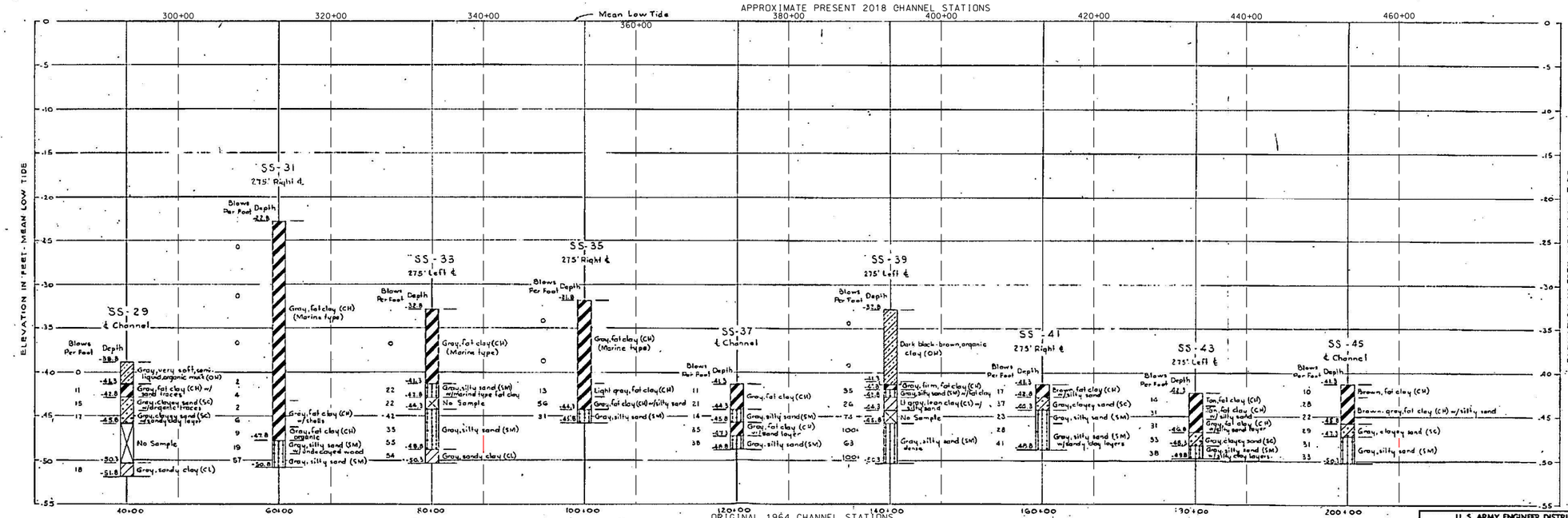


LAYOUT

SCALE IN FEET

0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



ORIGINAL 1964 CHANNEL STATIONS

VERTICAL SCALE: 1" = 5'

5' 0 5 10 FT

NOTE:
For Legend and Notes see Sheet 7.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL
LAYOUT & LOGS OF BORINGS

SH. REF. NO. | SPEC. NO. CIVENG-01-078-64-98 | SIZE | FILE NO. D-13-2-153 | DRAWING NO.

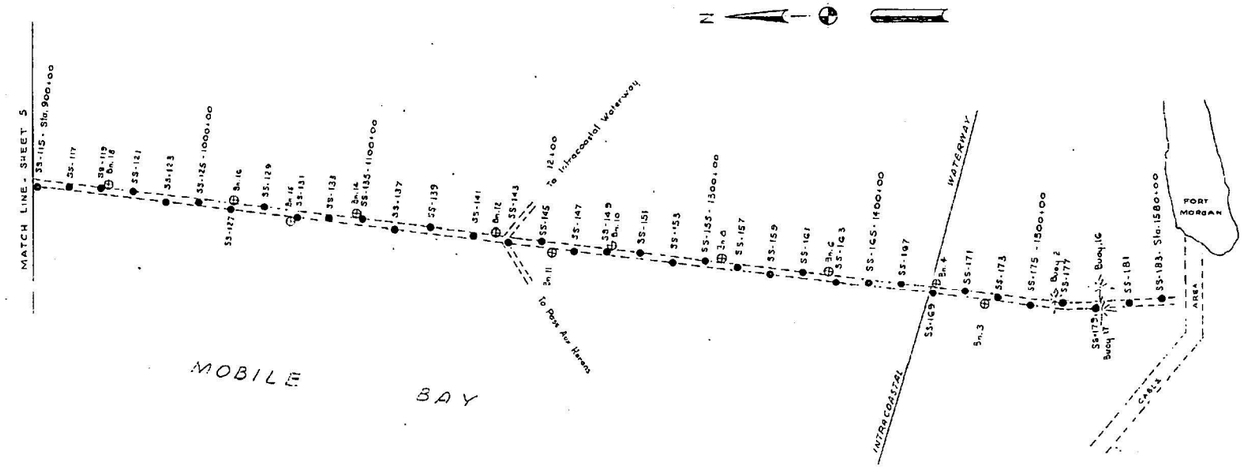
SCALE: AS SHOWN | DATE: MAY 1964. | SHEET 5 of 13

5 | 4 | 3 | 2 | 1

E D C B A

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONS AND LABELS	5/2018	

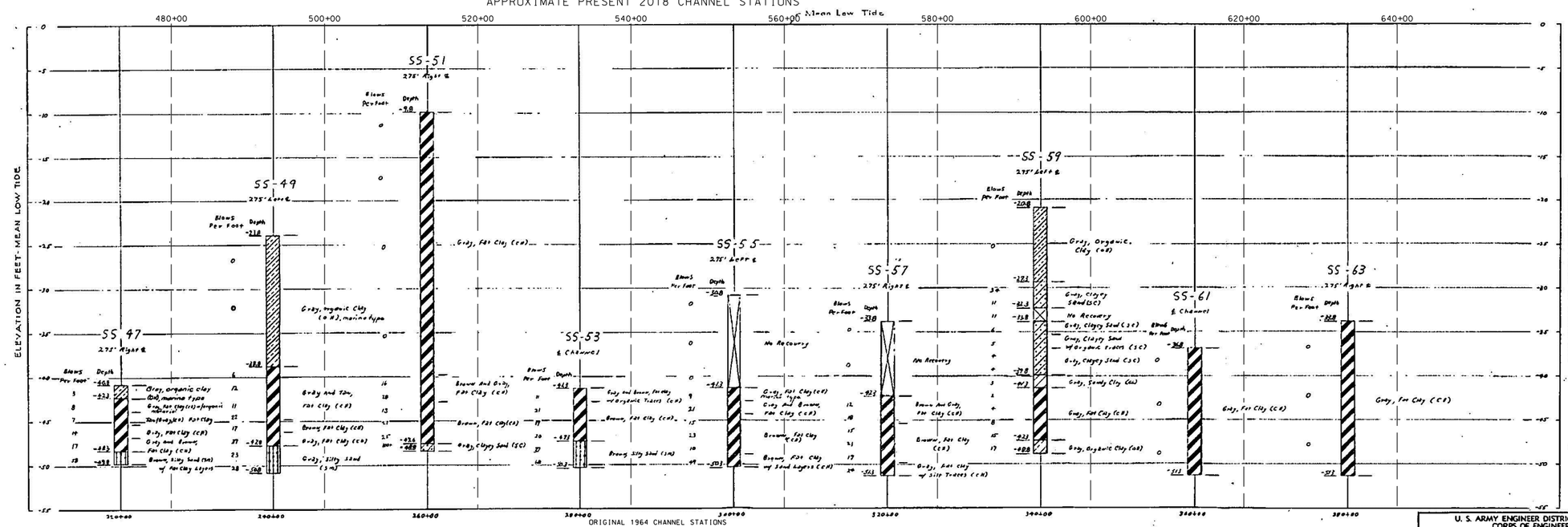


LAYOUT

SCALE IN FEET

0 1000 4000 6000 8000 10000

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



NOTES:

For Layout of Borings see Sheet 5.
For Legend and Notes see Sheet 7.

VERTICAL SCALE: 1"=5'

5' 0 5 10 FT.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL
LAYOUT & LOGS OF BORINGS

SH. REF. NO.	SPEC. NO.	SIZE	FILE NO. D-13-2-154
	CIVENG - 01-078-64-98		DRAWING NO.
	SCALE: AS SHOWN	DATE: MAY 1964	SHEET 6 of 13

5 | 4 | 3 | 2 | 1

E D C B A

REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

LEGEND

- SM — Silty sands, sand-silt mixtures
- SC — Clayey sands, sand-clay mixtures
- ML — Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
- CL — Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
- CH — Inorganic clays of high plasticity, fat clays
- OH — Organic clays of medium to high plasticity, organic silts

NOTES:

While the borings are representative of subsurface conditions at their respective locations and for their respective vertical reaches, local minor variations in characteristics of the subsurface materials of the region are anticipated and, if encountered, such variations will not be considered as differing materially from the description shown with the logs.

Soils are classified in accordance with the Unified Soil Classification System, Military Standard 619 (CE), dated 30 June 1960.

Driving resistances are shown graphically. Blows per foot are determined with a standard split spoon sampler (1 3/8" I.D., 2" O.D.) and a 140 lb. driving hammer with a 30" drop.

APPROXIMATE PRESENT 2012 CHANNEL STATIONS — Mean Low Tide

660+00 680+00 700+00 720+00 740+00 760+00 780+00 800+00 820+00

Elevation in feet - Mean Low Tide

SS-65 325' Left ℄ — Blows Per Foot — Depth -32.5 — -41.3 — Gray fat clay (CH) w/sand lenses

SS-67 275' Right ℄ — Blows Per Foot — Depth -37.8 — -42.8 — Gray fat clay (CH) w/silty sand layer

SS-69 ℄ Channel — Blows Per Foot 34.2 — Depth -33.8 — -41.3 — Gray fat clay (CH) w/sand lenses

SS-71 275' Left ℄ — Blows Per Foot — Depth -33.3 — -42.1 — Gray fat clay (CH) w/clayey sand

SS-73 275' Right ℄ — Blows Per Foot 33.6 — Depth -34.8 — -41.3 — Gray fat clay (CH) w/sand lenses

SS-75 275' Left ℄ — Blows Per Foot — Depth -34.6 — -42.1 — Gray fat clay (CH)

SS-77 ℄ Channel — Blows Per Foot 36.4 — Depth -36.8 — -41.3 — Gray fat clay (CH)

SS-79 275' Right ℄ — Blows Per Foot 38.8 — Depth -38.8 — -41.3 — Gray fat clay (CH) w/organic traces

SS-81 275' Left ℄ — Blows Per Foot 38.5 — Depth -38.5 — -43.8 — Gray fat clay (CH)

Sta 420+00 | Sta 440+00 | Sta 460+00 | Sta 480+00 | Sta 500+00 | Sta 520+00 | Sta 540+00 | Sta 560+00

ORIGINAL 1964 CHANNEL STATIONS

NOTE: For Layout of Borings, see Sheet 5.

VERTICAL SCALE: 1"=5'

5 0 5 10 FT.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL

LOGS OF BORINGS

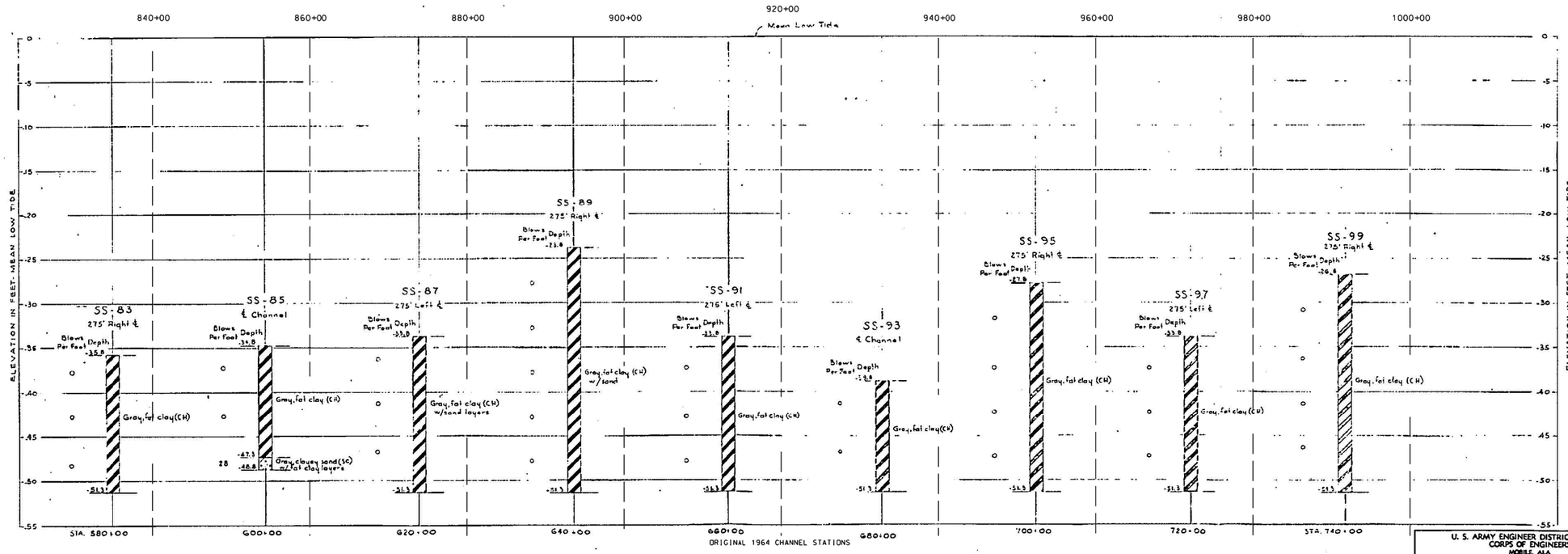
SH. REF. NO. | SPEC. NO. -COVERS- 01-076-64-96 | SIZE | FILE NO. D-13-2-155 | DRAWING NO.
SCALE AS SHOWN | DATE MAY, 1964 | SHEET 9 OF 13

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

E D C B A

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



NOTE:
For Layout of Borings see Sheet 5.
For Legend and Notes see Sheet 7.

VERTICAL SCALE: 1" = 5'

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO.	SPEC. NO. INV. SER. NO. GIVEN NO - 01-076-64-98	SIZE	FILE NO. D-13-2-156 DRAWING NO.
	SCALE: AS SHOWN	DATE: MAY 1964	SHEET 8 of 13

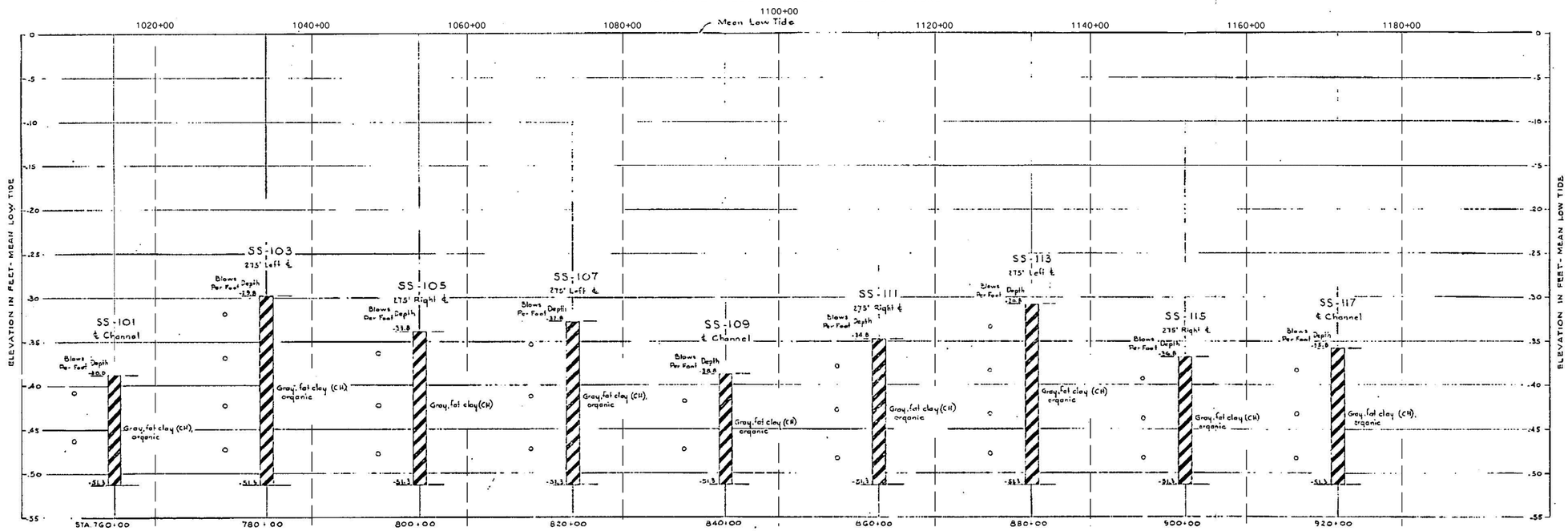
5 | 4 | 3 | 2 | 1

E-1-4

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



ORIGINAL 1964 CHANNEL STATIONS

VERTICAL SCALE: 1" = 5'
5' 0 5 10 FT

NOTES:
For Layout of Borings see Sheets 5 and 6.
For Legend and Notes see Sheet 7.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO.	SPEC. NO. INV. SER. NO. CIVENG - 01-076-64-98	SIZE	FILE NO. D-13-2-157 DRAWING NO.
	SCALE: AS SHOWN	DATE: MAY 1964	SHEET 9 of 13

5 | 4 | 3 | 2 | 1

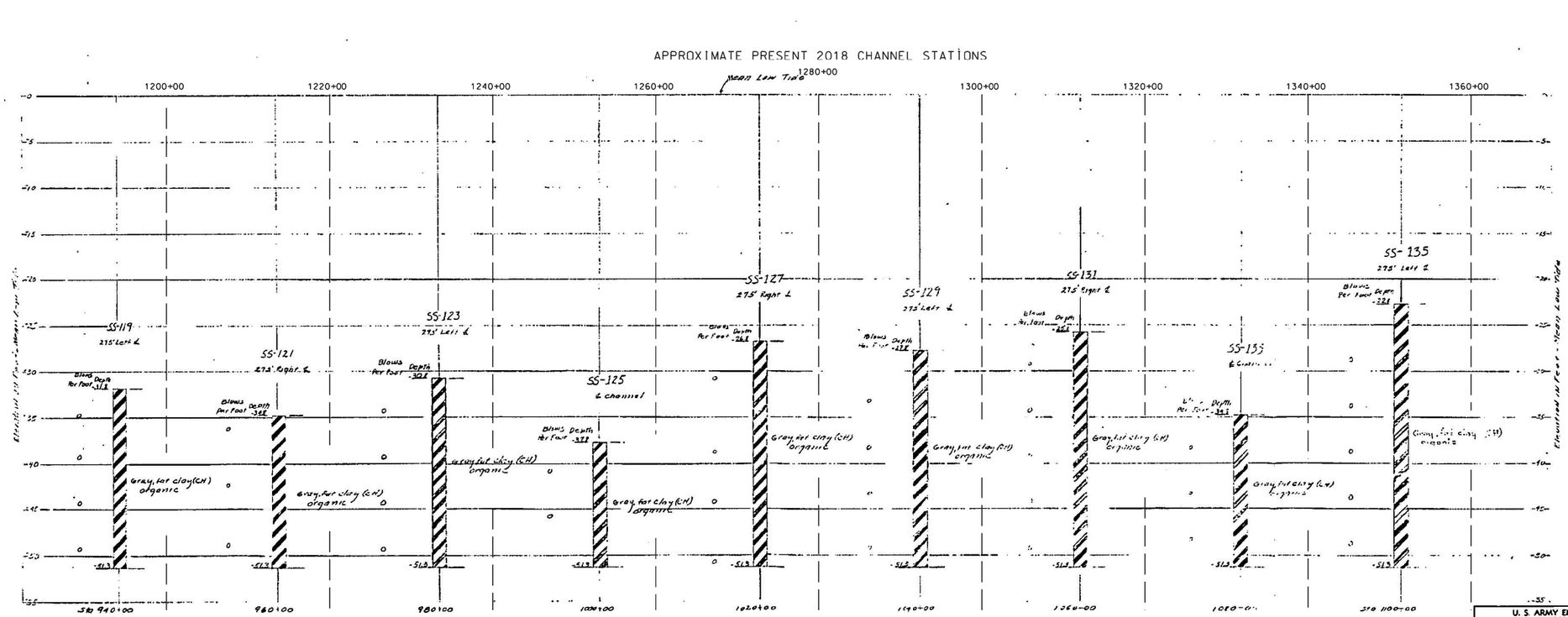
E-1-5

E D C B A

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



ORIGINAL 1964 CHANNEL STATIONS

VERTICAL SCALE: 1"=5'

5' 0 5 10 FT

NOTES:

For Layout of Borings see Sheet 6.
For Legend and Notes see Sheet 7

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO. | SPEC. NO. | SIZE | FILE NO. D-13-2-158
INV. SER. NO. CIVENG-01-078-64-98 | DRAWING NO.
SCALE: AS SHOWN | DATE: MAY 1964 | SHEET 10 of 13

E-1-6

5 | 4 | 3 | 2 | 1

E | D | C | B | A

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS					
SYM.	ZONE	DESCRIPTION	DATE	APPROVED	
		ADDED PRESENT STATIONING & LABELS	5/2018		

APPROXIMATE PRESENT 2018 CHANNEL STATIONS

1380+00 1400+00 1420+00 1440+00 1460+00 1480+00 1500+00 1520+00 1540+00

Mean Low Tide

ELEVATION IN FEET - MEAN LOW TIDE

0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55

SS-137 2.75' Right ℄ — Blows Per Foot — Depth -338 — -513
Gray, Fat Clay (CH) Organic

SS-139 2.75' Left ℄ — Blows Per Foot — Depth -348 — -513
Gray, Fat Clay (CH) Organic

SS-141 ℄ Channel — Blows Per Foot — Depth -278 — -543
Gray, fat clay (CH) organic

SS-143 2.75' Right ℄ — Blows Per Foot — Depth -318 — -493
Gray, Fat Clay (CH) Organic

SS-145 2.75' Left ℄ — Blows Per Foot — Depth -358 — -513
Gray, fat clay (CH) organic

SS-147 2.75' Right ℄ — Blows Per Foot — Depth -288 — -543
Gray, Fat Clay (CH) organic

SS-147 ℄ Channel — Blows Per Foot — Depth -348 — -513
Gray, fat clay (CH) organic

SS-151 2.75' Left ℄ — Blows Per Foot — Depth -293 — -493
Gray, Fat Clay (CH) Organic

SS-153 2.75' Right ℄ — Blows Per Foot — Depth -283 — -512
Gray, fat clay (CH) organic

1120+00 1140+00 1160+00 1180+00 1200+00 1220+00 1240+00 1260+00 1280+00

ORIGINAL 1964 CHANNEL STATIONS

VERTICAL SCALE: 1"=5'
5' 0 5' 10 FT

NOTES:
For Layout of Borings see Sheet 2.
For Legend and Notes see Sheet 7.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO.	SPEC. NO. INV. SER. NO. CIVENG-CR-076-64-98	SIZE	FILE NO. D-13-2-159 DRAWING NO.
	AS SCALE SHOWN	DATE: MAY 1964	SHEET 11 of 13

5 | 4 | 3 | 2 | 1

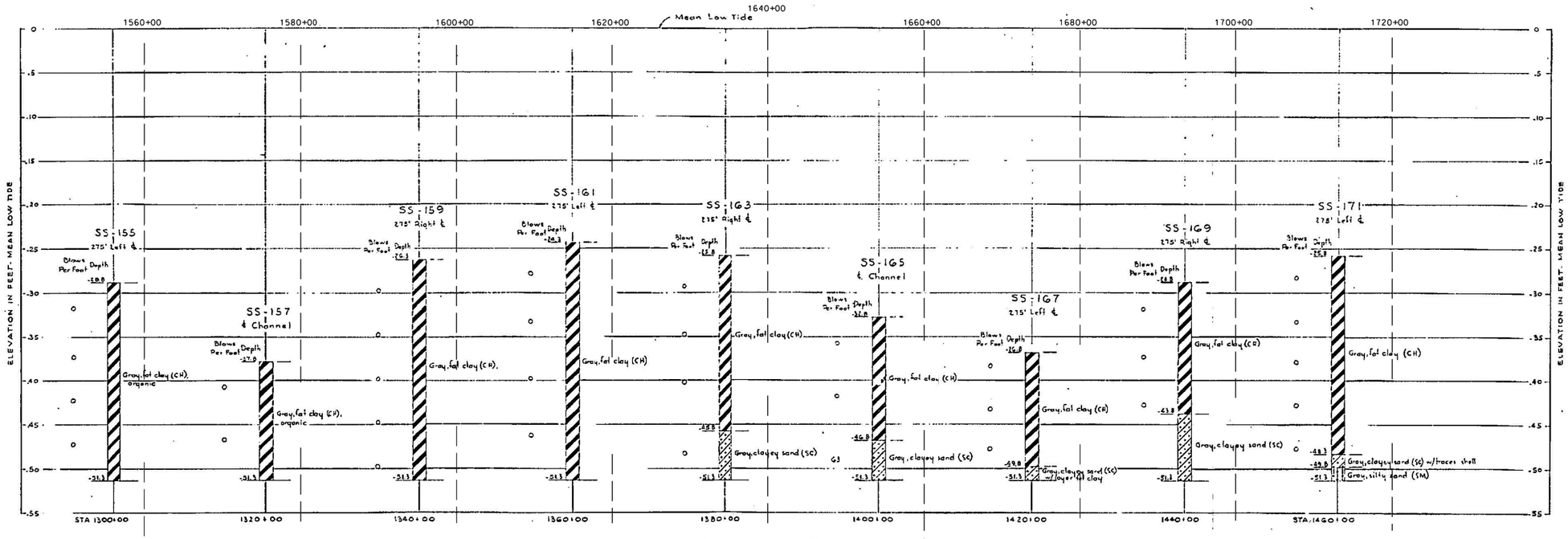
E-1-7

E D C B A

CORPS OF ENGINEERS | 4 | 3 | 2 | 1 | U. S. ARMY

REVISIONS					
SYM	ZONE	DESCRIPTION	DATE	APPROVED	
		ADDED PRESENT STATIONING & LABELS	5/2018		

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



VERTICAL SCALE: 1"=5'
5' 0 5 10 FT

NOTES:
For Layout of Borings see Sheet G.
For Legend and Notes see Sheet 7.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

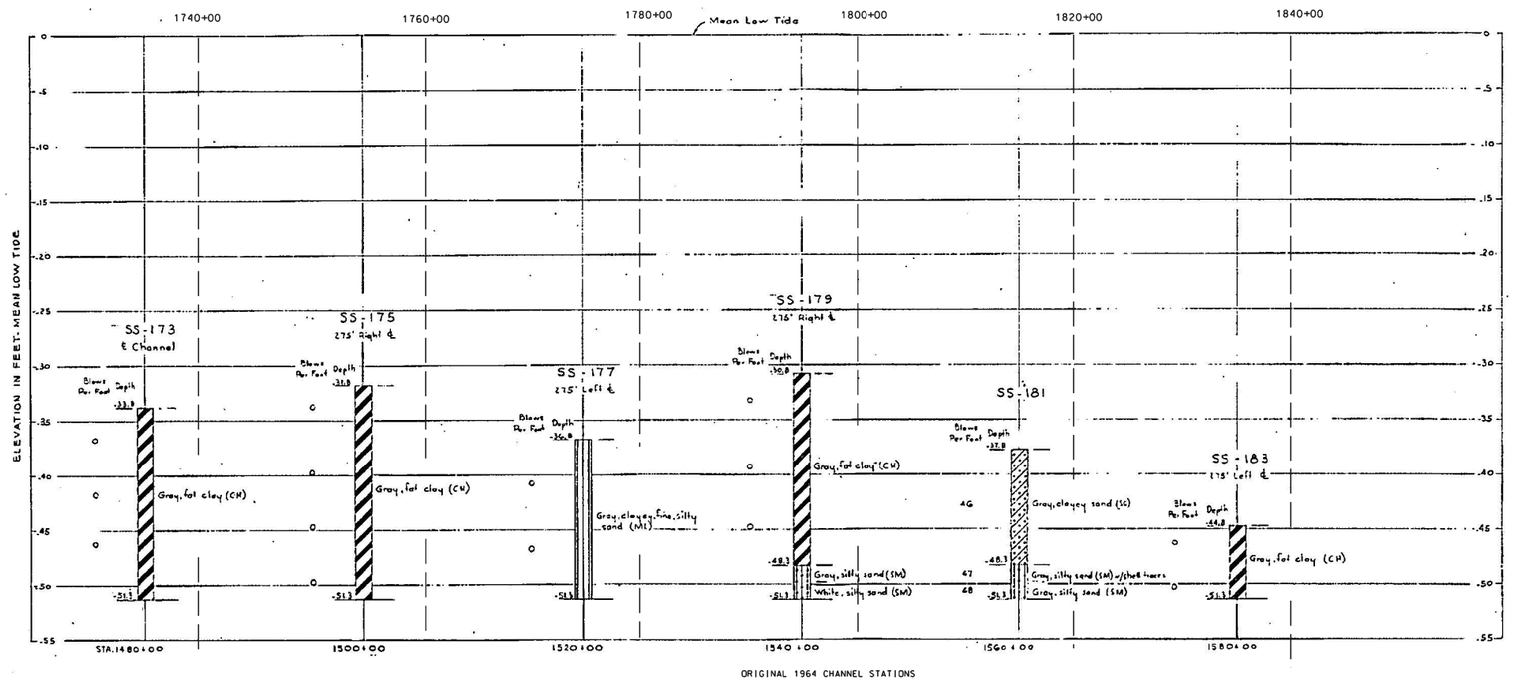
SH. REF. NO.	SPEC. NO. INV REF. NO. CIVENG -	SIZE	FILE NO. D-13-2-160
	DA-078-64-98		DRAWING NO.
	SCALE: SHOWN	DATE: MAY 1964	SHEET 12 of 13

5 | 4 | 3 | 2 | 1 | E-1-8

E D C B A

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED
		ADDED PRESENT STATIONING & LABELS	5/2018	

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



VERTICAL SCALE: 1"=5'

5' 0 5 10 FT

NOTES:

For Layout of Borings see Sheet 6.
For Legend and Notes see Sheet 7.

U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO.	SPEC. NO. INV. REF. NO. CIVENG- 01-078-84-98	SIZE	FILE NO. D-13-2-161
	AS SCALE SHOWN		DRAWING NO.
		DATED	MAY 1964
		SHEET	13 of 13

E-1-9

5 | 4 | 3 | 2 | 1

E D C B A

SECTION 4. 1972 Subsurface Investigation Boring Logs

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 5 SHEETS
1. PROJECT: MOBILE HARBOR IMPROVEMENTS		10. SIZE AND TYPE OF BIT: SPLIT SPOON & FISH TAIL	
2. LOCATION (Coordinates or Station): N. 239,560 2400' N BN 42 E. 333,410		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: LONGYEAR (CD-109)	
4. HOLE NO. (As shown on drawing title and file number): SS-3-70		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 30 / UNDISTURBED 0	
5. NAME OF DRILLER: FELL		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: MOBILE BAY (0.0)	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 5-5-70 / COMPLETED 5-5-70	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -4.0'	
9. TOTAL DEPTH OF HOLE: 150.5'		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: C. DAVIS	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0.0			
			WATER	
	3.0			
	-4.0			
30			GRAYISH BROWN PR. GRD. SILTY SAND (SP-SM)	1
	5.5			
	6.0		NO SAMPLE	FISHTAILED
	9.0			
33			GRAYISH BROWN SILTY SAND (SM)	10
	10.5			
	12.0		NO SAMPLE	FISHTAILED
	14.0			
27	15.0		GRAYISH BROWN PR. GRD. SILTY SAND (SP-SM)	7
	15.5			
			NO SAMPLE	FISHTAILED
	18.0			
	19.0			
26			BROWN PR. GRD. SILTY SAND (SP-SM)	5
	20.5			
	21.0		NO SAMPLE	FISHTAILED
	24.0			
30			BROWN PR. GRD. SILTY SAND (SP-SM)	14
	25.5			
			NO SAMPLE	FISHTAILED
	27.9			
			CONT. ON SHEET 2	

NOB FORM 927 APR 74

HOLE NO. SS-3-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -4.0'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 2 OF 5 SHEETS

W/C %	DEPTH 27.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
			NO SAMPLE	FISHTAILED
	29.0			
27	30.5		BROWN PR GRD SILTY SAND (SP-SM)	10
			NO SAMPLE	FISHTAILED
	34.0			
25	35.5		TAN-BROWN SILTY SAND (SM)	19
			NO SAMPLE	FISHTAILED
	39.0			
41			TAN-BROWN SILTY SAND (SM)	35
	40.5		NO SAMPLE	FISHTAILED
	44.0			
19			TAN-BROWN SILTY SAND (SM)	34
	45.5		NO SAMPLE	FISHTAILED
	49.0			
15	50.5		LT. TAN PR. GRD. SILTY SAND (SP-SM) W/PEA GV.	46
			NO SAMPLE	FISHTAILED
	54.0			
21	55.5		TAN PR GRD. SILTY SAND (SP-SM) W/PEA. GV.	52
			NO SAMPLE	FISHTAILED
	59.0			
24	60.5		TAN PR GRD. SILTY SAND (SP-SM)	24
			CONT ON SHT 3	

MOB FORM 927-A APR 74

HOLE NO. SS-3-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -4.0'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 3 OF 5 SHEETS

W/C %	DEPTH	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	60.5		NO SAMPLE	FISHTAILED
	64.0			
19			TAN PR. GRD. SAND (SP)	83
	65.5		NO SAMPLE	FISHTAILED
	69.0		TAN & GRAY CLAYEY SAND (SC) W/ GV.	
16				82
	70.5		NO SAMPLE	FISHTAILED
	74.0		BROWN PR. GRD. SILTY SAND (SP-SM)	
24				94
	75.5		NO SAMPLE	FISHTAILED
	79.0		TAN PR. GRD. SAND (SP) W/TR. GV.	
27				100+
	80.5		NO SAMPLE	FISHTAILED
	84.0		GRAYISH TAN PR. GRD SAND (SP) W/TR. GV.	
28				100+
	85.5		NO SAMPLE	FISHTAILED
	89.0		GRAYISH TAN PR. GRD. SAND (SP) W/ TR. GV.	
29				94
	90.5		NO SAMPLE	FISHTAILED
	94.0		CONT. ON SHT. 4	

MOB FORM 927-A APR 74

HOLE NO. SS-3-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE: -4.0'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 4 OF 5 SHEETS

W/C %	DEPTH 94.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
29			GRAY FAT CLAY (CH)	
	95.5		NO SAMPLE	23 FISHTAILED
	99.0		GRAY SILTY FAT CLAY (CH) W/ SOME FINE SAND	
26	100.5		NO SAMPLE	28 FISHTAILED
	104.0		TAN PR. GRD. SAND (SP)	
29	105.5		NO SAMPLE	60 FISHTAILED
	109.0		TAN PR. GRD. SAND (SP)	
28	110.5		NO SAMPLE	55 FISHTAILED
23	114.0		TAN PR. GRD. SAND (SP)	
	114.5		NO SAMPLE	100+ FISHTAILED
20	119.0		TAN PR. GRD. SAND (SP)	
	119.4		NO SAMPLE	100+ FISHTAILED
19	124.0		TAN PR. GRD. SAND (SP)	
	124.4		NO SAMPLE	100+ FISHTAILED
	129.0			

MOB FORM 927-A R.C. APR 74

CONT ON SHT. 5

HOLE NO. SS-3-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -4.0'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 5 OF 5 SHEETS

W/C %	DEPTH	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	129.0			
21	129.5		TAN PR. GRD. SAND (SP)	100+
			NO SAMPLE	FISHTAILED
26	134.0		GRAYISH TAN PR. GRD. SAND (SP) COARSE	100+
	134.5		NO SAMPLE	FISHTAILED
	139.0			
24	140.0		GRAYISH TAN PR. GRD. SAND (SP) COARSE	100+
			NO SAMPLE	FISHTAILED
	144.0			
26			GRAYISH TAN PR. GRD. SAND (SP) COARSE	86
	145.5		NO SAMPLE	FISHTAILED
	149.0			
20			GRAY PR. GRD. SILTY SAND (SP-SM)	47
	150.5		BOTTOM OF HOLE	

BORING LOG-S	DIVISION: South Atlantic	INSTALLATION: Mobile District	SHEET 1 OF 5 SHEETS
1. PROJECT: MOBILE HARBOR IMPROVEMENTS		10. SIZE AND TYPE OF BIT: SPLITSPOON & FISHTAIL	
2. LOCATION (Coordinates or Station): 1200' N BH42 — N. 238,350 E. 333,380		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: FAILING (CD-47)	
4. HOLE NO. (As shown on drawing title and file number): SS-4-70'		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 30 / UNDISTURBED 0	
5. NAME OF DRILLER: FELL		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER: MOBILE BAY (0.0)	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 5-15-70 / COMPLETED 5-15-70	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: - 3.7'	
9. TOTAL DEPTH OF HOLE: 150.2'		18. TOTAL CORE RECOVERY FOR BORING: N/A	
		19. SIGNATURE OF INSPECTOR: C. DAVIS	

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0.0		WATER	
	3.0			
	3.7			
34			BROWNISH GRAY SILTY FINE SAND (SM)	2
	5.2			
	6.0		NO SAMPLE	FISHTAILED
	8.7			
31	9.0		BROWNISH GRAY SILTY FINE SAND (SM) W/TR. OF SHELL	3
	10.2			
	12.0		NO SAMPLE	FISHTAILED
	13.7			
30			BROWNISH GRAY SILTY FINE SAND (SM) W/TR. OF SHELL	5
	15.0			
	15.2		NO SAMPLE	FISHTAILED
	18.0			
	18.7			
34			GRAY SANDY FAT CLAY (CH) W/TR. OF SHELL	5
	20.2			
	21.0		NO SAMPLE	FISHTAILED
	23.7			
	24.0			
39			GRAY FAT CLAY (CH)	4
	25.2			
			NO SAMPLE	FISHTAILED
	27.0			
			CONT. ON SHT. 2	

MOB FORM 927 R.C. APR 74

HOLE NO. SS-4-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -3.7'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 2 OF 5 SHEETS

W/C %	DEPTH 27.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
			NO SAMPLE	FISHTAILED
33	28.7		GRAY SANDY FAT CLAY (CH)	9
	30.2		NO SAMPLE	FISHTAILED
	33.7		LT. GRAY SILTY FINE SAND (SM)	32
22	35.2		NO SAMPLE	FISHTAILED
	38.7		LT. GRAY SILTY FINE SAND (SM)	48
25	40.2		NO SAMPLE	FISHTAILED
	43.7		TAN SILTY FINE SAND (SM)	24
25	45.2		NO SAMPLE	FISHTAILED
	48.7		TAN PR. GRD SILTY SAND (SP-SM)	78
25	50.2		NO SAMPLE	FISHTAILED
	53.7		TAN PR. GRD. SAND (SP)	77
23	55.2		NO SAMPLE	FISHTAILED
	58.7		TAN PR. GRD. SAND (SP)	77
27	60.2		NO SAMPLE	FISHTAILED
	61.0		CONT. ON SHT. 3	

MOD FORM 927-A R.C. APR 74

HOLE NO. 55-4-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -3.7'

PROJECT MOBILE HARBOR IMPROVEMENTS | INSTALLATION Mobile District | SHEET 3 OF 5 SHEETS

W/C %	DEPTH 61.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
			NO SAMPLE	FISHTAILED
33	63.7		GRAYISH TAN PR. GRD. SAND (SP)	44
	65.2		NO SAMPLE	FISHTAILED
34	68.7		GRAYISH TAN PR. GRD. SAND (SP)	35
	70.2		NO SAMPLE	FISHTAILED
31	73.7		GRAYISH TAN PR. GRD. SAND (SP)	32
	75.2		NO SAMPLE	FISHTAILED
32	78.7		LT. GRAY SANDY FAT CLAY (CH)	16
	80.2		NO SAMPLE	FISHTAILED
20	83.7		TAN PR. GRD. SAND (SP)	100+
	84.2		NO SAMPLE	FISHTAILED
24	88.7		TAN PR. GRD. SAND (SP)	100+
	90.2		NO SAMPLE	FISHTAILED
	93.7		CONT. ON SHT. 4	

BORING LOG - S-(Cont Sheet) | ELEVATION TOP OF HOLE -3.7'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 4 OF 5 SHEETS

W/C %	DEPTH	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	93.7			
20	94.2		TAN PR. GRD. SAND (SP)	
			NO SAMPLE	FISHTAILED
27	98.7		TAN PR. GRD. SAND (SP) COARSE	
	99.7		NO SAMPLE	100+ FISHTAILED
28	103.7		TAN PR. GRD. SAND (SP) COARSE	
	105.2		NO SAMPLE	94 FISHTAILED
24	108.7		TAN PR. GRD. SAND (SP) COARSE	
	110.2		NO SAMPLE	100+ FISHTAILED
28	113.7		TAN PR. GRD. SAND (SP) COARSE	
	114.2		NO SAMPLE	100+ FISHTAILED
21	118.7		TAN PR. GRD. SAND (SP) COARSE	
	120.2		NO SAMPLE	95 FISHTAILED
24	123.7		GRAYISH BROWN PR. GRD. SAND (SP) COARSE	
	125.2		NO SAMPLE	
	126.0		CONT. ON SHT. 5	100+ FISHTAILED

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -3.7'

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 5 OF 5 SHEETS

W/C %	DEPTH 126.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
			NO SAMPLE	FISHTAILED
21	128.7		LT. TAN PR. GRD. SAND (SP) COARSE	100+
	129.2		NO SAMPLE	FISHTAILED
21	133.7		LT. TAN PR. GRD. SAND (SP) COARSE W/GV.	100+
	134.6		NO SAMPLE	FISHTAILED
21	138.7		LT. TAN PR. GRD. SAND (SP) COARSE	100+
	139.2		NO SAMPLE	FISHTAILED
	143.7		GRAY SILTY FAT CLAY (CH)	36
45	145.2		NO SAMPLE	FISHTAILED
	148.7		LT. GRAY PR. GRD. SILTY SAND (SP-SM)	51
	150.2		BOTTOM OF HOLE	

BORING LOG-S | DIVISION: South Atlantic | INSTALLATION: Mobile District | SHEET 1 OF 5 SHEETS

1. PROJECT: MOBILE HARBOR IMPROVEMENTS
2. LOCATION (Coordinates or Station): OPPOSITE BN 42 N. 337,120 E. 339,285
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): 55-5-70
5. NAME OF DRILLER: FELL
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 153.0'
10. SIZE AND TYPE OF BIT: SPLITSPOON & FISHTAIL
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: LONGYEAR (CD-109)
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 30; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: MOBILE BAY (0.0)
16. DATE HOLE: STARTED 4-22-70; COMPLETED 4-23-70
17. ELEVATION TOP OF HOLE: -6.5
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: C. DAVIS

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0.0			
	3.0		WATER	FISHTAILED
	6.0			
18	6.5		DK. GRAY CLAYEY, FN. SAND (SC) W/ SHELL	
	8.0			WH
	9.0		NO SAMPLE	FISHTAILED
	11.5			
29	12.0		GRAY SILTY FN. SAND (SM)	
	13.0			
	15.0		NO SAMPLE	FISHTAILED
	16.5			
26			GRAY SILTY FN. SAND (SM)	
	18.0			4
			NO SAMPLE	FISHTAILED
	21.0			
30	21.5		GRAY SILTY FN. SAND (SM)	
	23.0			5
	24.0		NO SAMPLE	FISHTAILED
	26.5			
56	27.0		GRAY FAT CLAY (CH)	
	29.0			2

CONT. ON SHT. 2

MOB FORM 927 APR 74

HOLE NO. 55-5-70

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -6.5

PROJECT MOBILE HARBOR IMPROVEMENTS | INSTALLATION Mobile District | SHEET 2 OF 5 SHEETS

W.C %	DEPTH 28.0	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
			NO SAMPLE	FISHTAILED
	31.5			
50			GRAY FAT CLAY (CH)	9
	33.0		NO SAMPLE	FISHTAILED
	36.5			
86			GRAY FAT CLAY (CH)	5
	38.0		NO SAMPLE	FISHTAILED
	41.5			
88			GRAY FAT CLAY (CH)	6
	43.0		NO SAMPLE	FISHTAILED
	46.5			
226			LT. GRAY SILTY FAT CLAY (CH) W/ PKTS. BLACK ORG. CLAY	8
	48.0		NO SAMPLE	FISHTAILED
	51.5			
88			BLACK ORGANIC CLAY (OH)	11
	53.0		NO SAMPLE	FISHTAILED
	56.5			
16			TAN-BROWN FR. GRD. SILTY SAND (SP-SM)	53
	58.0		NO SAMPLE	FISHTAILED
	61.5			55
			CONT ON SHT 2	

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -6.5

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 3 OF 5 SHEETS

W.C %	DEPTH 61.5	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
16			GRAYISH BROWN PR GRD. SILTY SAND (SP-SM)	55
	63.0		NO SAMPLE	FISH TAILED
19	66.5		TAN PR. GRD. SAND (SP)	42
	68.0		NO SAMPLE	FISH TAILED
14	71.5		TAN PR. GRD. SAND (SP)	100+
	73.0		NO SAMPLE	FISH TAILED
18	76.5		LT. TAN PR. GRD. SAND (SP)	100+
	78.0		NO SAMPLE	FISH TAILED
20	81.5		LT. TAN PR. GRD. SAND (SP)	76
	83.0		NO SAMPLE	FISH TAILED
20	86.5		TAN PR GRD. SAND (SP)	56
	88.0		NO SAMPLE	FISH TAILED
19	91.5		TAN PR. GRD. SAND (SP)	52
	93.0		NO SAMPLE	FISH TAILED
	96.5			

MDB FORM 927-A APR 74 | CONT. ON SHEET 4 | HOLE NO. [illegible]

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -6.5

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 4 OF 5 SHEETS

W/C %	DEPTH 96.5	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
26			LT TAN PR GRD. SAND (SP)	42
	98.0		NO SAMPLE	FISHTAILED
	101.5		TAN PR. GRD. SAND (SP)	45
21	103.0		NO SAMPLE	FISHTAILED
	106.5		LT. TAN PR. GRD. SAND (SP)	43
24	108.0		NO SAMPLE	FISHTAILED
	111.5		TAN PR. GRD. SAND (SP)	45
25	113.0		NO SAMPLE	FISHTAILED
	116.5		LT. BROWN PR. GRD. SAND (SP)	63
20	118.0		NO SAMPLE	FISHTAILED
	121.5		TAN PR GRD SAND (SP)	84
19	123.0		NO SAMPLE	FISHTAILED
	126.5		TAN PR GRD. SAND (SP)	100
18	127.2		NO SAMPLE	FISHTAILED
	131.5		CONT ON SHT 5	

BORING LOG -S-(Cont Sheet) | ELEVATION TOP OF HOLE -6.5

PROJECT: MOBILE HARBOR IMPROVEMENTS | INSTALLATION: Mobile District | SHEET 5 OF 5 SHEETS

W/C %	DEPTH	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	131.5			
	132.0		TAN PR. GRD. SAND (SP)	
			NO SAMPLE	FISH TAIL
	136.5		TAN PR. GRD. SAND (SP) CSE.	
	136.9			100+
			NO SAMPLE	FISH TAIL
	141.5		TAN PR. GRD SAND (SP) CSE	
	142.0			100+
			NO SAMPLE	FISH TAIL
	146.5			
			GRAY SANDY FAT CLAY (CH) WITH GV.	15
	148.0			
			NO SAMPLE	FISH TAIL
	151.5			
			LT GRAY SILTY SAND (SM)	37
	153.0			
			BOTTOM OF HOLE	

MOB FORM 927-A APR 74

HOLE NO. SS S 70

Hole No. CD-2-72

DRILLING LOG	DIVISION SAD	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT MOBILE SHIP CHANNEL		10. SIZE AND TYPE OF BIT 3" SHELBY TUBE	
2. LOCATION (Coordinates or Station) STA NO. 2 + 500' W. OF CHANNEL ℄ @ BEACON NO. 32		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) STAFF GAGE, NOT CORR. TO. FOR TIDE	
3. DRILLING AGENCY MDO		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) CD-2-72		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED –	UNDISTURBED 7
5. NAME OF DRILLER DOBBS		14. TOTAL NUMBER CORE BOXES –	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. DEPTH OF WATER ∂. 11.4'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 9-19-72	COMPLETED
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE 48.9'		18. TOTAL CORE RECOVERY FOR BORING – %	
		19. SIGNATURE OF INSPECTOR WILSFORD	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	11.4		(MH) GRAY CLY. SI., MAIRNE TYPE		1	
			NO SAMPLE			
	16.4		(MH) GRAY CLY. SI., MAIRNE TYPE		2	
			NO SAMPLE			
	21.4		NO RECOVERY		3	
			NO SAMPLE			
	26.4		(CH) GRAY FAT CL., MARINE TYPE		4	
			NO SAMPLE			JAR SAMPLES TAKEN FROM BOTTOM OF SHELBY TUBE SAMPLES.
	31.4		(CH) GRAY FAT CL., MARINE TYPE		5	
			NO SAMPLE			
	36.4		(CH) GRAY FAT CL., MARINE TYPE		6	
			NO SAMPLE			
	41.4		CHUNK OF WOOD IN BOTTOM OF SHELBY		7	
			NO SAMPLE			
	46.4		(CH) GRAY FAT CL. W/TR. SD., MAIRNE TYPE.		8	
	48.9					BOTTOM OF HOLE

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT

HOLE NO. CD-2-72

Hole No. CD-3-72

DRILLING LOG	DIVISION SAD	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3" SHELBY TUBE	
2. LOCATION (Coordinates or Station): STA NO. 3+500' W. OF CHANNEL LTG RANGE NO. 29		11. DATUM FOR ELEVATION SHOWN (MSL or ASL): STAFF GAGE, NOT CORR'D. FOR TIDE	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL:	
4. HOLE NO. (As shown on drawing title and file number): CD-3-72		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED — UNDISTURBED 9	
5. NAME OF DRILLER: DOBBS		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. DEPTH OF WATER: ± 11.2'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 9-20-72 COMPLETED 9-21-72	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 53.7 (EL.		18. TOTAL CORE RECOVERY FOR BORING: — %	
		19. SIGNATURE OF INSPECTOR: WILSFORD	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	11.2		(MH) GRAY CLY. SI., MARINE TYPE.		1	
			NO SAMPLE			
	16.2		(MH) GRAY CLY. SI., MARINE TYPE		2	
			NO SAMPLE			
	21.2		(CH) GRAY, FAT CL., MARINE TYPE		3	
			NO SAMPLE			
	26.2		(CH) GRAY FAT CL., W/TR. ORG. MTL., MARINE TYPE		4	
			NO SAMPLE			
	31.2		(CH) GRAY FAT CL., MARINE TYPE.		5	
			NO SAMPLE			JAR SAMPLES TAKEN FROM BOTTOM OF SHELBY TUBE SAMPLES
	36.2		(CH) GRAY FAT CL. W/TR. SD., MARINE TYPE		6	
			NO SAMPLE			
	41.2		(CH) BR. & GRAY FAT CL., MARINE TYPE.		7	
			NO SAMPLE			
	46.2		(ML) BR. & GRAY SI. W/TR. SD. & MIC., MARINE TYPE.		8	
			NO SAMPLE			
	51.2		(CH) GRAY FAT CL., MARINE TYPE.		9	BOTTOM OF HOLE

Hole No. CD-4-72

DRILLING LOG	DIVISION LMD	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT MOBILE SHIP CHANNEL		10. SIZE AND TYPE OF BIT 3" SHELBY TUBE	
2. LOCATION (Coordinates or Station) STA. NO. 4 + 2229' W. CHANNEL ℄ @ BEACON NO. 17		11. DATUM FOR ELEVATION SHOWN (MSL or MLW) STAFF GAGE, NOT CORTD. FOR TIDE	
3. DRILLING AGENCY MDO		12. MANUFACTURER'S DESIGNATION OF DRILL	
4. HOLE NO. (As shown on drawing title and file number) CD-4-72		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED –	UNDISTURBED 8
5. NAME OF DRILLER DOBBS		14. TOTAL NUMBER CORE BOXES –	
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. DEPTH OF WATER 12.7'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 9-21-72 COMPLETED 9-22-72	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE 50.2' (EL.		18. TOTAL CORE RECOVERY FOR BORING – %	
		19. SIGNATURE OF INSPECTOR WILSFORD	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	12.7		(MH) GRAY CLY. SI., MARINE TYPE		1	NOTE: SAMPLER LOST OBTAINING SAMPLE NO. 5. MOVED BARGE APPROX. 10' NORTH OF CD-4-72 FISH TAILED TO DEPTH -47.7, THEN PUSHED SAMPLE NO. 6 TO -50.2 DEPTH.
			NO SAMPLE.			
	17.7		(MH) GRAY & BL. CLY. SI. W/ORG MTL., MARINE TYPE		2	
			NO SAMPLE			
	22.7		(OH) GRAY ORG. SI., STRONG ORG. ODOR.		3	
			NO SAMPLE			
	27.7		(OH) GRAY ORG. SL., STRONG ORG. ODOR		4	
			NO SAMPLE			
	32.7		(OH) GRAY ORG. SI., STRONG ORG. ODOR		5	
			NO SAMPLE			JAR SAMPLES TAKEN FROM BOTTOM OF SHELBY TUBE SAMPLES
	37.7		(CH) GRAY FAT CL., SL. ORG. ODOR W/LIMESTONE FRAG.		6	
			NO SAMPLE			
	42.7		(CH) GRAY FAT CL. MARINE TYPE		7	
			NO SAMPLE			
	47.7		(CH) GRAY FAT CL. MARINE TYPE.		8	BOTTOM OF HOLE

Hole No. CD-5-72

DRILLING LOG	DIVISION SAD	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3" SHELBY TUBE	
2. LOCATION (Coordinates or Station): STA NO 3, 500' W/L CHANNEL ℄ @ BEACON NO. 12.		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): STAFF GAGE, NOT CORR'D FOR TIDE	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL:	
4. HOLE NO. (As shown on drawing title and file number): CD-5-72		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED —	UNDISTURBED 8
5. NAME OF DRILLER: DOBBS		14. TOTAL NUMBER CORE BOXES: —	
6. DIRECTION OF HOLE: ☑ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. DEPTH OF WATER: 12.7'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 9-22-72	COMPLETED 9-22-72
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE	
9. TOTAL DEPTH OF HOLE: 50.2' (EL.		18. TOTAL CORE RECOVERY FOR BORING: — %	
		19. SIGNATURE OF INSPECTOR: WILSFORD	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	12.7		(MH) GRAY CLY. SI., MARINE TYPE		1	NOTE: CONDITION OF SAMPLE NO. 6 QUESTIONABLE. SAMPLE LOST. RE-ENTERED HOLE & RECOVERED SAMPLE
			NO SAMPLE			
	17.7		(MH) GRAY CLY. SI., MARINE TYPE		2	
			NO SAMPLE			
	22.7		(CH) GRAY FAT CL., MARINE TYPE		3	
			NO SAMPLE			
	27.7		(CH) GRAY FAT CL., MARINE TYPE		4	
			NO SAMPLE			JAR SAMPLES TAKEN FROM BOTTOM OF SHELBY TUBE SAMPLES
	32.7		(CH) GRAY FAT CL., W/SHELL FRAG., MARINE TYPE		5	
			NO SAMPLE			
	37.7		(CH) GRAY FAT CL. W/SHELL FRAG., MARINE TYPE.		6	
			NO SAMPLE			
	42.7		(CH) GRAY FAT CL. W/SHELL FRAG., MARINE TYPE		7	
			NO SAMPLE			
	47.7		(CH) GRAY FAT CL. W/SHELL FRAG., MARINE TYPE		8	BOTTOM OF HOLE

SECTION 5. 1982 to 1984 Subsurface Investigation Boring Logs and Lab Data

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPROVED

N 241,000 N 240,000 N 239,000 N 238,000 N 237,000 N 236,000 N 235,000 N 234,000 N 233,000 N 232,000 N 231,000

E 335,000 E 334,000 E 333,000 E 332,000

TURNING BASIN
1500'L x 1500'W x 40'D

ANCHORAGE AREA
4000'L x 1150'W x 40'D

LITTLE SAND ISLAND

MONUMENT Z1A-5R ON LITTLE SAND ISLAND

SS-201-84

SS-3-70 SS-4-70 SS-5-70

VC-1A-84 VC-1-84 VC-3-84

VT-1-82 VT-2-82 VT-3-82 VT-4-82 VT-5-82 VT-6-82 VT-7-82

ST-1-82 ST-2-82

TB-6-3 TB-6-4 TB-4-3 TB-4-4

SC-17-83 SC-17-83A

VA-1-82 VA-2-82 VA-3-82 VA-4-82 VA-5-82 VA-6-82 VA-7-82 VA-8-82 VA-9-82

SA-1-82 SA-2-82 SA-3-82 SA-5-82 SA-6-82 SA-10-82

SC-18-83 SC-22-83

CHANNEL LIGHT "7B"
N 233,620
E 333,018

CHANNEL LIGHT "8"
N 234,220
E 333,018

EXISTING ℄ 400' x 40' CHANNEL

NEW PIER CONC. DECK STEEL SUPERSTR. OLD PIER SUPERSTR.

McDUFFIE ISLAND COAL TERMINAL

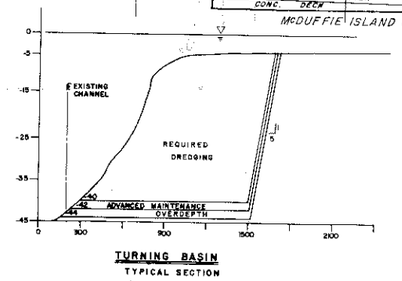
PIER RUINS

BLACK & RED BUOY
N 234,660
E 331,986

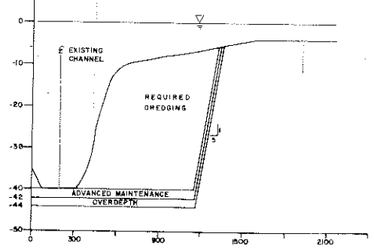
BLACK BUOY #1
N 232,675
E 332,006

CHANNEL TOWER
N 235,985.85
E 331,977.70

ARLINGTON CHANNEL



TURNING BASIN
TYPICAL SECTION



ANCHORAGE AREA (TYPICAL SECTION)

SCALE:
200 0 200 400 FT.

LEGEND
- VC-1-84 VT-1-82 VIBRACORE BORING
- ST-1-82 SPLITSPOON BORING
- MAGNETIC ANOMALY

HYDRO SURVEY NOV. 1983
REF NOVD

NOVD SEA LEVEL
0.25'
MEAN LOWER LOW WATER

NOTE: FOR LOGS OF BORINGS, SEE SECTION II OF THE APPENDIX.

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR DEEPENING, ALABAMA
GENERAL DESIGN MEMORANDUM
DESIGN MEMORANDUM NO. 1

TURNING BASIN AND ANCHORAGE AREA

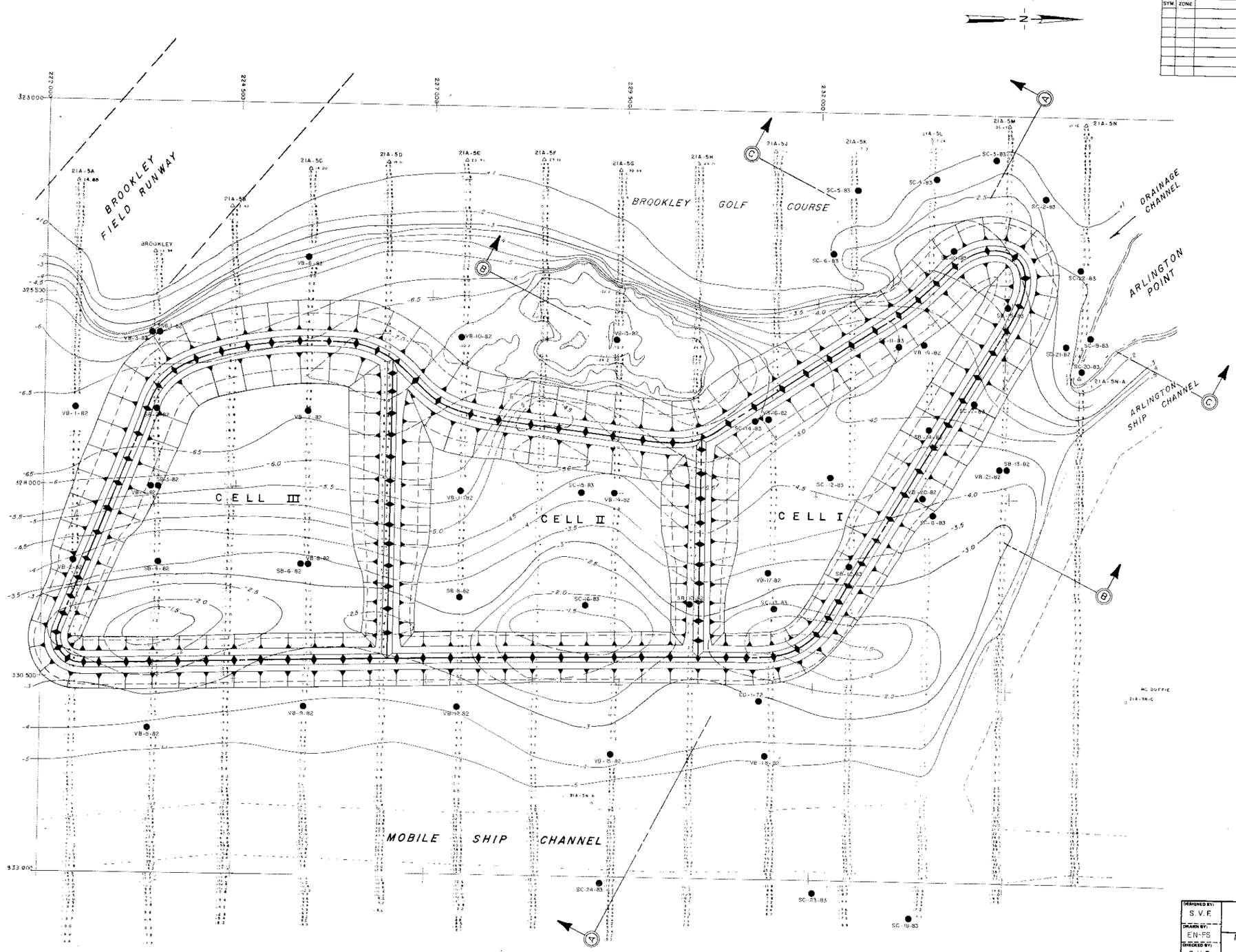
SPEC. NO.	SIZE	FILE NO.
		DRAWING NO.
SCALE: as noted	DATE: APRIL 1985	SHEET

PLATE A-2

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS				
SYM	ZONE	DESCRIPTION	DATE	APPROVED



NOTE:
FOR LOGS OF BORINGS, SEE SECTION II OF THE APPENDIX.

LEGEND

- △ CONCRETE MONUMENT
- ● VB-20-82 = VIBRACORE BORING
- ● SB-13-82 = SPLITSPOON BORING
- --- 0.0' ELEVATION

NOTE:
APRIL 1982 HYDRO REF: MLW

500 0 500 1000
scale feet

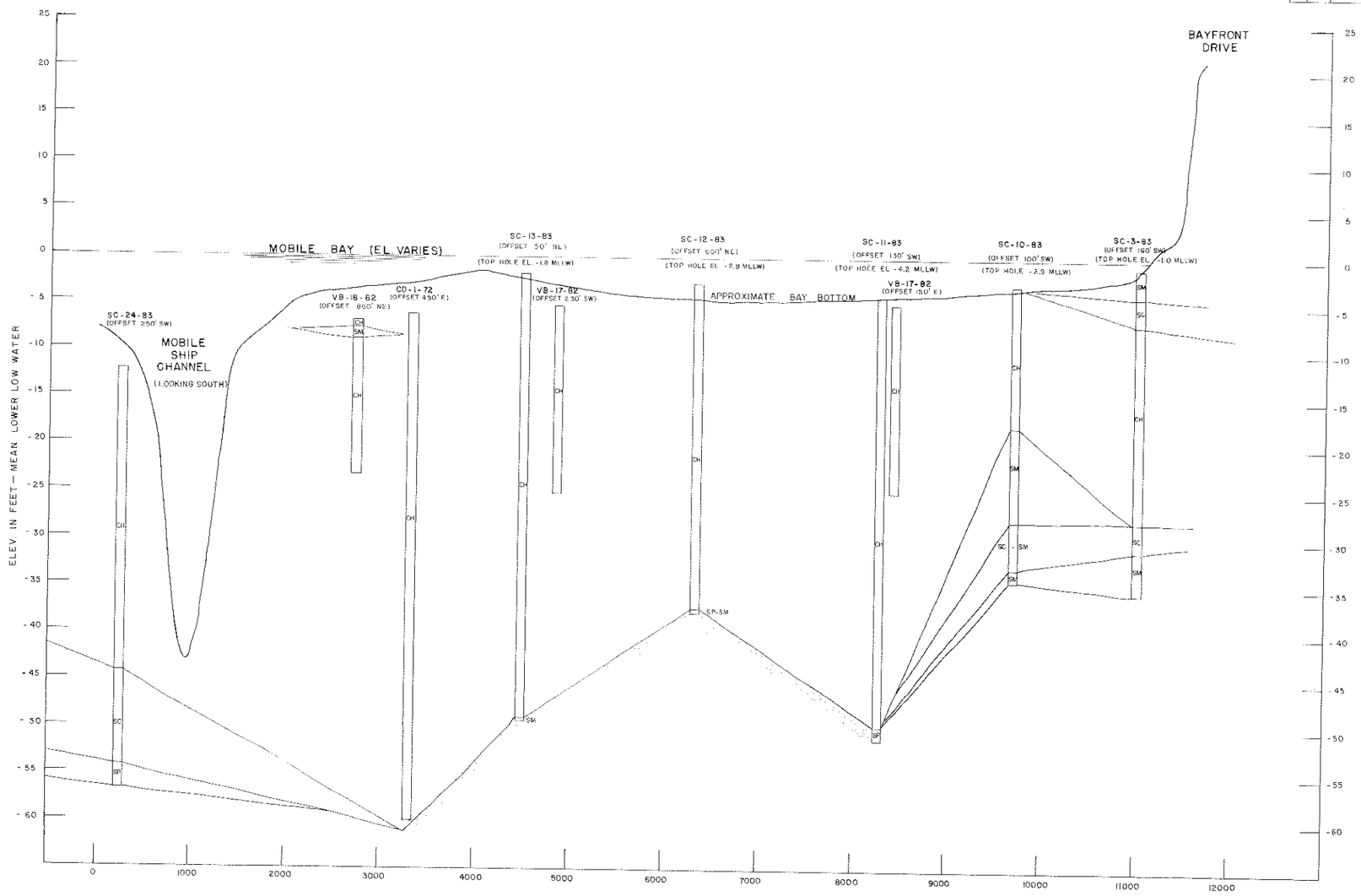
DRAWN BY: S.V.F.	U.S. ARMY ENGINEER DISTRICT, MOBILE CORPS OF ENGINEERS MOBILE, ALA.
TRACED BY: EN-FS	MOBILE HARBOR DEEPENING, ALABAMA GENERAL DESIGN MEMORANDUM DESIGN MEMORANDUM NO. 1
CHECKED BY: S.V.F.	BROOKLEY CONTAINMENT AREA
SUPERVISED BY: S.V.F.	
SH. REF. NO.	SPEC. NO. / SIZE / FILE NO. / DRAWING NO.
	DATE: APRIL 1985 / SHEET

1 PLATE A-3

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED



LEGEND

FAT CLAY = CH
SILTY SANDS = SM
POORLY GRADED CLEAN SANDS = SP
CLAYEY SANDS = SC

GEOLOGIC SECTION A-A

SCALE
HORIZONTAL
500 0 500 1000
scale feet
VERTICAL
5 0 5 10
scale feet

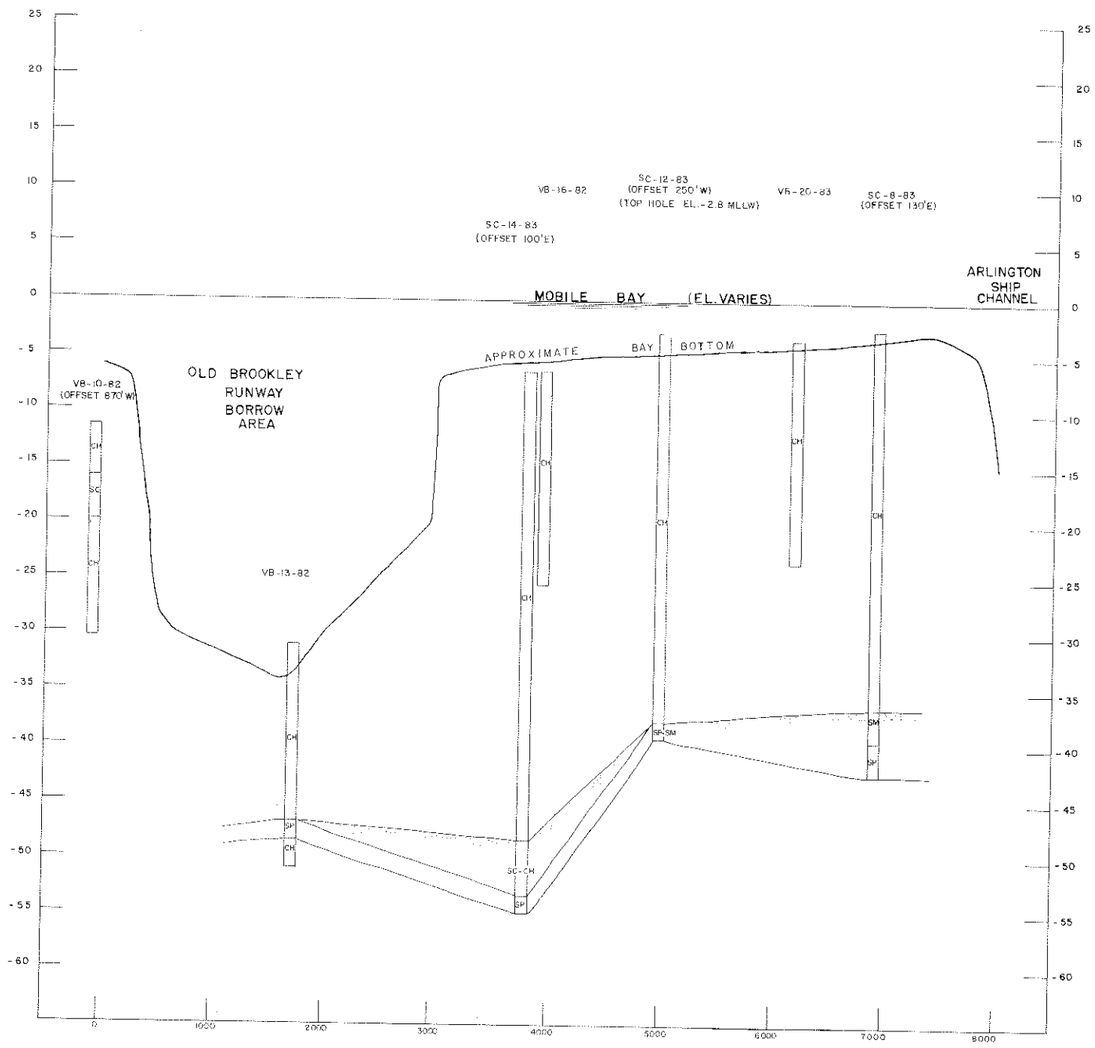
DESIGNED BY: S.L.L.	U.S. ARMY ENGINEER DISTRICT, MOBILE CORPS OF ENGINEERS MOBILE, ALA.
DRAWN BY: R.S.C.	MOBILE HARBOR DEEPENING, ALABAMA GENERAL DESIGN MEMORANDUM DESIGN MEMORANDUM NO.1
CHECKED BY: S.V.F.	BROOKLEY CONTAINMENT FOUNDATION GEOLOGIC SECTION A — A
SUPERVISED BY: S.V.F.	
SH. REF. NO.	SPEC. NO. / SIZE / FILE NO. / DRAWING NO.
SCALE: AS NOTED	DATE: APRIL 1985 / SHEET

1 PLATE A-4

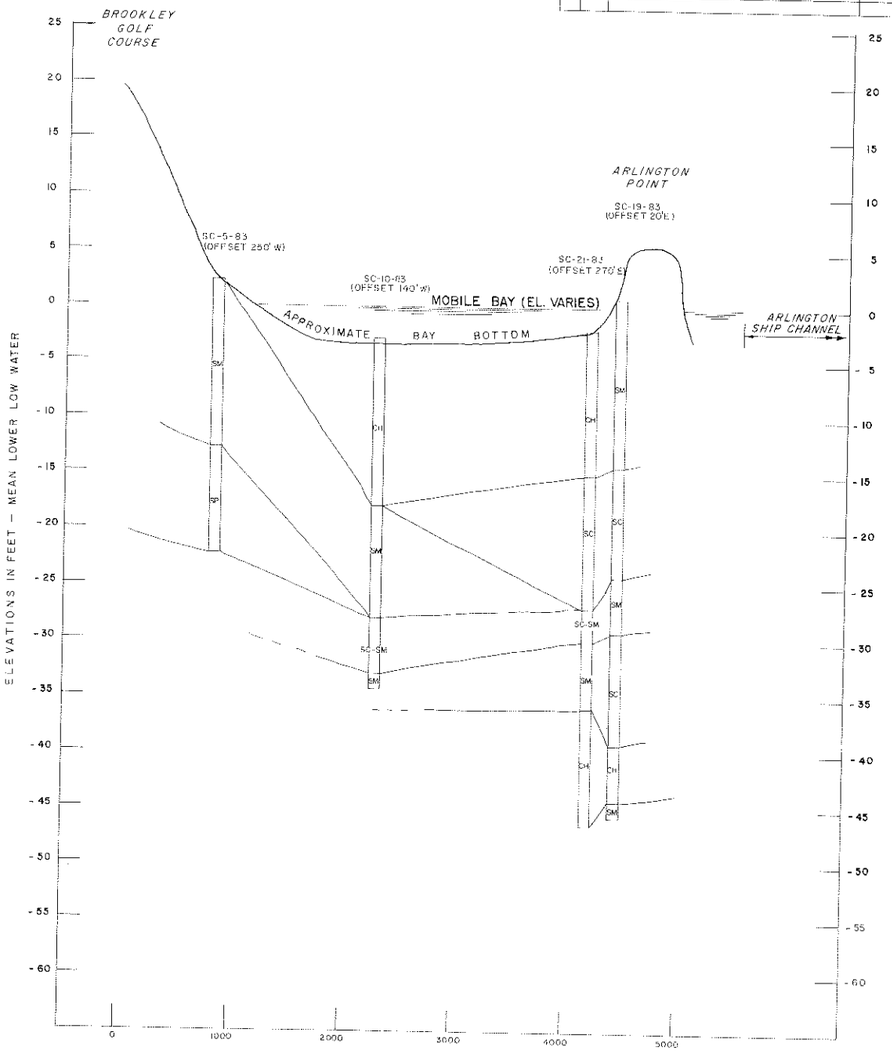
CORPS OF ENGINEERS

U. S. ARMY

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE	APPROVED



GEOLOGIC SECTION B-B



GEOLOGIC SECTION C-C

LEGEND

FAT CLAY = CH
SILTY SANDS = SM
POORLY GRADED CLEAN SANDS = SP

DESIGNED BY: S.L.L.	U.S. ARMY ENGINEER DISTRICT, MOBILE CORPS OF ENGINEERS MOBILE, ALA.
DRAWN BY: R.S.C.	MOBILE HARBOR DEEPENING, , ALABAMA
CHECKED BY: S.V.F.	GENERAL DESIGN MEMORANDUM DESIGN MEMORANDUM NO. 1
SUPERVISED BY: S.V.F.	BROOKLEY CONTAINMENT FOUNDATION
SH. REF. NO.	GEOLOGIC SECTIONS B-B & C-C
	SPEC. NO. / SIZE / FILE NO. / DRAWING NO.
	SCALE: / DATE: APRIL 1985 / SHEET

1 PLATE A-5

CORPS OF ENGINEERS

U. S. ARMY

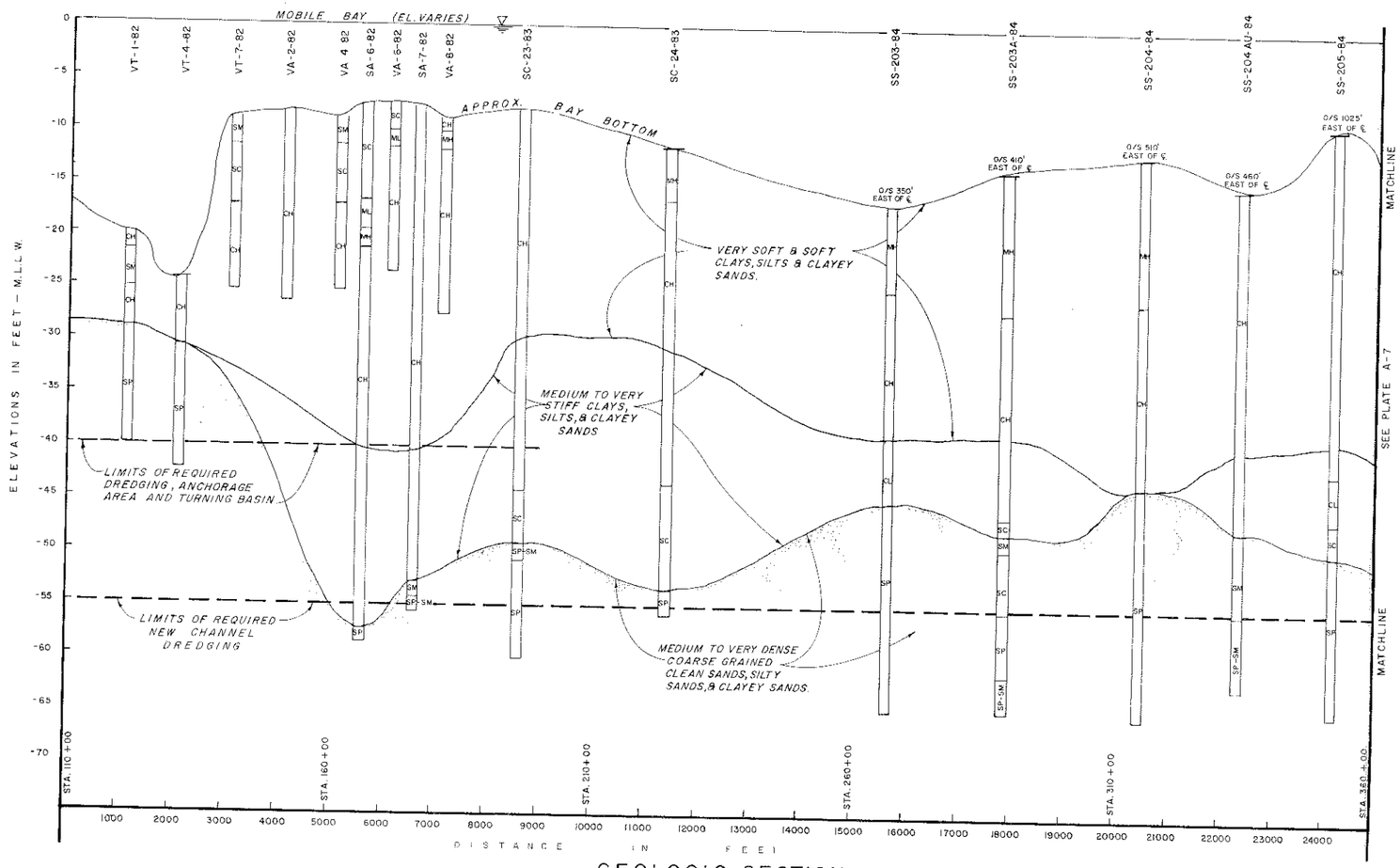
REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE	APPROVED

McDUFFIE ISLAND COAL TERMINAL

ARLINGTON SHIP CHANNEL

NORTH

SOUTH



GEOLOGIC SECTION

SCALE:

VERT.: 5 0 5 10 scale feet

HORIZ.: 1000 0 1000 2000' scale feet

LEGEND	
CLAYS	CH
	CL
SILTS	MH
	ML
ORGANICS	OH
SANDS	SP
	SM
	SC
O/S = OFFSET	

DESIGNED BY:	C.T.R.
DRAWN BY:	H.S.G.
CHECKED BY:	S.V.F.
SUPERVISED BY:	S.V.F.
SH. REF. NO.	

U.S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR DEEPENING, ALABAMA
GENERAL DESIGN MEMORANDUM
DESIGN MEMORANDUM NO. 1
CHANNEL STA. 110+00 TO STA. 360+00

GEOLOGIC SECTION

SPEC. NO. | SIZE | FILE NO.

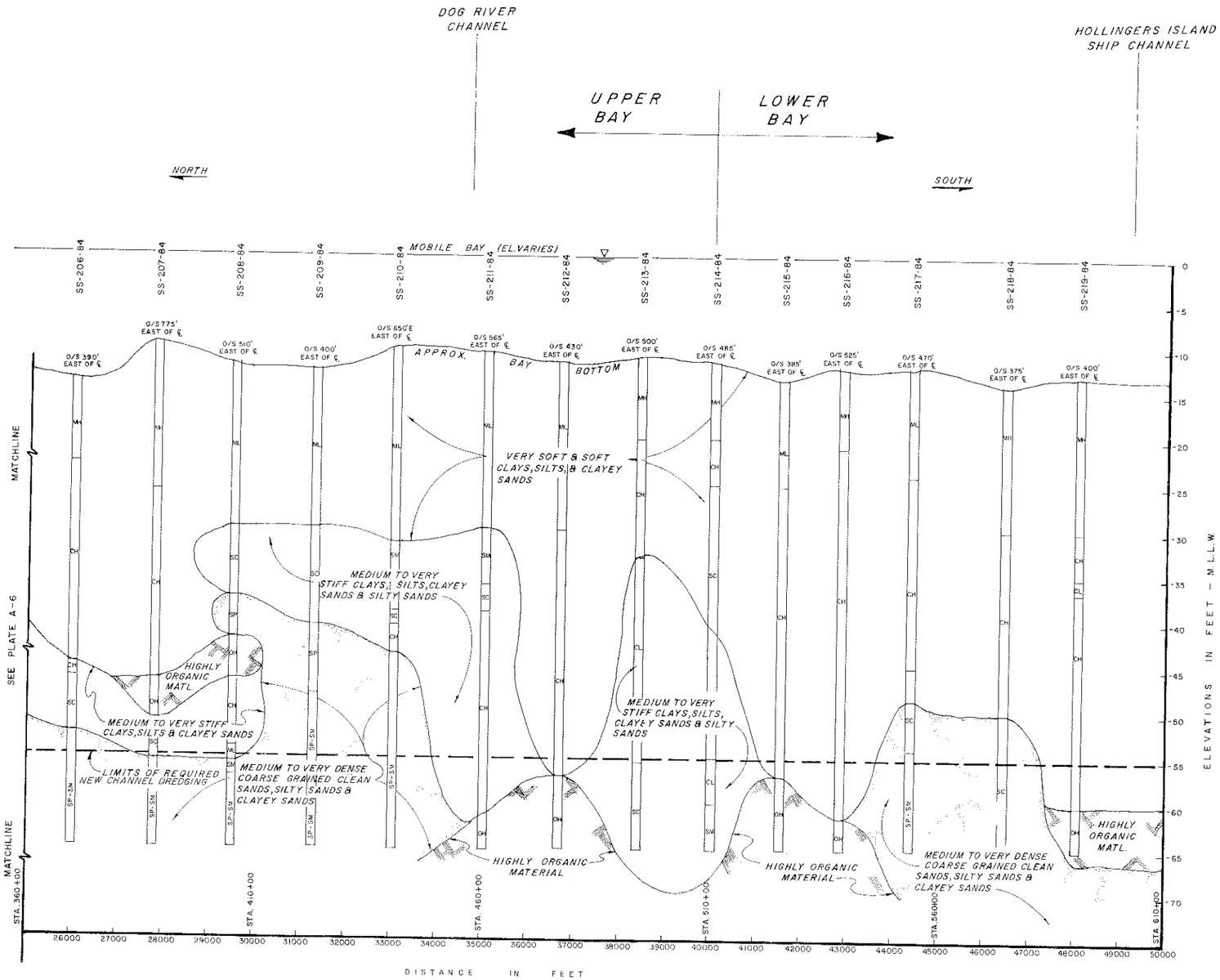
DRAWING NO.

SCALE: | DATE: APRIL, 1985 | SHEET

PLATE A-6

CORPS OF ENGINEERS — U. S. ARMY

REVISIONS			
SYM.	ZONE	DESCRIPTION	DATE / APPROVED



LEGEND	
CLAYS	CH
	CL
SILTS	MH
	ML
ORGANICS	OH
SANDS	SP
	SM
	SC
O/S = OFFSET	

GEOLOGIC SECTION

SCALE:

VERT.: 5 0 5 10' scale feet

HORIZ.: 1000 0 1000 2000' scale feet

DESIGNED BY: C.T.R.	U.S. ARMY ENGINEER DISTRICT, MOBILE CORPS OF ENGINEERS MOBILE, ALA.
DRAWN BY: H.S.G.	MOBILE HARBOR DEEPENING, ALABAMA
CHECKED BY: S.V.F.	GENERAL DESIGN MEMORANDUM DESIGN MEMORANDUM NO. 1
SUPERVISED BY: S.V.F.	CHANNEL STA. 360+00 TO STA. 610+00
SH. REF. NO.	GEOLOGIC SECTION
	SPEC. NO. / SIZE / FILE NO. / DRAWING NO.
	SCALE: / DATE: APRIL, 1985 / SHEET

PLATE A-7

BORING LOG-S | DIVISION: South Atlantic | INSTALLATION: Mobile District | SHEET 1 OF 1 SHEETS

1. PROJECT: CHANNEL DEEPENING - MOBILE HARBOR
2. LOCATION (Coordinates or Station): N 95,520 E 530,200
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG-1-82
5. NAME OF DRILLER: J. DETLOFF
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 22.5'
10. SIZE AND TYPE OF BIT: [illegible]
11. DATUM FOR ELEVATION SHOWN (FIRM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: P-514 SEAHORSE BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: MOBILE BAY (C.O.)
16. DATE HOLE: STARTED 10-26-82; COMPLETED 10-26-82
17. ELEVATION TOP OF HOLE: -43.0'
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: B. BRYANT

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0.0			
63			GREENISH GRAY SILTY SANDY FAT CLAY (CH)	2
	1.5		GREENISH GRAY SILTY FAT CLAY (CH) W/A LITTLE SAND	WR
48				WR
	3.0		GREENISH GRAY FAT CLAY (CH) W/SOME SAND, LL = 52, PL = 17, PI = 35, -200 = 78.0%	3
51				
	4.5		GREENISH GRAY FAT CLAY (CH) W/SOME SAND	4
43				
	6.0		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND & SHELL	6
54				
	7.5		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND, LL = 86, PL = 27, PI = 59, -200 = 95.8%	10
60				
	9.0		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND & SHELL	8
59				
	10.5		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND	8
56				
	12.0		DK. BROWN SILTY FAT CLAY (CH) W/SOME SAND, -200 = 69.3%	11
55				
	13.5		DK. BROWN SILTY FAT CLAY (CH) W/SOME SAND	10
63				
	15.0		DK. BROWN SILTY FAT CLAY (CH) W/A LITTLE SAND & TR. DECAYED WOOD, SL. ORG.	12
104				
	16.5		DK. BROWN FAT CLAY (CH) W/TR. SAND & DECAYED WOOD	15
52				
	18.0		GREENISH GRAY FAT CLAY (CH) W/SOME SAND & TR. OF DECAYED WOOD	12
	19.5			
	21.0		GREENISH GRAY CLAYEY SAND (SC-H) HIGH LL	10
	22.5			20
			BOTTOM OF HOLE	
	24.0			
	27.0			

NOTES:
(1) [illegible]
(2) COORDINATES ARE ± 0.50'
(3) DEPTHS & ELEVATIONS ARE ± 0.2'

MOB FORM 927 1-[illegible] AUG 74

HOLE NO. SG-1-[illegible]

BORING LOG-S | DIVISION: South Atlantic | INSTALLATION: Mobile District | SHEET 1 OF 1 SHEETS

1. PROJECT: CHANNEL DEEPENING - MOBILE HARBOR
2. LOCATION (Coordinates or Station): N 91,260 E 529,650
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG-2-82
5. NAME OF DRILLER: J. DETLOFF
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 22.5'
10. SIZE AND TYPE OF BIT: 3" SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TIDM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: F-314 SEACOASE BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER: MOBILE PNY (0.0)
16. DATE HOLE: STARTED 10-26-82 | COMPLETED 10-26-82
17. ELEVATION TOP OF HOLE: -44.0'
18. TOTAL CORE RECOVERY FOR BORING: %
19. SIGNATURE OF INSPECTOR: B. BRYANT

W/C %	DEPTH	SYM	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD PENETRATION (BLOWS PER FOOT)
	0.0			0 20 40 60
174	1.5		GREENISH GRAY SILTY FAT CLAY (CH) W/ SOME SAND	
172	3.0		GREENISH GRAY FAT CLAY (CH) W/A LITTLE SAND, -200 = 83.8%	
57	4.5		W/A TR. OF SAND LL = 81 PL = 22 PI = 59	WR
60	6.0		W/TR. OF SAND & SHELL	
65	7.5		W/TR OF SAND, -200 = 94.9%	4
55	9.0		W/TR. OF SAND & SHELL	5
59	10.5		W/A LITTLE SAND & TR. OF SHELL	5
59	12.0		W/TR. SAND, SHELL & DECAYED WOOD, -200 = 95.1%	6
39	13.5			11
35	15.0			5
			W/TR. OF SAND	11
	18.0			17
				9
	21.0			13
	22.5		BOTTOM OF HOLE	16
	24.0		NOTES: (1) 300 LB. HAMMER [illegible] (2) [illegible] (3) DEPTHS & ELEVATIONS ARE ± 2.0'	
	27.0			

MOB Form 927 [illegible]

HOLE NO. SG-2-82

Hole No. SG-10-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT 3½" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 82,462 E 231,087		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-10-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -50.0'	
9. TOTAL DEPTH OF HOLE: 15.4' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Descriptions) d	% CORE RECOVERY W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SP) GREENISH GR., REDDISH BR. PR. GRAD. SD., F.-MED. GRA., MIC.			
	2		(SP) GREENISH GR. & GR. PR. GRAD. SD., F.-MED. GRA., MIC.			
	4				1	DEPTH 4.5'-5.0'
	6					
	8		(CH) GREENISH GR. FAT CLAY, STF., W/ NUM. WOOD FRAGS.	86	2	DEPTH 8.0'-8.5'
	10		(CH) DK. & LT. GREENISH GR. FAT CLAY, MOT., STF.			
	12		NUM. WOOD FRAGS.	31	3	DEPTH 13.0'-13.5'
	14		BR. THICK FAT CLAY SEAM, (1/4"-1/2").	47	4	DEPTH 14.8'-15.4'
	16		B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	SP.G.	+200	-200	% SHELL
1	SP-SM	—	—	—	—	—	—	15.6
2	—	139	54	85	2.53	8.7	91.3	—
3	—	—	—	—	—	3.8	96.2	—

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT: MOBILE HARBOR SHIP CHANNEL HOLE NO. SG-10-83

Hole No. SG-11-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3½" I.D. [illegible]	
2. LOCATION (Coordinates or Station): N 80,042 E 330,286		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: RAPSE	
4. HOLE NO. (As shown on drawing title and file number): SG-11-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 15 OCT 83; COMPLETED 15 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: −5.2'	
9. TOTAL DEPTH OF HOLE: 20.4' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN SHW	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) W.L.C.:	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0					
	2		(CH) GREENISH GR. FAT CLAY, FIRM, W/ OCC. SHELLS & SHELL FRAGS.		1	DEPTH 1.0'-2.0'
	4		V/ SDY. W/ NUM. SHELLS & SHELL FRAGS.			
			NUM. SHELLS, SHELL FRAGS.			
	6		(CH) GREENISH GR. FAT CLAY, SO.-STF., W/ OCC. DECOM. WOOD MTL.			
	8		DECOM. WOOD MTL.			
			PURPLE & GR.			
	10		SDY., STF.		2	DEPTH 9.0'-10.0'
	12					
	14		(ML) GREENISH GR. CLY. INORG. SILT W/ OCC. DECOM. WOOD FRAGS.		3	DEPTH 14.5'-15.0'
	16		(CL) DK. GREENISH GR. LEAN CLAY, V/ STF.	35	4	DEPTH 15.5'-16.0'
	18		(CH) PURPLE & GR. FAT CLAY, STF.	56	5	DEPTH 18.0'-18.4'
	20					NOTE: SEE SHEET 2.

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-11-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1			
			B.O.H.			
	22					

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	SP.G.	+200	-200	% SHELL
4	CH	--	--	--	--	--	--	--
5	CH	--	--	--	--	--	--	--

Hole No. SG-12-83

DRILLING LOG	DIVISION: SAD	INSTALLATION: MSE	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 4" V. [illegible]	
2. LOCATION (Coordinates or Station): N 78,891 E 329,964		11. DATUM FOR ELEVATION SHOWN (USM or NGS): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE SAMPLER	
4. HOLE NO. (As shown on drawing title and file number): SG-12-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 · UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE: STARTED	COMPLETED
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -43.0'	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: %	
9. TOTAL DEPTH OF HOLE: 20.2'		19. SIGNATURE OF INSPECTOR: J.C. SHAW RSC	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SM-SC) DK. GRN'ISH GR. SLY. SD, SL. CLY, MED. GRN, COMPACT W/NUM. SHELLS		1	LAB CLASS. : DEPTH 0.3'-0.7': CLASS : SP-SM -200 = 12 %
	2		LT. GRN'ISH GR.		2	% SHELL = 24.5 % NAT. H_2O = 29.7 DEPTH 1.2'-1.8': -200 = 13%
	4		(CH) GRN'ISH GR., GR. & BRN'ISH GR. LAM'D SOFT CLAY, SILT, HI. MICA, & SILTY SAND, F. GRA., GLAU. W/ NUM. LIG. LAM. CLAY APPEARS TO DOMINATE. MAX. THICKNESS OF CLAY ZONES, 0.3'.			DEPTH 7.8'-8.5' : -200 = 78% LL: 45, PL: 20, PI: 25 % NAT. H_2O = 42 DEPTH 15.6'-16.1' : -200 = 90% % NAT. H_2O = 49
	6					
	8				3	
	10					
	12					
	14					
	16		(CH) GRN'ISH GR. & BR. MOTTLED FAT CLAY, FIRM TO [illegible] W/CCC LIG. Z'NES, ALSO OCC LNS & LAM. OF F. GRA. SD (LT. GR.)		4	
	18					
			[illegible] OF TUBE [illegible]			[illegible]

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE 124 PROJECT [illegible] HOLE NO. SG-12-83

Hole No. SG-13-83

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 75,975 E 329,400		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE SAMPLER	
4. HOLE NO. (As shown on drawing title and file number): SG-13-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 8-25-83; COMPLETED 8-25-83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -40.0'	
9. TOTAL DEPTH OF HOLE: 22.4'		18. TOTAL CORE RECOVERY FOR BORING: 98 %	
		19. SIGNATURE OF INSPECTOR: J. SHAW	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY g	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
						TUBE LENGTH: 22.5' RECOVERY: 22.0'
	0		(OH) ORG. FAT CLAY, (MUCK), SO., BLK. TO DK. GR.		1	LAB CLASS: DEPTH 0.0'-0.7': % NAT. H_2O = 161 % SHELL = 13
	2		(SP) PR. GRAD. SD., C. GRA., GLAUC., W/ NUM. SHELL FRAGS., OCC. WHOLE SHELLS, H_2S ODOR, OCC. CL. INCLS., LT. GREENISH GR.		2	DEPTH 2.3'-2.7': % SHELL = 6 LL: NP, PL: NP, PI: NP CLASS.: SP -200 = 4%
	4		(SC) CLY. SD., GLAUC., W/ NUM. SHELL FRAGS., (WHOLE & FRAG'D.), (PELECYPODS & GASTROPODS). ALSO, OCC. DECOM. WOOD FRAGS., GREENISH GR.			DEPTH 5.9'-6.5': CLASS.: SC % NAT. H_2O = 30 LL: 33, PL: 17, PI: 16 -200 = 15%
	6				3	DEPTH 7.9'-8.4': % NAT. H_2O = 26 % SHELL = 6
	8				4	DEPTH 13.8'-14.4': % NAT. H_2O = 77 CLASS.: CH LL: 97, PL: 27, PI: 70 -200 = 97%
	10					
	12					NOTES: DEPTH 1.5'-1.8', BLK. CARB. ZONE. DEPTH 3.2'-3.3', SD. CL. LENS, HARDNESS "A". DEPTH 6.0'-7.0', SHELL ZONE, (50% + COMPACT.) DEPTH 9.6', DECOM. WOOD, DK. BR.
	14		(CH) FAT CLAY, V/ STF., HOMOGENEOUS, W/ FEW SAND PKTS. & LENSES, (SP, MED. GRA., 0.15' MAX.). ALSO, SCATTERED SHELL FRAGS., GRAYISH GRN.		5	
	16					
	18					NOTE: SEE SHEET 2.

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-13-93

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	18		(CH) FAT CLAY, (CONT.)...			
	20					
			BOTTOM OF TUBE			
	22		SAME AS ABOVE			B.O.H.
			MAX. PENETRATION			

ENG FORM 1836-A | 126 | PROJECT MOBILE HARBOR, AL | HOLE NO. SG-13-93

Hole No.

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 78,500 E 328,900		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: VIBRACORE SAMPLER	
4. HOLE NO. (As shown on drawing title and file number): SG-14-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7 / UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES	
6. DIRECTION OF HOLE: X VERTICAL ___ INCLINED ___ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 8-25-83 / COMPLETED 8-25-83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -40.0'	
9. TOTAL DEPTH OF HOLE: 25.2'		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: J.C. SHAW	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
						TUBE LENGTH 24.8' RECOVERY 24.8'
	0.0					BOTTOM OF BAY
			(SP) LT. GRN.ISH GR. PR. GRAD. SAND MED. TO C GRA., GLAUC., W/OCC. SOFT CLAY INCL., SULFURIC ODOR, OCC. SHELL FRAGS.		1	
					2	d. 2.8'-3.4'; CLY. ZONE SOFT ORG. CLY. (OH) MIXED W/SD. "A" HD. BLK.
						d. 3.4'-5.8'; NUM. SOFT FAT CLY. INCLS.
	8.4					
			(SC) GRN.ISH GR. CLY. SD. COMPACT, GLAUC., C.GRA W/NUM. SHELL FRAGS.		3	
	13.6		SHELL ZONE W/CLAY		4	d. 13.6-14.1; SHELL ZONE (PELECYPODS & GASTROPODS 50%) SHELL, COMPACT
	14.1		(CH), (SC), (SP) INTERMINGLED FAT CLAY, CLY SAND & PR. GRAD. SD. W/NUM. SHELL FRAGS., CLAY [illegible] SD. LIG. GRN.ISH GR. & BR.			
	17.2		SLI. SH.			

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SCE-14-63

PROJECT: MOBILE SHIP CHANNE | INSTALLATION: MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. FRY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	17.3		CONT. FROM SH. 1			
			(CH), (SC) (SM) LAM'D. & THINLY BEDDED FAT CLAY, CLY. SD. & SIY. SD. W/OCC. SHELL & LIG. FRAGS. COMPACT, BDD. IRREG. GRN'ISH. GR.		5	
	21.8		(SM-SC) GRN'ISH. GR. COMPACT SIY. SD., SL. CLY., MED. GRA., W/OCC. LIG. FRAGS.		6	
	23.8		(CH) PRED. FAT CLAY, STIFF W/ SHELL FRAGS. & SD. PKTS GRN'ISH GR		7	BOTTOM OF TUBE (MAX. PENETRATION)
	24.8					
	25.2		B.O.H.			

LAB. CLASS.

1. (SP) TAN PR. GRAD. SD. LL=NP, PL=NP, PI=NP
2. (SC) GR. CLY. SD. W.C. = 59%
3. (SC) GR. CLY. SD. W/ TR. SHELL W.C. = 25% LL=30, PL=18, PI=12
4. +200 = 81.7%, -200 = 18.3%, W.C. = 28%
5. (CH) GR. FAT CLY, SD. W/TR. SHELL, W.C. = 41%
6. +200 = 71.7, -200 = 28.3 W.C. = 21%
7. +200 = 16.5, -200 = 83.5 W.C. = 56%

ENG FORM 1836-A JUN 67 | PROJECT | HOLE NO. SCE-14-63

Hole No. SG-15-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS

1. PROJECT: MOBILE HARBOR SHIP CHANNEL	10. SIZE AND TYPE OF BIT: 3½" I.D. VIBRACORE
2. LOCATION (Coordinates or Station): N 69,993 E 327,500	11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW
3. DRILLING AGENCY: MOBILE DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
4. HOLE NO. (As shown on drawing title and file number): SG-15-83	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
5. NAME OF DRILLER: E. LACRONE	14. TOTAL NUMBER CORE BOXES: 0
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER:
7. THICKNESS OF OVERBURDEN	16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83
8. DEPTH DRILLED INTO ROCK	17. ELEVATION TOP OF HOLE: -12.0'
9. TOTAL DEPTH OF HOLE: 18.2' (EL.)	18. TOTAL CORE RECOVERY FOR BORING: 100 %
	19. SIGNATURE OF INSPECTOR: D. WILLIAMS & J. SHAW 9/84

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SP) DK. GREENISH GR. PR. GRAD. SD., MED. GRA., W/ NUM. SML. SHELL FRAGS.			
	2		(CH) DK. GREENISH GR. FAT CLAY, V/ SO.		1	DEPTH 2.0'-2.5'
	4		(SM) GREENISH GR. SIY. SD., F.-MED. GRA., MIC., W/ OCC. PKTS. & ZONES OF SO. CLAY & CLY. SD. ALSO, NUM. SHELL FRAGS. & OCC. DECOM. WOOD FRAGS., STRONG SULFUR ODOR			LABORATORY CLASSIFICATION JAR # CLASS LL PL PI 1 SP NP NP NP 2 SP-SM NP NP NP 3 SP-SM NP NP NP
	6					
	8		NUM. DECOM. WOOD FRAGS.			
	10				2	DEPTH 9.8'-10.3'
	12					
	14					
	16		(SP) GREENISH TAN PR. GRAD. SD., F. GRA., W/ SOME SIY. PKTS.		3	DEPTH 16.0'-16.5'
	18		(SM) BL & DK. BR SIY SD., MED. GRA., CARB.		4	DEPTH 17.5'-18.0'
	20		B.O.H.			

Hole No. SG-16-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR SHIP CHANNEL	10. SIZE AND TYPE OF BIT: 3 7/8" I.D. VIBRACORE
2. LOCATION (Coordinates or Station): N 646,761 E 327,696	11. DATUM FOR ELEVATION SHOWN (TIDM or MSL): MLLW
3. DRILLING AGENCY: MOBILE DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
4. HOLE NO. (As shown on drawing title and file number): SG-16-83	13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
5. NAME OF DRILLER: E. LAGRONE	14. TOTAL NUMBER CORE BOXES: 0
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER:
	16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE: ~36.0'
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING: 100 %
9. TOTAL DEPTH OF HOLE: 20.6' (EL.)	19. SIGNATURE OF INSPECTOR: D. WILLIAMS & J. SHAW

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. or W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SP) TAN PR. GRAD. SD., MED. GRA., MIC.		1	DEPTH 0.0'-0.9'
	2					
	4				2	DEPTH 4.2'-4.7'
	6		(SP) DK. & LT. GREENISH GR. PR. GRAD. SD., MED. GRA., MIC., W/ NUM. SHELL FRAGS. & OCC. SO. CLAY PKTS. & LAM., SULFUR ODOR			
	8					
	10					
	12					
	14		(CL) GREENISH GR. SDY. LEAN CLAY, SO., W/ NUM. SHELLS & SHELL FRAGS.			
	16					
	18			35	3	DEPTH 17.5'-18.0'
	20		(SM) GREENISH GR. SDY. SILT, F. GRAINED GRA., MIC., W/ OCC SHELL FRAGS.			NOTE: CONT. SHEET 2.

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. — 130 — (TRANSLUCENT)

PROJECT: MOBILE HARBOR SHIP CHANNEL — HOLE NO. SG-16-83

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-16-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1			
			B.O.H.			
	22					

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	S.P.G.	+ 200	- 200	% SHELL
1	SP	NP	NP	NP		—	—	—
2	SP	NP	NP	NP		—	—	3.9
3	—	34	20	14	2.68	79.1	20.9	11.5

Hole No. SG-17-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3 7/8" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 64,665 E 326,632		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-17-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 6 / UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGEONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 14 OCT 83 / COMPLETED 14 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -44.0'	
9. TOTAL DEPTH OF HOLE: 16.2' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & J. SHAW	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SM) GREENISH GR. SIY. SD., F.- MED. GRA., MIC., W/ OCC. WOOD & SHELL FRAGS.		1	DEPTH 1.0'-1.5'
	2		(CL) GREENISH GR. SIY. LEAN CLAY, SO. - FIRM		2	DEPTH 3.5'-4.0'
	4		(CL) GREENISH GR. SDY. LEAN CLAY, FIRM, W/ NUM. SHELLS & SHELL FRAGS., MIC.		3	DEPTH 5.0'-5.6'
	6		(SC) GREENISH GR. CLY. SD., FIRM, W/ NUM. SHELLS & SHELL FRAGS.		4	DEPTH 8.6'-8.9'
	8		(SM) RUSTY BR. & GREENISH GR. SIY. SD., W/ OCC. CLAY ZONES, LIG., DECOM. WOOD FRAGS., MED. GRA.		5	DEPTH 12.0'-12.4'
	10					
	12					
	14					
	16		B.O.H.		6	DEPTH 15.9'-16.2'
	18		LABORATORY CLASSIFICATION: SAMPLE / TRACE / LL / PL / PI: 2 CH — — —; 3 SC-H — — —; 4 SP — — —; 5 — — —			

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT) — 132 — PROJECT: MOBILE HARBOR SHIP CHANNEL — HOLE NO. SG-17-83

Hole No. SG-19-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3¾" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 53,883 E 385,029		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-19-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -29.0'	
9. TOTAL DEPTH OF HOLE: 30.0' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 99 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN SIH	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0					
	2				1	DEPTH 2.0'-2.5'
			(SP) GREENISH GR. & GR. PR. GRAD. SD., F.-MED. GRA., OCC. SIX., W/ OCC. SO. FAT CLAY LENSES & PKTS., MIC., W/ NUM. SHELL FRAGS.			
	4					
	6					
	8					
	10		(CH) GREENISH GR. FAT CLAY, SO.-FIRM, W/ OCC. PKTS. & LENSES OF SD.	93	2	DEPTH 11.0'-11.5'
	12					
	14					
			(SM) GREENISH GR. SIX. SD., W/ NUM. FAT CLAY PKTS. & SHELL FRAGS.		3	DEPTH 14.8'-15.3'
	16					
	18		(CH) GREENISH GR. FAT CLAY, SO., W/ NUM. SIX. SD. PKTS. & LENSES			
	20					NOTE: SEE SHEET 2.

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-19-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV-ERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20					
	22		CONT. FROM SHEET 1			
				56	4	DEPTH 22.5'-23.0'
	24					
	26		(SM) GREENISH GR. SIY. SD., F. GRA., W/ NUM. SML. FAT CLAY PKTS. & NUM. SHELLS & SHELL FRAGS.			
					5	DEPTH 27.0'-28.5'
	28					
			(ML) OLIVE SDY. CLY. INORG. SILT		6	DEPTH 29.6'-30.0'
	30		B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	SP.G.	+200	-200	% SHELL
1	SP-SM	NP	NP	NP	—	—	—	3.4
2	CH	127	44	83	2.61	—	—	—
4	—	—	—	—	—	41.4	58.6	—
5	SC-H	—	—	—	—	—	—	—
6	CH	—	—	—	—	—	—	5.2

Hole No. SG-20-83

DRILLING LOG | DIVISION SAD | INSTALLATION MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR, SHIP CHANNEL
2. LOCATION (Coordinates or Station): N 57,216 E 324,969
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG-20-83
5. NAME OF DRILLER: E. LAGRONE
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 23.6' (EL.)
10. SIZE AND TYPE OF BIT: 3 7/8" I.D. VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83
17. ELEVATION TOP OF HOLE: -26.0'
18. TOTAL CORE RECOVERY FOR BORING: 100 %
19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY (Rock) e	BOX OR SAMPLE NO. f	REMARKS (Drilling rate, water loss, depth of weathering, etc., if significant) g
	0		(CH) BL. & DK. GR. FAT CLAY, W/ SO. - SO., ORG.			
	8		(SP) GR. & SL. GRN. PR. GRAD. SD., F. - MED. GRA., MIC.		1	DEPTH 4.8' - 5.2'
	18		(SP) GR. PR. GRAD. SD., F. - MED GRA., MIC.			NOTE: SEE SHEET 2.

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT MOBILE HARBOR, SHIP CHANNEL HOLE NO. SG-20-83

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-20-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOV. DRY WT. C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1		2	DEPTH 20.5' - 21.0'
	22		OCC. SML. PKTS. OF GREENISH GR. FAT CLAY, SO. - V/ SO.			
			(CH) LT. BR. & GREENISH GR. FAT CLAY, SO., W/ SOME F. - MED. GRA. SD.	49	3	DEPTH 23.0' - 23.6'
	24		B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	+200	-200
1	SP	NP	NP	NP	—	—
2	SP	NP	NP	NP	—	—
3	—	—	—	—	66.3	33.7

ENG FORM 1836-A

PROJECT: MOBILE HARBOR SHIP CHANNEL | BORE NO. SG-20-83

Hole No. SG-21-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		11. SIZE AND TYPE OF BIT: 3 1/16" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 54,556 E 323,415		12. DATUM FOR ELEVATION SHOWN (FT/M or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-21-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4 / UNDISTURBED 0	
5. NAME OF DRILLER: E. LASRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 14 OCT 83 / COMPLETED 14 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -41.0'	
9. TOTAL DEPTH OF HOLE: 29.3' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) GREENISH GR. FAT CLAY, SO., W/ OCC. SD. PKTS. & LENSES			
	2		BL. & DK. GR.		1	DEPTH 2.6'-3.1'
			BL. & DK. GR.			
	4		OCC. SI. LAM.		2	DEPTH 4.1'-4.6'
	6		(CH) GREENISH GR. SDY. FAT CLAY, FIRM, W/ NUM. SHELLS & SHELL FRAGS. MOSTLY SHELLS		3	DEPTH 5.8'-7.0'
	8		(SC) GREENISH GR. CLY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS.			
	10		(SM) GREENISH GR. & GR. SIY. SAND, F.-MED. GRA., W/ NUM. GREENISH GR. FAT CLAY LAM.			
	12		LIG. MTL.			
	14		(CH) GREENISH GR. FAT CLAY, FIRM, W/ NUM. GR. SD. PKTS., & NUM. SHELLS & SHELL FRAGS.			
	16		(SM) GREENISH GR. SIY. SD., F-MED. GRA., W/ NUM. FAT CLAY LAM. & PKTS.			
	18		FAT CLAY			
			SEE SHEET 2 FOR DESCRIPTION			NOTE: SEE SHEET 2.
	20					

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-21-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1			
	22					
	24		(SM) GREENISH GR. SIY. SAND, F.- MED. GRA., W/ NUM. SHELLS & SHELL FRAGS. & OCC. CLAY PKTS.			
	26					
	28					
					4	DEPTH 29.0'- 29.3'
	30		B.O.H.			

ENG FORM 1836-A JUN 67

PROJECT: MOBILE HARBOR SHIP CHANNEL | HOLE NO. SG-21-83

Hole No. SG-22-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3 4/6" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 52,489 E 322,993		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-22-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 14 OCT 83; COMPLETED 14 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -40.0'	
9. TOTAL DEPTH OF HOLE: 30.0' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN	9411

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY W # C	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) BL., DK. GR. & OLIVE FAT CLAY, SO., W/ SOME SDY. PKTS.			
	2			129	1	DEPTH 1.5'-2.0'
	4					
	6		(CH) & (SM) GREENISH GR. INTBDD. & INTLAM. FAT CLAY, SO. - FIRM, & SIY. SAND, F. - MED. GRA., MIC., W/ NUM. SHELL FRAGS., BOTH W/ DECOM. WOOD FRAGS.	42	2	DEPTH 6.0'-7.0'
	8					
	10					
	12					
	14		(CH) GREENISH GR. FAT CLAY, FIRM, W/ NUM. SDY. PKTS., SHELLS & SHELL FRAGS., & OCC. DECOM. WOOD FRAGS.			
	16			50	3	DEPTH 15.5'-16.5'
	18					
	20		SEE SHEET 2 FOR DESCRIPTION. OCC. SLY. PKTS.			NOTE: SEE SHEET 2.

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: MOBILE HARBOR SHIP CHANNEL HOLE NO.: SG-22-83

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-22-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1			
	22					
	24		(SM) GREENISH GR. SIY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS., & DECOM. WOOD FRAGS.		4	DEPTH 23.0'-24.0'
	26					
	28					
	30				5	DEPTH 28.8'-30.0'
			B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	SP. G.	+200	-200	% SHELL
1	—	—	—	—	—	4.3	95.7	—
2	SC-H	—	—	—	—	—	—	5.1
3	CH	—	—	—	—	—	—	—
4	SP-SM	NP	NP	NP	—	—	—	7.0

Hole No. SG-22-83

DRILLING LOG	DIVISION SAD	INSTALLATION MOO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3 7/8" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 51,289 E 922,247		11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-22-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 13 OCT 83; COMPLETED 13 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -47.0'	
9. TOTAL DEPTH OF HOLE: 30.2' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN JDH	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) GREENISH GR. FAT CLAY, SO. - FIRM, W/ A FEW SML. SD. LAM.			
	2		BR.			
	4		(SM) GREENISH GR. SIY. SAND, F. - MED. GRA., W/ NUM. SHELLS & SHELL FRAGS., & NUM. CLAY PKTS.		1	DEPTH 3.2'-4.0'
	6					
	8		(CH) & (SM) GREENISH GR. INTBDD. & INTLAM. FAT CLAY, FIRM - STF., & SIY. SAND, F. - MED. GRA., BOTH W/ OCC. SHELLS & SHELL FRAGS., & OCC. DECOM. WOOD FRAGS.			
	10				2	DEPTH 10.5'-11.5'
	12					
	14		(CH) GREENISH GR. FAT CLAY, FIRM - STF., W/ OCC. SD. PKTS., SHELLS, SHELL FRAGS., & DECOM. WOOD FRAGS.		3	DEPTH 13.0'-14.0'
	16					
	18		GRAD. CONTACT			
			SEE SHEET 2. FOR DESCRIPTION			NOTE: CONT. SHEET 2.
	20		GRAD. CONTACT			

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

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PROJECT: MOBILE HARBOR SHIP CHANNEL HOLE NO. SG-22-83

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-23-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1			
	22					
	24		(SM) GREENISH GR. SIY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS.			
	26					
	28					
	30				4	DEPTH 29.9'-30.2'
			B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI
1	SP-SM	—	—	—
2	CH	*	—	—

Hole No. SG-30A-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3 1/8" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 86,980 E 330,315		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-30A-83		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 12 OCT 83; COMPLETED 12 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -41.0'	
9. TOTAL DEPTH OF HOLE: 17.2' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SM) DK. GR. SIY. SAND, F - MED. GRA., OCC. CLAY PKTS., NUM. SHELLS & SHELL FRAGS.		1	DEPTH 0.0'-0.6'
	2		(CH) GR. FAT CLAY, FIRM TO STF., NUM. SI LAM., OCC. SHELLS & SHELL FRAGS.	39	2	DEPTH 1.0'-2.0'
	4					
	6					
	8					
	10		(CL) GREENISH GR. LEAN CLAY, V/ STF., W/ OCC. SHELLS & SHELL FRAGS.			
	12					
	14					
	16				3	DEPTH 16.7'-17.2'
			B.O.H.			

LABORATORY CLASSIFICATION

JAR	CLASS	+200	-200
1	SM	--	--
2	--	1.2	98.8

Hole No. SG-35-83

DRILLING LOG	DIVISION SAD	INSTALLATION MCO	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3 7/8" I.D. W. BRACORE	
2. LOCATION (Coordinates or Station): N 85,177 E 330,557		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-35-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5 / UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 12 OCT 83 / COMPLETED 12 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -43.0'	
9. TOTAL DEPTH OF HOLE: 16.8' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) BL. & DK. GR. SIY. SDY. FAT CLAY, (SAT. MUCK)			
	2		(SM) GREENISH GR. SIY. SAND, F.-MED. GRA., W/ NUM. SHELL FRAGS., OCC. CLAY LENSES		1	DEPTH 1.6'-2.1'
	4		(CH) GREENISH GR. FAT CLAY, STF., W/ OCC. SHELLS & SHELL FRAGS.			
	6			58	2	DEPTH 6.0'-6.5'
	8					
	10					
	12		(CL) LT. GREENISH GR. SIY. SDY. LEAN CLAY, STF.	22	3	DEPTH 11.5'-12.0'
	14		(CL) LT. GREENISH GR. SIY. SDY. LEAN CLAY, STF.		4	DEPTH 14.7'-15.2'
	16		(SM) LT. GR. SIY. SAND, F. GRA., SL. CAL.		5	DEPTH 16.4'-16.8'
			B.O.H.			

LABORATORY CLASSIFICATION

JAR	USCS	LL	PL	PI	% SHELL
1	SP-SM	—	—	—	4.1
2	CH	91	35	56	—
3	CH	—	—	—	—

Hole No. SG-36-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT	MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station)	N 81,919 E 350,716
3. DRILLING AGENCY	MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	SG-36-83
5. NAME OF DRILLER	E. LAGRONE
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	21.8' (EL.)
10. SIZE AND TYPE OF BIT	3 9/16" I.D. VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED 11 OCT 83 / COMPLETED 11 OCT 83
17. ELEVATION TOP OF HOLE	-42.0'
18. TOTAL CORE RECOVERY FOR BORING	100 %
19. SIGNATURE OF INSPECTOR	D. WILLIAMS & E. HERMAN

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0					
	2		(CH) & (SM) DK. GR., BR. & GREENISH GR. FAT CLAY, SO., & SLY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS., SD. LENSES		1	DEPTH 2.1'-3.1'
	4					
	6		(SM) GREENISH GR. & GR. SLY. SAND, F.-C. GRA., W/ NUM. SHELLS, SHELL FRAGS. & OLIVE BR. & GREENISH GR. CLAY PKTS., BEDS & LAM.		2	DEPTH 5.5'-6.5'
	8		— MOSTLY FAT CLAY			
	10					
	12		(CL) GREENISH GR. & BROWNISH GR. LEAN CLAY, STF.-V/ STF., OCC. LIG., W/ NUM. SHELLS, SHELL FRAGS. & DECOM. WOOD FRAGS.			
	14		— MOSTLY WOOD MTL.	108	3	DEPTH 14.0'-15.2'
	16					
	18		(CL) GREENISH GR. SLY. SDY. LEAN CLAY, V/ STF., W/ NUM. DECOM. WOOD FRAGS.			
			— MOSTLY WOOD FRAGS.	31	4	DEPTH 17.8'-18.8'
	20					NOTE: SEE SHEET 2.

(TRANSLUCENT)

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-36-83

PROJECT: MOBILE HARBOR SHIP CHANNEL | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	20		CONT. FROM SHEET 1, SEE FOR DESCRIPTION			
					5	DEPTH 21.3'-21.8'
	22		B.O.H.			

LABORATORY CLASSIFICATION

JAR #	CLASS	LL	PL	PI	% SHELL	LOI
1	SP	NP	NP	NP	3.0	—
2	SM	—	—	—	7.9	—
3	OH	—	—	—	8.9	22.1
4	CH	—	—	—	7.2	6.0

Hole No. SG-37-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS
1. PROJECT: MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT: 3½" I.D. VIBRACORE	
2. LOCATION (Coordinates or Station): N 80,826 E 330,500		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW	
3. DRILLING AGENCY: MOBILE DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): SG-37-83		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 / UNDISTURBED 0	
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 15 OCT 83 / COMPLETED 15 OCT 83	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -56.0'	
9. TOTAL DEPTH OF HOLE: 18.1' (EL.)		18. TOTAL CORE RECOVERY FOR BORING: 100 %	
		19. SIGNATURE OF INSPECTOR: D. WILLIAMS & J. SHAW	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) BL. & GREENISH GR. (DK.), FAT CLAY, ORG., SO. - W/ SO.	165	1	DEPTH 0.5'-1.0'
	2		(SP) DK. & LT. GREENISH GR. PR. GRAD. SAND, C. GRA., W/ NUM. SHELL FRAGS. & SO. CLAY LENSES		2	DEPTH 1.6'-2.1'
	4			31	3	DEPTH 5.0'-5.5'
	6					
	8		(CH) GREENISH GR. FAT CLAY, STF.			LABORATORY CLASSIFICATION JAR CL. LL PL PI SPG. +200 -200 % 1 – – – – – 3.3 96.7 2 CH – – – – – – 3 SC-H 58 19 39 2.69 – –
	10					
	12					
	14					
	16		OLIVE GR.			
	18				4	DEPTH 17.7'-18.1'
			B.O.H.			
	20					

Hole No. SS-203-84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MOO | SHEET 1 OF 3 SHEETS

1. PROJECT: MOBILE HARBOR DEEPENING
2. LOCATION (Coordinates or Station): N 225,200 E 332,700
3. DRILLING AGENCY: MDO — 200' E. BN. 74
4. HOLE NO. (As shown on drawing title and file number): SS-203-84
5. NAME OF DRILLER: L. LAGRONE
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 48.0' (EL. -63.7)
10. SIZE AND TYPE OF BIT: 3 7/8" T.D. SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: FAILING 314
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 19 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ~~ELEVATION~~ GROUND WATER: DEPTH 17.0'
16. DATE HOLE: STARTED 19 APR 84 | COMPLETED 19 APR 84
17. ELEVATION TOP OF HOLE: -15.7 MSL
18. TOTAL CORE RECOVERY FOR BORING: NA %
19. SIGNATURE OF INSPECTOR: D. HODGES DH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ W.C.	~~BOX NO.~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-15.7	0		NO SAMPLES** (FISHTAILED)			NOTES: FISHTAILED TO ELEV. -28.7 MSL AFTER SETTING 36' OF 6" CASING W/ 4' OF STICK-UP FROM WATER SURFACE. BEGAN SPLITSPOONING @ ELEV. -28.7, USE 2 BAGS OF REVERT DRL. FLUID. SOUPY CLY SILT TO -25. LARGE CHUNKS OF SOFT FAT CLAY EXTRACTED -25 to -30 **SAMPLED CUTTINGS 25'-27'
	2					
	4					
	6					
	8					
	10			63		
	12					
-28.7						FISHTAILED
	14			77	1	WR
	16			75	2	WR
			(CH) GR. FAT CLAY		3	WR
	18				4	WR
-35.7	20			87	5	

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223 | PROJECT: MOBILE HARBOR | HOLE NO. SS-203-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -15.7 MSL | Hole No. SS-203-84

PROJECT: MOBILE HARBOR DEEPENING | INSTALLATION: MDO | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOV~~ ~~RQD~~ W.C e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-35.7	20			87	5	WR
			(CH) GR. FAT CLAY			
			CHUNKY	72	6	
	22					WR
			MD. V/STIF.	42	7	
						WH
	24		"		8	
			LT. GR.			21
				38	9	
	26		"			31
				30	10	
-43.7	28		"			31
					11	
						47
	30				12	
						47
					13	
	32					46
					14	
			(SP) WHT. PR. GRAD. SAND, MED. - C. GRA.			44
	34				15	
						36
					16	
	36					40
					17	
						37
	38				18	
						37
-58.7	40					
			NO SAMPLES (FISHTAILED)			
	42					
-61.7	44					FISHTAILED

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) GPO 1980 O - 330-224 | PROJECT MOBILE HARBOR | HOLE NO SS-203-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -15.7 MSL | Hole No. SS-203-84

PROJECT: MOBILE HARBOR DEEPENING | INSTALLATION: MDO | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ W&C	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-59.7	44		NO SAMPLES (FISHTAILED)			
-61.7	46					FISHTAILED
			(SP) WHT. PR. GRAD. SAND, MED. - C. GRA.		23	63
-63.7	48		B.O.H.			

NOTE: THE LAST SPLITSPOON DRIVE WAS 2.0'.

FINISHED HOLE 1625 hrs
WATER DEPTH 16.3'.
HIGH TIDE @ 1421 hrs
LOW TIDE @ 0055

LAB. CLASSIFICATION

JAR	+200	+40	CLASS.	LL	PL	PI
1	-	-	CH	77	24	53
6	-	-	CH	77	25	52
10	-	-	CL	45	15	30
13	-	-	SP	NP	NP	NP
16	-	-	SP	NP	NP	NP
2	-	-	-	-	-	-
3	5.2	-	-	-	-	-
5	4.5	-	-	-	-	-
7	4.9	-	-	-	-	-
9	-	-	-	-	-	-
12	-	22.1	-	-	-	-
15	-	2.7	-	-	-	-
16	-	2.0	-	-	-	-
23	-	44.4	-	-	-	-
F/T	19.8	-	-	-	-	-

Hole No. SS-222-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 3 SHEETS
1. PROJECT MOBILE HARBOR DEEPENING		10. SIZE AND TYPE OF BIT 13/8" I.D. SPLITSPOON	
2. LOCATION (Coordinates or Station) N 162,100 E 338400		11. DATUM FOR ELEVATION SHOWN (MSL or MLW) MSL	
3. DRILLING AGENCY MDO 100' W. BN. 50		12. MANUFACTURER'S DESIGNATION OF DRILL FAILING 314	
4. HOLE NO. (As shown on drawing title and file number) SS-222-84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8	UNDISTURBED 0
5. NAME OF DRILLER S. BOWDEN		14. TOTAL NUMBER CORE BOXES 0	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ~~ELEVATION~~ GROUND WATER DEPTH 13.0'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE STARTED 10 MAY 84	COMPLETED 10 MAY 84
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -12.4 MSL	
9. TOTAL DEPTH OF HOLE 52.0' (EL. -64.4)		18. TOTAL CORE RECOVERY FOR BORING NA %	
		19. SIGNATURE OF INSPECTOR D. HODGES	DH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE RECOVERY~~ e W.C.	BOX ~~OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-12.4	0					NOTES: FISHTAILED TO ELEV. -29.4 MSL AFTER SETTING 30' OF 6" CASING W/ 4' OF STICK-UP FROM WATER SURFACE. BEGAN SPLITSPOONING @ ELEV. -29.4 MSL, USED ONE BAG OF REVERT DRL. FLUID.
	2					
	4					
	6					
	8		NO SAMPLES (FISHTAILED)			
	10					
	12					
	14					
	16					
-29.4						FISHTAILED
-30.1	18		(CH) GR. FAT CLAY	116	1	WR
-32.4	20		NO SAMPLES (FISHTAILED)			FISHTAILED

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PROJECT MOBILE HARBOR HOLE NO. SS-222-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE = 12.4 MSL | Hole No. SS-222-84

PROJECT: MOBILE HARBOR DEEPENING | INSTALLATION: MDO | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOV~~ ~~RQD~~ W&C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) & BLOWS/FT.
-32.4	20		NO SAMPLE (FISHTAILED)			
-34.4	22					FISHTAILED
-35.9			(CH) GR. FAT CLAY V/SD	105	2	WR
	24		NO SAMPLES (FISHTAILED)			
-39.4	26					FISHTAILED
-40.9	28		(CH) GR. FAT CLAY V/SD	106	3	WR
	30		NO SAMPLES (FISHTAILED)			
-44.4	32					FISHTAILED
-45.9			(CH) GR. FAT CLAY V/SD	92	4	WR
	34		NO SAMPLES (FISHTAILED)			
-49.4	36					FISHTAILED
-50.9	38		(CH) GR. FAT CLAY V/SD	90	5	WR
	40		NO SAMPLES (FISHTAILED)			
-54.4	42					FISHTAILED
			(CH) GR. FAT CLAY W/ TR. OF SD.	80	6	
	44		NO SAMPLES (FISHTAILED)			WR FISHTAILED

DRILLING LOG (Cont Sheet) Elev. Top of Hole -12.4 MSL Hole No. 55-222-84

PROJECT: MOBILE HARBOR. DEEPENING | INSTALLATION: MDO | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~FIELD~~ W.C.	~~LAB~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-56.4	44		NO SAMPLES (FISHTAILED)			
	46					FISHTAILED
-59.4						
-60.9	48		(CH) GR. FAT CLAY V/SO	75	7	WH
			NO SAMPLES (FISHTAILED)			
-62.9	50					FISHTAILED
-64.4	52		(CH) GR. FAT CLAY V/SO	76	8	WH
			B.O.H.			

LAB. CLASSIFICATION							
L.O.I.	SPG	+200	SAMP	CLASS	LL	PL	PI
—	—	2.1	1	(CH)	93	32	61
—	2.68	—	4	(CH)	77	31	46
—	—	5.4	7	(CH)	67	26	41
—	2.69	2.0	2				
—	—	4.0	5				
—	—	5.4	7				
8.5	2.59	3.6	8				

Hole No. VC - 1A - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 240,851 E 393,064
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title): VC - 1A - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VER.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 26.75' (EL. -67.75)
10. SIZE AND TYPE OF BIT: 4" WIDE RACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -41.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	GROUND WATER CONTENT W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-41.0	0					
	2		(CH) DARK GRAY FAT CLAY, VERY SOFT	118	1	DEPTH 2.5'-3.0'
-46.0	4					
	6				2	DEPTH 5.5'-6.0'
	8		(SC) & (SM) ALTERNATING POCKETS OF LIGHT GRAY CLAYEY SAND & SILTY SAND		3	DEPTH 8.5'-9.0'
-54.0	10					
	12					
	14				4	DEPTH 14.5'-15.0'
	16		(SM) GRAY & YELLOW POORLY GRADED SILTY SAND			
	18					
-61.0	20					

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -41.0 | Hole No. VC-1A-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MOO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~MOISTURE CONTENT~~ ~~ATTERBERG LIMITS~~ W & C	~~ROCK CORE~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-61.0	20					
	22		(SM) YELLOW & GRAY POORLY GRADED SILTY SAND			
	24					
	26					
-67.75			BOTTOM OF HOLE			
	28					

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CH	97	30	67
2	SM	NP	NP	NP
3	SM	-	-	-
4	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	16.2	86.8

Hole No. VC - 1 - 84

DRILLING LOG | DIVISION SAD | INSTALLATION MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 237,801 E 392,881
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 1 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0' (EL. -68.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLLW): MLLW ± 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DK

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY & ROD W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2					
	4			104	1	DEPTH 4.5'-5.0'
-48.6	6		LIGHT GRAY, VERY SOFT			
	8		(SC) LIGHT GRAY CLAYEY SAND, SOFT			
-52.5	10				2	DEPTH 9.5'-10.0'
	12		(SP) YELLOW POORLY GRADED SAND, COARSE GRAINED			
	14					
	16				3	DEPTH 14.5'-15.0'
	18		WHITE, COARSE GRAINED			
-62.0	20				4	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. — 291 - MOBILE HARBOR — VC - 1 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -42.0 Hole No. VC-1-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION NDO SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	Graphic Log or Water Content W.C. (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-62.0	20					
	22		(SP) WHITE POORLY GRADED SAND, COARSE GRAINED			
	24				5	DEPTH 24.5'-25.0'
-68.0	26		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
2	CL	36	17	19
3	SP	NP	NP	NP
4	SP	NP	NP	NP
5	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	10.5	95.0
2	-	58.8

ENG FORM 1836-A 292 - MOBILE HARBOR VC-1-84

Hole No. VC - 2 - 84

DRILLING LOG	DIVISION SAD
1. PROJECT	MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station)	N 235,080 E 932,809
3. DRILLING AGENCY	MDO
4. HOLE NO. (As shown on drawing title and file number)	VC - 2 - 84
5. NAME OF DRILLER	C. FULLER
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	
8. DEPTH DRILLED INTO ROCK	
9. TOTAL DEPTH OF HOLE	24.33' (EL. -65.33)
10. INSTALLATION	MDO
10. SIZE AND TYPE OF BIT	4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TIDM or NGS)	MLLW = 0 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL	BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 4 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	
16. DATE HOLE	STARTED AUG. 1984 / COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE	-41.0
18. TOTAL CORE RECOVERY FOR BORING	N/A
19. SIGNATURE OF INSPECTOR	H. GATES

SHEET 1 OF 2 SHEETS

DW

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE~~ SAMPLE NO. W.C.	~~SEN-OBV~~ SAMPLE NO. i	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-41.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL	118	1	DEPTH 2.5'-3.0'
	4					
	6		LIGHT GRAY, SOFT TO MEDIUM		2	DEPTH 6.5'-7.0'
-49.8	8					
	10		(SC) LIGHT GRAY CLAYEY SAND, SOFT		3	DEPTH 9.5'-10.0'
-52.4	12					
	14		(SP) LIGHT GRAY & WHITE POORLY GRADED SAND, COARSE GRAINED		4	DEPTH 14.5'-15.0'
	16					
	18					
-61.0	20				5	DEPTH 19.5'-20.0'

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -41.0 Hole No. VC-2-24

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-61.0	20					
	22		(SP) LIGHT GRAY & WHITE POORLY GRADED SAND, COARSE GRAINED			
-65.33	24					
			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
3	CL-ML	22	17	5
4	SP	NP	NP	NP
5	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	10.6	92.1
2	-	97.9
3	-	41.4

Hole No. VC - 3 - 84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 1 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Stations): N 232,605 E 392,619
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on Drawing title and if applicable): VC - 3 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 19.8' (EL. - 59.8)
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984 | COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: + 40.0
18. TOTAL CORE RECOVERY FOR BORING: N/A
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CORE RECOVERY & BLOW COUNTS W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if significant) g
+40.0	0					
	2		(CH) DARK GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
-43.9	4		(SC) DARK GRAY TO GRAY CLAYEY SAND			
					1	DEPTH 4.5' - 5.0'
	6					
	8		GRAY & BEIGE WITH A TRACE OF POORLY GRADED SAND			
	10				2	DEPTH 9.5' - 10.0'
-52.0	12					
	14					
			(SP) WHITE & BEIGE POORLY GRADED SAND, MEDIUM GRAINED, WITH A TRACE OF GRAVEL		3	DEPTH 14.5' - 15.0'
	16					
	18					
-59.8	20		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CL	47	16	31
2	CL	-	-	-
3	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	-	67.6

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (PRESCRIBED BY DAEN-ECE-D)

205 MOBILE HARBOR

Hole No. VC - 3 - 84

Hole No. VC - 4 - 84

DRILLING LOG	DIVISION: SAD	INSTALLATION: MDO	SHEET 1 OF 1 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 221,545 E 332,570
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 4 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0' (EL. -62.0)
10. SIZE AND TYPE OF BIT: AR VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-42.0	0		(CH) BLACK TO DARK GRAY FAT CLAY WITH ORGANIC MATERIAL			
-44.3	2		(SM) LIGHT GRAY SILTY SAND			
-45.3	4		(SM) LIGHT GRAY POORLY GRADED SILTY SAND, MEDIUM TO FINE GRAINED		1	DEPTH 4.5'-5.0'
	6					
	8		LIGHT GRAY, FINE GRAINED			
-62.0	10				2	DEPTH 9.5'-10.0'
	12		(SP) LIGHT GRAY POORLY GRADED SAND, MEDIUM GRAINED			LAB DATA :
	14					SAM # / CLASS / LL / PL / PI
	16					1 SP NP NP NP
	18		LIGHT GRAY, FINE GRAINED			2 SP NP NP NP
-62.0	20					NOTE: BOTTOM OF HOLE AT DEPTH 20.0'.

Hole No. VC - 5 - 84

DRILLING LOC	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR, CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 229,581 E 332,505		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW ± 3 FT.	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): VC - 5 - 84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9 / UNDISTURBED 0	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984 / COMPLETED AUG. 1984	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -42.0	
9. TOTAL DEPTH OF HOLE: 25.0' (EL. -67.0)		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: H. GATES	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0		(CH) BLACK TO DARK GRAY FAT CLAY			
-44.3	2		(SP) GRAY POORLY GRADED SAND			
	4				1	DEPTH 4.5'-5.0'
	6					
	8					
	10		GRAY & YELLOW, WITH GRAVEL, (1" MAX.)			
	12					
	14				2	DEPTH 14.5'-15.0'
	16					
	18					
-67.0	20					

ENG FORM 2436 MAR 77 PREVIOUS EDITIONS ARE OBSOLETE

297 MOBILE HARBOR

HOLE VC - 5 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE +42.0 Hole No. VC-5-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING INSTALLATION: MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+62.0	20					
			(SP) GRAY & YELLOW POORLY GRADED SAND WITH GRAVEL, (1" MAX.)			
	22					
			WHITE			
	24					
+61.0					B	DEPTH 24.5'-25.0'
			BOTTOM OF HOLE			LAB DATA :
	26					

SAM #	CLASS	LL	PL	PI
1	SP	NP	NP	NP
2	SP	NP	NP	NP

Hole No. VC - 6 - 84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 227,470 E 392,365
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 6 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 28.0' (EL. - 70.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TIDE or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG, 1984; COMPLETED AUG, 1984
17. ELEVATION TOP OF HOLE: +42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+42.0	0					
	2		(CH) DARK GRAY FAT CLAY, VERY SOFT, WITH SOME ORGANIC MATERIAL			
	4				1	DEPTH 4.5'-5.0'
-49.0	6					
	8		(SM) LIGHT GRAY POORLY GRADED SILTY SAND, FINE GRAINED			
	10				2	DEPTH 9.5'-10.0'
-54.5	12					
	14					
					3	DEPTH 14.5'-15.0'
	16		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	18					
-62.0	20				4	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSMITTAL SENT)

299 MOBILE HARBOR

HOLE NO. VC - 6 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -42.0 Hole No. VC-6-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20					
	22		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	24					
	26		WHITE, MEDIUM GRAINED, WITH GRAVEL, (1" MAX.)			
-70.0	28		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
2	CL	-	-	-
3	SP	NP	NP	NP
4	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	8.3	91.6

Hole No. VC - T - 84

DRILLING LOG | DIVISION SAD

INSTALLATION MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 224,393 E 382,591
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title) and file number: VC - T - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 27.2' (EL. -64.2')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984 | COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: +37.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DW

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C.	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
+37.0	0					
	2		(CH) LIGHT GRAY FAT CLAY, VERY SOFT			
	4					
			DARK GRAY, VERY SOFT TO SOFT	104	1	DEPTH 4.5'-5.0'
-43.5	6					
	8					
	10				2	DEPTH 9.5'-10.0'
	12		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	14					
	16					
	18					
-57.0	20				3	DEPTH 19.5'-20.0'

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE

301 MOBILE HARBOR

VC - T - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -37.0 Hole No. VC-7-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-57.0	20					
	22		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	24				4	DEPTH 24.5'-25.0'
	26					
-64.2						
	28		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CH	82	26	56
3	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	9.2	82.3

Hole No. VC - 8 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 220,599 E 332,740		11. DATUM FOR ELEVATION SHOWN (TIDM or MSL): MLLW ± 3 FT	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): VC - 8 - 84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -44.0	
9. TOTAL DEPTH OF HOLE: 22.0' (EL. - 66.0')		18. TOTAL CORE RECOVERY FOR BORING: N/A	
		19. SIGNATURE OF INSPECTOR: H. GATES	DVI

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~Penetration Resistance Blows/ft.~~ W.C.	~~Core~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-44.0	0					
	2		(CH) DARK TO LIGHT GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	4					
-50.2	6		LIGHT GRAY, SOFT, WITH A TRACE OF ROOTS			
			(SC) LIGHT GRAY CLAYEY SAND		1	DEPTH 6.5'-7.0'
-52.0	8					
	10		(SP) LIGHT GRAY POORLY GRADED SAND		2	DEPTH 9.5'-10.0'
-55.0						
	12		(SC) LIGHT GRAY CLAYEY SAND			
-57.0						
	14					
					3	DEPTH 14.5'-15.0'
	16		(SP) WHITE POORLY GRADED SAND			
	18					
-64.0	20				4	DEPTH 19.5'-20.0'

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE +44.0 | Hole No. VC-8-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+44.0	20		(SP) WHITE POORLY GRADED SAND			
-66.0	22		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CL	49	16	33
2	SP	NP	NP	NP
3	SP	NP	NP	NP

SAM #	SPG
1	2.69

ENG FORM VC- [illegible]

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 217,922 E 833,099
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC-9-84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 24.0' (EL. -66.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (GS or MSL): MLLW + 8 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 | UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984 | COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if significant) g
-42.0	0		(CH) DARK TO LIGHT GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL		
-44.0	2				
	4		(SM) LIGHT GRAY POORLY GRADED SILTY SAND	1	DEPTH 4.5'-5.0'
	6				
-50.8	8				
	10		(SP) YELLOW POORLY GRADED SAND	2	DEPTH 9.5'-10.0'
	12		WHITE		
	14			3	DEPTH 14.5'-15.0'
	16				
	18		WHITE WITH GRAVEL, (1" MAX.)		
-62.0	20				

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -42.0 | Hole No. VC-9-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION MCO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C e	SAMPLE NO f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20		(SP) WHITE POORLY GRADED SAND WITH GRAVEL, (1" MAX.)			
	22					
-66.0	24				4	DEPTH 23.5'-24.0'
			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	SM	NP	NP	NP
2	SP	NP	NP	NP
3	SP	NP	NP	NP
4	SP	NP	NP	NP

Hole No. VC - 10 - 84

DRILLING LOG | DIVISION SAD | INSTALLATION MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 214,776 E 833,272
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 10 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 22.7' (EL. - 65.7')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: - 43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W & C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0					
			(CH) DARK GRAY FAT CLAY WITH ORGANIC MATERIAL			
-46.5	2					
	4		(SC) LIGHT GRAY CLAYEY SAND WITH POCKETS OF SANDY LEAN CLAY	19	1	DEPTH 4.5'-5.0'
-51.0	6					
	8					
	10		(SM) LIGHT GRAY SILTY SAND WITH FINE GRAVEL		2	DEPTH 9.5'-10.0'
-57.5	12					
	14					
	16		(SP) WHITE POORLY GRADED SAND		3	DEPTH 14.5'-15.0'
-60.5	18					
			(SM) WHITE & GRAY POORLY GRADED SILTY SAND			
-63.0	20					

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE (TRANSMITTAL)

PROJECT: MOBILE HARBOR

HOLE NO. VC - 10 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -43.0 Hole No. VC-10-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20		(SM) WHITE & GRAY POORLY GRADED SILTY SAND			
	22					
-65.7					4	DEPTH 22.2'-22.7'
			BOTTOM OF HOLE			LAB DATA :
	24					

SAM #	CLASS	LL	PL	PI
1	CL-ML	18	13	5
2	SM	-	-	-
3	SP	NP	NP	NP
4	SP	NP	NP	NP

SAM #	LOI (%)	-200(%)
1	1.6	42.2

SAM #	SPG
1	2.67

Hole No. VC - 11 - 84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 1 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 212,250 E 393,563
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and title number): VC - 11 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 19.3' (EL. - 62.3')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TSM or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BAGGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C.	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-43.0	0					
	2		(CH) ORANGE, GRAY & BEIGE MOTTLED FAT CLAY, MEDIUM STIFFNESS			
	4			24	1	DEPTH 4.5'-5.0'
-49.0	6					
	8		(SC) ORANGE, GRAY & BEIGE CLAYEY SAND, MEDIUM GRAINED			
-53.0	10			19	2	DEPTH 9.5'-10.0'
	12		(SM) BEIGE SILTY SAND			
			ORANGE, GRAY & BEIGE, MOTTLED, SILTY			
	14				3	DEPTH 14.5'-15.0'
	16		ORANGE, GRAY & BEIGE, SILTY, MEDIUM GRAINED			
	18					
-62.3						
	20		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
3	SP-SM	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	-	71.0
2	-	13.5

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE — 300 | Water & Waste — HOLE NO. VC - 11 - 84

Hole No. VC-12-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 209,509 E 333,812
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and this number): VC-12-84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0' (EL. -69.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLLW or MSL): MLLW + 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -49.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-49.0	0		(CH) DARK GRAY FAT CLAY, SOFT			
-44.0						
	2					
	4				1	DEPTH 4.5'-5.0'
	6		(SM) GRAY, YELLOW & WHITE POORLY GRADED SILTY SAND, MEDIUM TO COARSE GRAINED, WITH OCCASIONAL POCKETS OF FAT CLAY			
	8					
	10				2	DEPTH 9.5'-10.0'
	12					
	14				3	DEPTH 14.5'-15.0'
	16					
	18					
-69.0	20				4	DEPTH 19.5'-20.0'

NAVFAC 1836 PREVIOUS EDITIONS ARE OBSOLETE. 310 SAD MOBILE HARBOR VC-12-84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -43.0 Hole No. VC-12-64

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20					
	22		(SM) GRAY, YELLOW & WHITE POORLY GRADED SILTY SAND, MEDIUM TO COARSE GRAINED, WITH OCCASIONAL POCKETS OF FAT CLAY			
	24				5	DEPTH 24.5'-25.0'
-69.0	26		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	SP	NP	NP	NP
2	SP	NP	NP	NP
3	SP	NP	NP	NP
4	SP	NP	NP	NP
5	SP	NP	NP	NP

ENG FORM 1836-A

Hole No. VC - 13 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 267,341 E 394,043
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 13 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 22.7' (EL. -65.7')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TIDN or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 2; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ ~~ROCK QUALITY~~ ~~DESIGNATION~~ W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0		(CH) GRAY FAT CLAY, VERY SOFT			
	2					
	4					
				67	1	DEPTH 4.5'-5.0'
	6		GRAY, SOFT			
	8					
	10					
	12					
	14					
				171	2	DEPTH 14.5'-15.0'
	16		GRAY, SOFT TO STIFF, WITH ORGANIC MATERIAL OF STICKS & ROOTS			
	18					
-63.0	20					

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -43.0 Hole No. VC-13-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20		(CH) GRAY FAT CLAY, SOFT TO STIFF, WITH ORGANIC MATERIAL OF STICKS & ROOTS			
-65.7	22					
			BOTTOM OF HOLE			LAB DATA :
	24					SAM # / LOI (%) / -200 (%)
						1 / - / 96.4
						2 / 24.8 / 86.5

ENG FORM 1836-A | 313 MOBILE HARBOR | VC-13-84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Stations): N 204,698 E 324,568
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and hole number): VC - 14 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 26.5' (EL. -68.5')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% (Moisture or W.C.) (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-42.0	0		(CH) BLACK TO DARK GRAY FAT CLAY WITH ORGANIC MATERIAL, VERY SOFT			
	2					
	4					
				37	1	DEPTH 4.5'-5.0'
	6		DARK GRAY, SOFT			
	8					
	10					
	12			90	2	DEPTH 11.5'-12.0'
	14					
	16		DARK GRAY, SOFT, WITH ORGANIC MATERIAL OF LEAVES AND WOOD			
	18					
-62.0	20			104	3	DEPTH 19.5'-20.0'

ENG FORM 1836 (AUG 72) PREVIOUS EDITIONS ARE OBSOLETE (TRANSMITTAL)

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE = 42.0 Hole No. VC-14-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20					
	22		(CH) DARK GRAY FAT CLAY, SOFT, WITH ORGANIC MATERIAL OF WOOD & LEAVES			
	24				5	DEPTH 24.5'-26.0'
-68.0	26		LIGHT GRAY, SOFT			
-68.5			(SM) LIGHT GRAY SILTY SAND, FINE GRAINED			
			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CL	36	16	20
4	CH	-	-	-

SAM #	LOI (%)	-200 (%)
1	-	47.3
2	-	95.2
3	16.2	94.1

Hole No. VC - 15 - 94

DRILLING LOG	DIVISION SAD	INSTALLATION MOO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 202,600 E 334,427
3. DRILLING AGENCY: MOO
4. HOLE NO. (As shown on drawing title and file number): VC - 15 - 94
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 30.0' (EL. - 73.0)
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1994; COMPLETED AUG. 1994
17. ELEVATION TOP OF HOLE: +43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DV

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE NO. W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+43.0	0					
	2			29	1	DEPTH 2.5' - 3.0'
	4					
	6		(CH) GRAY FAT CLAY, SOFT, WITH SOME SAND			
	8			82	2	DEPTH 7.5' - 8.0'
	10					
	12					
	14			41	3	DEPTH 14.5' - 15.0'
	16					
	18		DARK GRAY TO GRAY, SOFT, WITH ORGANIC MATERIAL OF WOOD, ROOTS & LEAVES			
+13.0	30			67	4	DEPTH 19.5' - 20.0'

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE (CONTINUED)
316 MOBILE HARBOR
VC - 15 - 94

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -43.0 Hole No. VC-15-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20		(CH) DARK GRAY TO GRAY FAT CLAY, SOFT, WITH ORGANIC MATERIAL OF WOOD, ROOTS & LEAVES			
	22					
	24		GRAY, SOFT, WITH ORGANIC MATERIAL			
	26					
	28					
-73.0	30		BOTTOM OF HOLE			

LAB DATA :

SAM #	LOI (%)	-200 (%)
1	-	38.2
2	-	48.7
3	-	82.8
4	-	93.5

Hole No. VC - 16 - 84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 200,108 E 934,849
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 16 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL | INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 28.0' (EL. - 65.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: - 37.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CYCLONE Moisture-Density W+C	SPLIT-SPOON SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-37.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	4			156	1	DEPTH 4.5' - 5.0'
-43.5	6					
			(SC) DARK GRAY CLAYEY SAND			
-45.0	8					
	10				2	DEPTH 9.5' - 10.0'
	12		(SM) GRAY POORLY GRADED SILTY SAND			
	14				3	DEPTH 14.5' - 15.0'
	16					
	18					
-57.0	20				4	DEPTH 19.5' - 20.0'

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -37.0 | Hole No. VC-16-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% FINER #200~~ ~~BLOWS/FT~~ W.C.	~~TYPE OF~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-57.0	20					
	22					
			(SM) GRAY SILTY SAND			
	24					
	26					
-65.0	28				5	DEPTH 27.5'-28.0'
			BOTTOM OF HOLE			LAB DATA :

SAM #	CLASS	LL	PL	PI
2	SP-SM	NP	NP	NP
3	SP-SM	NP	NP	NP
4	SP-SM	NP	NP	NP
5	SP-SM	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	12.2	99.3

ENG FORM 1836-A JUN 67 | 319 MOBILE HARBOR | VC-16-84

Hole No. VC - 17 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 198,426 E 334,897
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 17 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 26.7' (EL. -68.7')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW + 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4, UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984, COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: +42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE BOX~~ W.C.	~~CORE~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+42.0	0					
	2		(CH) DARK GRAY FAT CLAY, VERY SOFT			
	4					
-46.0					1	DEPTH 4.5'-5.0'
	6		(SC) LIGHT GRAY POORLY GRADED SILTY CLAYEY SAND			
	8					
			LIGHT GRAY, CLAYEY			
	10				2	DEPTH 9.5'-10.0'
	12					
	14					
					3	DEPTH 14.5'-15.0'
	16		LIGHT GRAY, POORLY GRADED, SILTY, CLAYEY			
	18					
-62.0	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

320 MOBILE HARBOR

HOLE NO. VC - 17 - 84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -42.0 | Hole No. VC-IT-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	~~Type and Size of Core~~ ~~Core Run~~ W.C.	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (k)
-62.0	20		(SC) LIGHT GRAY POORLY GRADED SILTY CLAYEY SAND			
-63.0			(SM) LIGHT GRAY SILTY SAND WITH ORGANIC MATERIAL			
-64.2	22					
	24		(SM) LIGHT GRAY POORLY GRADED SILTY SAND		4	DEPTH 24.5'-25.0'
-68.7	26		BOTTOM OF HOLE			
	28					

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	SC	NP	NP	NP
2	SP-SM	NP	NP	NP
3	SP-SM	NP	NP	NP
4	SP	NP	NP	NP

ENG FORM 1836-A

321 MOBILE HARBOR

HOLE NO. VC-IT-84

Hole No. VC - 18 - 84

DRILLING LOG | DIVISION: SAD | INSTALLATION: MDO | SHEET 1 of 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): N 196,696 E 334,999
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 18 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 28.2' (EL. -72.2')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL): MLLW ± 2 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 6; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -44.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C. (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-44.0	0		(CH) YELLOW FAT CLAY, VERY SOFT, WITH CLAYEY SAND			
-46.0	2					
	4		(SC) GRAY & YELLOW CLAYEY SAND W/ SANDY LEAN CLAY	31	1	DEPTH 4.5'-5.0'
	6					
	8					
-54.0	10				2	DEPTH 9.5'-10.0'
	12					
	14		(SM) LIGHT GRAY POORLY GRADED SILTY SAND		3	DEPTH 14.5'-15.0'
	16					
	18					
-64.0	20				4	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (STANDARD FORM 93)

322 MOBILE HARBOR

HOLE NO. VC - 18 - 84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -44.0 | Hole No. VC-18 - 84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~Blow Count~~ ~~Recovery~~ W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-64.0	20		(SM) LIGHT GRAY POORLY GRADED SILTY SAND			
	22		LIGHT GRAY, SILTY, WITH ORGANIC SILT			
-67.0						
	24		(CH) GRAY FAT CLAY		5	DEPTH 24.5' - 25.0'
	26					
-71.0						
-72.2	28		(SM) GRAY POORLY GRADED SILTY SAND			
			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	SC	26	17	9
2	SM	NP	NP	NP
3	SP-SM	NP	NP	NP
4	SP-SM	NP	NP	NP

SAM #	LOI (%)
4	1.0

Hole No. VC - 19 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 194,476 E 395,266		11. DATUM FOR ELEVATION SHOWN (MSL or MSL): MLLW 19 FT.	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): VC - 19 - 84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4 / UNDISTURBED 0	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
		16. DATE HOLE: STARTED AUG. 1984 / COMPLETED AUG. 1984	
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE: -42.0	
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING: N/A	
9. TOTAL DEPTH OF HOLE: 25.2' (EL. -67.2)		19. SIGNATURE OF INSPECTOR: H. GATES	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ ~~ROCK QUALITY~~ W.C.	~~TYPE OF~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0		(CH) DARK GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2			150	1	DEPTH 2.5'-3.0'
	4		LIGHT GRAY, SOFT, WITH SAND			
-48.5	6				2	DEPTH 6.5'-7.0'
	8		(SC) LIGHT GRAY SILTY CLAYEY SAND			
	10					
	12				3	DEPTH 11.5'-12.0'
-55.5	14					
	16		(SM) LIGHT GRAY POORLY GRADED SILTY SAND		4	DEPTH 16.5'-17.0'
	18					
-62.0	20					

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -42.0 Hole No. VC-19-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20					
	22		(SM) LIGHT GRAY POORLY GRADED SILTY SAND			
	24					
-67.2						
	26		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CH	"	"	"
2	SC	"	"	"
3	SM	"	"	"
4	SP	"	"	"

SAM #	LOI (%)
1	12.5

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PROJECT MOBILE HARBOR HOLE NO VC-19-84

Hole No. VC - 20 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): N 192,600 E 535,404		11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLW + 3 FT.	
3. DRILLING AGENCY: MDO		12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): VC - 20 - 84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4	UNDISTURBED 0
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984	COMPLETED AUG. 1984
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -43.0	
9. TOTAL DEPTH OF HOLE: 27.5' (EL. - 70.5')		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: H. GATES	DM

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0					
	2					
	4			40	1	DEPTH 4.5'-5.0'
	6		(CH) GRAY FAT CLAY, SOFT TO MEDIUM STIFFNESS, WITH SHELL & WOOD FRAGMENTS			
	8					
	10			55	2	DEPTH 9.5'-10.0'
	12					
	14			109	3	DEPTH 14.5'-15.0'
	16					
	18					
-63.0	20					

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -49.6 Hole No. VC-20-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) k
-69.0	20					
	22					
	24					
				42	4	DEPTH 24.5'-25.0'
	26					
-70.5						
	28		BOTTOM OF HOLE			LAB DATA :

SAM #	CLASS	LL	PL	PI
2	CH	55	22	33

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327 MOBILE HARBOR

HOLE NO. VC-20-84

Hole No. VC - 21 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN BN 57 & BN 58
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 21 - 84 — N. 183,900 E. 336,250
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 30.0' (EL. - 72.0')
10. SIZE AND TYPE OF BIT: 4" VCB 2ACORE
11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 3; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: - 42.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DW

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	CASING BLOWS/FT. OR PER W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0		(CH) BLACK & DARK GRAY FAT CLAY WITH ORGANIC MATERIAL			
-45.0	2					
	4				1	DEPTH 4.5'-5.0'
	6		(SP) GRAY & WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	8					
	10					
	12					
-55.6						
-56.2	14		(CH) GRAY FAT CLAY WITH SAND			
					2	DEPTH 14.5'-15.0'
	16		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	18					
-62.0	20					

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE +42.0 | Hole No. VC-21-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
+62.0	20					
	22					
	24		(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED		3	DEPTH 24.5'-25.0'
	26					
	28					
-72.0	30		BOTTOM OF HOLE			LAB DATA :

SAM #	CLASS	LL	PL	PI
1	SP-SM	NP	NP	NP
2	SP	NP	NP	NP
3	SP	NP	NP	NP

Hole No. VC-22-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Stations): 1UE WEST BM 56, C/L CHANNEL		11. DATUM FOR ELEVATION SHOWN (TSN or MSL): MLLW ± 3 FT.	
3. DRILLING AGENCY: MDO	N. 177,900 E. 336,800	12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and file number): VC-22-84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5	UNDISTURBED 0
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984	COMPLETED AUG. 1984
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -43.0	
9. TOTAL DEPTH OF HOLE: 30.0' (EL. = 73.0')		18. TOTAL CORE RECOVERY FOR BORING: N/A	
		19. SIGNATURE OF INSPECTOR: H. GATES	DK

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ W.C.	~~ROCK QUALITY~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0		(CH) BLACK FAT CLAY WITH ORGANIC MATERIAL			
	2			173	1	DEPTH 2.5'-3.0'
	4					
	6					
	8			67	2	DEPTH 8.5'-9.0'
	10		GRAY, SOFT			
	12					
	14			49	3	DEPTH 14.5'-15.0'
	16					
	18					
-63.0	20			90	4	DEPTH 19.5'-21.0'

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -49.0 | Hole No. VC-22-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	SAMPLE NO. f	W.C	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20					
	22		(CH) GRAY FAT CLAY, SOFT			
	24					
	26					
-70.0				5	202	DEPTH 27.0'-27.5'
	28		(OL) BROWN & GRAY ORGANIC SILT			
-73.0	30		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
2	CH	56	23	33

SAM #	LOI (%)	-200 (%)
1	11.1	98.8
3	-	84.7
5	40.3	81.4

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PROJECT: MOBILE HARBOR | HOLE NO: VC-22 84

Hole No. VC - 23 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): 4,000 FT. SO. OF SW 56, C/L CHANNEL
3. DRILLING AGENCY: MDO — N. 173,500 E. 367,200
4. HOLE NO. (As shown on drawing title and file number): VC - 23 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 30.0' (EL. - 68.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: - 38.0
18. TOTAL CORE RECOVERY FOR BORING: N/A
19. SIGNATURE OF INSPECTOR: H. GATES DH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE BOX~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-38.0	0				
	2				
	4		(CH) GRAY FAT CLAY, SOFT	W.C 32 / 1	DEPTH 4.5'-5.0'
	6				
	8				
	10				
	12			44 / 2	DEPTH 11.5'-12.0'
	14				
-53.0					
	16		(SM) GRAY & WHITE POORLY GRADED SILTY SAND		
	18				
-58.0	20			3	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -38.0 Hole No. VC-23-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDC | SHEET 2 OF 2 SHEETS

ELEVATION (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS (Description)	W.C.	SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-38.0	20					
	22					
	24		(SM) GRAY & WHITE POORLY GRADED SILTY SAND		4	DEPTH 24.5'-25.0'
	26					
	28					
-68.0	30				5	DEPTH 29.5'-30.0'
			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
3	SM-SC	-	-	-
4	SP-SM	NP	NP	NP
5	SP-SM	NP	NP	NP

SAM #	LOI (%)	-200 (%)
2	—	62.8

Hole No. VC - 24 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN 51 & 52, C/L CHANNEL
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): N. 169,200 E. 337,600 — VC - 24 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 23.0' (EL. - 71.0)
10. SIZE AND TYPE OF BIT: 4" VIDEACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: + 44.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DW

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Descriptive) d	~~CORE RUN~~ ~~SHOW~~ W.C	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+ 44.0	0		(CH) BLACK & DARK GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2					
	4			93	1	DEPTH 4.5' - 6.0'
	6		LIGHT GRAY, SOFT			
	8					
	10					
	12					
	14			66	2	DEPTH 14.5' - 15.0'
	16					
- 61.0						
	18		(OL) BLACK & BROWN ORGANIC SILT		3	DEPTH 17.5' - 18.0'
- 64.0	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT: MOBILE HARBOR

HOLE NO. VC - 24 - 84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE = 44.0 | Hole No. VC-24-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-64.0	20		(OL) BLACK & BROWN ORGANIC SILT			
-64.7				64	4	DEPTH 20.5'-21.0'
	22		(CH) LIGHT GRAY FAT CLAY, SOFT			
-67.0						
	24		(SM) WHITE POORLY GRADED SILTY SAND		5	DEPTH 24.5'-26.0'
	26					
-71.0			BOTTOM OF HOLE			
	28					

LAB DATA :

SAM #	CLASS	LL	PL	PI
5	SM	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	—	97.6
2	—	97.6
4	—	96.3

Hole No. VC - 26 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN EN 50 & EN 49, C/L CHANNEL
3. DRILLING AGENCY: MDO — N. 162,200 E. 338,150
4. HOLE NO. (As shown on drawing title and file number): VC - 26 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 25.0' (EL. - 68.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ ~~ROCK QUALITY DESIGNATION~~ W.C e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc.; if significant) g
-43.0	0		(CH) GRAY FAT CLAY, SOFT			
	2					
	4			87	1	DEPTH 4.5'- 5.0'
	6					
	8					
	10			81	2	DEPTH 9.5'- 10.0'
	12					
	14			87	3	DEPTH 14.5'- 15.0'
	16					
	18			63	4	DEPTH 17.5'- 18.0'
-68.0	20					

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(PROJECT) 336 MOBILE HARBOR

HOLE NO. VC-26-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -49.0 | Hole No. VC-26-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C.	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-69.0	20					
	22		(CH) GRAY FAT CLAY, SOFT			
	24					
-60.0					5	DEPTH 24.5'-25.0'
			BOTTOM OF HOLE			LAB DATA :
	26					SAM # 2 CLASS CH LL - PL - PI -

ENG FORM 1836-A JAN 67

PROJECT: MOBILE HARBOR | HOLE NO: VC-26-84

Hole No. VC-27-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): DUE EAST OF BN 47, C/L CHANNEL
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and title number): VC-27-84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 22.0' (EL. -60.0')

N. 159,300 E. 338,200

10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MSL): MLLW + 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: +38.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE RECOVERY~~ ~~BLOWS/FT~~ W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+38.0	0		(CH) GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2					
	4			97	1	DEPTH 4.5'-5.0'
	6		GRAY, SOFT			
	8					
	10			39	2	DEPTH 9.5'-10.0'
	12					
-51.2						
	14					
				179	3	DEPTH 14.5'-15.0'
	16		(PT) DARK BROWN & GRAY CLAYEY PEAT			
	18					
-58.0	20			117	4	DEPTH 19.5'-20.0'

DRILLING LOG (Cont Sheet) | ELEVATION T. OF HOLE -38.0 | Hole No. VC-27-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C. e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-58.0	20		(PT) DARK BROWN & GRAY CLAYEY PEAT			
-60.0	22		BOTTOM OF HOLE			LAB DATA:

SAM #	LOI (%)	-200 (%)
1	-	97.2
3	21.7	91.0

Hole No. VC - 28 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN BU 45 & DN 46, C/L CHANNEL
3. DRILLING AGENCY: MDO — N.158,850 E.338,000
4. HOLE NO. (As shown on drawing title and file number): VC - 28 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN:
8. DEPTH DRILLED INTO ROCK:
9. TOTAL DEPTH OF HOLE: 30.0' (EL. - 73.0)
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLW or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER:
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES DH

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C (e)	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-43.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT			
	4			142	1	DEPTH 4.5'-5.0'
	6					
	8					
	10			78	2	DEPTH 9.5'-10.0'
	12		GRAY, VERY SOFT			
	14					
-58.5						
	16					
	18		(SP) GRAY POORLY GRADED SAND		3	DEPTH 17.5'-18.0'
-63.0	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE

PROJECT 340 MOBILE HARBOR

HOLE NO. VC - 28 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE +49.0 Hole No. VC-28-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-69.0	20					
	22					
	24		(SP) GRAY POORLY GRADED SAND		4	DEPTH 24.5'-25.0'
	26					
	28					
-73.0	30		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
3	SP	NP	NP	NP
4	SP	NP	NP	NP

SAM #	LOI (%)	-200 (%)
1	11.0	99.4
2	-	92.2

ENG FORM 1836-A

341 MOBILE HARBOR VC-28-84

Hole No. VC - 32 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF SHEETS

1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Stations): BETWEEN BN 41 & BN 42, C/L CHANNEL
3. DRILLING AGENCY: MDO — N. 143,900 E. 336,500
4. HOLE NO. (As shown on drawing title and file number): VC - 32 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 26.5' (EL. - 69.5')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TIDE or MSL): MLLW & 9 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES — DW

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ ~~RQD~~ ~~REC.~~ ~~SAMPLE~~ W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL	173	1	DEPTH 2.5'-3.0'
	4					
	6					
	8			88	2	DEPTH 8.5'-9.0'
	10		GRAY, SOFT			
	12					
	14					
	16					
-60.5						
	18		(SC) GRAY CLAYEY SAND, SOFT			
-69.0	20				3	DEPTH 19.5'-20.0'

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -49.0 | Hole No. VC-92-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C (e)	SAMPLE NO. (e)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-69.0	20					
	22		(SC) GRAY CLAYEY SAND, SOFT			
	24					
	26					
-69.5					4	DEPTH 26.0'-26.5'
			BOTTOM OF HOLE			LAB DATA :

SAM #	CLASS	LL	PL	PI
2	CH	-	-	-
3	SC	-	-	-

SAM #	LOI (%)	-200(%)
1	11.7	-

ENG FORM 1836-A JUN 67 | 345 | MOBILE HARBOR | VC-92-84

Hole No. VC-36-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" VIBRACORE	
2. LOCATION (Coordinates or Station): BETWEEN FN 95 & FN 96, C/L CHANNEL		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLLW ± 3 FT.	
3. DRILLING AGENCY: MDO	N. 121,500 E. 334,800	12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title): VC-36-84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0	
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984	
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -42.0	
9. TOTAL DEPTH OF HOLE: 28.5' (EL. -70.5')		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: H. GATES DV	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~SAMPLE NO.~~ W.C	~~SAMPLE NO.~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL	137	1	DEPTH 1.5'-2.0'
	4					
	6					
	8		GRAY, SOFT			
	10			87	2	DEPTH 9.5'-10.0'
	12					
-56.0	14					
	16		(SC) GRAY CLAYEY SAND, FINE GRAINED, SOFT, WITH A TRACE OF SHELLS, (1" MAX.)	33	3	DEPTH 15.5'-16.0'
	18					
-62.0	20					

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE (2 SUPERSEDED)

PROJECT 346 - MOBILE HARBOR

HOLE NO. VC-36-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -42.0 | Hole No. VC-36-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	W.C	SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)
-62.0	20					
	22					
	24		(CH) GRAY FAT CLAY, SOFT	72	4	DEPTH 24.5'-25.0'
	26					
-70.5	28		BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CH	-	-	-
2	CH	74	27	47
3	ML	-	-	-

SAM #	LOI (%)	-200(%)
1	11.6	-
4	-	94.5

SAM #	SPG
1	2.71
2	2.72

Hole No. VC - 38 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT: MOUILLE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN BN 31 & BN 32, C/L CHANNEL
3. DRILLING AGENCY: MDO — N. 123,600 E. 333,900
4. HOLE NO. (As shown on drawing title and file number): VC - 38 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 21.0' (EL. -64.0 ?)
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (MLLW or MSL): MLLW + 5 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: -43.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL	140	1	DEPTH 1.5'- 2.0'
	4					
	6			102	2	DEPTH 6.5'- 7.0'
	8					
	10		DARK GRAY, SOFT			
	12			79	3	DEPTH 12.5'- 13.0'
	14					
	16					
	18		LIGHT GRAY, MEDIUM TO STIFF		4	DEPTH 18.5'- 19.0'
-64.0	21					

ENG FORM 1836 MAR 71 — PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -43.0 | Hole No. VC-38-84

PROJECT: MOBILE HARBOR CHANNEL DEEPENING | INSTALLATION: MDO | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-63.0	20		(CH) LIGHT GRAY FAT CLAY, MEDIUM TO STIFF			
-64.0			BOTTOM OF HOLE			
	22					

LAB DATA :

SAM #	CLASS	LL	PL	PI
4	CH	-	-	-

SAM #	LOI (%)	-200 (%)
1	9.9	81.3
2	-	26.9

Hole No. VC-40-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR CHANNEL DEEPENING		10. SIZE AND TYPE OF BIT: 4" V1.8"ACORE	
2. LOCATION (Coordinates or Station): BETWEEN BN 89 & BN 90, C/L CHANNEL		11. DATUM FOR ELEVATION SHOWN (TIDAL or MSL): MLLW ± 9 FT.	
3. DRILLING AGENCY: MDO	N. 118,200 E. 338,150	12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE	
4. HOLE NO. (As shown on drawing title and title number): VC-40-84		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4	UNDISTURBED 0
5. NAME OF DRILLER: C. FULLER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED ____ DEG. FROM VERT.		15. ELEVATION GROUND WATER	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED AUG. 1984	COMPLETED AUG. 1984
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -42.0	
9. TOTAL DEPTH OF HOLE: 28.7' (EL. -70.7')		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: H. GATES	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C.	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-42.0	0		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2				1	DEPTH 2.5'-3.0'
	4					
	6					
	8		GRAY, SOFT			
	10				2	DEPTH 9.5'-10.0'
	12					
	14					
	16				3	DEPTH 15.5'-16.0'
	18		GRAY, MEDIUM STIFFNESS			
-62.0	20					

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -42.0 Hole No. VC-40-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20					
	22					
	24		(CH) GRAY FAT CLAY, MEDIUM STIFFNESS		4	DEPTH 23.5'-24.0'
	26					
	28					
-70.7			BOTTOM OF HOLE			

LAB DATA :

SAM #	CLASS	LL	PL	PI
1	CH	-	-	-
2	CH	-	-	-
3	CH	-	-	-
4	CH	-	-	-

Hole No. VC - 42 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS

1. PROJECT: MOUILLE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station): BETWEEN BN 27 & BN 28, C/L CHANNEL
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 42 - 84
5. NAME OF DRILLER: C. FULLER
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 20.0' (EL. - 61.0')
10. SIZE AND TYPE OF BIT: 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TIDE or MSL): MLLW ± 3 FT.
12. MANUFACTURER'S DESIGNATION OF DRILL: BARGE
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 4; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUND WATER
16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
17. ELEVATION TOP OF HOLE: +41.0
18. TOTAL CORE RECOVERY FOR BORING: N/A %
19. SIGNATURE OF INSPECTOR: H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~CORE RECOVERY~~ W.C.	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
+41.0	0		(CH) BLACK FAT CLAY, VERY SOFT			LAB DATA:
						SAM # / CLASS / LL / PL / PI
						1 CH - - -
						2 CH - - -
						3 CH - - -
						4 SM-H - - -
	4				1	DEPTH 4.5'-5.0'
	6		GRAY, SOFT			
	8					
	10				2	DEPTH 9.5'-10.0'
	12					
	14				3	DEPTH 14.5'-15.0'
	16					NOTE: BOTTOM OF HOLE @ DEPTH 20.0'.
	18					
-61.0	20				4	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT NO. 352 (MOUILLE HARBOR)

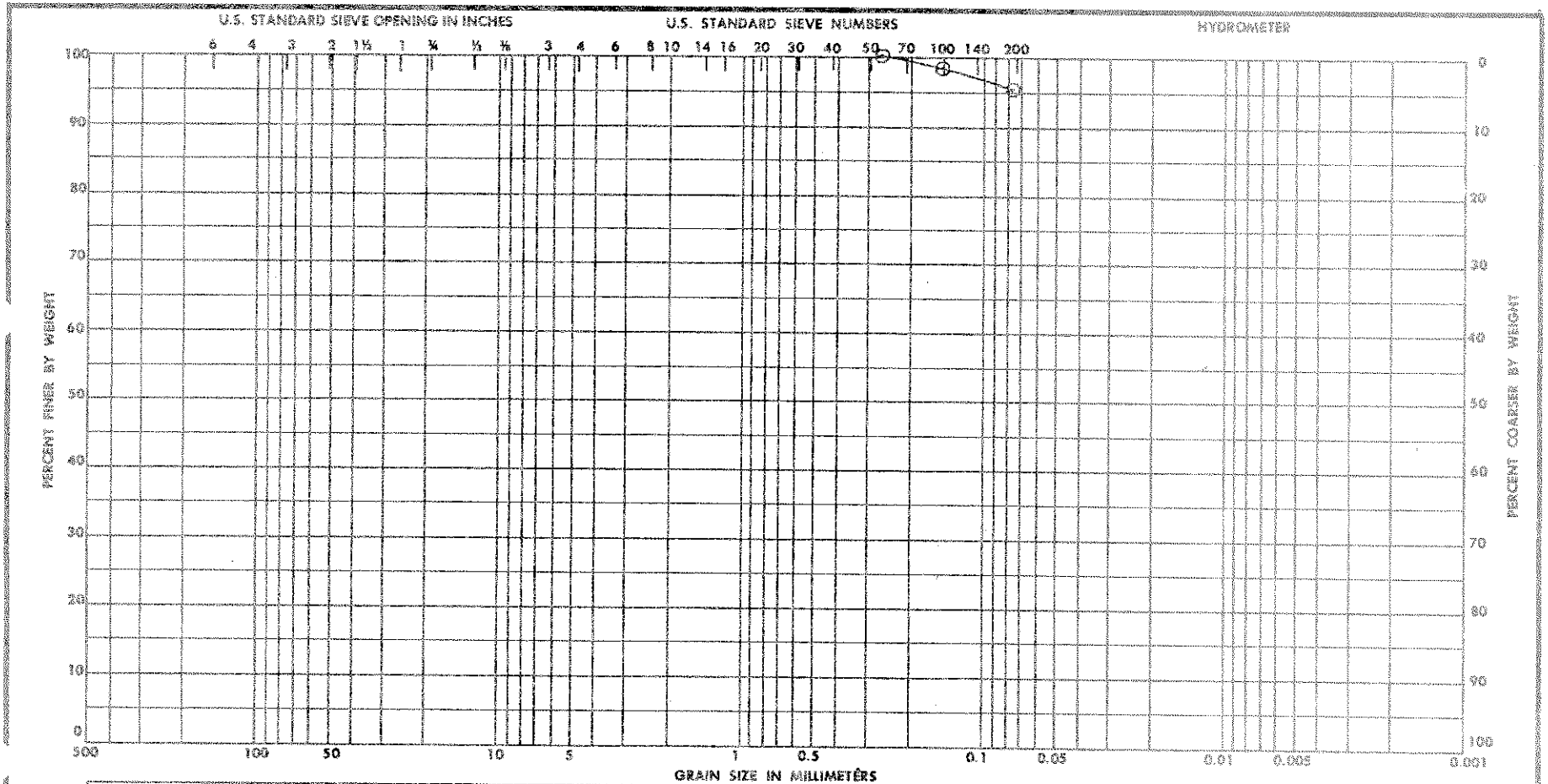
HOLE NO. VC - 42 - 84

CHARTS

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3385

Req. No. 13-83-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	~~Boring No.~~ Depth	Classification	Nat w %	LL	PL	PI
3	3.0-4.5'	FAT CLAY (CH)	56.8	81	22	59
		GREENISH GRAY WITH A TRACE				
		OF SAND				

GRADATION CURVES

Project MOBILE HARBOR
CHANNEL DEEPENING
Area LAB NO.57/8000
Boring No. SG-2-82 SAMPLE NO. 3
Date 01/13/83

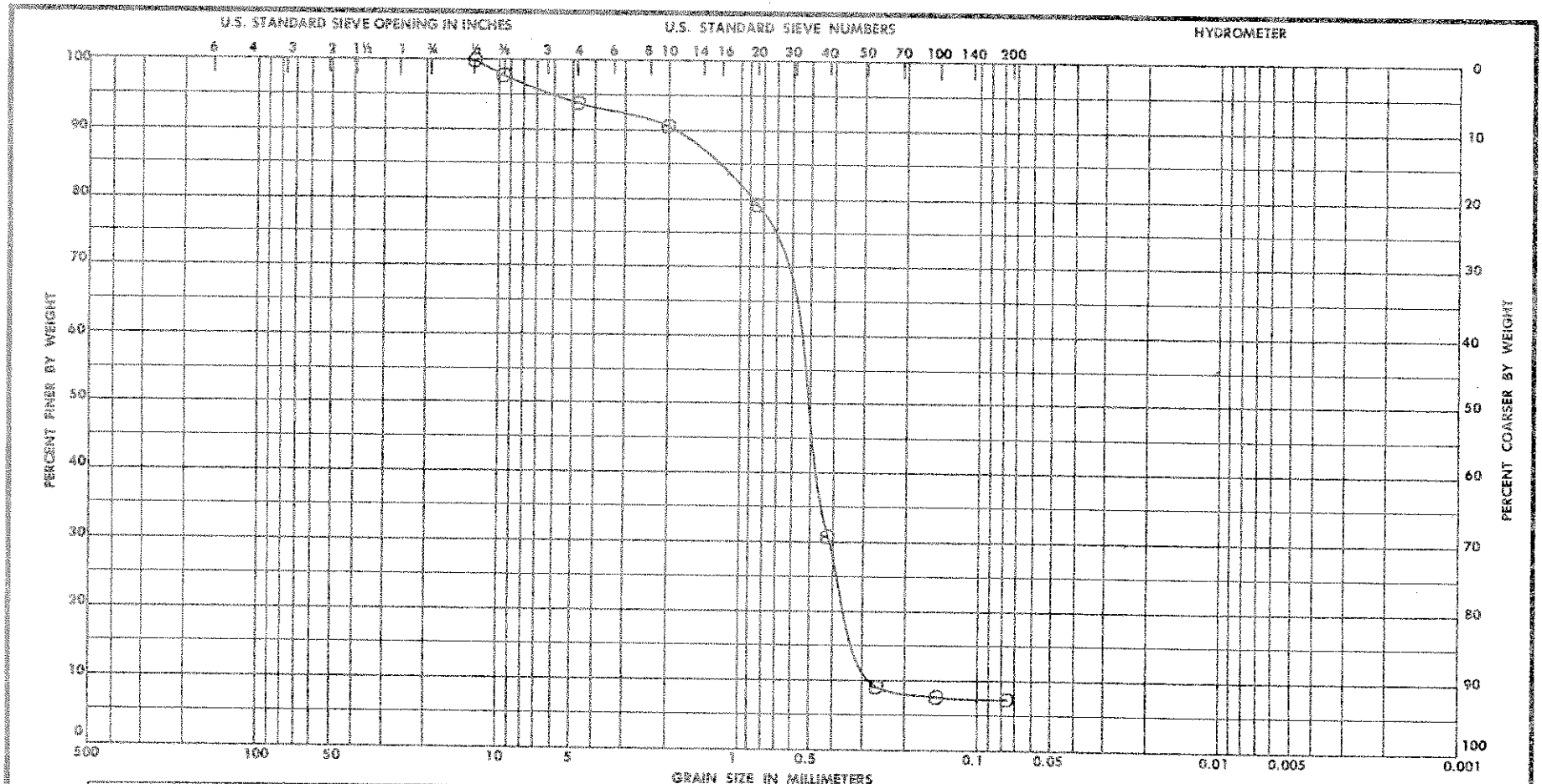
CHART NO. 88

ENG FORM 1 MAY 62 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



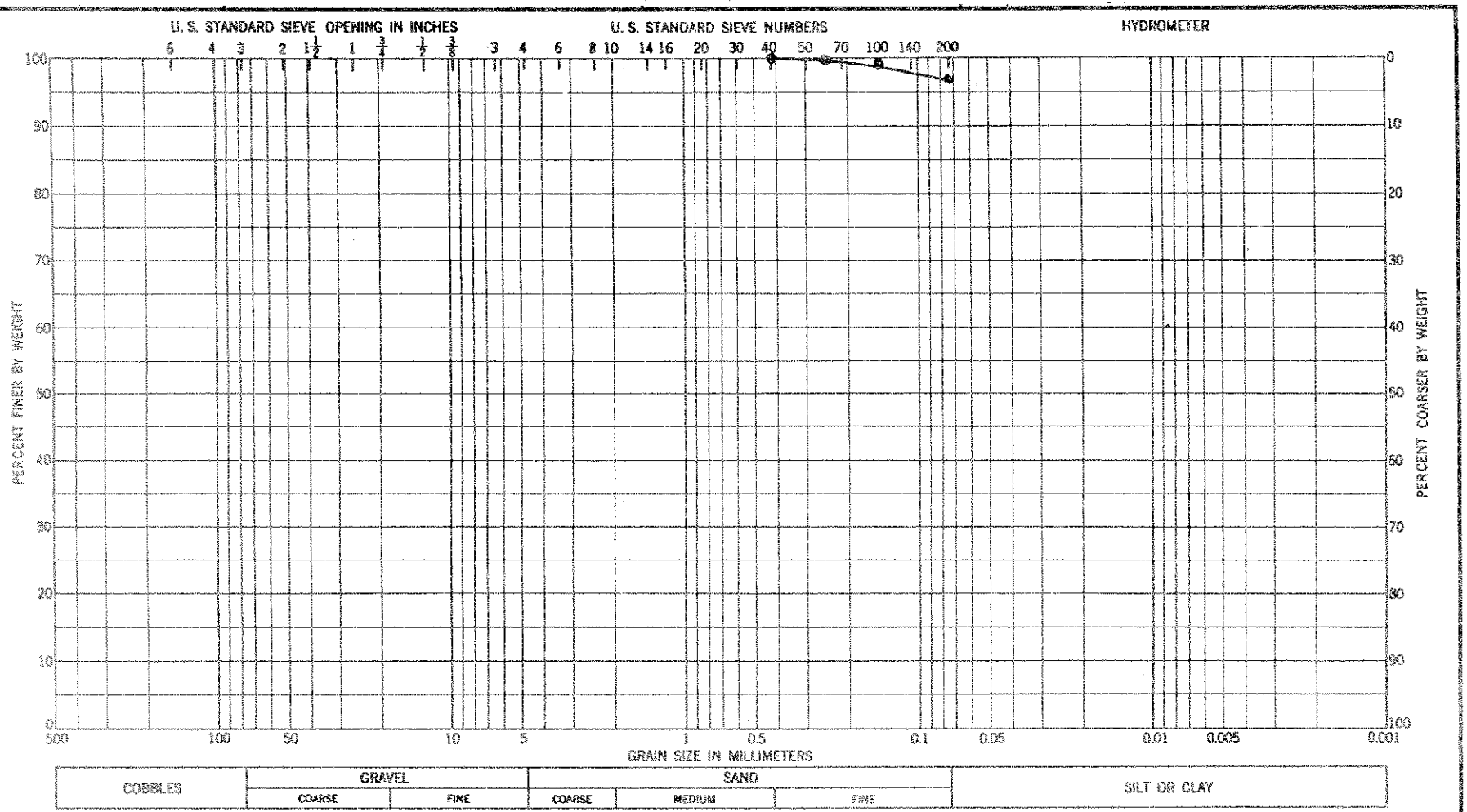
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
1	4.5-5.0'	VISUAL POORLY GRADED SILTY SAND (SP-SM), TAN WITH A LITTLE SHELL AND POCKETS OF BROWN (SC) ZSHELL = 15.6	--	--	--	--

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/189
Boring No. SG-10-83 SAMPLE NO. 1
Date 05/05/84

CHART NO. 114

ENG FORM 1 MAY 63 2087



Sample No.	~~Boring No.~~ Depth	Visual Classification	Nat w %	LL	PL	PI
4	15.5-16.0'	Bluish gray and brown fat clay (CH) with a trace of sand	35.4	--	--	--

GRADATION CURVES

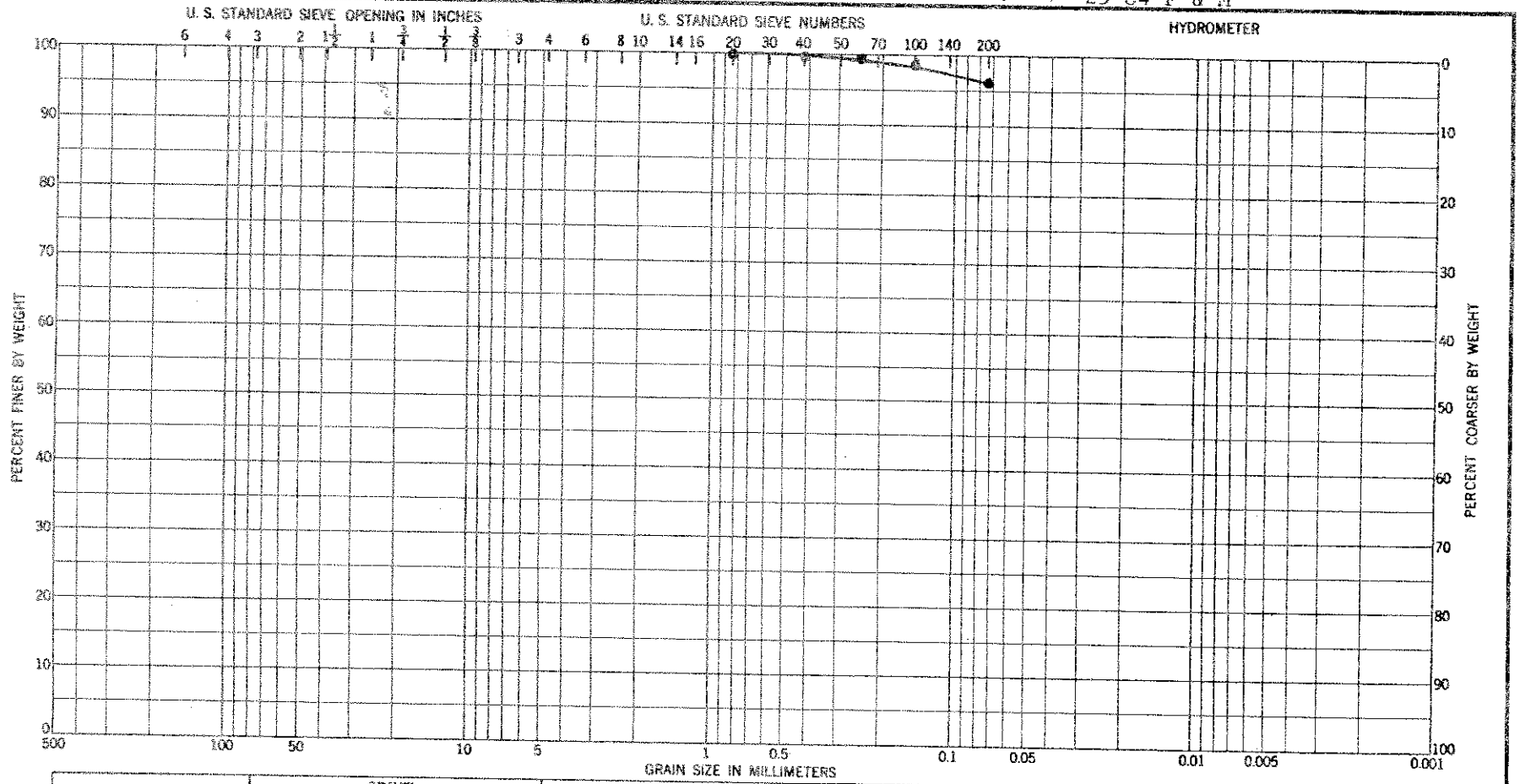
Project: Mobile Ship Channel
Channel Deepening
Area: Lab No. 57/263
Boring No.: SG-11-83, Sample No. 4
Date: 21 May 1984

CHART NO. 112

ENG FORM 1 MAY 69 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 3887
Req. No. 25-84-F & M



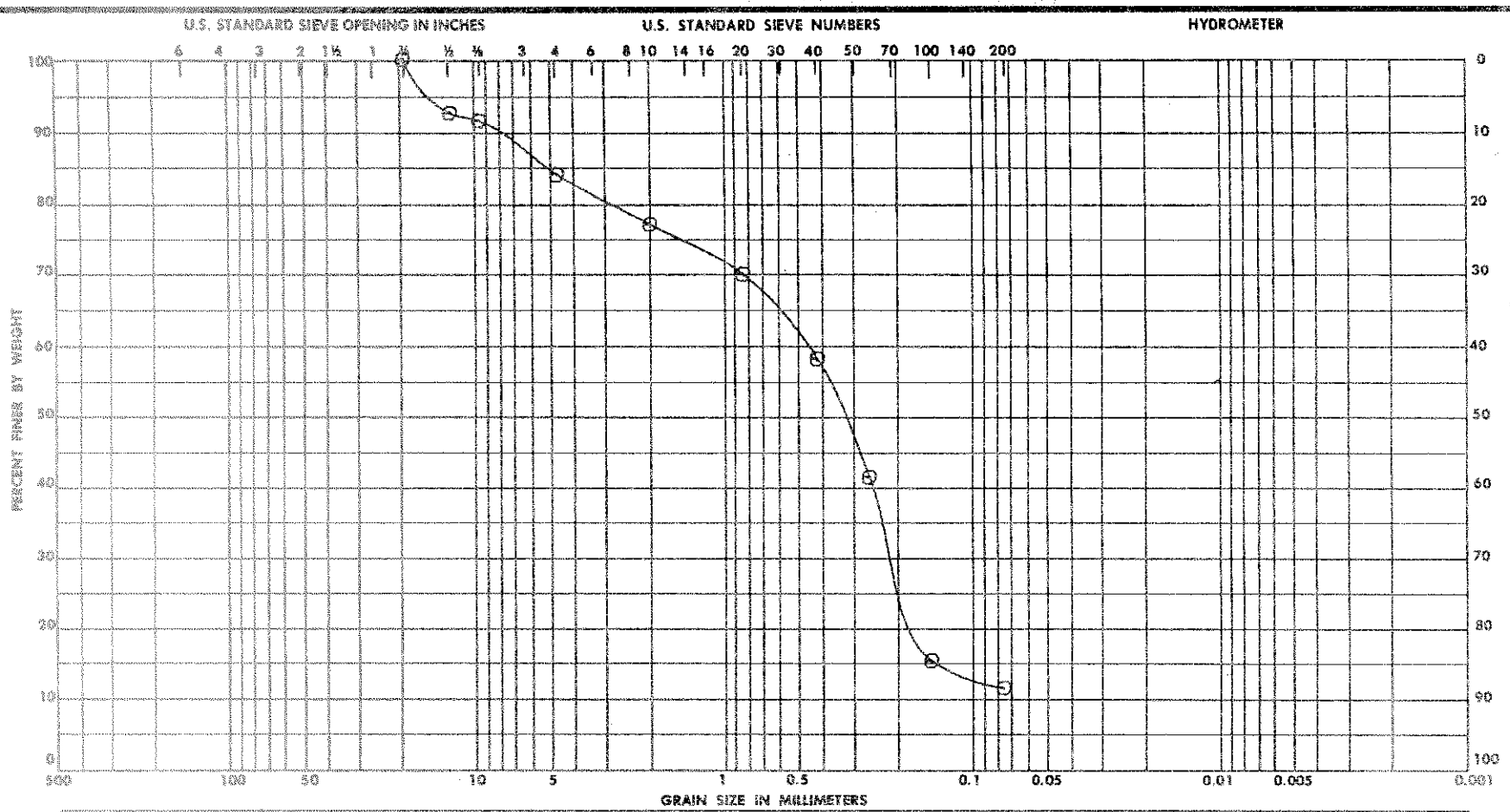
Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
5	18.0-18.4'	Gray fat clay (CH) with a trace of sand	55.8	---	---	--

GRADATION CURVES

Project: Mobile Ship Channel
Channel Deepening
Area: Lab No. 57/264
Boring No.: SG-11-83, Sample No. 5
Date: 21 May 1984

CHART NO. 113

ENG FORM 1 MAY 63 2087



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	0.3-0.7'	POORLY GRADED SILTY SAND	29?.0	NP	NP	NP
		(SP-SM)				
		GRAY WITH SOME SHELL				
		PERCENT SHELL= 24.5%				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO.57/9846
Boring No. 80-12-83 SAMPLE NO. 1
Date 11/21/83

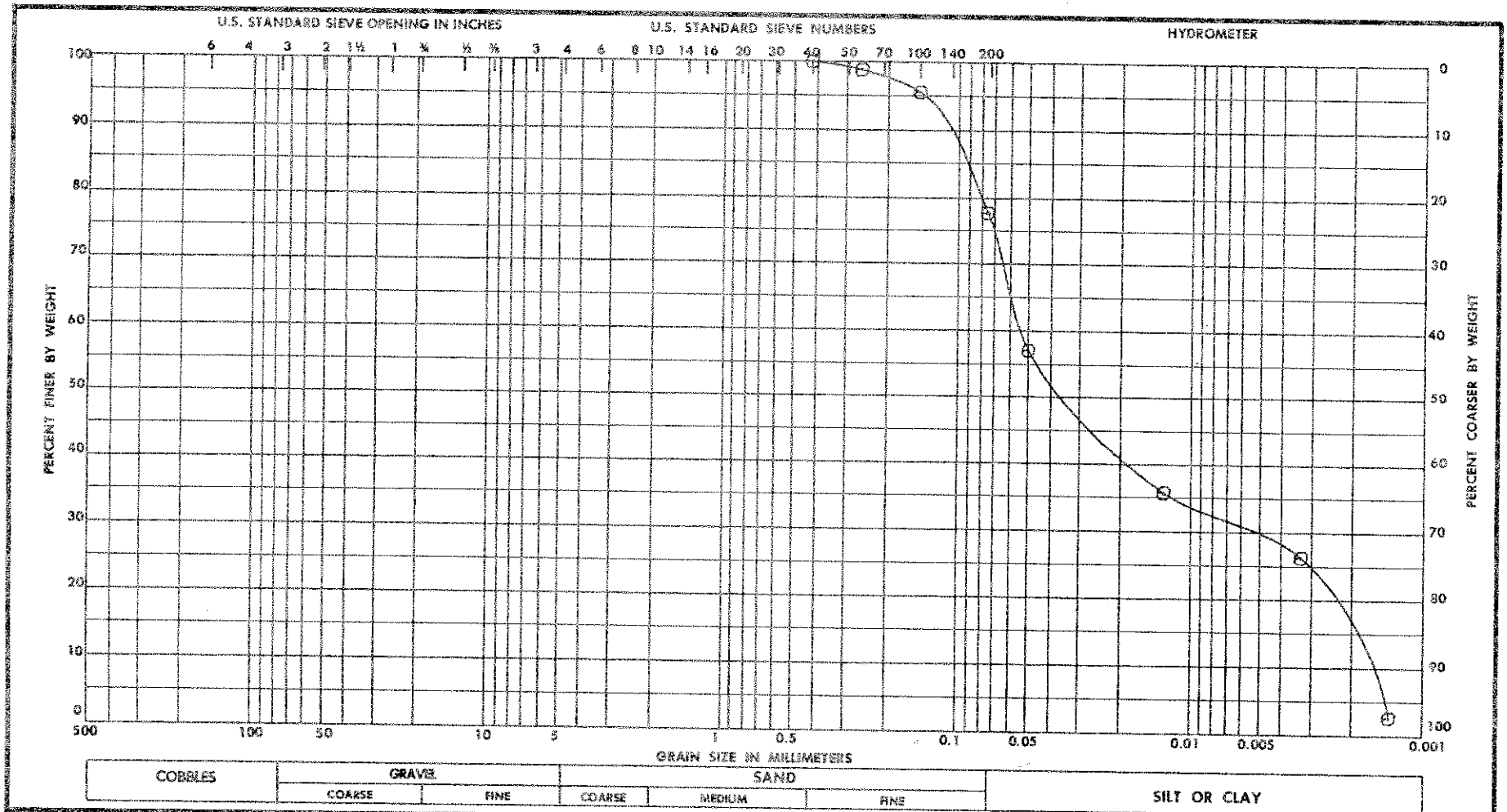
CHART NO. 114

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3761

Req. No. 85-83-F&M



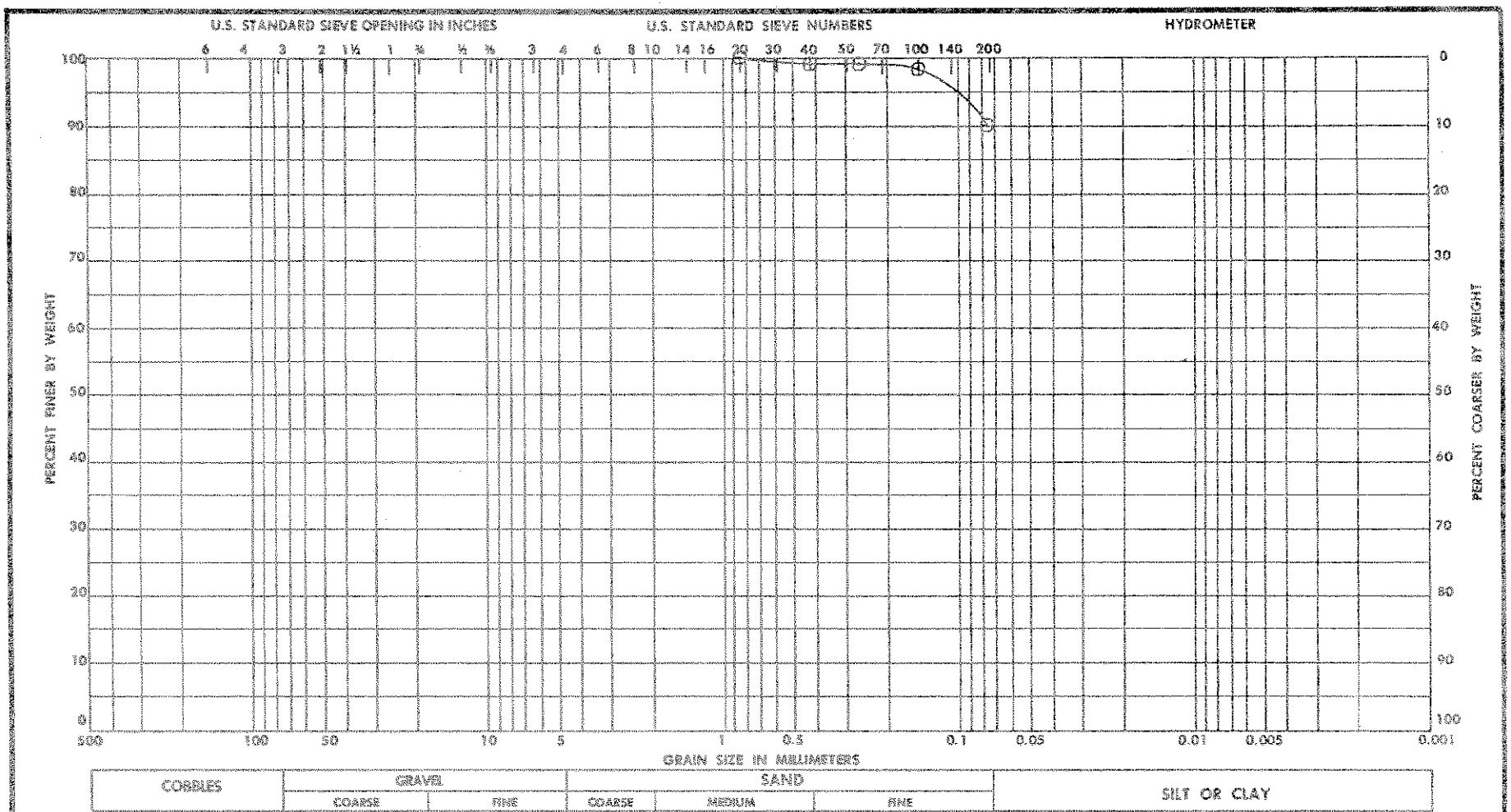
Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
3	7.8-8.5'	LEAN CLAY (CL)	42.2	45	20	25
		GRAY WITH SOME SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9848
Boring No. SG-12-83 SAMPLE NO. 3
Date 11/21/83

CHART NO. 115

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	15.6-16.1'	FAT CLAY (CH)	49.3			
		GRAY WITH A LITTLE SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 37/9849
Boring No. SG-12-83 SAMPLE NO. 4
Date 11/21/83

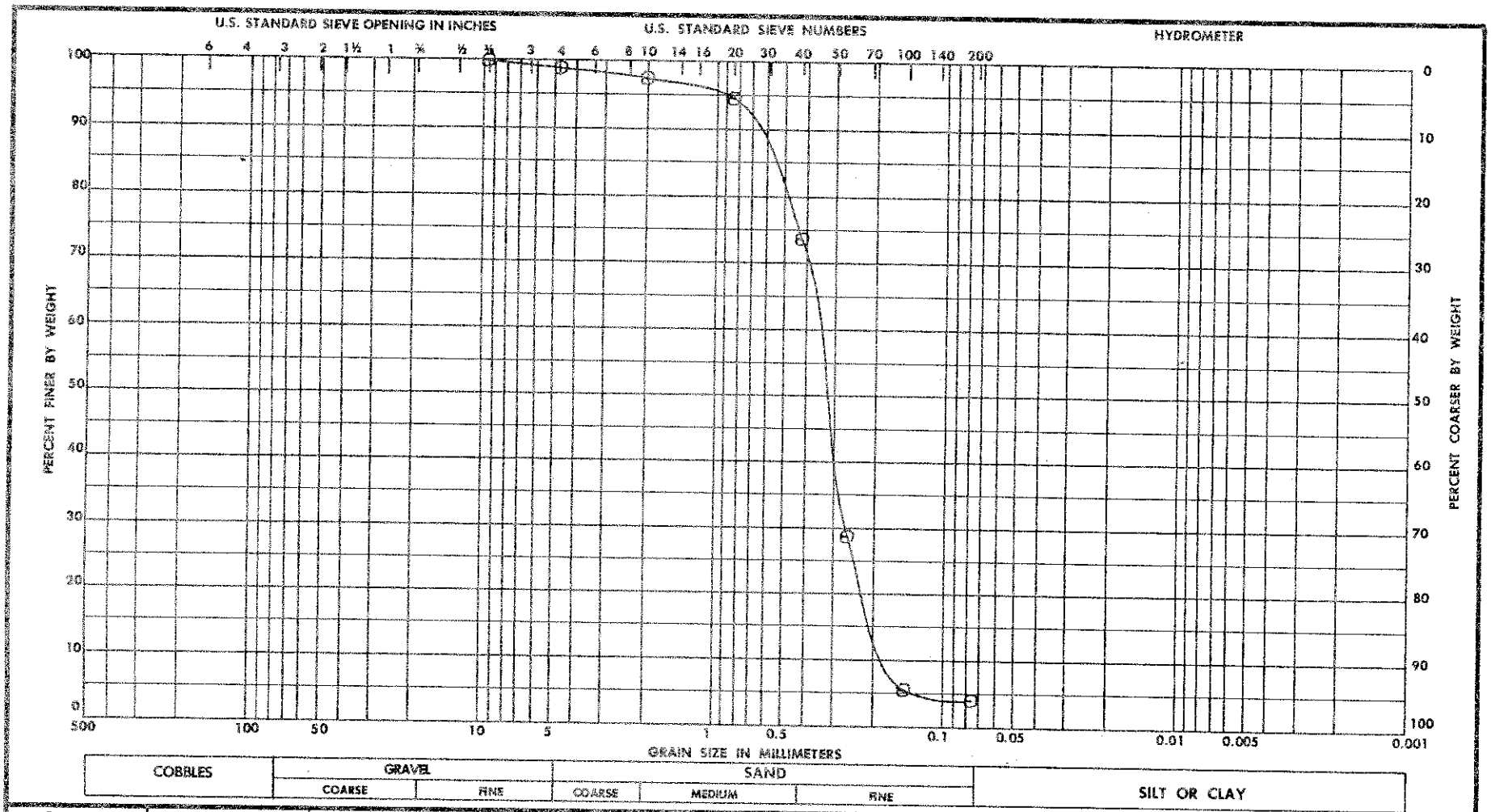
CHART NO. 116

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3761

Req. No. 85-83-F&M



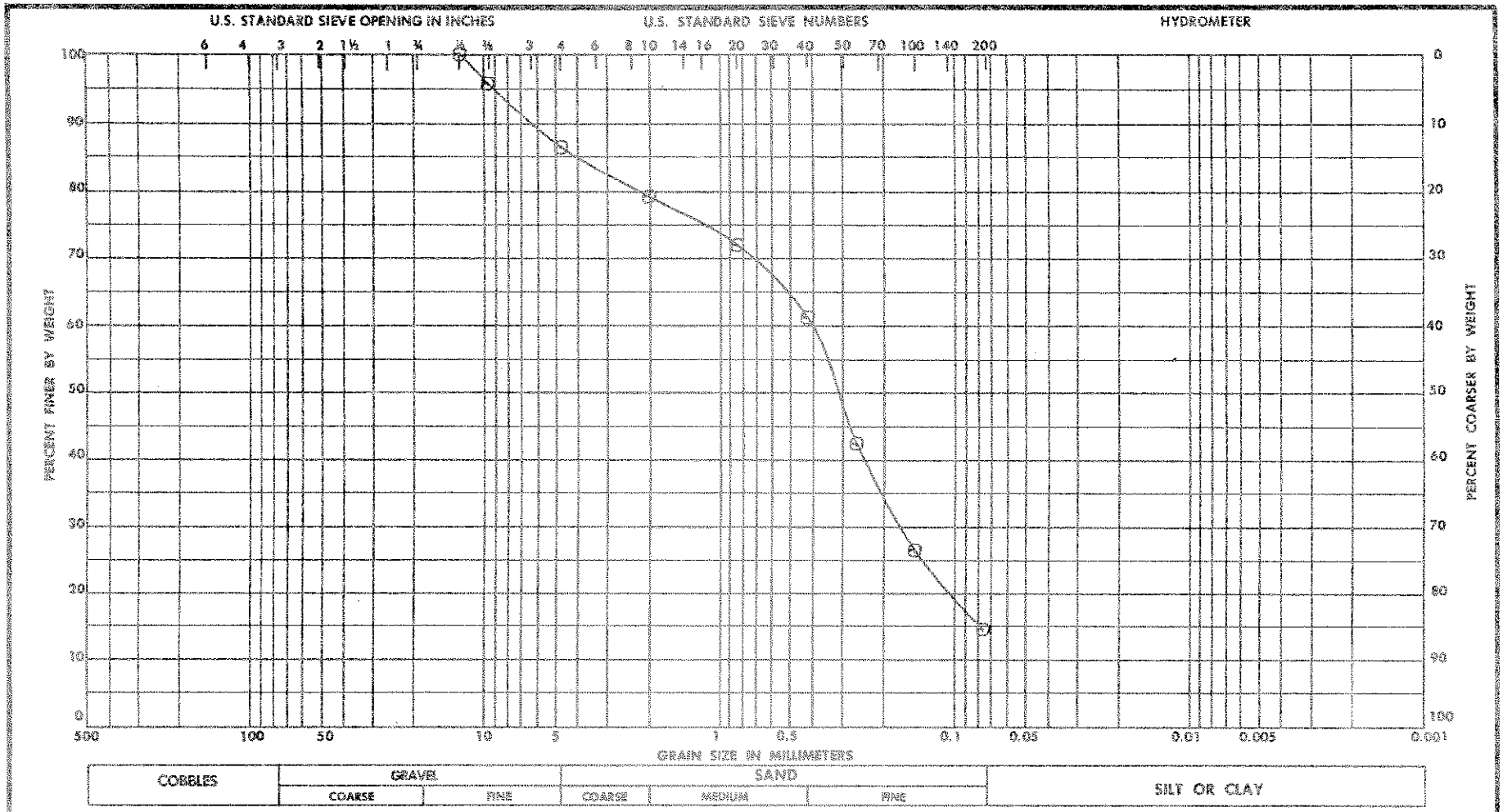
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	2.3-2.7'	POORLY GRADED SAND (SP)		NP	NP	NP
		GRAY WITH A TRACE OF SHELL				
		PERCENT SHELL= 5.5%				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO.57/9851
Boring No. SG-13-83 SAMPLE NO. 2
Date 11/21/83

CHART NO. 117

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	5.9-6.5'	CLAYEY SAND (SC)	29.7	33	17	16
		GRAY WITH SOME SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9852
Boring No. SG-13-83 SAMPLE NO. 3
Date 11/22/83

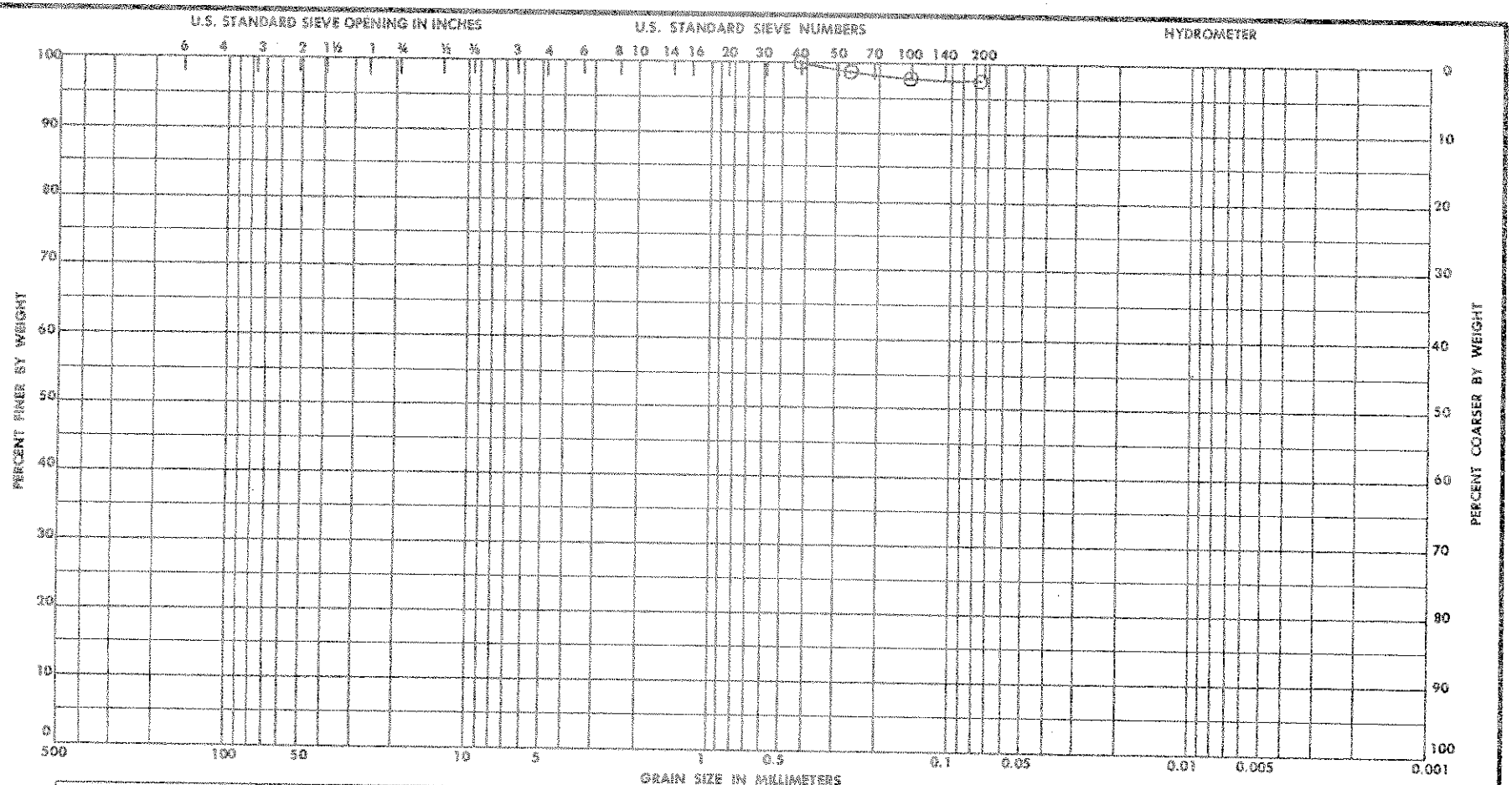
CHART NO. 118

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3761

Req. No. 85-83-F&M



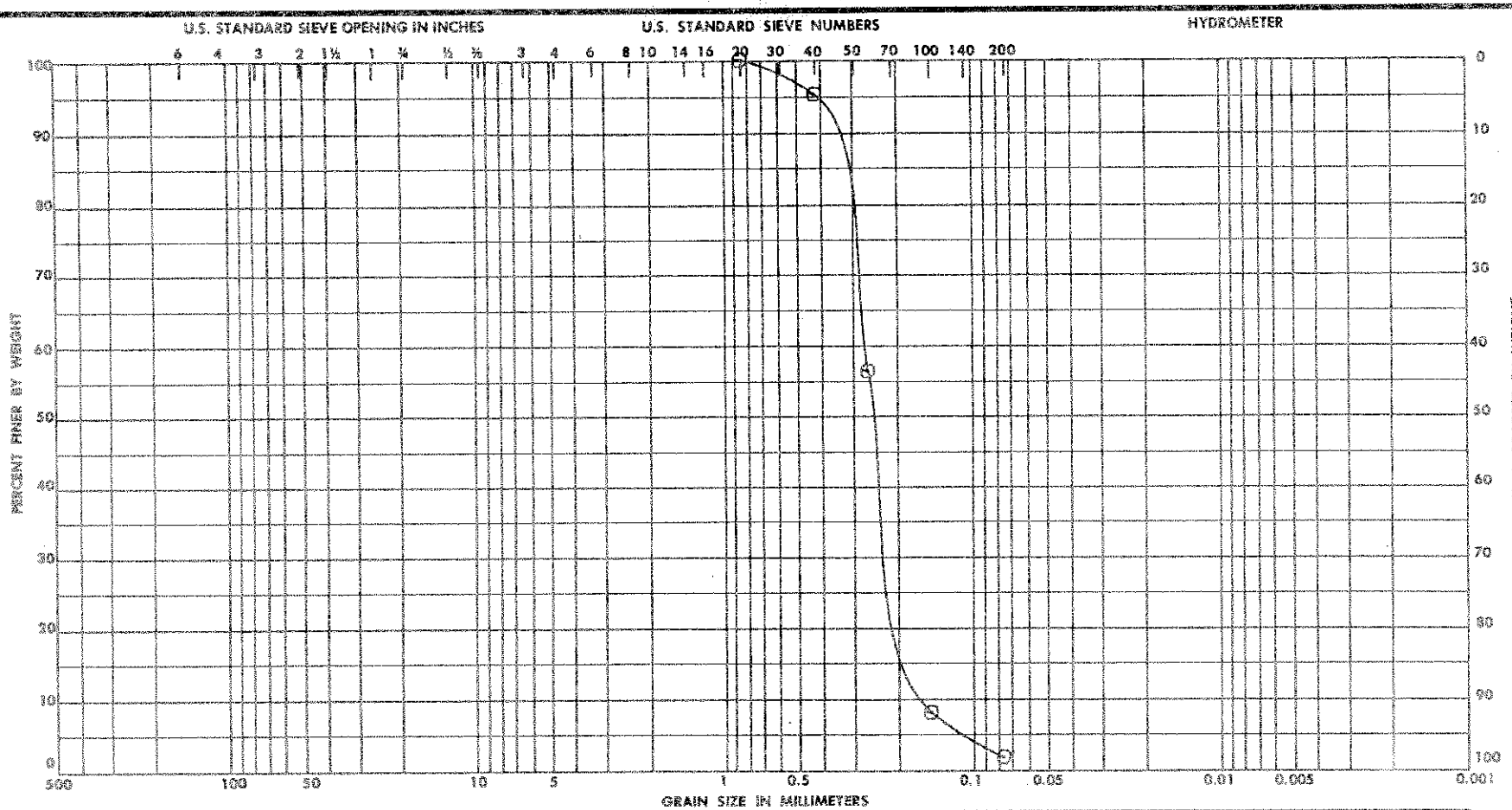
Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
5	13.8-14.4'	FAT CLAY (CH)	76.6	97	27	70
		GRAY WITH A TRACE OF SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9854
Boring No. SG-13-83 SAMPLE NO. 5
Date 11/22/83

CHART NO. 119

ENG FORM 1 MAY 63 2087



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	1.6-2.1'	POORLY GRADED SAND (SP)		NP	NP	NP
		TAN				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9855
Boring No. SG-14-83 SAMPLE NO. 1
Date 11/22/83

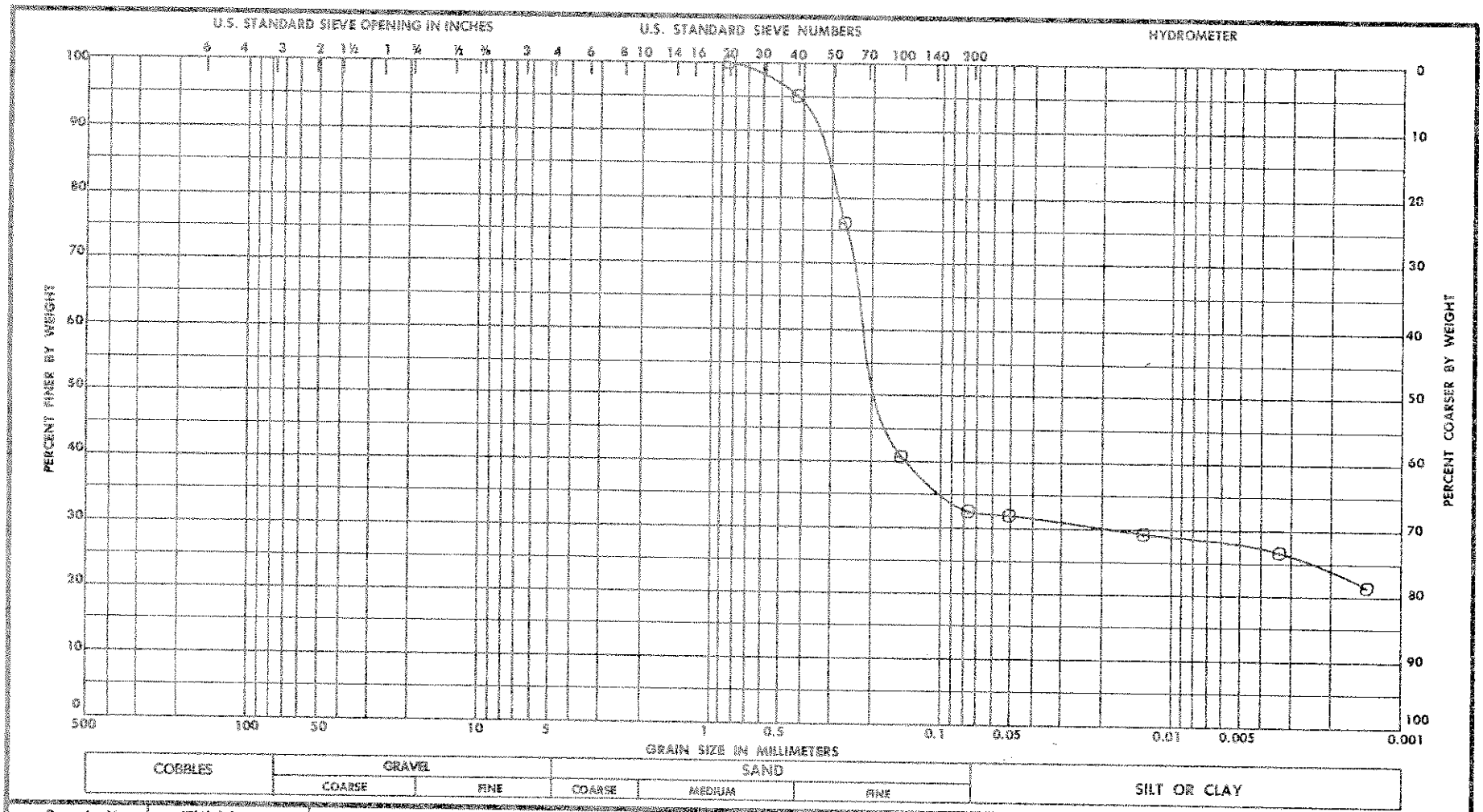
CHART NO. 120

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3761

Req. No. 85-83-F&M



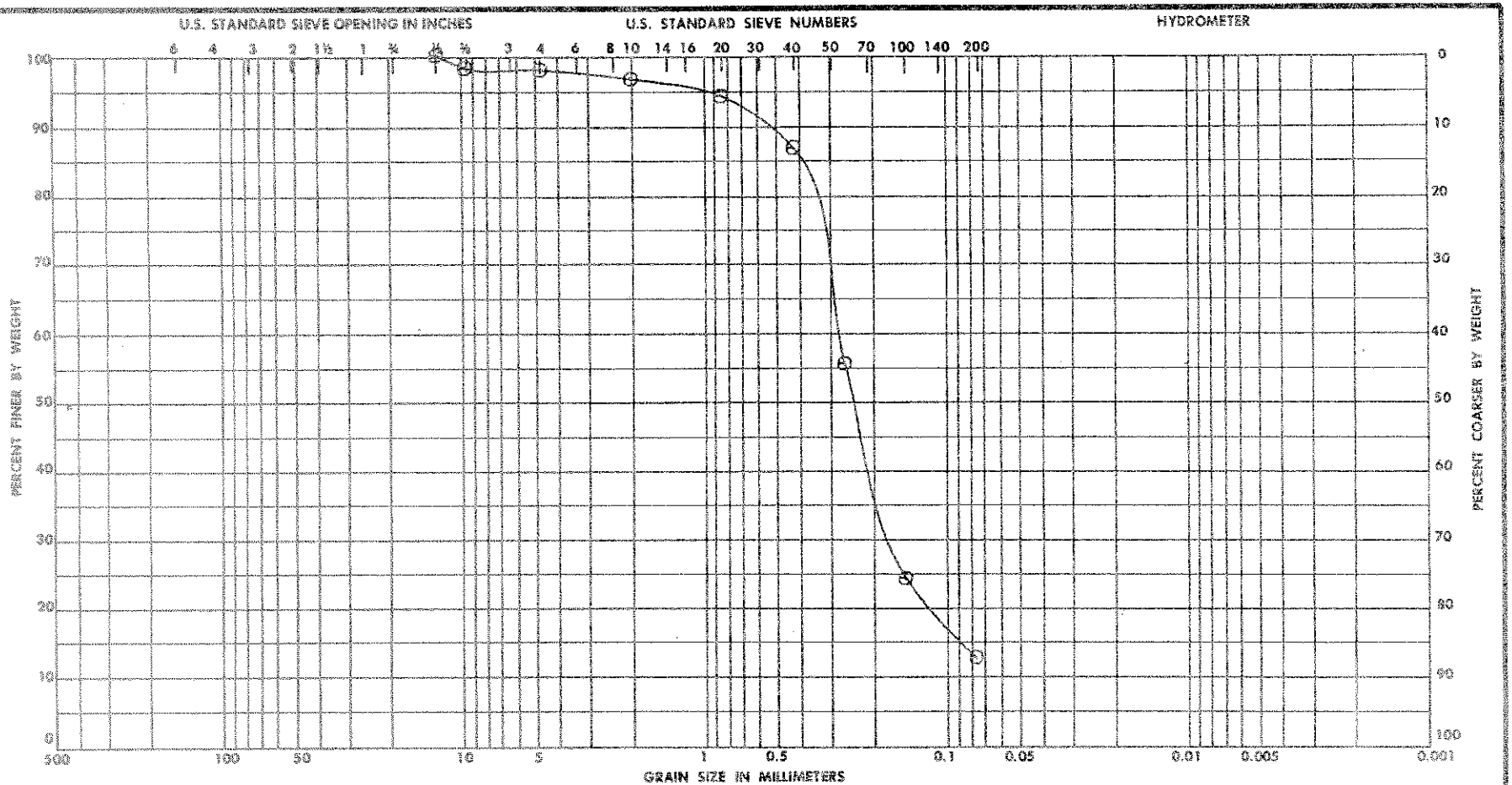
Sample No.	Field ID Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	3.0-3.4'	CLAYEY SAND (SC)	38.7			
		GRAY				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9856
Boring No. SO-14-83 SAMPLE NO. 2
Date 11/22/83

CHART NO. 121

ENG FORM 1 MAY 63 2087



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
3	11.1-11.6'	CLAYEY SAND (SC)	24.7	30	18	12
		GRAY WITH A TRACE OF SHELL				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
OUTER BAR
Area: LAB NO. 57/9857
Boring No. SG-14-83 SAMPLE NO. 3
Date: 11/22/83

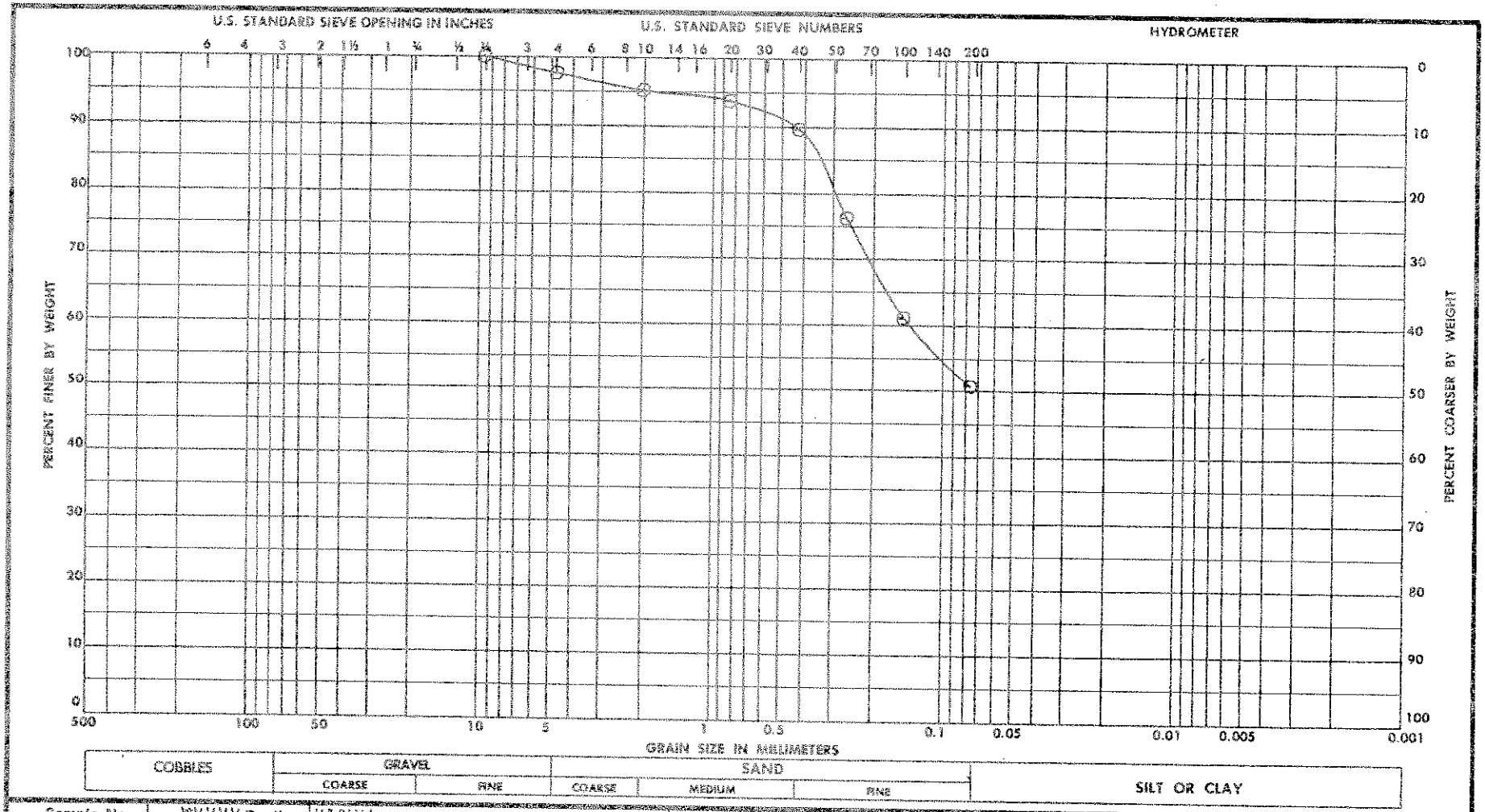
CHART NO. 122

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3761

Req. No. 85-83-F&M



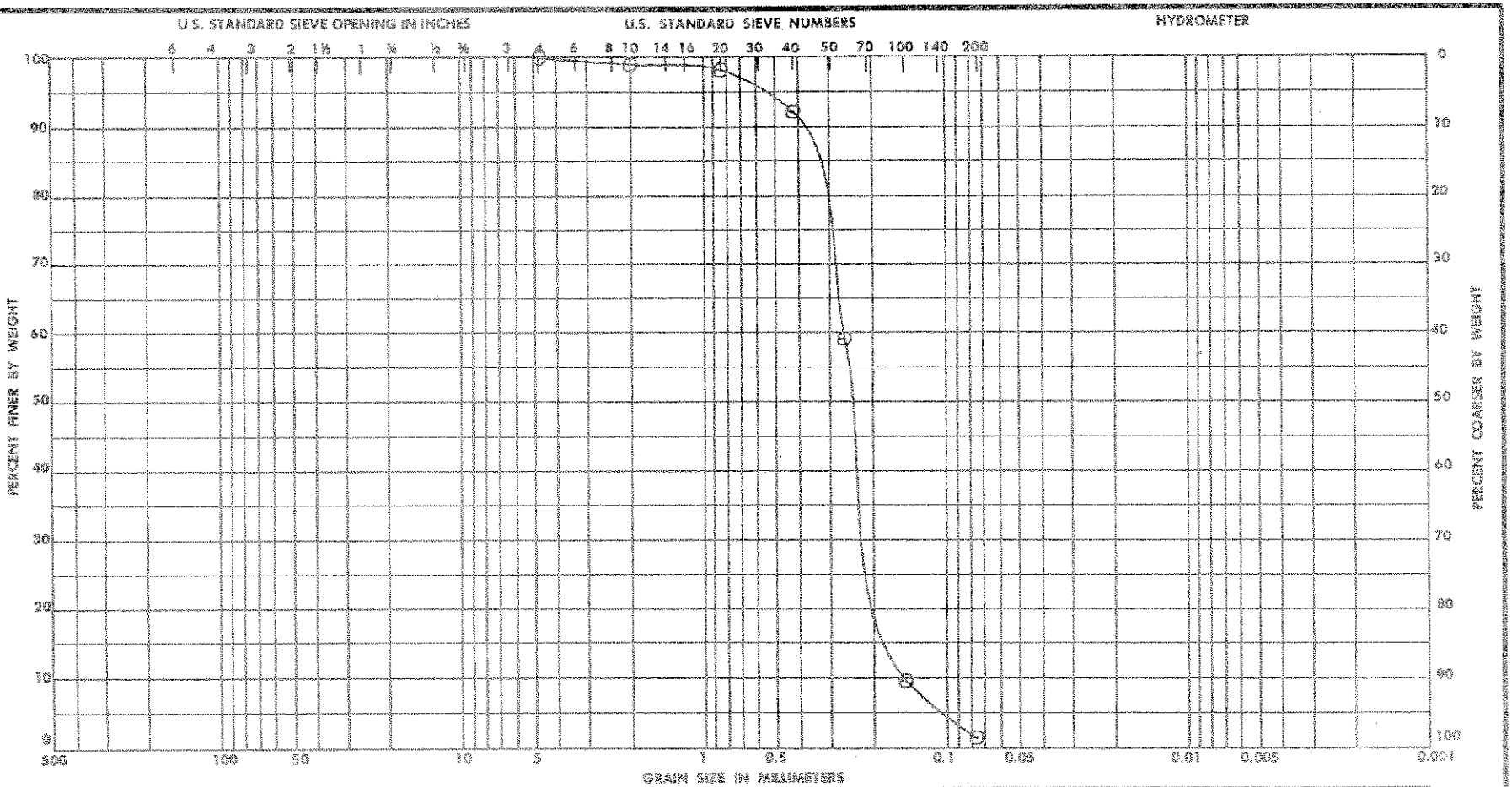
Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	19.0-19.5'	FAT CLAY (CH)	41.2			
		GRAY, SANDY WITH A TRACE OF				
		SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO. 57/9859
Boring No. SG-14-83 SAMPLE NO. 5
Date 11/22/83

CHART NO. 123

ENG FORM 1 MAY 83 2087



Sample No.	Hole No. Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	2.0-2.5'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57193
Boring No. SG-1S-83 SAMPLE NO. 1
Date: 05/05/84

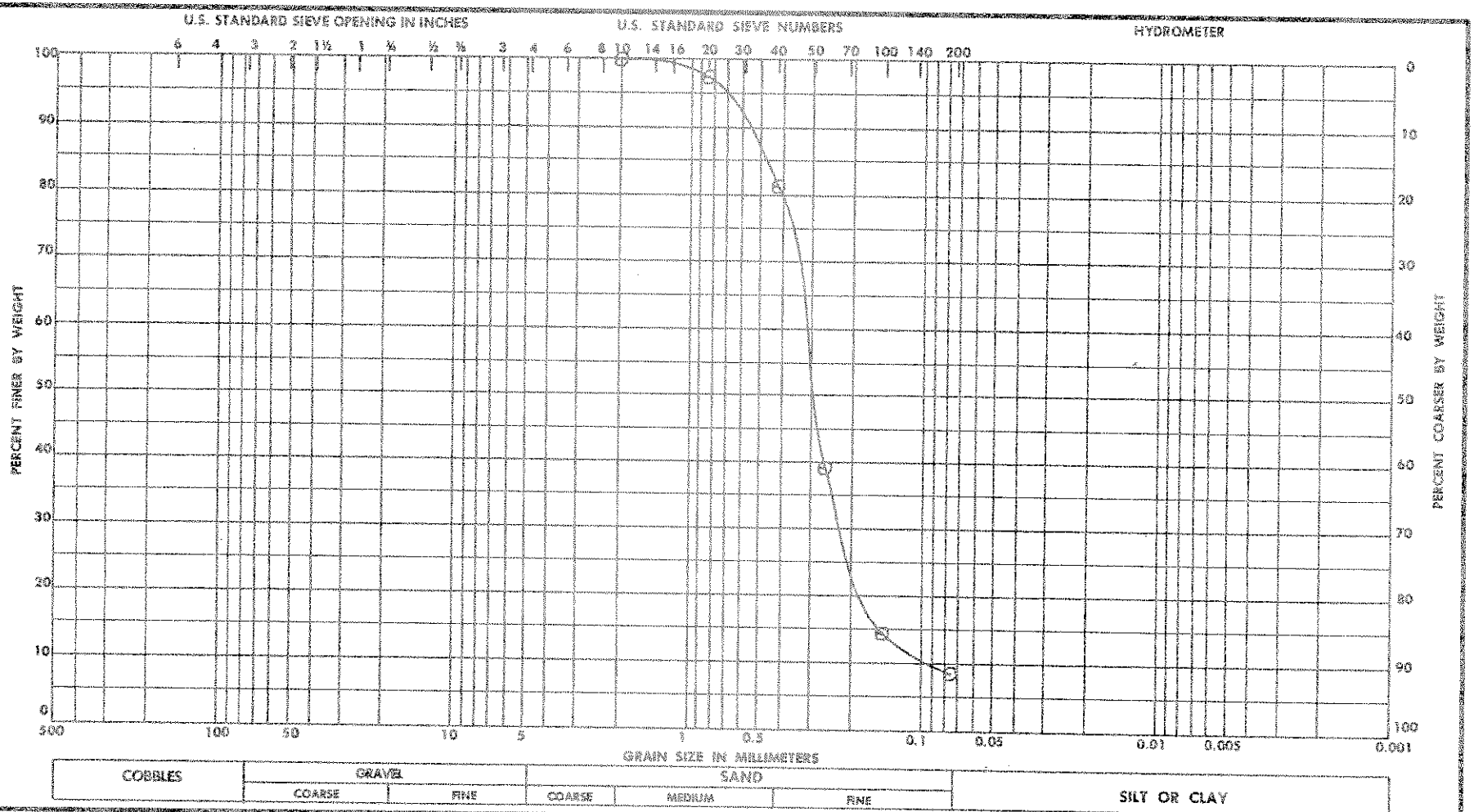
CHART NO. 124

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



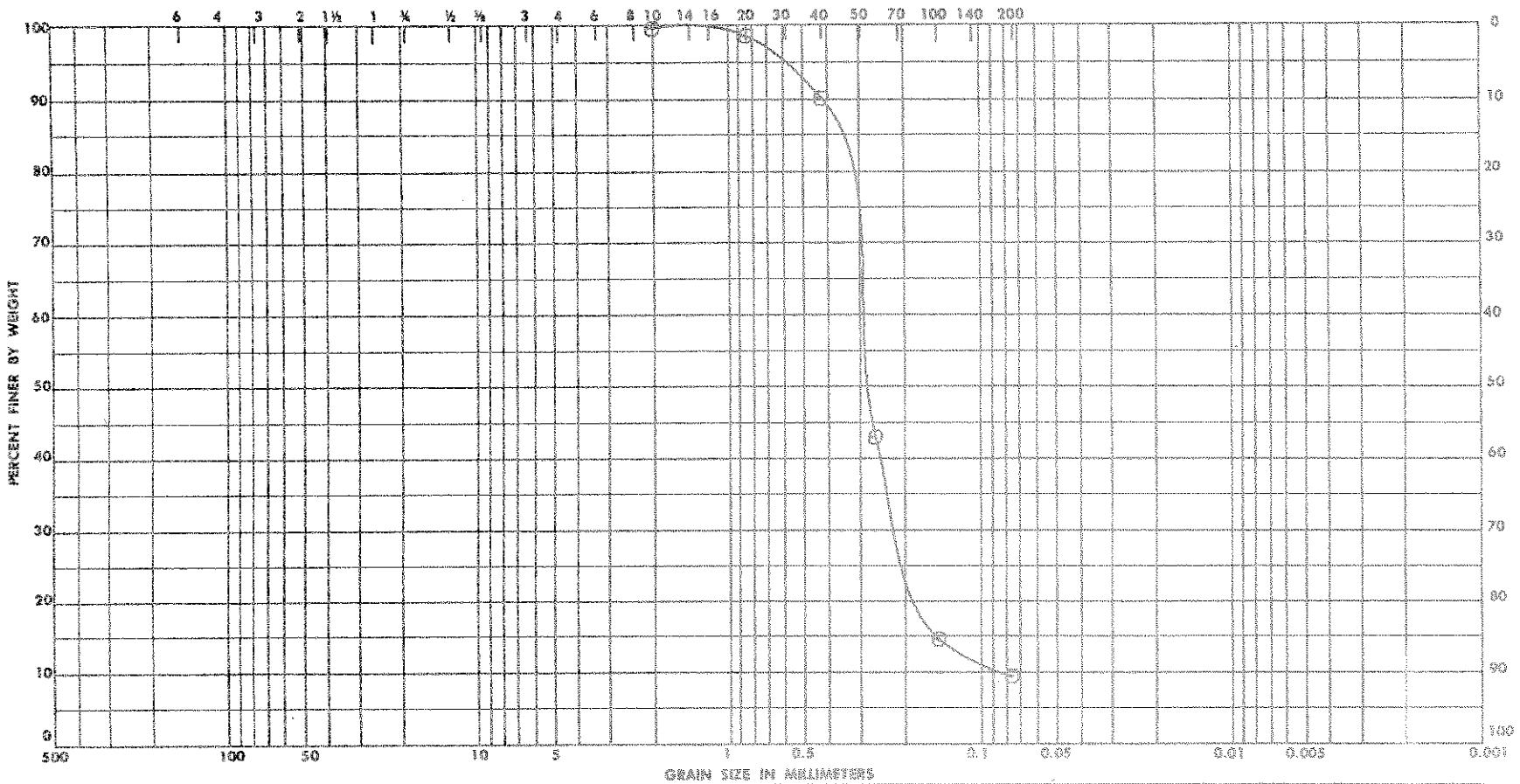
Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	9.8-10.3	POORLY GRADED SILTY SAND (SP-SM), TANNISH GRAY	--	NP	NP	NP

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/194
Boring No. SG-15-83 SAMPLE NO. 2
Date 05/05/84

CHART NO. 125

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	16.0-16.5'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		BROWNISH GRAY				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57195
Boring No. SG-15-83 SAMPLE NO. 3
Date 05/05/84

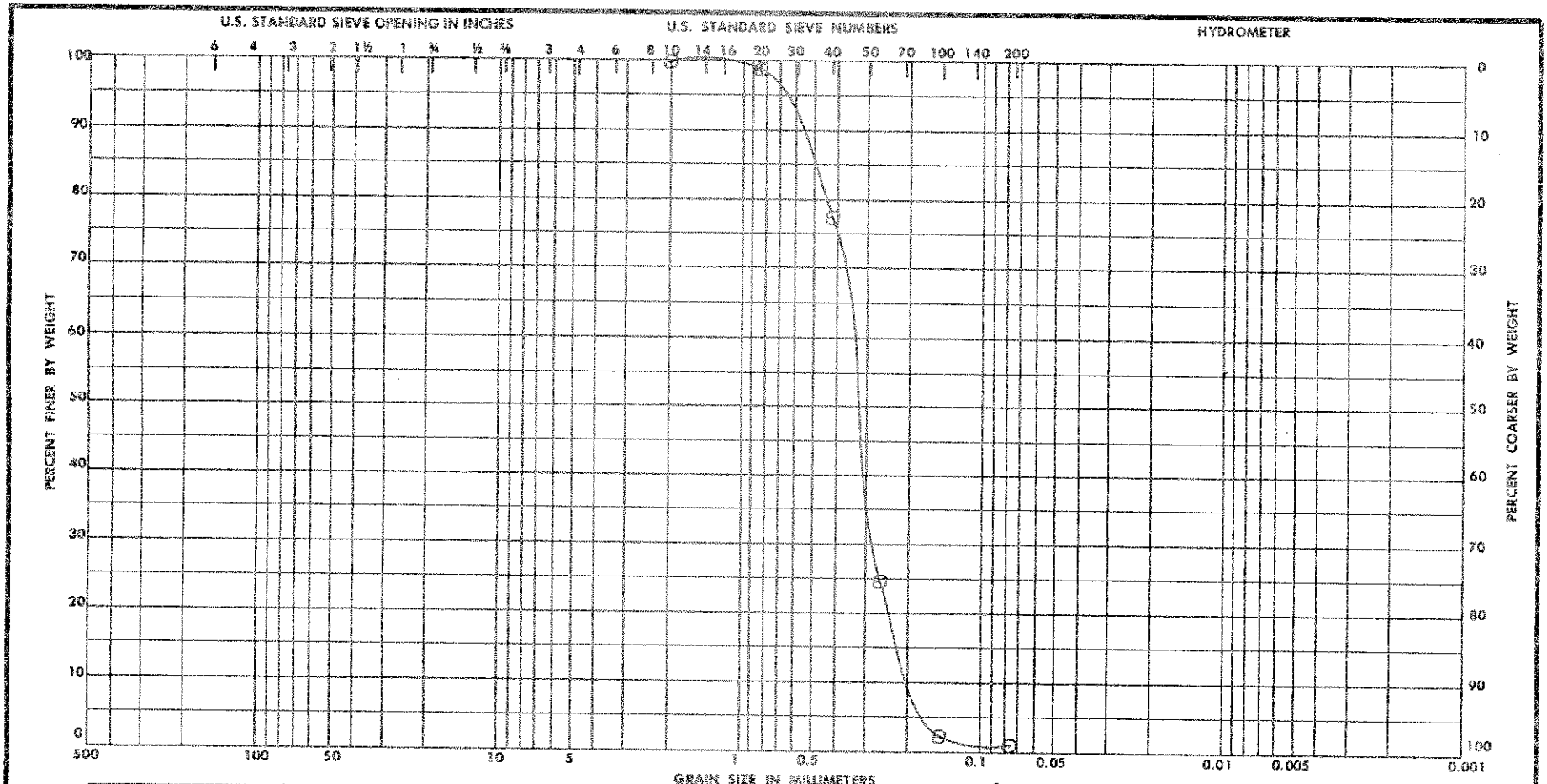
CHART NO. 126

ENG FORM 1 MAY 68 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



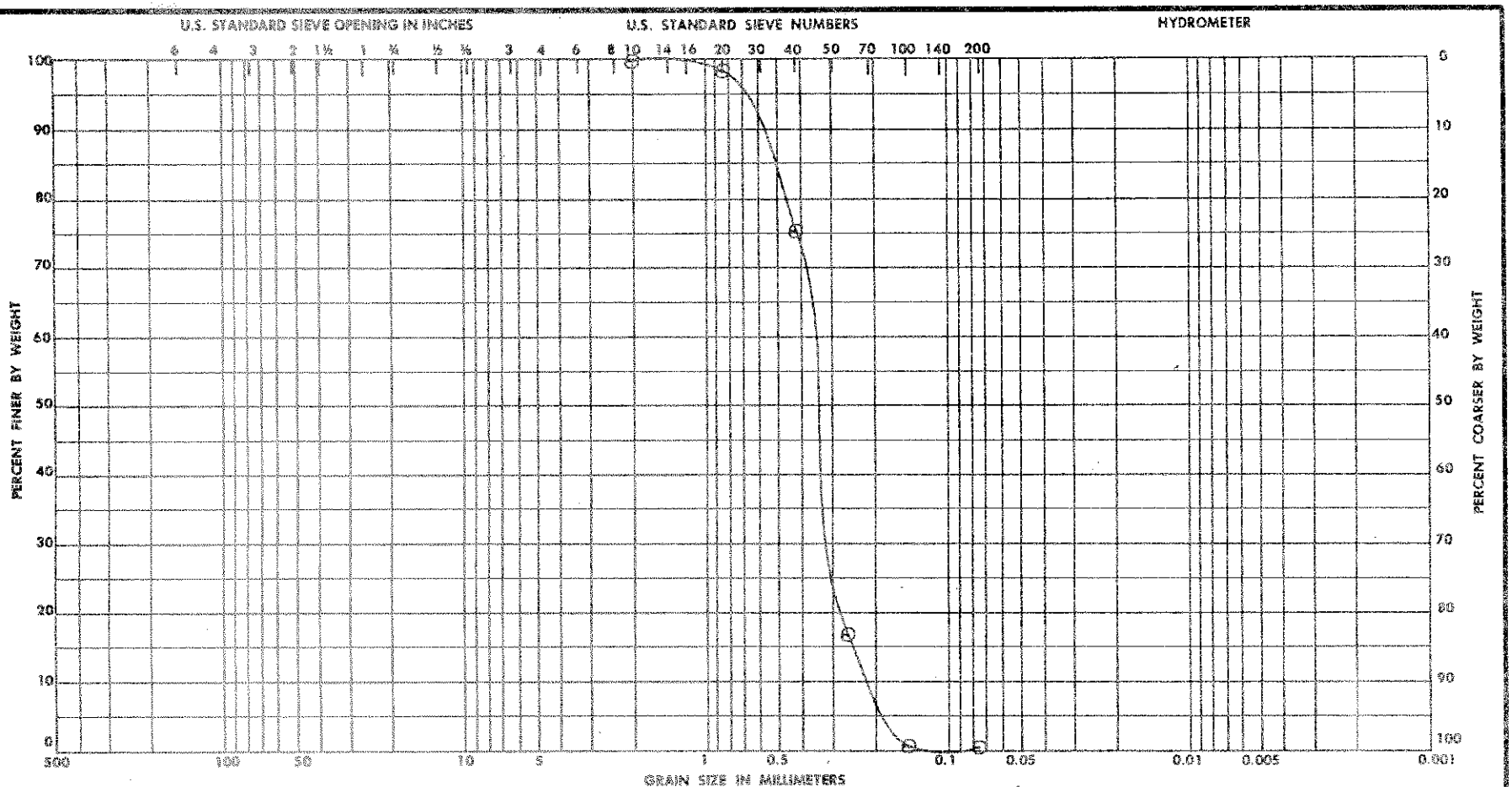
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	0.0-0.9'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/196
Boring No. SG-16-83 SAMPLE NO. 1
Date 05/05/84

CHART NO. 127

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	4.2-4.7'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF				
		SHELL.. %SHELL= 3.9				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/197
Boring No. SG-16-83 SAMPLE NO. 2
Date 05/05/84

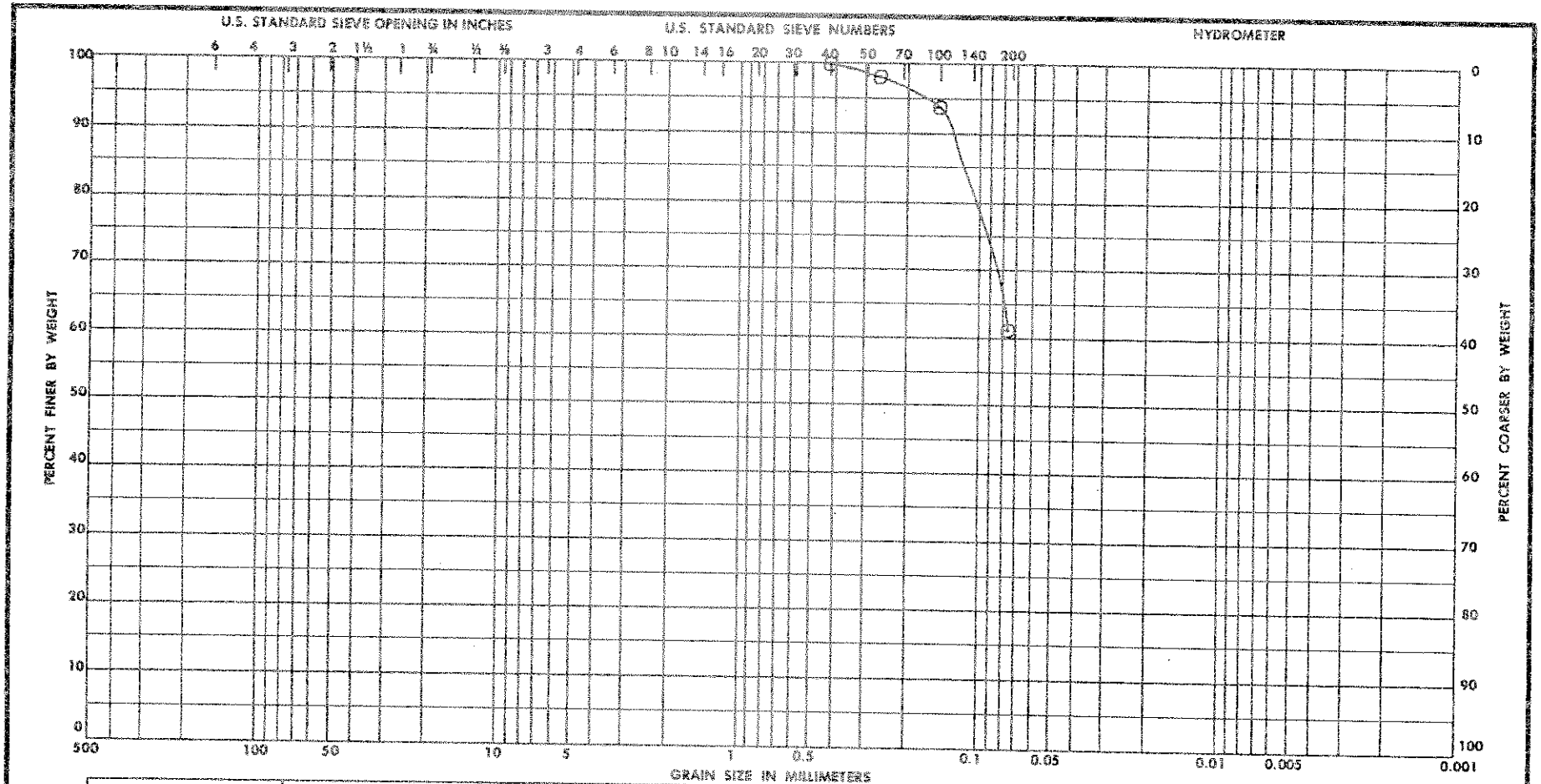
CHART NO. 128

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



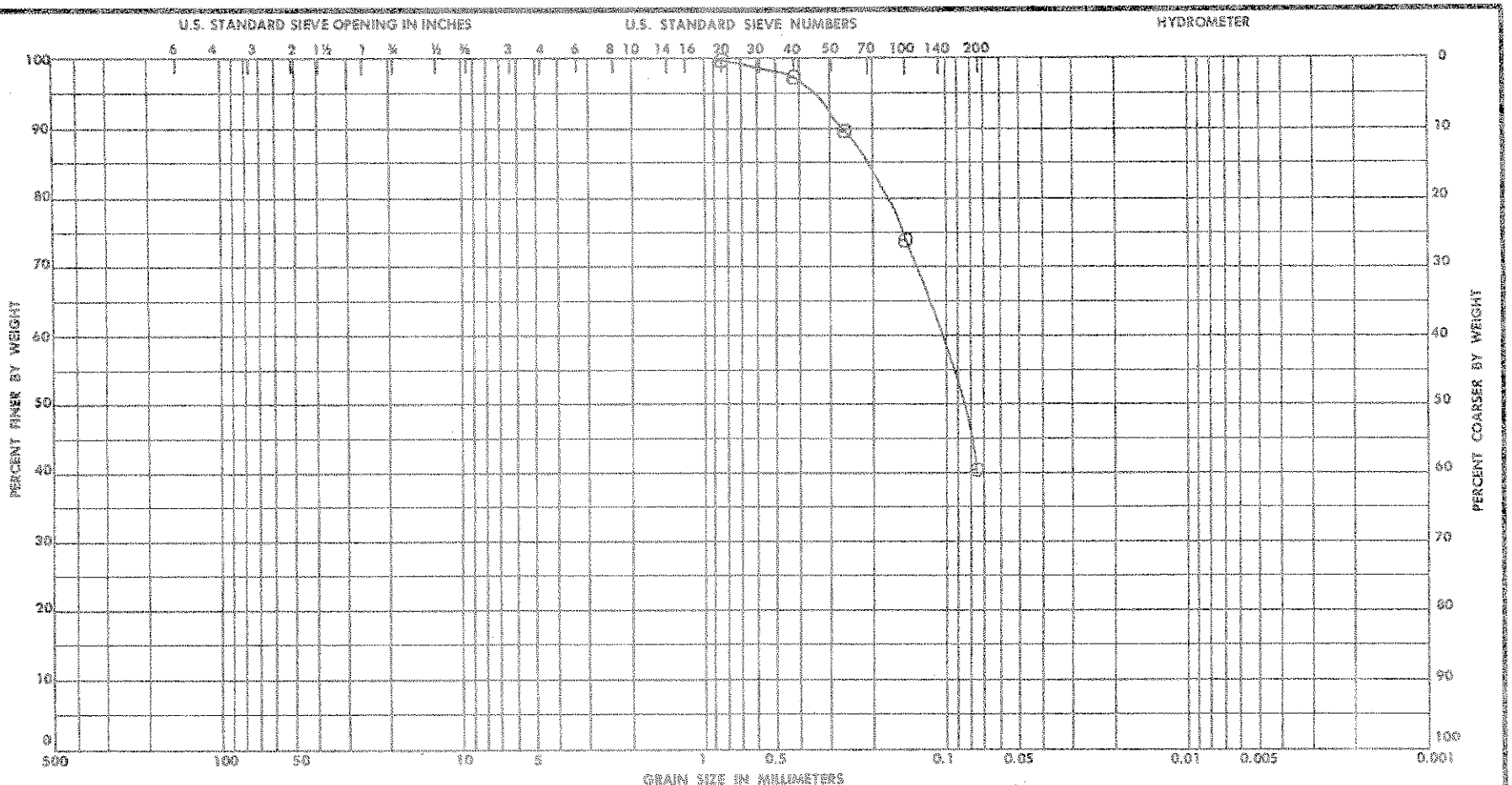
Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI
2	3.5-4.0'	VISUAL FAT CLAY (CH) GRAY, SANDY, WITH A TRACE OF SHELL	53.9	--	--	--

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/199
Boring No. SG-17-83 SAMPLE NO. 2
Date 05/05/84

CHART NO. 129

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	5.0-5.6'	CLAYEY SAND HIGH LL	40.3	--	--	--
		(SC-H), GRAY WITH A TRACE OF				
		SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/200
Boring No. SG-17-83 SAMPLE NO. 3
Date 05/05/84

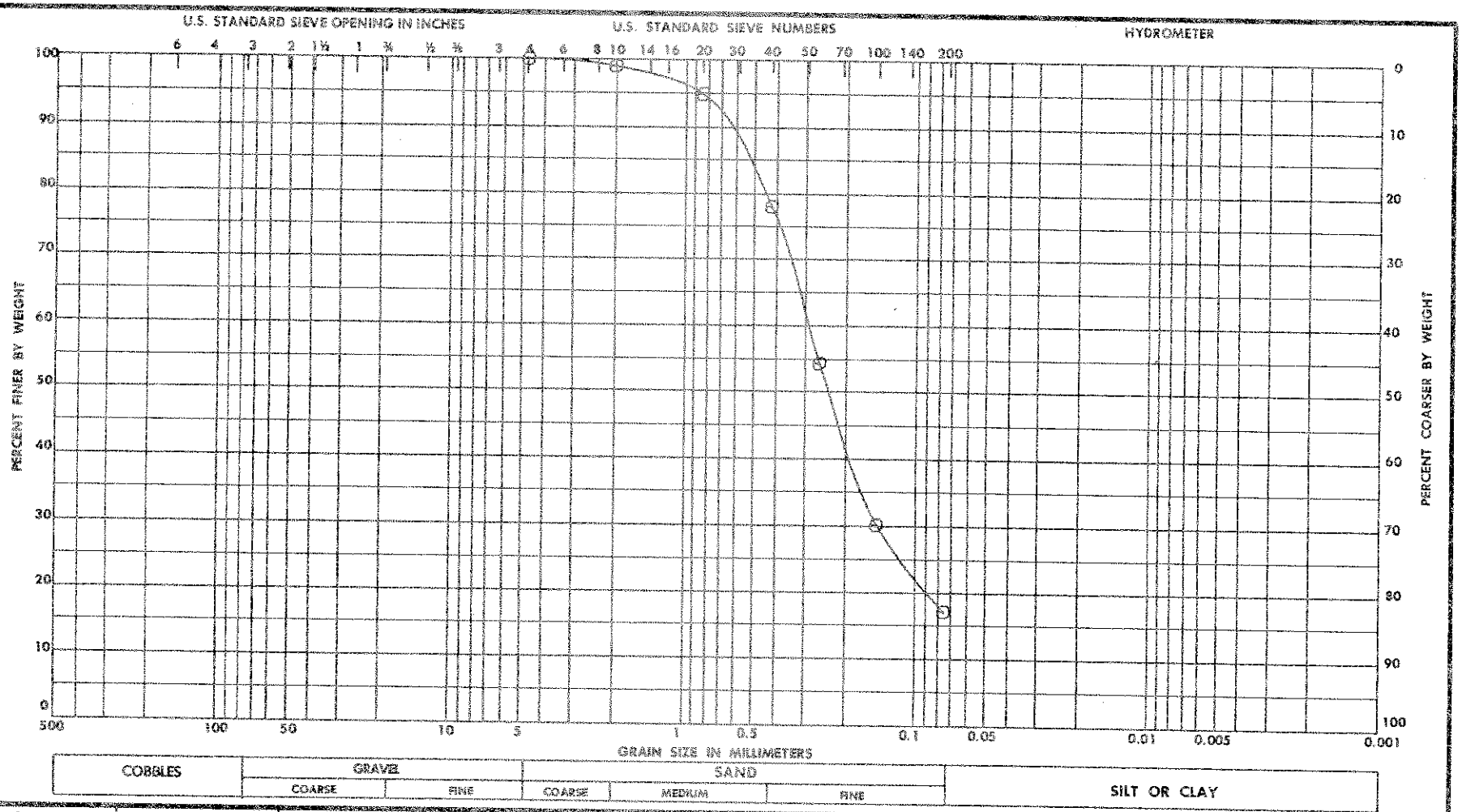
CHART NO. 130

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



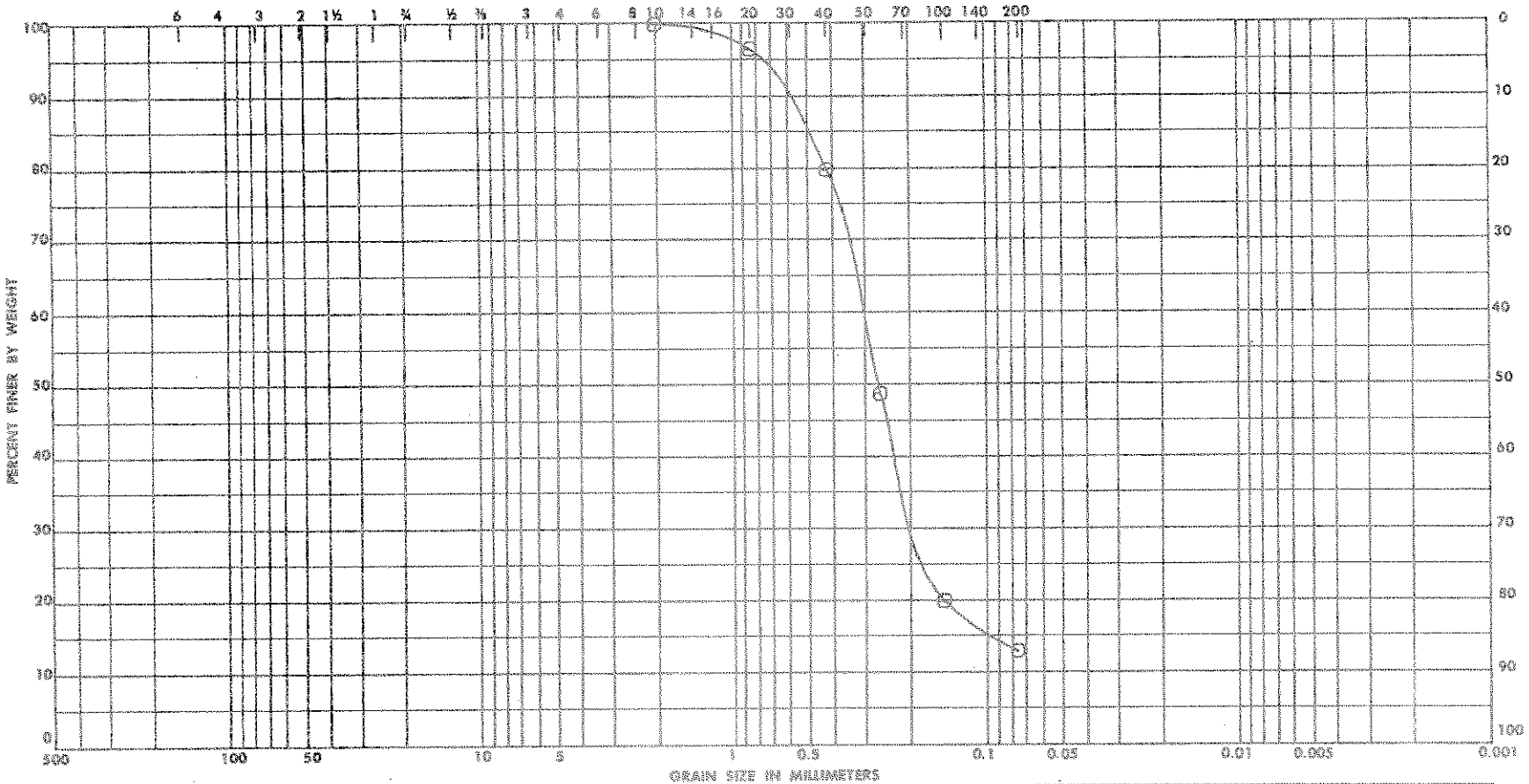
Sample No.	~~Hole or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	8.6-8.9	CLAYEY SAND (SC)	25.2	--	--	--
		GRAY WITH A TRACE OF SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/201
Boring No. SG-17-83 SAMPLE NO. 4
Date 05/05/84

CHART NO. 131

ENG FORM 1 MAY 63 2087



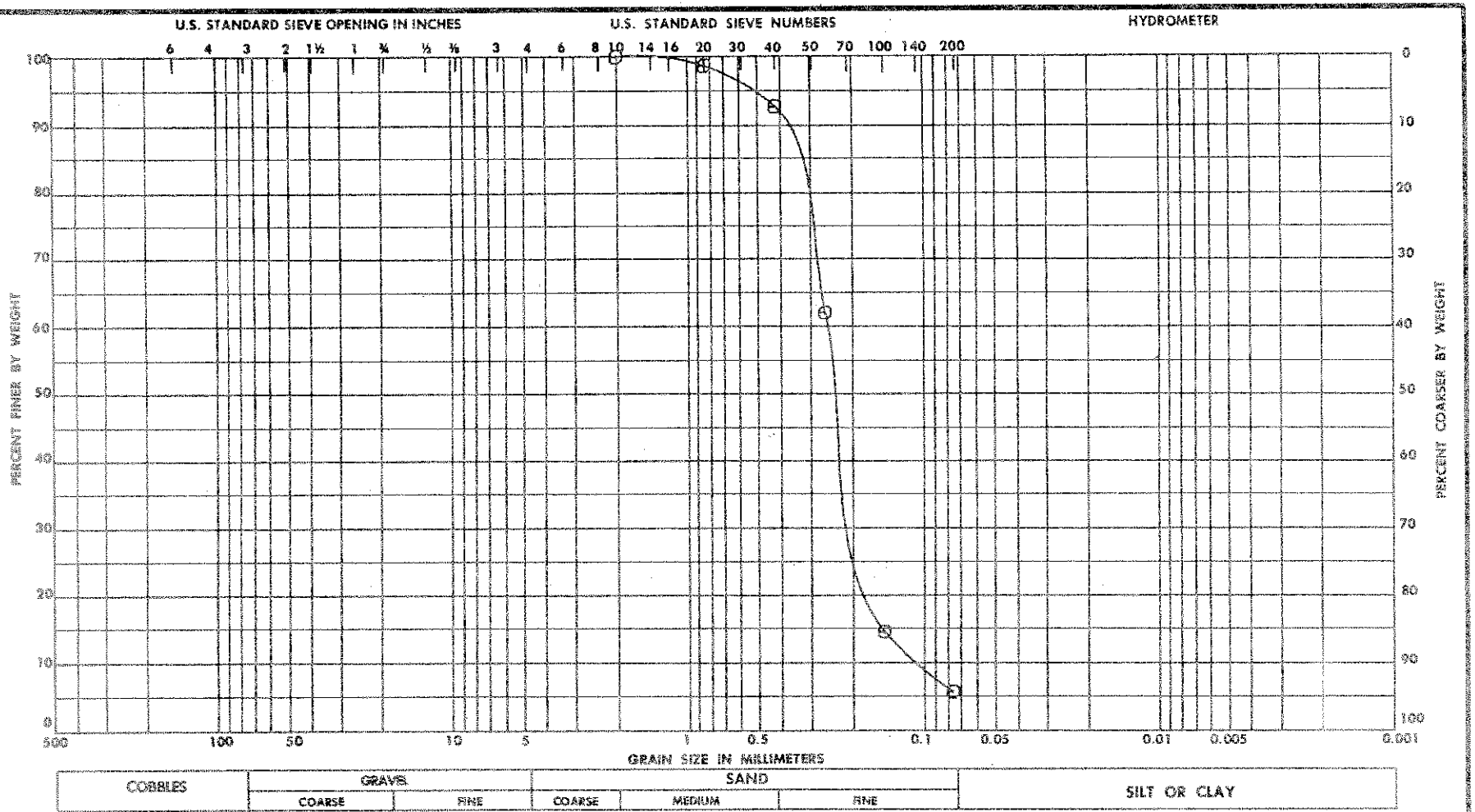
Sample No.	~~Elev. or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	12.0-12.4'	SILTY SAND (SM)	--	--	--	--
		TAN. WITH POCKETS OF (SC)				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/202
Boring No. SG-17-83 SAMPLE NO. 5
Date 05/05/84

CHART NO. 132

ENG FORM 2087 MAY 68



Sample No.	~~%K~~ ½K Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	2.0-2.5'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM), LT. GRAY WITH A				
		TRACE OF SHELL., %SHELL=3.4				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/206
Boring No. SG-19-83 SAMPLE NO. 1
Date 05/05/84

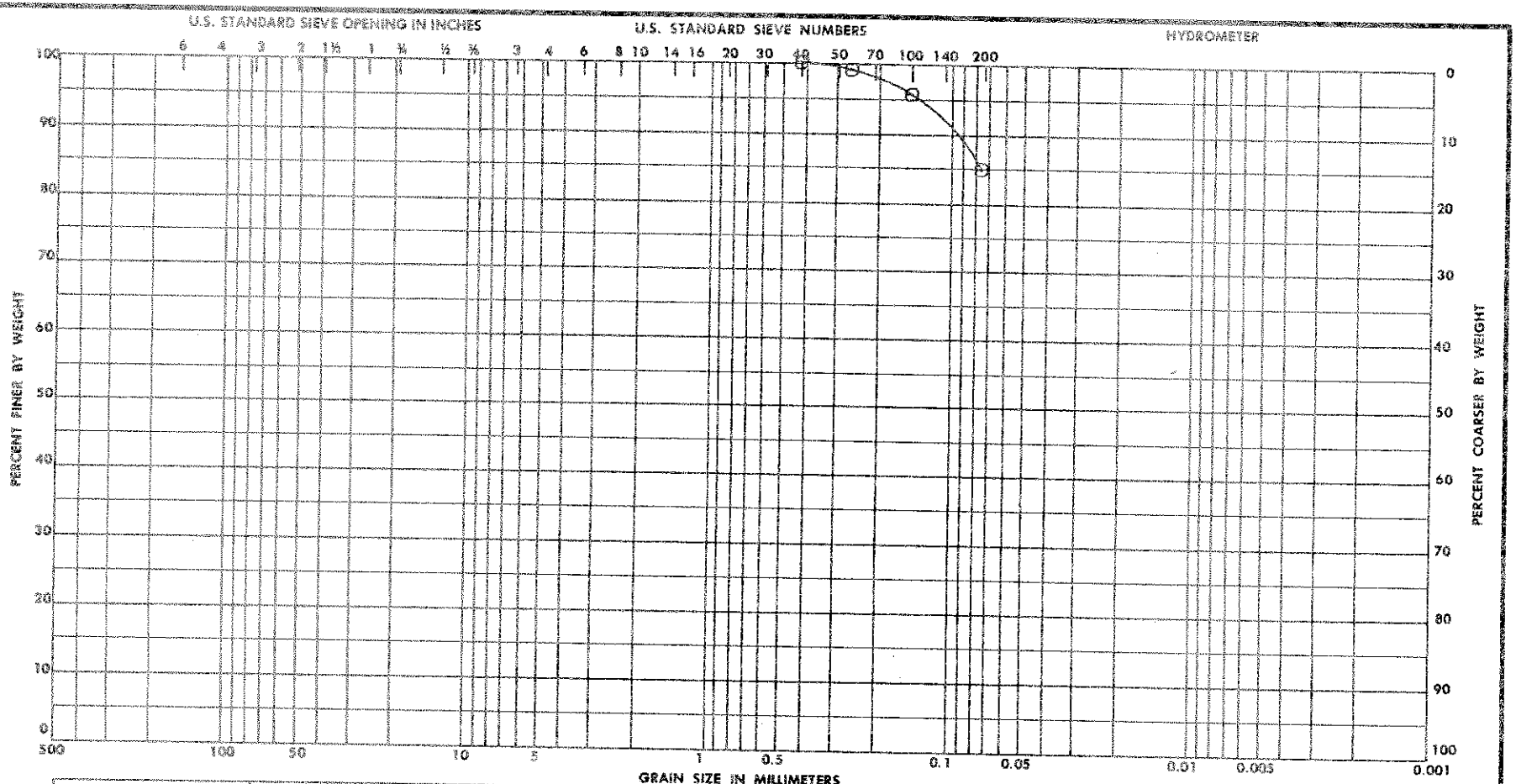
CHART NO. 136

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



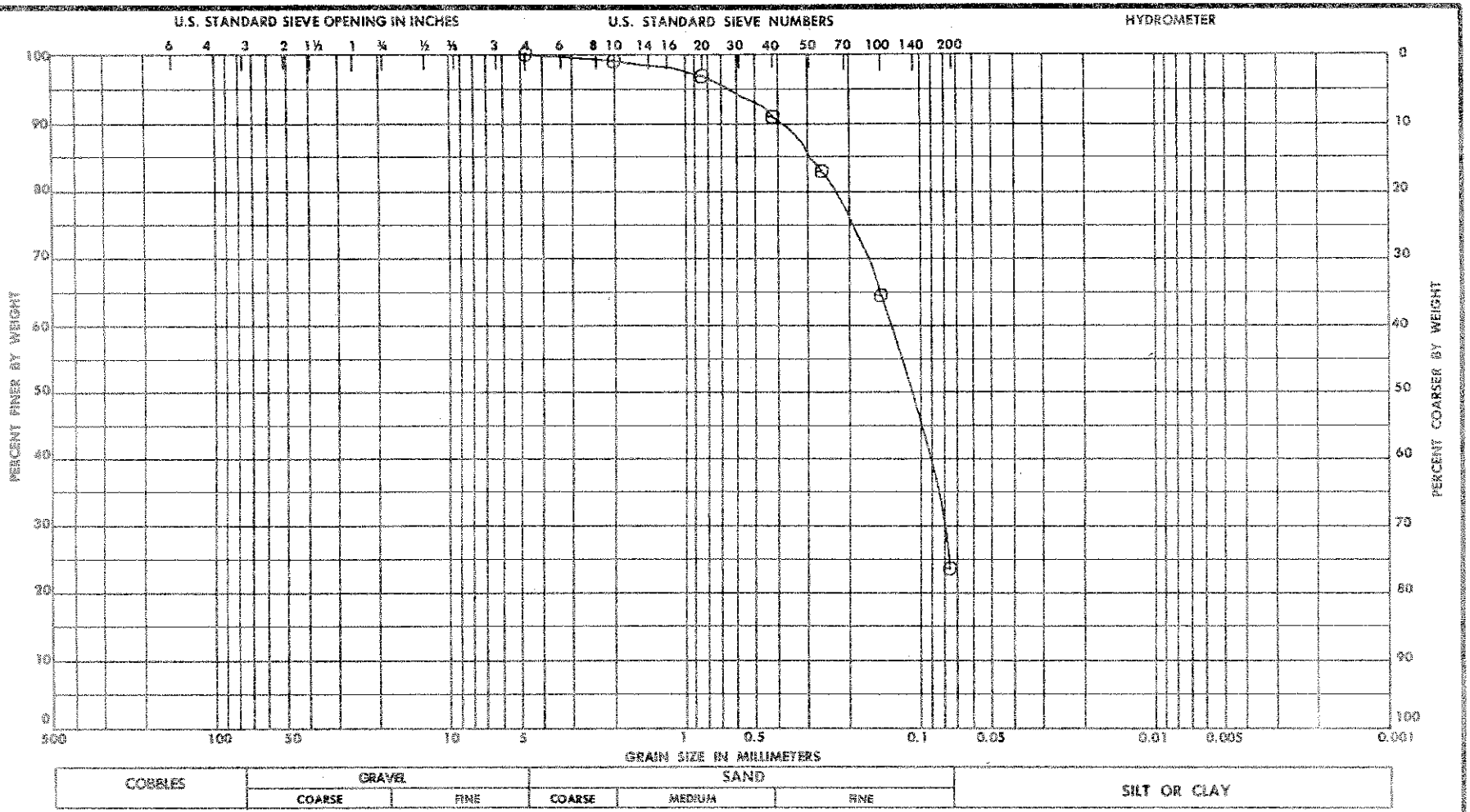
Sample No.	~~Check~~ Depth	Classification	Nat w %	LL	PL	PI
2	11.0-11.5'	FAT CLAY (CH)	92.9	127	44	83
		GRAY WITH LITTLE SAND				
		Specific Gravity=2.61				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/207
Boring No. SG-19-83 SAMPLE NO. 2
Date 05/05/84

CHART NO. 137

ENG FORM 1 MAY 68 2087



Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	27.0-27.5'	CLAYEY SAND HIGH LL (SC-H)	--	--	--	--
		GRAY, WITH A TRACE OF SHELL				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57/209
Boring No. SG-19-83 SAMPLE NO. 5
Date: 05/05/84

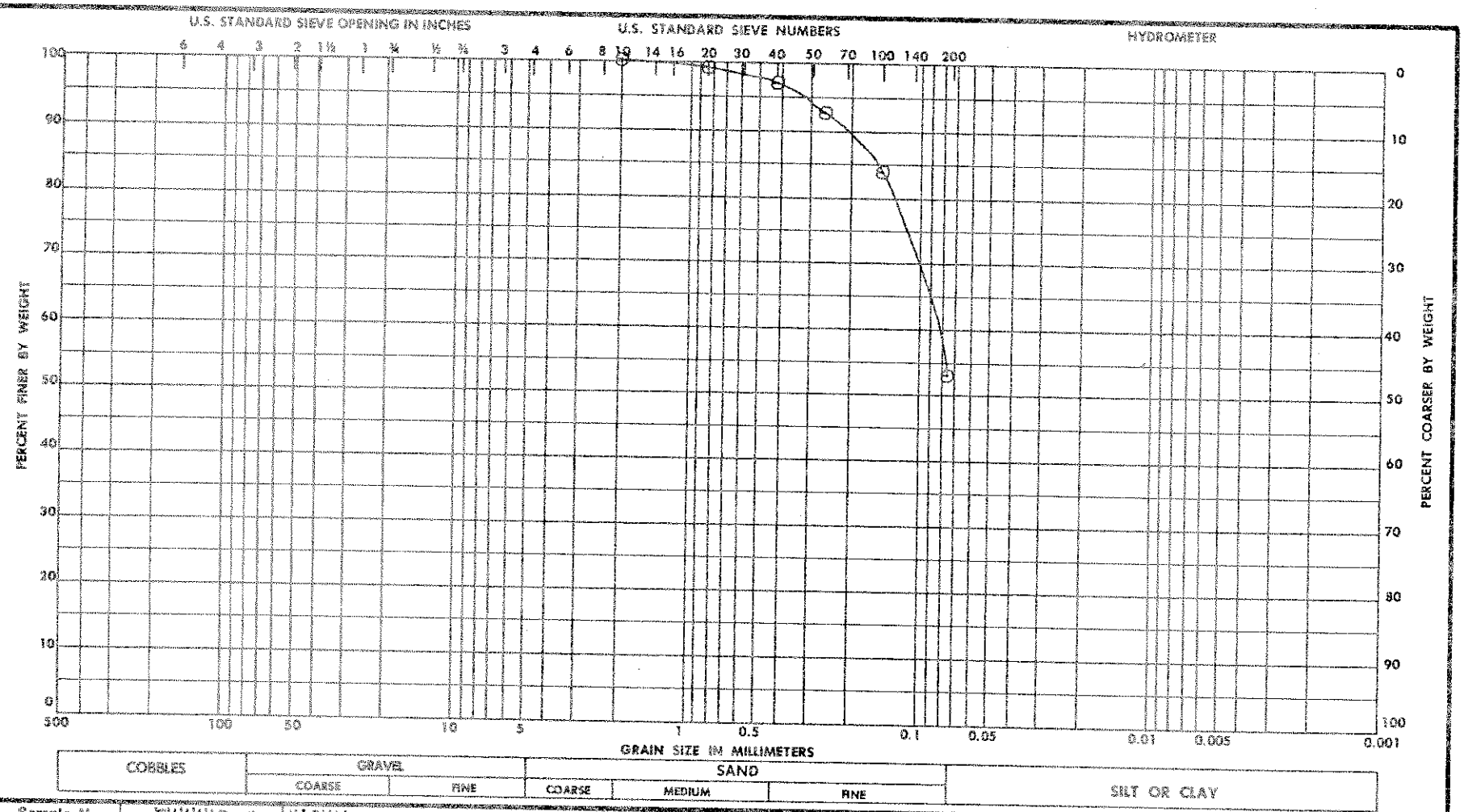
CHART NO. 138

ENG FORM 1 MAY 83 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



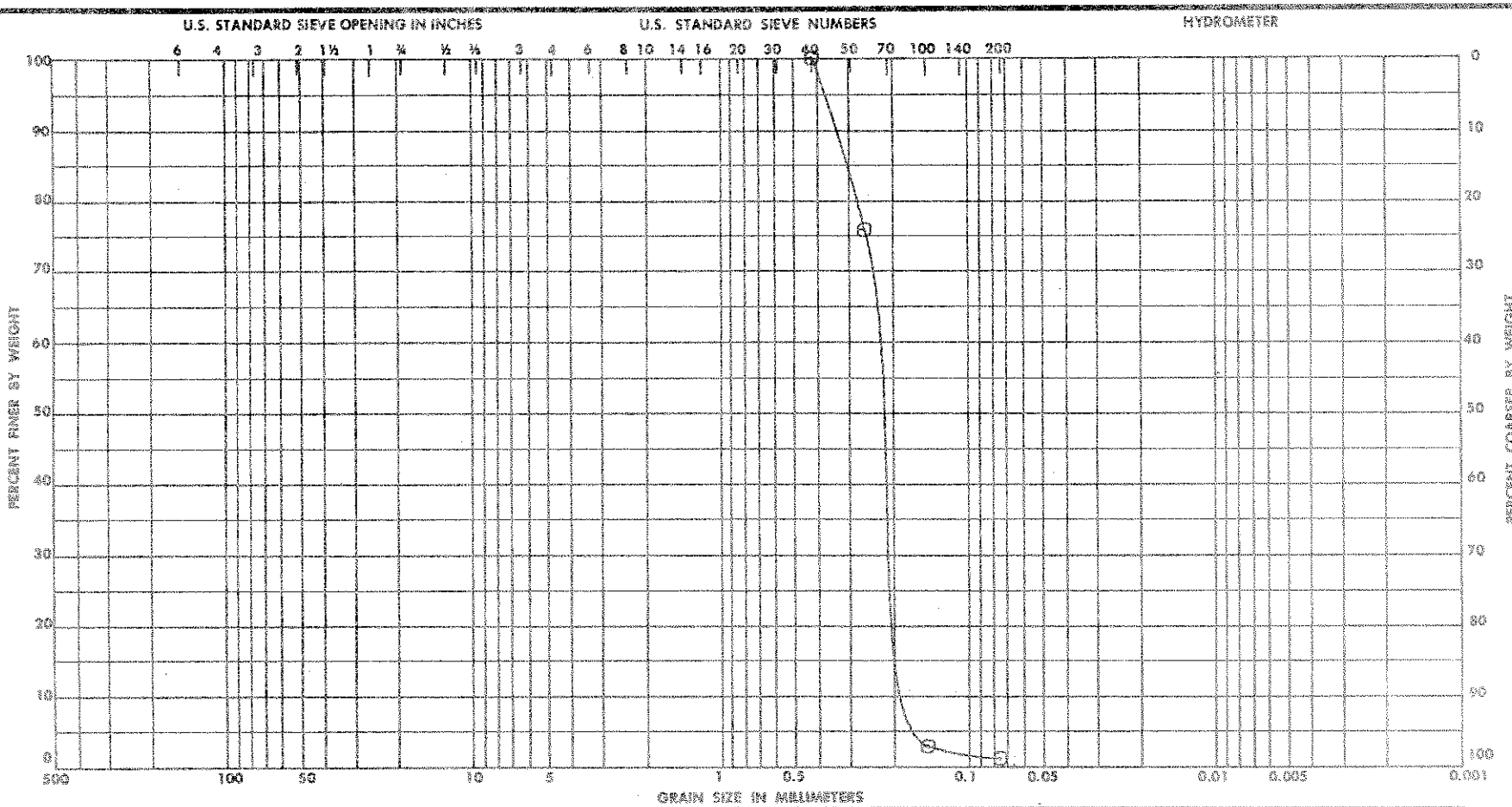
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	29.6-30.0'	FAT CLAY (CH), GRAY, SANDY WITH	--	--	--	--
		A TRACE OF SHELL				
		%SHELL= 5.2				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/210
Boring No. SG-19-83 SAMPLE NO. 6
Date 05/05/84

ENG FORM 1 MAY 83 2087

CHART NO. 139



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	4.8-5.2'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57/211
Boring No. SG-20-83 SAMPLE NO. 1
Date: 05/05/84

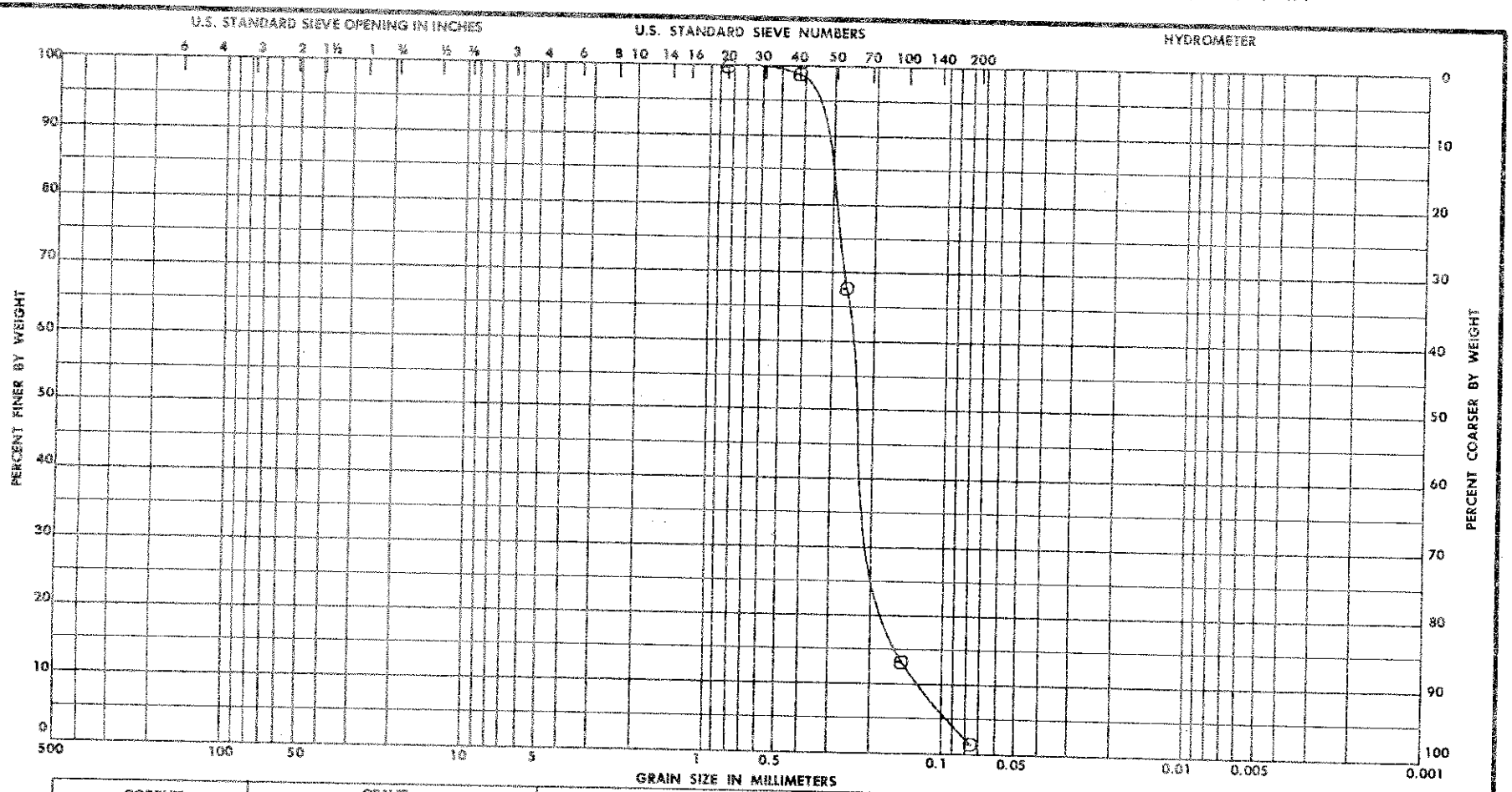
CHART NO. 140

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



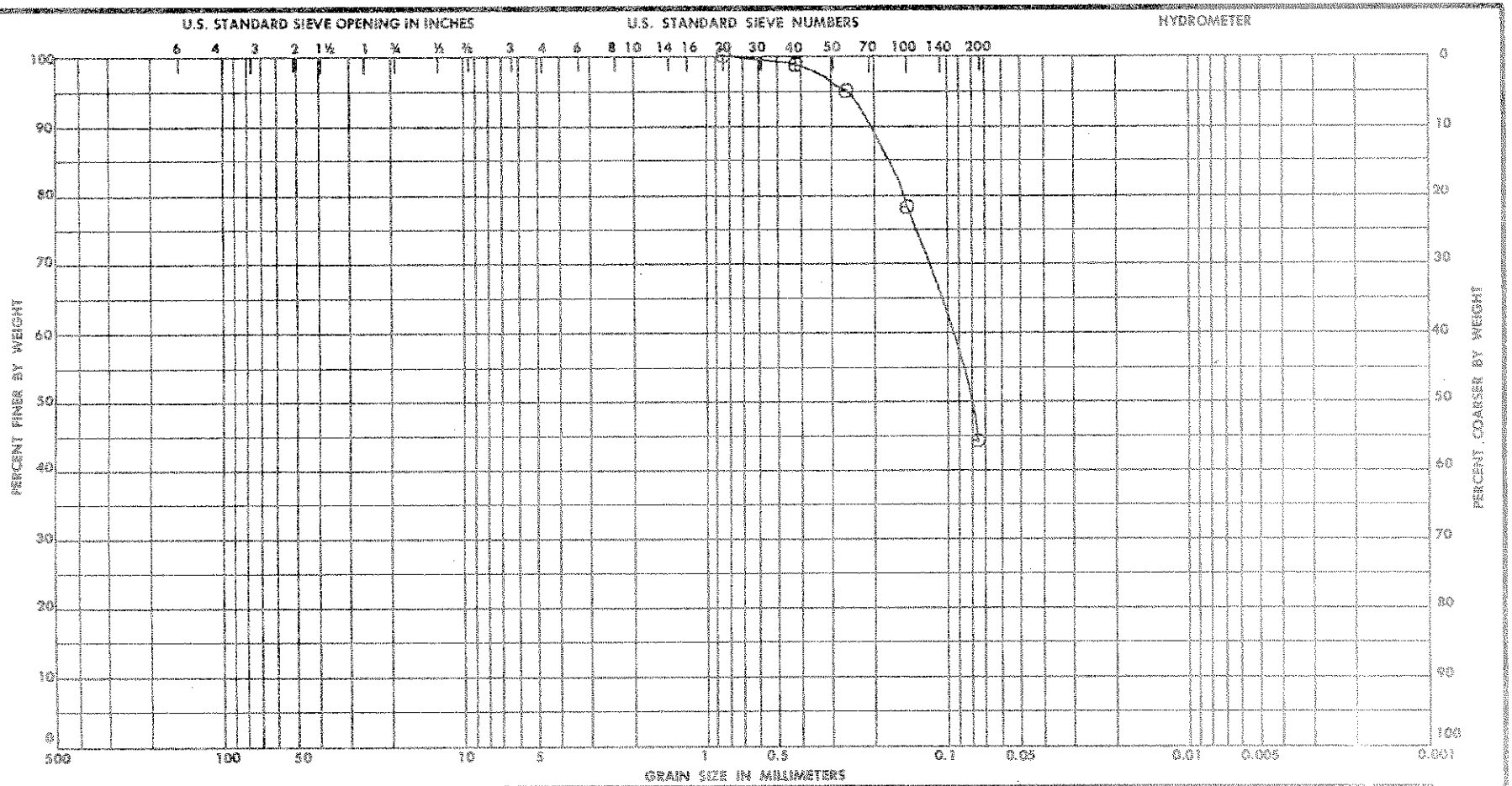
Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	20.5-21.0'	POORLY GRADED SAND (SP) LT. TANNISH GRAY	--	NP	NP	NP

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/212
Boring No. SG-20-83 SAMPLE NO. 2
Date 05/05/84

ENG FORM 1 MAY 63 2087

CHART NO. 141



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	6.0-7.0'	CLAYEY SAND HIGH LL (SC-H)	41.9	--	--	--
		GRAY WITH A TRACE OF SHELL				
		%SHELL= 5.1				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57/215
Boring No. SG-22-83 SAMPLE NO. 2
Date: 05/05/84

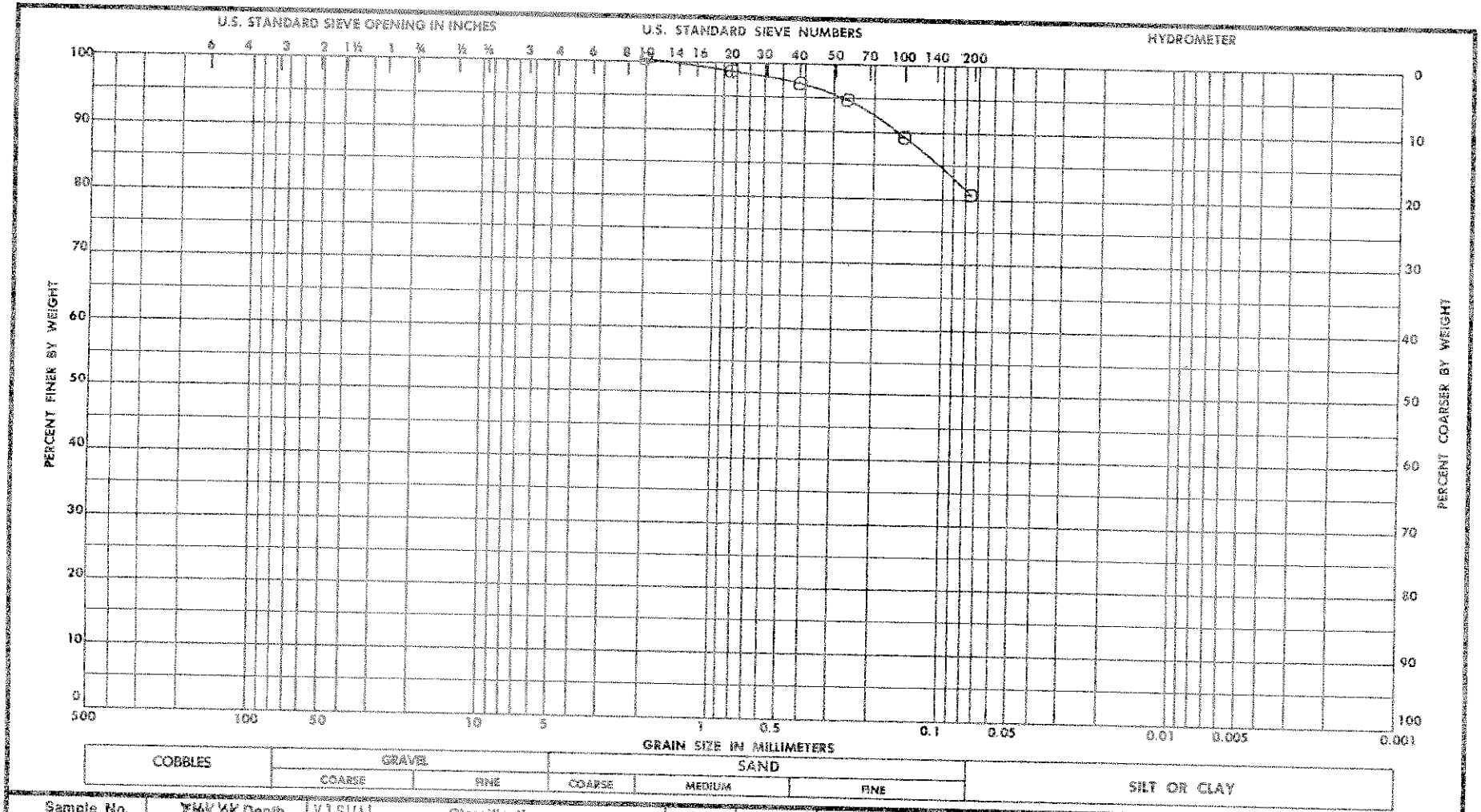
CHART NO. 142

ENG FORM 1 MAY 69 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



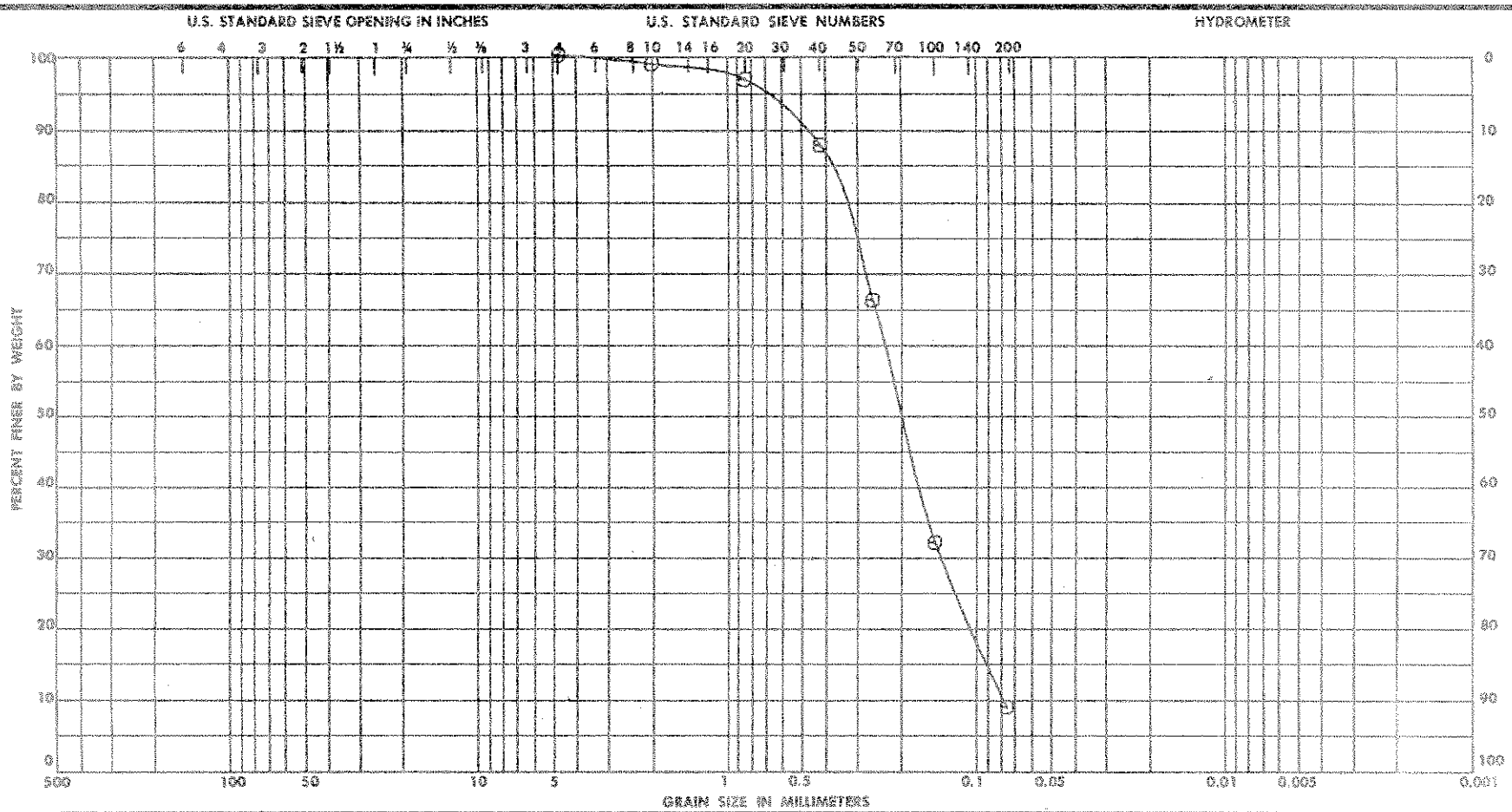
Sample No.	~~Mk~~ Depth	Classification	Nat w %	LL	PL	PI
3	15.5-16.5'	VISUAL FAT CLAY (CH)	50.5	--	--	--
		GRAY WITH A LITTLE SAND AND				
		A TRACE OF SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57216
Boring No. SG-22-83 SAMPLE NO. 3
Date 05/05/84

CHART NO. 143

ENG FORM 1 MAY 63 2087



Sample No.	~~ENV~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	23.0-24.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM), GRAY WITH A TRACE				
		OF SHELL., %SHELL= 7.0				

GRADATION CURVES

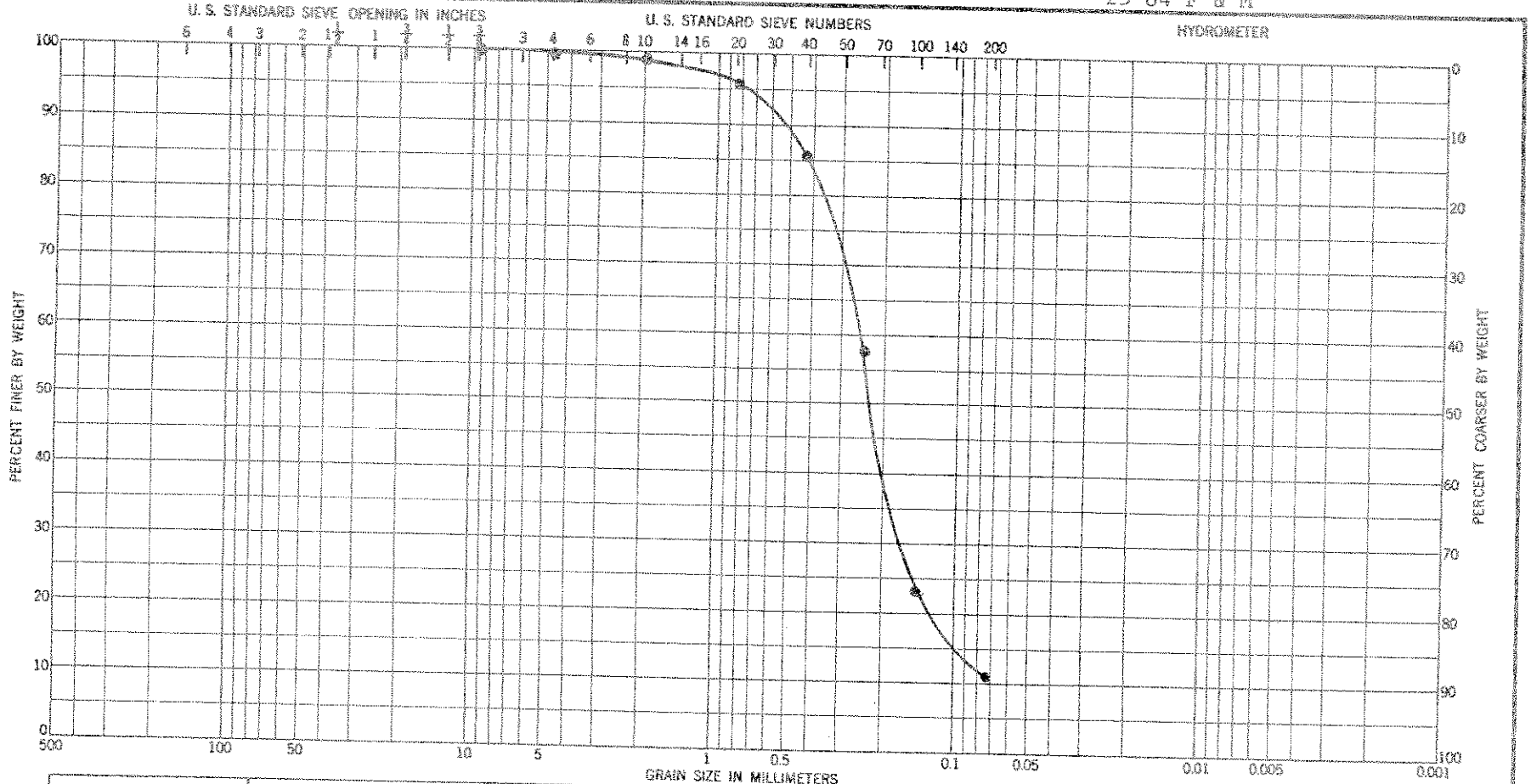
Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57217
Boring No. SG-22-83 SAMPLE NO. 4
Date: 05/05/84

CHART NO. 144

ENG FORM 1 MAY 63 2087

DEPA..MENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORAT../
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 3887
Req. No. 25-84-F & M



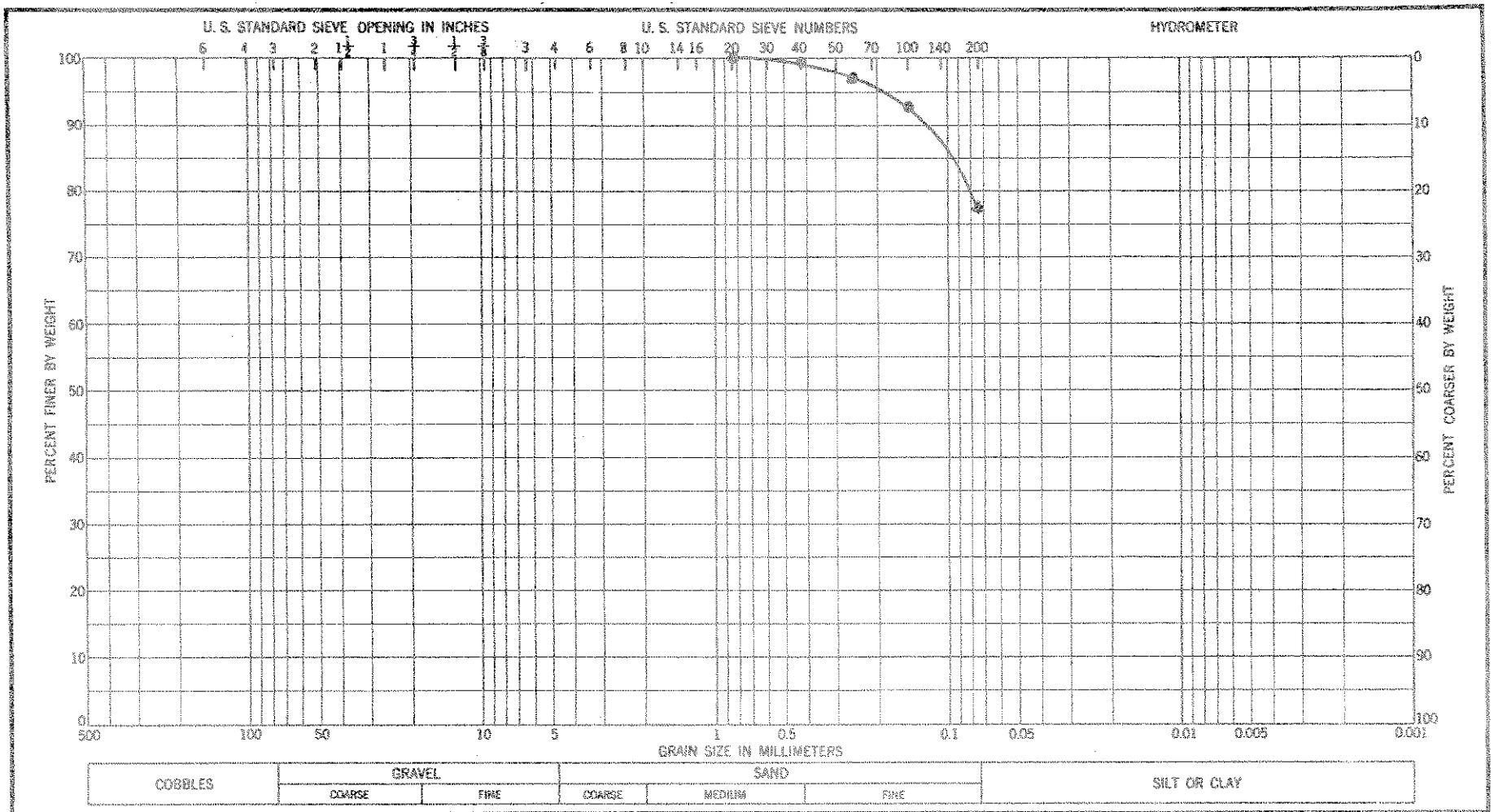
Sample No.	~~Boring~~ or Depth	Visual Classification	Nat w %	LL	PL	PI
1	3.2-4.0'	Gray poorly graded silty sand (SP-SM) with slightly plastic fines and with a trace of gravel	--	--	--	--

GRADATION CURVES

Project: Mobile Ship Channel
Channel Deepening
Area: Lab No. 57/268
Boring No.: SG-23-83, Sample No. 1
Date: 21 May 1984

CHART NO. 145

ENG FORM 1 MAY 63 2087



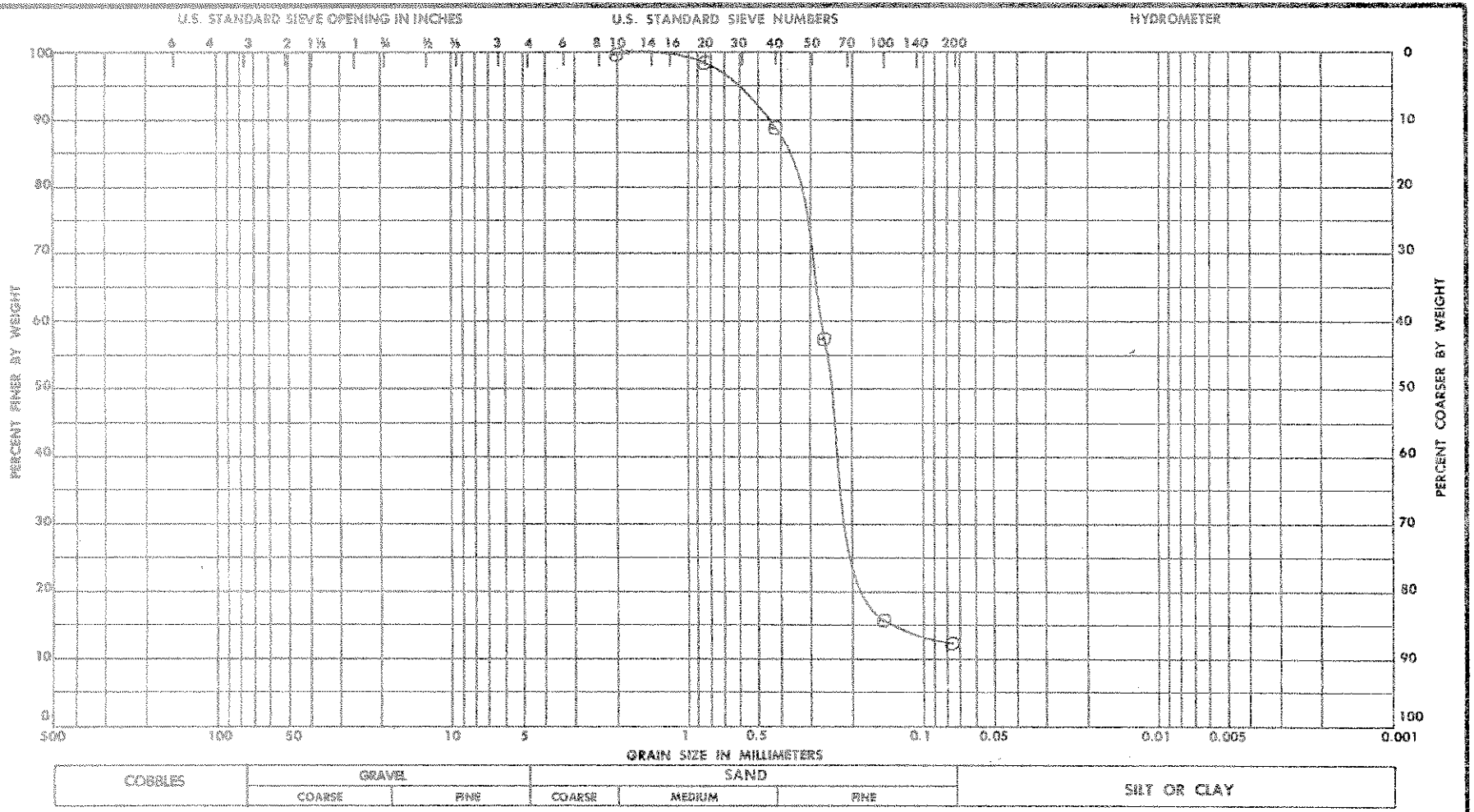
Sample No.	Depth	Visual Classification	Nat. w %	LL	PL	PI
2	10.5-11.5'	Gray fat clay (CH) with some sand	--	--	--	--

GRADATION CURVES

Project: Mobile Ship Channel
Channel Deepening
Area: Lab No. 57/269
Boring No.: SG-23-83, Sample No. 2
Date: 21 May 1984

CHART NO. 146

ENG FORM 1 MAY 68 2087



Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	0.0-0.5'	CLAYEY SAND (SC)	--	--	--	--
		GRAY WITH A TRACE OF SHELL				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/227
Boring No. SG-30-83 SAMPLE NO. 1
Date 05/05/84

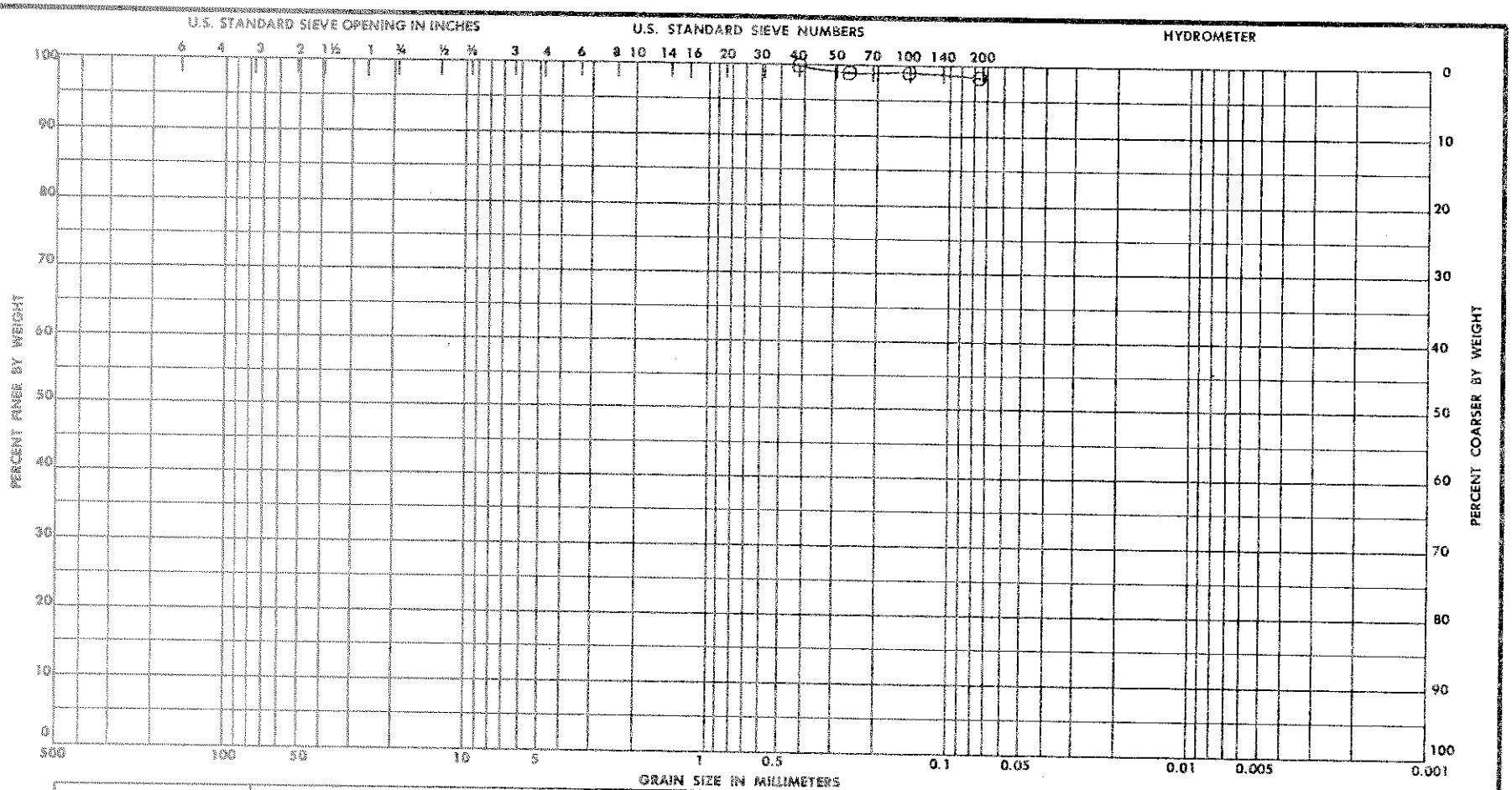
CHART NO. 158

ENG FORM 1 MAY 83 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



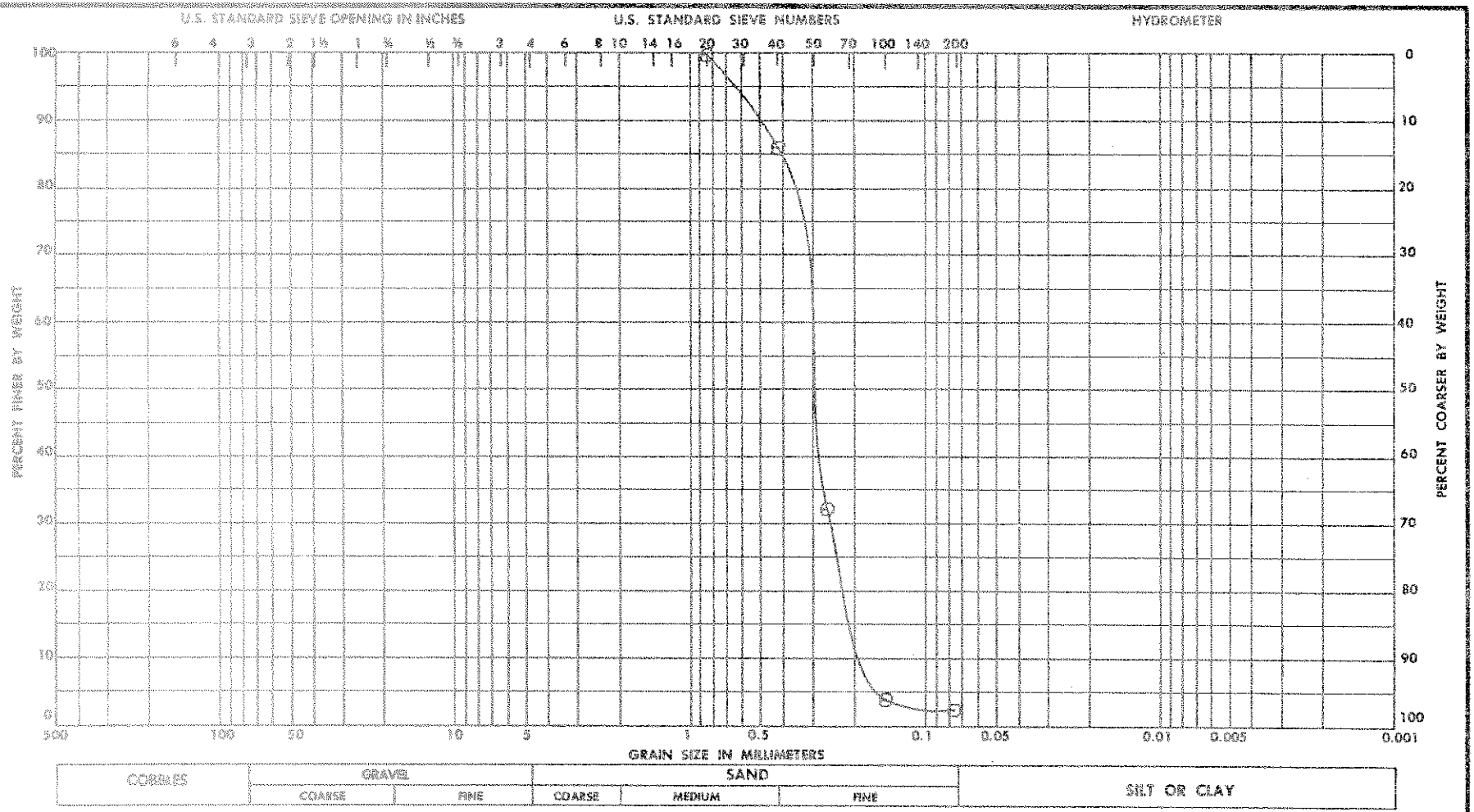
Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI
2	2.5-3.0'	VISUAL FAT CLAY (CH)	42.6	--	--	--
		BROWNISH GRAY WITH A TRACE				
		OF SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/228
Boring No. SG-30-83 SAMPLE NO. 2
Date 05/05/84

CHART NO. 159

ENG FORM 1 MAY 63 2087



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	3.9-4.3'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/229
Boring No. SG-30-83 SAMPLE NO. 3
Date 05/05/84

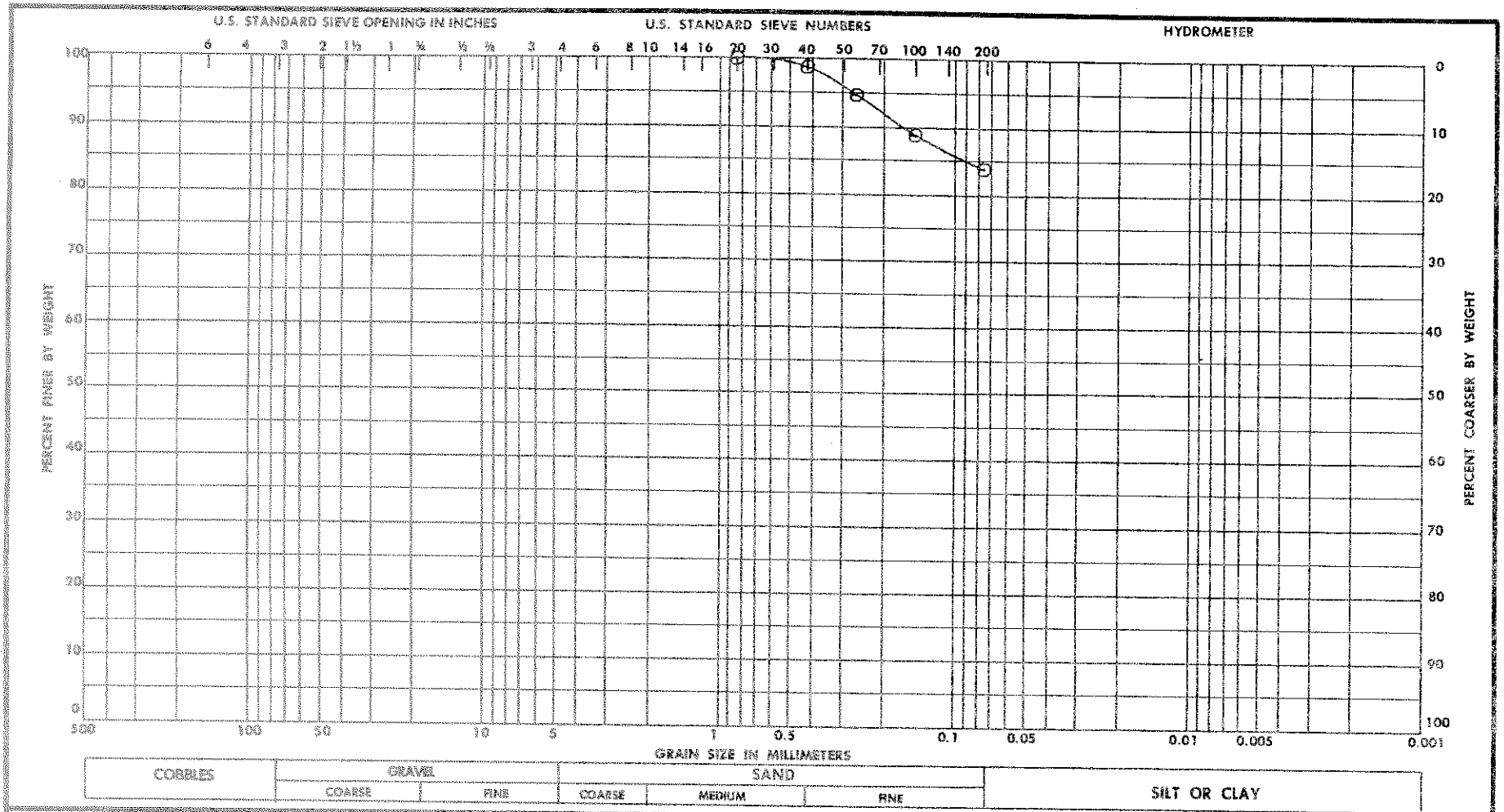
CHART NO. 160

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



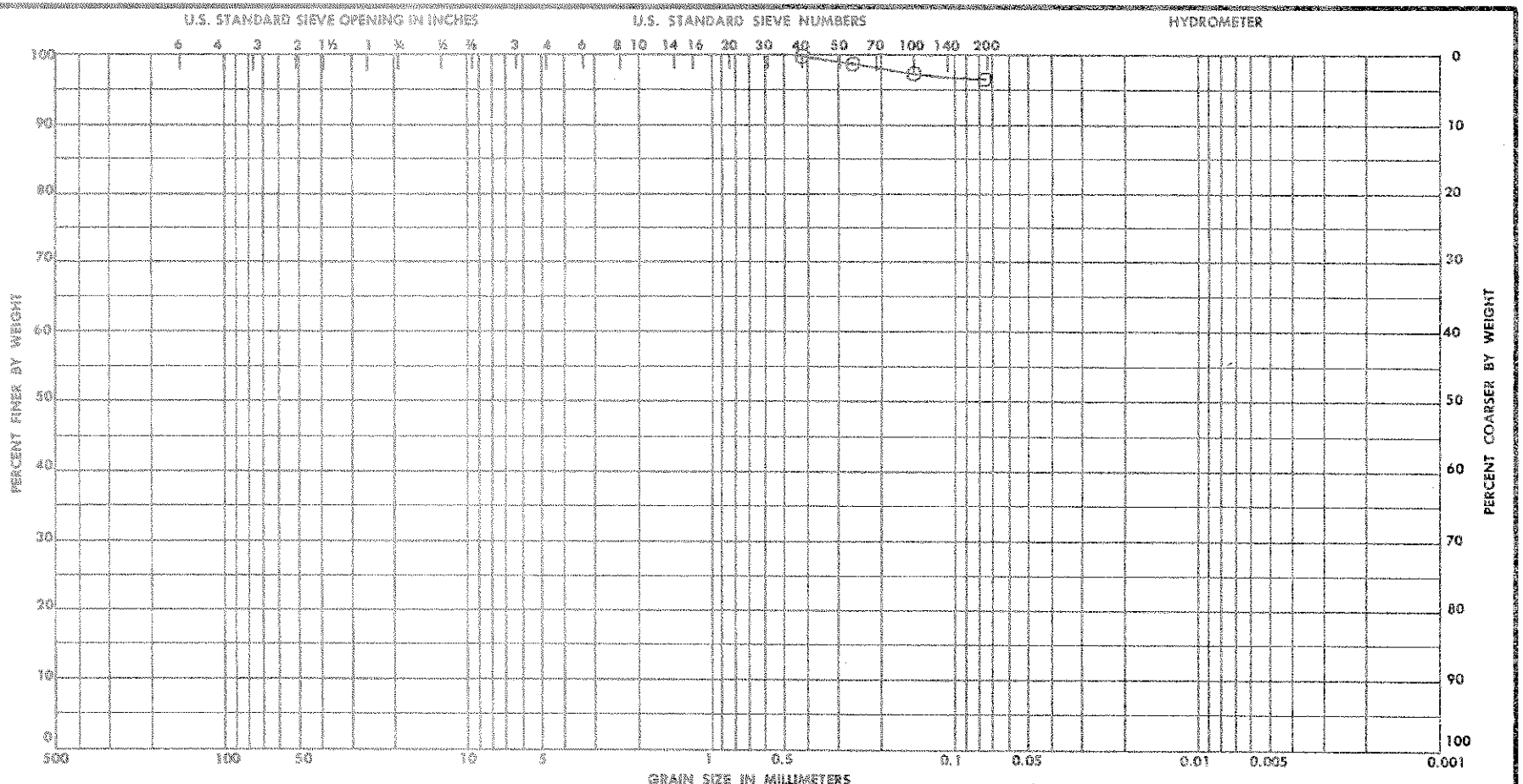
Sample No.	Field or Depth	Visual Classification	Nat w %	LL	PL	PI
4	6.0-6.5'	FAT CLAY (CH)	102.5	--	--	--
		GRAY AND BROWN WITH A LITTLE				
		SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/230
Boring No. SG-30-83 SAMPLE NO. 4
Date 05/05/84

CHART NO. 161

ENG FORM 1 MAY 68 2087



Sample No.	Test Hole or Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	12.4-12.8'	FAT CLAY (CH)	53.2	--	--	--
		GRAY WITH A TRACE OF SAND				

GRADATION CURVES

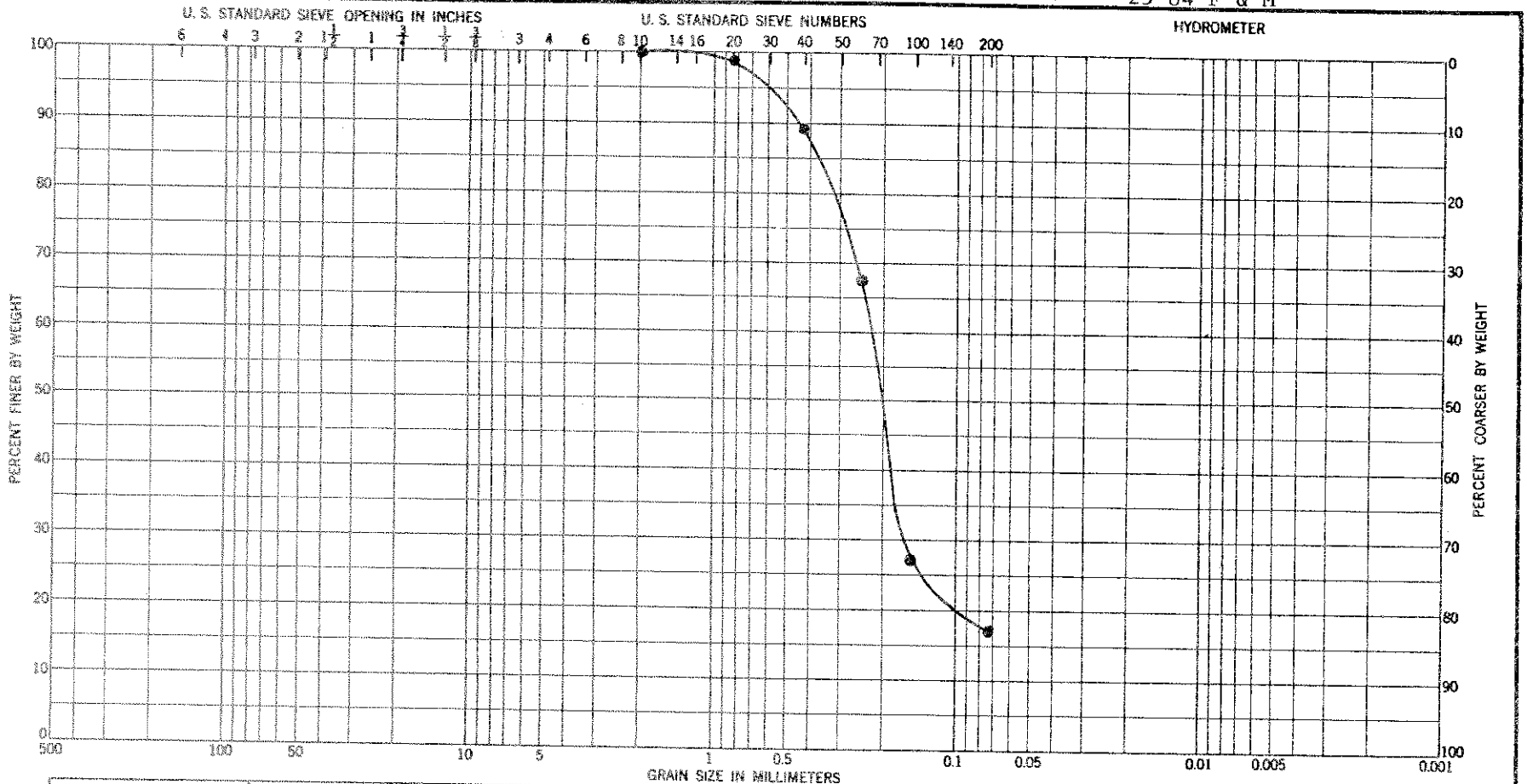
Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/231
Boring No. SC-30-83 SAMPLE NO. 5
Date 05/05/84

CHART NO. 121

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30061

WORK ORDER NO. 3887
Req. No. 25-84-F & M



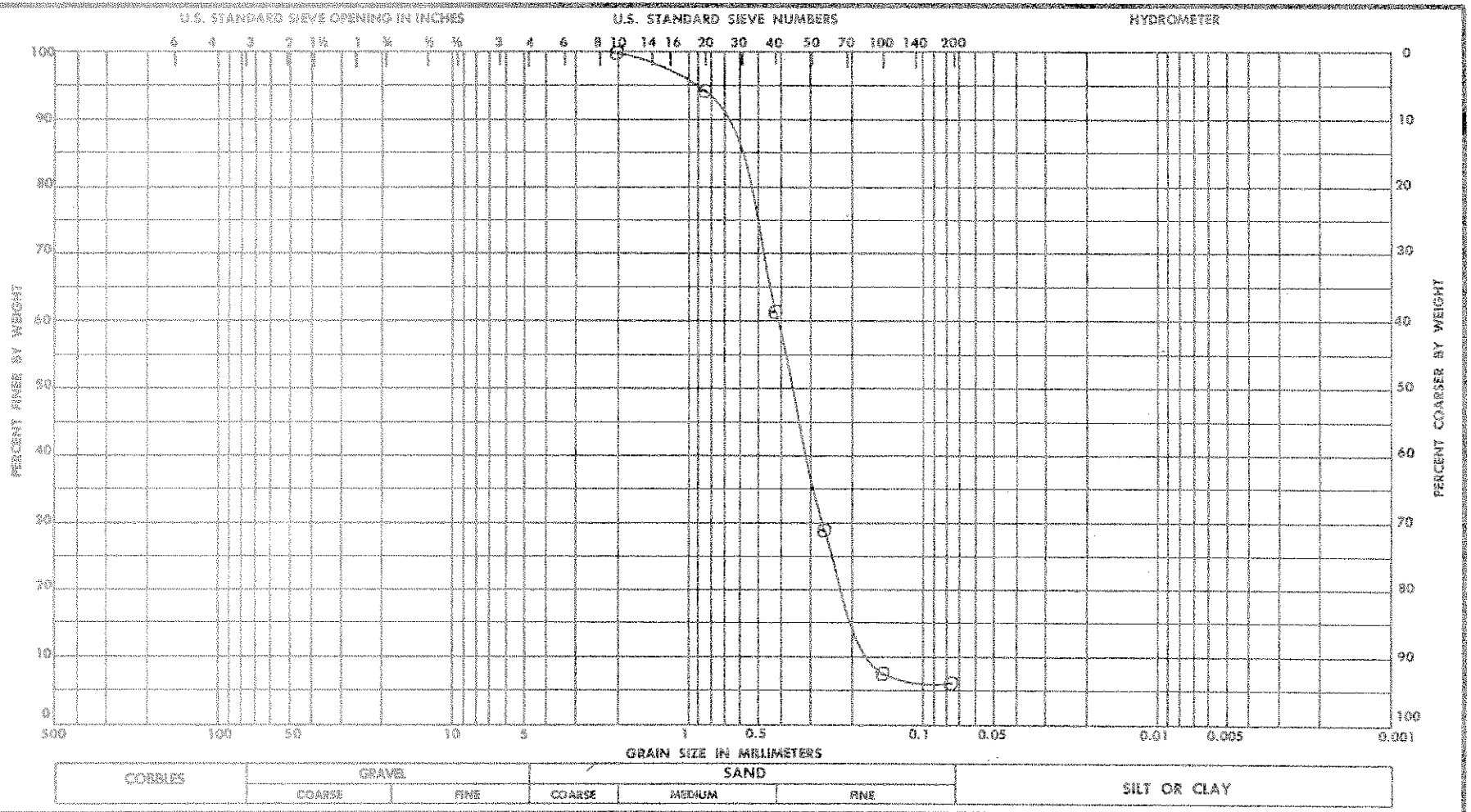
Sample No.	~~USCS~~ Depth	Visual Classification	Nat w %	LL	PL	PI
1	0.0-0.6'	Light tan silty sand (SM)	–	–	–	–
		with pockets of brown (SC-H)				

GRADATION CURVES

Project: Mobile Ship Channel
Channel Deepening
Area: Lab No. 57/274
Boring No. SG-30A-83, Sample No. 1
Date: 21 May 1984

CHART NO. 163

ENG FORM 1 MAY 68 2087



Sample No.	XXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	1.6-2.1'	POORLY GRADED SILTY SAND	--	--	--	--
		(SP-SM) LT. GREENISH TAN WITH				
		OCC. POCKETS OF (SM-SC) AND A				
		TRACE OF SHELL., %SHELL= 4.1				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/247
Boring No. SG-35-83 SAMPLE NO. 1
Date 05/05/84

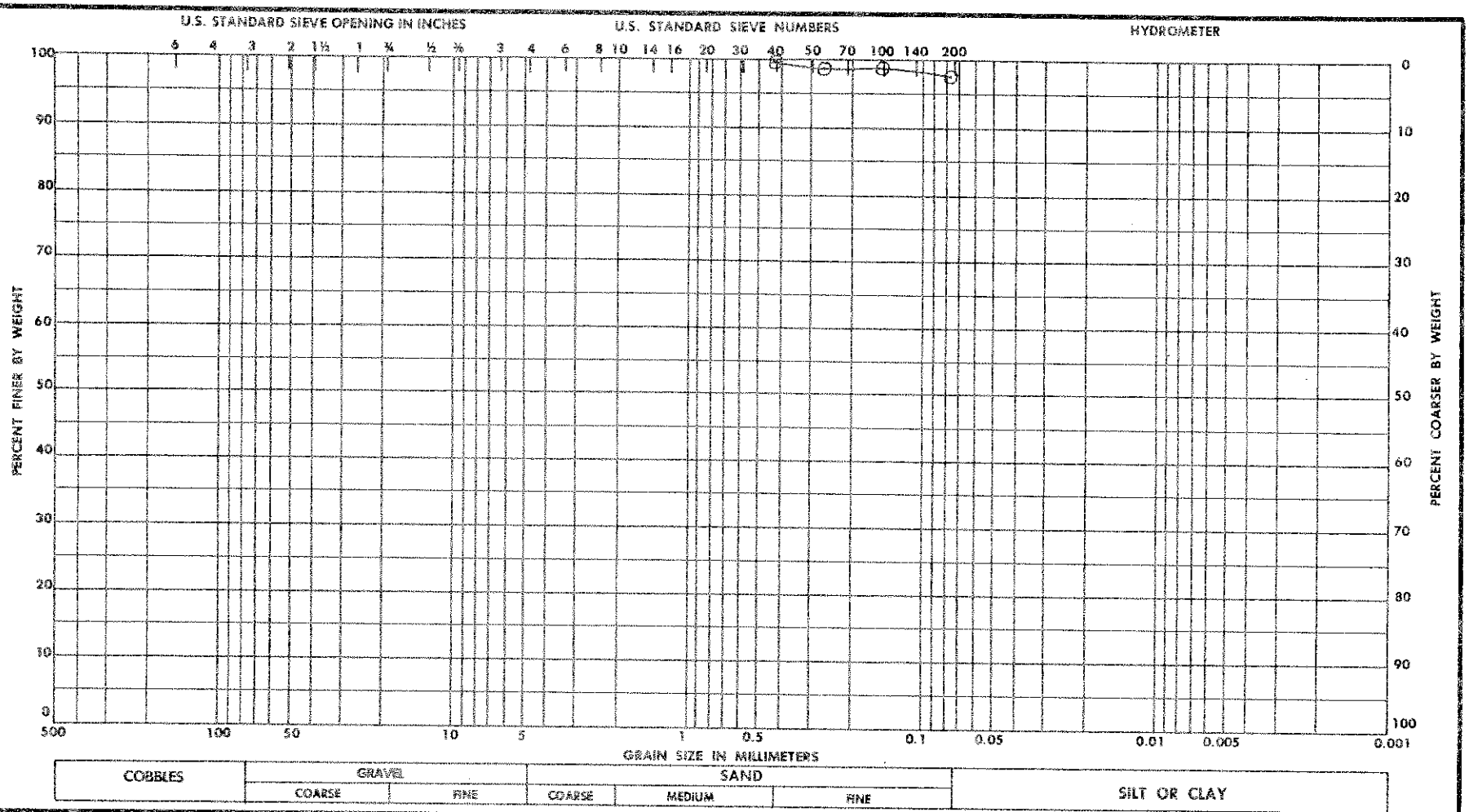
CHART NO. 174

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



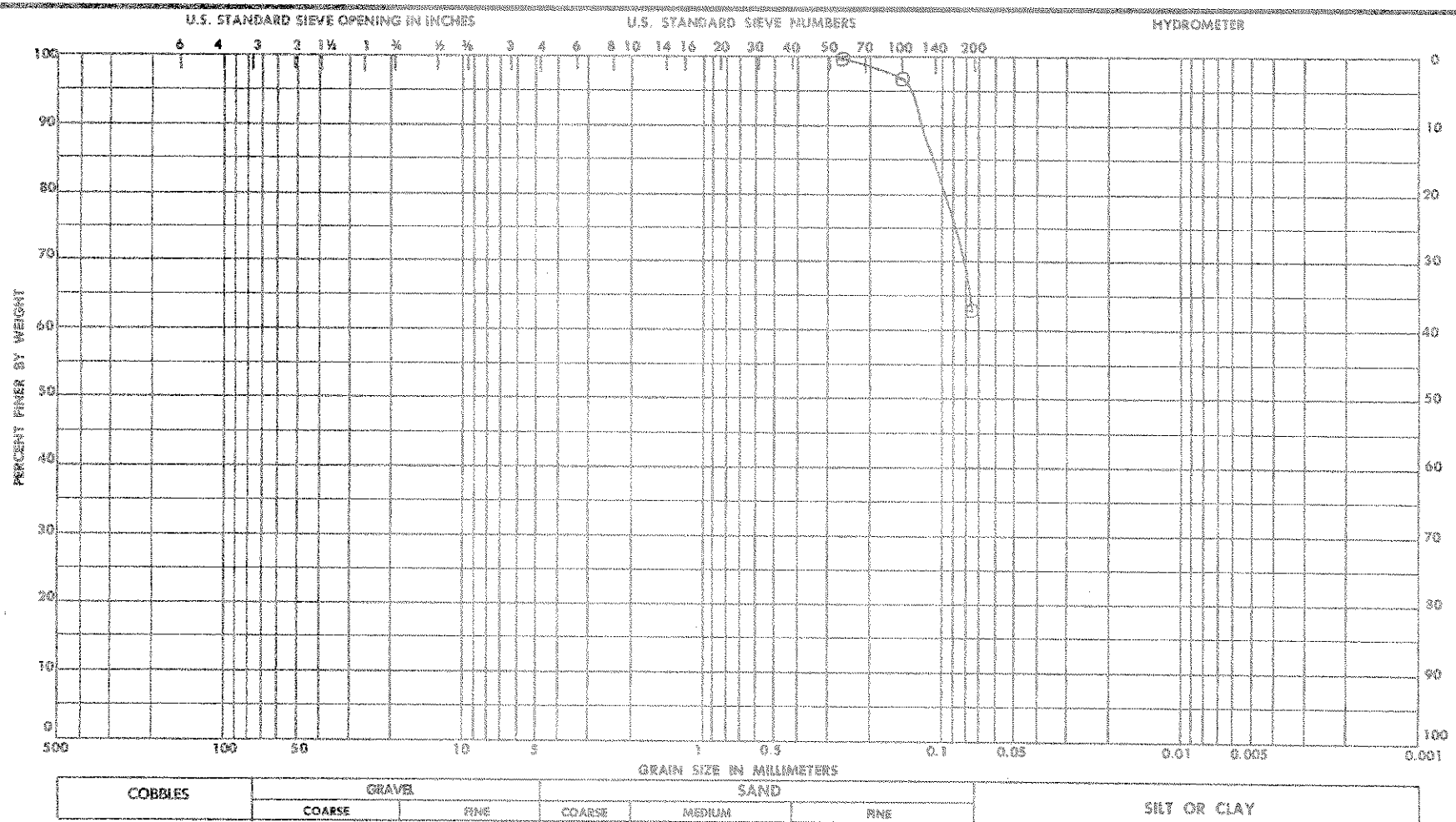
Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
2	6.0-6.5'	FAT CLAY (CH)	57.8	91	35	56
		BLUISH GRAY, WITH A TRACE OF				
		SAND				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/248
Boring No. SG-35-83 SAMPLE NO. 2
Date 05/05/84

CHART NO. 175

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	11.5-12.0'	FAT CLAY (CH), GREENISH GRAY	22.1	--	--	--
		SANDY				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/249
Boring No. SG-35-83 SAMPLE NO. 3
Date 05/18/84

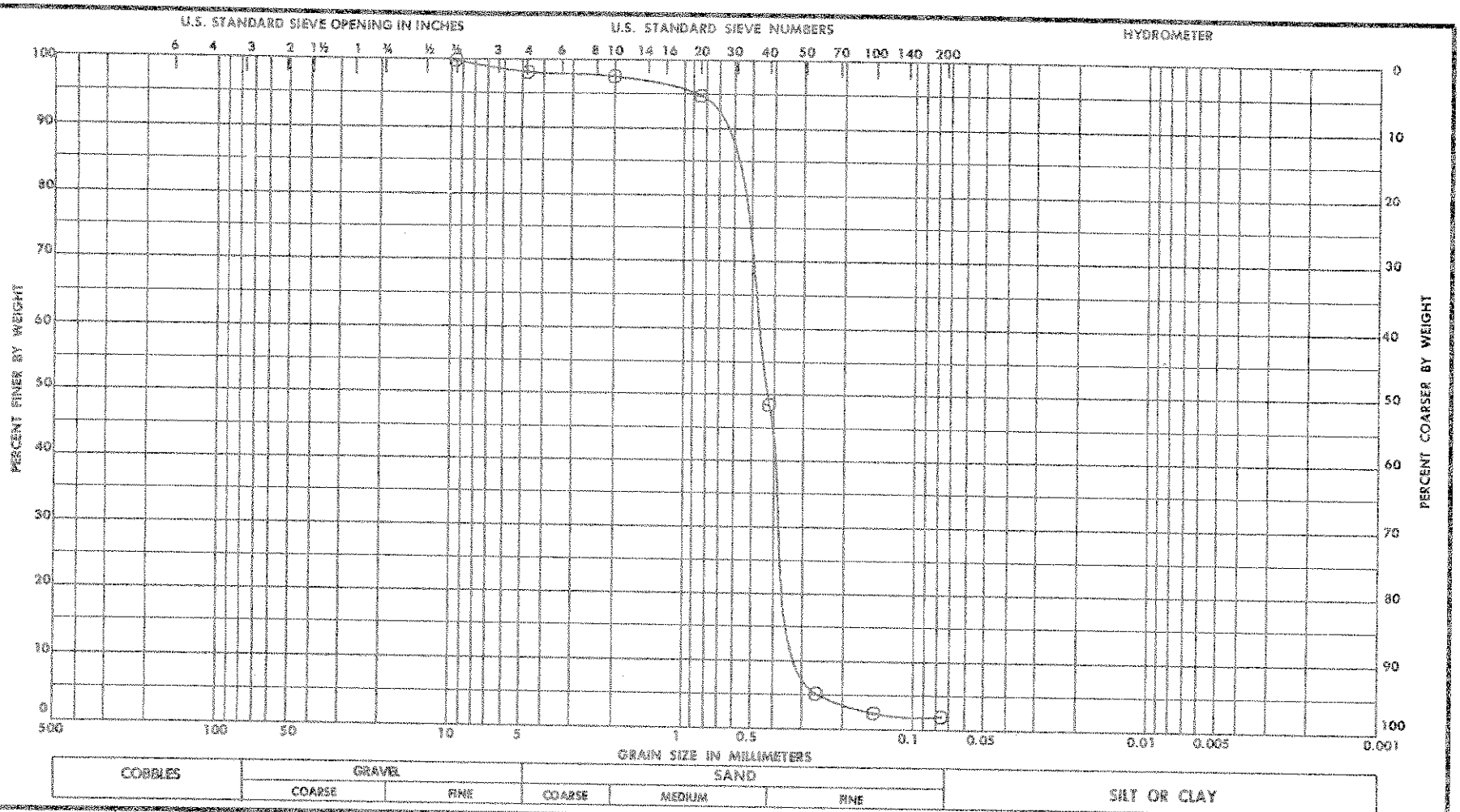
CHART NO. 176

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-FAM



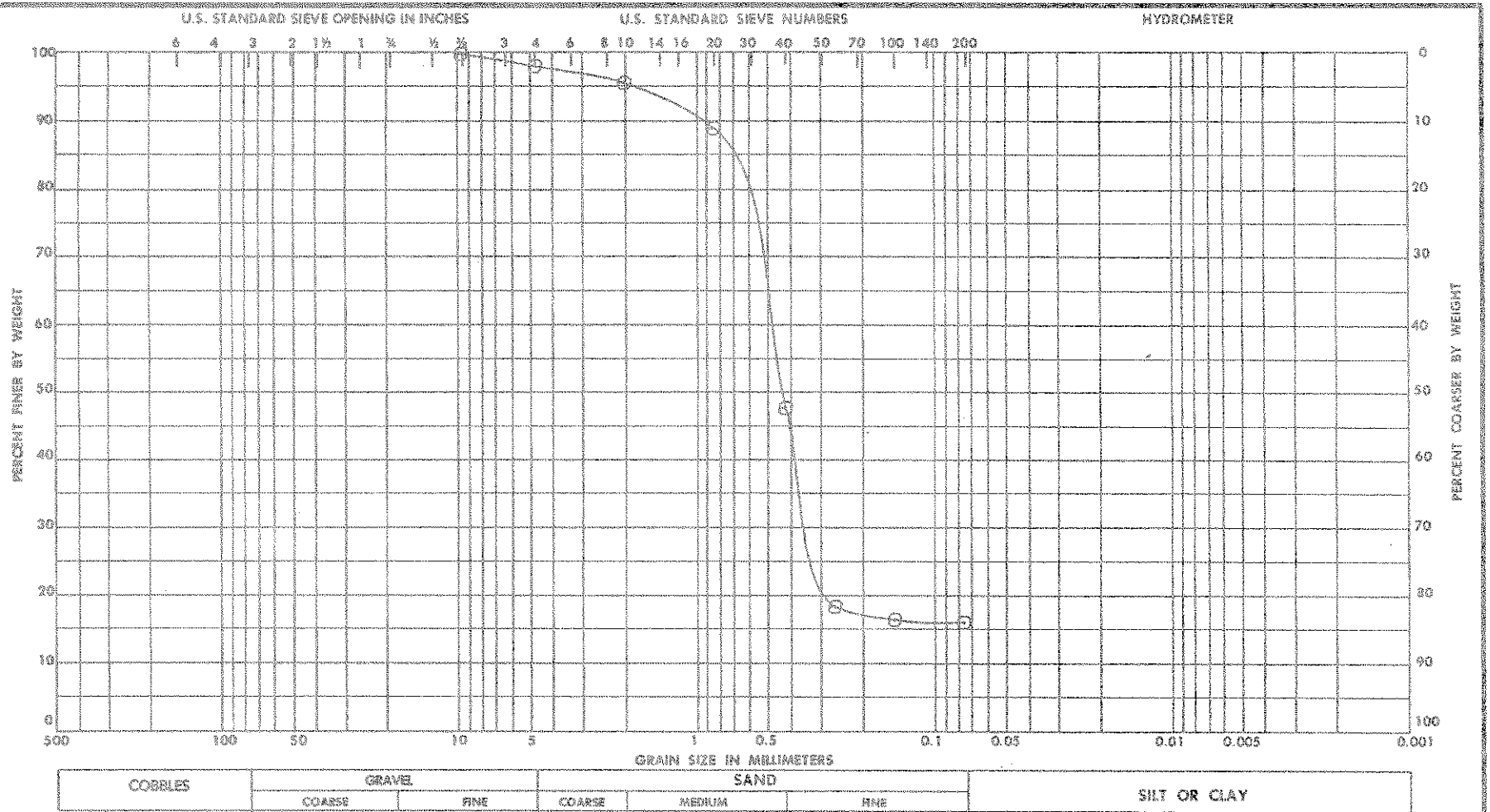
Sample No.	Field ~~Lab~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	2.1-3.1'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		RUST BROWN WITH A TRACE OF				
		SHELL., XSHELL= 3.0				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/250
Boring No. SG-36-83 SAMPLE NO. 1
Date 05/18/84

CHART NO. 177

ENG FORM MAY 68 2087



Sample No.	~~Elev.~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	5.5-6.5'	SILTY SAND (SM), GREENISH BRN.	--	--	--	--
		WITH A TRACE OF SHELL AND OCC.				
		POCKETS OF BRN. (SC-H).				
		%SHELL = 7.9				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/251
Boring No. SG-36-83 SAMPLE NO. 2
Date 05/18/84

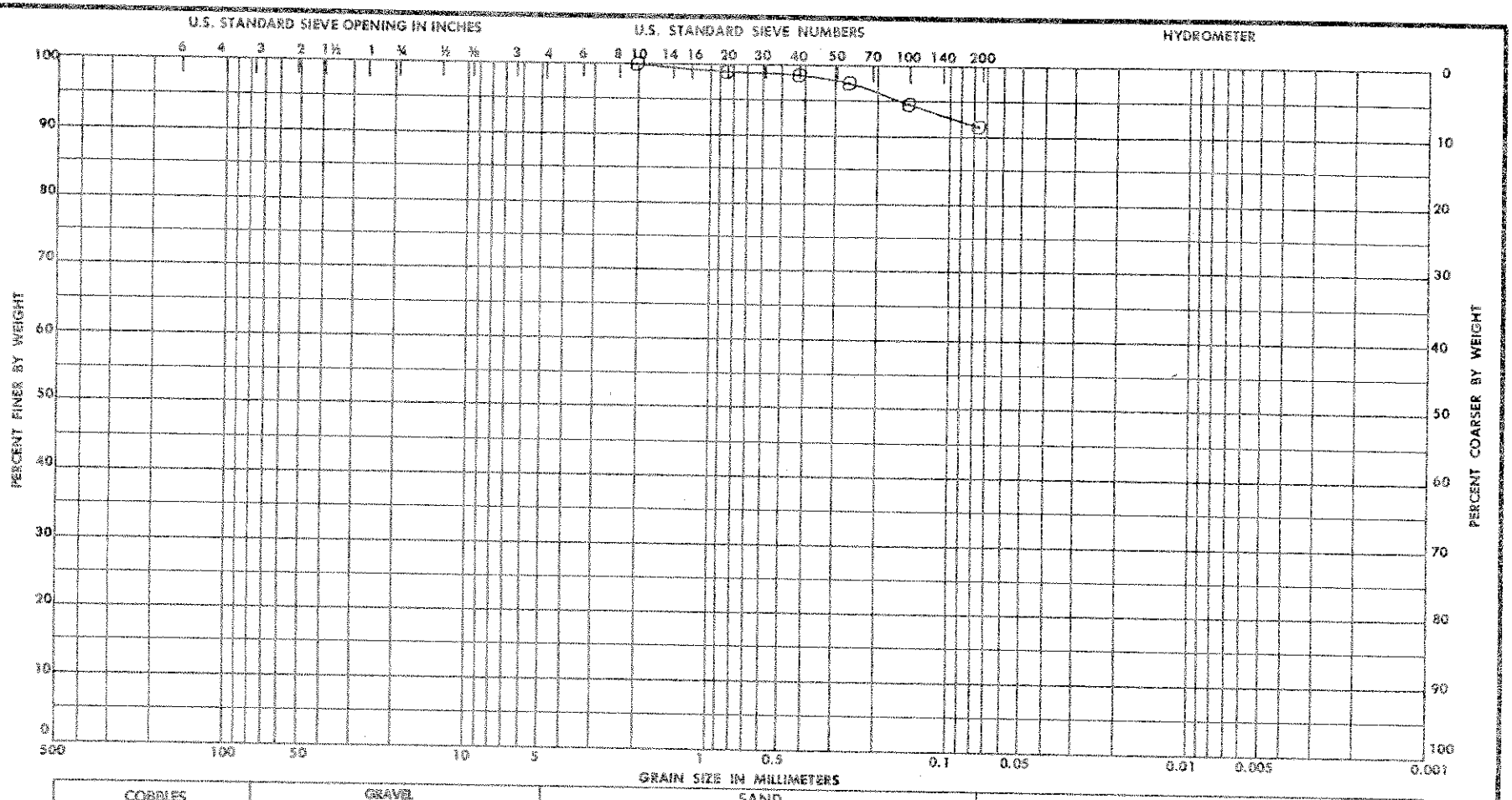
CHART NO. 178

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-F&M



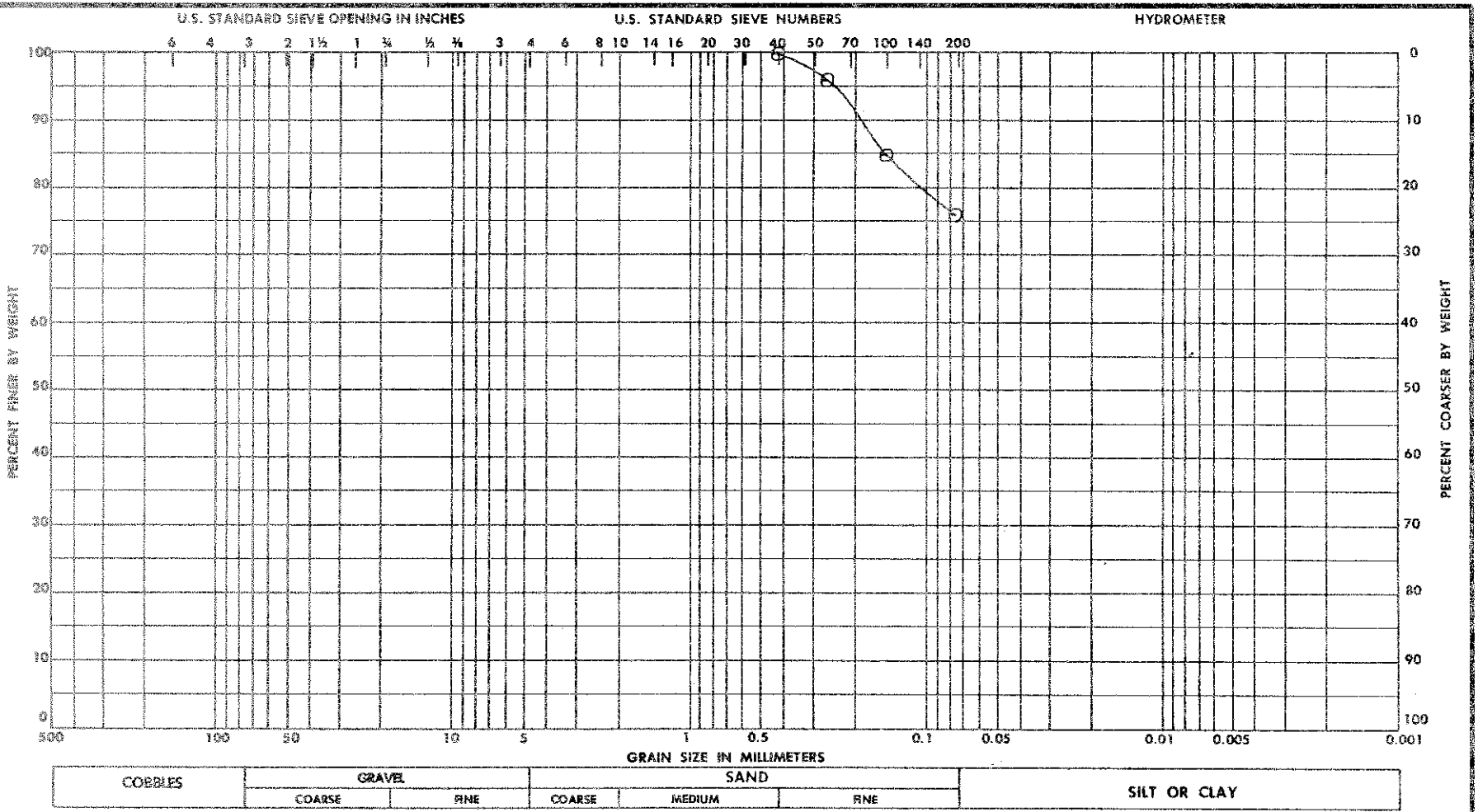
Sample No.	Elev or Depth	Visual Classification	Nat w %	LL	PL	PI
3	14.0-15.2'	ORGANIC FAT CLAY (OH), GRAY	109.5	--	--	--
		WITH A TRACE OF SAND AND SHELL				
		%SHELL= 8.9 LOI= 22.1%				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/252
Boring No. SG-36-83 SAMPLE NO. 3
Date 05/18/84

ENG FORM 1 MAY 83 2087

CHART NO. 179



Sample No.	~~Check~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	17.8-18.8'	FAT CLAY (CH), GREENISH GRAY	31.3	--	--	--
		WITH SOME SAND AND A TRACE OF				
		SHELL AND ORGANIC FINES.				
		%SHELL= 7.2 LOI= 6.0%				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57/253
Boring No. SG-36-83 SAMPLE NO. 4
Date: 05/18/84

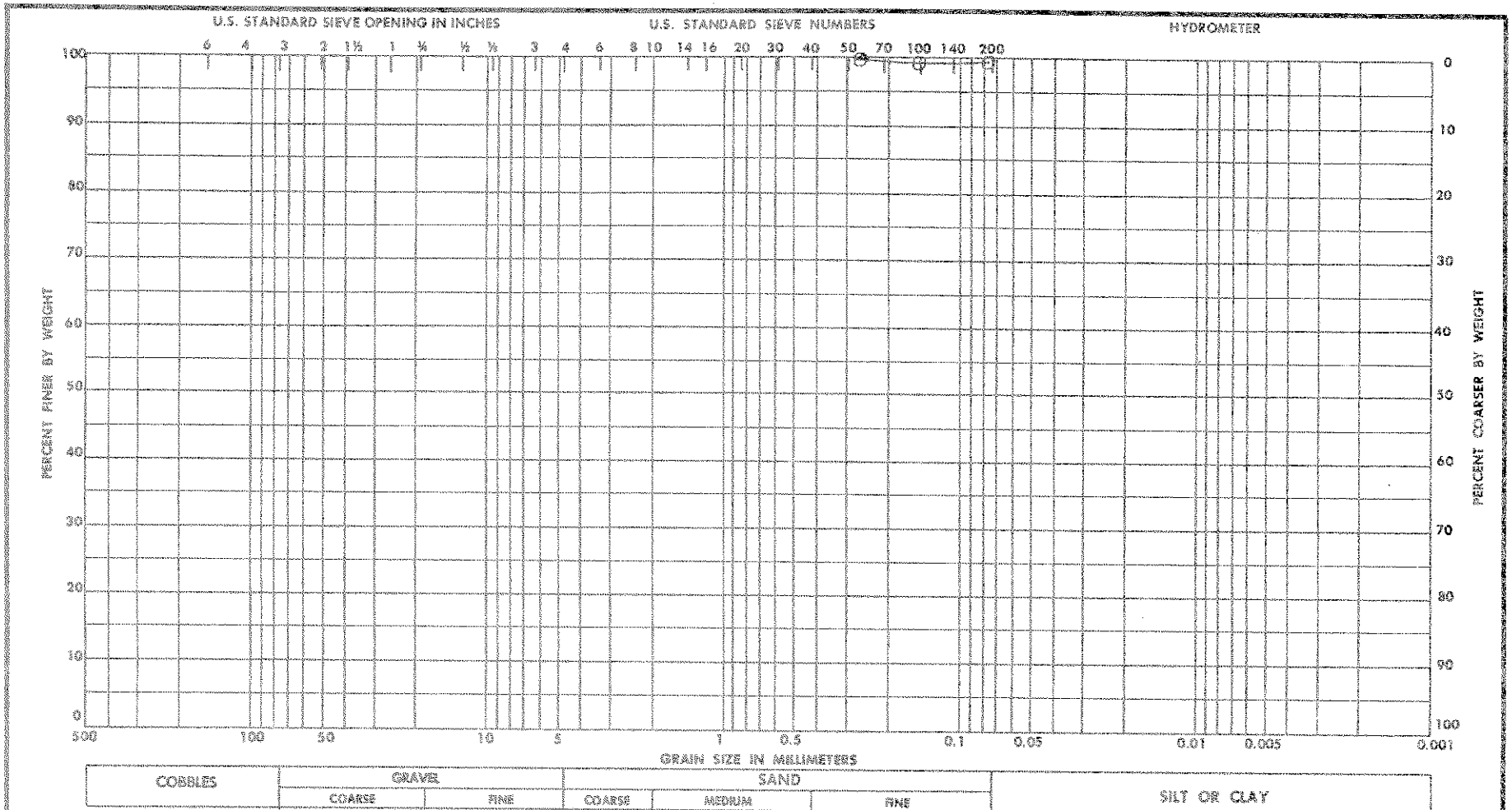
CHART NO. 180

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 3886

Req. No. 24-84-FAM



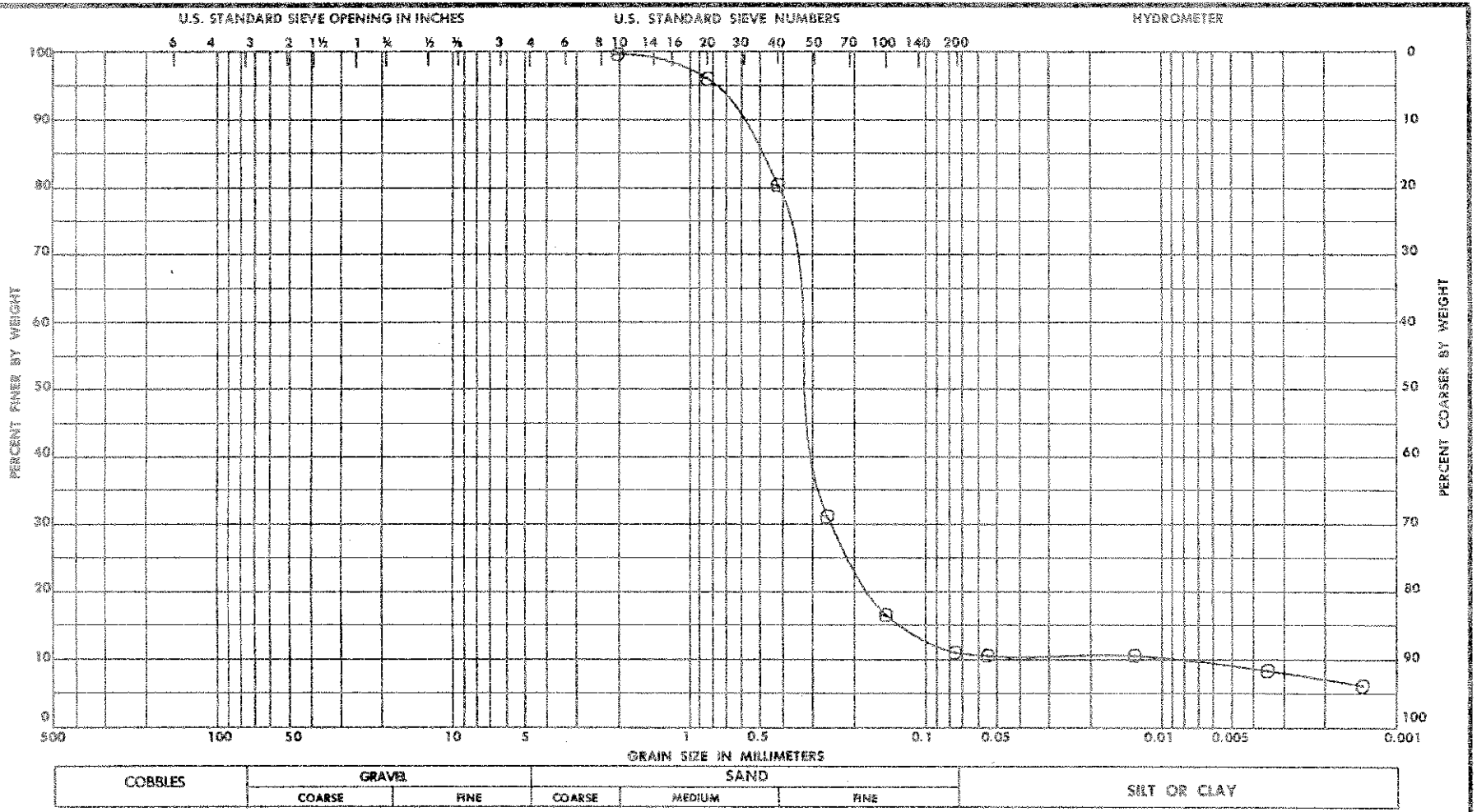
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	1.6-2.1'	FAT CLAY (CH), BROWNISH GRAY	--	--	--	--
		WITH A TRACE OF SAND				

GRADATION CURVES

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO. 57/255
Boring No. SG-37-83 SAMPLE NO. 2
Date 05/18/84

CHART NO. 181

ENG FORM 1 MAY 63 2087



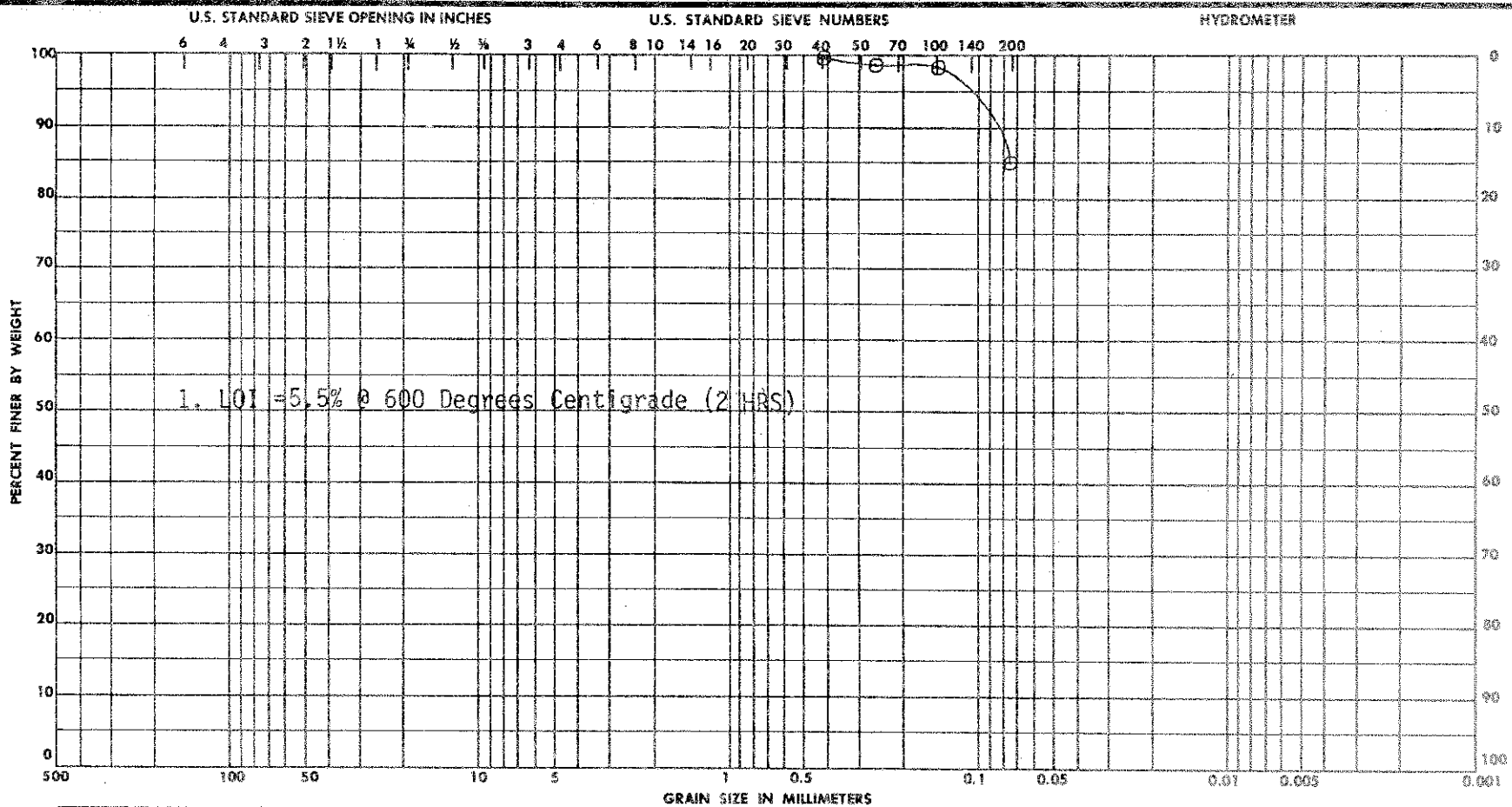
Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
3	5.0-5.5'	CLAYEY SAND, HIGH LL (SC-H)	30.9	58	19	39
		BLUISH GRAY				
		SPECIFIC GRAVITY= 2.69				

GRADATION CURVES

Project: MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area: LAB NO. 57/256
Boring No. SG-37-83 SAMPLE NO. 3
Date: 05/18/84

CHART NO. 182

ENG FORM 2087 MAY 83



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	---	FAT CLAY (CH)	77.9	77	24	53
		GRAY WITH A LITTLE SAND, slightly organic				
		SPECIFIC GRAVITY = 2.68				

GRADATION CURVES

Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area LAB NO.57/338
Boring No. SS-203 SAMPLE NO. 1
Date 08/15/84

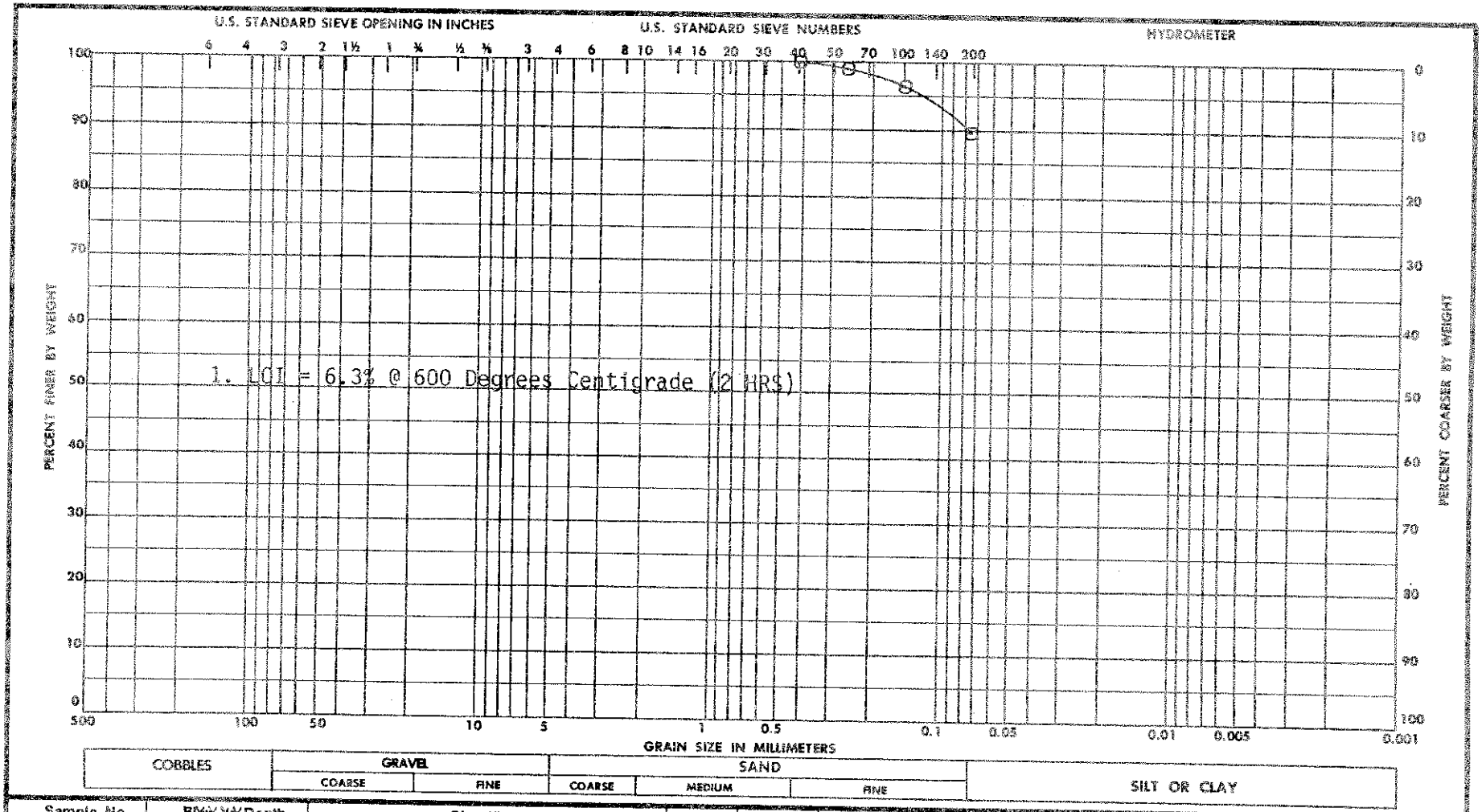
CHART NO. 386

ENG FORM 1 MAY 53 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4030

Req. No. 50-84-F&M



Sample No.	~~Rock~~ Depth	Classification	Nat w %	LL	PL	PI
6	---	FAT CLAY (CH)	72.2	77	25	52
		GRAY WITH A LITTLE SAND				
		SLIGHTLY ORGANIC				
		SPECIFIC GRAVITY = 2.67				

GRADATION CURVES

Project: MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION

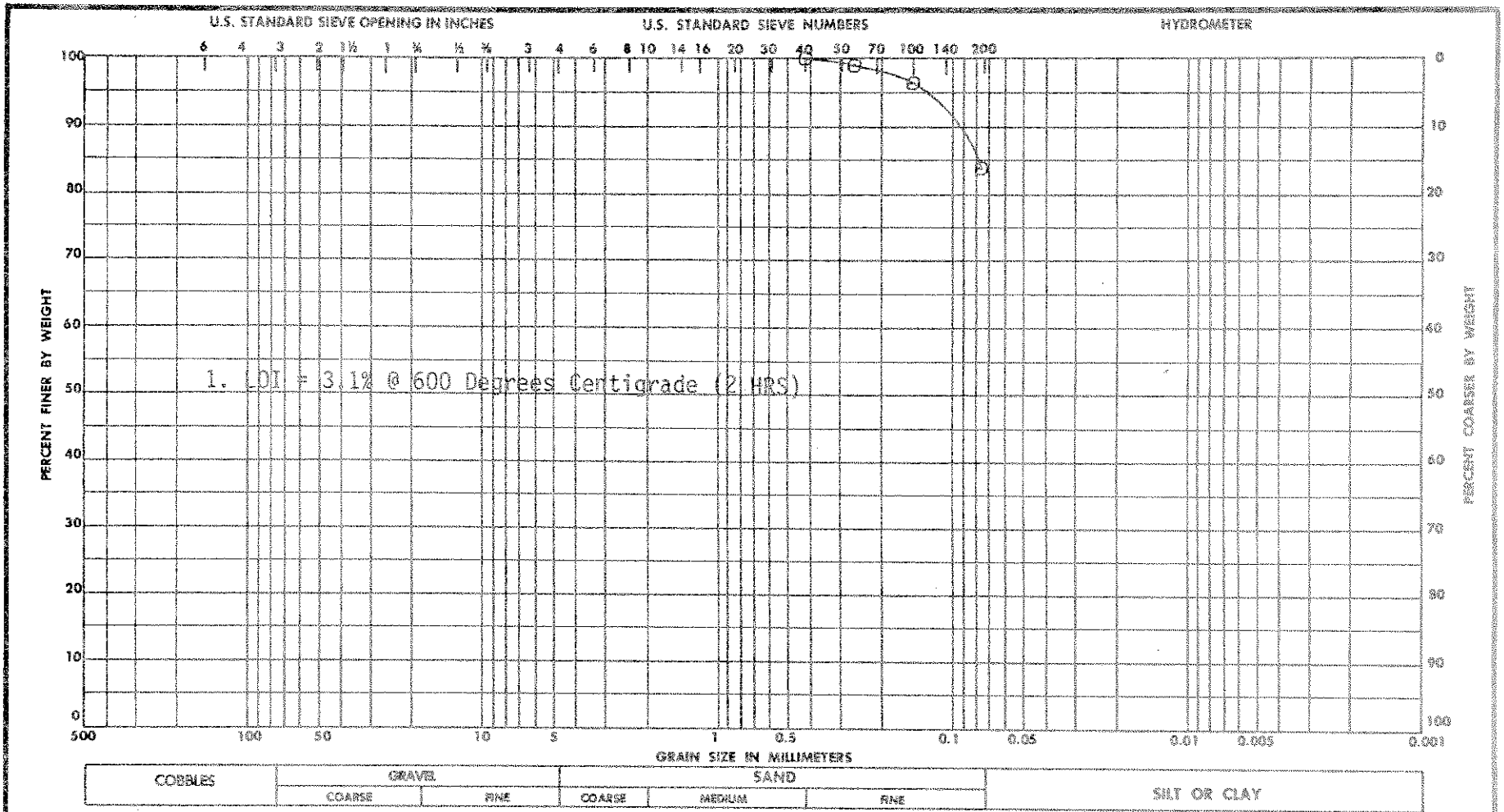
Area: LAB NO.57/343

Boring No. SS-203 SAMPLE NO. 6

Date: 08/22/84

CHART NO. 387

ENG FORM 1 MAY 53 2087



Sample No.	~~Bore~~ Depth	Classification	Nat w %	LL	PL	PI
10	---	LEAN CLAY (CL)	30.1	45	15	30
		LT. GRAY & TAN WITH A LITTLE				
		SAND, slightly organic				
		SPECIFIC GRAVITY = 2.65				

GRADATION CURVES

Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area LAB NO. 57/347
Boring No. SS-203 SAMPLE NO. 10
Date 08/15/84

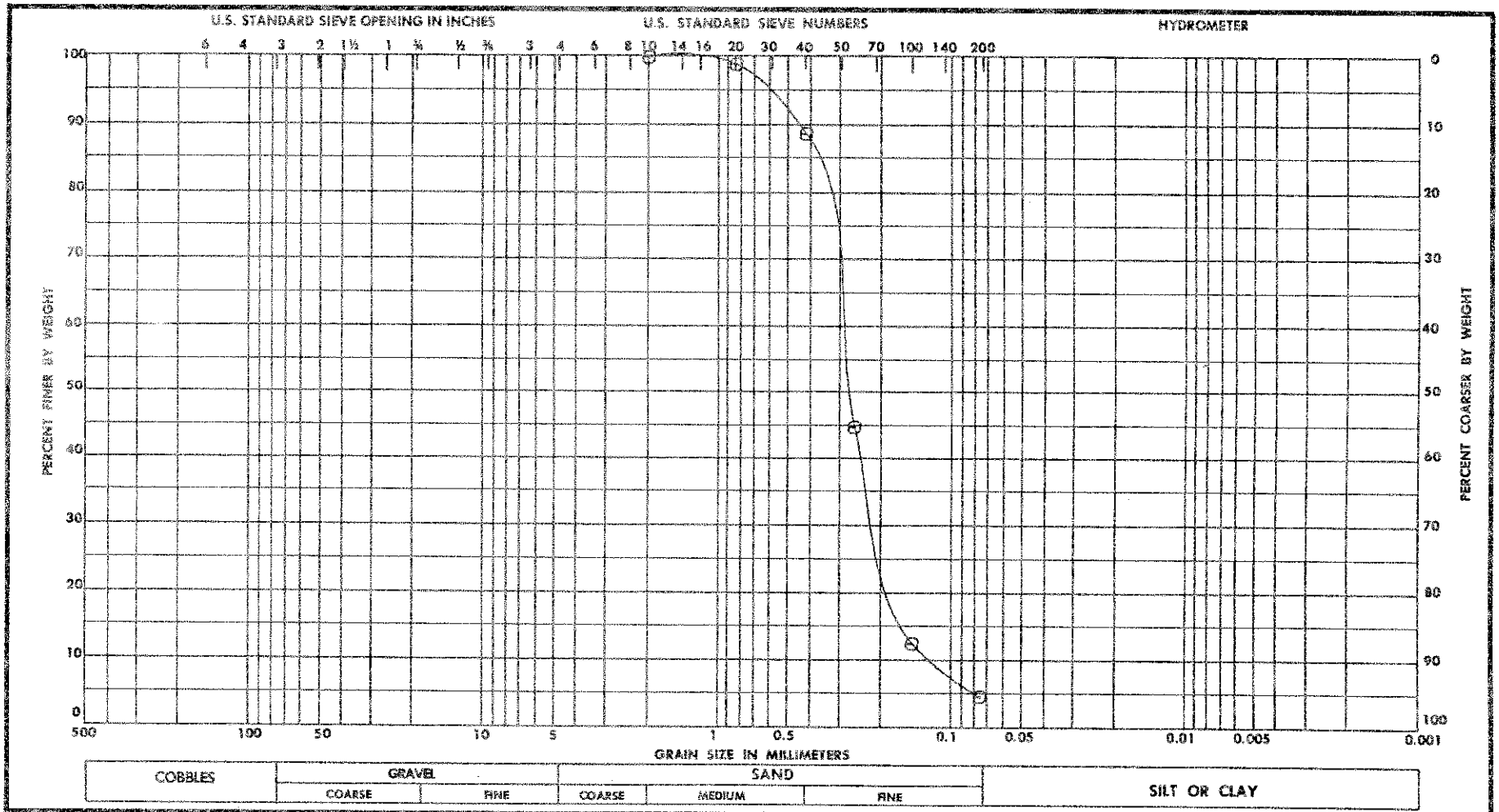
CHART NO. 388

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4030

Req. No. 50-84-FAM



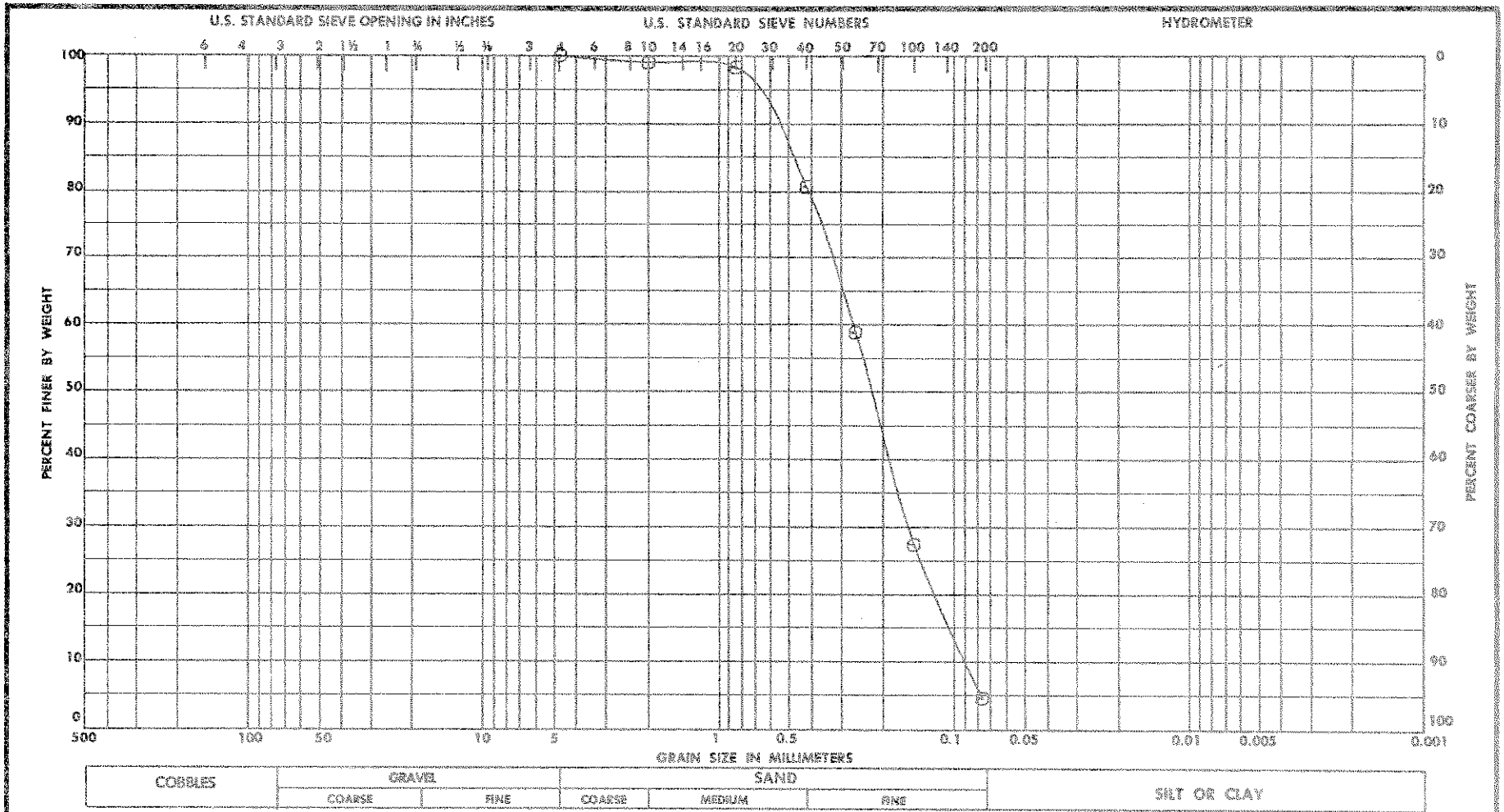
Sample No.	Elev. or Depth	Classification	Nat w %	LL	PL	PI
13	---	VISUAL POORLY GRADED SAND (SP) TAN	--	NP	NP	NP

GRADATION CURVES

Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area LAB NO.57/350
Boring No. SS-203 SAMPLE NO. 13
Date 08/15/84

CHART NO. 389

ENG FORM 1 MAY 69 2087



Sample No.	~~Hole No.~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
18	---	POORLY GRADED SAND (SP)	---	NP	NP	NP
		TAN				

GRADATION CURVES

Project: MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area: LAB NO. 57/353
Boring No. SS-203 SAMPLE NO. 18
Date: 08/15/84

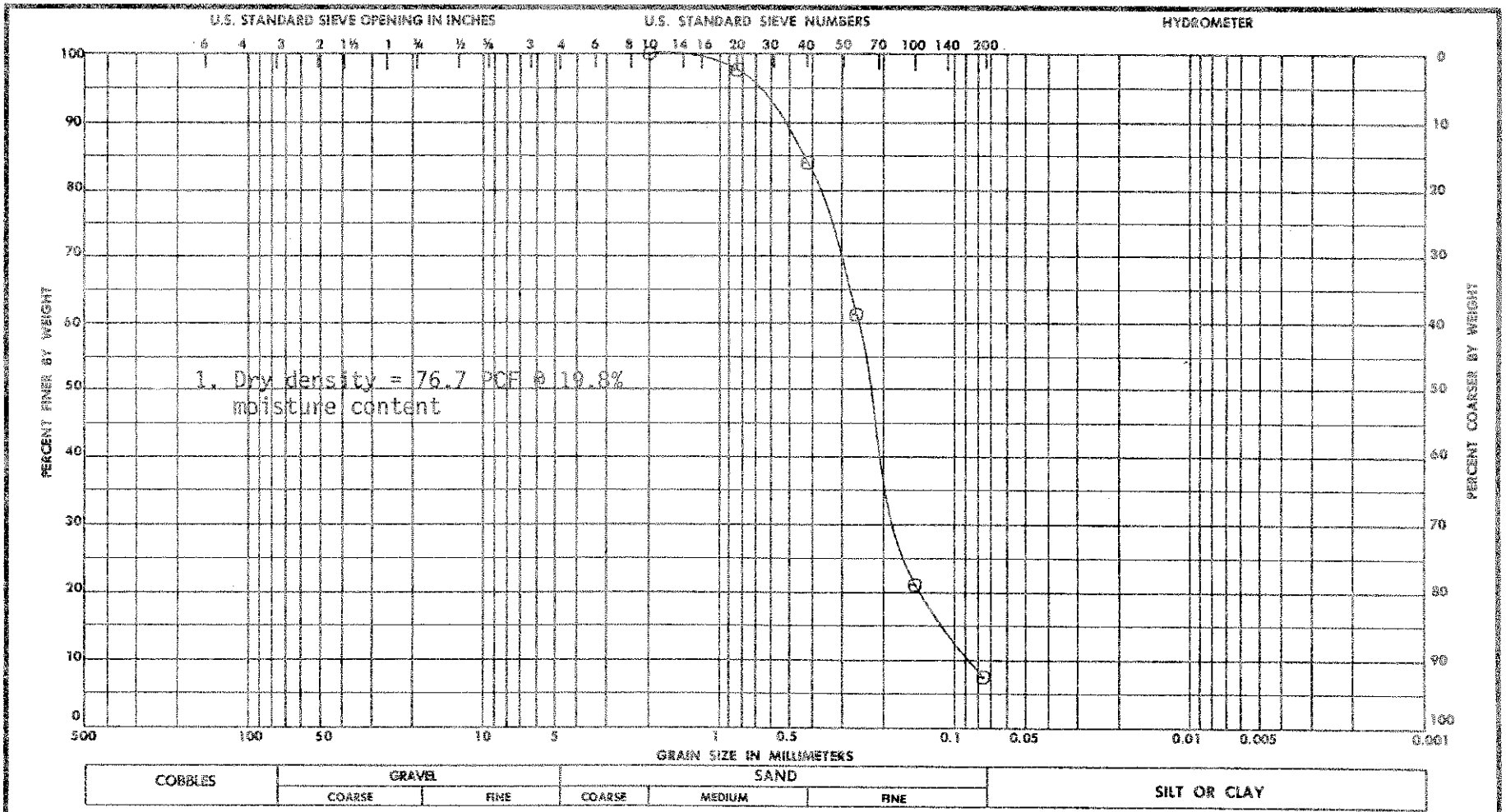
CHART NO. 390

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4030

Req. No. 50-84-F&M



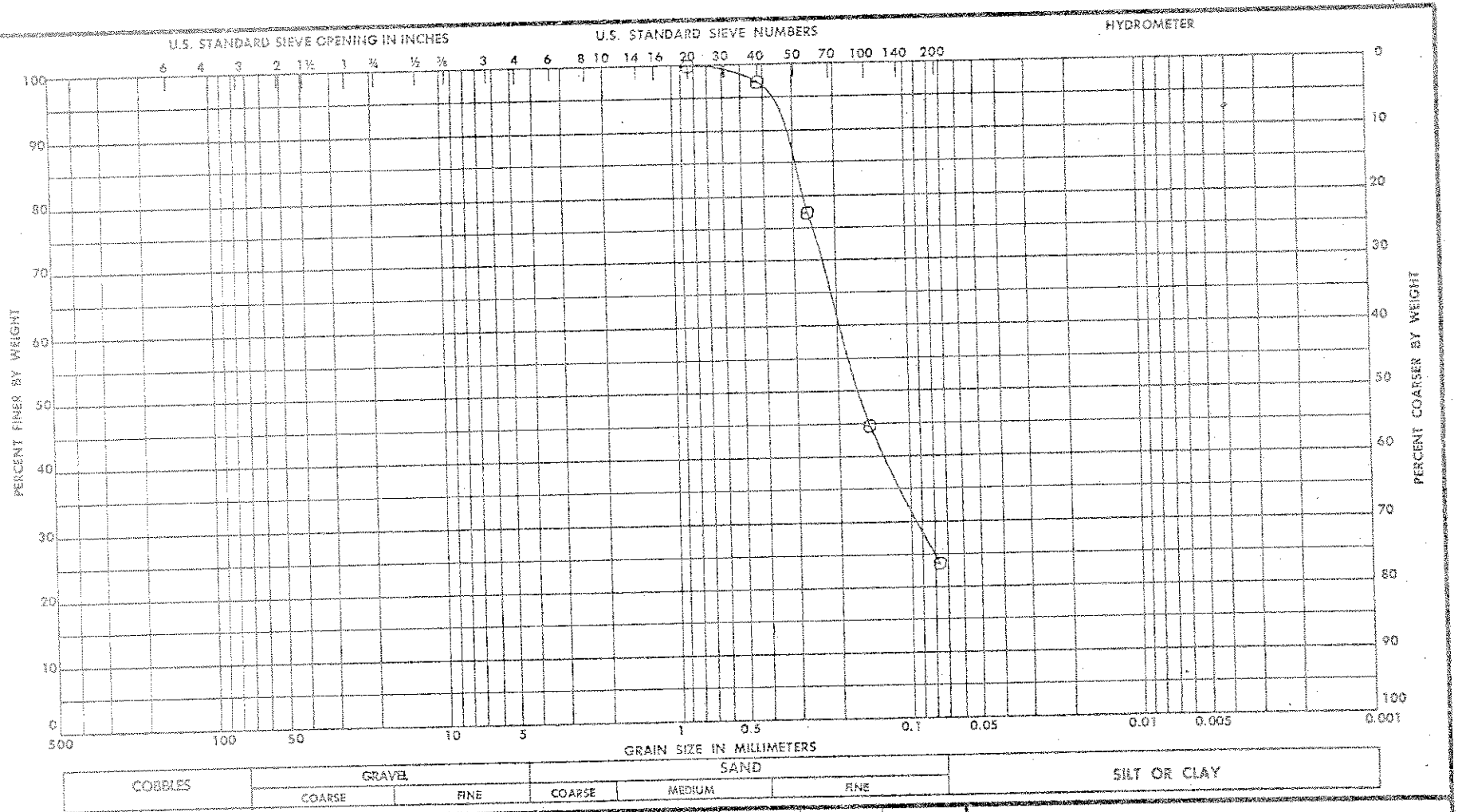
Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
12-18	---	POORLY GRADED SILTY SAND	19.8	NP	NP	NP
		(SP-SM) TAN				
		SPECIFIC GRAVITY = 2.68				

GRADATION CURVES

Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area LAB NO.57/355
Boring No. SS-203 SAMPLE NO. 12-18
Date 08/15/84

CHART NO. 391

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	6.0'	SILTY SAND (SM)	--	NP	NP	NP
		LT. GRAY				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1101
Boring No. VC-1A-84 SAMPLE NO. 2
Date 11/27/84

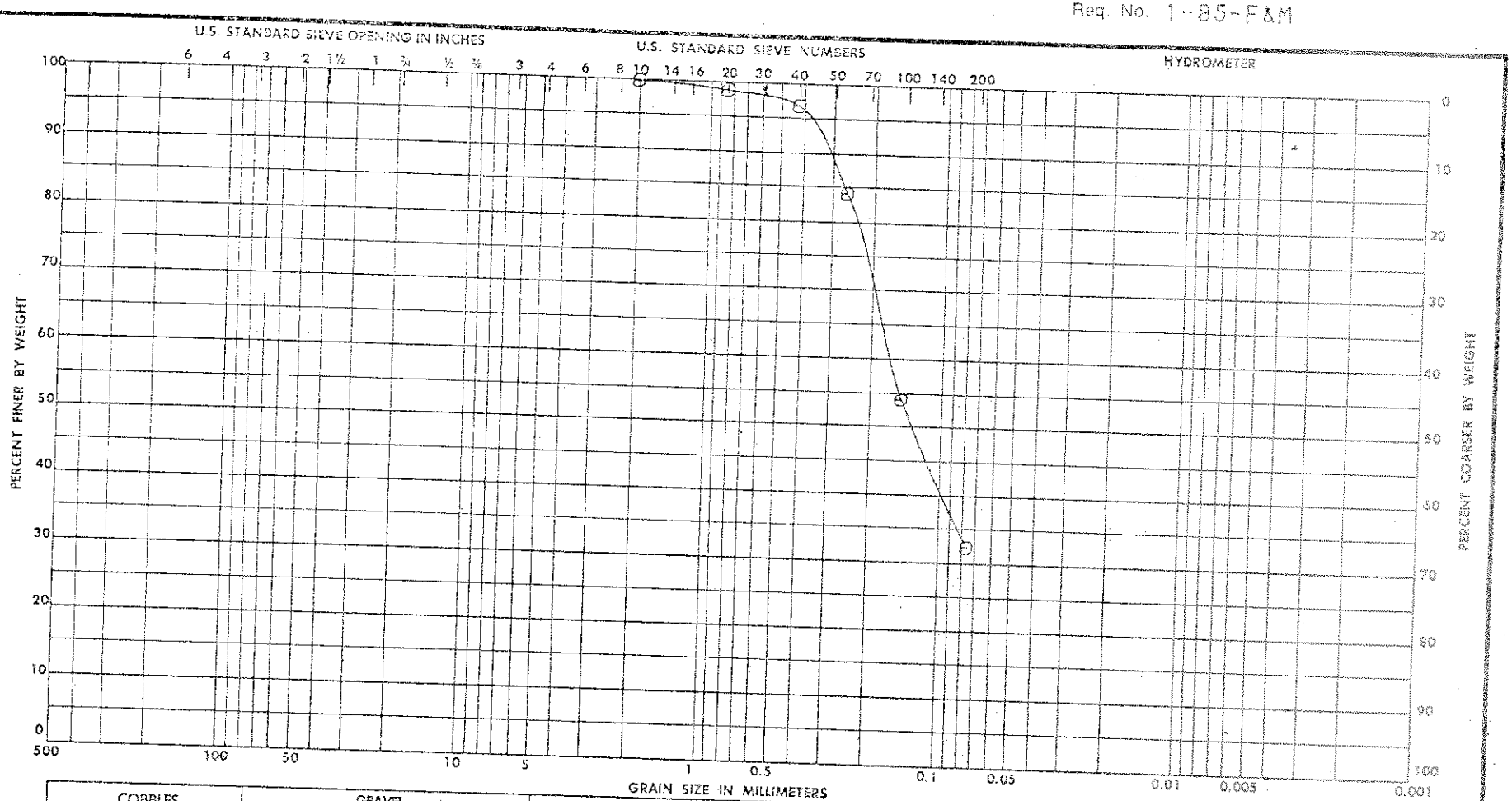
CHART NO. 516

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

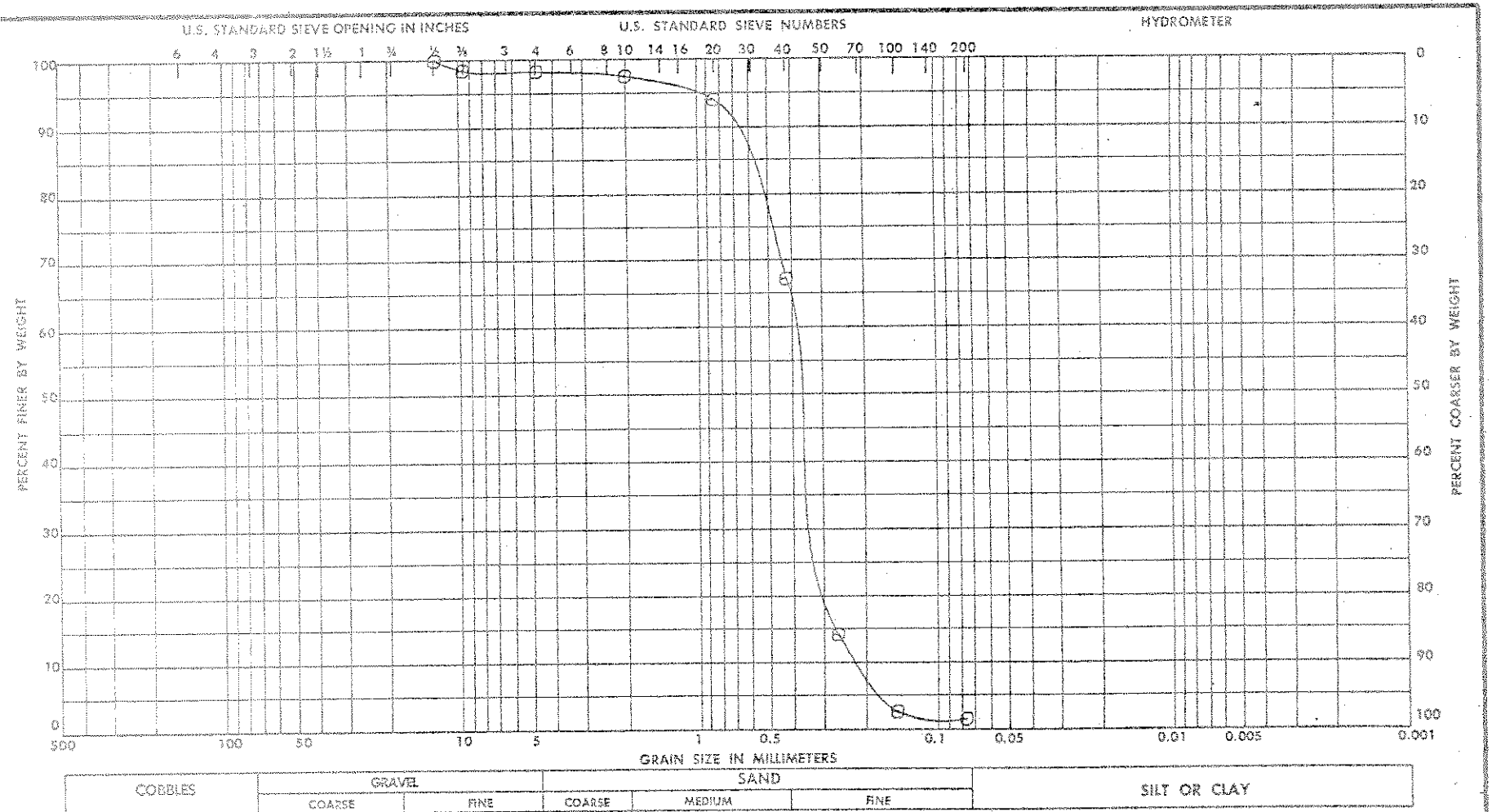
Sample No.	~~Ex~~ or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	9.0'	SILTY SAND (SM)	--	--	--	--
		LT. GRAY WITH OCCASIONAL POCKETS				
		OF FAT CLAY (CH)				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1102
Boring No. VC-1A-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 517

ENG FORM 1 MAY 63 2087



Sample No.	~~Boring~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1103
Boring No. VC-1A-84 SAMPLE NO. 4
Date 11/27/84

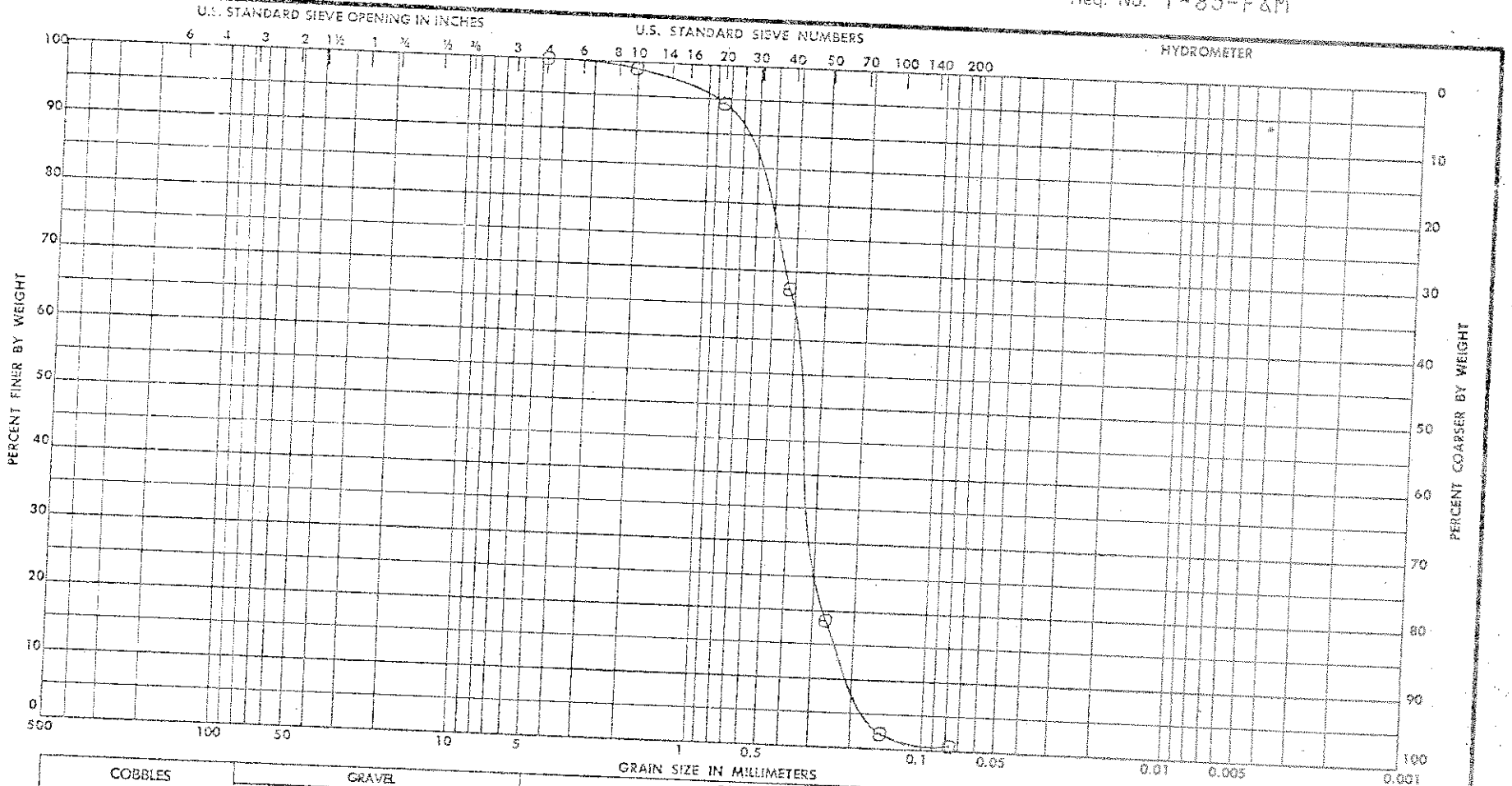
CHART NO. 518

ENG FORM 1 MAY 63 2037

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

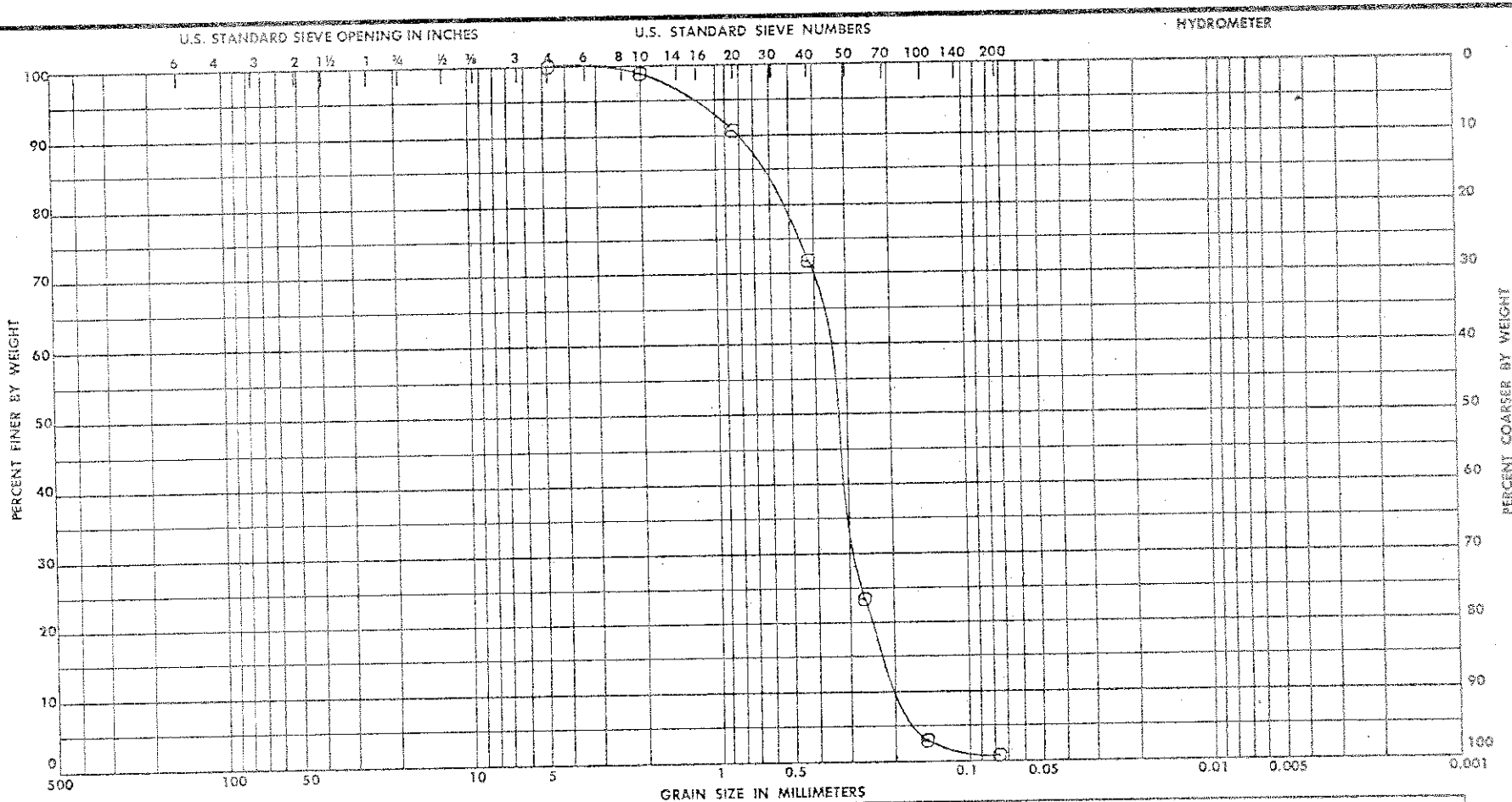
Sample No.	XXXX Depth	Classification	Net w %	LL	PL	PI
3	15.0'	VISUAL POORLY GRADED SAND (SP) LT-TAN	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1106
Boring No. VC-1-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 519

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1107
Boring No. VC-1-84 SAMPLE NO. 4
Date 11/27/84

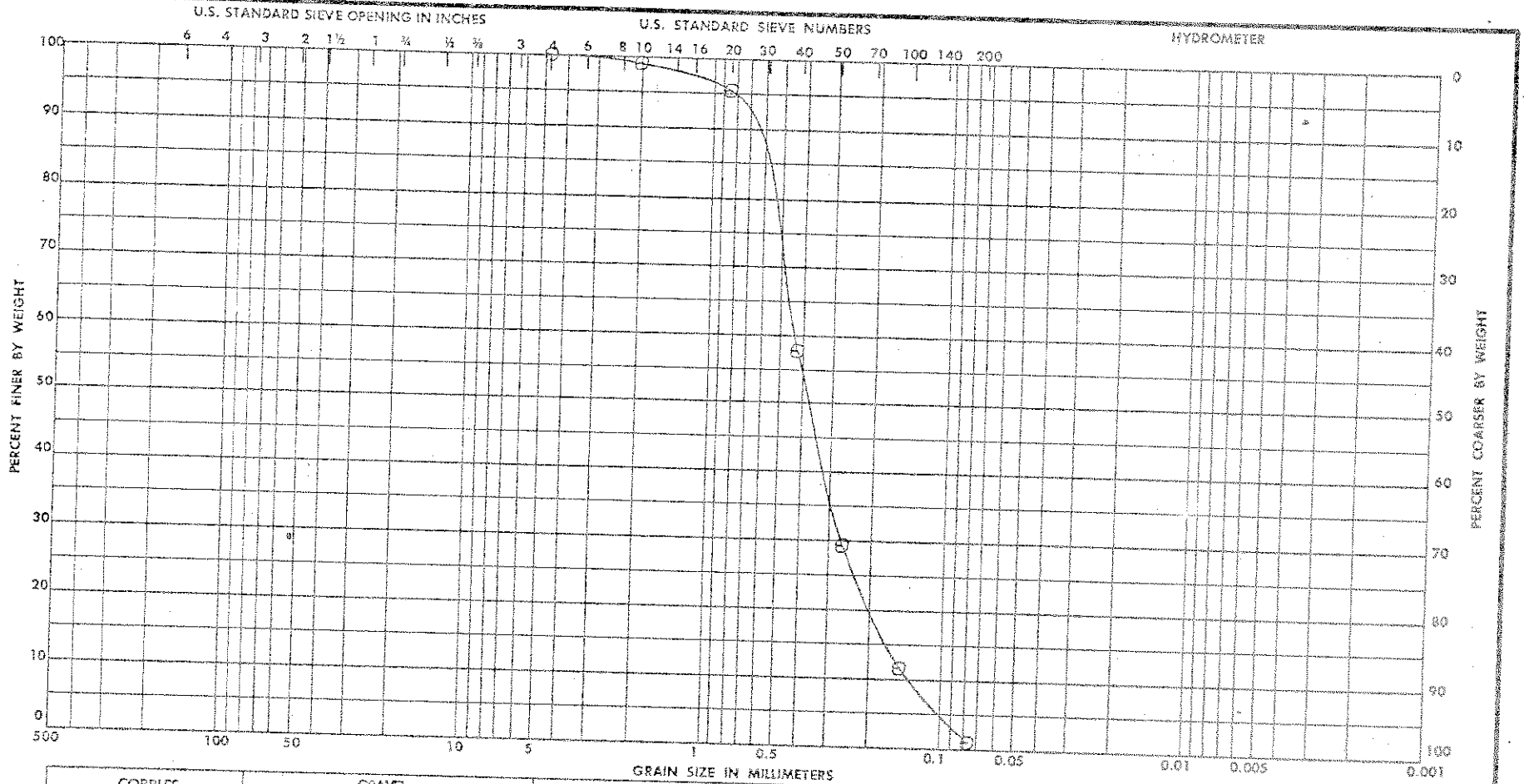
CHART NO. 520

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



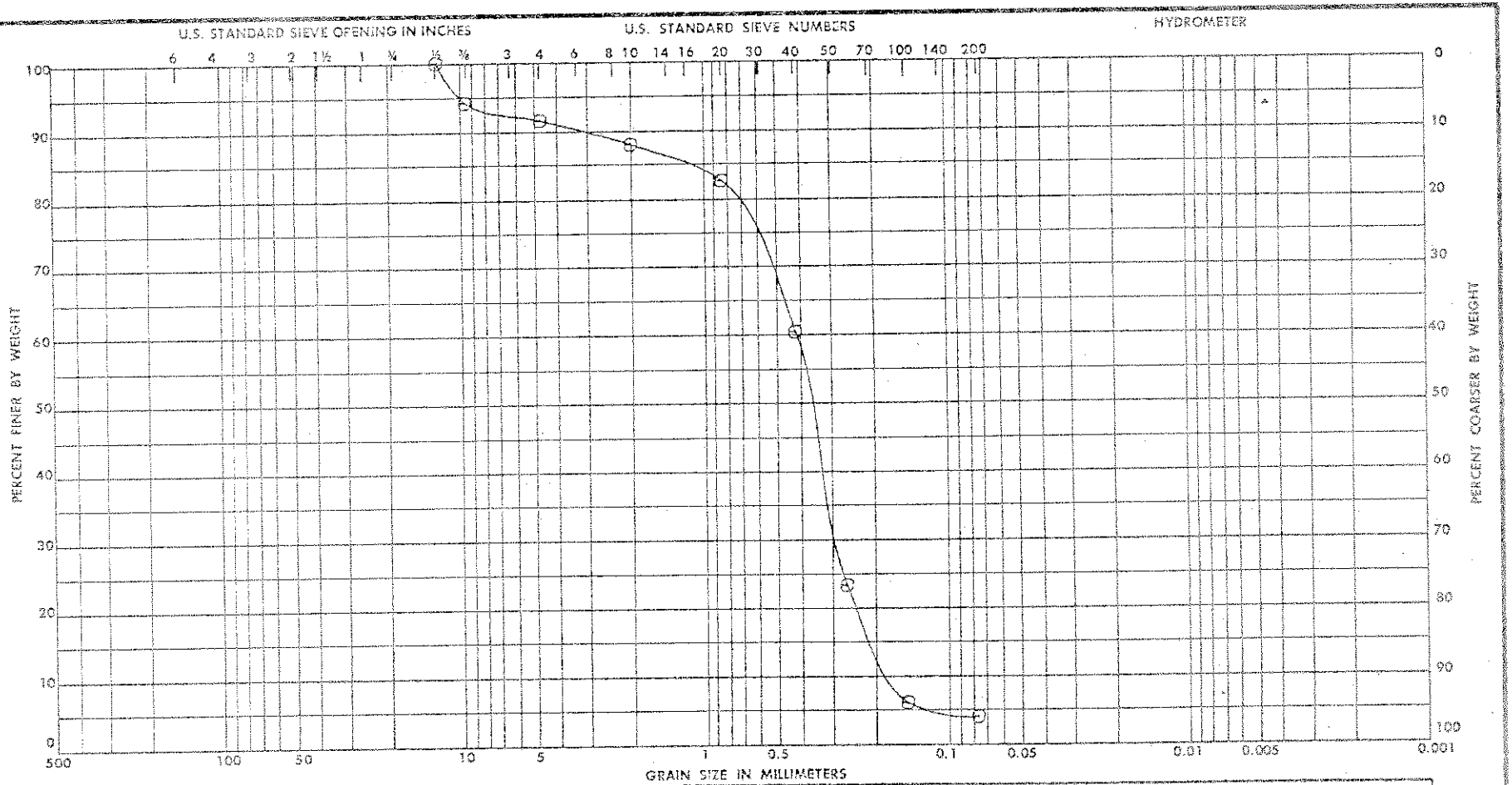
Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	25.0'	POORLY GRADED SAND (SP) LT. GRAY	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1108
Boring No. VC-1-84 SAMPLE NO. 5
Date 11/27/84

ENG FORM 1 MAY 65 2087

CHART NO. 521



Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	15.0'	POORLY GRADED SAND (SP)	---	NP	NP	NP
		LT. GRAY WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1112
Boring No. VC-2-84 SAMPLE NO. 4
Date 11/27/84

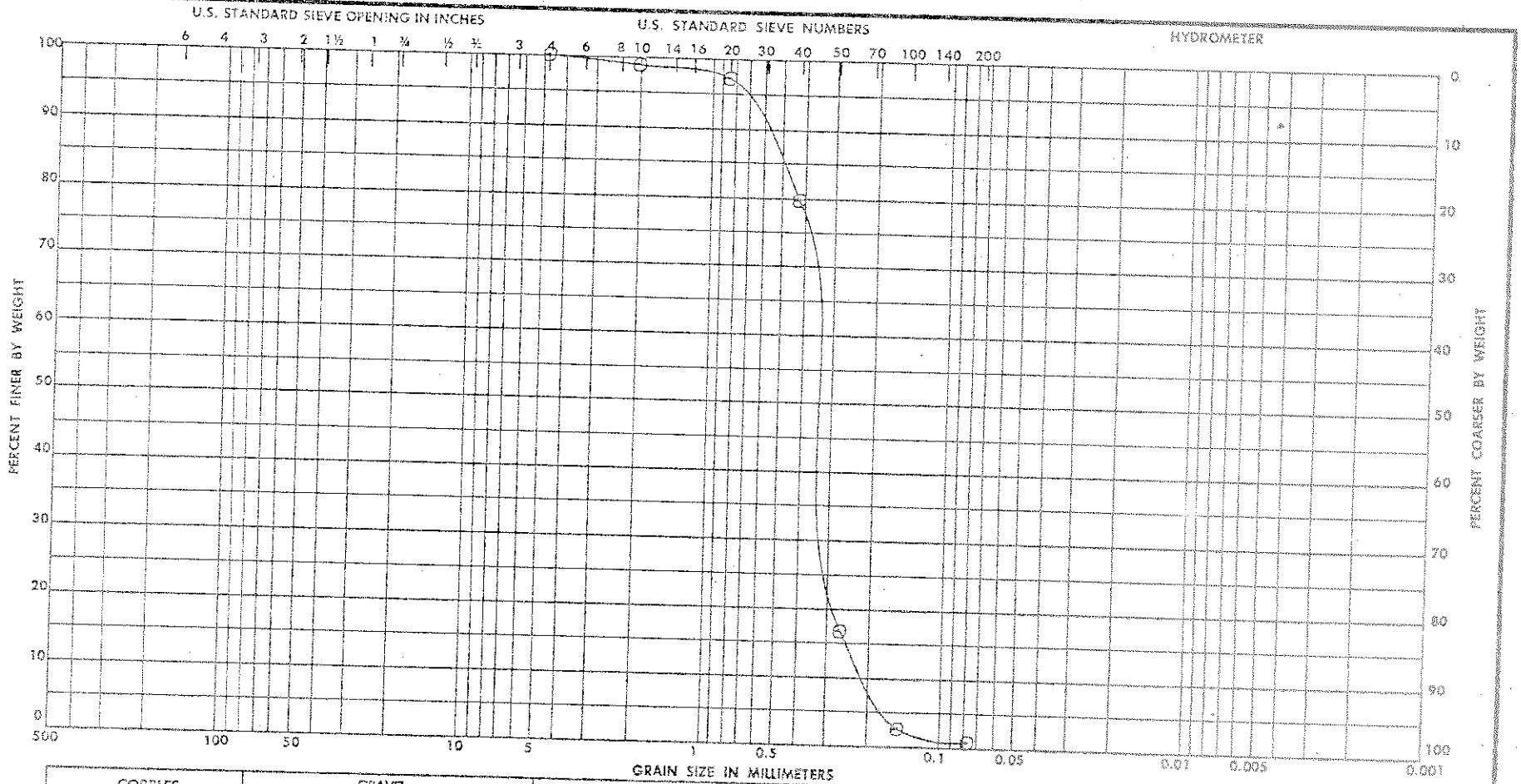
CHART NO. 522

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

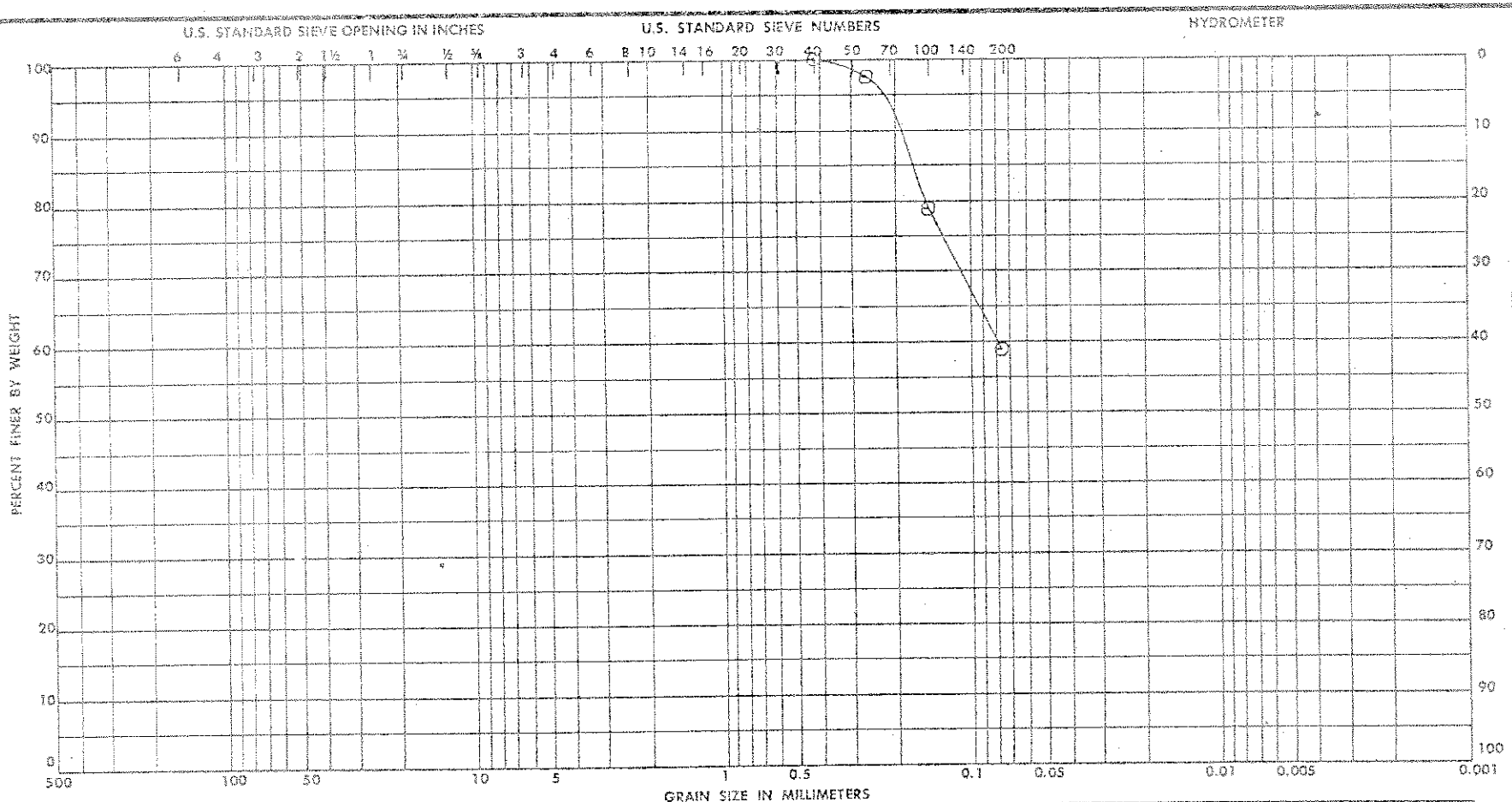
Sample No.	~~X~~X~~X~~X Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1113
Boring No. VC-2-84 SAMPLE NO. 5
Date 11/27/84

CHART NO. 523

ENG FORM 1 MAY 63 2087



Sample No.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	LEAN CLAY (CL), LT. GRAY, SANDY	--	--	--	--

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1115
Boring No. VC-3-84 SAMPLE NO. 2
Date 11/27/84

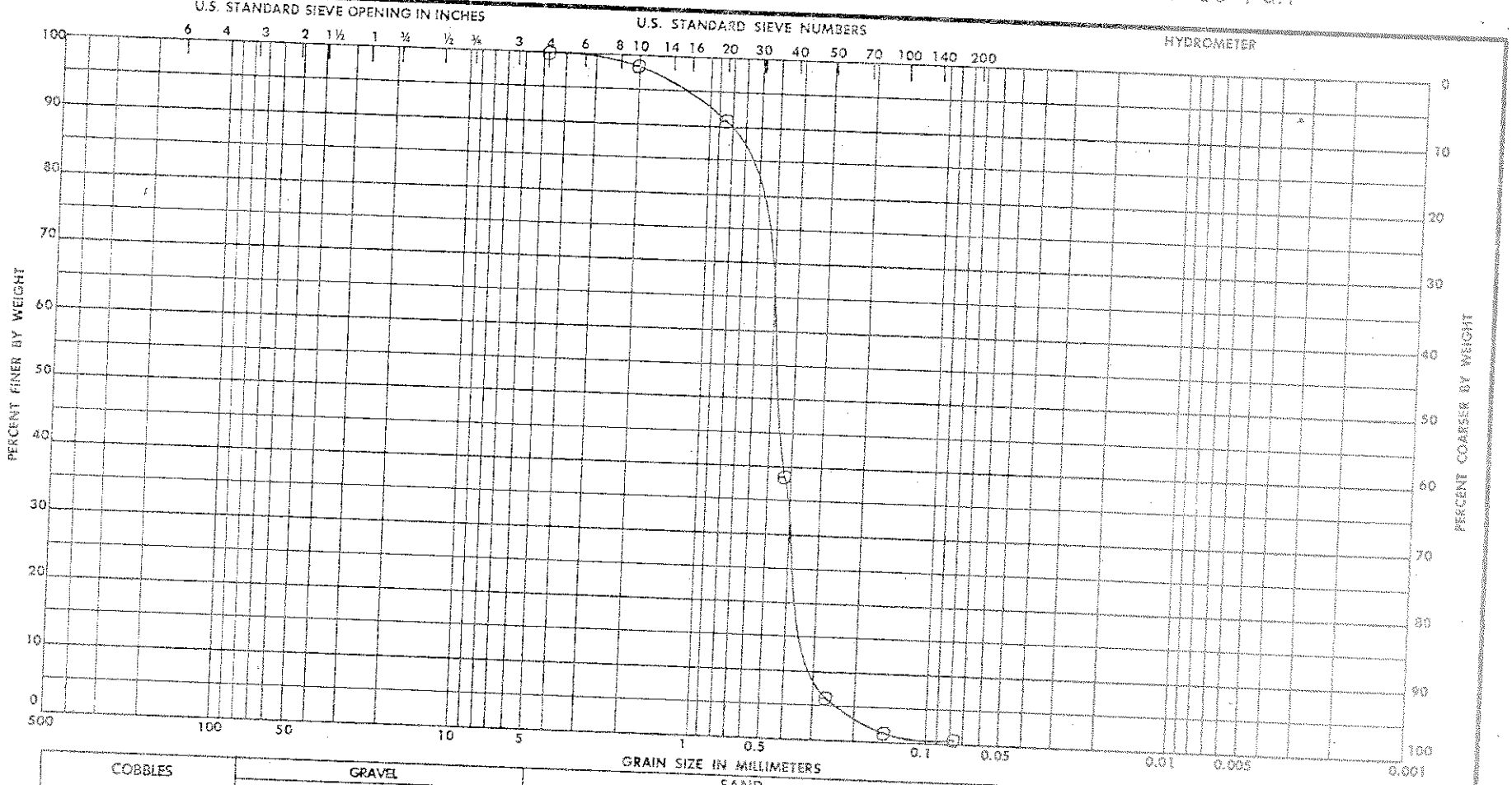
CHART NO. 524

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

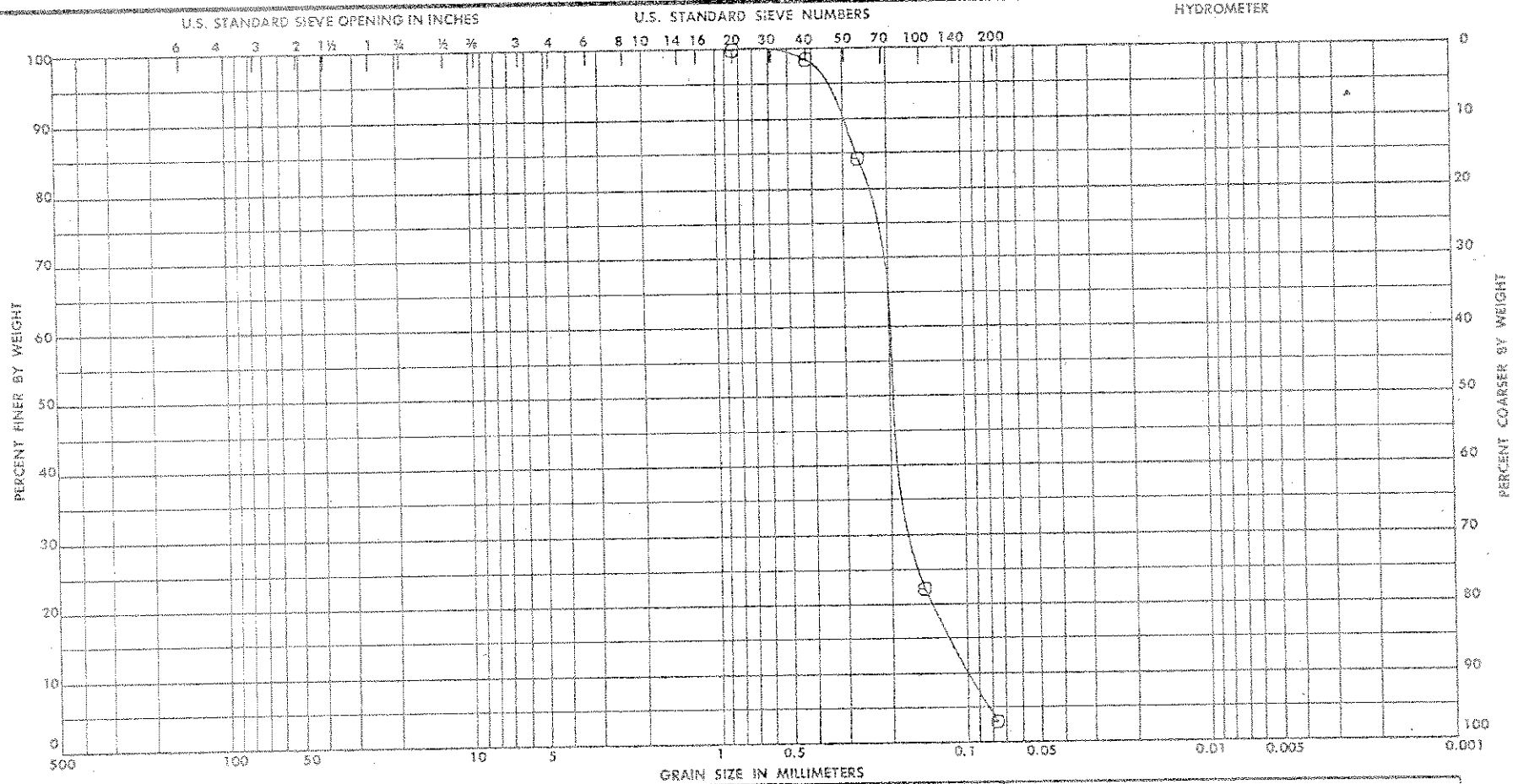
Sample No.	~~Hole No.~~ Depth	Classification	Nat w %	LL	PL	PI
3	15.0'	VISUAL POORLY GRADED SAND (SP) LT. TAN	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1116
Boring No. VC-3-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 525

ENG FORM 1 MAY 63 2087



Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1117
Boring No. VC-4-84 SAMPLE NO. 1
Date 11/27/84

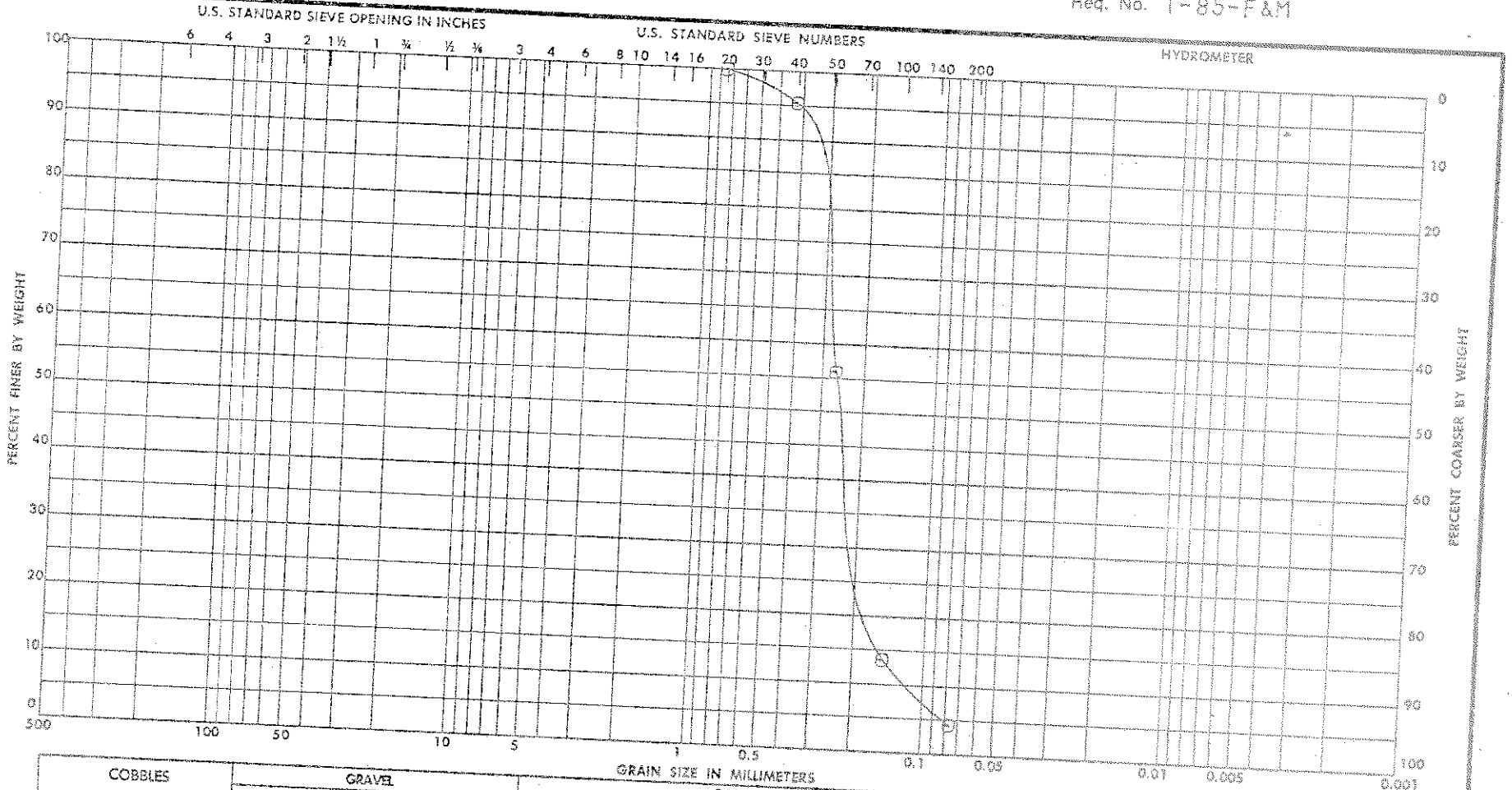
CHART NO. 526

ENG FORM 1 MAY 53 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

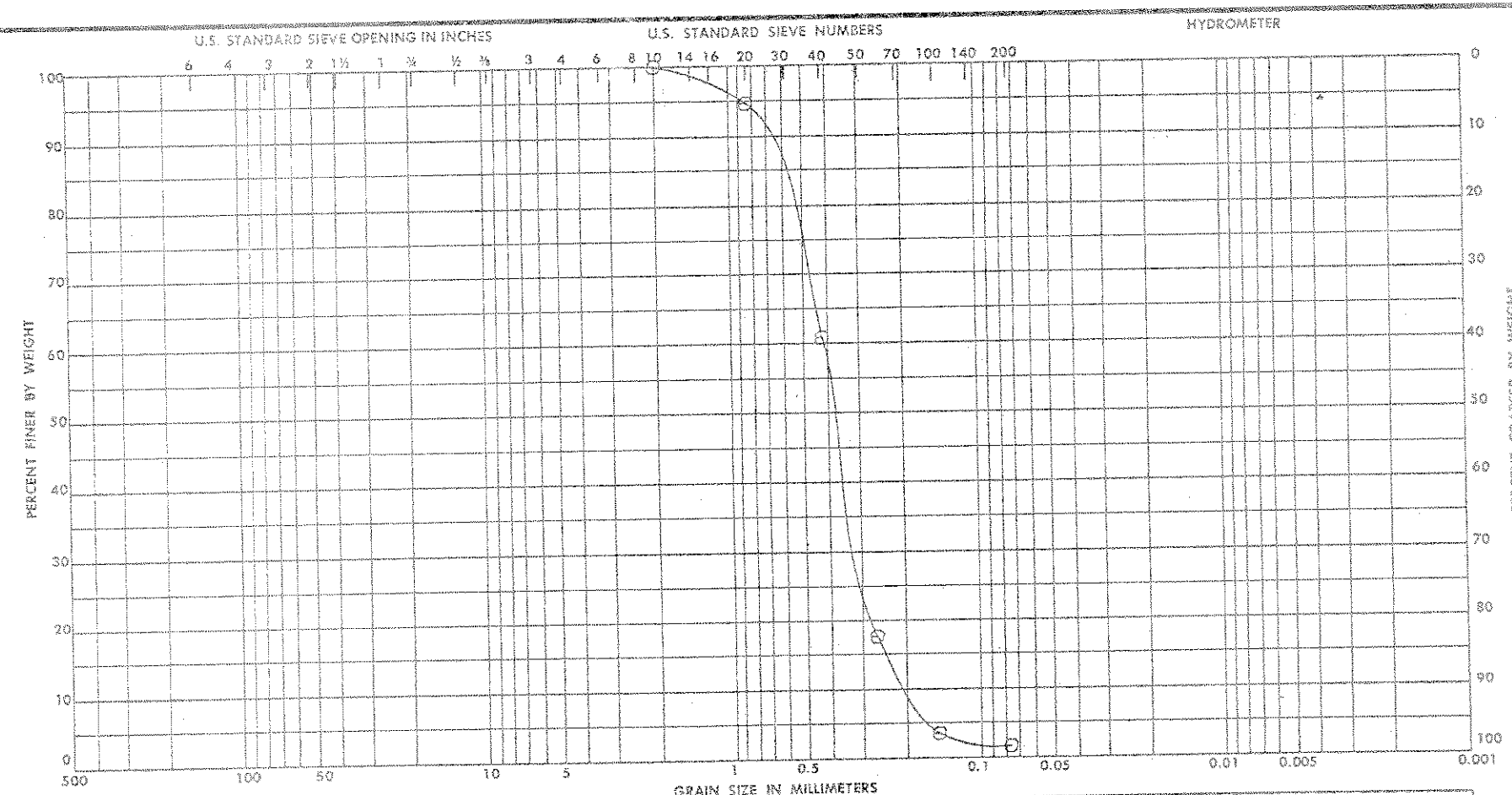
Sample No.	~~XXXX~~ Depth	Classification	Nat w %	LL	PL	PI
2	10.0'	VISUAL POORLY GRADED SAND (SP) LT. TAN	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1118
Boring No. VC-4-84 SAMPLE NO. 2
Date 11/27/84

ENG FORM 1 MAY 68 2087

CHART NO. 527



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
1	5.0'	VISUAL POORLY GRADED SAND (SP) LT. GRAY	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1119
Boring No. VC-5-84 SAMPLE NO. 1
Date 11/27/84

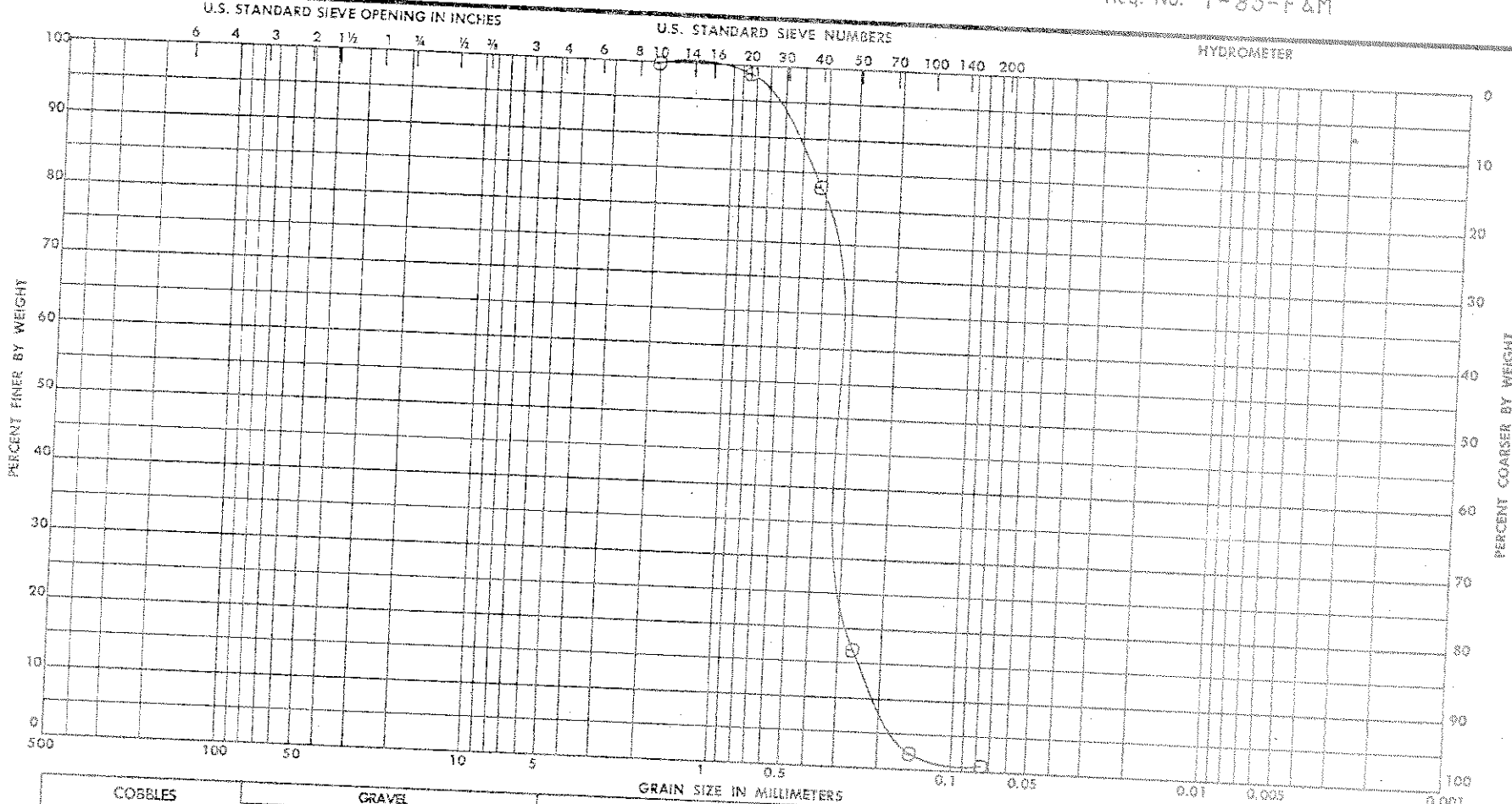
CHART NO. 528

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

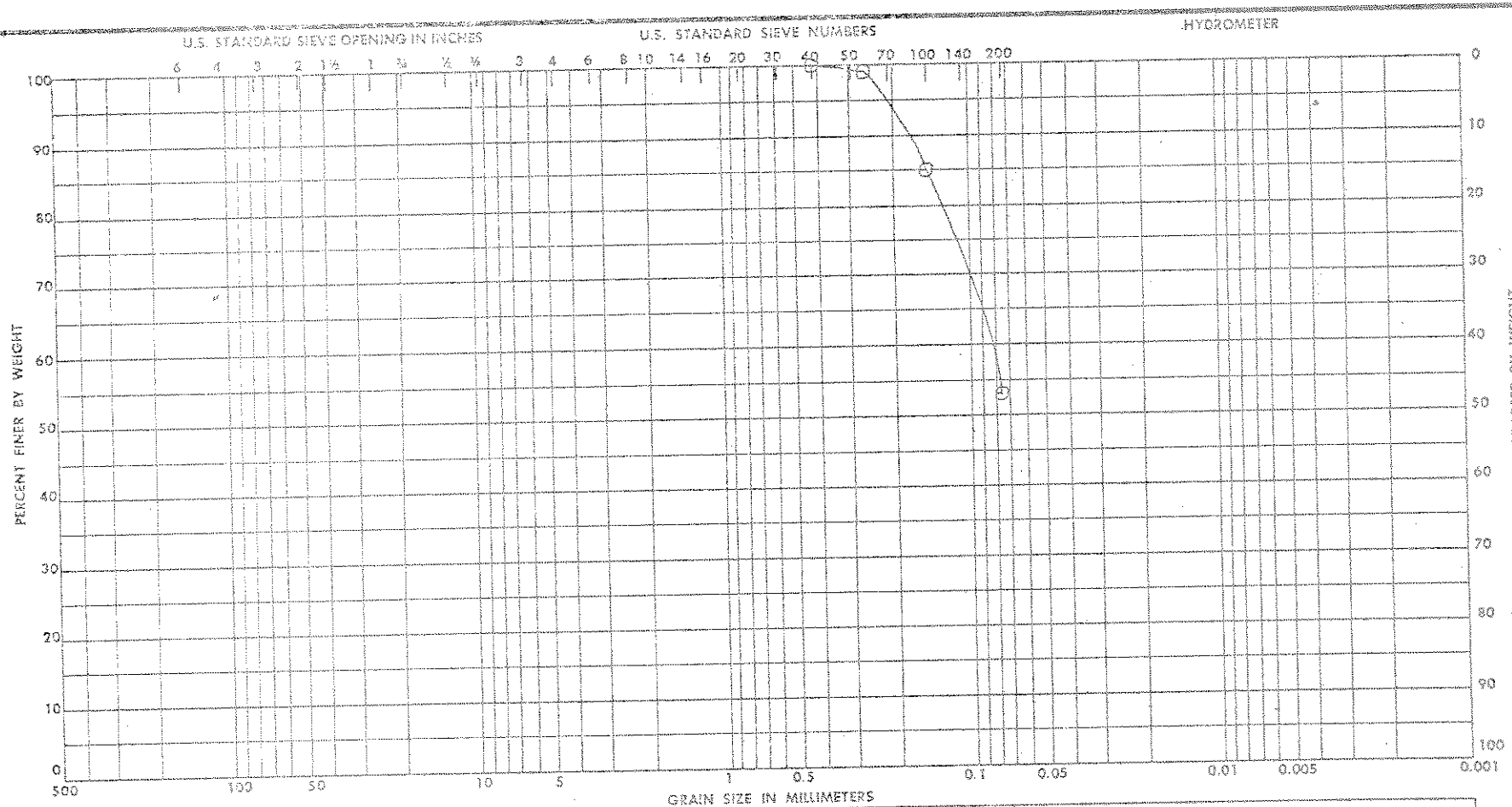
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	15.0'	VISUAL POORLY GRADED SAND (SP) LT. GRAY	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1120
Boring No. VC-5-84 SAMPLE NO. 2
Date 11/27/84

ENG FORM 1 MAY 63 2087

CHART NO. 529



Sample No.	%W/%K Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	LEAN CLAY (CL), LT. GRAY, SANDY	--	--	--	--

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1122
Boring No. VC-6-84 SAMPLE NO. 2
Date 11/27/84

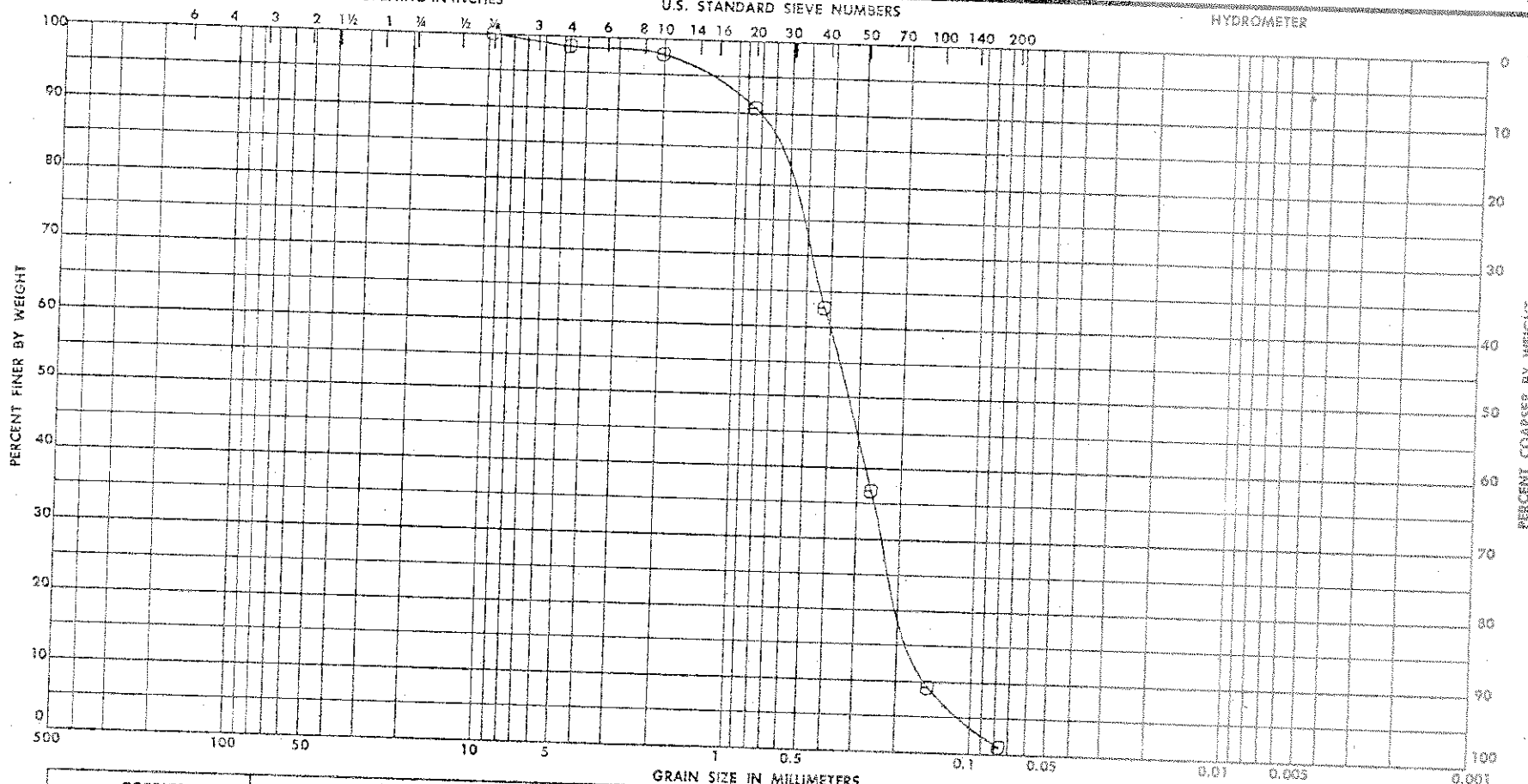
CHART NO. 530

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

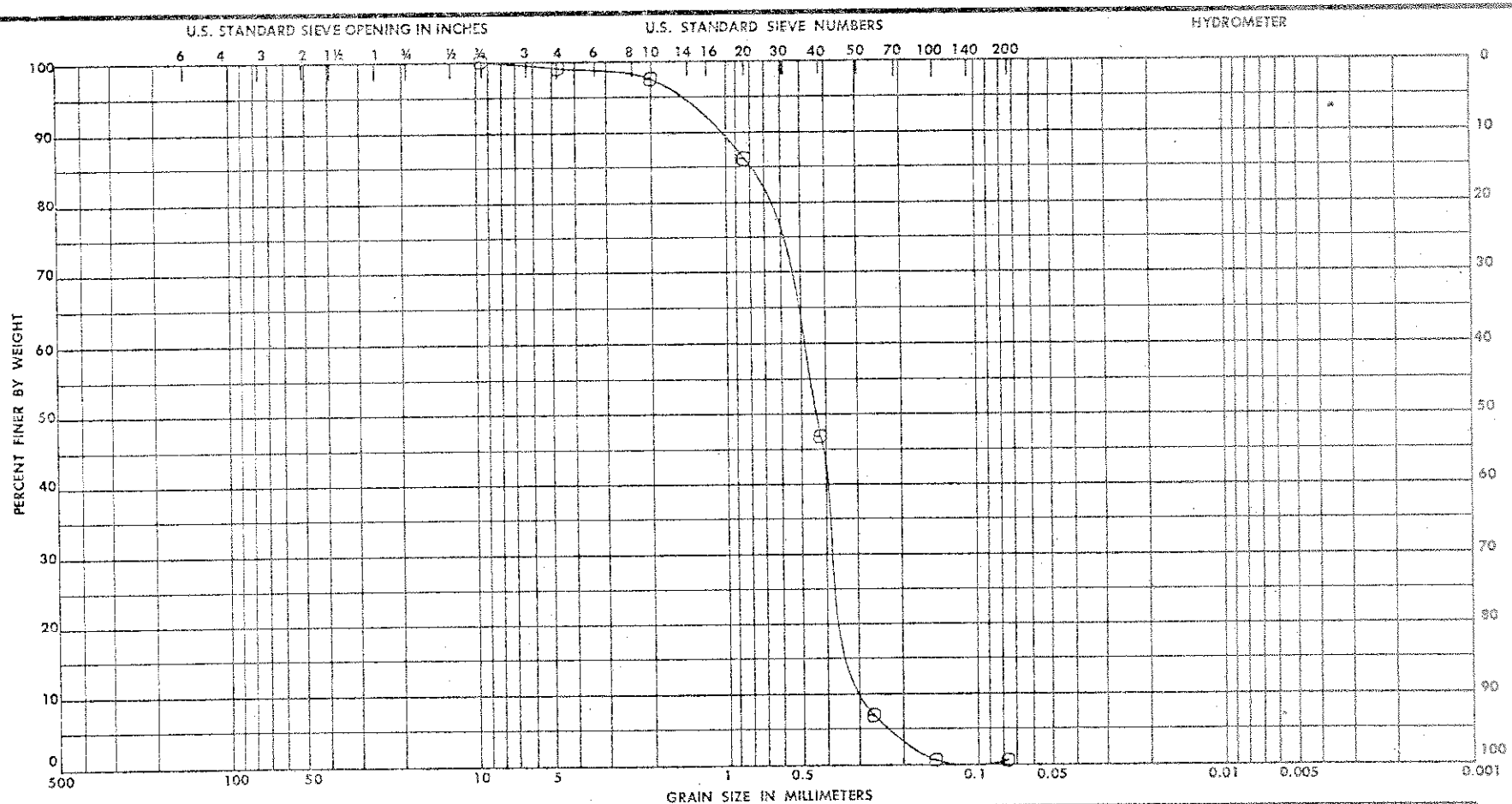
Sample No.	~~Boring~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1123
Boring No. VC-6-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 531

ENG FORM 1 MAY 63 2087



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
4	20.0'	VISUAL POORLY GRADED SAND (SP) LT.TAN WITH A TRACE OF GRAVEL	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1124
Boring No. VC-6-84 SAMPLE NO. 4
Date 11/27/84

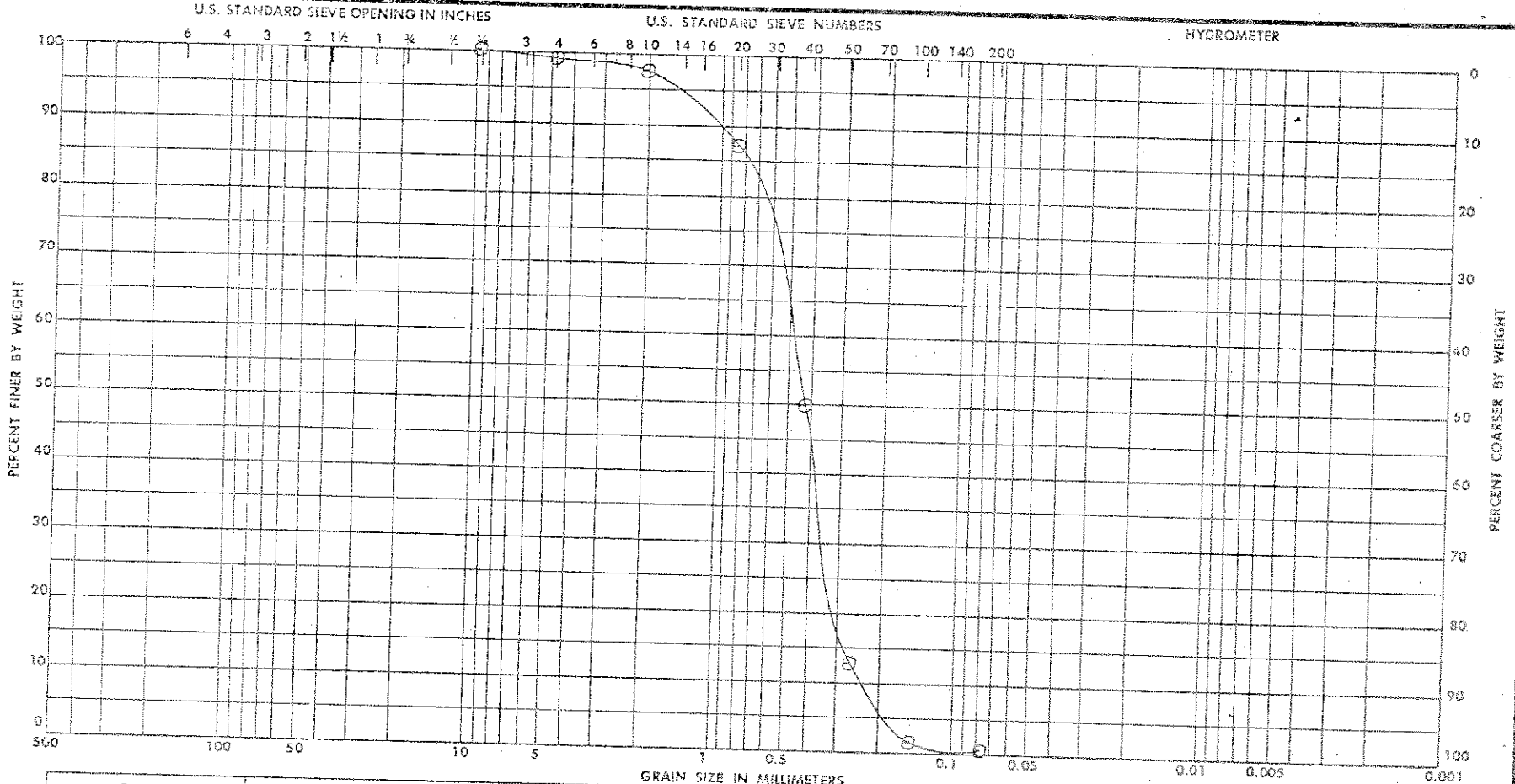
CHART NO. 532

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

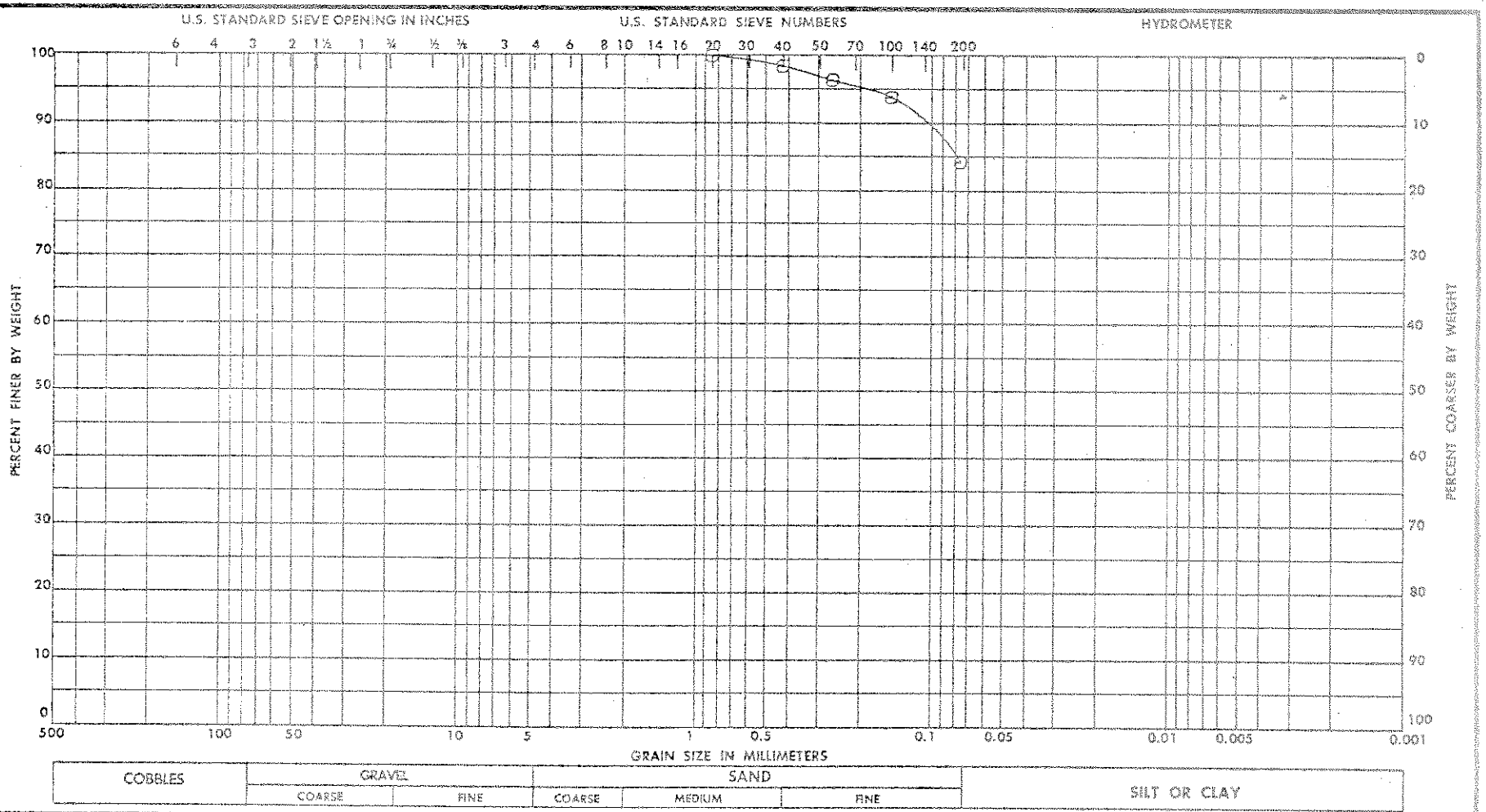
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1126
Boring No. VC-7-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 533

ENG FORM 1 MAY 68 2087



Sample No.	~~Elev~~ or Depth	Classification	Nat w %	LL	PL	PI
1	7.0'	LEAN CLAY (CL)	--	49	16	33
		GREENISH GRAY WITH A LITTLE				
		SAND. SPECIFIC GRAVITY ≈ 2.69				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1127
Boring No. VC-8-84 SAMPLE NO. 1
Date 11/27/84

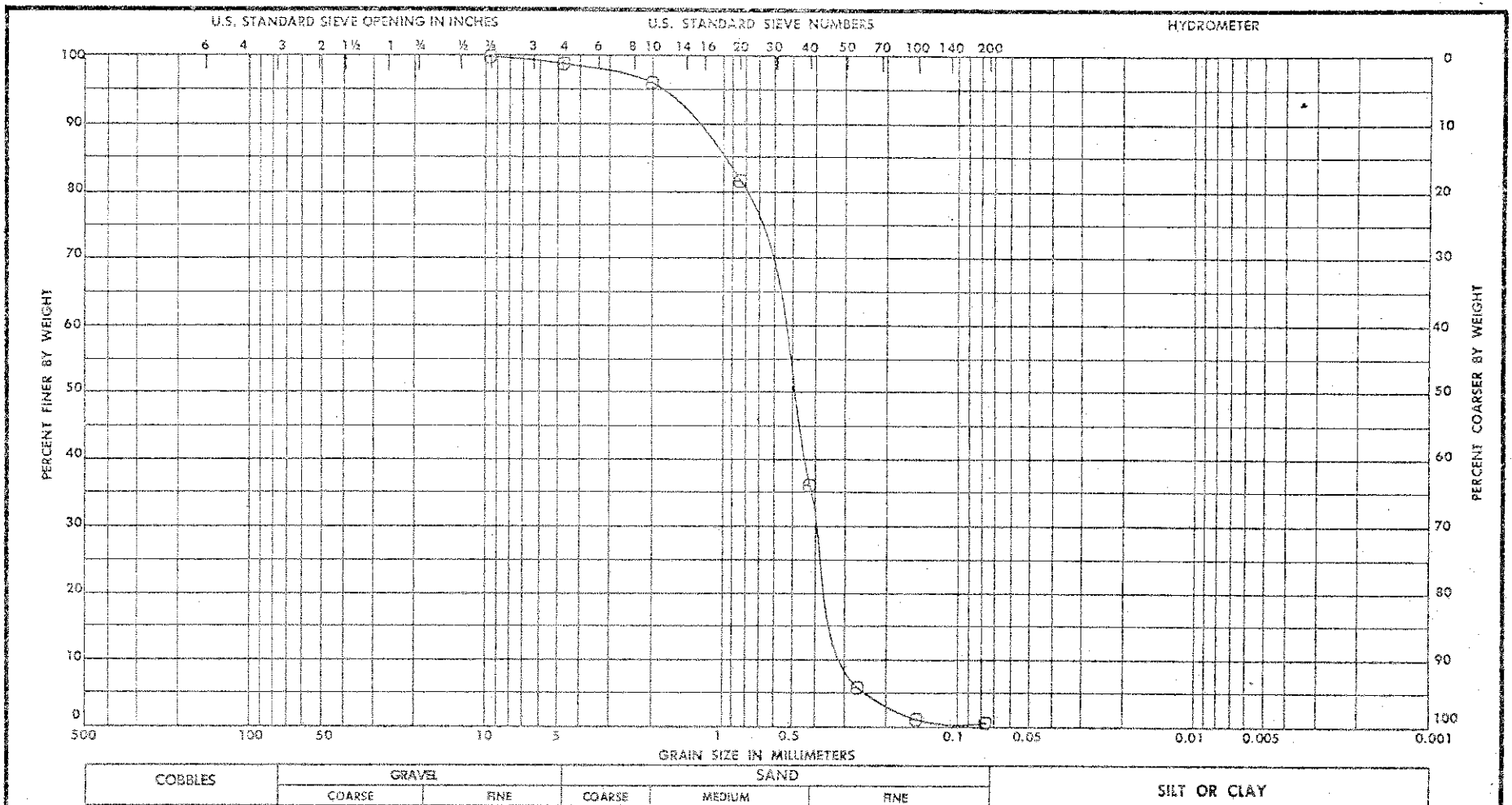
CHART NO. 534

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



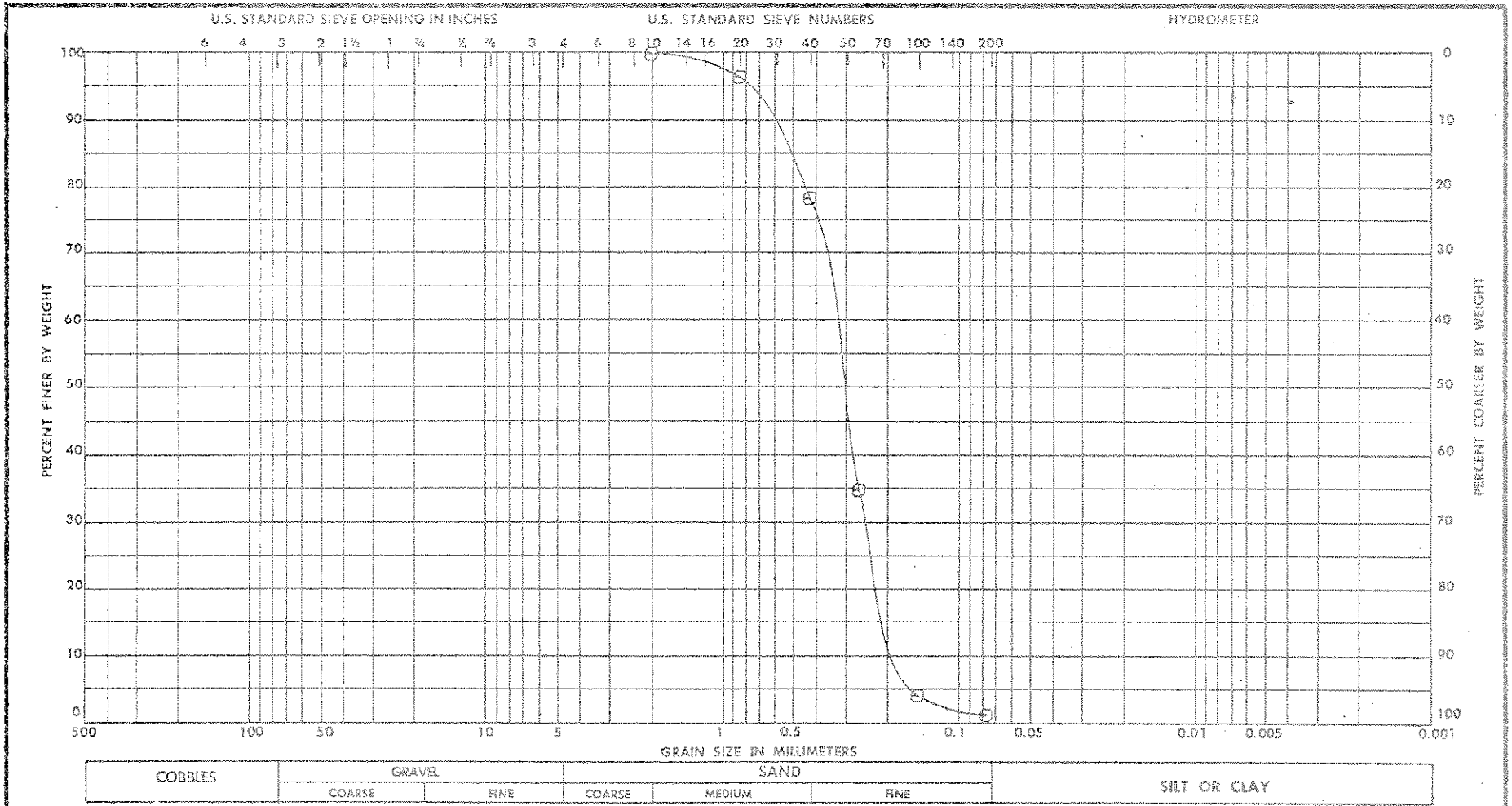
Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
2	10.0'	VISUAL POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.GRAY WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1128
Boring No. VC-8-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 535

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1129
Boring No. VC-8-84 SAMPLE NO. 3
Date 11/27/84

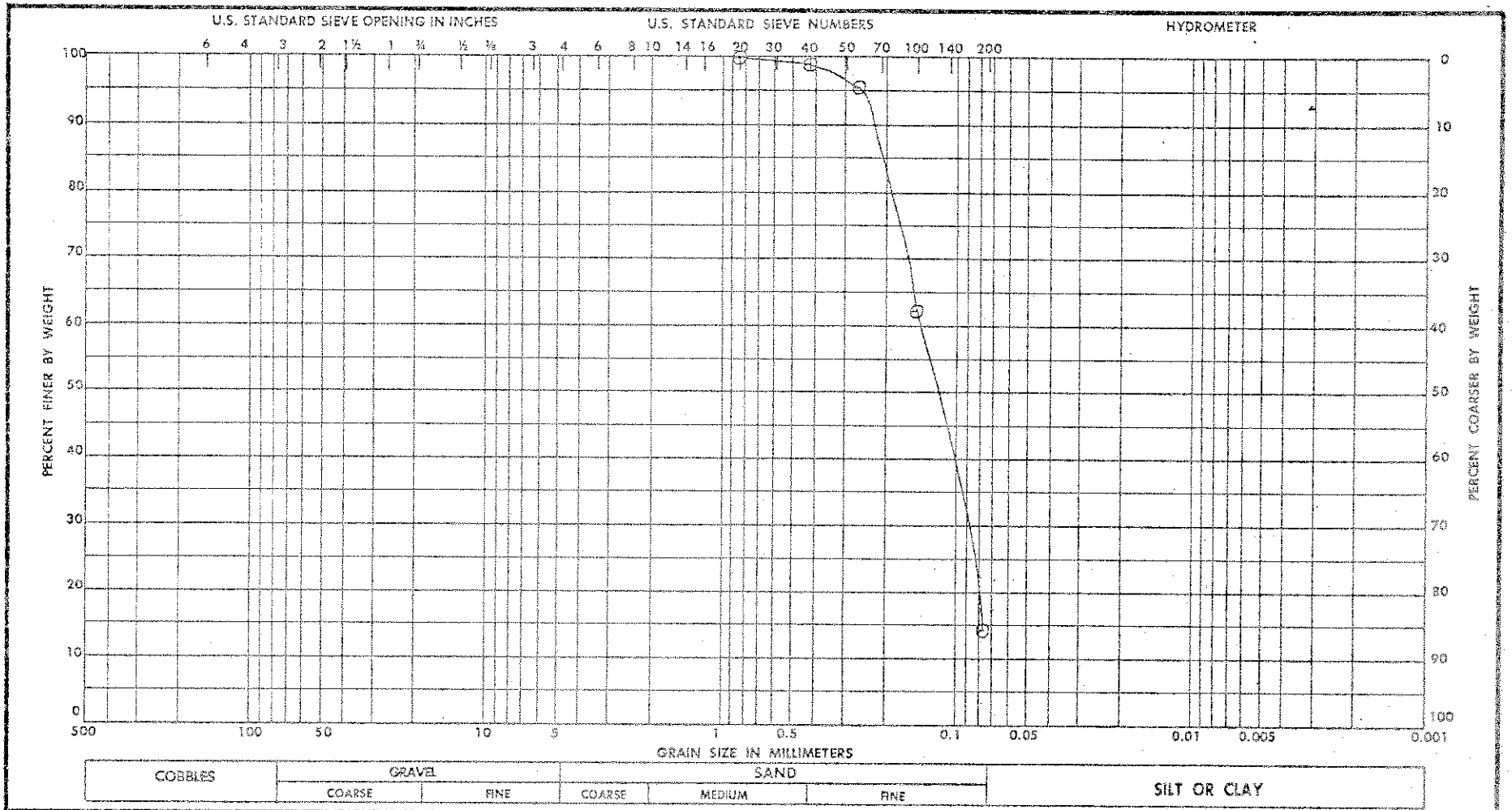
CHART NO. 536

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



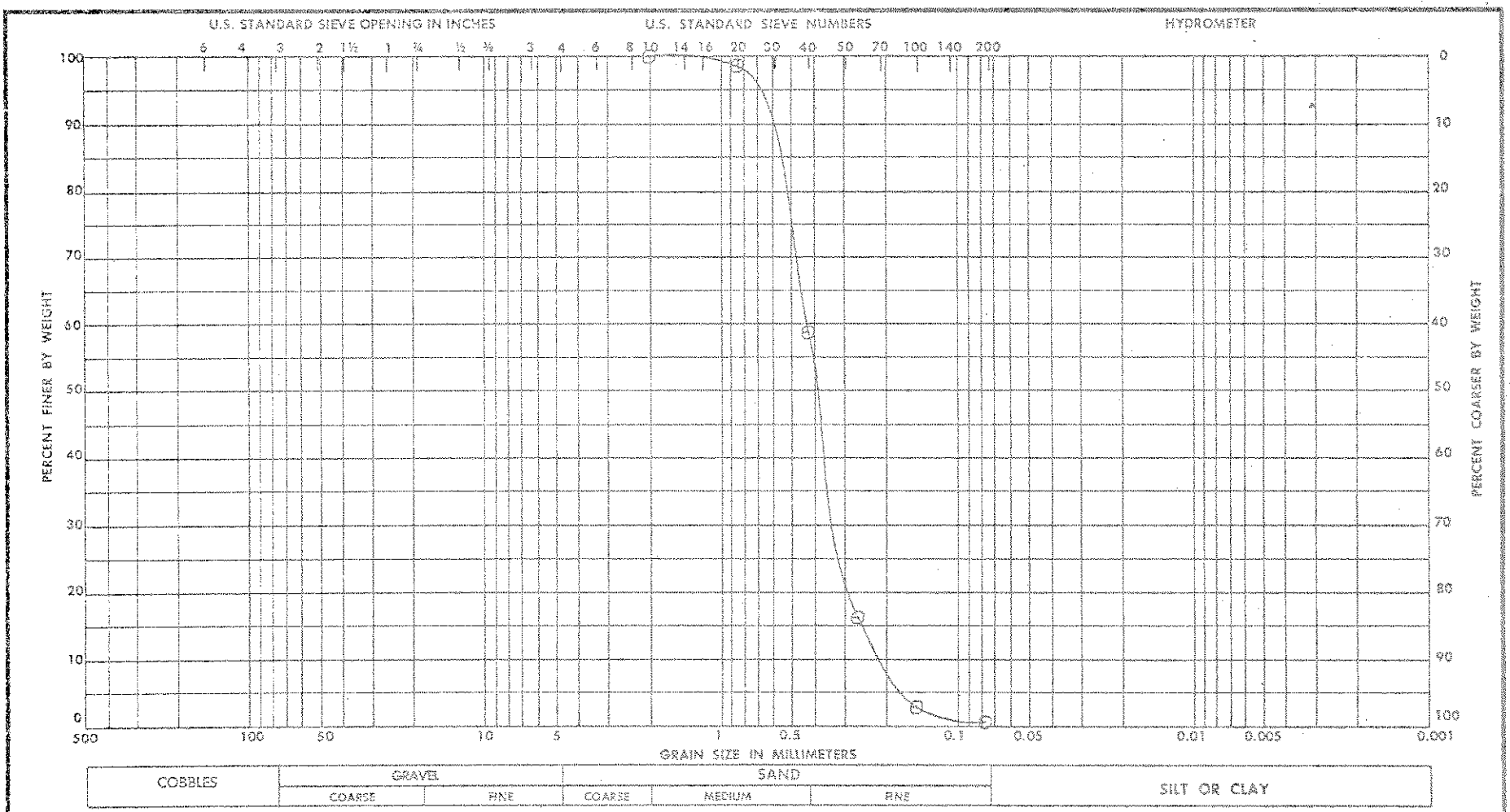
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1130
Boring No. VC-9-84 SAMPLE NO. 1
Date 11/27/84

CHART NO. 537

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	19.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 37/1131
Boring No. VC-9-84 SAMPLE NO. 2
Date 11/27/84

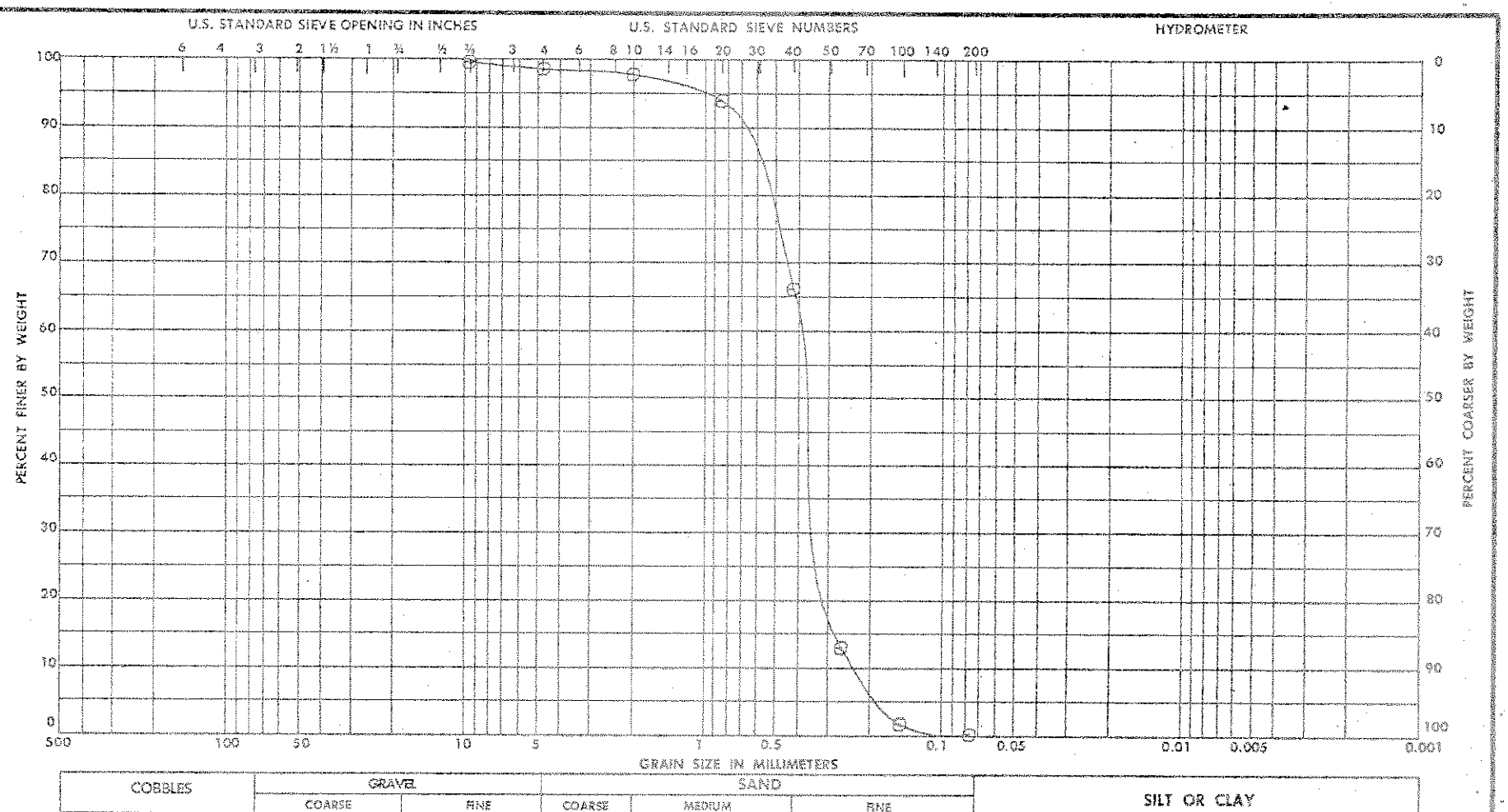
CHART NO. 538

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



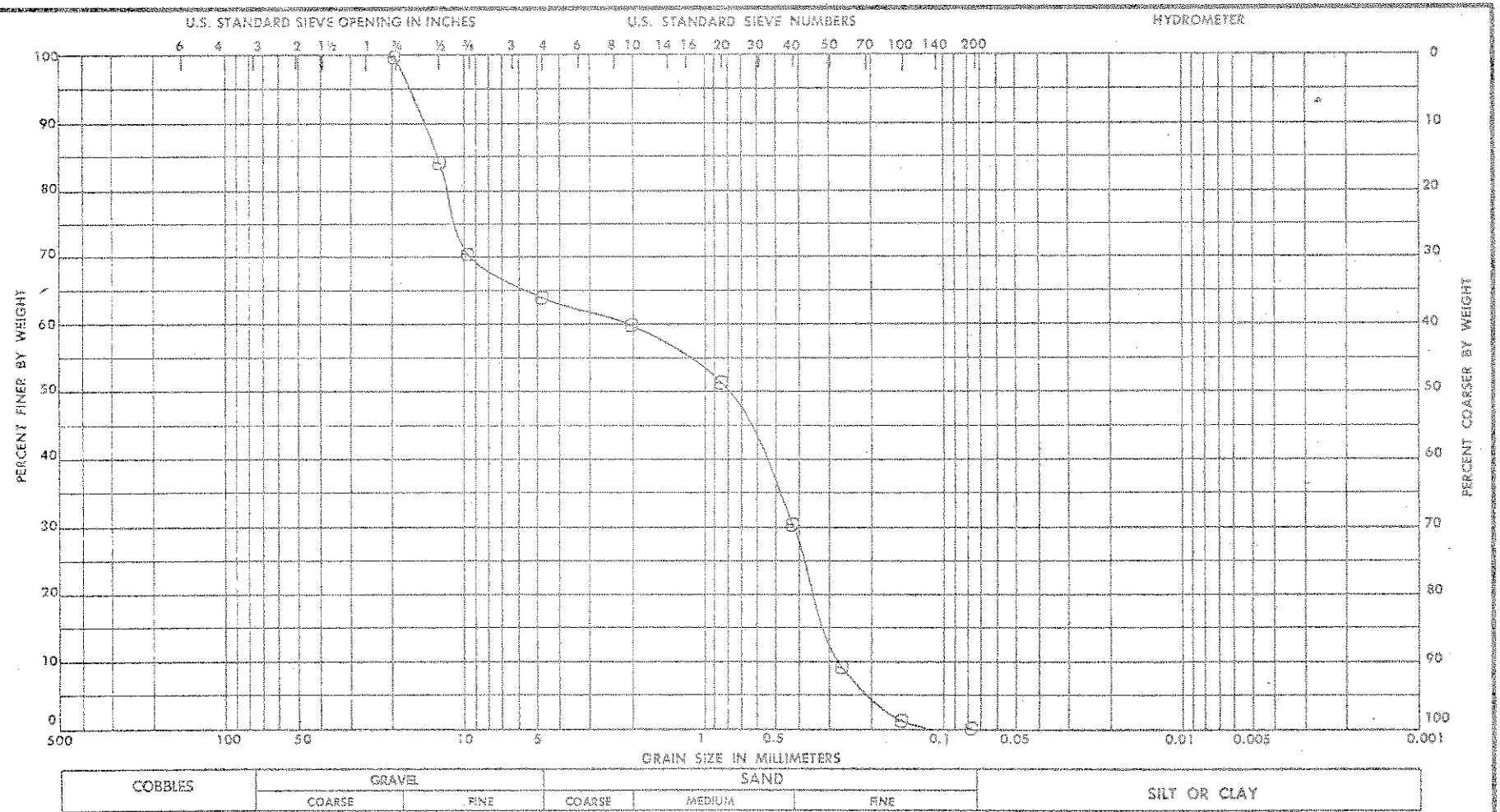
Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP) LT.TAN, WITH A TRACE OF GRAVEL	--	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1132
Boring No. VC-9-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 539

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
4	24.0'	VISUAL POORLY GRADED SAND (SP) LT. TAN, GRAVELLY	---	NP	NP	NP

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1133
Boring No. VC-9-84 SAMPLE NO. 4
Date 11/27/84

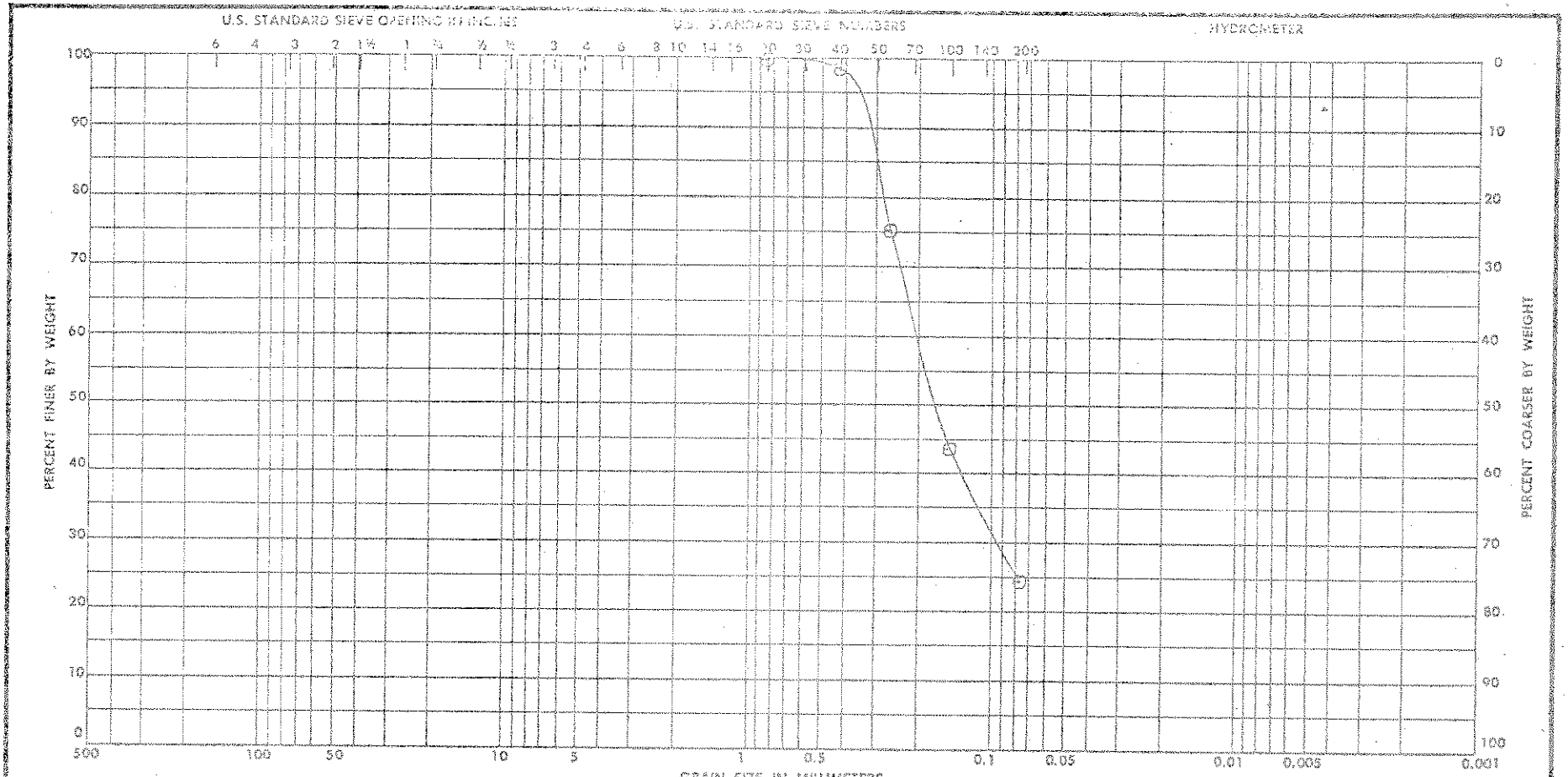
CHART NO. 540

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

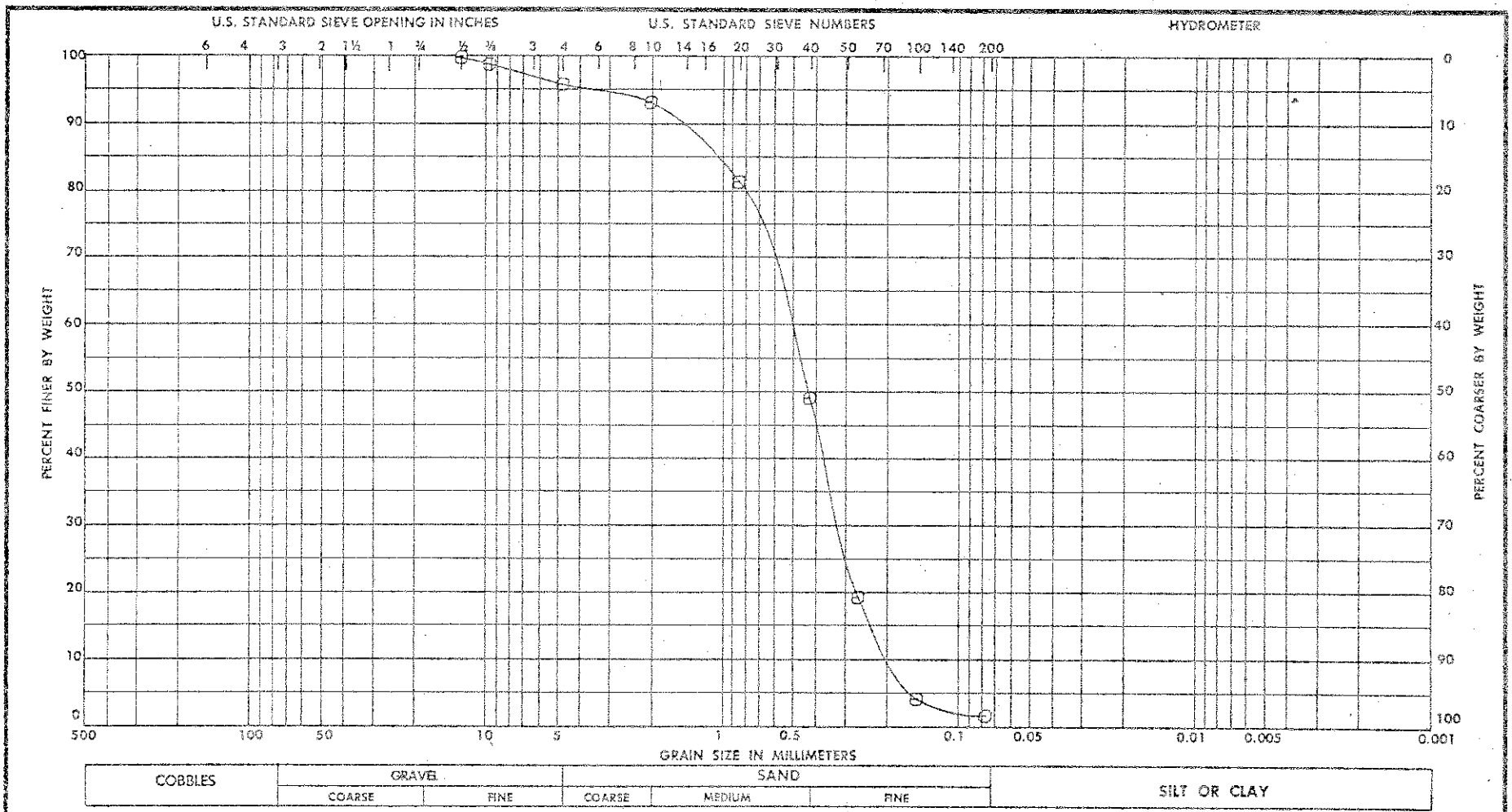
Sample No.	Elev'or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	SILTY SAND (SM)	--	--	--	--
		LT. GRAY, SLIGHTLY PLASTIC				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1135
Boring No. VC-10-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 541

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1136
Boring No. VC-10-84 SAMPLE NO. 3
Date 11/27/84

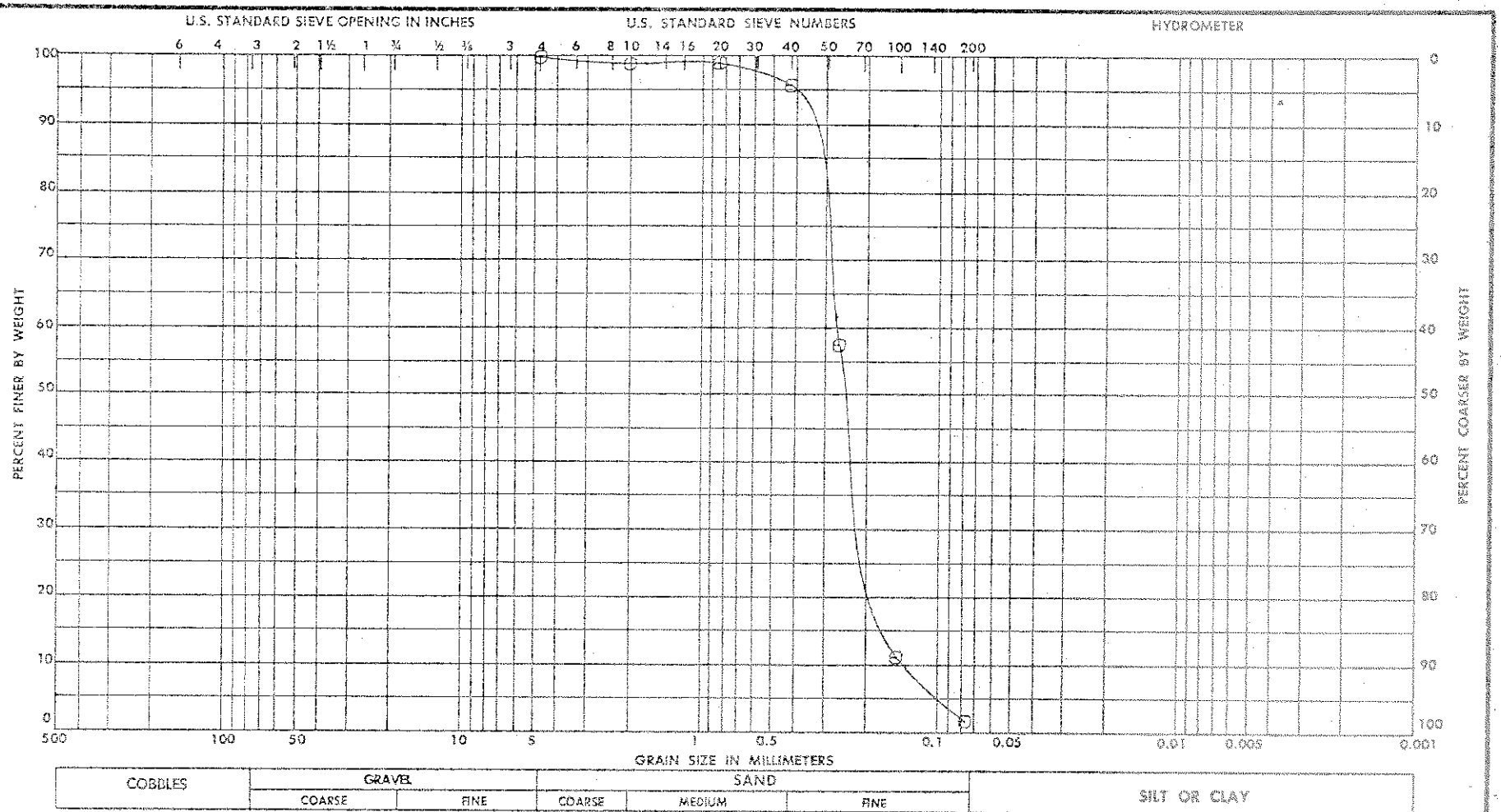
CHART NO. 542

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

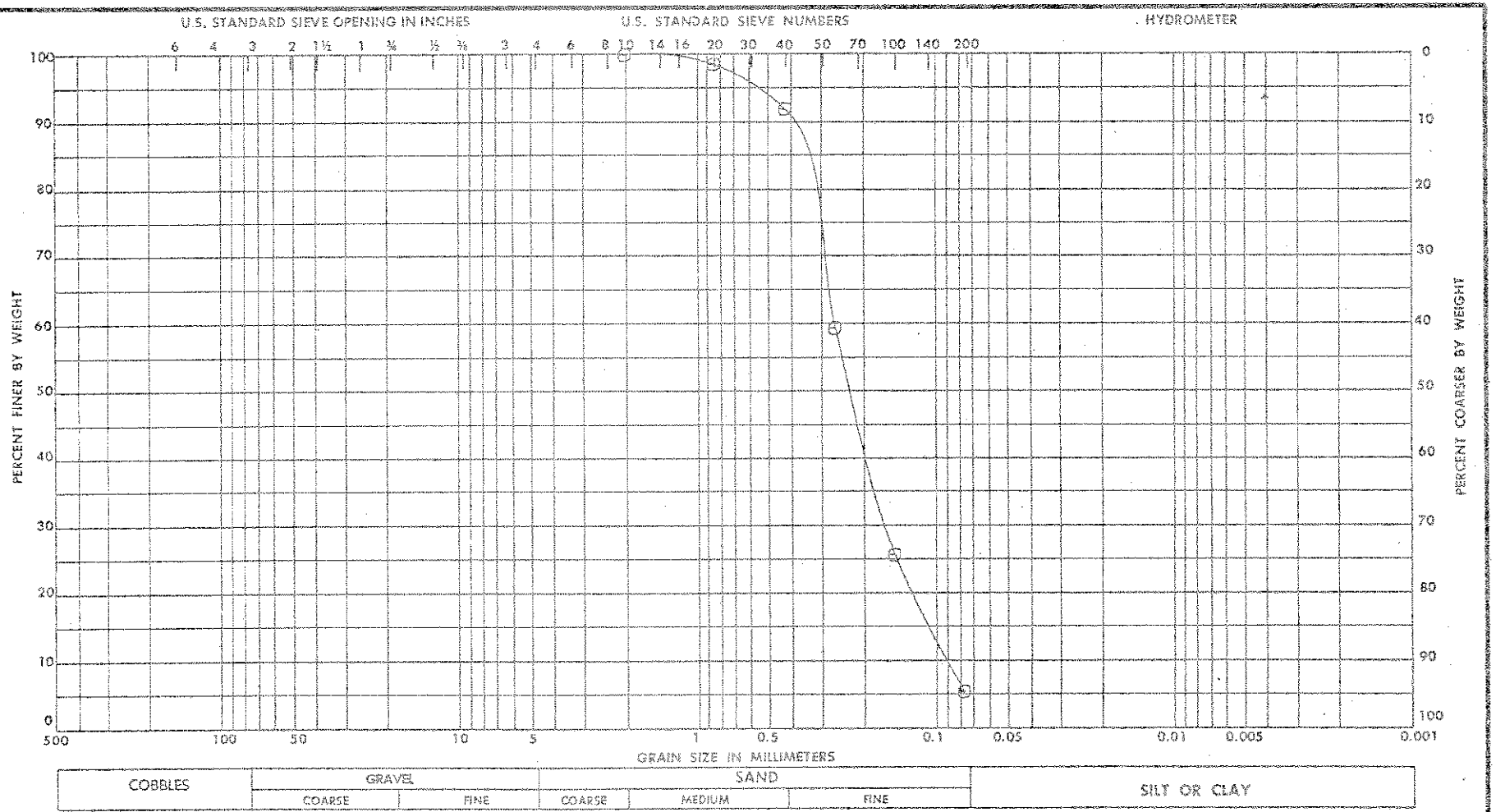
Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
4	22.8'	VISUAL POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1137
Boring No. VC-10-84 SAMPLE NO. 4
Date 11/27/84

CHART NO. 543

ENG FORM 1 MAY 63 2087



Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1140
Boring No. VC-11-84 SAMPLE NO. 3
Date 11/27/84

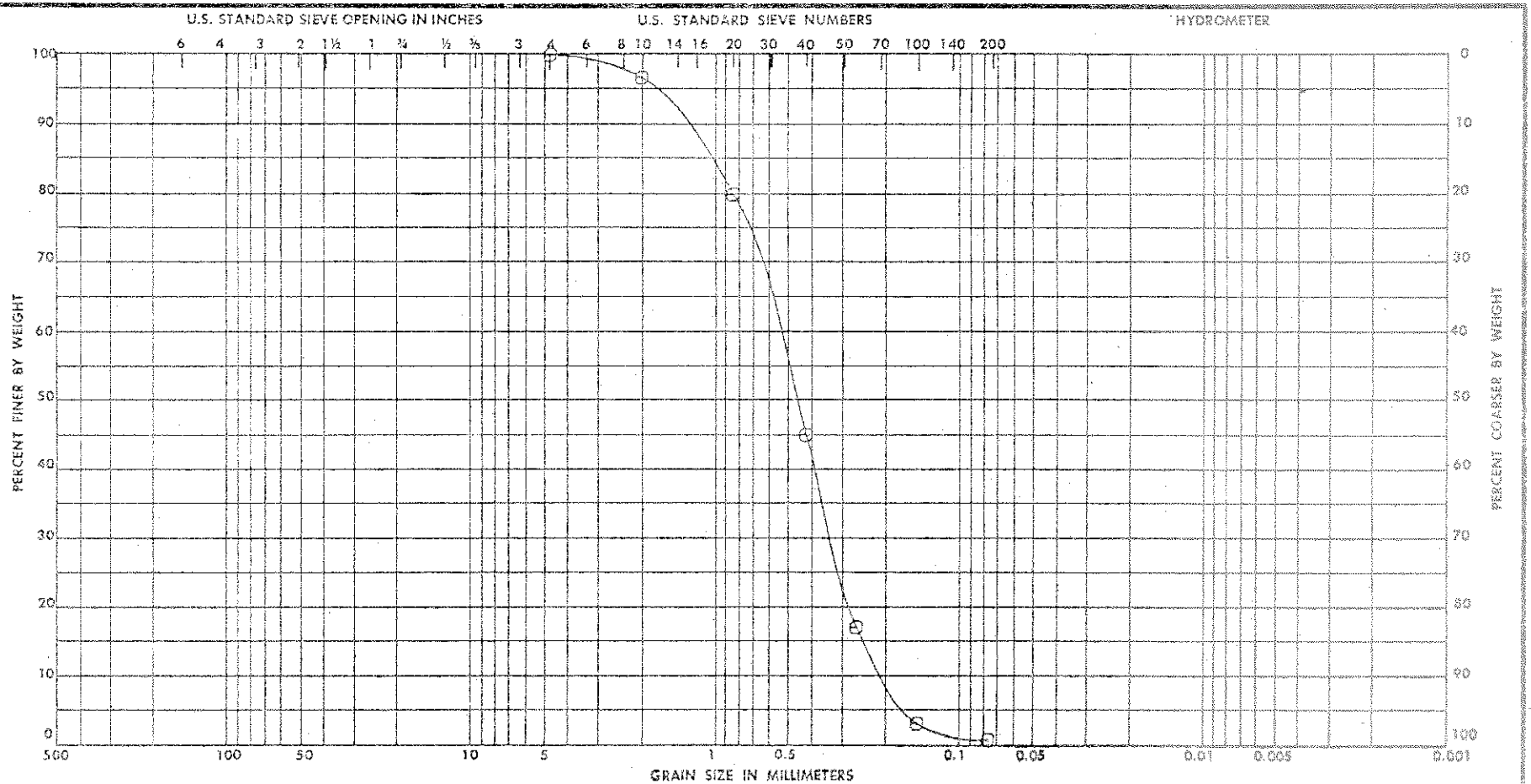
CHART NO. 544

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



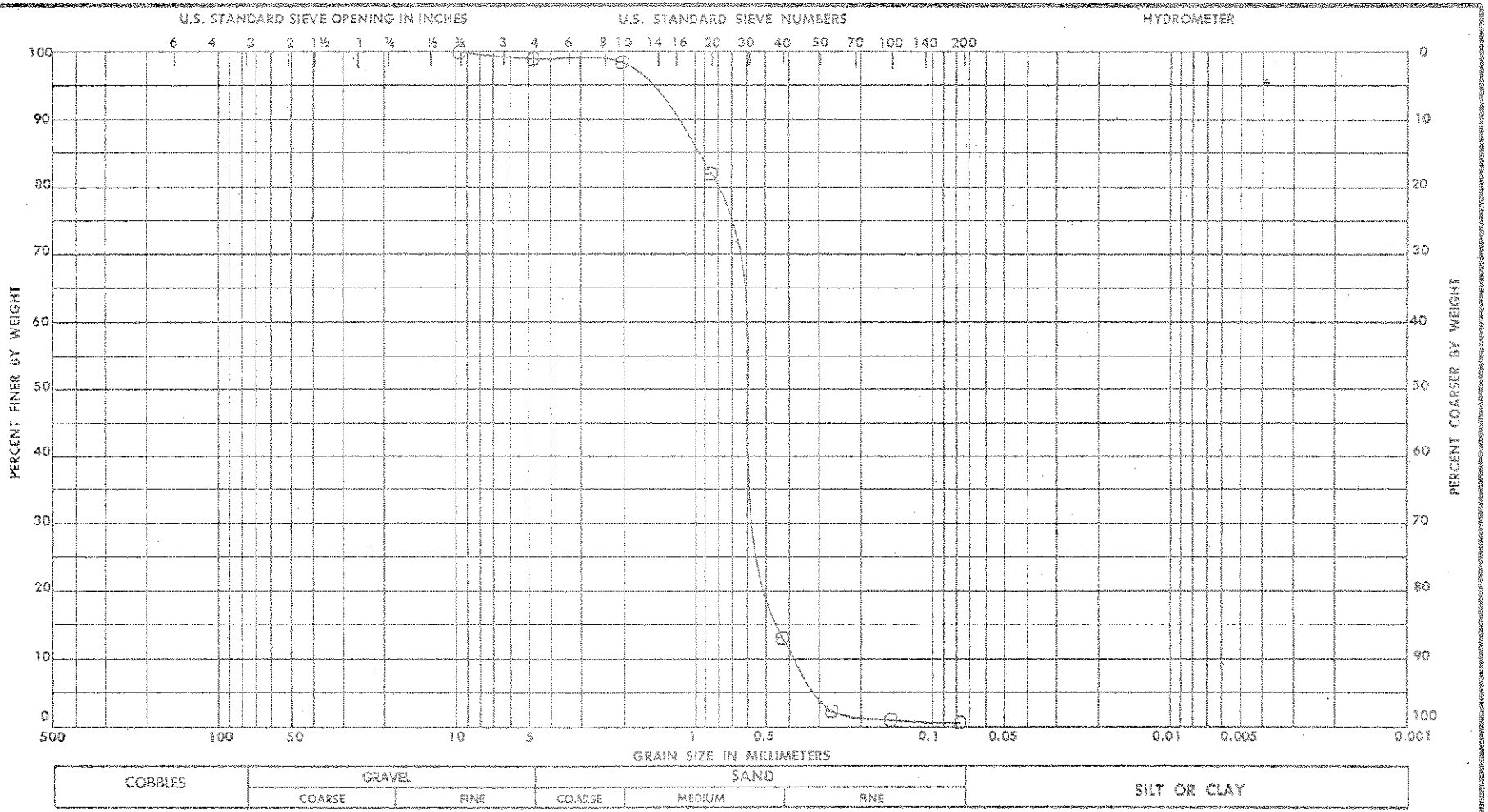
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1141
Boring No. VC-12-84 SAMPLE NO. 1
Date 11/27/84

CHART NO. 545

ENG FORM 1 MAY 63 2087



Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN, WITH A TRACE OF				
		GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1142
Boring No. VC-12-84 SAMPLE NO. 2
Date 11/27/84

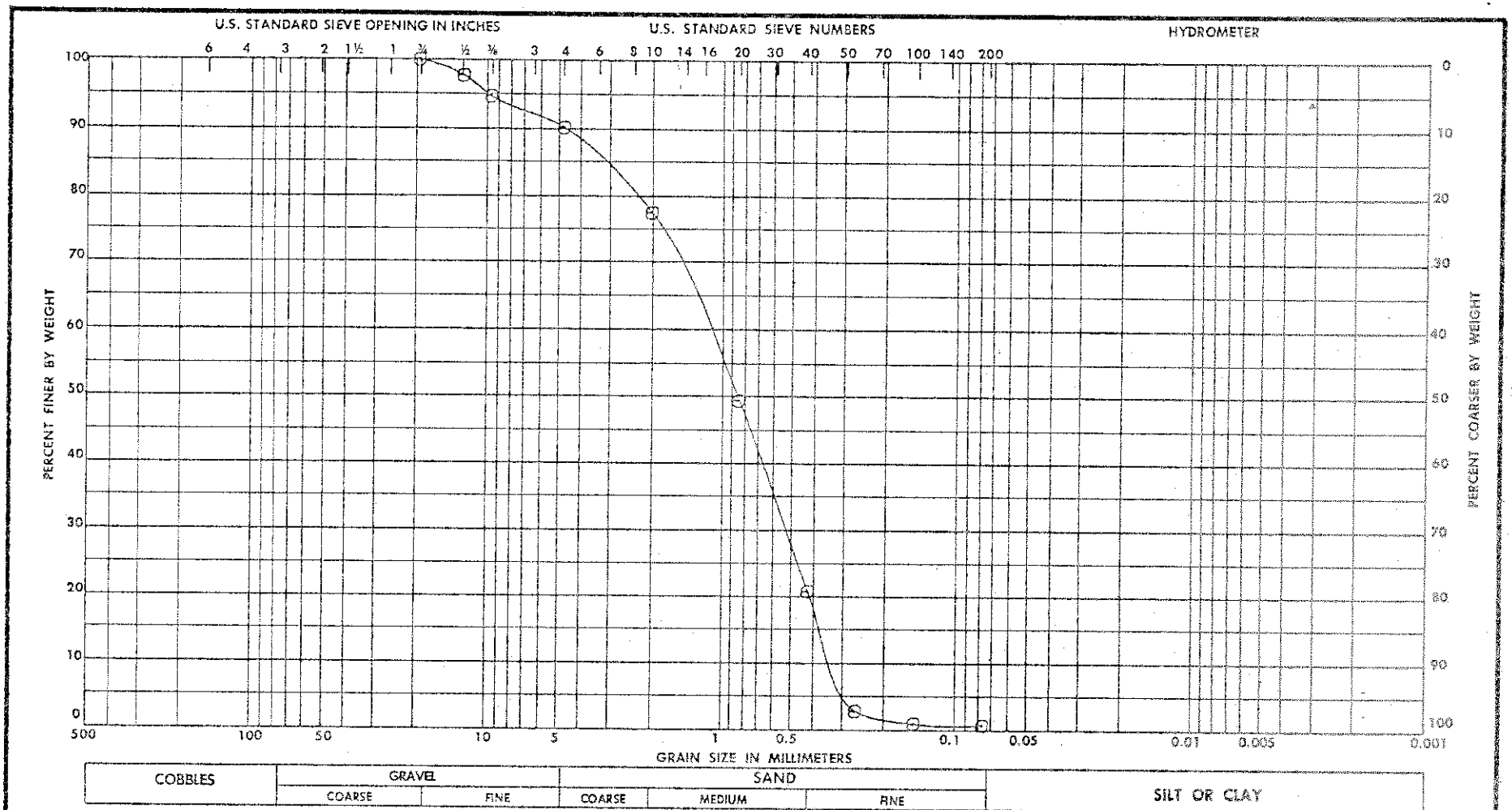
CHART NO. 546

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



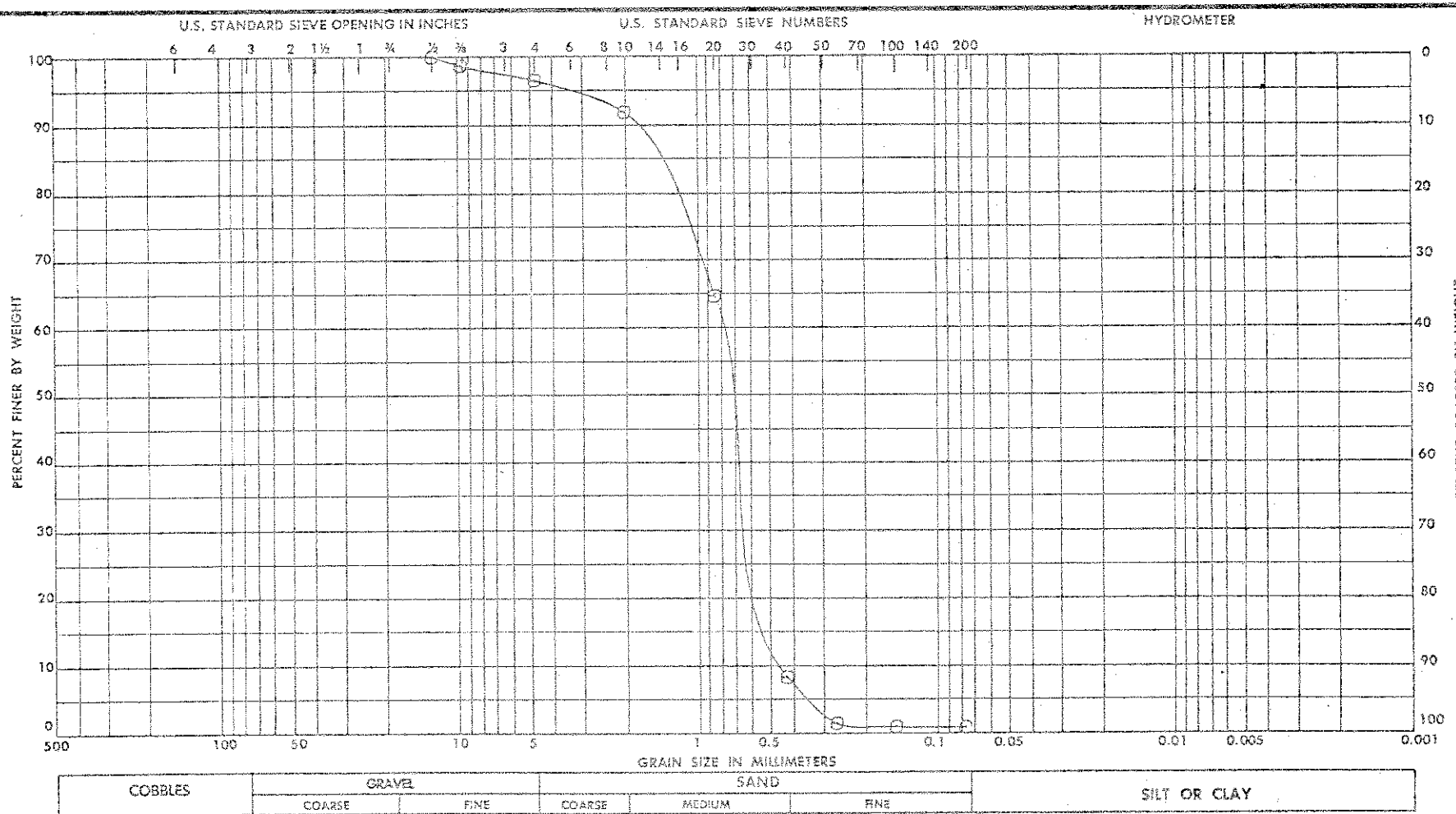
Sample No.	~~Ex~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY WITH A TRACE OF GRAVEL				
		AND GRAVEL SIZE SHELL FRAGMENTS				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1143
Boring No. VC-12-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 547

ENG FORM 1 MAY 83 2087



Sample No.	~~Depth~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 87/1144
Boring No. VC-12-84 SAMPLE NO. 4
Date 11/27/84

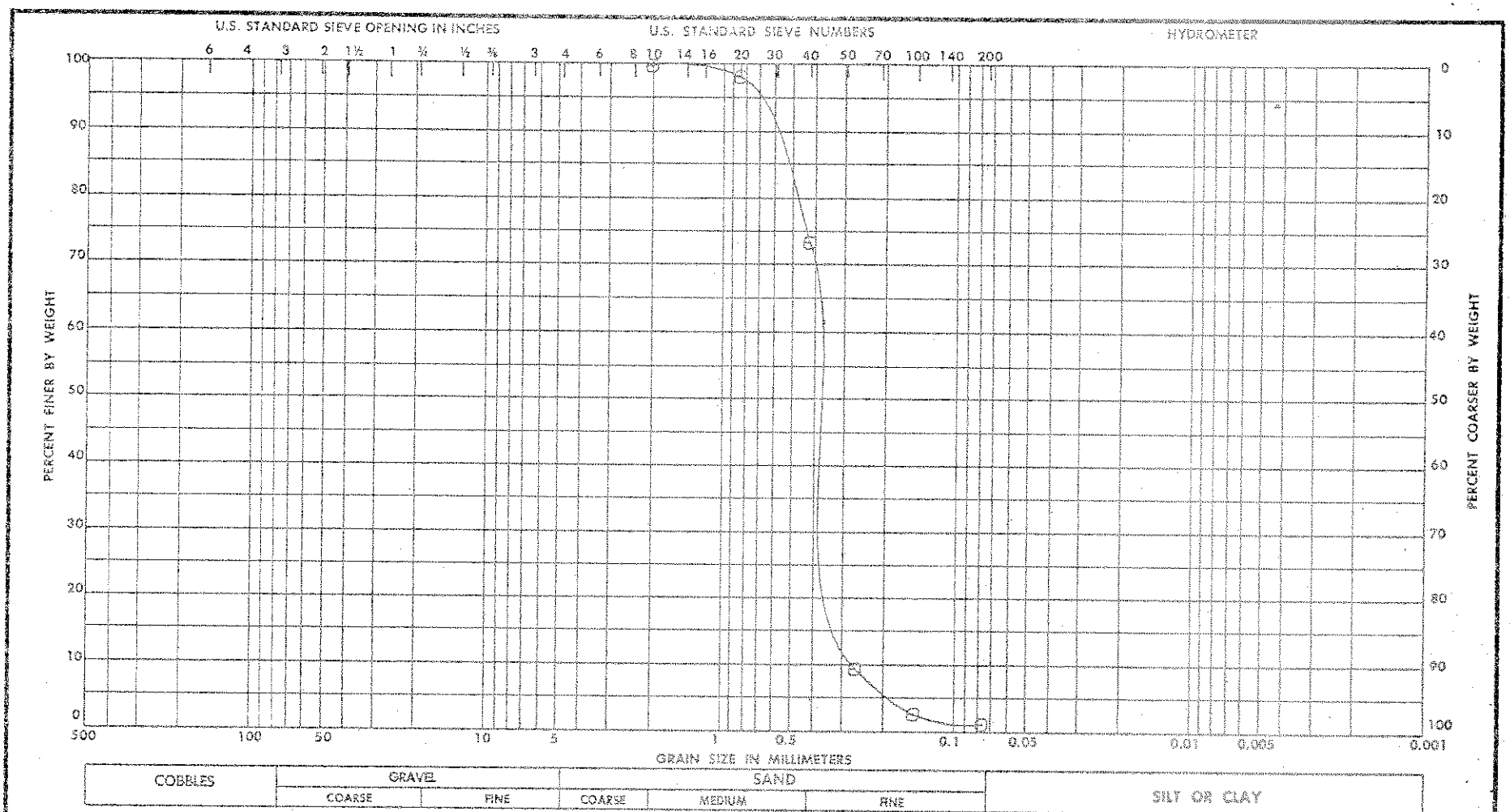
CHART NO. 548

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



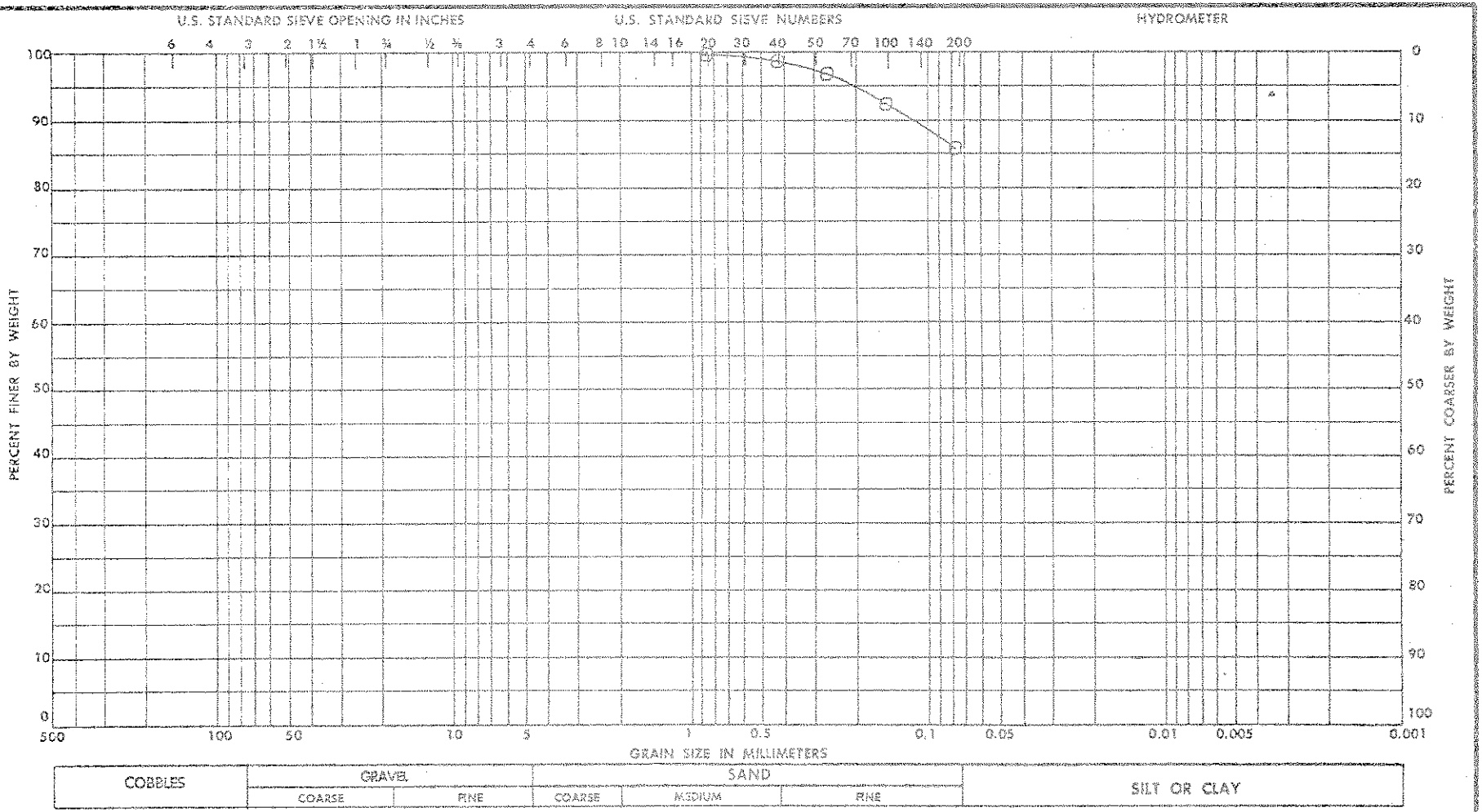
Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	25.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1145
Boring No. VC-12-84 SAMPLE NO: 5
Date 11/27/84

CHART NO. 549

ENG FORM 1 MAY 63 2087



Sample No.	Key or Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	25.0'	FAT CLAY (CH), LT. GRAY WITH A	--	--	--	--
		LITTLE SAND AND A TRACE OF				
		ORGANIC FINES AND MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1151
Boring No. VC-14-84 SAMPLE NO. 4
Date 11/27/84

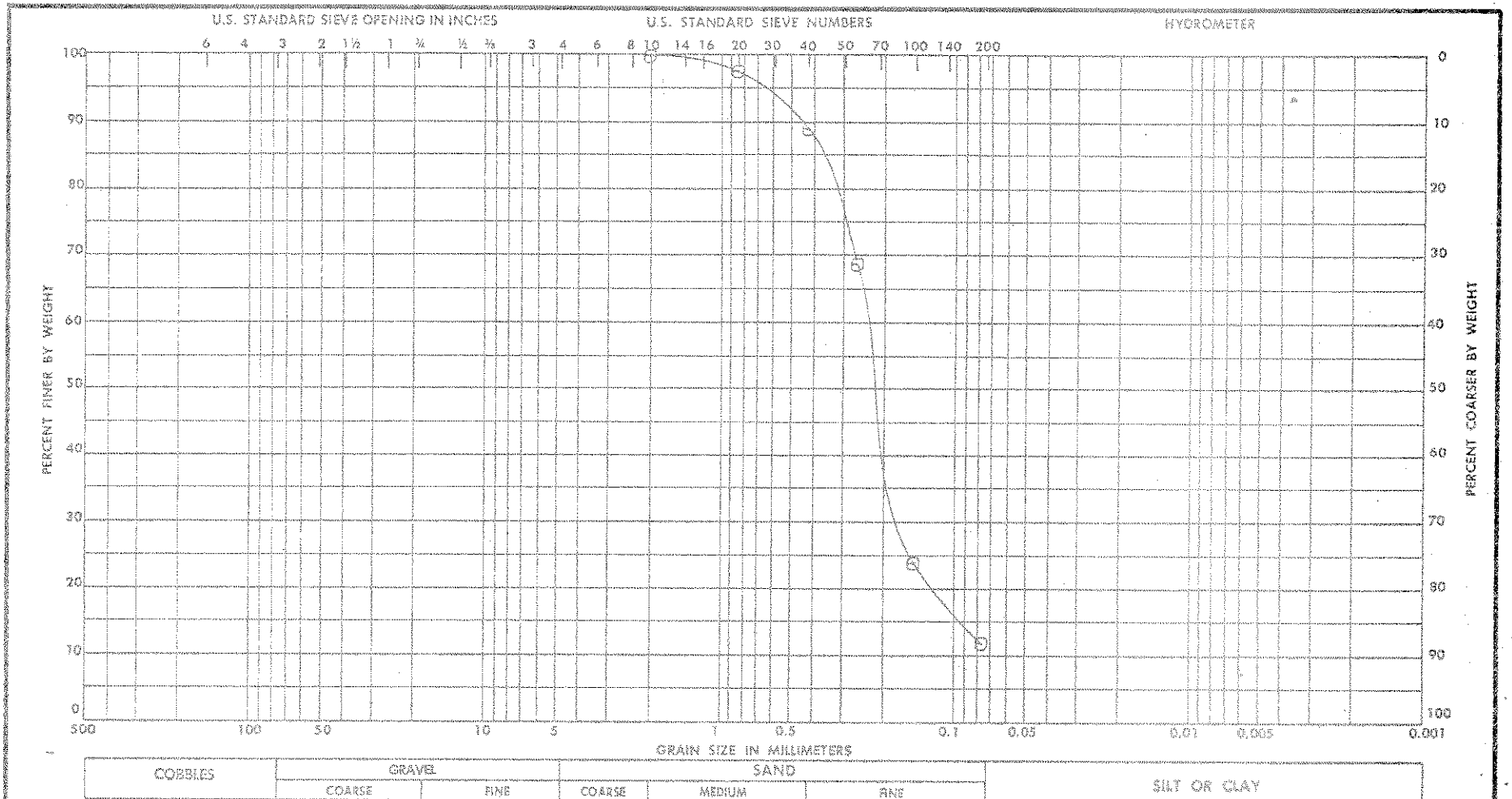
CHART NO. 550

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



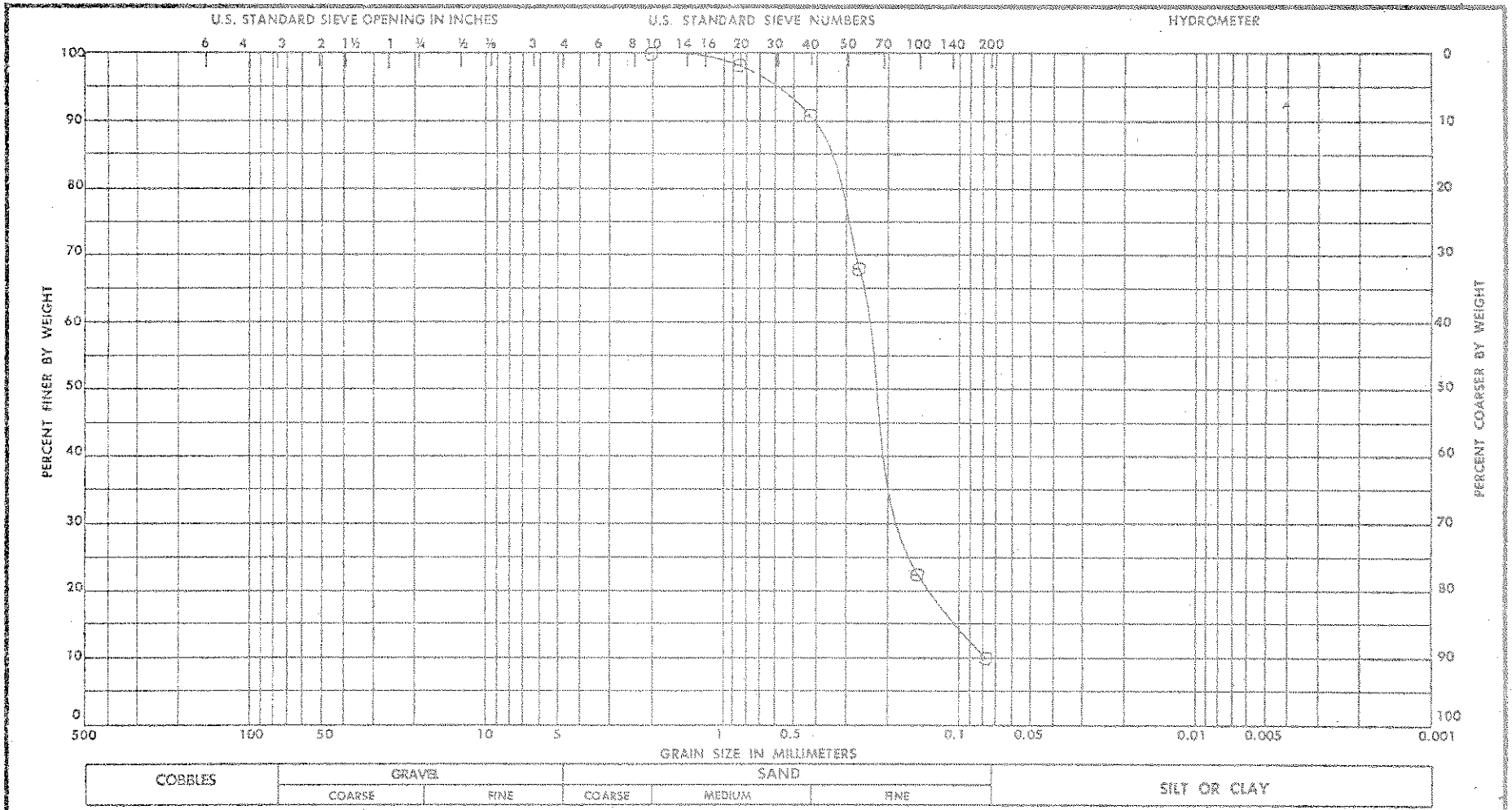
Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	POORLY GRADED SILTY SAND	---	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1157
Boring No. VC-16-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 551

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE				
		OF ROOTS AND MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1158
Boring No. VC-16-84 SAMPLE NO. 3
Date 11/27/84

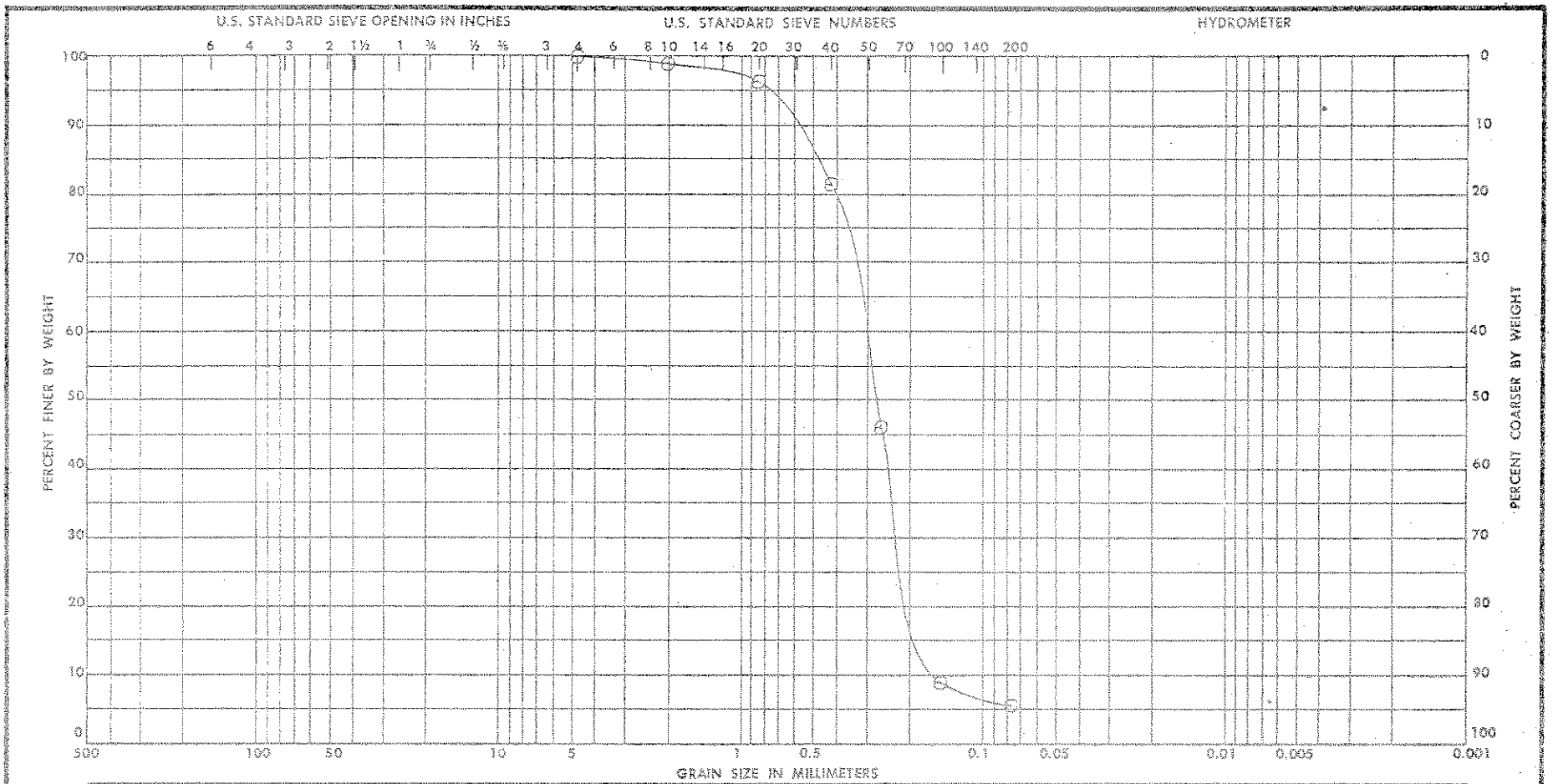
CHART NO. 552

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



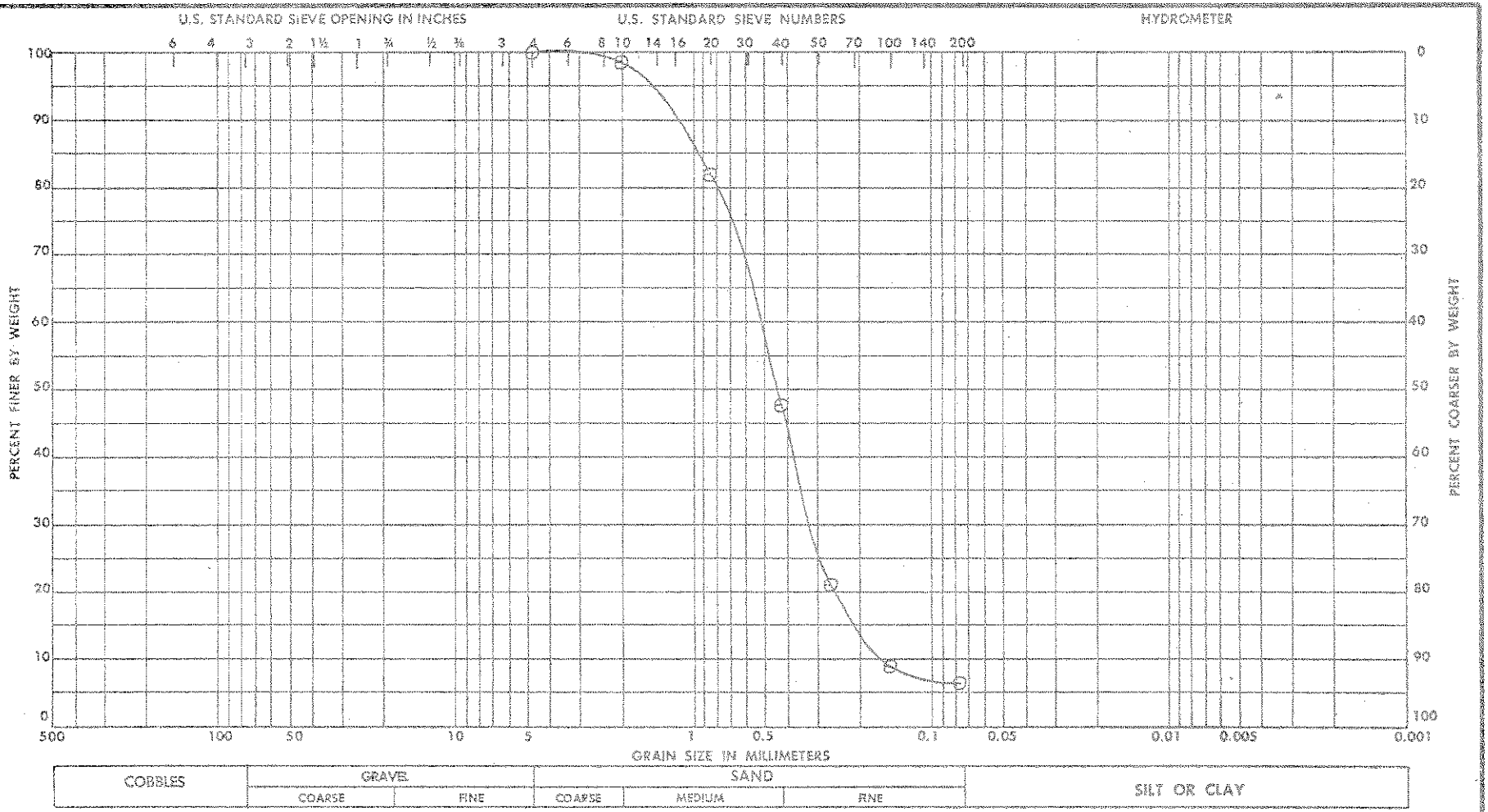
Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
4	20.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		ROOTS AND MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1159
Boring No. VC-16-84 SAMPLE NO. 4
Date 11/27/84

CHART NO. 553

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	28.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF ROOTS				
		AND MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1160
Boring No. VC-16-84 SAMPLE NO. 5
Date 11/27/84

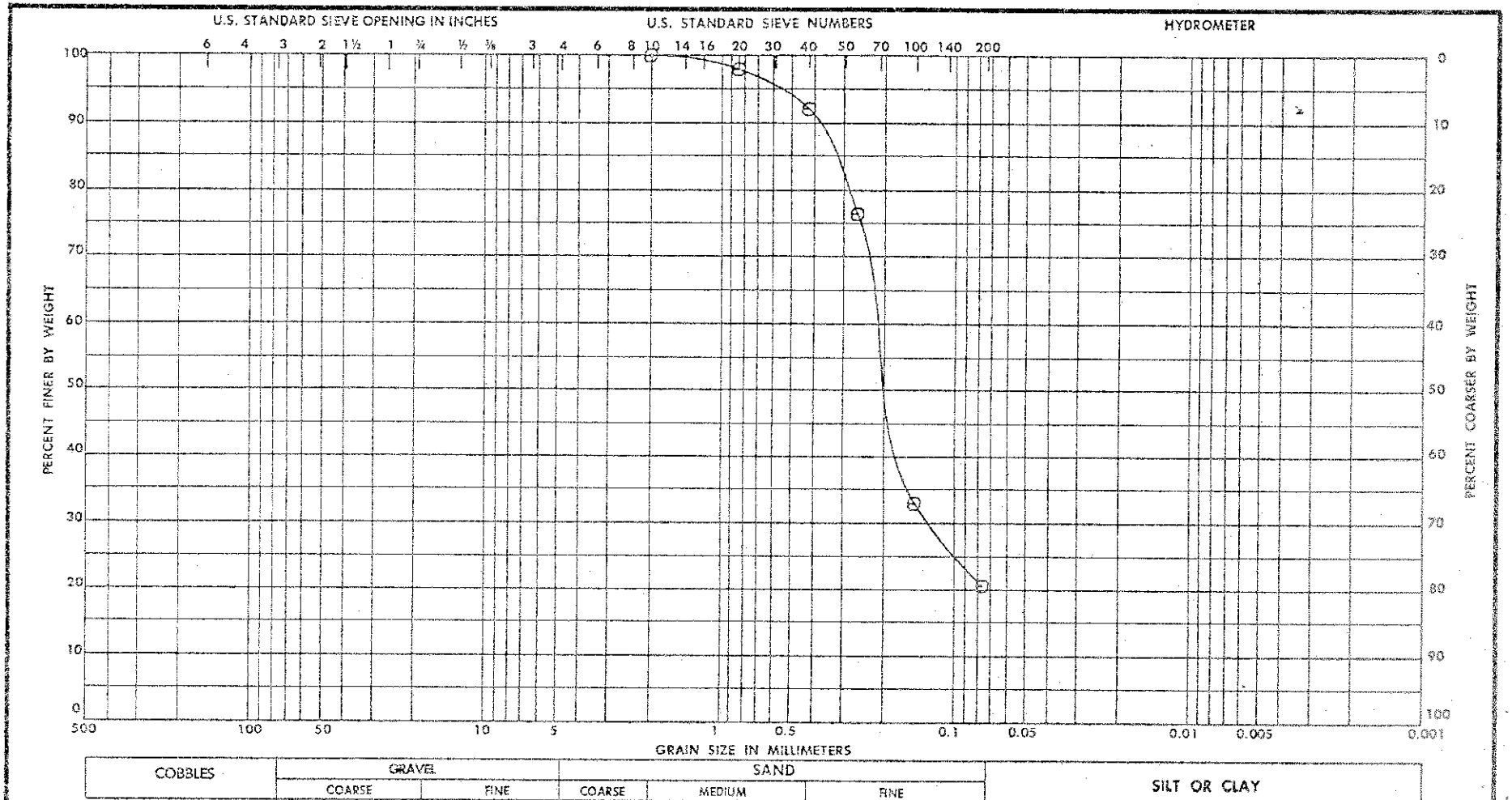
CHART NO. 554

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



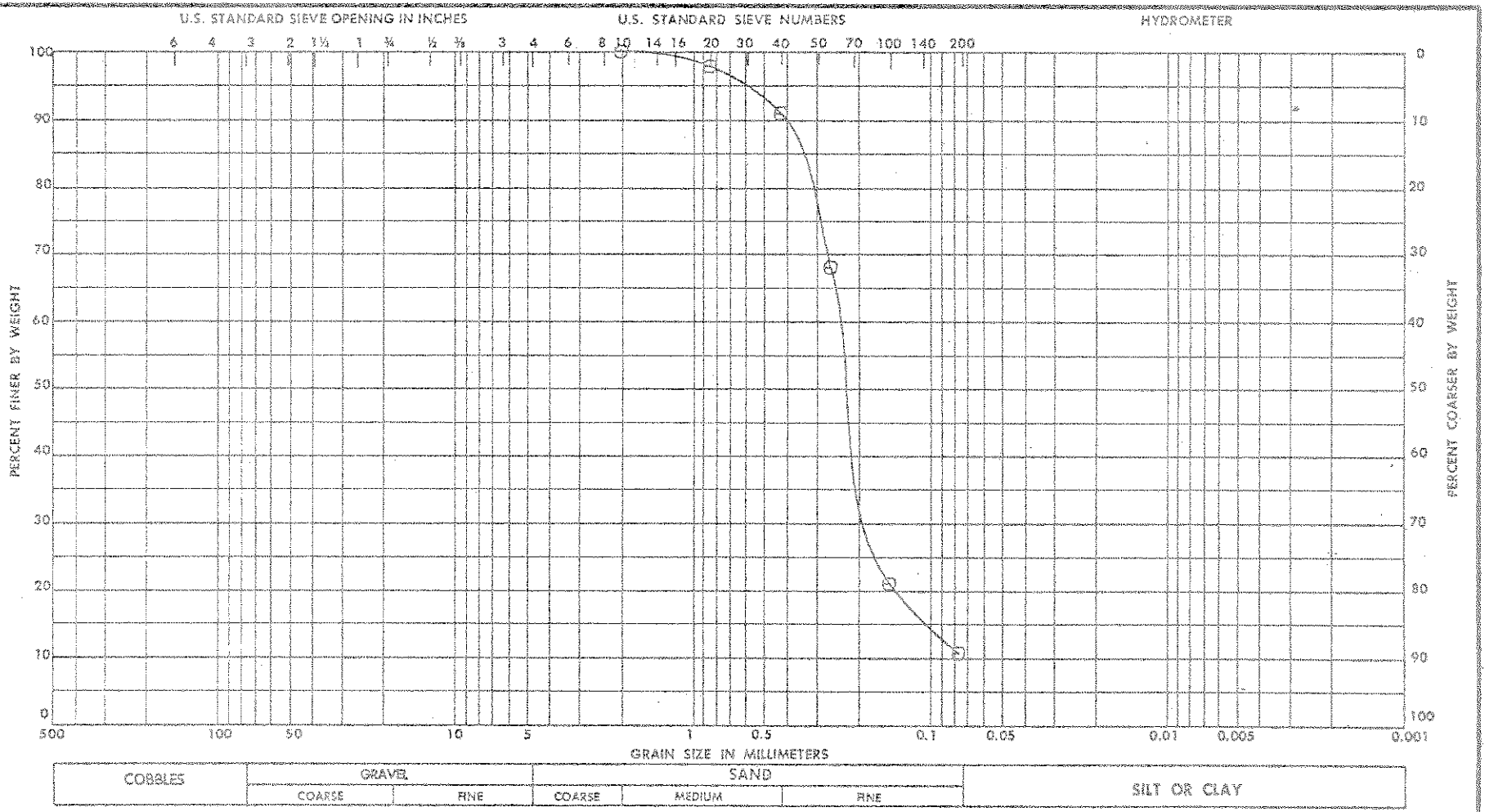
Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0'	CLAYEY SAND (SC), GREENISH GRAY	--	--	--	--
		WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1161
Boring No. VC-17-84 SAMPLE NO. 1
Date 11/27/84

CHART NO. 555

ENG FORM 1 MAY 63 2087



Sample No.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1162
Boring No. VC-17-84 SAMPLE NO. 2
Date 11/27/84

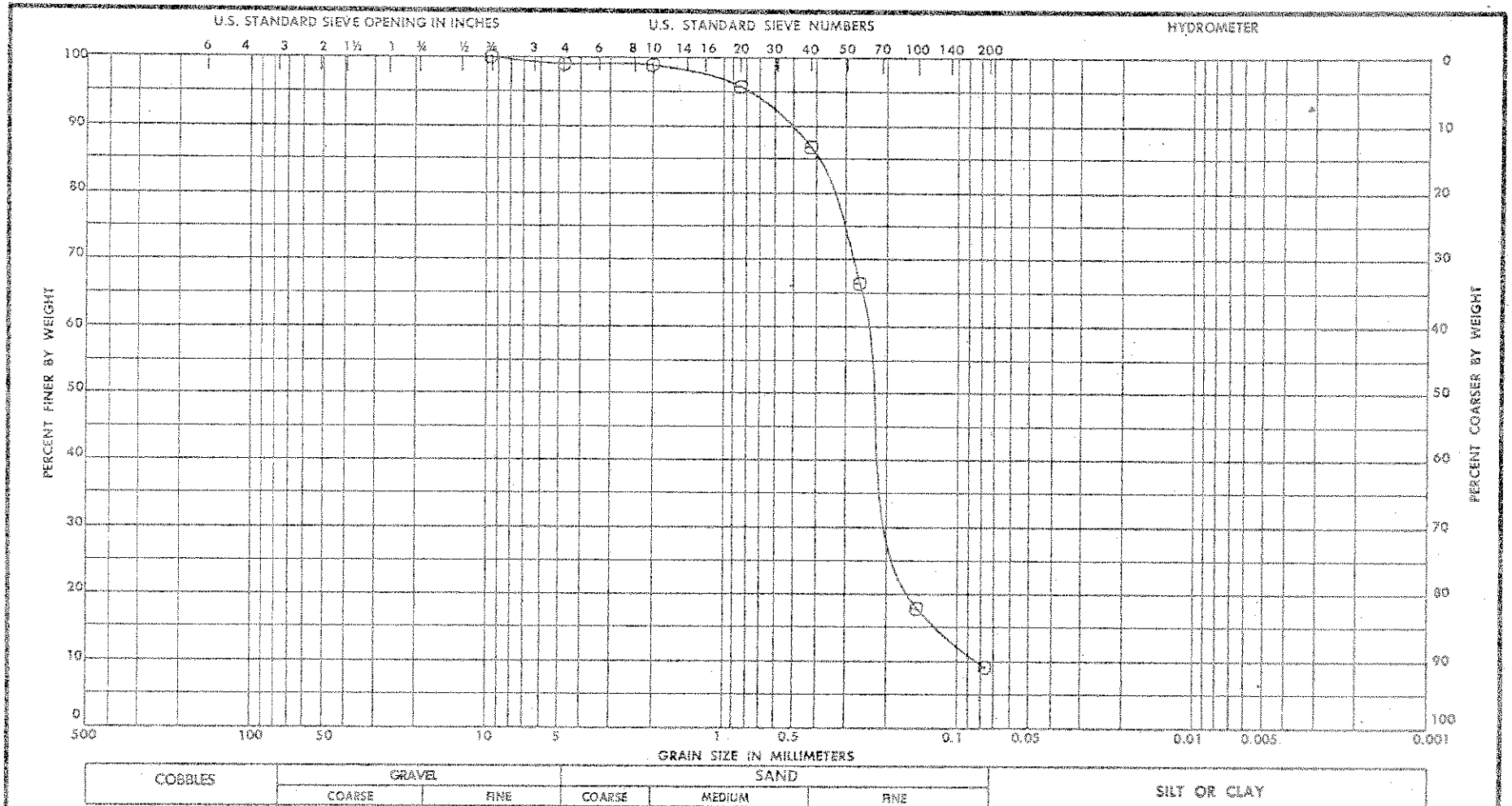
CHART NO. 556

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



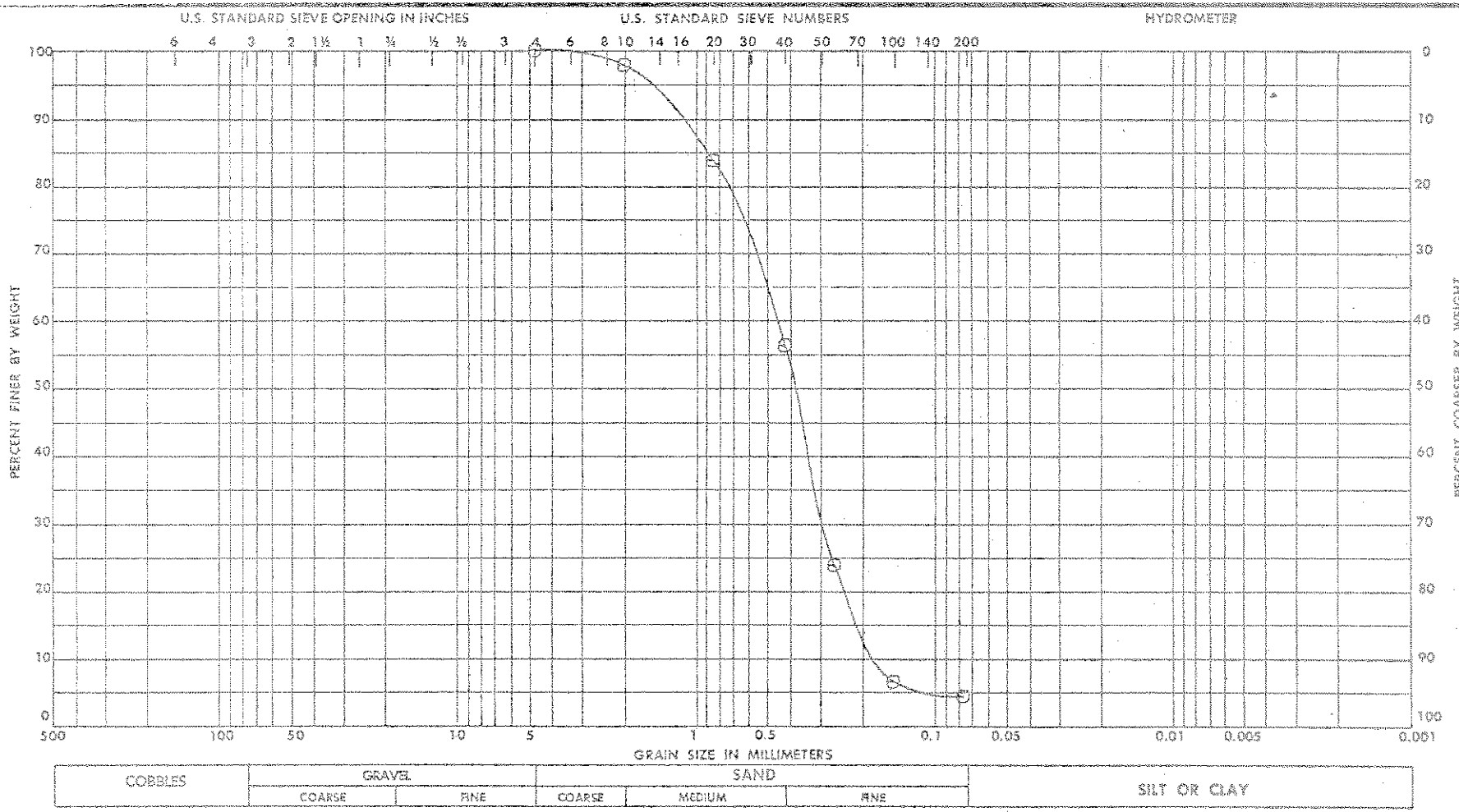
Sample No.	~~X~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		MICA AND DECAYED WOOD FRAGMENTS				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1163
Boring No. VC-17-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 557

ENG FORM 1 MAY 63 2087



Sample No.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	25.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN AND GRAY WITH A TRACE OF				
		MICA AND DECAYED WOOD FRAG.				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1164
Boring No. VC-17-84 SAMPLE NO. 4
Date 11/27/84

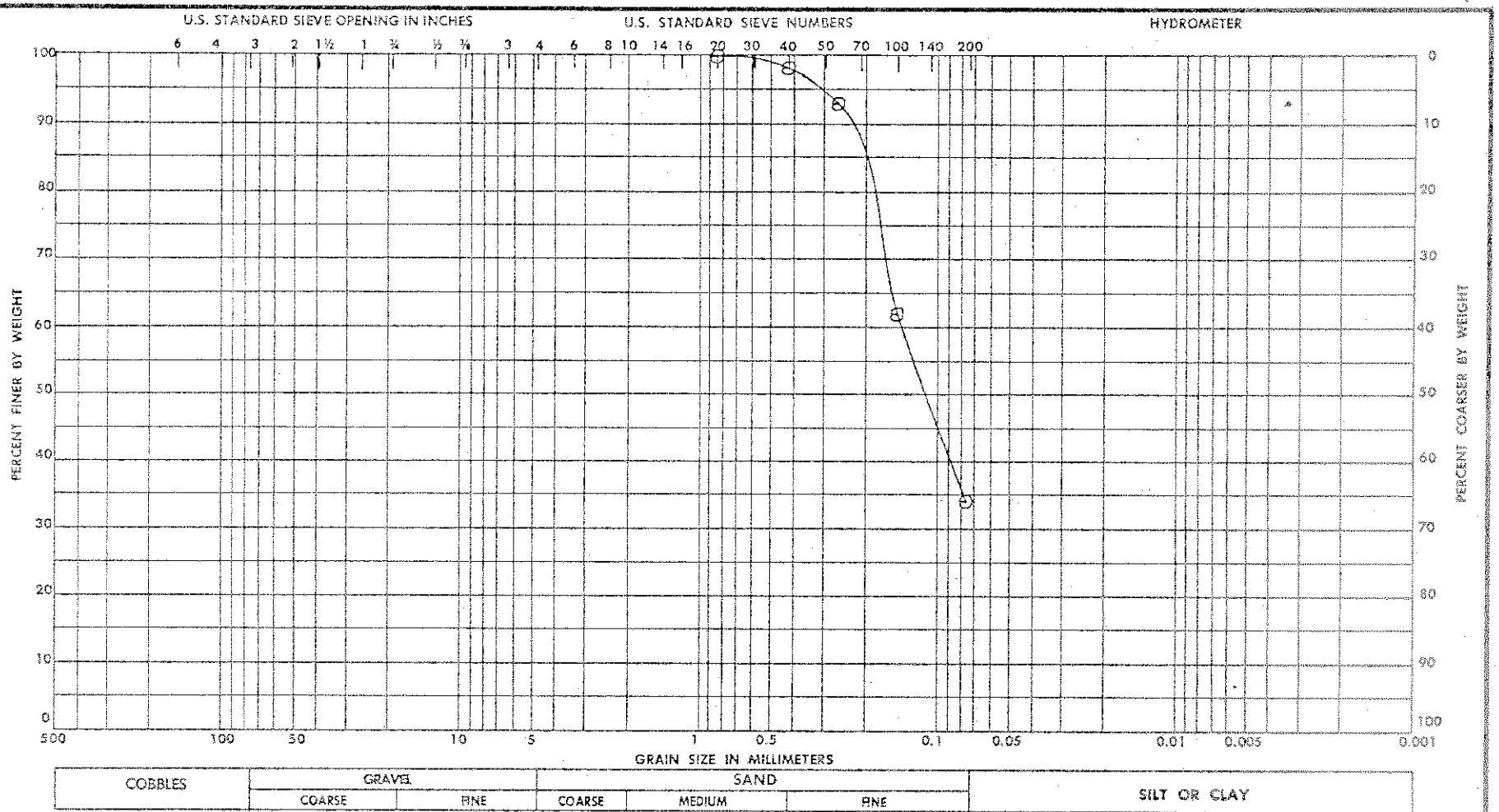
CHART NO. 558

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



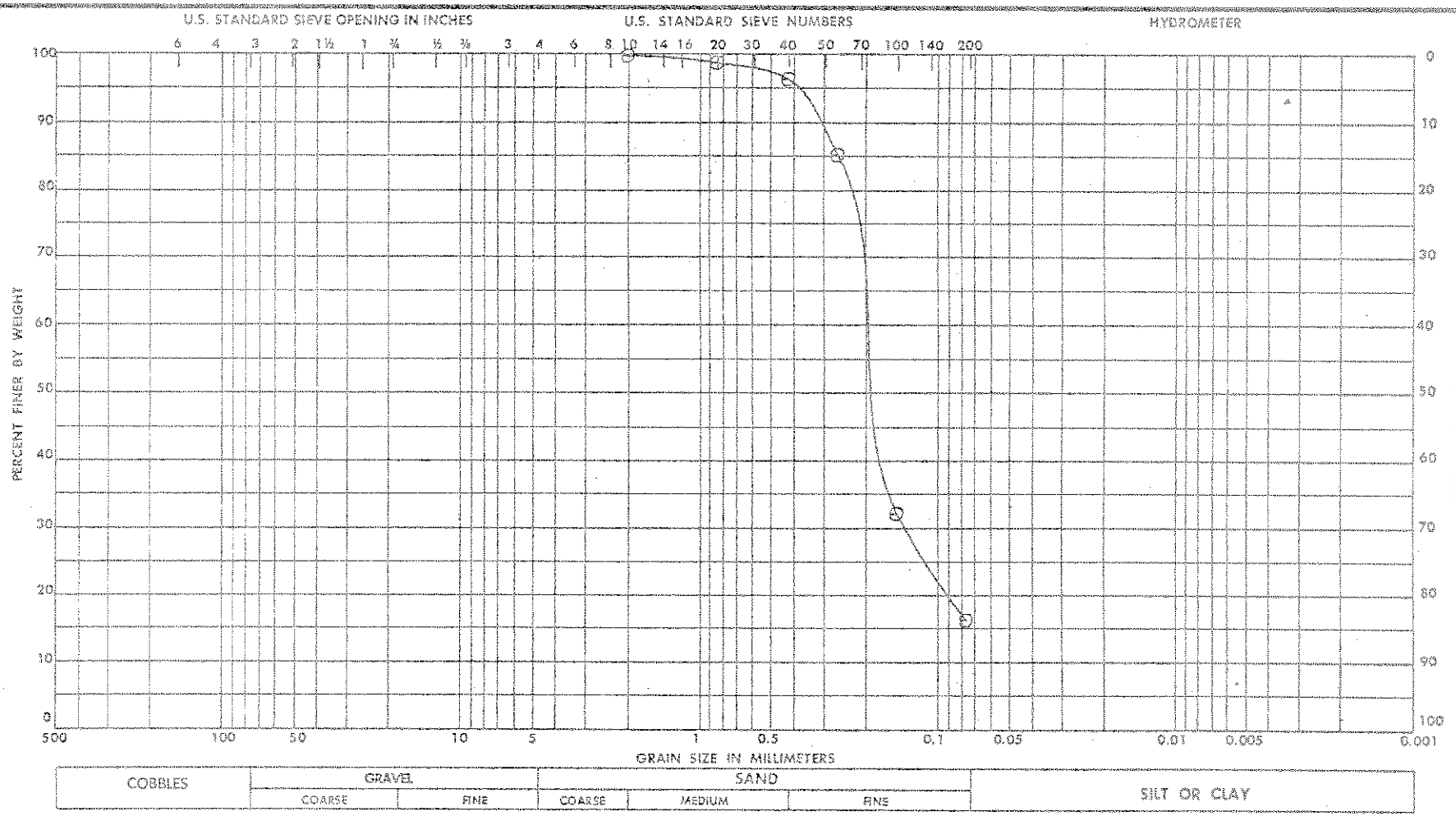
Sample No.	~~XX XX~~ Depth	Classification	Nat w %	LL	PL	PI
1	5.0'	CLAYEY SAND (SC)	31.3	26	17	9
		GRAY WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1165
Boring No. VC-18-84 SAMPLE NO. 1
Date 11/27/84

CHART NO. 559

ENG FORM 1 MAY 63 2087



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH GRAY WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1166
Boring No. VC-1S-84 SAMPLE NO. 2
Date 11/27/84

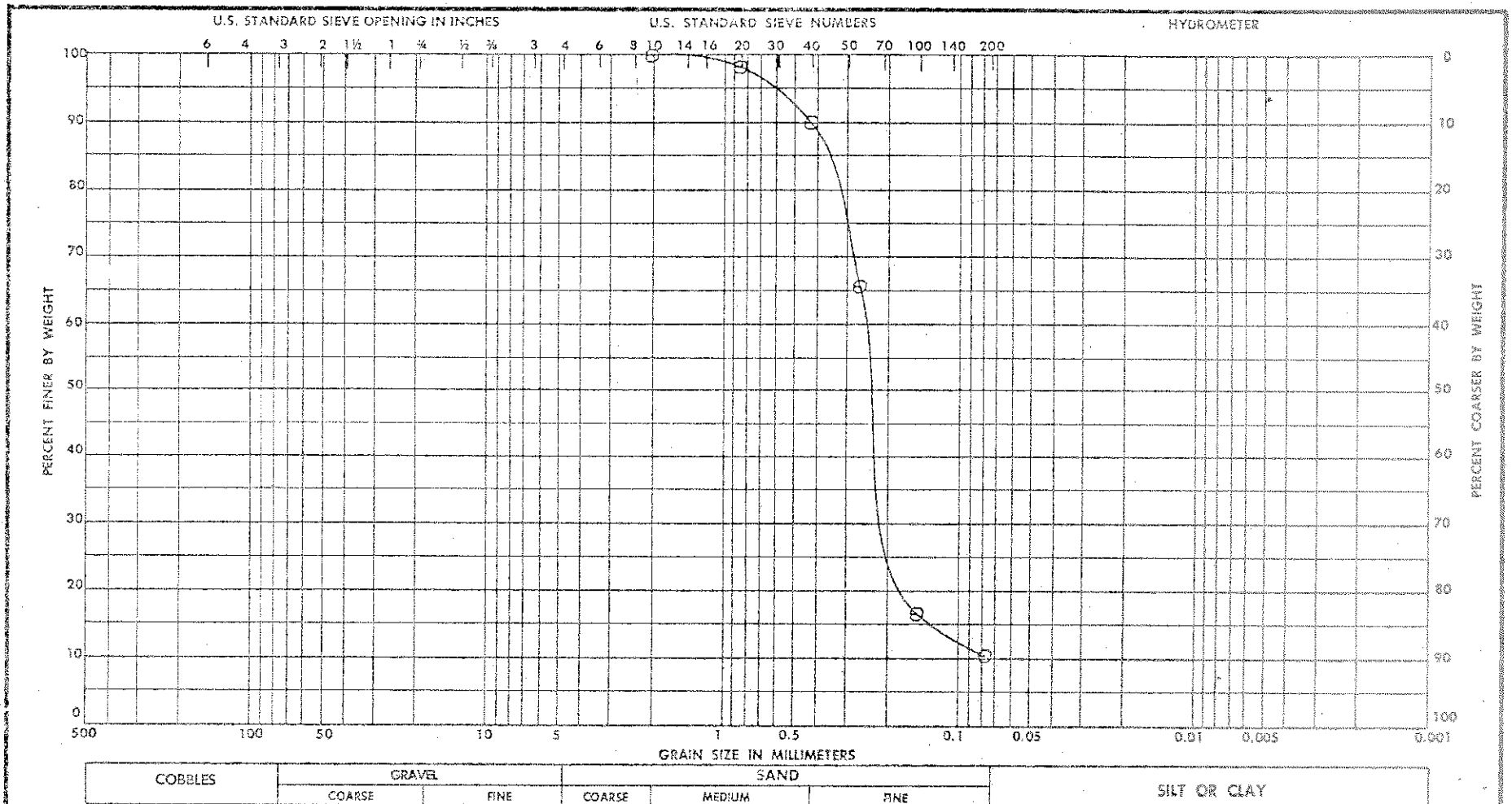
CHART NO. 560

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



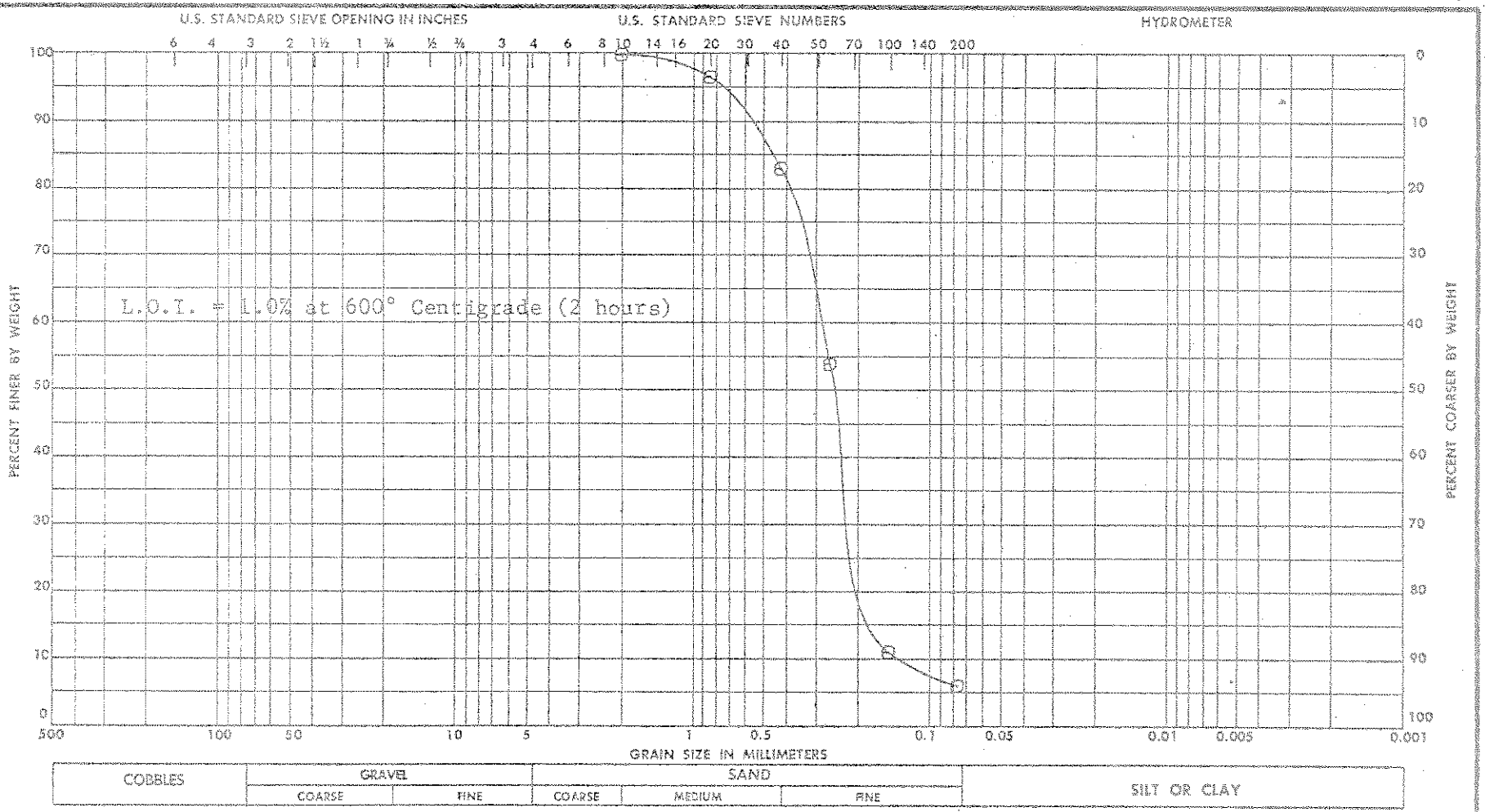
Sample No.	~~Boring~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1167
Boring No. VC-18-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 561

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	20.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF MICA &				
		ORGANIC FINES				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1168
Boring No. VC-18-84 SAMPLE NO. 4
Date 11/27/84

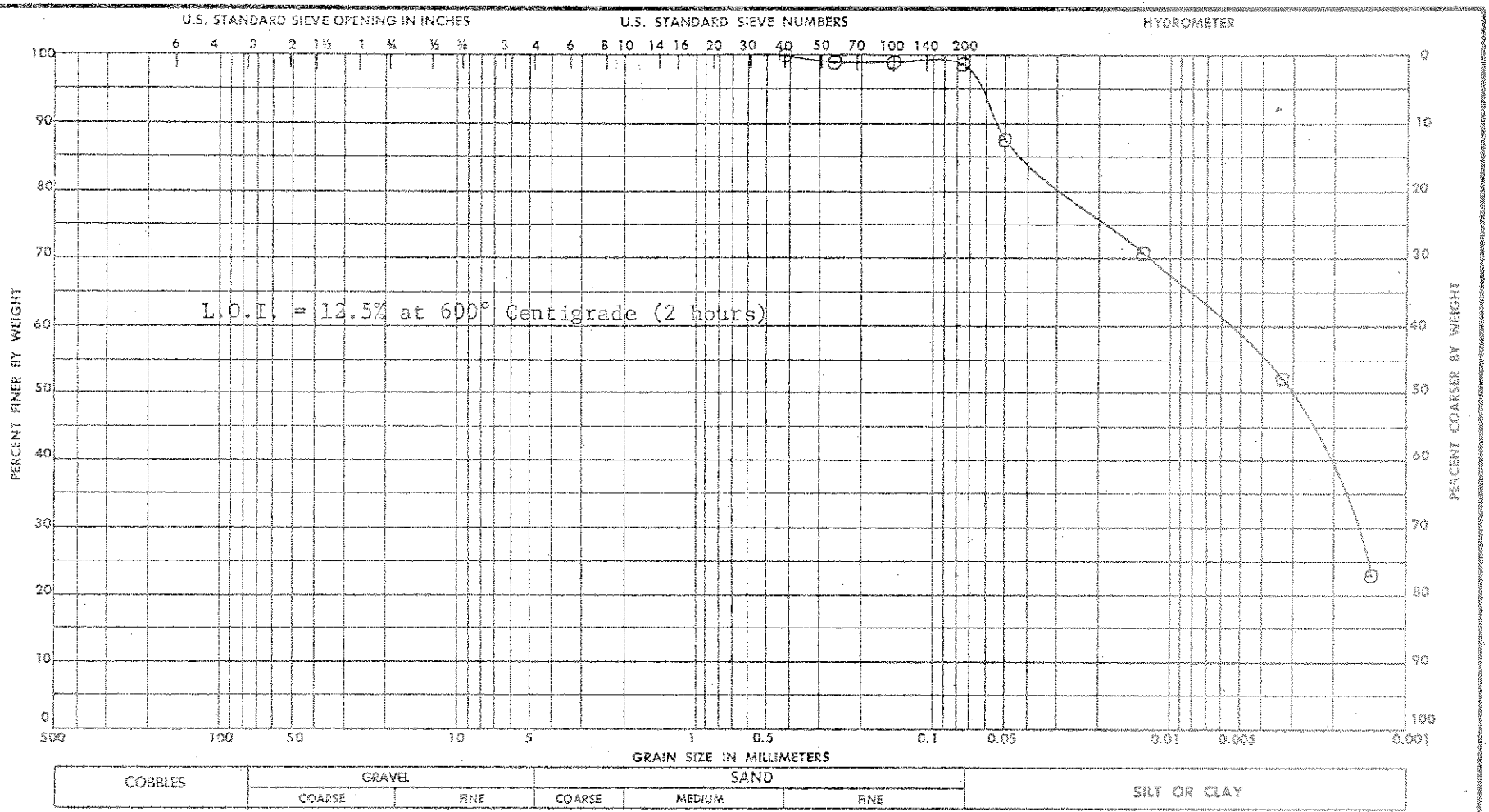
CHART NO. 562

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



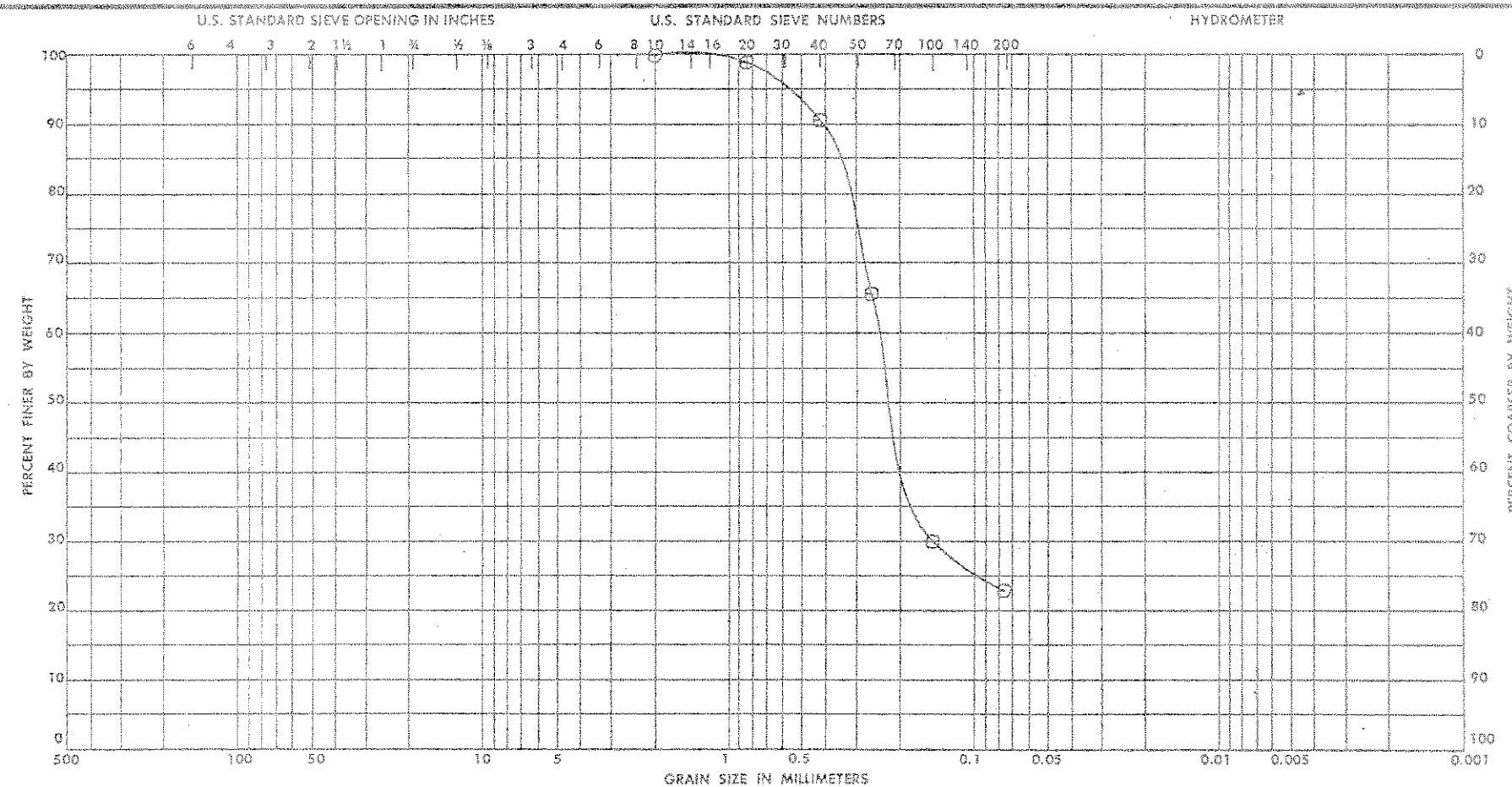
Sample No.	~~X~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	3.0'	ORGANIC FAT CLAY (CH), GRAY,	149.9	--	--	--
		SILTY, WITH A TRACE OF SAND				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1169
Boring No. VC-19-84 SAMPLE NO. 1
Date 11/28/84

CHART NO. 563

ENG FORM 1 MAY 63 2087



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	7.0'	CLAYEY SAND (SC)	--	--	--	--
		GREENISH GRAY WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1170
Boring No. VC-19-84 SAMPLE NO. 2
Date 11/27/84

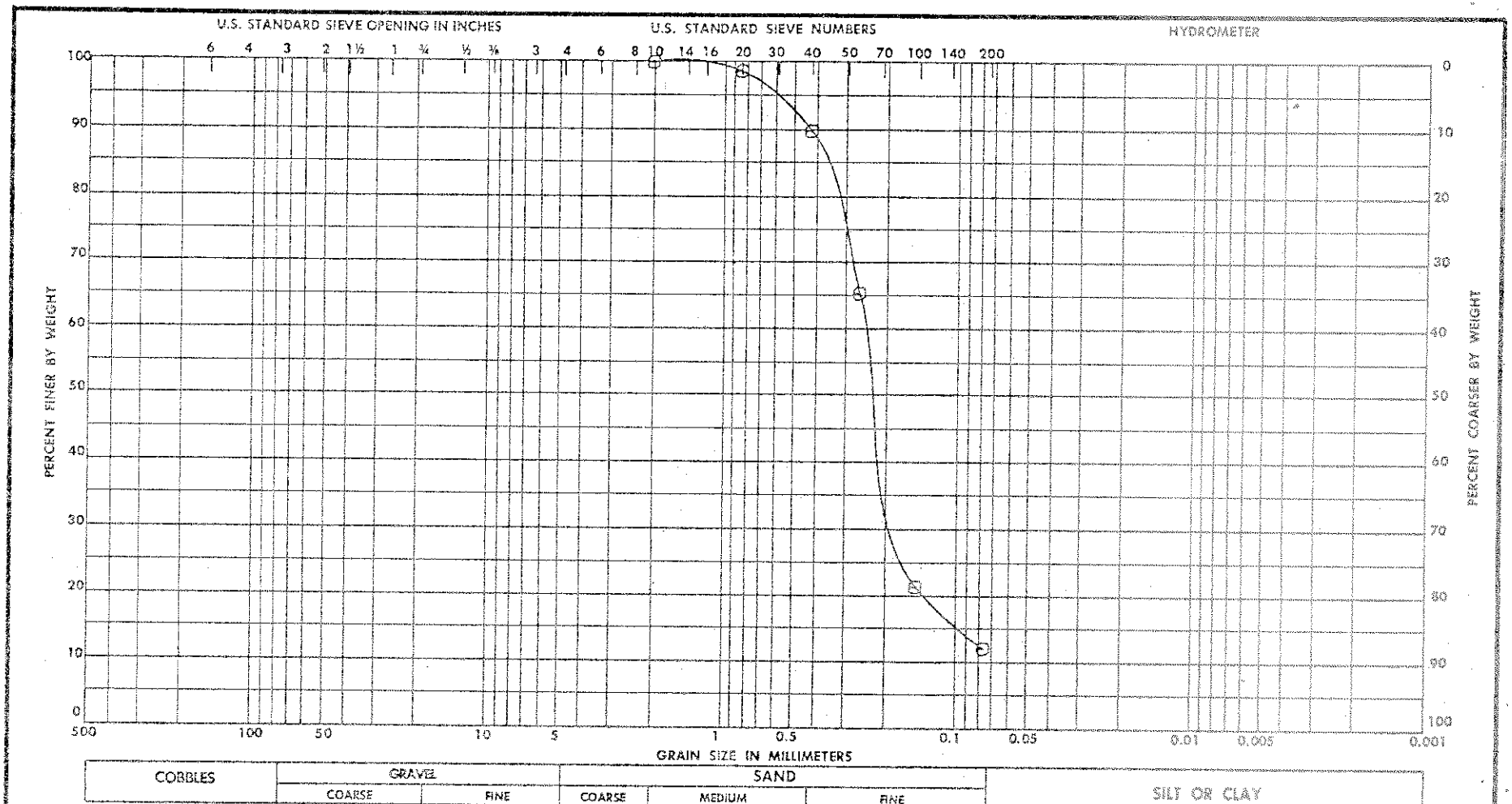
CHART NO. 564

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



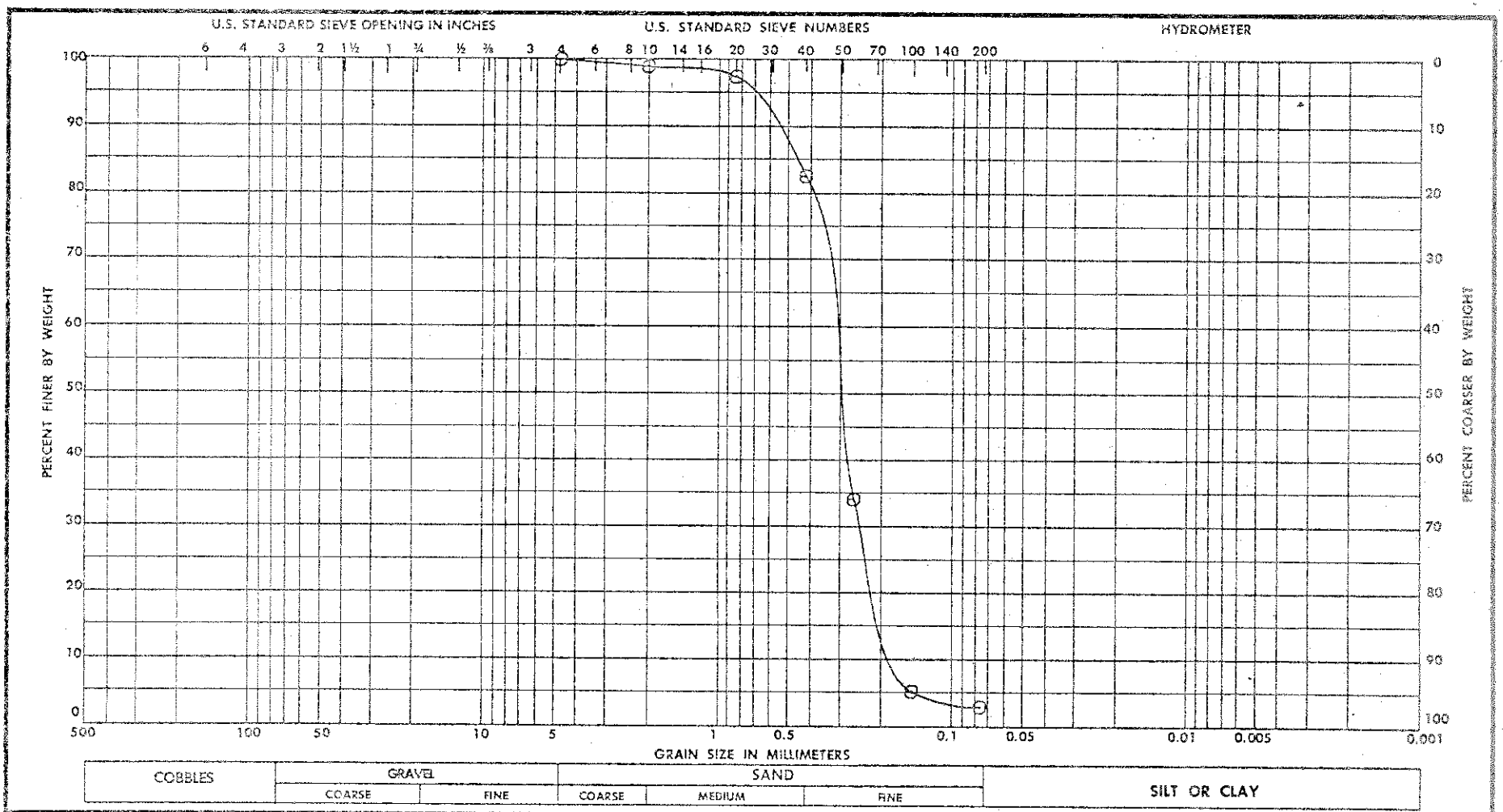
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	12.0'	SILTY SAND (SM)	---	NP	NP	NP
		GREENISH GRAY WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1171
Boring No. VC-19-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 565

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	17.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN AND GRAY WITH A TRACE				
		MICA AND DECAYED WOOD FRAG.				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1172
Boring No. VC-19-84 SAMPLE NO. 4
Date 11/27/84

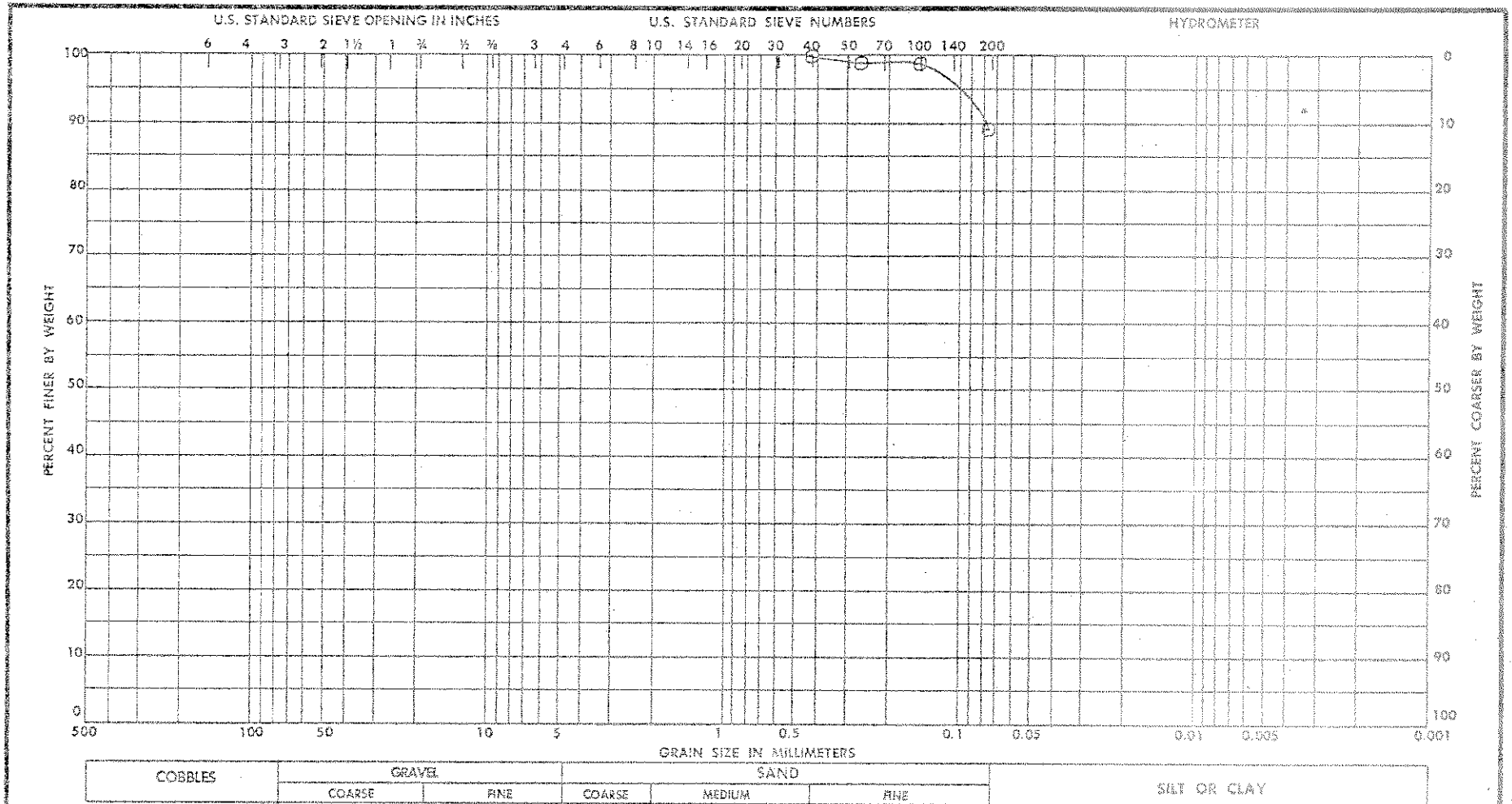
CHART NO. 566

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



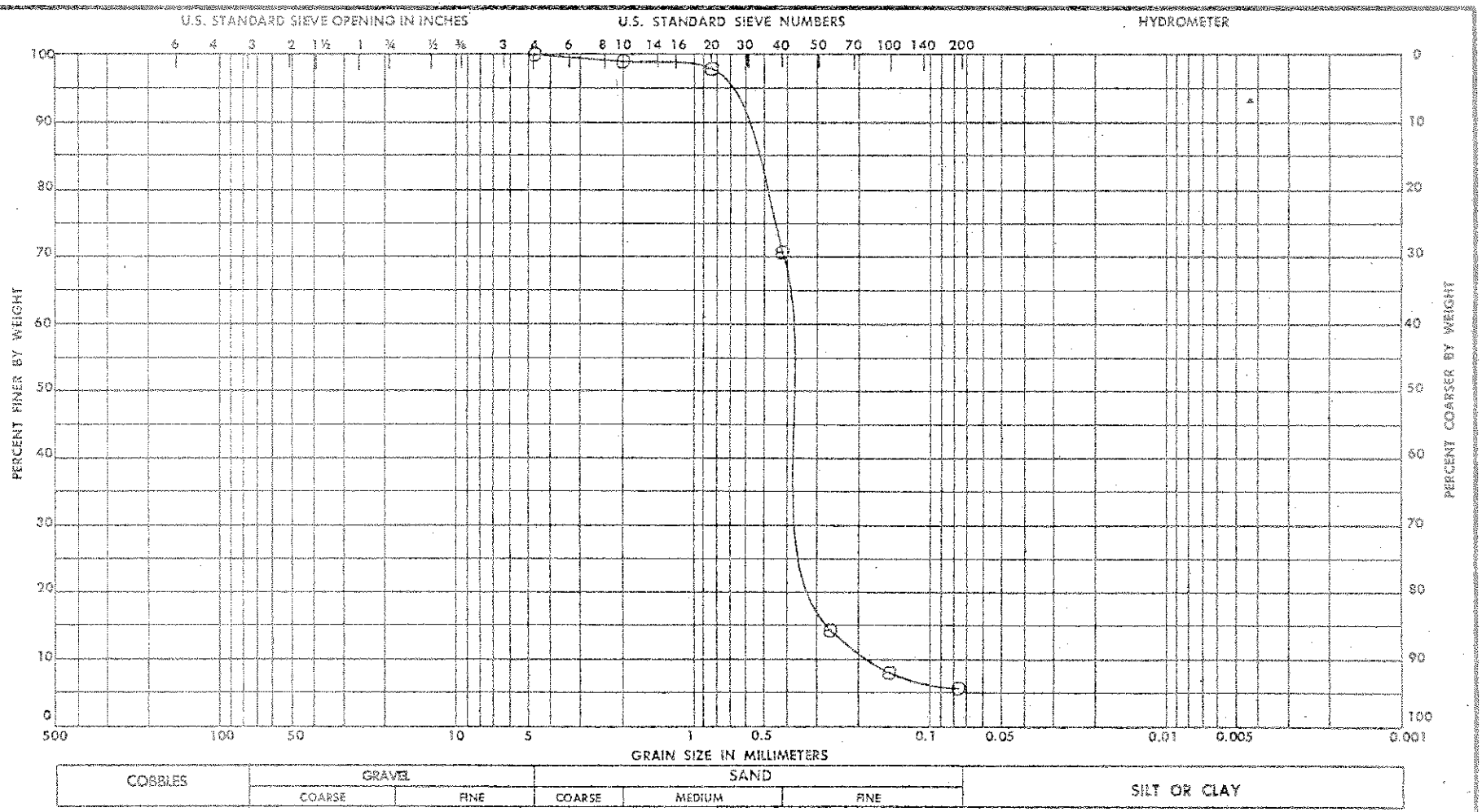
Sample No.	XXXX Depth	Classification	Nat w %	LL	PL	PI
2	10.0'	FAT CLAY (CH)	34.5	55	22	33
		GRAY WITH A LITTLE SAND				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1174
Boring No. VC-20-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 567

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM), LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1177
Boring No. VC-21-84 SAMPLE NO. 1
Date 11/27/84

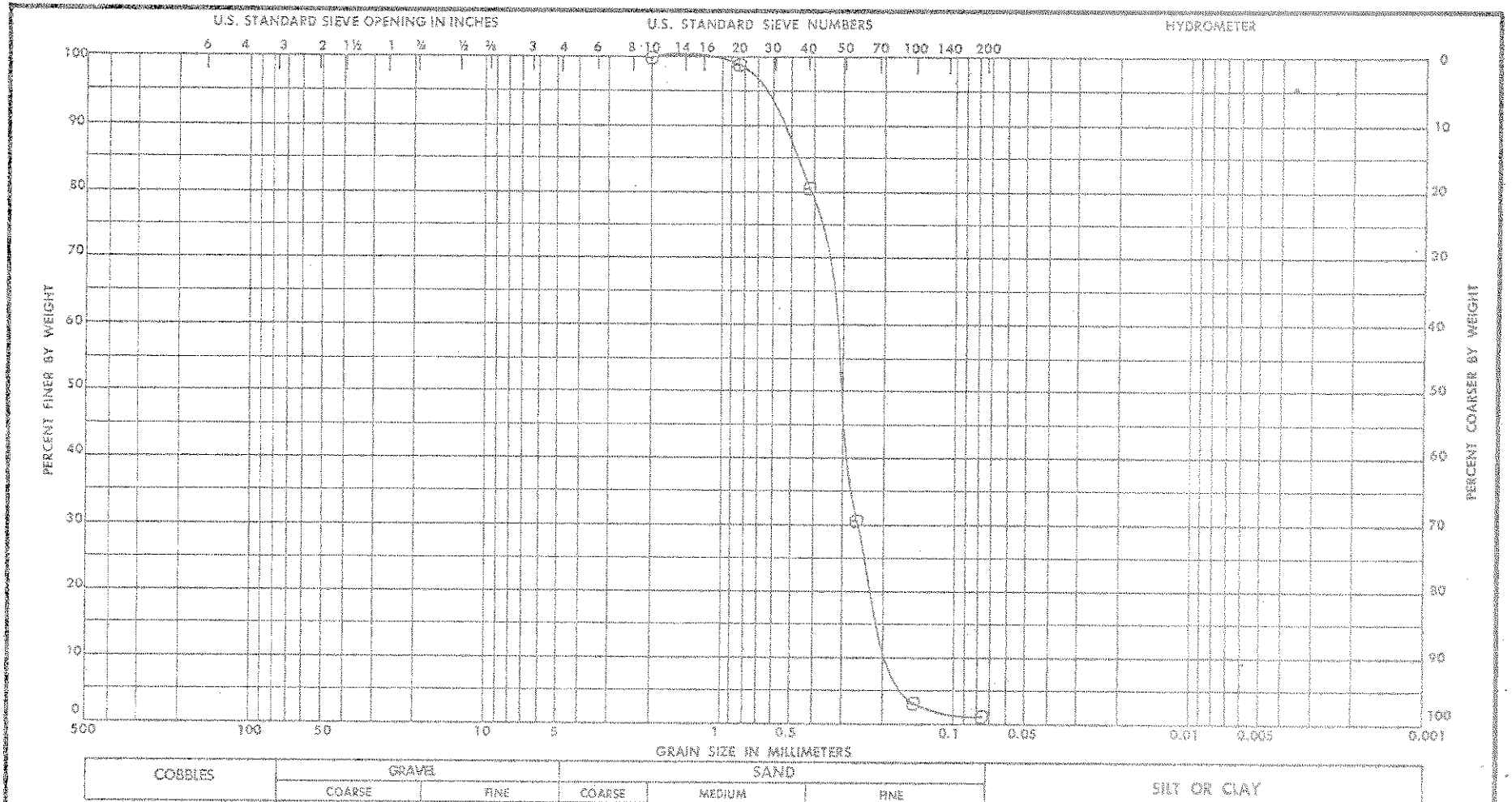
CHART NO. 568

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



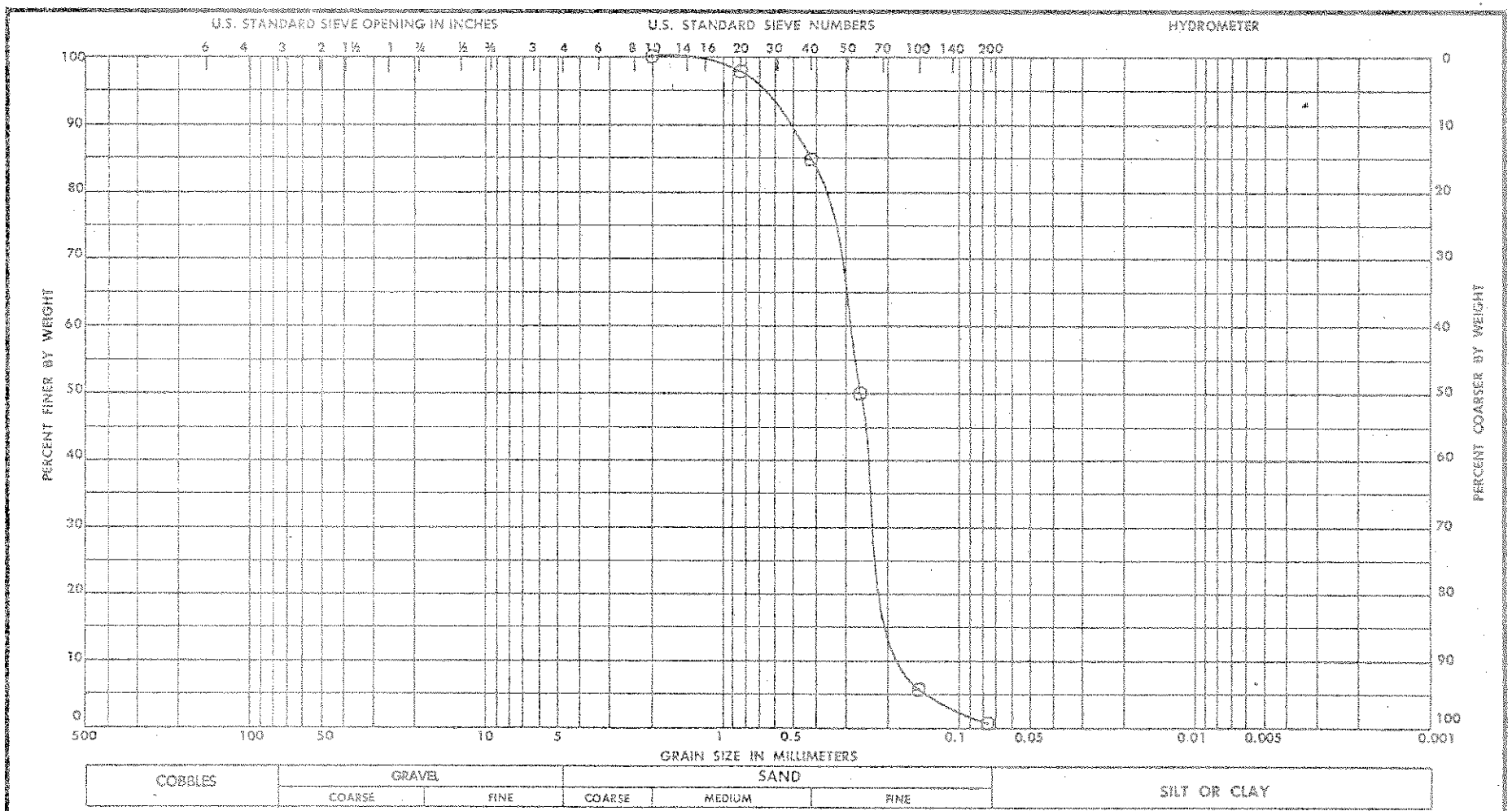
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TANNISH WHITE WITH A TRACE				
		OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1178
Boring No. VC-21-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 599

ENG FORM 2087 MAY 83



Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	25.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1179
Boring No. VC-21-84 SAMPLE NO. 3
Date 11/27/84

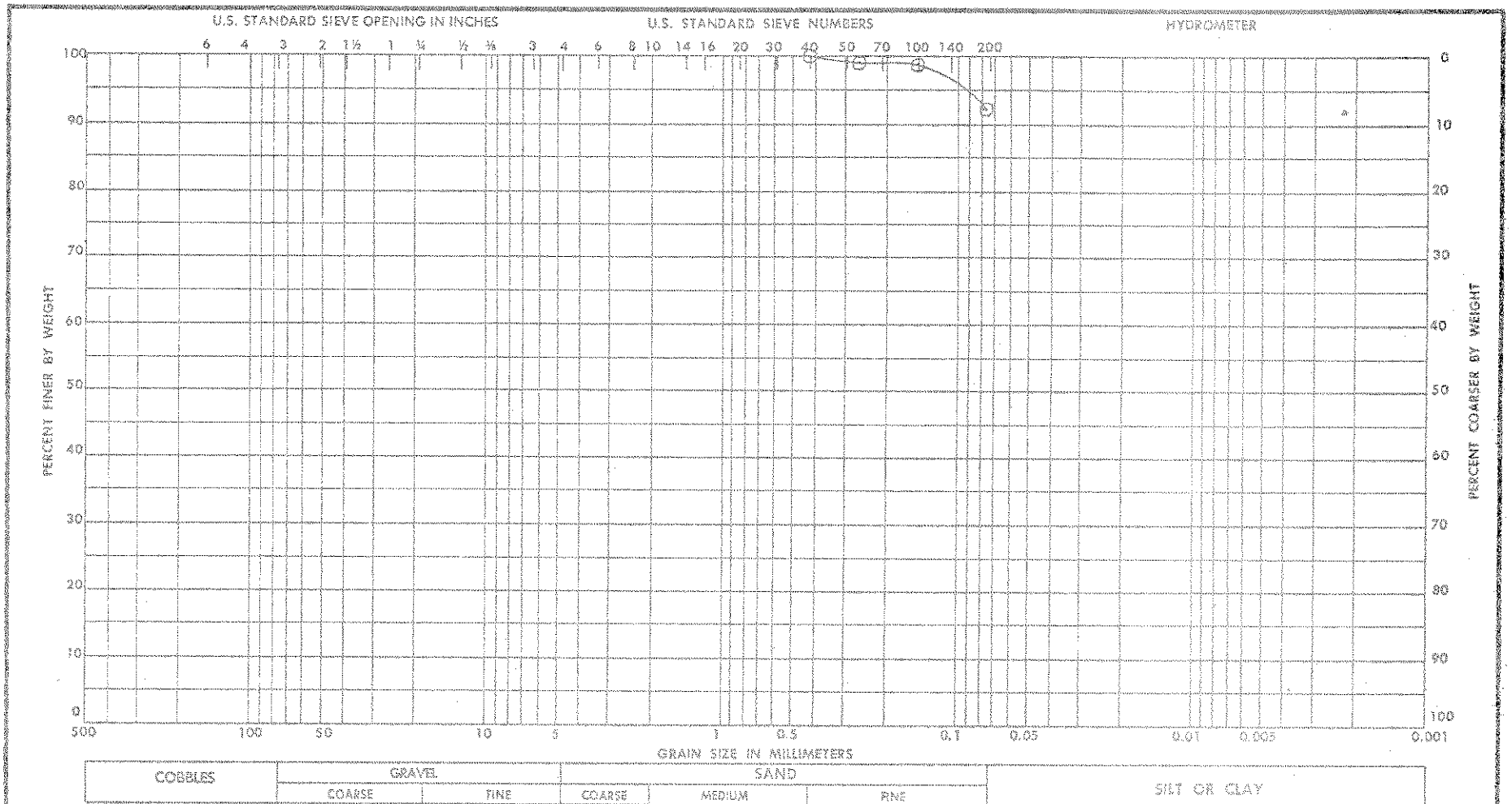
CHART NO. 570

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



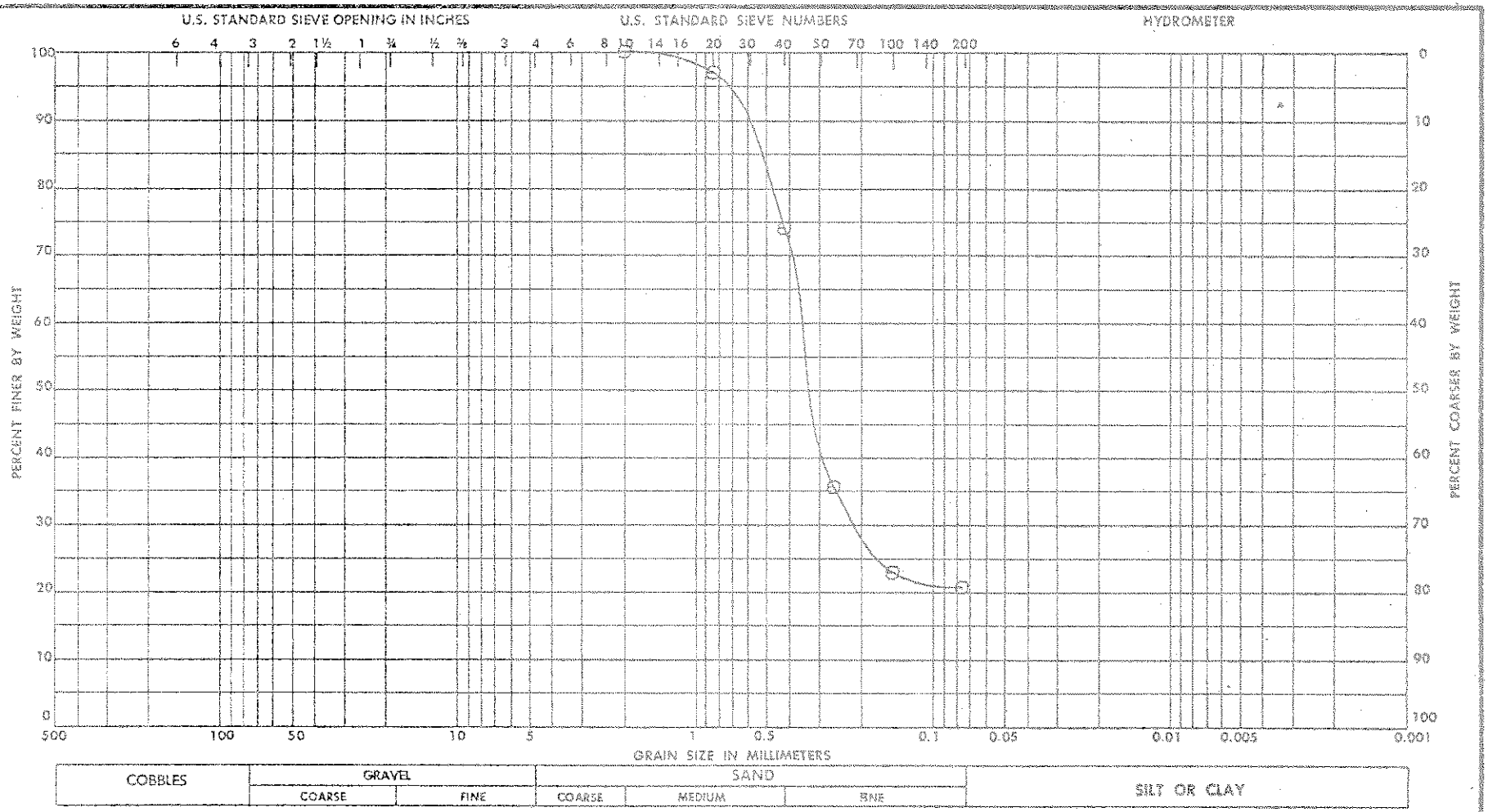
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	9.0'	FAT CLAY (CH)	66.5	56	23	33
		GRAY WITH A TRACE OF SAND				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 37/1181
Boring No. YC-22-84 SAMPLE NO. 2
Date 11/27/84

CHART NO. 571

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	SILTY, CLAYEY SAND (SM-SC)	--	--	--	--
		GRAY WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1187
Boring No. VC-23-84 SAMPLE NO. 3
Date 11/27/84

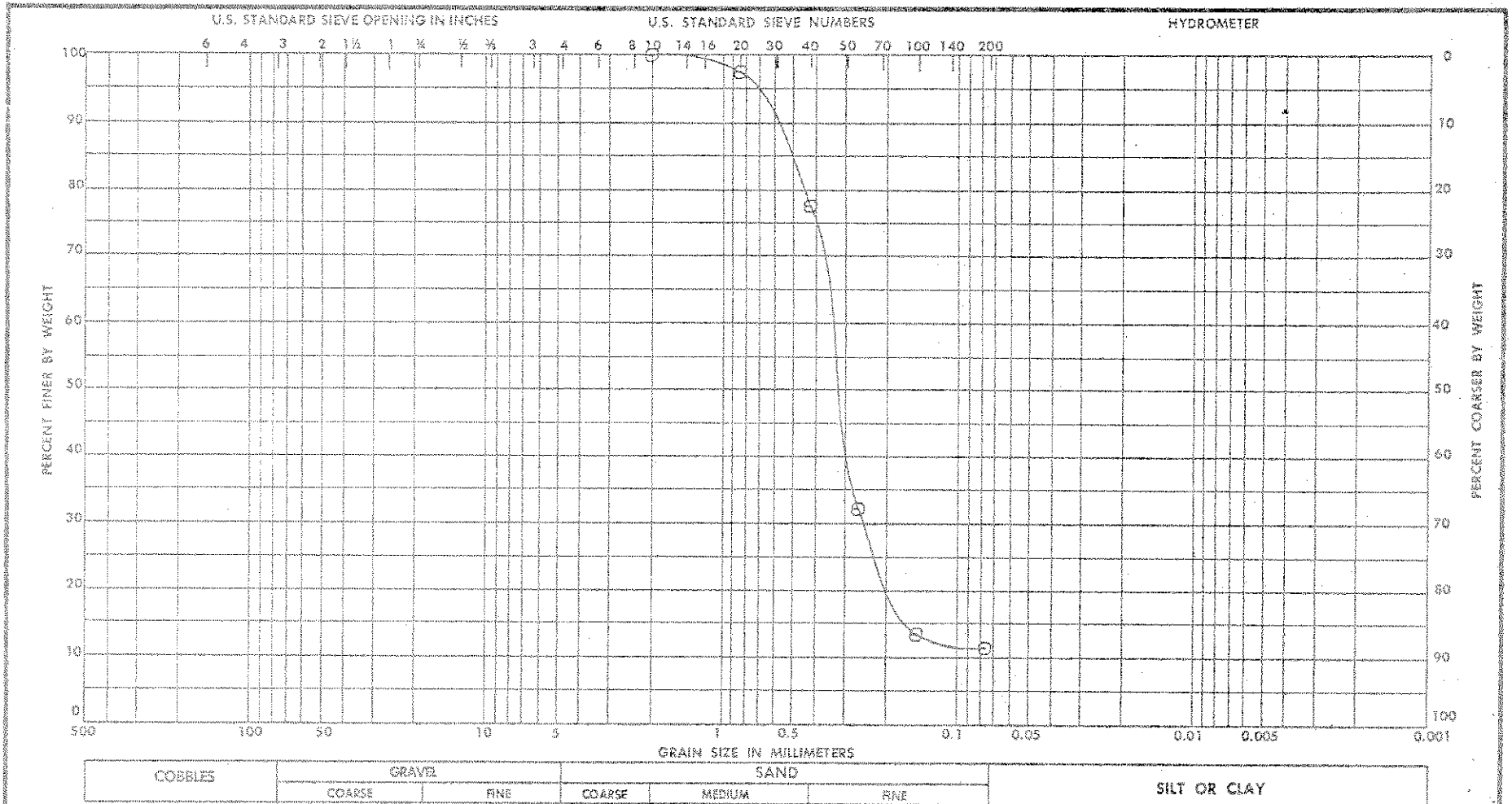
CHART NO. 572

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



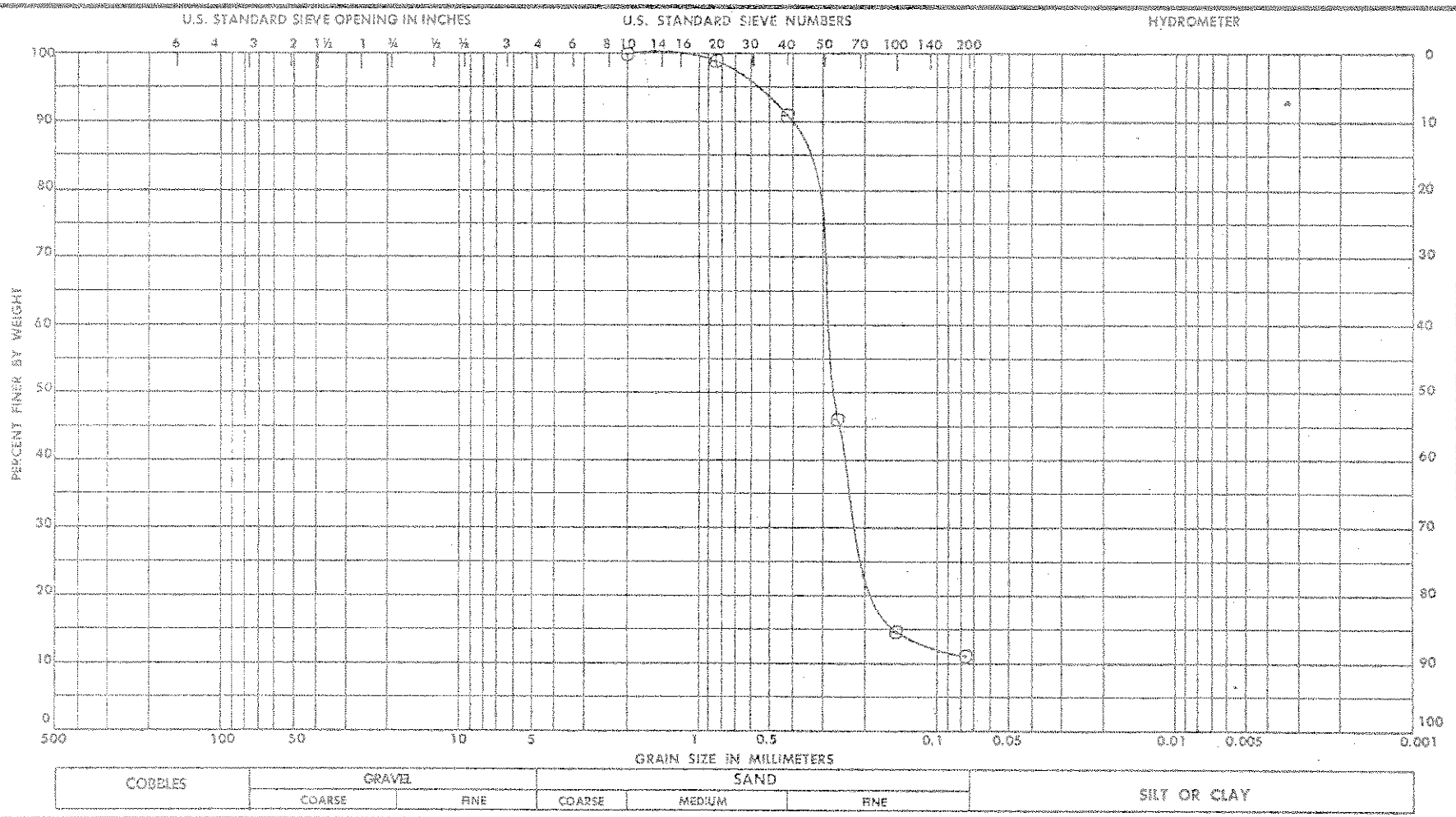
Sample No.	~~Boring~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	25.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1188
Boring No. VC-23-84 SAMPLE NO. 4
Date 11/27/84

CHART NO. 573

ENG FORM 1 MAY 68 2087



Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
5	30.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF MICA &				
		ORGANIC FINES				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1189
Boring No. VC-23-84 SAMPLE NO. 5
Date 11/27/84

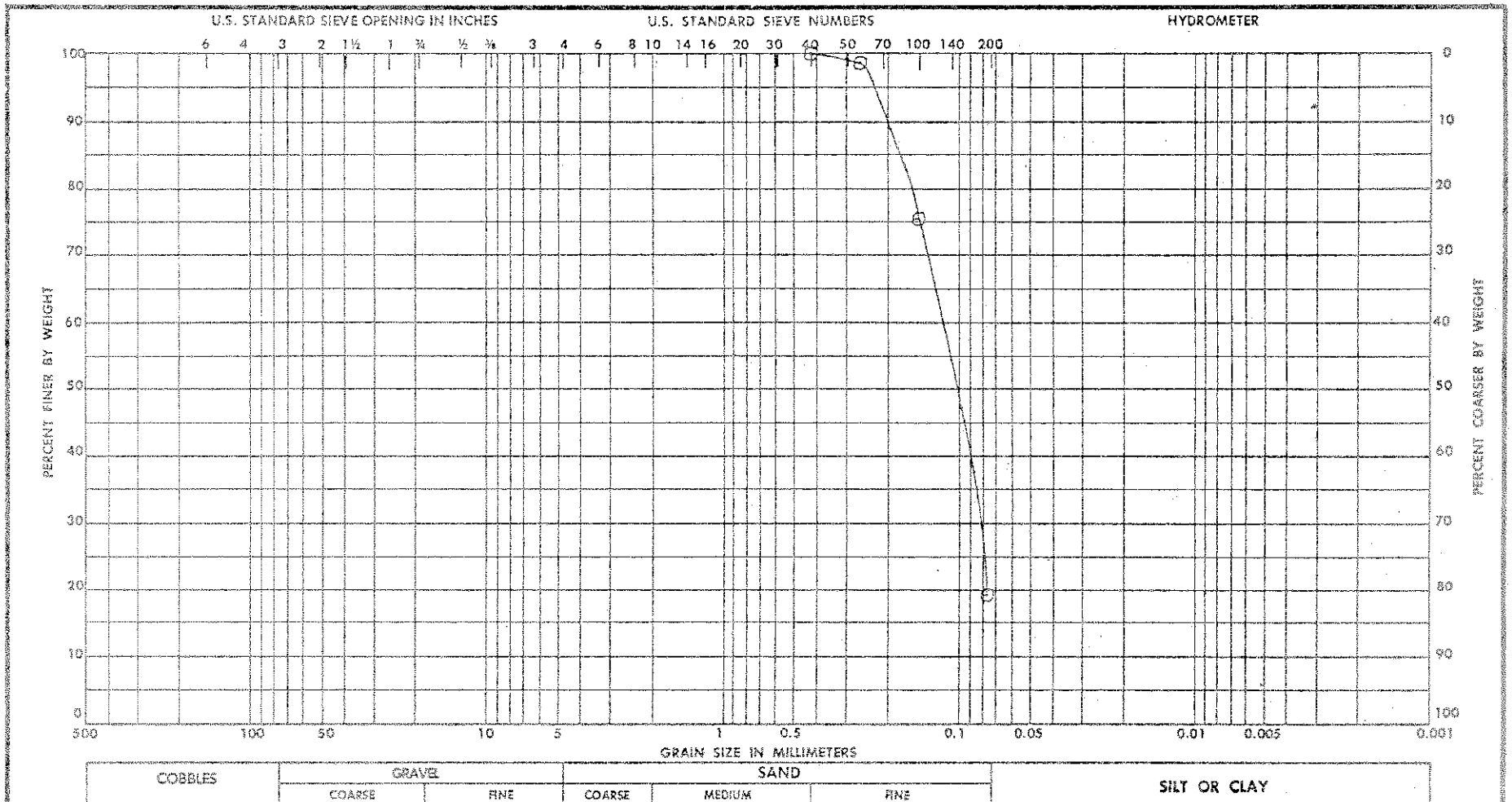
CHART NO. 574

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



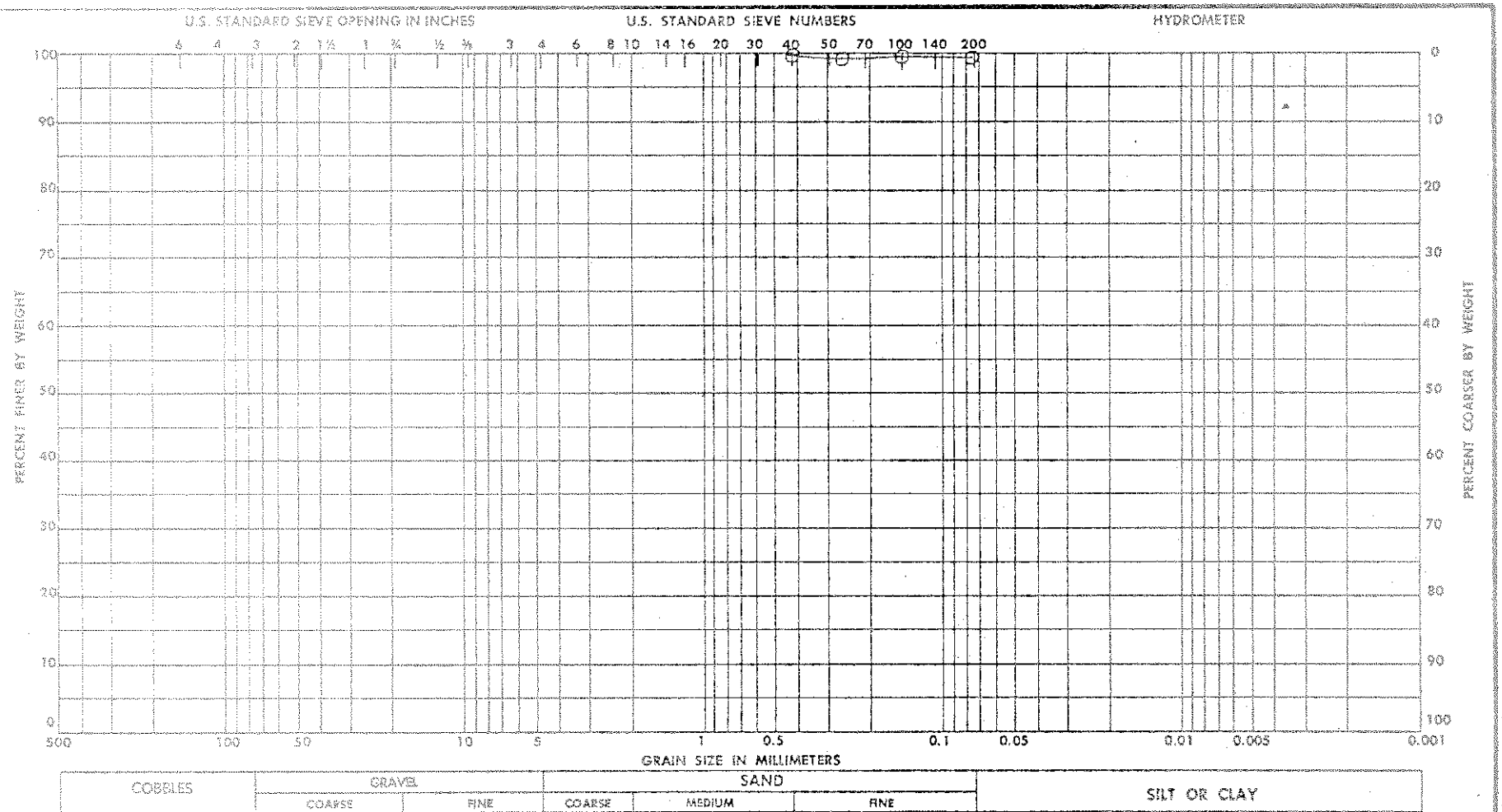
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	25.0'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH TAN WITH A TRACE OF				
		MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1193
Boring No. VC-24-84 SAMPLE NO. 5
Date 11/27/84

CHART NO. 575

ENG FORM 1 MAY 63 2087



Sample No.	~~XXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	FAT CLAY (CH)	80.8	--	--	--
		GRAY WITH A TRACE OF SAND				
		AND ORGANIC FINES				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1195
Boring No. VC-26-84 SAMPLE NO. 2
Date 11/27/84

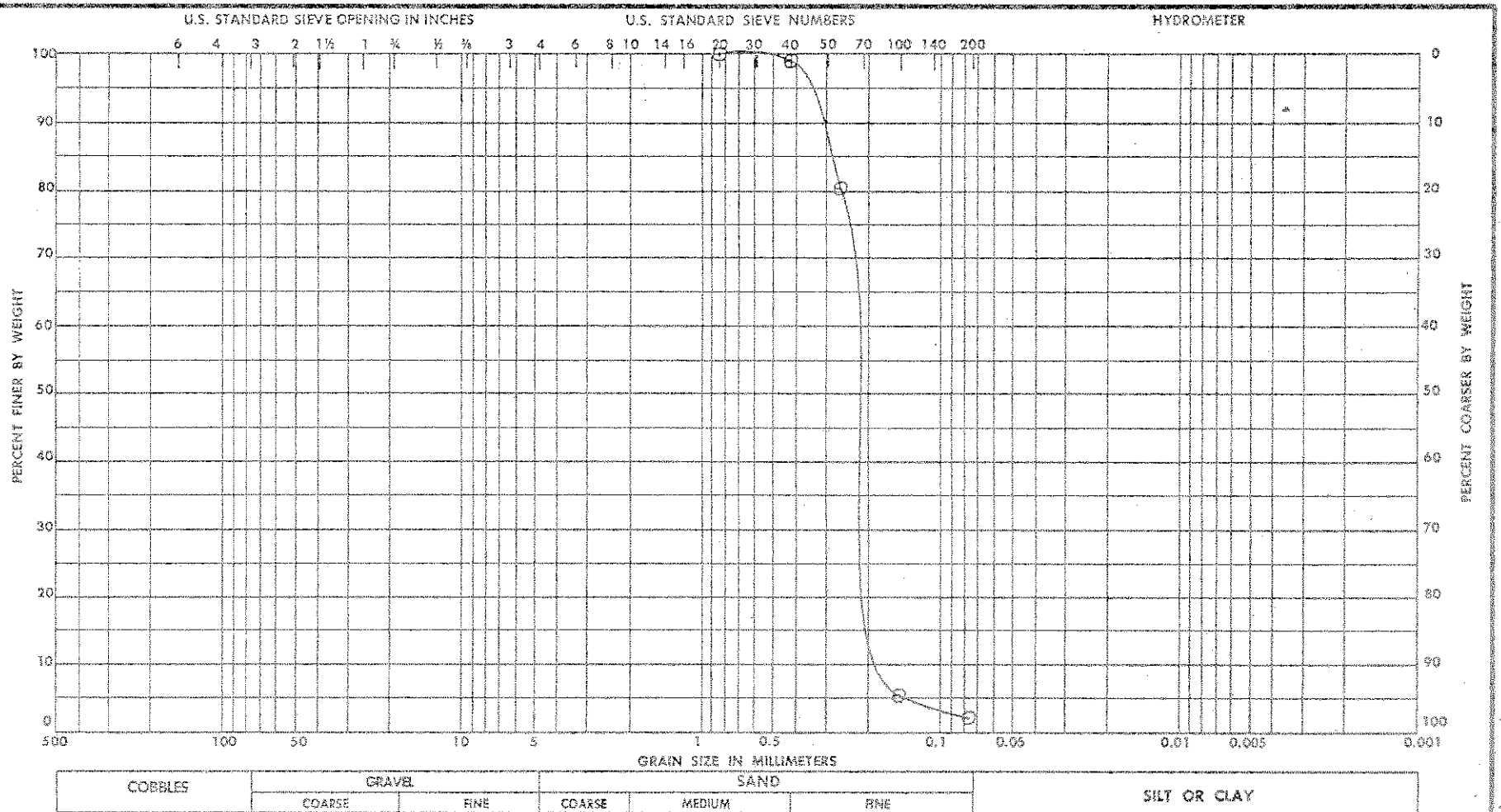
CHART NO. 576

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



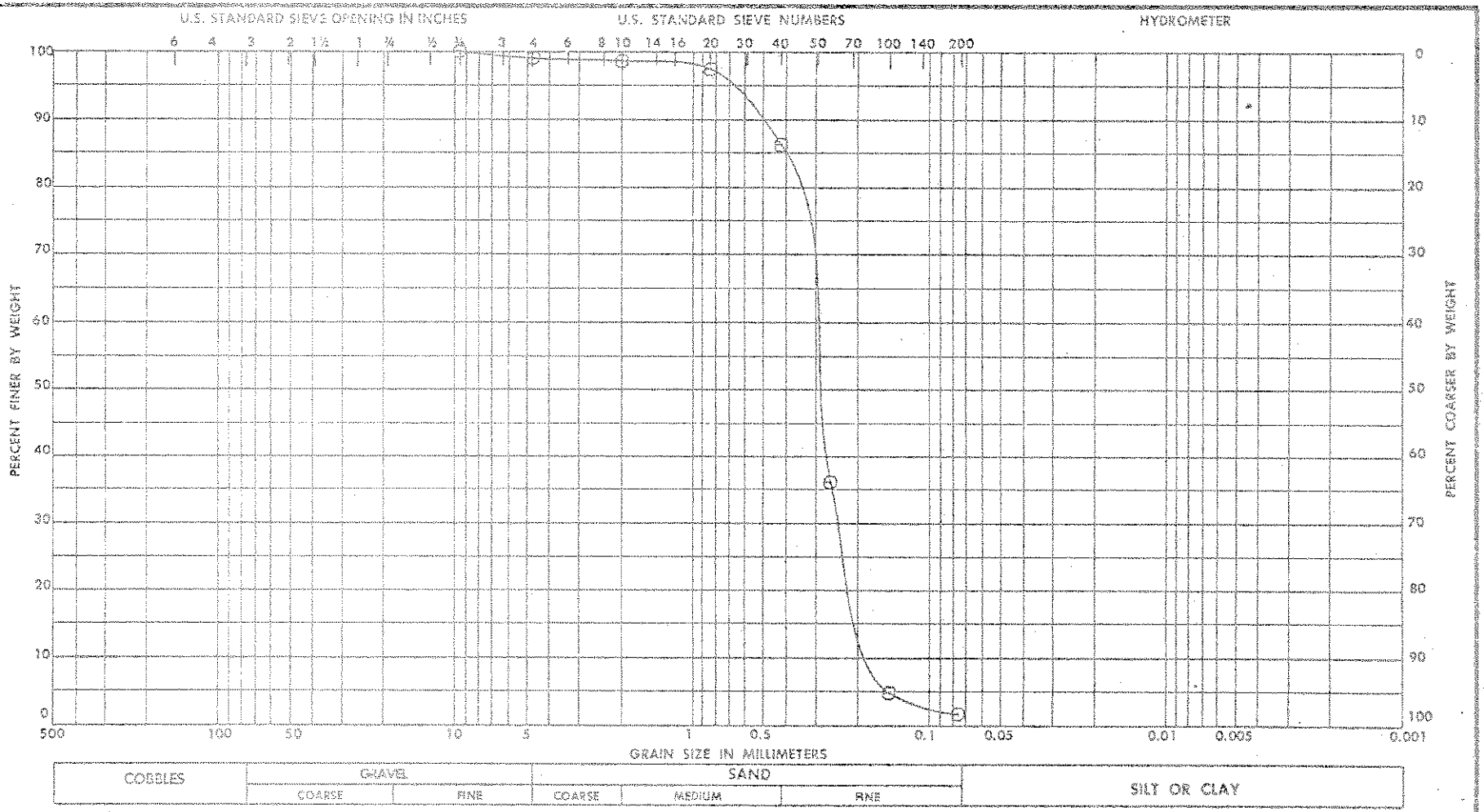
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	18.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF MICA				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1204
Boring No. VC-28-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 577

ENG FORM 1 MAY 63 2087



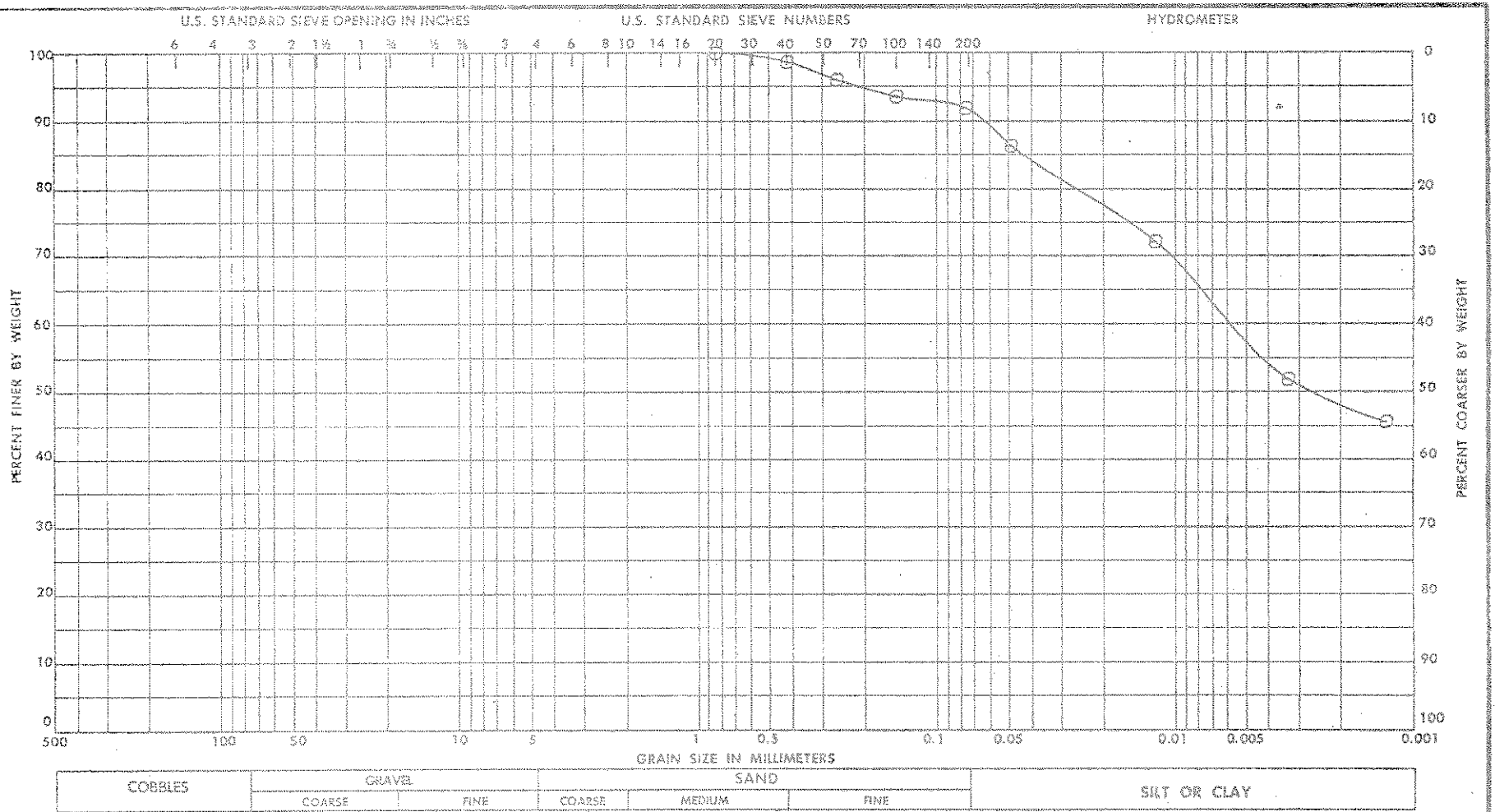
Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	25.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. GRAY, WITH A TRACE OF				
		GRAVEL				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1205
Boring No. VC-28-84 SAMPLE NO. 4
Date 11/27/84

CHART NO. 578

ENG FORM 1 MAY 63 2087



Sample No.	XXXX Depth	Classification	Nat w %	LL	PL	PI
2	9.0'	VISUAL FAT CLAY (CH), BLUISH GRAY	88.2	--	--	--
		WITH A TRACE OF SAND				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1210
Boring No. VC-32-84 SAMPLE NO. 2
Date 11/28/84

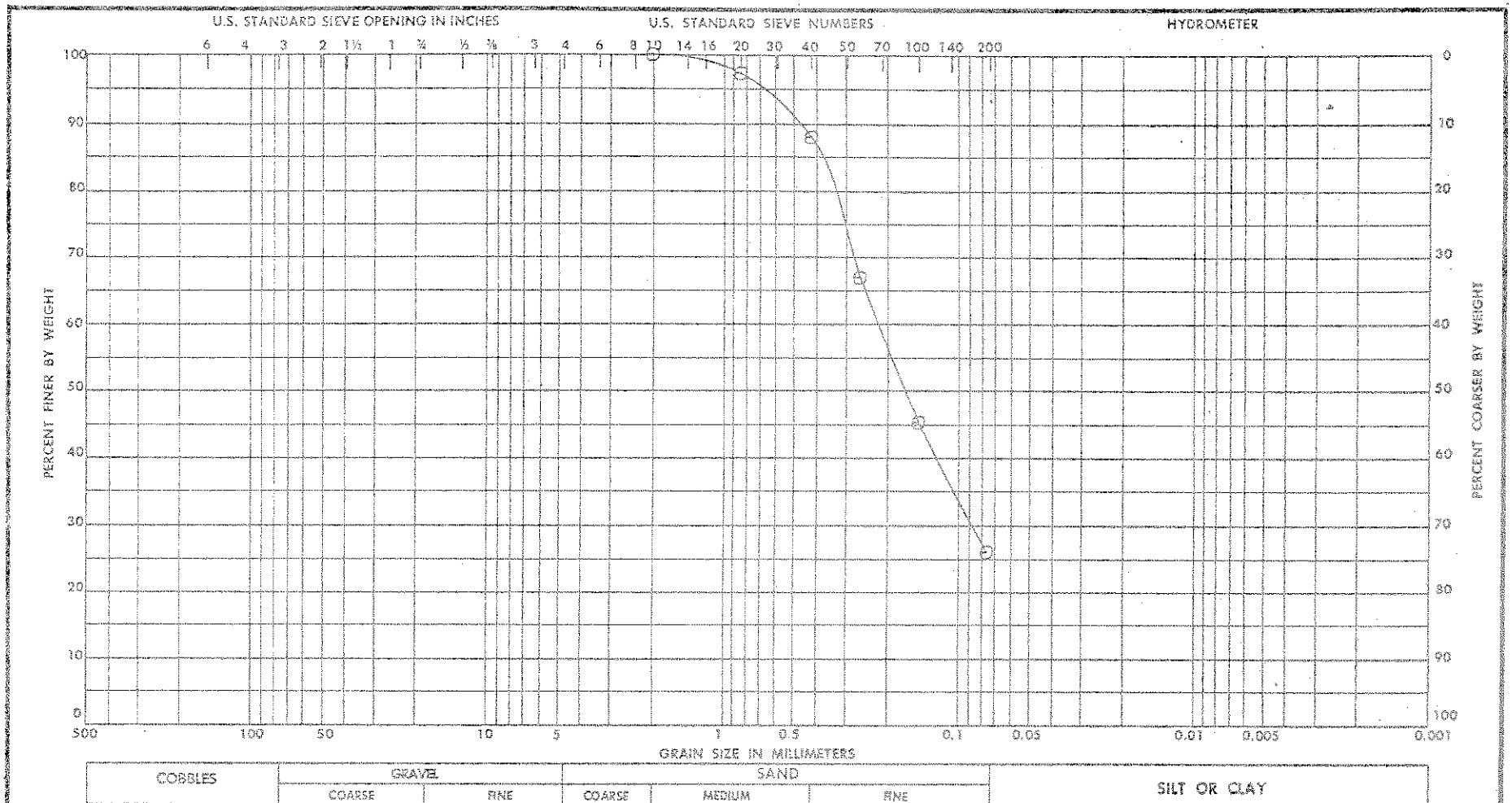
CHART NO. 580

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



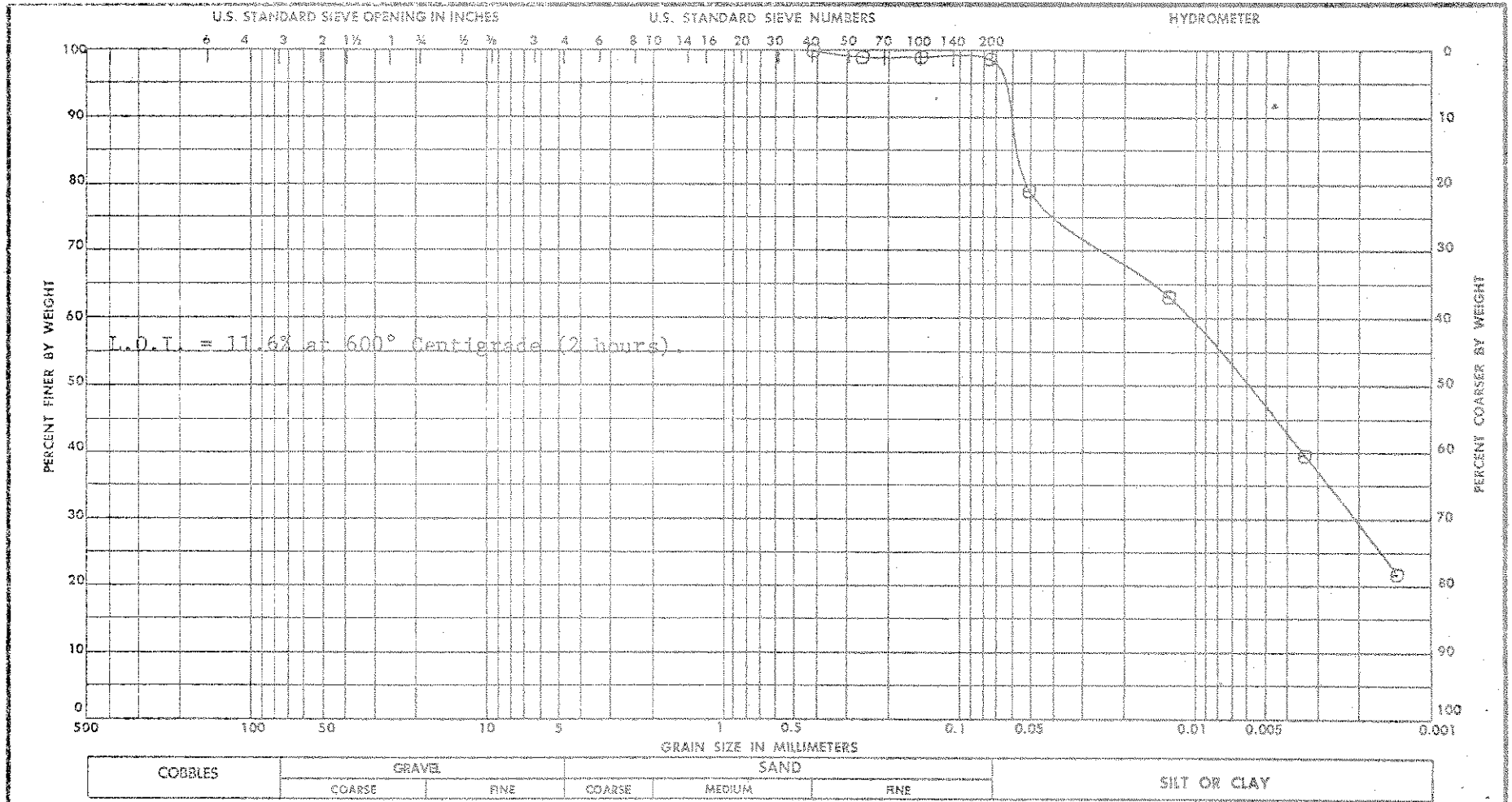
Sample No.	~~X~~X~~X~~X Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	CLAYEY SAND (SC), GRAY	--	--	--	--

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1211
Boring No. VC-32-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 581

ENG FORM 1 MAY 63 2087



Sample No.	~~Back~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	2.0'	FAT CLAY (CH), BLUISH GRAY,	136.8	--	--	--
		WITH A TRACE OF SAND,				
		SLIGHTLY ORGANIC				
		SPECIFIC GRAVITY = 2.71				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1224
Boring No. VC-36-84 SAMPLE NO. 1
Date 11/28/84

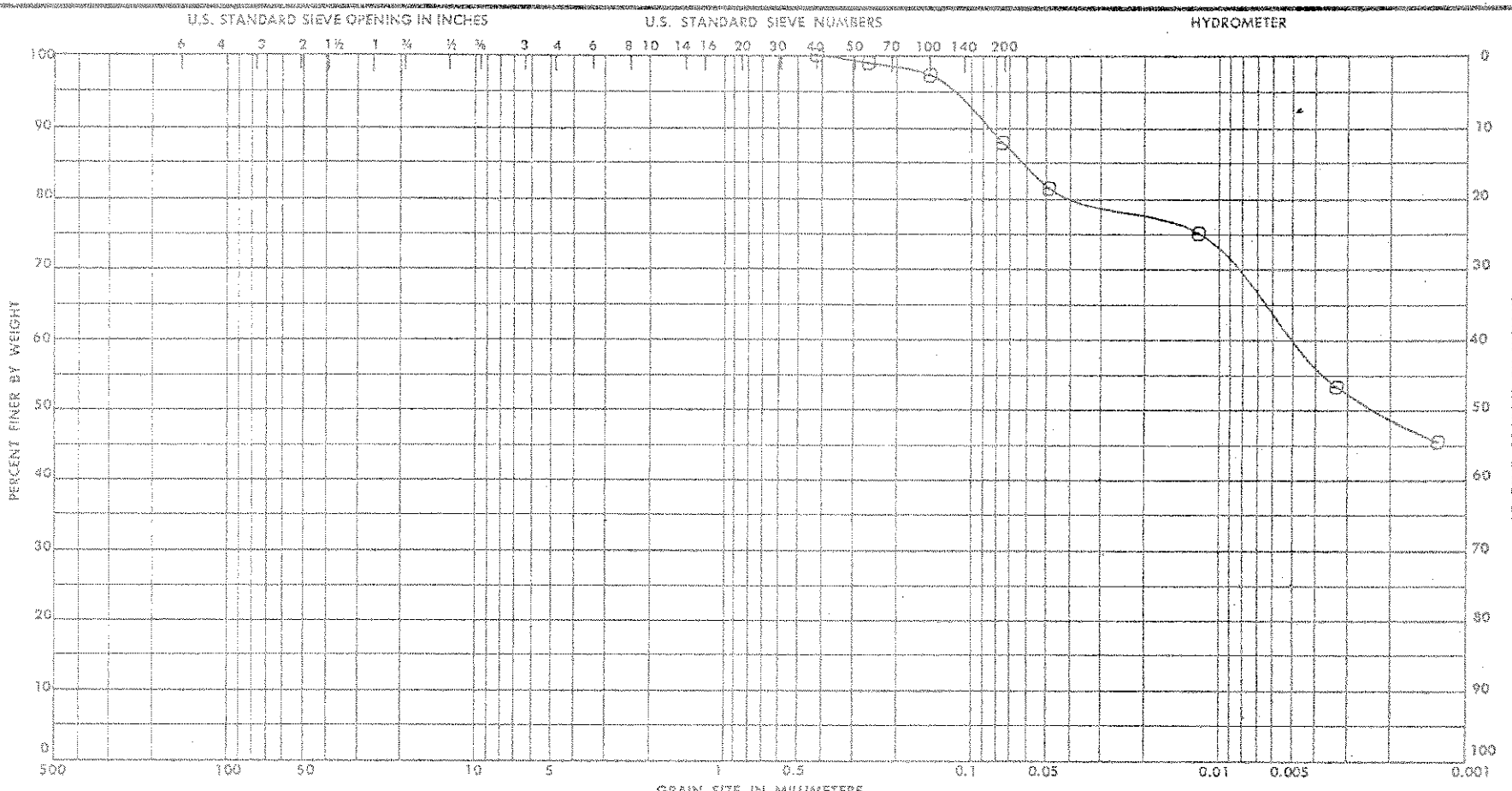
CHART NO. 582

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY
CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

W.O. No. 4222

Req. No. 1-85-F&M



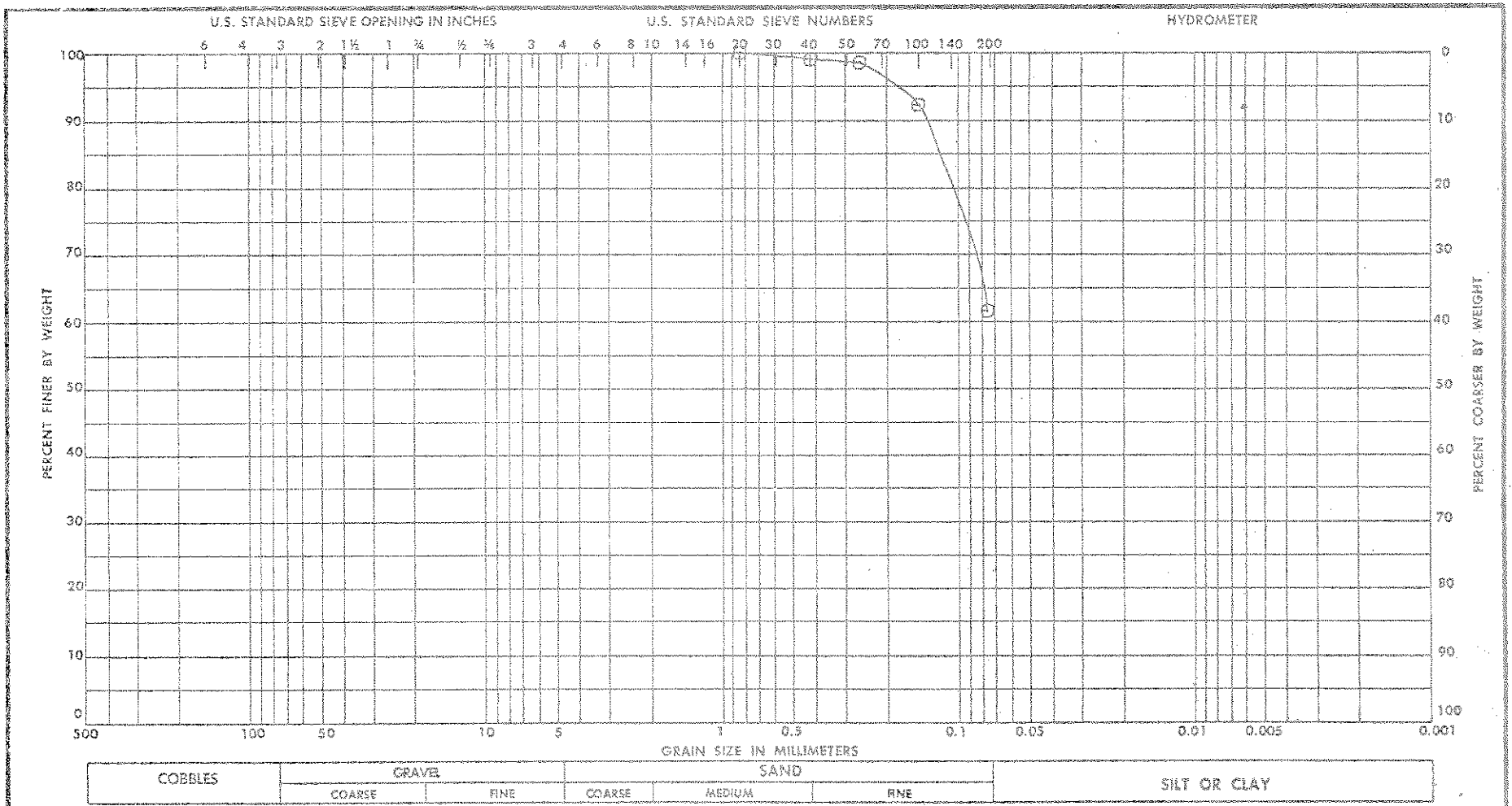
Sample No.	X16X36K Depth	Classification	Nat w %	LL	PL	PI
2	10.0'	FAT CLAY (CH)	87.3	74	27	47
		GRAY WITH A LITTLE SAND				
		SPECIFIC GRAVITY = 2.72				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1225
Boring No. VC-36-84 SAMPLE NO. 2
Date 11/28/84

CHART NO. 583

ENG FORM 1 MAY 63 2087



Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	16.0'	INORGANIC SILT LOW LL (ML)	33.1	--	--	--
		GRAY WITH A TRACE OF MICA				
		AND ORGANIC FINES				

GRADATION CURVES

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1226
Boring No. VC-30-84 SAMPLE NO. 3
Date 11/27/84

CHART NO. 584

ENG FORM 1 MAY 83 2087

DISTRICT: MOBILE
PROJECT: Brookley Expansion Spoil Area
LOCATION: Hole No. SC-17-83, Samples 1, 1A, 2 & 3
Hole No. SC-18-83, Samples 1 & 3

REQUISITION NO.: 1-84-F & M
WORK ORDER NO.: 3775
Lab No.: (Composite) 57/9630-9634 & 9642

TABLE 1
Concentration of Solids (gms, dry/L) as a Function of Settling Time (Hours)

Time Hours	0.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0
0.5		65.1	83.8	102.6	122.6	142.3	162.4	182.2	202.2
1.0		71.3	88.8	104.8	124.7	144.6	164.8	184.7	204.5
2.0		88.6	99.6	108.6	128.6	151.4	171.3	189.1	208.6
4.0		115.4	117.3	117.6	136.2	163.6	183.9	199.1	218.1
7.0 (*6.0)		134.8	133.3	133.2	149.3	171.1*	191.8*	211.5*	229.1*
24.0		280.4	288.8	277.8	293.4	331.0	354.8	368.1	387.6
48.0		319.1	327.9	---	---	367.5	391.2	402.7	422.8
72.0		359.3	363.6	348.4	359.3	387.8	410.3	422.5	442.5
96.0		389.6	388.3	373.1	382.2	---	---	438.5	459.2
120.0		419.6	414.5	393.7	398.7	420.4	439.6	454.0	474.5
144.0		465.1	459.8	413.2	416.7	433.4	452.0	463.9	485.4
168.0				431.0	433.2	445.9	468.8	474.9	496.3
192.0				446.4	447.8	457.5	474.8	485.2	505.1
216.0				---	---	468.2	484.8	494.5	514.1
240.0				473.9	474.3	477.8	493.8	502.8	522.2
264.0						---	---		
288.0						498.2	509.6		
312.0						507.2	517.8		
336.0						512.8			
360.0						521.4			

CHART NO. 585

REMARKS:
1. Zone settling tests performed in accordance with WES-TR-DS-78-10, Part III and EM 1110-2-5006 dated 30 September 1980. (These are both the same report.)
2. Tests performed in water shipped in five 30-gallon drums and identified as being from Mobile Harbor. It has a salinity of 6 ppt.
3. See laboratory classifications and additional data on ENG Form 2087 reported earlier.

Tested by: ELS Checked by: WLB

DISTRICT: MOBILE
PROJECT: Brookley Expansion Spoil Area
LOCATION: Hole No. SC-17-83, Samples 1, 1A, 2 & 3
Hole No. SC-18-33, Samples 1 & 3

REQUISITION NO.: 1-84-F & M
WORK ORDER NO.: 3775
LAB NO.: (Composite) 57/9630-9634 & 9642

TABLE 2
Concentration of Solids (pcf, dry den.) as a Function of Settling Time (Hours)

Time, Hours	Init. Conc. gms,dry/L	60	80	100	120	140	160	180	200
	Init. Conc. pcf,dry den.	3.7	5.0	6.2	7.5	8.7	10.0	11.2	12.5
0.5		4.1	5.2	6.4	7.7	8.9	10.1	11.4	12.6
1.0		4.5	5.5	6.5	7.8	9.0	10.3	11.5	12.8
2.0		5.5	6.2	6.8	8.0	9.5	10.7	11.8	13.0
4.0		7.2	7.3	7.3	8.5	10.2	11.5	12.4	13.6
7.0 *6.0		8.4	8.3	8.3	9.3	10.7*	12.0*	13.2*	14.3*
24.0		17.5	18.0	17.3	18.3	20.7	22.2	23.0	24.2
48.0		19.9	20.5	---	---	22.9	24.4	25.1	26.4
72.0		22.4	22.7	21.8	22.4	24.2	25.6	26.4	27.6
96.0		24.3	24.2	23.3	23.9			27.4	28.7
120.0		26.2	25.9	24.6	24.9	26.2	27.4	28.3	29.6
144.0		29.0	28.7	25.8	26.0	27.1	28.2	29.0	30.3
168.0				26.9	27.0	27.8	29.0	29.6	31.0
192.0				27.9	28.0	28.6	29.6	30.3	31.5
216.0				---	---	29.2	30.3	30.9	32.1
240.0				29.6	29.6	29.8	30.8	31.4	33.5
264.0						---	---		
288.0						31.1	31.8		
312.0						31.7	32.3		
336.0						32.0			
360.0						32.6			

REMARKS:
1. Zone settling tests performed in accordance with WES-TR-DS-78-10, Part III and EM 1110-2-5006 dated 30 September 1980. (These are both the same report.)
2. Tests performed in water shipped in five 30-gallon drums and identified as being from Mobile Harbor. It has a salinity of 6 ppt.
3. See laboratory classifications and additional data on ENG Form 2087 reported earlier.

Tested by: ELS Checked by: WLB

CHART NO. 586

DISTRICT: MOBILE
PROJECT: Brookley Expansion Spoil Area
LOCATION: Hole No. SC-17-83, Samples 1, 1A, 2 & 3
Hole No. SC-18-83, Samples 1 & 3

REQUISITION NO.: 1-84-F & M
WORK ORDER NO.: 3775
LAB NO.: (Composite) 57/9630-9634 and 9642

TABLE 3
Depth to Solids Interface (Feet) as a Function of Settling Time (Hours)

Time, Hours	Init. Conc. gms,dry/L	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0
	Depth to Interface, ft.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.5		0.52	0.31	0.16	0.14	0.10	0.10	0.08	0.07
1.0		1.04	0.65	0.30	0.25	0.21	0.19	0.17	0.14
2.0		2.12	1.29	0.52	0.44	0.49	0.43	0.31	0.27
4.0		3.15	2.09	0.98	0.78	0.94	0.85	0.63	0.54
7.0	(*6.0)	3.64	2.62	1.63	1.29	1.19*	1.09*	0.98*	0.83*
24.0		5.16	4.74	4.20	3.88	3.79	3.60	3.35	3.18
48.0		5.33	4.96	---	---	4.06	3.88	3.63	3.46
72.0		5.47	5.12	4.68	4.37	4.19	4.00	3.77	3.60
96.0		5.55	5.21	4.80	4.50	---	---	3.87	3.70
120.0		5.62	5.30	4.90	4.59	4.38	4.17	3.96	3.80
144.0		5.72	5.42	4.97	4.67	4.44	4.24	4.02	3.86
168.0				5.04	4.74	4.50	4.30	4.07	3.92
192.0				5.09	4.80	4.55	4.35	4.13	3.96
216.0				---	---	4.60	4.40	4.17	4.01
240.0				5.18	4.90	4.64	4.44	4.21	4.05
264.0						---	---		
288.0						4.72	4.50		
312.0						4.75	4.53		
336.0						4.77			
360.0						4.80			

REMARKS:
1. Zone settling tests performed in accordance with WES-TR-DS-78-10, Part III and EM 1110-2-5006 dated 30 September 1980. (These are both the same report.)
2. Tests performed in water shipped in five 30-gallon drums and identified as being from Mobile Harbor. It has a salinity of 6 ppt.
3. See laboratory classifications and additional data on ENG Form 2087 reported earlier.
4. Total sample height = 200cm = 6.56 ft.

Tested by: ELS Checked by: WLB

CHART NO. 587

TEST DATA SUMMARY

PROJECT Mobile Harbor

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS				ATTERBERG LIMITS		SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA		SHEAR DATA														CONSOLIDATION DATA				REMARKS
				GRAVEL %	SAND %	FINES %	D_{10} mm	LL	PL				OPT. WATER %	MAXIMUM DRY DENSITY LBS/CU FT	INITIAL e	DRY DENSITY LBS/CU FT	W_1 %	W_F %	S_1 %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_1 T/SQ FT	c T/SQ FT	ϕ DEGREES	L.O.I	P_O T/SQ FT	P_C T/SQ FT	C_C	t_{50}	
SC-10-83		5-7.5	CH	0	1	99		104	28	2.69	149.2													To	Soft		9.6					
		15-16.0	SM	0	83	17	.021	–	–	2.68	22.9																1.6					
SC-11-83		5-7-5	CH	0	1	99		104	28		135.9													TO	Soft		10.6					
		15-17.5	CH	0	7	93	.002	77	22	2.70	74.9				1.948	57.2	71.7		99.4	Q	1.38X3.08	1			.06	0.0	6.3	0.423	0	0.60		
															1.961	56.9	72.0		99.2	Q	" "	2										
															1.983	56.5	72.1		98.2	Q	" "	3										
		25-27.5	CH	0	4	96		84	25	2.69	81.3				2.075	54.6	76.0		98.5	UC	" "				.115		7.3	0.555	0	1.03		
		35-37.5	CH	0	3	97		87	30	2.61	57.6				1.349	69.4	51.7		100.0	UC	" "				.145		10.3					
SC-12-83		5-7.5	CH	0	1	99		78	27	2.67	98.3				2.632	45.9	98.4		99.8	Q	" "	1			.05	0.0	9.7					
															2.593	46.4	97.1		100.0	Q	" "	2										
															2.600	46.3	95.9		98.5	Q	" "	3										
															2.719	44.8	101.8		100.0	UC	" "				.02							
		15-17.5	CH	0	7	93		77	21	2.71	75.4				2.047	55.5	75.0		99.4	$\overline{R}$	" "	1			0.0	16.0	6.5	0.39	0	0.75		
															2.052	55.4	75.4		99.7	$\overline{R}$	" "	2			0.0	27.0						
															2.061	55.3	75.8		99.8	$\overline{R}$	" "	3										
		25-27.5	CH	0	12	88		81	22	2.70	81.8				2.154	53.4	78.9		98.9	R	" "	1			.15	12.0	6.5	0.53	0	0.82		
															2.179	53.0	80.1		99.4	R	" "	2										
															2.219	52.4	81.9		99.7	R	" "	3										
															2.380	49.9	86.4		98.0	UC	" "				.035							
C-13-83		5-7.5	CH	0	5	95		105	38	2.65	103.0				2.776	43.8	104.0		99.3	R	" "	1			.10	15.0	10.9	0.18	0	0.78		
															2.871	42.7	107.2		99.0	R	" "	2										
															2.848	43.0	106.6		99.2	R	" "	3										
															2.841	43.1	106.0		98.9	UC	" "				.03							
		15-17.5	CH	0	8	92		64	19	2.69	62.2				1.670	62.9	62.1		100.0	R	" "	1			0.0	17.5	5.7					
															1.631	63.8	60.6		100.0	R	" "	2										
															1.666	63.0	61.9		100.0	R	" "	3										
															1.709	62.0	63.3		99.7	Q	" "	1			.10	0.0						
															1.670	62.9	62.0		99.9	Q	" "	2										
															1.709	62.0	62.0		99.7	Q	" "	3										
		35-37.5	CH	0	8	92		92	25	2.64	60.0				1.586	63.7	60.0		99.9	UC	" "				.06		6.6					
C-17-83		5-7.5	CH	0	15	85		58	26	2.65	67.7																7.3					
		13-15.5	CL	0	41	59		35	20	2.67	34.1				.933	86.2	34.1		97.5	UC	" "				.10		3.1					
		17.5-20	CL	0	36	64		34	23	2.67	38.1																3.5					
		27.5-30	CH	0	15	85		77	20	2.69	70.1				1.887	58.2	70.1		100.0	UC	" "				.08		7.2					
		36-38.5	CH	0	18	82		56	15	2.67	24.1				.644	101.4	24.1		100.0	UC	" "				.54							

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NOTES:

1. For all UC tests Su strengths are reported in the cohesion column.
2. For $\overline{R}$ test, total stress values are shown above effective stress values.

T – TRIAXIAL COMPRESSION
UC– UNCONFINED COMPRESSION
DS– DIRECT SHEAR
Q – UNCONSOLIDATE UNDRAINED
S – CONSOLIDATED DRAINED
R – CONSOLIDATED UNDRAIN

CHART NO. 588

TEST DATA SUMMARY

PROJECT Mobile Harbor

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS				ATTERBERG LIMITS		SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA		SHEAR DATA													CONSOLIDATION DATA				REMARKS
				GRAVEL %	SAND %	FINES %	D_{10}	LL	PL				OPT. WATER %	MAXIMUM DRY DENSITY LBS/CU FT	INITIAL e	DRY DENSITY LBS/CU FT	W_1 %	W_F %	S_1 %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_1 T/SQ FT	c T/SQ FT	ϕ DEGREES	e	L.O.I	P_O T/SQ FT	P_C T/SQ FT	C_C	t_{50}	
C-18-83		7-9.5	ML	0	37	63		31	28	2.67	31.8																	2.7					
		25-27.5	CH	0	8	92		72	19	2.71	73.4				1.989	56.6	73.4		100.0	UC	1.38X3.08				.035							
C-24-83		12-14.5	CH	0	3	97		93	28	2.66	92.6				2.511	47.3	92.6		98.2	UC	" "				.055			6.0				
		32-34.5	SM	0	77	23		NP	NP	2.66	23.8				.639	101.3	23.8		99.3	UC	" "				.12							
S-204-AU-84																																
	1		CH	0	9	91		64	25	2.75	80.8				2.289	52.2	80.8		97.1	UC	1.38 x 3.08				.06							
	2		CH	-	22	78		67	25	2.74	73.1				2.049	56.1	73.1		97.8	UC	1.38 x 3.08				0.11							
	3		CH	0	11	89		83	26	2.74	90.3				2.560	48.1	90.3		96.7	UC	1.38 x 3.08				0.09							
	4		CH	-	18	82		84	28	2.73	84.0				2.361	50.7	84.0		97.1	UC	1.38 x 3.08				.095							
	5		CH	0	12	88		81	27	2.67	70.6				1.911	57.3	70.6		98.7	UC	1.38 x 3.08				0.16							
	6		CH		48.7	51.3		51	17	2.70	24.3				0.675	100.8	24.3		97.6	UC	1.38 x 3.08				.365							
	7		SM	0	78	22				2.66	23.7					96.0																
	8		SP-SM	0	94	6					22.6					95.1																
S-214U-84																																
	1		CH	0	22	78		64	22	2.68	74.4	55.8			2.00	55.8	74.4		99.7	UC	1.38 x 3.08				0.055							
	2		SC		59.7	40.3		37	16	2.68	48.1	72.5			1.309	72.5	48.1		98.5	UC	1.38 x 3.08				0.04							
	3		SC	0	63	37		34	16	2.69	42.0	77.8			1.157	77.8	42.0		97.7	UC	1.38 x 3.08				0.10							
	4		CH		14.8	85.2		70	24	2.67	80.0	53.0			2.143	53.0	80.0		99.7	UC	1.38 x 3.08				0.175							
	5		CH		24	76		68	23	2.68	76.7	53.1			2.150	53.1	76.7		95.7	UC	1.38 x 3.08				0.035							
	6		SC		56	44		38	16	2.66	40.9	63.3			1.625	63.3	40.9		67.1	UC	1.38 x 3.08				0.105							
	7		SC	0	72	28		43	16	2.67	43.4	75.4			1.212	75.4	43.4		95.6	UC	1.38 x 3.08				0.155							

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T – TRIAXIAL COMPRESSION
UC – UNCONFINED COMPRESSION
DS – DIRECT SHEAR
Q – UNCONSOLIDATE UNDRAINED
S – CONSOLIDATED DRAIN
R – CONSOLIDATED UNDR

CHART NC

TEST DATA SUMMARY

PROJECT MOBILE HARBOR

BORING NO.	SAM. NO.	DEPTH OR ELEV. OF SAMPLE	LABORATORY CLASSIFICATION	MECHANICAL ANALYSIS				ATTERBERG LIMITS		SPECIFIC GRAVITY G	NAT. WATER CONT. %	NATURAL DRY DENSITY LBS/CU FT	COMPACTION DATA		INITIAL e	DRY DENSITY LBS/CU FT	W_1 %	W_F %	S_1 %	TYPE TEST	SPECIMEN SIZE INCHES	TEST	σ_m T/SQ FT	σ_1 T/SQ FT	c T/SQ FT	ϕ DEGREES	e Final	L.O.I.	CONSOLIDATION DATA				REMARKS
				GRAVEL %	SAND %	FINES %	D_{10}	LL	PL				OPT. WATER %	MAXIMUM DRY DENSITY LBS/CU FT															P_O T/SQ FT	P_C T/SQ FT	C_C	t_{50}	
SS-204-AU-84			CH	0	11	89		66	21	2.73																							35 PCF Compos
(1-5 Composite)															4.077	33.6	86.7	43.8	58.1		1.25 x 4.00						1.197					50 PCF Compos
	1														2.523	48.4	85.2	43.9	92.2		1.25 x 4.00						1.198					60 PCF Compos
	2														1.916	58.4	42.7	36.7	60.9		1.25 x 4.00						1.001					70 PCF Compos
	3														1.464	69.1	40.7	36.4	76.0		1.25 x 4.00						0.995					85 PCF Compos
	4														1.033	83.8	37.8	30.4	100		1.25 x 4.00						0.829					
	5																																
SS-2140-84			CL	0	44	56		43	16	2.68																							
(1-7 Composite)															3.831	34.6	57.9	33.6	100.0		1.25 x 4.00						0.900					35 PCF Compos
	1														2.368	49.7	58.8	31.5	100.0		1.25 x 4.00						0.845					50 PCF Compos
	2														1.796	59.8	56.7	28.5	100.0		1.25 x 4.00						0.763					60 PCF Compos
	3														1.377	70.4	45.5	25.7	100.0		1.25 x 3.99						0.689					70 PCF Compos
	4														0.974	84.7	30.5	23.2	100.0		1.25 x 4.00						0.623					85 PCF Compos
	5																																
	6																																
	7																																

T – TRIAXIAL COMPRESSION
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S – CONSOLIDATED DRAI
R – CONSOLIDATED UNDR

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CHART NO.

SECTION 6. 2006 and 2009 Subsurface Investigation Boring Logs and Lab Data

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-1-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: 3" SPLITSPOON / 140 LB HAM	
2. LOCATION (Coordinates or Station): N 242805' E 1801859'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): CHEM-1-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 16 SEP 2006; COMPLETED 16 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -25.6'	
9. TOTAL DEPTH OF HOLE: 28.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: JCB; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.6	0.0					MARINE BORING	
			SOFT SILTY MATERIAL (ML-SM) W/ SILTY SAND, GRAY		1	BOH: 28.0'	WR
	3.0				2	WATER DEPTH: 26.3' TIDE: +0.7' START TIME: 0810 FINISH TIME: 1230 3.0" SPLITSPOON 2.0' DRIVES COORDINATES BY GPS	WR
-29.6	4.0						
	6.0		SOFT SILTY MATERIAL (ML), GRAY		3		WR
					4		WR
-33.6	8.0						
	9.0		SOFT SILTY MATERIAL (MH), GRAY		5		WR
-36.6	11.0				6		10
	12.0		POORLY GRADED SAND (SP), GRAY				
			POORLY GRADED SAND (SP), LT. BROWN & YELLOWISH BROWN		7		82
	15.0				8		79
					9		46
	18.0		POORLY GRADED SAND (SP), YELLOW		10		30
-46.6	21.0				11		30

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -25.6' | Hole No. CHEM-1-06

PROJECT MOBILE HARBOR
MOBILE HARBOR TURNING BASIN | INSTALLATION MOBILE DISTRICT | SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-46.6	21.0				11		30
			POORLY GRADED SAND (SP), YELLOW		12		51
	24.0				13		53
			POORLY GRADED SAND (SP), YELLOWISH WHITE		14		29
-53.6	28.0					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-2-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: 3" SPT W/ 140LB HAMMER	
2. LOCATION (Coordinates or Station): N 241896' E 1801921'		11. ELEVATION DATUM: MLLW, FEET COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): CHEM-2-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15, UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED, DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 19 SEP 2006, COMPLETED 19 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -23.7'	
9. TOTAL DEPTH OF HOLE: 30.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: BEM, CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-23.7	0.0				1	MARINE BORING BOH: 30' WATER DEPTH: 24.1' TIDE: +0.45' START TIME: 0811 FINISH TIME: 1138 3.0" SPLITSPOON 2.0' DRIVES COORDINATES BY GPS	WH
	3.0		SILTY SAND (SM), GRAY		2		5
-29.7	6.0				3		10
			SILT, SAND W/ DECAYING WOODY MATERIAL (MH-OL), GRAY		4		5
-31.7	8.0						
	9.0		STIFF FAT SANDY CLAY (CH), GRAY		5		9
-33.7	10.0						
			CLAYEY SAND (SC), GRAY		6		41
	12.0				7		39
-37.7	14.0						
	15.0		POORLY GRADED SAND (SP), YELLOWISH		8		56
					9		63
	18.0				10		49
-44.7	21.0				11		91

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -23.7' | Hole No. CHEM-2-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-44.7	21.0				11		91
					12		88
	24.0				13		101
			POORLY GRADED SAND (SP), YELLOWISH				
	27.0				14		154
					15		79
-53.7	30.0					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-3-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: 3" SPT W/ 140LB HAMMER	
2. LOCATION (Coordinates or Station): N 242249' E 1802804'		11. ELEVATION DATUM: MLLW, FEET COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): CHEM-3-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 21; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
		16. DATE HOLE: STARTED 20 SEP 2006; COMPLETED 20 SEP 2006	
7. THICKNESS OF OVERBURDEN: -		17. ELEVATION TOP OF HOLE: EL. -11.5'	
8. DEPTH DRILLED INTO ROCK: -		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 42.0'		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: BEM; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-11.5	0.0				1	MARINE BORING BOH: 42' WATER DEPTH: 11.9' TIDE: +0.4' START TIME: 0805 FINISH TIME: 1231 3.0" SPLITSPOON 2.0' DRIVES COORDINATES BY GPS	WR
	3.0				2		WR
			SOFT SILTY MATERIAL (ML), GRAY		3		WR
	6.0				4		WR
-19.5	8.0						
	9.0		SILTY SAND (SM), GRAY		5		5
-21.5	10.0				6		WR
	12.0				7		WR
	15.0		SOFT SILTY MATERIAL (MH-ML), GRAY		8		WR
					9		WR
	18.0				10		WR
-32.5	21.0				11		WR

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -11.5'	Hole No. CHEM-3-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-32.5	21.0				11		WR
			SOFT SILTY MATERIAL (MH-ML), GRAY		12		WR
-35.5	24.0						
			SOFT SILTY MATERIAL (MH), GRAY		13		WR
-37.5	26.0						
	27.0		SOFT SILTY MATERIAL & POORLY GRADED SAND (MH-SP), GRAY & YELLOWISH		14		57
-39.5	28.0						
					15		58
	30.0				16		71
					17		78
	33.0				18		76
			POORLY GRADED SAND (SP), YELLOWISH		19		82
	36.0				20		81
					21		92
	39.0						
-53.5	42.0					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-4-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: 3" SPT W/ 140LB HAMMER	
2. LOCATION (Coordinates or Station): N 240110' E 1801680'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): CHEM-4-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 18 SEP 2006; COMPLETED 18 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -24.4'	
9. TOTAL DEPTH OF HOLE: 28.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: BEM; CHECKED: SVF

ELEVATION (a)	DEPTH (b)	LEGEND (c)	CLASSIFICATION OF MATERIALS (Description) (d)	% CORE RECOVERY OR W.C. (e)	BOX OR SAMPLE NO. (f)	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) (g)	SPT BLOWS/FT
-24.4	0.0				1	MARINE BORING BOH: 28.0' WATER DEPTH: 25.4' TIDE: +1.0' START TIME: 1005 FINISH TIME: 1320 3.0" SPLITSPOON 2.0' DRIVES COORDINATES BY GPS	4
	3.0				2		10
					3		40
	6.0				4		12
	9.0				5		10
			SILTY SAND (SM), GRAY		6		2
	12.0				7		9
	15.0				8		10
					9		11
	18.0				10		10
-44.4	20.0						
-45.4	21.0		SOFT SILTY MATERIAL (ML-MH), GRAY		11		WR

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -24.4' | Hole No. CHEM-4-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-45.4	21.0						
-46.4	22.0		SOFT SILTY MATERIAL (ML-MH), GRAY		11		WR
-48.4	24.0		SOFT SILTY MATERIAL (SM-MH) W/ SILTY SAND, GRAY		12		11
-50.4	26.0		SILTY MATERIAL (SP-MH) W/ POORLY GRADED SAND, GRAY & YELLOWISH		13		25
-52.4	27.0 28.0		POORLY GRADED SAND (SP), YELLOWISH		14	B.O.H.	27

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-6-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: 3" SPLITSPOON / 140 LB HAM	
2. LOCATION (Coordinates or Station): N 238418' E 1801621'		11. ELEVATION DATUM: MLLW, FEET COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): CHEM-6-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
		16. DATE HOLE: STARTED 14 SEP 2006; COMPLETED 14 SEP 2006	
7. THICKNESS OF OVERBURDEN: -		17. ELEVATION TOP OF HOLE: EL. -31.0'	
8. DEPTH DRILLED INTO ROCK: -		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 22.0'		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: JCB; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-31.0	0.0				1	MARINE BORING BOH: 22.0' WATER DEPTH: 32.3' TIDE: +1.3' START TIME: 0858 FINISH TIME: 1123 3.0" SPILTSPOON 2.0' DRIVES COORDINATES BY GPS	WR
	3.0				2		WR
			SOFT SILTY MATERIAL (ML), GRAY		3		WR
	6.0				4		WR
	9.0				5		WR
-41.0	10.0				6		WR
	12.0		SOFT SILTY MATERIAL (MH), GRAY		7		WR
	15.0				8		WR
-47.0	16.0				9		13
	18.0		SANDY MATERIAL (SM), GRAY		10		16
-52.0	21.0				11		42

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -31.0' | Hole No. CHEM-6-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-52.0	21.0					
-53.0	22.0		SANDY MATERIAL (SM), GRAY		11	B.O.H. 42

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 1-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT
INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR	10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER
2. LOCATION (Coordinates or Station): N 243377' E 1801780'	11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING	12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314
4. HOLE NO. (As shown on drawing title and file number): 1-D301-06	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11, UNDISTURBED 0
5. NAME OF DRILLER: E WOODS	14. TOTAL NUMBER CORE BOXES: 0
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED, DEG. FROM VERTICAL	15. ELEVATION GROUNDWATER: N/A
7. THICKNESS OF OVERBURDEN: -	16. DATE HOLE: STARTED 30 SEP 2006, COMPLETED 30 SEP 2006
8. DEPTH DRILLED INTO ROCK: -	17. ELEVATION TOP OF HOLE: EL. -25.5'
9. TOTAL DEPTH OF HOLE: 34.5'	18. TOTAL CORE RECOVERY FOR BORING
	19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.5	0.0					MARINE BORING	WR
						BOH: 34.5'	
					JAR-1	WATER DEPTH: 25.8' TIDE: +1.35'	WR
	3.0					START TIME: 1143 FINISH TIME: 1325 COORDINATES BY GPS	
							WR
					JAR-2		WR
	6.0						
			SOFT SILTY MATERIAL (ML), DK. GRAY				WR
					JAR-3	JAR-3 d.7.5 - 9.0 CLAY (CL) W/ TRACE OF SAND, GRAY	WR
	9.0						
							WR
					JAR-4		WR
	12.0						
							WR
					JAR-5		WR
	15.0						
			SOFT SILTY MATERIAL (ML), GRAY & DK. GRAY				WR
					JAR-6		WR
	18.0						
			SOFT SILTY MATERIAL (ML), DK. GRAY				WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, DK. GRAY				
-46.0	20.5		FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, GRAY		JAR-7		3
-46.5	21.0						

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -25.5' | Hole No. 1-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-46.5	21.0						
-47.5	22.0		CLAYEY FINE GRAIN SAND (SC), LT. BROWN		JAR-8		11
			POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN				
			POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN & LT. YELLOW		JAR-9	JAR-9 d.22.5 - 24.0, FINES=2.9%, D50=0.38mm MA	12
-49.5	24.0					SAND (SP), GRAY	
			NO SAMPLE				
	27.0						
-53.5	28.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. YELLOW		JAR-10		28
-55.0	29.5						
	30.0		NO SAMPLE				
-58.5	33.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-11		12
-60.0	34.5					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 2-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 243035' E 1802137'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 2-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 30 SEP 2006; COMPLETED 30 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -18.9'	
9. TOTAL DEPTH OF HOLE: 41.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-18.9	0.0					MARINE BORING	WR
						BOH: 41.5'	
					JAR-1	WATER DEPTH: 18.9' TIDE: +1.1' START TIME: 0743 FINISH TIME: 1505 COORDINATES BY GPS	WR
	3.0						WR
					JAR-2		WR
	6.0						
			SOFT SILTY MATERIAL (ML), DK. GRAY				WR
					JAR-3	JAR-3 d.7.5 - 9.0 CLAY (CH), GRAY	WR
	9.0						
							WR
					JAR-4		WR
	12.0						
							WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, DK. GRAY				
-33.4	14.5				JAR-5		3
	15.0		FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, GRAY				
			FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, YELLOW		JAR-6		12
-34.9	16.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY				
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT & CLAY, LT. BROWN		JAR-7	JAR-7 d.16.5 - 18.0 SILTY SAND (SM), BROWN	19
-36.9	18.0						
			NO SAMPLE				
-38.9	20.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-8	NOTE: BEGAN 5.0' CENTERS.	14
-39.9	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -18.9'	Hole No. 2-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-39.9	21.0						
-40.4	21.5		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN & WHITE		JAR-8		
	24.0		NO SAMPLE				
-43.9	25.0						
-45.4	26.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT. LT. BROWN		JAR-9	JAR-9 d.25.0 - 26.5. FINES=3.5%. D50=0.27mm MA	12
	27.0					SAND (SP). GRAY	
			NO SAMPLE				
-48.9	30.0						
-50.4	31.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT. LT. BROWN		JAR-10		32
	33.0		NO SAMPLE				
-53.9	35.0						
-55.4	36.5		POORLY GRADED FINE GRAIN SAND (SP). YELLOWISH BROWN		JAR-11		27
	39.0		NO SAMPLE				
-58.9	40.0						
-60.4	41.5		FINE GRAIN SAND (SM) W/ LITTLE SILT. TRACE OF CLAY. YELLOWISH BROWN		JAR-12	B.O.H.	18

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 5-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 3 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT/3" UNDISTURBED	
2. LOCATION (Coordinates or Station): N 242814' E 1802887'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 5-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 4, UNDISTURBED 4	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 4 OCT 2006, COMPLETED 4 OCT 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -2.7'	
9. TOTAL DEPTH OF HOLE: 61.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: TS COOPER	DRAFTED: BEM, CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-2.7	0.0					MARINE BORING BOH: 61.5' WATER DEPTH: 3.1' TIDE: +0.4' START TIME: 0857 FINISH TIME: 1215 COORDINATES BY GPS
	3.0		NO SAMPLE			
	6.0					
-10.7	8.0					
	9.0		SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY	28.1%	TUBE-1	PUSHED: 3.0' REC: 2.8' S.G.=2.68 TUBE-1 d.8.0 - 11.0, FINES=24.6%, D50=0.13mm MA&H SILTY SAND (SM), GRAY
-13.7	11.0					
-14.7	12.0		NO SAMPLE			
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, GRAY	39.9%	TUBE-2	PUSHED: 3.0' REC: 2.8' TUBE-2 d.12.0 - 15.0 MA SILTY SAND (SM), GRAY; TRACE OF GRAVEL SIZED SHELL
-17.7	15.0					
			NO SAMPLE			
-19.7	17.0					
	18.0		SOFT CLAYEY SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		TUBE-3	PUSHED: 3.0' REC: 2.8' S.G.=2.68 TUBE-3 d.17.0 - 20.0, FINES=44.9%, D50=0.096mm O, MA, &H SILTY SAND (SM), GRAY
-22.7	20.0					
			NO SAMPLE			
-23.7	21.0					

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -2.7'	Hole No. 5-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-23.7	21.0						
			NO SAMPLE				
-26.7	24.0					PUSHED: 3.0' REC: 2.8'	
			CLAYEY FINE GRAIN SAND (ML), GRAY		TUBE-4	S.G.=2.68 TUBE-4 d.24.0 - 27.0, FINES=23.1%, D50=0.2mm O, MA,& H	
-29.7	27.0					SILTY SAND (SM), GRAY	
	30.0		NO SAMPLE				
	33.0						
-37.2	34.5					JAR-1 d.34.5 - 36.0,	
			FINE GRAIN SAND W/ LITTLE SILT, LT. BROWN		JAR-1	FINES=5.3%, D50=0.21mm MA	3
-38.7	36.0					SILTY SAND (SP-SM), GRAY	
	39.0						
	42.0		NO SAMPLE				
	45.0						
-50.7	48.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE	EL. -2.7'	Hole No.	5-D301-06
PROJECT	MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION	MOBILE DISTRICT	SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-50.7	48.0						
-52.2	49.5		POORLY GRADED FINE GRAIN SAND, LT. BROWN		JAR-2	JAR-2 d.48.0 - 49.5 SILTY SAND (SM), BROWN	18
	51.0		NO SAMPLE				
-57.7	54.0 55.0						
-59.2	56.5		POORLY GRADED FINE GRAIN SAND W/ TRACE OF PEA. GRAVEL, LT. BROWN		JAR-3		29
	57.0		NO SAMPLE				
-62.7	60.0						
-64.2	61.5		POORLY GRADED FINE GRAIN SAND, LT. BROWN		JAR-4	B.O.H.	24

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 7-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242799' E 1802110'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 7-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 13; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 27 SEP 2006; COMPLETED 27 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -16.0'	
9. TOTAL DEPTH OF HOLE: 45.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-16.0	0.0					MARINE BORING	WR
					JAR-1	BOH: 45' WATER DEPTH: 17.8' TIDE: +1.8' START TIME: 1243 FINISH TIME: 1505 COORDINATES BY GPS	WR
	3.0						WR
			SOFT SILTY MATERIAL (ML), DK. GRAY		JAR-2		WR
	6.0						WR
					JAR-3		WR
	9.0						WR
				69.3%	JAR-4	JAR-4 d.10.5 - 12.0, FINES=78.3% +/-200 SANDY CLAY (CL), GRAY	WR
	12.0		SOFT SILTY MATERIAL (ML) W/ SAND LENSES, DK. GRAY				WR
-29.5	13.5						
			SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, LT. GRAY		JAR-5	JAR-5 d.13.5 - 15.0, FINES=7.2%, D50=0.29mm MA SILTY SAND (SP-SM), GRAY	11
-31.0	15.0				JAR-6	JAR-6 d.15.0 - 16.5, FINES=4.5%, D50=0.28mm MA SAND (SP), GRAY	8
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		JAR-7		15
-34.0	18.0						
			NO SAMPLE				
-36.0	20.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & WHITE		JAR-8	NOTE: BEGAN 5.0' CENTERS.	24
-37.0	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -16.0'	Hole No. 7-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-37.0	21.0						
-37.5	21.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & WHITE		JAR-8		
	24.0		NO SAMPLE				
-41.0	25.0						
-42.5	26.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-9		13
	27.0		NO SAMPLE				
-46.0	30.0						
-47.5	31.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & YELLOW		JAR-10	JAR-10 d.30.0 - 31.5 SILTY SAND (SM), GRAY	13
	33.0		NO SAMPLE				
-51.0	35.0						
-52.5	36.5		POORLY GRADED FINE GRAIN SAND (SP), YELLOW		JAR-11		12
	39.0		NO SAMPLE				
-56.0	40.0						
-57.5	41.5		POORLY GRADED FINE GRAIN SAND (SP), YELLOW		JAR-12		26
	42.0		NO SAMPLE				
-59.5	43.5						
-61.0	45.0		POORLY GRADED FINE-MED GRAIN SAND (SP), YELLOW		JAR-13	B.O.H.	37

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 9-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242596' E 1802098'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 9-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 13; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
		16. DATE HOLE: STARTED 26 SEP 2006; COMPLETED 26 SEP 2006	
7. THICKNESS OF OVERBURDEN: -		17. ELEVATION TOP OF HOLE: EL. -15.9'	
8. DEPTH DRILLED INTO ROCK: -		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 45.0'		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-15.9	0.0					MARINE BORING	WR
						BOH: 45.0'	
					JAR-1	WATER DEPTH: 15.9' TIDE: +1.41' START TIME: 1230 FINISH TIME: 1530 COORDINATES BY GPS	WR
	3.0		SOFT SILTY MATERIAL (ML), DK. GRAY				WR
					JAR-2		WR
	6.0						WR
			SOFT SILTY MATERIAL (ML) W/ SAND LENSES, DK. GRAY	71.8%	JAR-3	JAR-3 d.7.5 - 9.0, FINES=62.4% +/-200 SANDY SILT (ML), GRAY	WR
	9.0						WR
					JAR-4		WR
	12.0		SOFT SILTY MATERIAL (ML), DK. GRAY				WR
					JAR-5	JAR-5 d.13.5 - 15.0 CLAY (CH), GRAY	WR
	15.0						WR
-32.4	16.5						
-33.9	18.0		SOFT SILTY PLASTIC MATERIAL (MH), DK. GRAY	91.8%	JAR-6	JAR-6 d.16.5 - 18.0, FINES=94.8% +/-200 CLAY (CH) W/ SAND, GRAY	WR
-34.9	19.0		SOFT SILTY MATERIAL (ML), GRAY		JAR-7		5
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY				
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		JAR-8	JAR-8 d.19.5 - 21.0, FINES=4.8%, D50=0.28mm MA SAND (SP), GRAY	12
-36.9	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -15.9'	Hole No. 9-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-36.9	21.0						
			NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
	24.0						
-40.9	25.0						
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY. LT. GRAY		JAR-9		12
-42.4	26.5						
	27.0						
			NO SAMPLE				
-45.9	30.0						
			POORLY GRADED FINE-MED GRAIN SAND (SP). LT. BROWN		JAR-10	JAR-10 d.30.0 - 31.5 SILTY SAND (SM). GRAY	10
-47.4	31.5						
	33.0						
			NO SAMPLE				
-50.9	35.0						
			POORLY GRADED FINE-MED GRAIN SAND (SP). LT. BROWN		JAR-11		9
-52.4	36.5						
	39.0		NO SAMPLE				
-55.9	40.0						
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF MED. & COARSE GRAIN SAND. LT. BROWN		JAR-12		8
-57.4	41.5						
	42.0		NO SAMPLE				
-59.4	43.5						
			POORLY GRADED FINE-MED. GRAIN SAND (SP) W/ TRACE OF COARSE GRAIN SAND. LT. BROWN & YELLOW		JAR-13		8
-60.9	45.0					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 10-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 3 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242683' E 1802491'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 10-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 16; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 29 SEP 2006; COMPLETED 29 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -4.8'	
9. TOTAL DEPTH OF HOLE: 56.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-4.8	0.0					MARINE BORING	WR
			SOFT SILTY MATERIAL (ML), DK. GRAY		JAR-1	BOH: 56.5' WATER DEPTH: 5.5' TIDE: +0.73' START TIME: 1306 FINISH TIME: 1538 COORDINATES BY GPS	WR
	3.0						WR
					JAR-2		WR
	6.0		SOFT SILTY MATERIAL (ML), GRAY				WR
					JAR-3		WR
	9.0						WH
					JAR-4	JAR-4 d.10.5 - 12.0 CLAY (CH) W/ TRACE OF SAND, GRAY	WH
	12.0		SOFT SILTY MATERIAL (ML) W/ SAND LENSES, GRAY				WH
-18.3	13.5				JAR-5		WH
	15.0		SOFT PLASTIC SILTY MATERIAL (MH) W/ TRACE OF DECAYING WOODY MATERIAL, GRAY				WH
				60.0%	JAR-6	JAR-6 d.16.5 - 18.0, FINES=65.7% +/-200 SANDY CLAY (CL), GRAY	WH
	18.0		SOFT PLASTIC SILTY MATERIAL (MH) W/ TRACE OF FINE GRAIN SAND, GRAY				WH
					JAR-7		WH
-25.8	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE	EL. -4.8'	Hole No.	10-D301-06
PROJECT	MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION	MOBILE DISTRICT	SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.8	21.0						
-27.3	22.5		SOFT PLASTIC SILTY MATERIAL (MH) W/ TRACE OF FINE GRAIN SAND, GRAY				WH
-28.8	24.0		SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-8		WH
-30.3	25.5		CLAYEY FINE GRAIN SAND (SC), LT. GRAY				2
	27.0		POORLY GRADED FINE GRAIN SAND (SP) TRACE OF CLAY, LT. GRAY		JAR-9		8
-33.3	28.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-10	JAR-10 d.27.0 - 28.5, FINES=1.7%, D50=0.089mm +/-200 SAND (SP), GRAY	14
-34.8	30.0		FINE GRAIN SAND (SM) W/ LITTLE SILT & CLAY, LT. GRAY		JAR-11	JAR-11 d.28.5 - 30.0, FINES=6.6%, D50=0.088mm +/-200 SILTY SAND (SP-SM), GRAY	9
-39.8	33.0 35.0		NO SAMPLE				
-41.3	36.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT & CLAY, LT. BROWN		JAR-12	NOTE: BEGAN 5.0' CENTERS.	27
-44.8	39.0 40.0		NO SAMPLE				
-46.3	41.5		POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN		JAR-13	JAR-13 d.40.0 - 41.5 SILTY SAND (SM), GRAY	25
-49.8	42.0 45.0		NO SAMPLE				
-51.3	46.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT & CLAY, YELLOWISH BROWN		JAR-14		11
-52.8	48.0		NO SAMPLE				

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -4.8' | Hole No. 10-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-52.8	48.0						
			NO SAMPLE				
-54.8	50.0						
			POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN		JAR-15		41
-56.3	51.5						
			NO SAMPLE				
	54.0						
-59.8	55.0						
			POORLY GRADED FINE-MED GRAIN SAND (SP), YELLOWISH BROWN		JAR-16		28
-61.3	56.5					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 11-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 3 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242584' E 1802799'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 11-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 18; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 1 OCT 2006; COMPLETED 1 OCT 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -4.6'	
9. TOTAL DEPTH OF HOLE: 56.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: TS COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-4.6	0.0					MARINE BORING	WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, GRAY		JAR-1	BOH: 56.5' WATER DEPTH: 5.5' TIDE: +0.9' START TIME: 0845 FINISH TIME: 1145 COORDINATES BY GPS	WR
	3.0						
-8.6	4.0						5
			SILTY FINE GRAIN SAND (SM), GRAY		JAR-2		21
	6.0					NOTE: POLY SAL @ 6.0'.	
			SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY		JAR-3	JAR-3 d.6.0 - 7.5 SILTY SAND (SM), GRAY	16
-12.1	7.5						
					JAR-4	JAR-4 d.7.5 - 9.0 SILTY SAND (SM), GRAY	3
	9.0		SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY				3
					JAR-5		WH
	12.0						
							WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, GRAY		JAR-6	JAR-6 d.13.5 - 15.0 SILTY SAND (SM), GRAY	WR
	15.0						
							WR
					JAR-7		WR
	18.0						
			SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY				WR
					JAR-8		WR
-25.6	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE	EL. -4.6'	Hole No.	11-D301-06
PROJECT: MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION: MOBILE DISTRICT			SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.6	21.0						
			SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY				WR
					JAR-9		WR
	24.0						
							WR
-30.1	25.5						
			SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY		JAR-10		3
	27.0						
							1
						JAR-11 d.28.5 - 30.0, FINES=14.2%, D50=0.25mm MA	
					JAR-11		WH
	30.0		LOOSE SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY			SILTY SAND (SM), GRAY	
					JAR-12		WH
							WH
	33.0						
			FINE GRAIN SAND (SM) W/ LITTLE SILT, LT. BROWN		JAR-13		4
-39.1	34.5						
-39.6	35.0		NO SAMPLE				
			POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-14	NOTE: BEGAN 5.0' CENTERS.	14
-41.1	36.5					JAR-14 d.35.0 - 36.5, FINES=2.6%, D50=0.29mm MA	
						SAND (SP), GRAY	
			NO SAMPLE				
	39.0						
-44.6	40.0						
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT, LT. BROWN		JAR-15		26
-46.1	41.5						
	42.0		NO SAMPLE				
-49.6	45.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-16		26
-51.1	46.5						
			NO SAMPLE				
-52.6	48.0						

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -4.6' | Hole No. 11-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-52.6	48.0						
-54.6	50.0		NO SAMPLE				
-56.1	51.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-17		30
-59.6	54.0 55.0		NO SAMPLE				
-61.1	56.5		POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. BROWN		JAR-18	B.O.H.	22

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 13-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242405' E 1801858'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 13-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 11; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 25 SEP 2006; COMPLETED 25 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -22.5'	
9. TOTAL DEPTH OF HOLE: 37.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: BEM; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-22.5	0.0				JAR-1	MARINE BORING	WR
						BOH: 37.5'	
						WATER DEPTH: 23.6'	
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, GRAY			TIDE: +1.1'	WR
						START TIME: 1410	
						FINISH TIME: 1645	
	3.0					COORDINATES BY GPS	
							WR
-27.0	4.5				JAR-2	JAR-2 d.4.5 - 6.0. FINES=29.5%. D50=0.083mm +/-200	WR
	6.0		SOFT CLAYEY FINE GRAIN SAND (SC), GRAY			SILTY SAND (SM), GRAY	
							WR
-30.0	7.5				JAR-3	JAR-3 d.7.5 - 9.0. L.C.=SM. FINES=18.3%. D50=0.086mm +/-200	4
-31.5	9.0		FINE GRAIN SANDY CLAY (CL), GRAY		JAR-4	JAR-4 d.9.0 - 10.5. FINES=7.4%. D50=0.088mm +/-200	4
						SILTY SAND (SP-SM), GRAY	4
	12.0				JAR-5		8
			SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY				30
	15.0				JAR-6		34
					JAR-7	JAR-7 d.16.5 - 18.0. L.C.=SP-SM. FINES=8.3%. D50=0.088mm +/-200	5
-40.5	18.0		SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, LT. GRAY				
			NO SAMPLE			NOTE: BEGAN ALTERNATE SAMPLING AFTER 18.0'.	
-43.5	21.0						

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -22.5' | Hole No. 13-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-43.5	21.0						
-45.0	22.5		POORLY GRADE FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		JAR-8	JAR-8 d.21.0 - 22.5 SILTY SAND (SM), GRAY	8
	24.0		NO SAMPLE				
-48.5	26.0						
-50.0	27.5		POORLY GRADE FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-9		19
	30.0		NO SAMPLE				
-53.5	31.0						
-55.0	32.5		POORLY GRADE FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-10		29
	33.0		NO SAMPLE				
-58.5	36.0						
-60.0	37.5		POORLY GRADE FINE-MED. GRAIN SAND (SP), LT. BROWN & WHITE		JAR-11	B.O.H.	22

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 14-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242381' E 1802074'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 14-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 26 SEP 2006; COMPLETED 26 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -13.5'	
9. TOTAL DEPTH OF HOLE: 46.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-13.5	0.0				JAR-1	MARINE BORING	WR
			SOFT SILTY MATERIAL (ML) W/ TRACE OF FINE GRIAN SAND, GRAY			BOH: 46.5'	
						WATER DEPTH: 14.8'	
						TIDE: +1.35'	WR
	3.0					START TIME: 0805	
						FINISH TIME: 1120	
						COORDINATES BY GPS	
					JAR-2		WR
							WH
	6.0						
							WH
			SOFT SILTY MATERIAL (ML) W/ SOME FINE GRIAN SAND, GRAY				
					JAR-3		WH
	9.0						
							WH
						JAR-4 d.10.5 - 12.0,	
					JAR-4	FINES=31.1%,	WH
-25.5	12.0					D50=0.082mm	
						+/-200	
						SILTY SAND (SM), GRAY	
			SOFT SILTY PLASTIC MATERIAL (MH) W/ LITTLE FINE GRIAN SAND, GRAY		JAR-5	JAR-5 d.12.0 - 13.5, FINES=51.1%	WH
-27.0	13.5					+/-200	
						SANDY SILT (ML), GRAY	
			CLAYEY FINE GRAIN SAND (SC), GRAY		JAR-6	JAR-6 d.13.5 - 15.0, FINES=10.5%, D50=0.28mm	3
-28.5	15.0					MA	
					JAR-7	SILTY SAND (SP-SM), GRAY	6
						JAR-7 d.15.0 - 16.5	
						SILTY SAND (SM), GRAY	8
	18.0		SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY		JAR-8		12
							7
-34.5	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -13.5'	Hole No. 14-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-34.5	21.0						
-36.0	22.5		SOFT CLAYEY FINE GRAIN SAND (SC). GRAY		JAR-9		4
-37.5	24.0		POORLY GRADED FINE GRIAN SAND (SP) W/ TRACE OF CLAY & SILT. LT. GRAY		JAR-10		16
-43.5	27.0 30.0		NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
-45.0	31.5		POORLY GRADED FINE GRIAN SAND (SP) W/ TRACE OF CLAY & SILT. LT. GRAY		JAR-11	JAR-11 d.30.0 - 31.5. FINES=4.6%. D50=0.32mm MA SAND (SP). GRAY	12
-48.5	33.0 35.0		NO SAMPLE				
-50.0	36.5		POORLY GRADED FINE-MED GRIAN SAND (SP) W/ TRACE OF CLAY. LT. GRAY		JAR-12		5
-53.5	39.0 40.0		NO SAMPLE				
-55.0	41.5		POORLY GRADED FINE-MED GRIAN SAND (SP) W/ TRACE OF CLAY. LT. GRAY		JAR-13		31
-58.5	42.0 45.0		NO SAMPLE				
-60.0	46.5		POORLY GRADED FINE-MED GRIAN SAND (SP) W/ TRACE OF CLAY. LT. GRAY		JAR-14	B.O.H.	18

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 15-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT
1. PROJECT	MOBILE HARBOR TURNING BASIN MOBILE HARBOR
2. LOCATION (Coordinates or Station)	N 242385' E 1802500'
3. DRILLING AGENCY	MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number)	15-D301-06
5. NAME OF DRILLER	E WOODS
6. DIRECTION OF HOLE	[X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN	-
8. DEPTH DRILLED INTO ROCK	-
9. TOTAL DEPTH OF HOLE	50.5'
INSTALLATION	MOBILE DISTRICT
SHEET	1 OF 3 SHEETS
10. SIZE AND TYPE OF BIT	STD SPT / 140 LB HAMMER
11. ELEVATION DATUM	MLLW. FEET
COORDINATE DATUM	ALW STATE PLANE. NAD83. FEET
12. MANUFACTORER'S DESIGNATION OF DRILL	FAILING 314
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED: 15 UNDISTURBED: 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUNDWATER	N/A
16. DATE HOLE	STARTED: 25 SEP 2006 COMPLETED: 25 SEP 2006
17. ELEVATION TOP OF HOLE	EL. -10.3'
18. TOTAL CORE RECOVERY FOR BORING	
19. SIGNATURE OF INSPECTOR	T COOPER
DRAFTED / CHECKED	BEM / SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-10.3	0.0				JAR-1	MARINE BORING	WR
						BOH: 50.5' WATER DEPTH: 11.9' TIDE: +1.65' START TIME: 0927 FINISH TIME: 1230 COORDINATES BY GPS	WR
	3.0		SOFT SILTY MATERIAL (ML). DK. GRAY				WR
					JAR-2		WR
	6.0						WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE DECAYING WOODY MATERIAL. DK. GRAY & LT. BROWN	36.8%	JAR-3	JAR-3 d.7.5 - 9.0. FINES=86.4% +/-200 SANDY CLAY (CH) W/ ORGANIC. GRAY LOI=4.8%	WR
	9.0						WR
			SOFT SILTY MATERIAL (ML) W/ LITTLE DECAYING WOODY MATERIAL. DK. GRAY & DK . BROWN		JAR-4		WR
	12.0						
			SOFT SILTY MATERIAL (ML). DK. GRAY				WR
-23.8	13.5				JAR-5	JAR-5 d.13.5 - 15.0 CLAY (CH). GRAY	WR
	15.0		SOFT SILTY MATERIAL (MH). MORE PLASTICITY. DK. GRAY				WR
-26.8	16.5				JAR-6		WR
-28.3	18.0		SOFT SILTY MATERIAL (ML). DK. GRAY				WR
			SOFT SILTY MATERIAL (MH). MORE PLASTICITY. DK. GRAY			JAR-7 d.19.5 - 21.0. FINES=96.4% +/-200 CLAY (CH) W/ TRACE OF SAND AND ORGANIC. GRAY LOI=4.2%	WR
			SOFT SILTY MATERIAL (MH). MORE PLASTICITY W/ SAND LENSE. DK. GRAY	123.3%	JAR-7		WR
-31.3	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -10.3'	Hole No. 15-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-31.3	21.0						
			SOFT SILTY MATERIAL (MH). MORE PLASTICITY. DK. GRAY				WR
			SOFT PLASTIC SILTY MATERIAL (MH) W/ SAND LENSES. DK. GRAY		JAR-8		WR
-34.3	24.0						
-35.8	25.5		CLAYEY FINE GRAIN SAND (SC). DK. GRAY		JAR-9	JAR-9 d.24.0 - 25.5 SILTY SAND (SM). GRAY	12
-37.3	27.0		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN		JAR-10	JAR-10 d.25.5 - 27.0 SILTY SAND (SM). BROWN	17
-40.3	30.0		NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
-41.8	31.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY. LT. BROWN		JAR-11	JAR-11 d.30.0 - 31.5. FINES=4.8%. D50=0.33mm MA SAND (SP). BROWN	24
	33.0		NO SAMPLE				
-45.3	35.0						
-46.8	36.5		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN		JAR-12		19
	39.0		NO SAMPLE				
-50.3	40.0						
-51.8	41.5		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN		JAR-13		33
	42.0		NO SAMPLE				
-55.3	45.0						
-56.8	46.5		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN		JAR-14		22
-58.3	48.0		NO SAMPLE				

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -10.3' | Hole No. 15-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-58.3	48.0					
-59.3	49.0		NO SAMPLE			
-60.8	50.5		POORLY GRADED FINE-MED GRAIN SAND (SP), LT. BROWN		JAR-15	5 B.O.H.

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 17-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242193' E 1802103'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 17-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 16; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 27 SEP 2006; COMPLETED 27 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -13.5'	
9. TOTAL DEPTH OF HOLE: 46.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-13.5	0.0		LOOSE SILTY FINE GRAIN SAND (SM), GRAY			MARINE BORING	WR
						BOH: 46.5'	
					JAR-1	WATER DEPTH: 14.8' TIDE: +1.27' START TIME: 0810 FINISH TIME: 1130 COORDINATES BY GPS	WR
	3.0		LOOSE SILTY FINE GRAIN SAND (SM) W/ TRACE OF SHELLS, GRAY				
						JAR-1 d.1.5 - 3.0, FINES=17.9%, D50=0.086mm +/-200	WR
-18.0	4.5		LOOSE SILTY FINE GRAIN SAND (SM), GRAY				
					JAR-2	SILTY SAND (SM) W/ SHELL, GRAY	WR
	6.0						
							WR
					JAR-3	JAR-3 d.7.5 - 9.0 SILTY SAND (SM), GRAY	WR
	9.0						
			SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY				WR
					JAR-4		WR
	12.0						
							WR
					JAR-5		WR
-28.5	15.0						
					JAR-6		4
						JAR-7 d.16.5 - 18.0, FINES=11.0%, D50=0.087mm +/-200 SILTY SAND (SP-SM), GRAY	
			CLAYEY FINE GRAIN SAND (SC), GRAY		JAR-7		2
	18.0						
					JAR-8		2
-33.0	19.5						
			SILTY CLAY (CL) W/ SOME FINE GRAIN SAND, LT. GRAY				
-34.0	20.5				JAR-9		4
			FINE GRAIN SAND (SC) W/ LITTLE CLAY, LT. GRAY				
-34.5	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -13.5'	Hole No. 17-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-34.5	21.0						
			FINE GRAIN SAND (SC) W/ LITTLE CLAY, LT. GRAY		JAR-10		3
					JAR-11	JAR-11 d.22.5 - 24.0, FINES=4.3%, D50=0.088mm +/-200 SAND (SP), GRAY	14
-37.5	24.0						
			POORLY GRADED FINE GRAIN SAND (SP), WHITE		JAR-12	JAR-12 d.24.0 - 25.5, FINES=3.0%, D50=0.28mm MA SAND (SP), GRAY	16
-39.0	25.5						
	27.0		NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
-43.5	30.0						
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. BROWN		JAR-13		22
-45.0	31.5						
	33.0		NO SAMPLE				
-48.5	35.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-14		40
-50.0	36.5						
	39.0		NO SAMPLE				
-53.5	40.0						
-54.0	40.5		SOFT PLASTIC SILTY MATERIAL (MH), GRAY				
			POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. ORANGE		JAR-15		5
-55.0	41.5						
	42.0		NO SAMPLE				
-58.5	45.0						
			POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. GRAY		JAR-16		21
-60.0	46.5					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 18-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 3 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 242203' E 1802512'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 18-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 15; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 29 SEP 2006; COMPLETED 29 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -11.5'	
9. TOTAL DEPTH OF HOLE: 49.5'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-11.5	0.0					MARINE BORING	WR
					JAR-1	BOH: 49.5' WATER DEPTH: 12.3' TIDE: +0.8' START TIME: 0805 FINISH TIME: 1115 COORDINATES BY GPS	WR
	3.0						WR
			SOFT SILTY MATERIAL (ML), DK. GRAY		JAR-2		WR
	6.0						WR
				28.7%	JAR-3	JAR-3 d.7.5 - 9.0. FINES=28.6%. D50=0.083mm +/-200	WR
	9.0					SILTY SAND (SM), GRAY	
			SOFT SILTY MATERIAL (ML) W/ LITTTLE FINE GRAIN SAND, GRAY				WR
					JAR-4		WR
	12.0						WR
			SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-5		WR
	15.0						WR
			SOFT SILTY MATERIAL (ML) W/ TRACE OF SHELL FRAGMENTS, GRAY		JAR-6		WH
-29.5	18.0						
			FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, BROWN		JAR-7		4
-31.0	19.5						
			LOOSE SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY				WH
-32.5	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -11.5'	Hole No. 18-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-32.5	21.0						
-34.0	22.5		LOOSE SILTY FINE GRAIN SAND (SM), GRAY		JAR-8		2
	24.0		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & WHITE		JAR-9	JAR-9 d.22.5 - 24.0 SILTY SAND (SM), GRAY	5
-37.0	25.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & BROWN		JAR-10	JAR-10 d.24.0 - 25.5 SILTY SAND (SM), GRAY	2
-41.5	27.0 30.0		NO SAMPLE				
-43.0	31.5		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-11	NOTE: BEGAN 5.0' CENTERS. JAR-11 d.30.0 - 31.5, FINES=3.7%, D50=0.31mm MA SAND (SP), GRAY	31
-46.5	33.0 35.0		NO SAMPLE				
-48.0	36.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-12		27
-51.5	39.0 40.0		NO SAMPLE				
-53.0	41.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-13		28
-56.5	42.0 45.0		NO SAMPLE				
-58.0	46.5		POORLY GRADED FINE-MED GRAIN SAND (SP) W/ TRACE OF 1/4" DIA GRAVEL, LT. BROWN & GRAY		JAR-14		28
-59.5	48.0		NO SAMPLE				

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -11.5'	Hole No. 18-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g SPT BLOWS/FT
-59.5	48.0					
-61.0	49.5		POORLY GRADED FINE-MED GRAIN SAND (SP), LT. GRAY		JAR-15	24 B.O.H.

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 22-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 241991' E 1802101'		11. ELEVATION DATUM: MLLW, FEET COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 22-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14, UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED, DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 28 SEP 2006, COMPLETED 28 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -15.1'	
9. TOTAL DEPTH OF HOLE: 45.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: BEM, CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-15.1	0.0					MARINE BORING	WR
			LOOSE SILTY FINE GRAIN SAND (SM), GRAY		JAR-1	BOH: 45' WATER DEPTH: 16.7' TIDE: +1.6' START TIME: 1200 FINISH TIME: 1535 COORDINATES BY GPS	WR
	3.0					JAR-1 d.1.5 - 3.0 SILTY SAND (SM) W/ TRACE OF WOOD AND SHELL, GRAY	1
-19.6	4.5				JAR-2		2
	6.0						WH
					JAR-3	JAR-3 d.7.5 - 9.0 SILTY SAND (SM), GRAY	2
	9.0		SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY				1
					JAR-4		2
	12.0						WH
-29.6	14.5		FAT CLAY W/ LITTLE FINE GRAIN SAND (CH), LT. BROWN		JAR-5		3
-30.1	15.0		CLAYEY FINE GRIAN SAND (SC), LT. GRAY		JAR-6		2
-31.6	16.5		FINE GRAIN SAND (SP) W/ LITTLE CLAY, LT. GRAY & LT. BROWN		JAR-7	JAR-7 d.16.5 - 18.0 SILTY SAND (SM), BROWN	7
	18.0				JAR-8		18
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-9		21
-36.1	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -15.1'	Hole No. 22-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-36.1	21.0						
			NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
	24.0						
-40.1	25.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-10		19
-41.6	26.5						
	27.0		NO SAMPLE				
-45.1	30.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-11	JAR-11 d.30.0 - 31.5 SILTY SAND (SM), BROWN	28
-46.6	31.5						
	33.0		NO SAMPLE				
-50.1	35.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-12		31
-51.6	36.5						
	39.0		NO SAMPLE				
-55.1	40.0						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & WHITE		JAR-13		25
-56.6	41.5						
	42.0		NO SAMPLE				
-58.6	43.5						
			POORLY GRADED FINE-MED GRAIN SAND (SP), YELLOWISH BROWN		JAR-14		28
-60.1	45.0					B.O.H.	

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 23-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 241995' E 1802802'		11. ELEVATION DATUM: MLLW. FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 23-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
		16. DATE HOLE: STARTED 28 SEP 2006; COMPLETED 28 SEP 2006	
7. THICKNESS OF OVERBURDEN: -		17. ELEVATION TOP OF HOLE: EL. -15.1'	
8. DEPTH DRILLED INTO ROCK: -		18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE: 45.0'		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: JBK; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-15.1	0.0		SILTY MATERIAL (ML) W/SOME FINE GRAIN SAND, GRAY		JAR-1	MARINE BORING	3
						BOH: 45.0' WATER DEPTH: 16.6' TIDE: +1.55' START TIME: 0803 FINISH TIME: 1100 COORDINATES BY GPS	WR
	3.0						WR
					JAR-2		WR
	6.0					NOTE: POLY SAL @ 6.0'.	
			SOFT SILTY MATERIAL (ML) W/SOME FINE GRAIN SAND, GRAY				WH
					JAR-3		WH
	9.0						
							WH
					JAR-4	JAR-4 d.10.5 - 12.0, FINES=23.7%, D50=0.16mm MA SILTY SAND (SM), GRAY	WH
	12.0						
							WR
-28.6	13.5						
			CLAYEY FIND GRAIN SAND (SC), GRAY		JAR-5	JAR-5 d.13.5 - 15.0 SILTY SAND (SM), GRAY	2
-30.1	15.0						
			FAT CLAY W/SOME FINE GRAIN SAND (CH), GRAY & BLACK		JAR-6	JAR-6 d.15.0 - 16.5 CLAYEY SAND (SC), BROWN	2
-31.6	16.5						
			CLAYEY FINE GRAIN SAND (SC), GRAY & BROWN		JAR-7	JAR-7 d.16.5 - 18.0, FINES=3.5%, D50=0.089mm +/-200 SAND (SP), GRAY	WH
	18.0						WH
-35.1	20.0		POORLY GRADED FINE GRAIN SAND (SP) W/TRACE OF SILT & CLAY, GRAY & BROWN		JAR-8		2
-36.1	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE EL. -15.1'	Hole No. 23-D301-06
PROJECT MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-36.1	21.0						
-37.6	22.5		POORLY GRADED FINE GRAIN SAND (SP) W/TRACE OF SILT. YELLOWISH BROWN		JAR-9		4
-40.1	24.0 25.0		NO SAMPLE			NOTE: BEGAN 5.0' CENTERS.	
-41.6	26.5		POORLY GRADE FINE GRAIN SAND (SP) W/TRACE OF SILT. YELLOWISH BROWN				25
-45.1	27.0 30.0		NO SAMPLE				
-46.6	31.5		POORLY GRADE FINE GRAIN SAND (SP). LT. BROWN		JAR-10		33
-50.1	33.0 35.0		NO SAMPLE		JAR-11		
-51.6	36.5		POORLY GRADE FINE GRAIN SAND (SP). LT. BROWN		JAR-12		33
-55.1	39.0 40.0		NO SAMPLE				
-56.6	41.5		POORLY GRADE FINE GRAIN SAND (SP). LT. BROWN		JAR-13		29
-58.6	42.0 43.5		NO SAMPLE				
-60.1	45.0		POORLY GRADE FINE GRAIN SAND (SP) W/TRACE OF MED. GRAIN & COARSE GRAIN SAND & PEA GRAVEL. LT. BROWN & YELLOW		JAR-14	B.O.H.	31

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 25-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 241744' E 1802010'		11. ELEVATION DATUM: MLLW. FEET COORDINATE DATUM: ALW STATE PLANE. NAD83. FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 25-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14 / UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 9 SEP 2006 / COMPLETED 9 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -24.3'	
9. TOTAL DEPTH OF HOLE: 36.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER	DRAFTED: JCB / CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-24.3	0.0					MARINE BORING	WR
-27.3	3.0		SOFT FLUFFY SILTY MATERIAL (ML). GRAY			BOH: 36.0' WATER DEPTH: 25.4' TIDE: +1.1' START TIME: 1313 FINISH TIME: 1600 COORDINATES BY GPS	WR
-28.8	4.5		LOOSE. SILTY FINE GRAIN SAND (SM). GRAY		JAR-1	JAR-1 d.3.0 - 4.5 SILTY SAND (SM) W/ TRACE OF SHELL. GRAY	WR
-30.3	6.0		SOFT. FLUFFY SILTY MATERIAL (ML). DK. GRAY		JAR-2		1
-31.8	7.5		LOOSE. SILTY FINE GRAIN SAND (SM). GRAY		JAR-3	JAR-3 d.6.0 - 7.5. FINES=12.8%. D50=0.24mm MA SILTY SAND (SP-SM). GRAY	WH
	9.0		LOOSE. CLAYEY FINE GRAIN SAND (SC) W/ SILTY CLAY MIXED. GRAY		JAR-4		WH
							WH
-36.3	12.0		FINE GRAIN SAND (SC) W/ LITTLE CLAY. LT. GRAY		JAR-5	JAR-5 d.10.5 - 12.0. FINES=12.0%. D50=0.087mm +/-200 SILTY SAND (SM). GRAY	8
-37.3	13.0		DENSE POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE CLAY. LT. GRAY		JAR-6		50
-37.8	13.5		NO SAMPLE				
-38.8	14.5		DENSE POORLY GRADED FINE GRAIN SAND (SP). LT. GRAY		JAR-7		50
-40.8	15.0 16.5		NO SAMPLE				
-42.3	18.0		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY. YELLOWISH GRAY		JAR-8	JAR-8 d.16.5 - 18.0 SILTY SAND (SM). BROWN NOTE: BEGAN 3' CENTERS	20
-43.8	19.5		NO SAMPLE				
-45.3	21.0		POORLY GRADED FINE GRAIN SAND (SP). LT. BROWN		JAR-9		23

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -24.3' | Hole No. 25-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-45.3	21.0						
-46.8	22.5	X	NO SAMPLE		X		
-48.3	24.0	. . .	DENSE POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN		JAR-10	JAR-10 d.22.5 - 24.0 SILTY SAND (SM), BROWN	41
-49.8	25.5	X	NO SAMPLE		X		
-51.3	27.0	. . .	DENSE POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN & LT. GRAY		JAR-11		29
-52.8	28.5	X	NO SAMPLE		X		
-54.3	30.0	. . .	DENSE POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF MED.-COARSE GRAIN SAND, YELLOWISH BROWN & LT. GRAY		JAR-12		32
-55.8	31.5	X	NO SAMPLE		X		
-57.3	33.0	. . .	DENSE POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF MED.-COARSE GRAIN SAND, LT. GRAY		JAR-13		25
-58.8	34.5	X	NO SAMPLE		X		
-60.3	36.0	. . .	DENSE POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF MED.-COARSE GRAIN SAND, LT. GRAY		JAR-14	B.O.H.	27

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 28-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 241612' E 1801836'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 28-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 14; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 9 SEP 2006; COMPLETED 9 SEP 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -28.3'	
9. TOTAL DEPTH OF HOLE: 33.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: T COOPER; DRAFTED: JCB; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-28.3	0.0				J-1	MARINE BORING	WR
						BOH: 33.0'	
					J-2	WATER DEPTH: 29.1'	WR
						TIDE: +0.84'	
						START TIME: 0850	
						FINISH TIME: 1210	
						COORDINATES BY GPS	
	3.0		LOOSE FINE GRAIN SAND(SM) W/ SOME SILT, GRAY		J-3	J-3 d.3.0 - 4.5 SILTY SAND (SM), GRAY	WR
-32.8	4.5						
			SILTY CLAY (CL) W/ SOME DECAYED WOODY MATERIAL, LITTLE FINE GRAIN SAND, GRAY & DK. GRAY		J-4	J-4 d.4.5 - 6.0 SILTY SAND (SM), GRAY	9
-34.3	6.0						
			MED. STIFF FAT CLAY (CH) W/ LITTLE SILT, LT. GRAY		J-5	J-5 d.6.0 - 7.5 SILTY SAND (SM), GRAY	4
			STIFF FAT CLAY (CH) W/ LITTLE SILT & FINE GRAIN SAND, LT. GRAY		J-6		9
-37.3	9.0		MED. PLASTIC SILTY CLAY (CL), LT. GRAY				
-37.8	9.5				J-7		19
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. BROWN				
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		J-8		15
-40.3	12.0						
			NO SAMPLE				
-41.8	13.5						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		J-9	NOTE: BEGAN 3' CENTERS	42
-43.3	15.0						
			NO SAMPLE				
-44.8	16.5						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		J-10		33
-46.3	18.0						
			NO SAMPLE				
-47.8	19.5						
			POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY				29
-49.3	21.0						

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -28.3' | Hole No. 28-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-49.3	21.0						
-50.8	22.5		NO SAMPLE				
-52.3	24.0		POORLY GRADED FINE - MED. GRAIN SAND (SP). LT. GRAY		J-11		19
-53.8	25.5		NO SAMPLE				
-55.3	27.0		POORLY GRADED FINE - MED. GRAIN SAND (SP). LT. GRAY		J-12		11
-56.8	28.5		NO SAMPLE				
-58.3	30.0		POORLY GRADED FINE - MED. GRAIN SAND (SP) W/ TRACE OF COARSE GRAIN SAND. LT. BROWN		J-13		15
-59.8	31.5		NO SAMPLE				
-61.3	33.0		POORLY GRADED FINE - MED. GRAIN SAND (SP) W/ TRACE OF COARSE GRAIN SAND. LT. BROWN		J-14	B.O.H.	18

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 29-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT
INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR	10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER
2. LOCATION (Coordinates or Station): N 241275' E 1801878'	11. ELEVATION DATUM: MLLW. FEET COORDINATE DATUM: ALW STATE PLANE. NAD83. FEET
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING	12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314
4. HOLE NO. (As shown on drawing title and file number): 29-D301-06	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 17, UNDISTURBED 0
5. NAME OF DRILLER: E WOODS	14. TOTAL NUMBER CORE BOXES: 0
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED DEG. FROM VERTICAL	15. ELEVATION GROUNDWATER: N/A
7. THICKNESS OF OVERBURDEN: -	16. DATE HOLE: STARTED 8 SEP 2006, COMPLETED 8 SEP 2006
8. DEPTH DRILLED INTO ROCK: -	17. ELEVATION TOP OF HOLE: EL. -25.2'
9. TOTAL DEPTH OF HOLE: 36.0'	18. TOTAL CORE RECOVERY FOR BORING
	19. SIGNATURE OF INSPECTOR: D YOUNG; DRAFTED: JCB; CHECKED: SVF

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.2	0.0						
-26.7	1.5		SILTY SAND. MOST FINE SAND & SILT (SM). TRACE ORGANICS. VERY LOOSE. VERY DARK GRAY. 5/Y-3/1		JAR-1	MARINE BORING	WH
	3.0		POORLY GRADED FINE GRAIN SAND (SP) W/ LITTLE SILT. TRACE ORGANICS & SHELL FRAG.. VERY LOOSE. VERY DARK GRAY		JAR-2	BOH: 36.0' WATER DEPTH: 25.5' TIDE: +0.3 START TIME: 1035 FINISH TIME: 1635 COORDINATES BY GPS	WR
			POORLY GRADED FINE GRAIN SAND (SP) W/ LITTLE SILT. TRACE ORGANICS. LOOSE. VERY DARK GRAY		JAR-3		7
					JAR-4		4
	6.0		POORLY GRADED FINE GRAIN SAND (SP) W/ LITTLE SILT. TRACE ORGANICS. VERY LOOSE. VERY DARK GRAY		JAR-5	JAR-5 d.6.0 - 7.5 CLAY (CH). GRAY	3
-32.7	7.5						
-34.2	9.0		HIGH PLASTICITY SILT (MH) W/ TRACE FINE SAND. MOIST. VERY DARK GRAY & BLACK. 5/Y-2.5/1		JAR-6	JAR-6 d.7.5 - 9.0. FINES=40.9%. D50=0.079mm +/-200 CLAYEY SAND (SC) W/ TRACE OF WOOD. GRAY	6
-35.7	10.5		PEAT (PT) W/ WOOD FRAG. & SILT. MOIST. VERY DARK GRAY & BLACK		JAR-7		3
					JAR-8		2
	12.0				JAR-9		2
					JAR-10	JAR-10 d.13.5 - 15.0. FINES=98.8% +/-200 CLAY (CH). GRAY LOI=1.8%	5
	15.0		HIGH PLASTICITY (MH) W/ TRACE ORGANICS. MOIST. DARK GRAY. 5/Y-4/1		JAR-11	NOTE: SAMPLE FALLS APART IN WATER.	5
					JAR-12		4
	18.0						3
-44.7	19.5						
-46.2	21.0		SILTY FINE GRAIN SAND (SM) W/ TRACE ORGANICS. WET. LOOSE. GRAY		JAR-13	JAR-13 d.19.5 - 21.0 CLAYEY SAND (SC). GRAY	6

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE EL. -25.2' | Hole No. 29-D301-06

PROJECT: MOBILE HARBOR
MOBILE HARBOR TURNING BASIN

INSTALLATION: MOBILE DISTRICT

SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-46.2	21.0		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE SILT, MOIST, MED. DENSE, GRAY, 5/Y-6/1		JAR-14		19
					JAR-15		21
	24.0						27
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE ORGANICS, WET, MED. DENSE, OLIVE YELLOW, 5/Y-6/1				26
	27.0						27
					JAR-16		19
	30.0						18
			POORLY GRADED COARSE GRAIN SAND (SP), WET, MED. DENSE, OLIVE YELLOW, 5/Y-6/4				17
	33.0						10
					JAR-17		15
-61.2	36.0					B.O.H.	

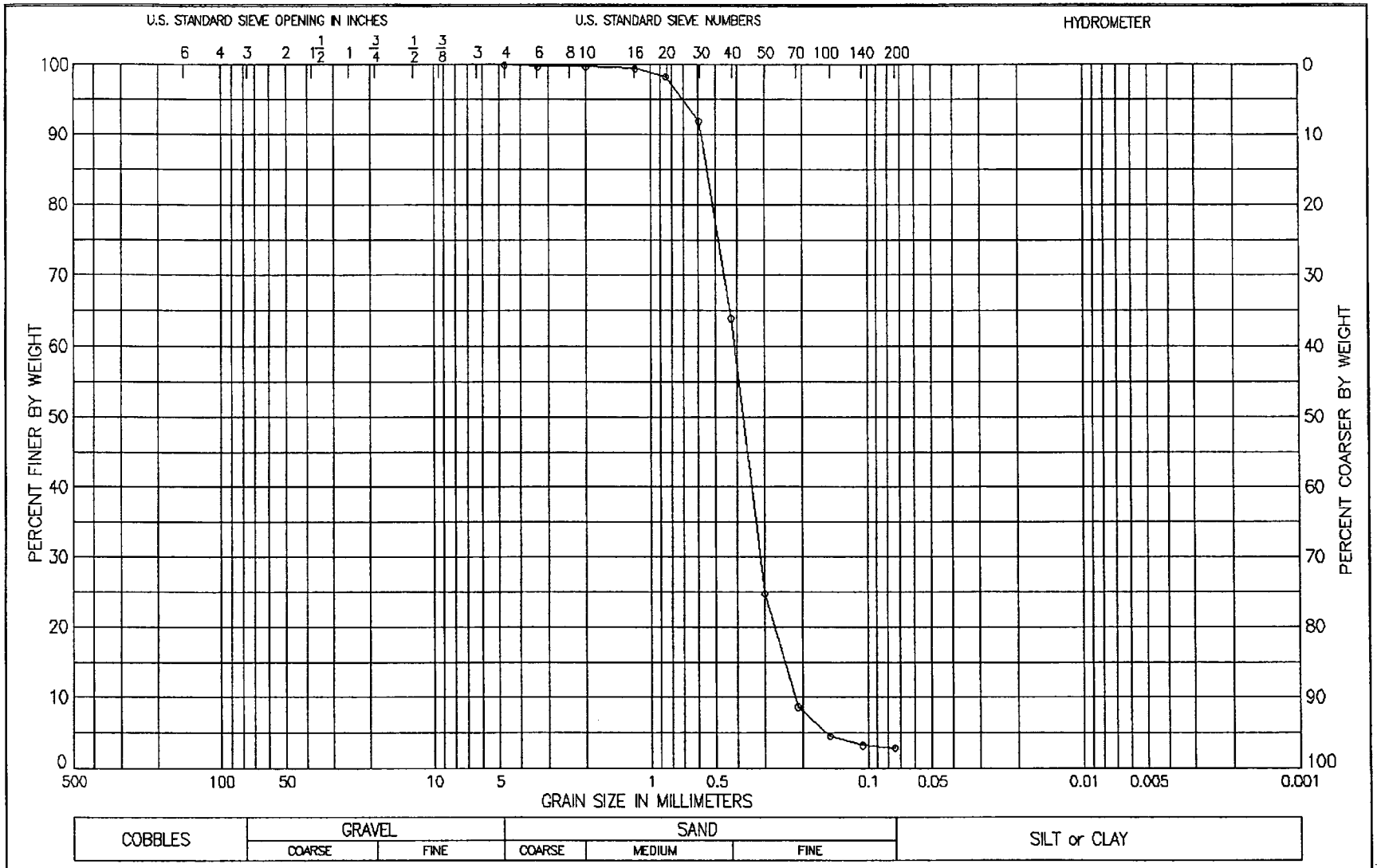
Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 30-D301-06

DRILLING LOG	DIVISION: MOBILE DISTRICT	INSTALLATION: MOBILE DISTRICT	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR TURNING BASIN, MOBILE HARBOR		10. SIZE AND TYPE OF BIT: STD SPT / 140 LB HAMMER	
2. LOCATION (Coordinates or Station): N 240113' E 1801756'		11. ELEVATION DATUM: MLLW, FEET; COORDINATE DATUM: ALW STATE PLANE, NAD83, FEET	
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING		12. MANUFACTORER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): 30-D301-06		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 12; UNDISTURBED 0	
5. NAME OF DRILLER: E WOODS		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED; DEG. FROM VERTICAL		15. ELEVATION GROUNDWATER: N/A	
7. THICKNESS OF OVERBURDEN: -		16. DATE HOLE: STARTED 5 OCT 2006; COMPLETED 5 OCT 2006	
8. DEPTH DRILLED INTO ROCK: -		17. ELEVATION TOP OF HOLE: EL. -25.3'	
9. TOTAL DEPTH OF HOLE: 36.0'		18. TOTAL CORE RECOVERY FOR BORING	
		19. SIGNATURE OF INSPECTOR: TS COOPER; DRAFTED: BEM; CHECKED: SVF	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-25.3	0.0					MARINE BORING	WR
						BOH: 36.5'	
					JAR-1	WATER DEPTH: 25.3' TIDE: +0.6' START TIME: 0803 FINISH TIME: 1045 COORDINATES BY GPS	WR
	3.0						WR
					JAR-2	JAR-2 d.4.5 - 6.0. FINES=8.7%. D50=0.27mm MA	WR
	6.0		LOOSE SILTY FINE GRAIN SAND (SM). GRAY			SILTY SAND (SP-SM). GRAY NOTE: POLY SAL @ 6.0'.	WH
					JAR-3		WH
	9.0						WR
					JAR-4		WR
-37.3	12.0						
							WH
			SOFT SILTY MATERIAL (MH) W/ TRACE OF FINE GRAIN SAND. DK. GRAY		JAR-5		WH
	15.0						WR
			SOFT SILTY MATERIAL (MH) W/ SAND LENSES. DK. GRAY		JAR-6	JAR-6 d.16.5 - 18.0. FINES=77.3% +/-200 SANDY CLAY (CL). GRAY	5
	18.0		SOFT SILTY MATERIAL (MH). DK. GRAY				WR
			SOFT SILTY MATERIAL (MH) W/ SAND LENSES. DK. GRAY		JAR-7		1
-46.3	21.0						

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE	EL. -25.3'	Hole No.	30-D301-06
PROJECT	MOBILE HARBOR MOBILE HARBOR TURNING BASIN	INSTALLATION	MOBILE DISTRICT	SHEET 2 OF 2 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY OR W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g	SPT BLOWS/FT
-46.3	21.0		SOFT SILTY MATERIAL (MH) W/ TRACE OF SAND, DK. GRAY				WR
			SOFT SILTY MATERIAL (MH) W/ SAND LENSES, DK. GRAY		JAR-8		WR
	24.0						WR
			SOFT SILTY MATERIAL (MH), DK. GRAY		JAR-9		WR
	27.0						WR
-54.3	29.0						
-55.3	30.0		SILTY FINE GRAIN SAND (SM), GRAY		JAR-10		3
			POORLY GRADED MED. GRAIN SAND (SP), LT. YELLOW		JAR-11		4
-58.3	33.0						2
-59.8	34.5		NO SAMPLE				
-61.3	36.0		POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. YELLOW		JAR-12	B.O.H.	30



LL	PL	PI	GS	NAT W,%	ORG,%

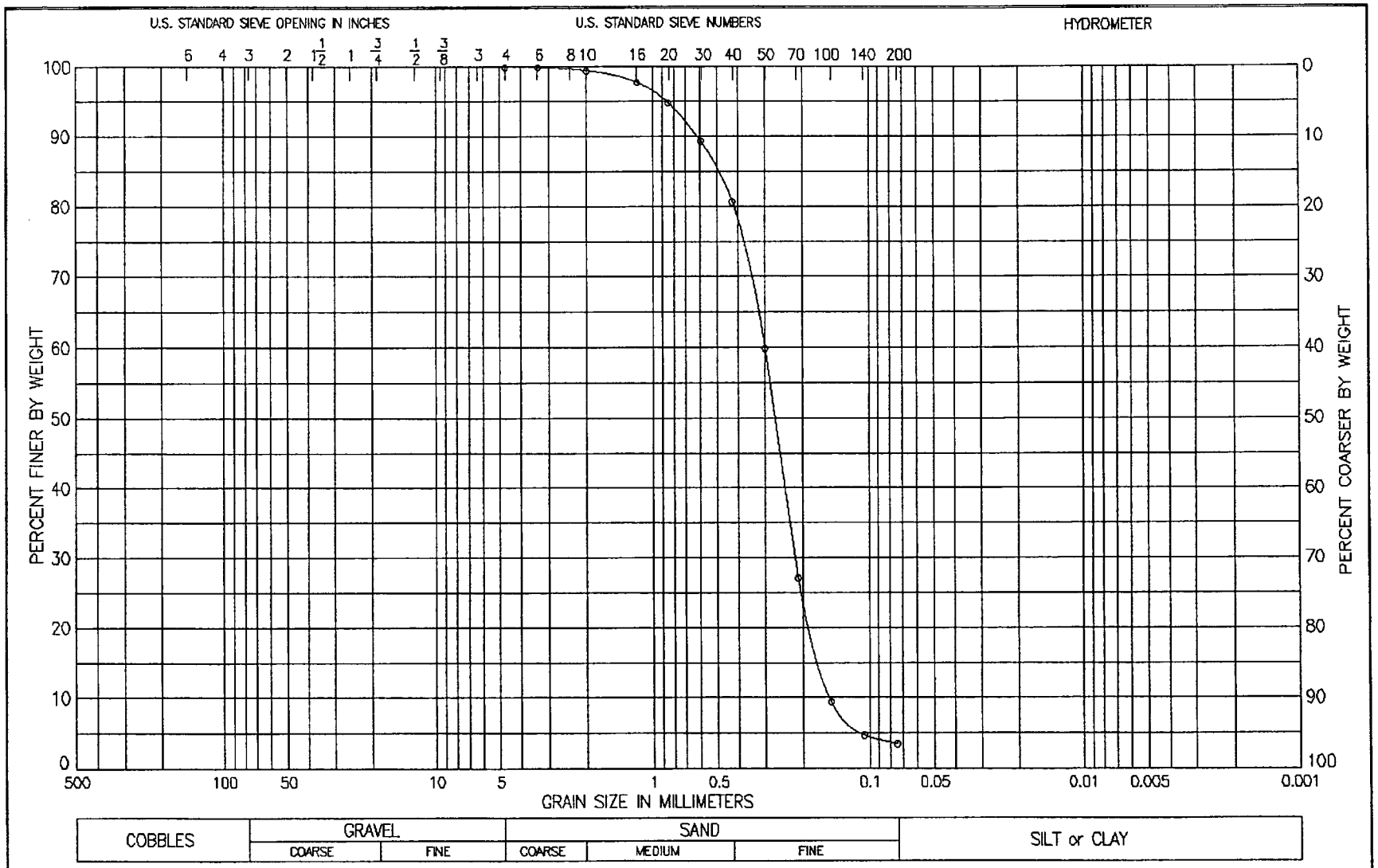
CLASSIFICATION
SAND (SP), GRAY

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 1–D301–06 SAMPLE NO. 9

DEPTH/ELEV 22.5–24.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

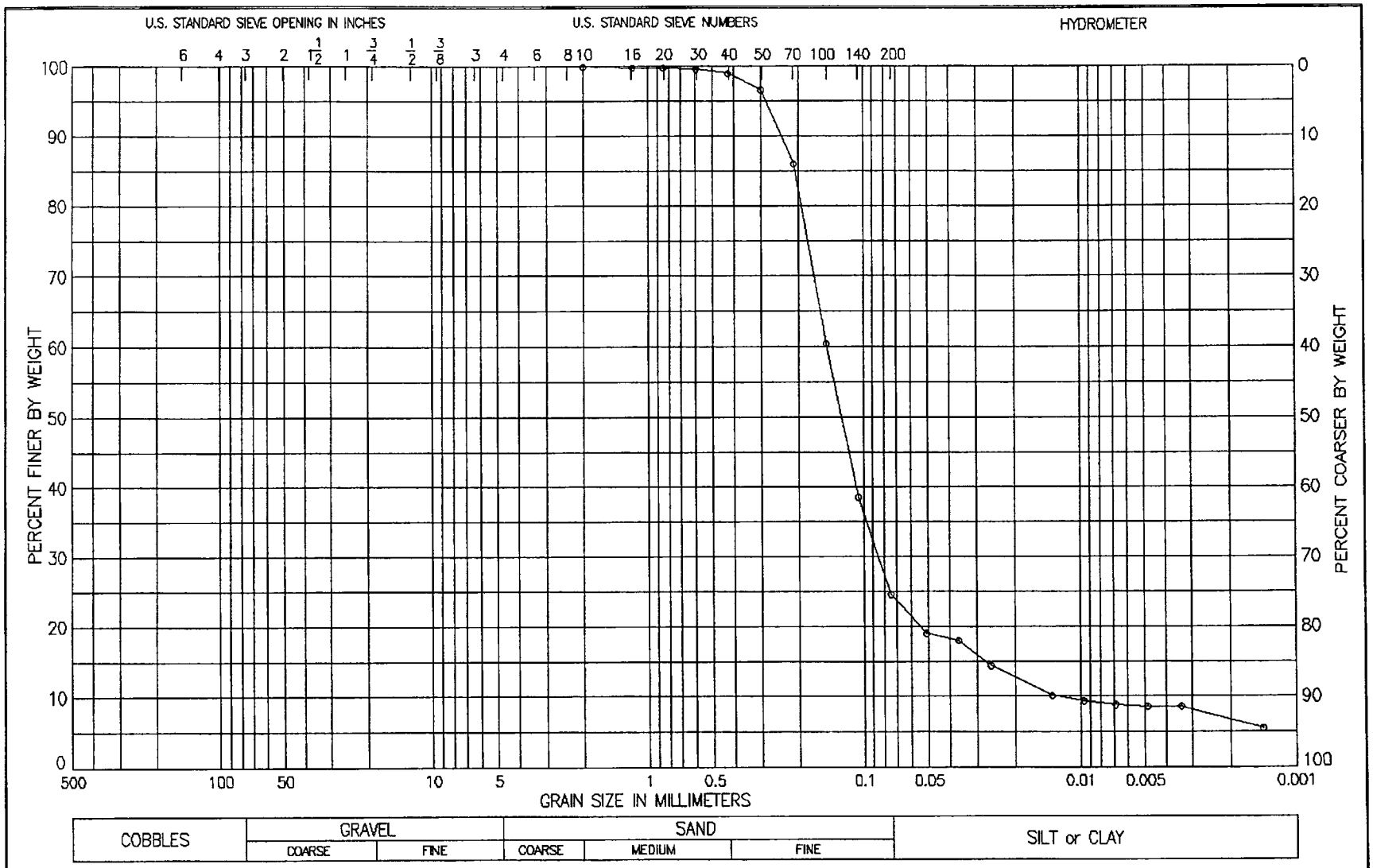
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 2-D301-06 SAMPLE NO. 9

DEPTH/ELEV 25.0-26.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%
NP			2.68 EST		

CLASSIFICATION
SILTY SAND (SM), GRAY

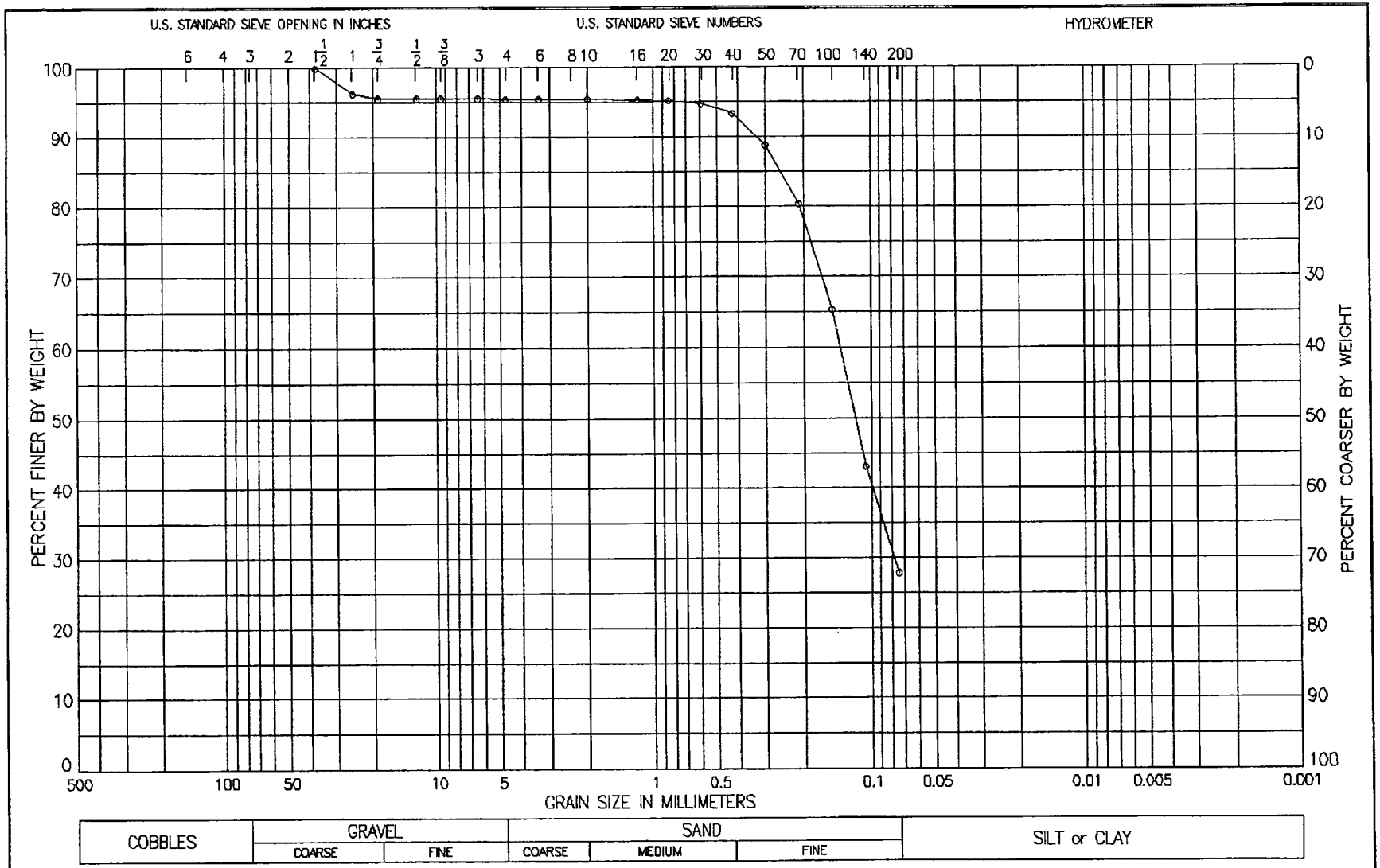
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 1

DEPTH/ELEV 8.0–11.0 DATE 13 NOV 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION

SILTY SAND (SM), GRAY; TRACE OF GRAVEL VISUAL

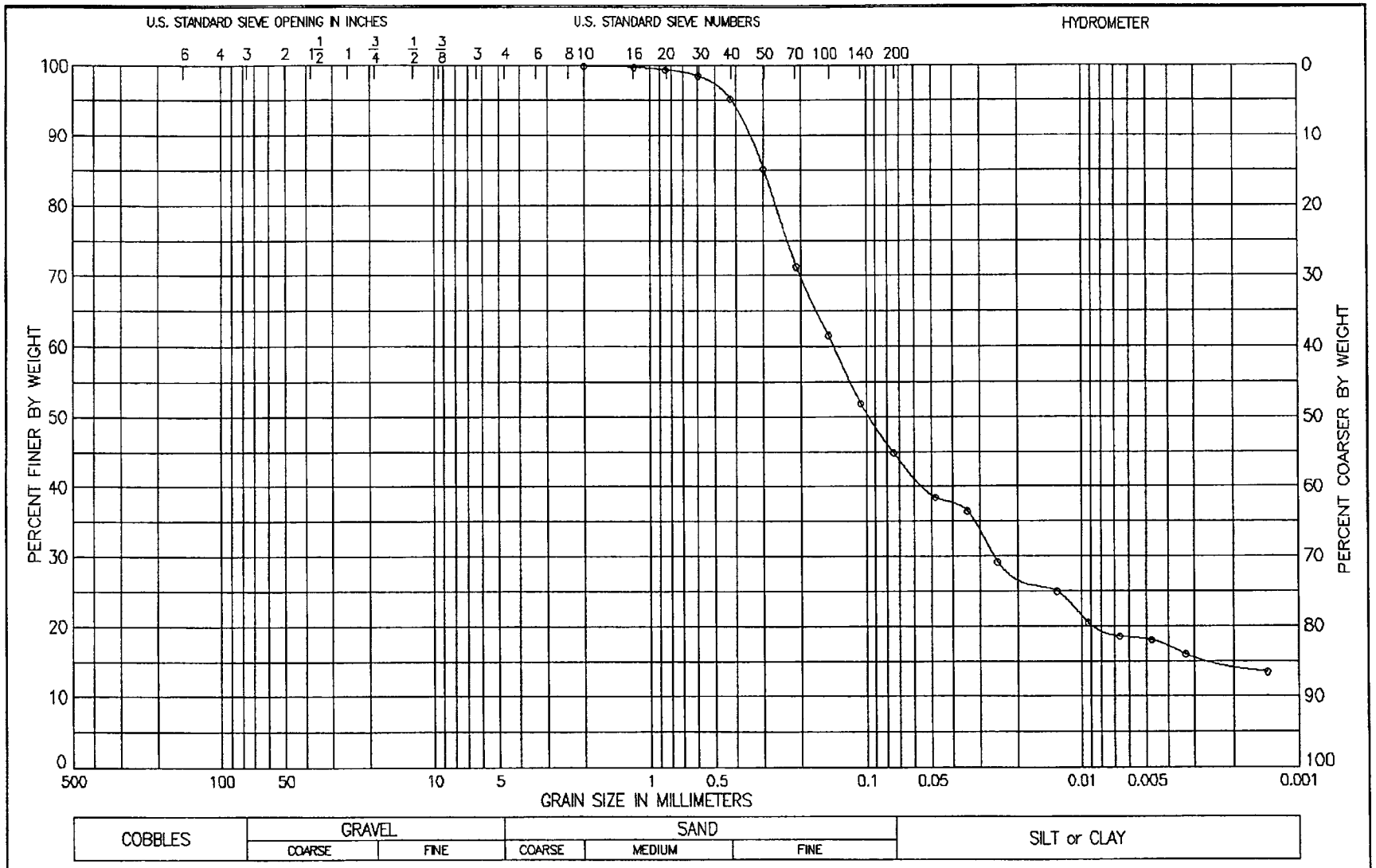
INSUFFICIENT SAMPLE FOR ACCURATE GRADATION

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 2

DEPTH/ELEV 12.5-15.0 DATE 13 NOV 06



LL	PL	PI	GS	NAT W,%	ORG,%
NP			2.68 EST		

CLASSIFICATION
SILTY SAND (SM), GRAY

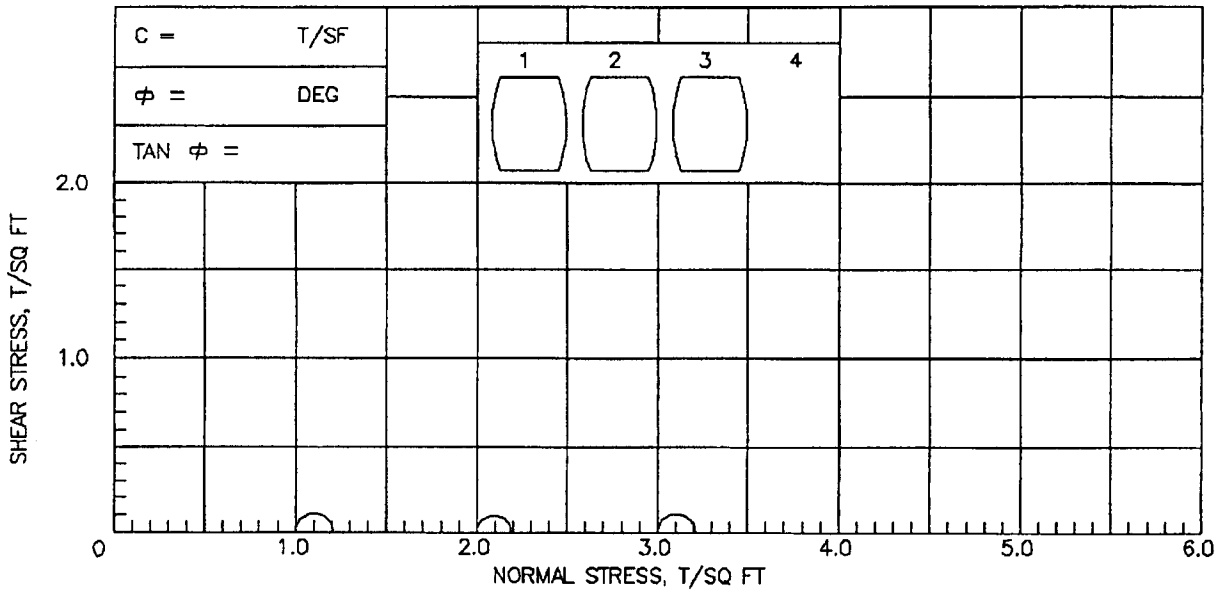
GRADATION CURVE

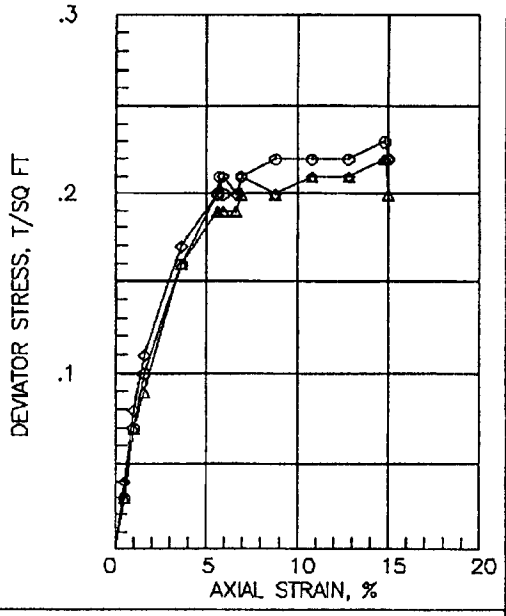
LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 3

DEPTH/ELEV 17.0-20.0 DATE 13 NOV 06





SPECIMEN NO.		⊙ 1	△ 2	◇ 3	4
INITIAL	WATER CONTENT, %	29.2	28.7	31.2	
	DRY DENSITY, PCF	91.8	93.3	89.5	
	SATURATION, %	95.4	97.6	96.6	
	VOID RATIO	.816	.786	.862	
BEFORE SHEAR	WATER CONTENT, %				
	DRY DENSITY, PCF				
	SATURATION, %				
	VOID RATIO				
	BACK PRESSURE, TSF				
CHAMBER PRESSURE, TSF		1.00	2.00	3.00	
MAX. DEV. STRESS, TSF		.21	.19	.21	
TIME TO FAILURE, MIN.		25	25	27	
STRAIN RATE INCR., %					
INITIAL DIAMETER, IN.		1.39	1.39	1.39	
INITIAL HEIGHT, IN.		3.00	3.00	3.00	

CONTROLLED–STRAIN TEST

DESCRIPTION OF SPECIMENS: SILTY SAND (SM), GRAY

LL	PL	PI	GS 2.67 (ESTIMATED)	UNDISTURBED SPECIMEN	Q TEST

REMARKS:

ATTERBERG LIMITS WERE NON–PLASTIC

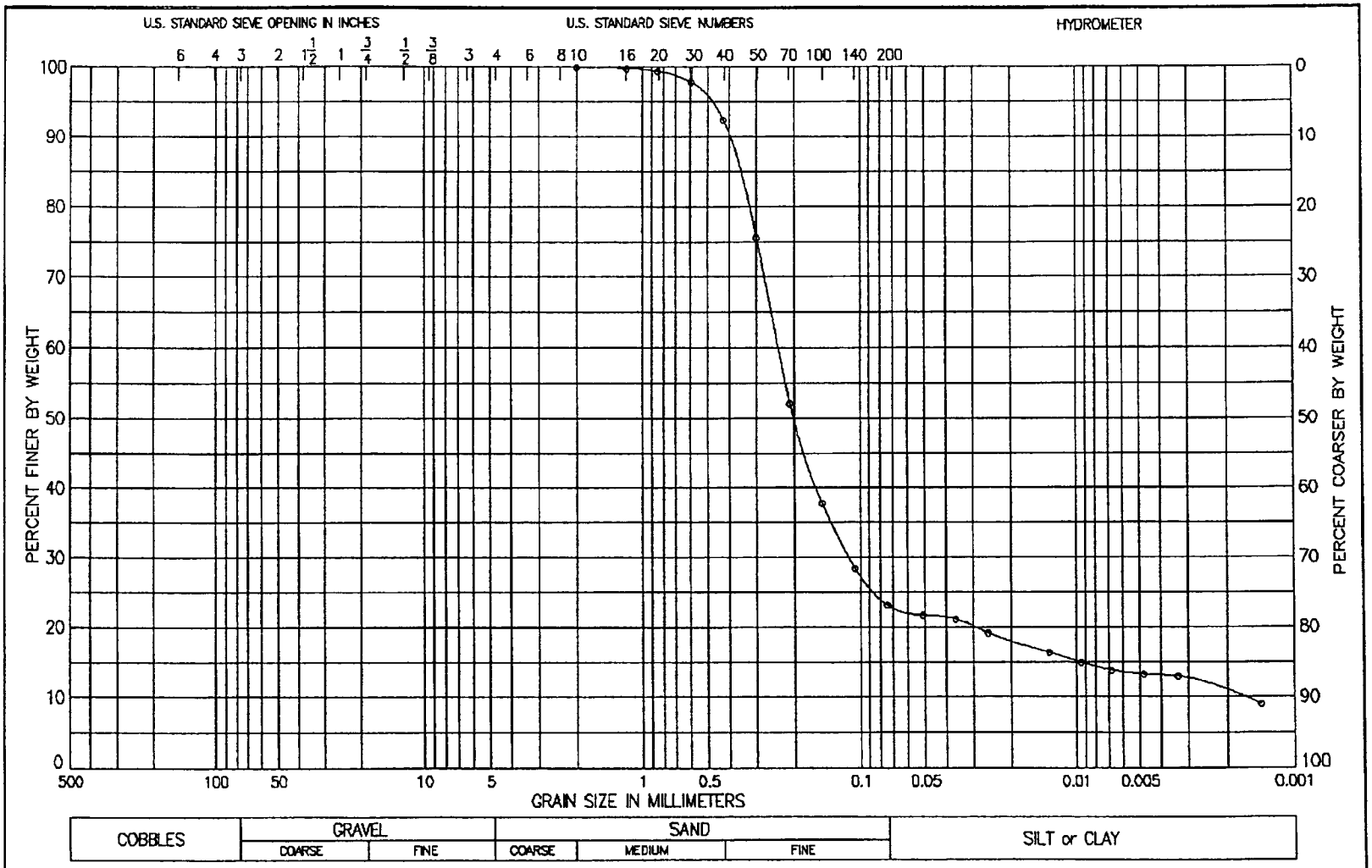
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5–0301–06 SAMPLE NO. TUBE 3

DEPTH/ELEV 17.0–20.0 TECH. CEC

LABORATORY USAE WES – STF/GL DATE 11–3–06

TRIAXIAL COMPRESSION TEST REPORT



LL	PL	PI	GS	NAT W,%	ORG,%
NP			2.68 EST		

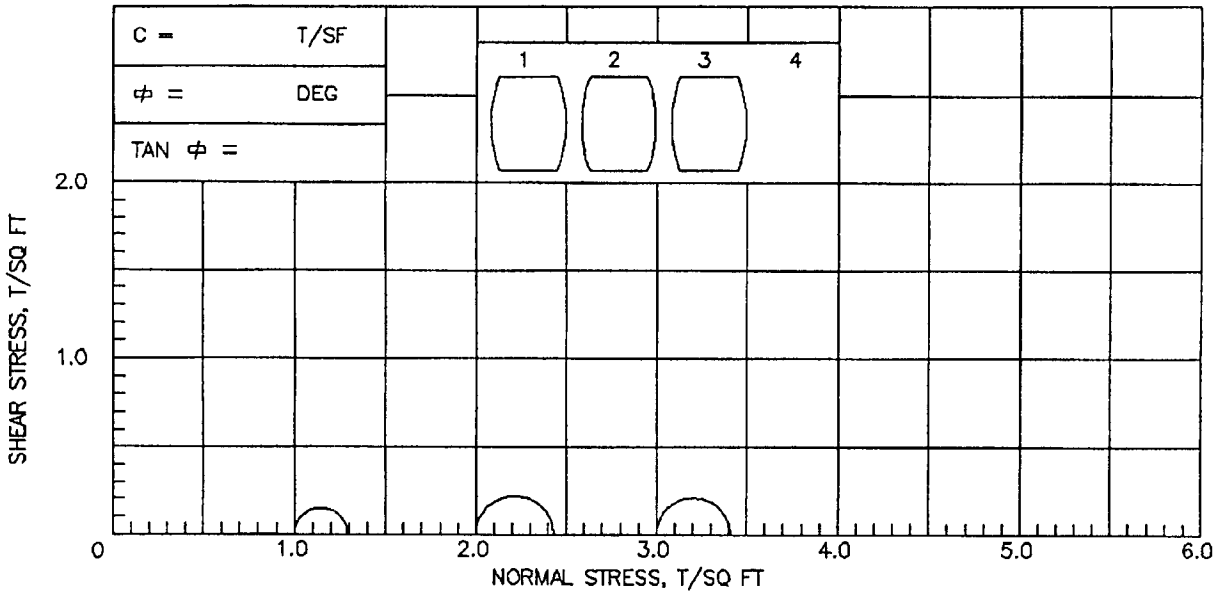
CLASSIFICATION
SILTY SAND (SM), GRAY

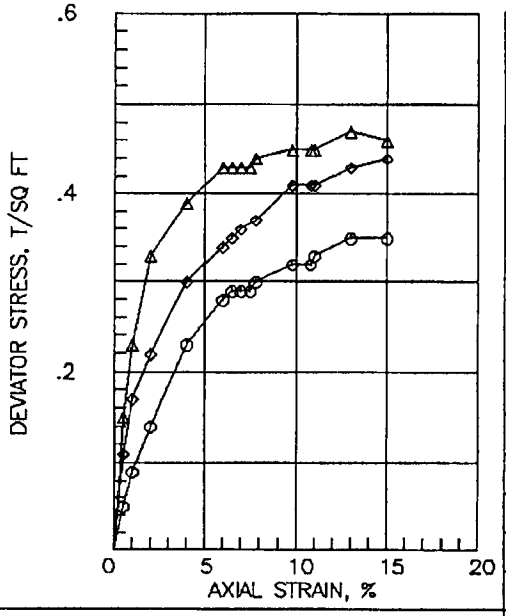
GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5–D301–06 SAMPLE NO. TUBE 4

DEPTH/ELEV 24.0–27.0 DATE 13 NOV 06





SPECIMEN NO.		⊙ 1	△ 2	◇ 3	4
INITIAL	WATER CONTENT, %	24.6	26.2	26.4	
	DRY DENSITY, PCF	98.3	93.7	96.2	
	SATURATION, %	94.4	90.0	96.3	
	VOID RATIO	.695	.779	.733	
BEFORE SHEAR	WATER CONTENT, %				
	DRY DENSITY, PCF				
	SATURATION, %				
	VOID RATIO				
	BACK PRESSURE, TSF				
CHAMBER PRESSURE, TSF		1.00	2.00	3.00	
MAX. DEV. STRESS, TSF		.29	.43	.41	
TIME TO FAILURE, MIN.		29	27	44	
STRAIN RATE INCR., %					
INITIAL DIAMETER, IN.		1.39	1.39	1.39	
INITIAL HEIGHT, IN.		3.00	3.00	3.00	

CONTROLLED-STRAIN TEST

DESCRIPTION OF SPECIMENS: SILTY SAND (SM), GRAY

LL	PL	PI	GS 2.67 (ESTIMATED)	UNDISTURBED SPECIMEN	Q TEST

REMARKS:

ATTERBERG LIMITS WERE NON-PLASTIC

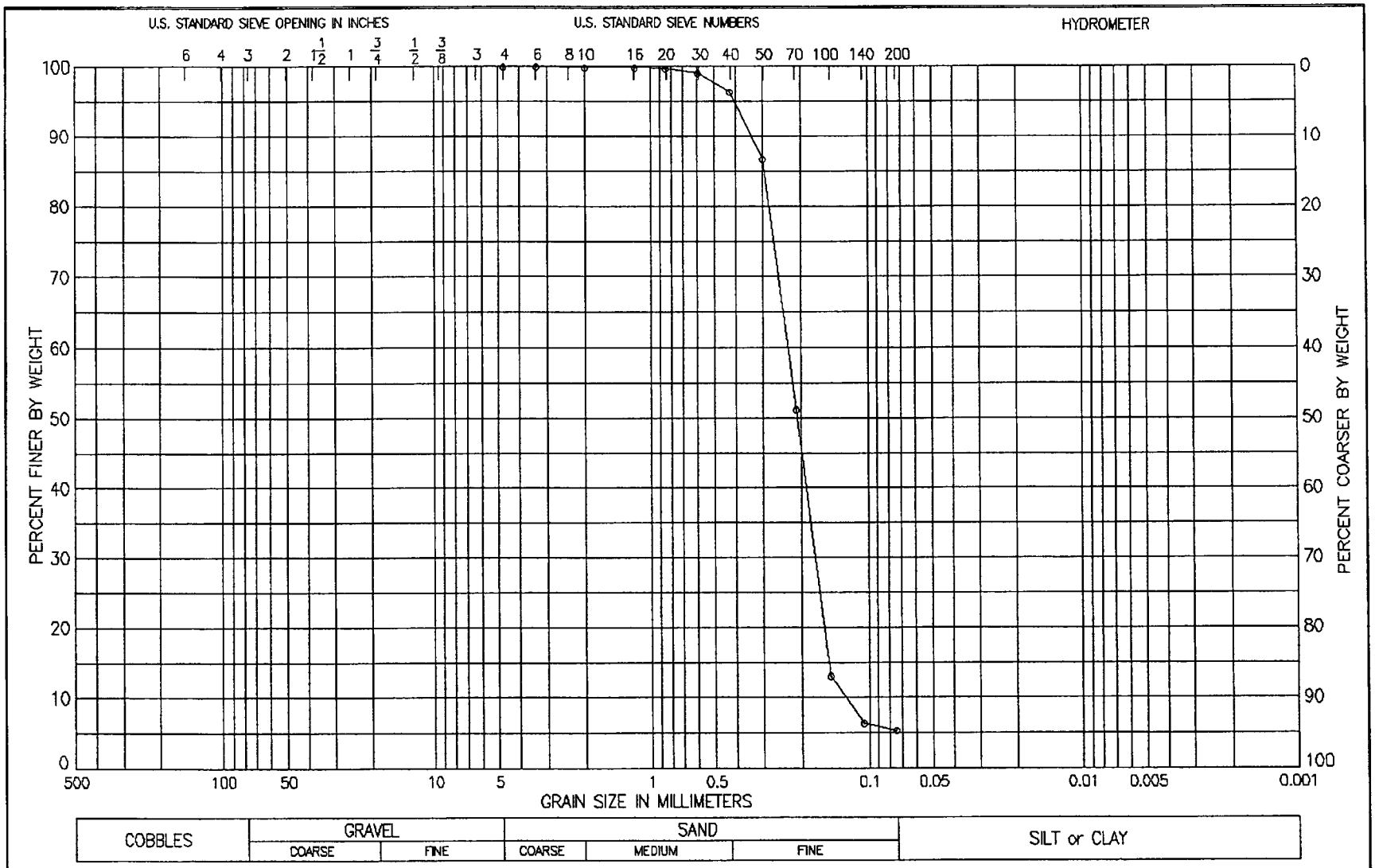
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 4

DEPTH/ELEV 24.0-27.0 TECH. CEC

LABORATORY USAE WES -- STF/GL DATE 11-4-06

TRIAXIAL COMPRESSION TEST REPORT



LL	PL	PI	GS	NAT W,%	ORG,%

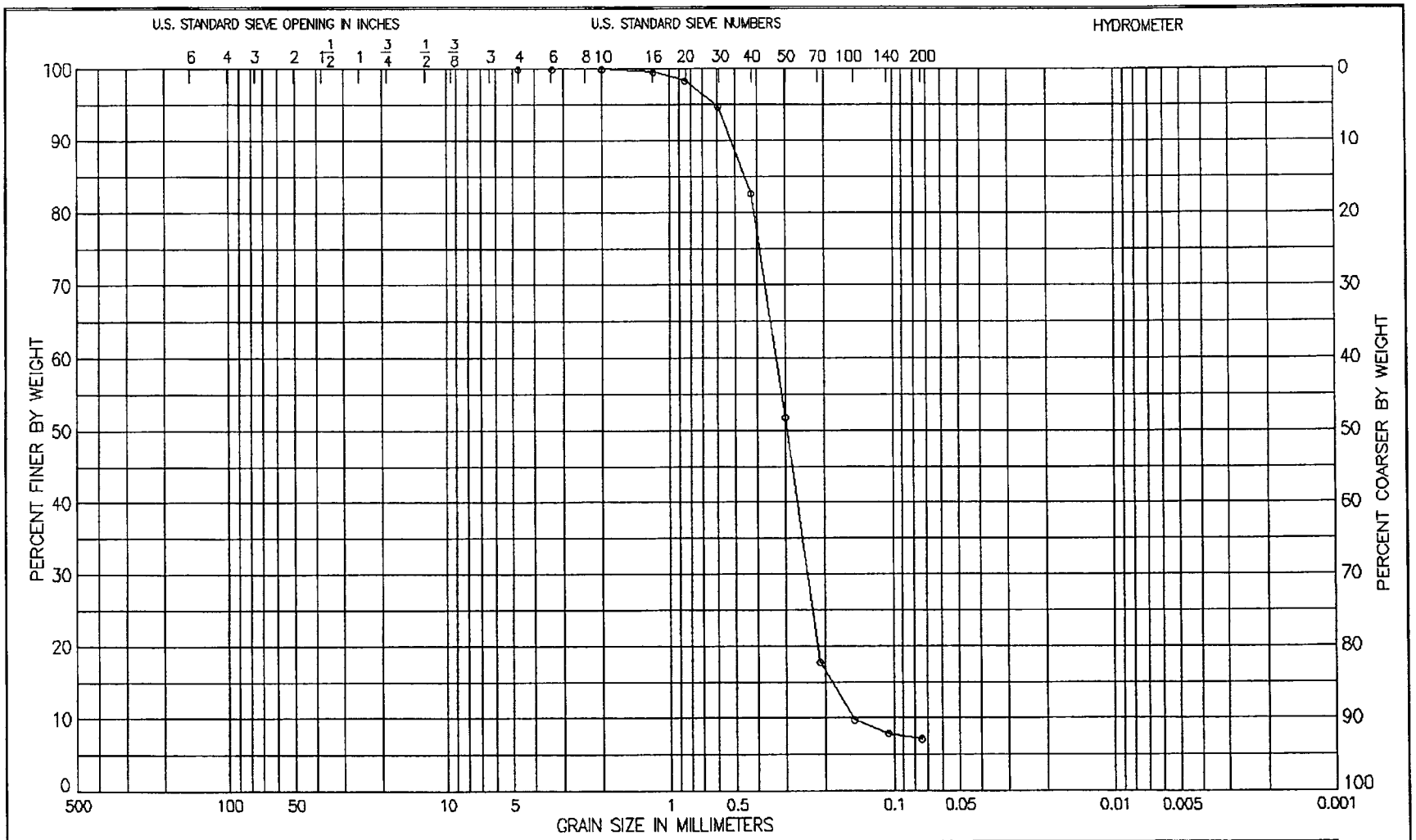
CLASSIFICATION
SILTY SAND (SP-SM), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. 1

DEPTH/ELEV 34.5-36.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

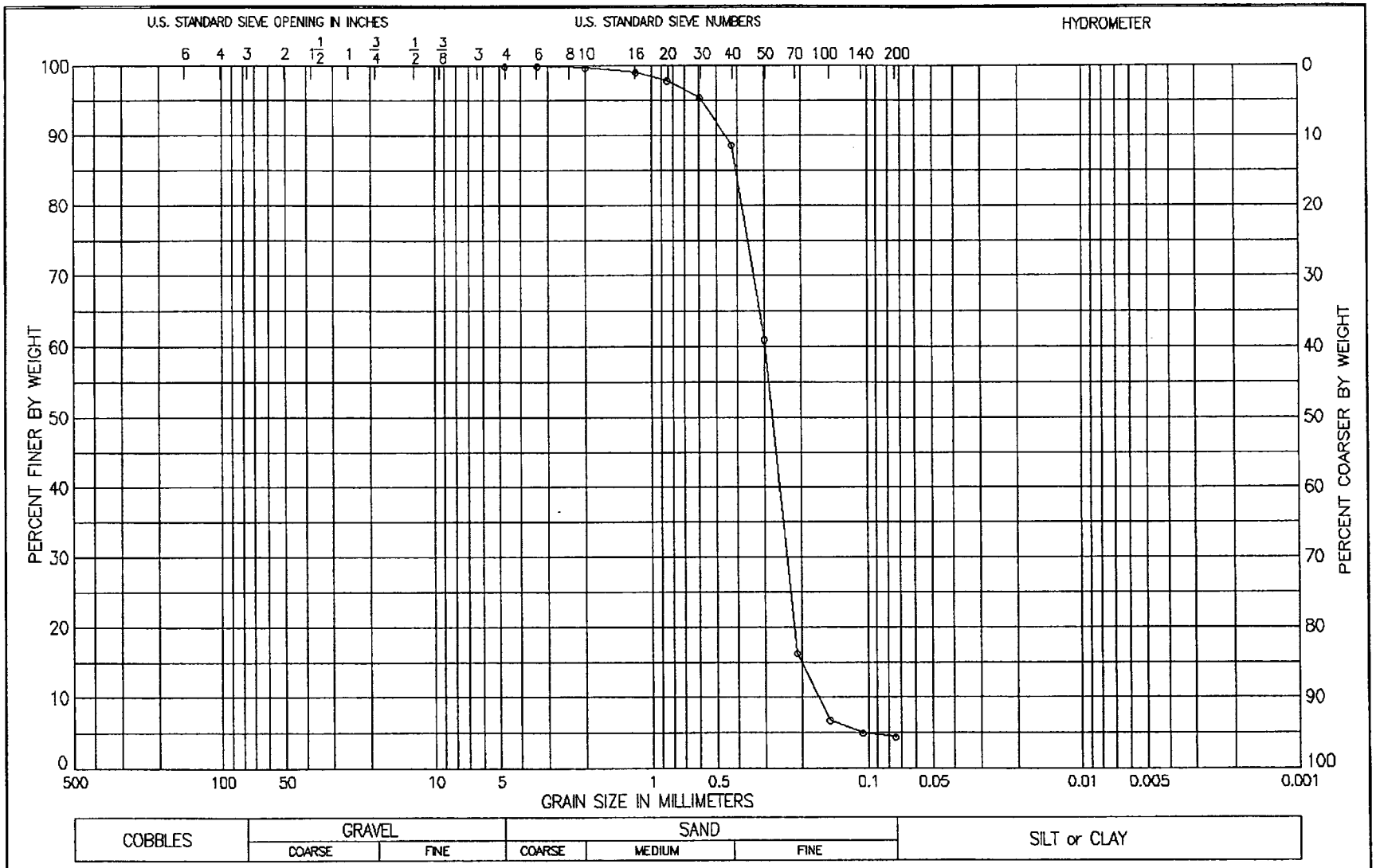
CLASSIFICATION
SILTY SAND (SP-SM), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 7-D301-06 SAMPLE NO. 5

DEPTH/ELEV 13.5-15.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

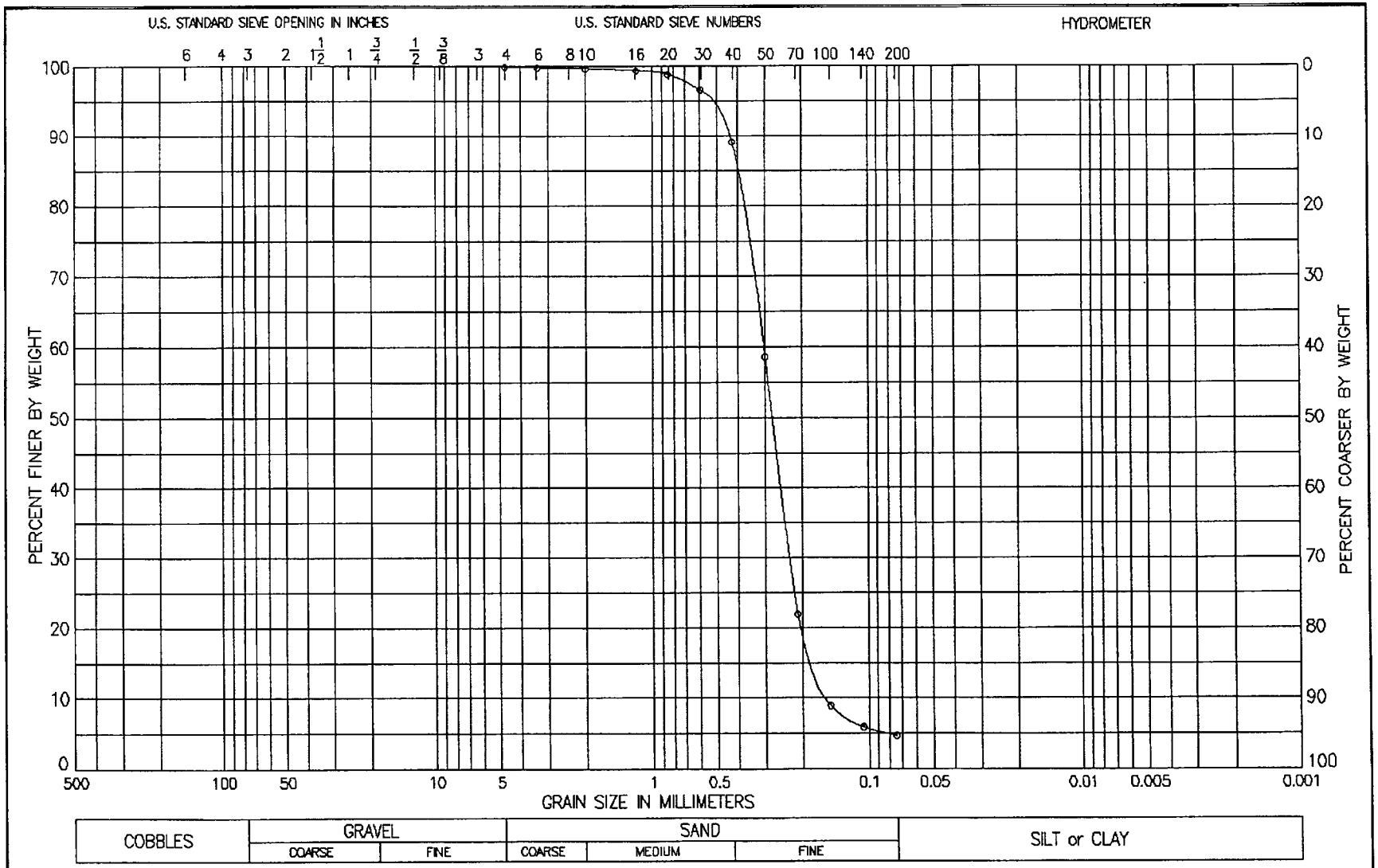
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 7-D301-06 SAMPLE NO. 6

DEPTH/ELEV 15.0-16.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

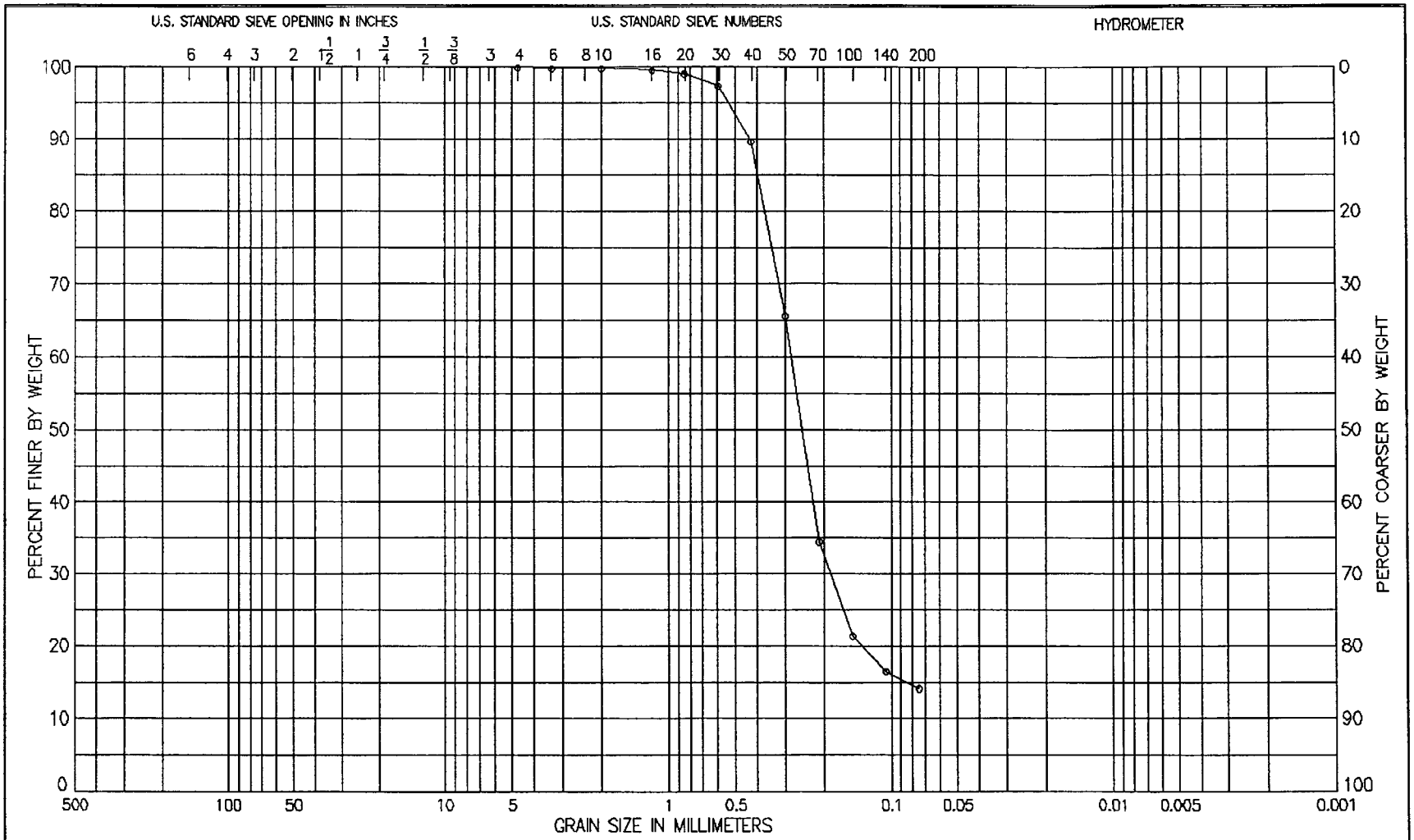
CLASSIFICATION
SAND (SP), GRAY

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 9-D301-06 SAMPLE NO. 8

DEPTH/ELEV 19.5-21.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

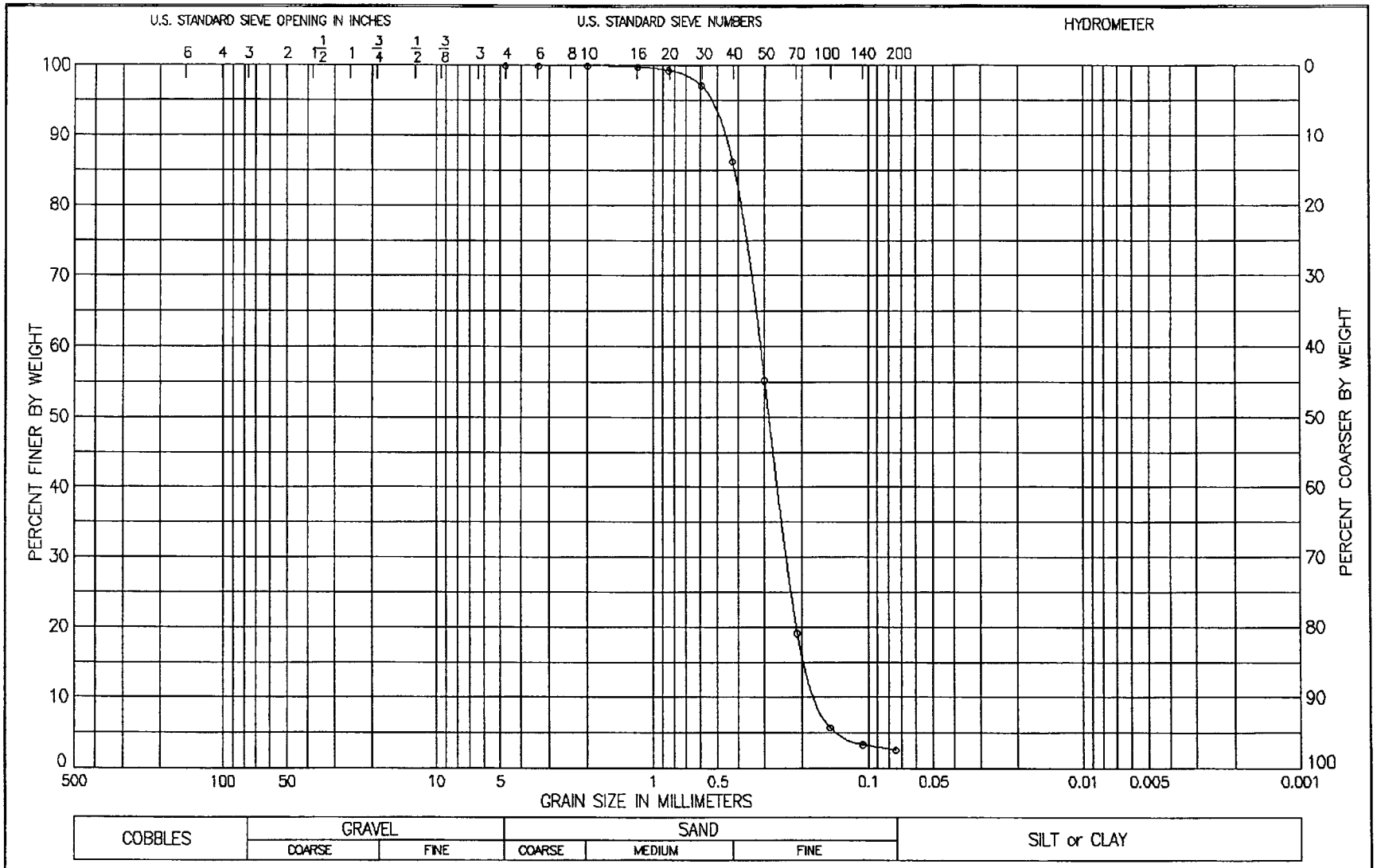
CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 11-D301-06 SAMPLE NO. 11

DEPTH/ELEV 28.5-30.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

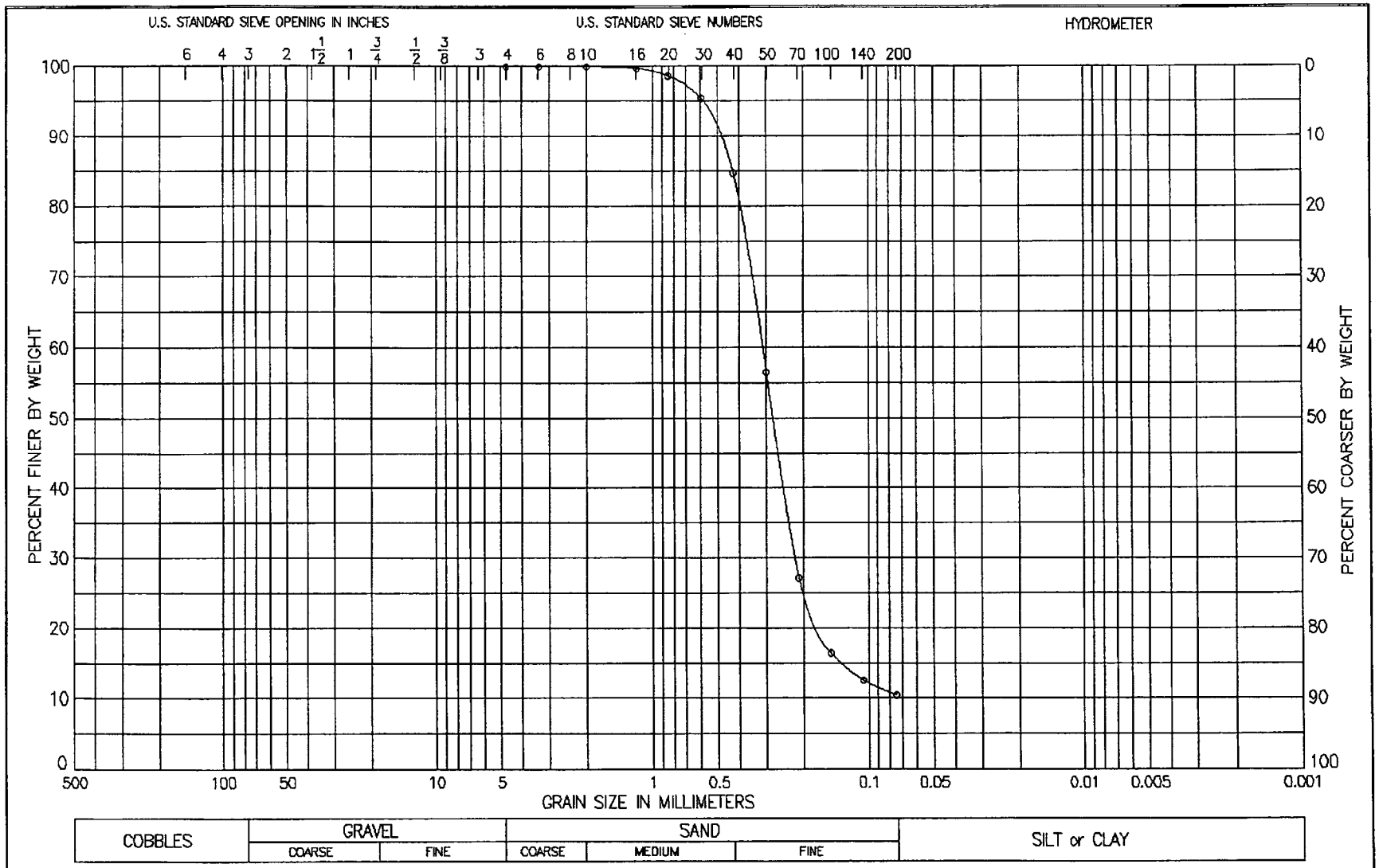
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 11-D301-06 SAMPLE NO. 14

DEPTH/ELEV 35.0-36.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SP–SM), GRAY VISUAL

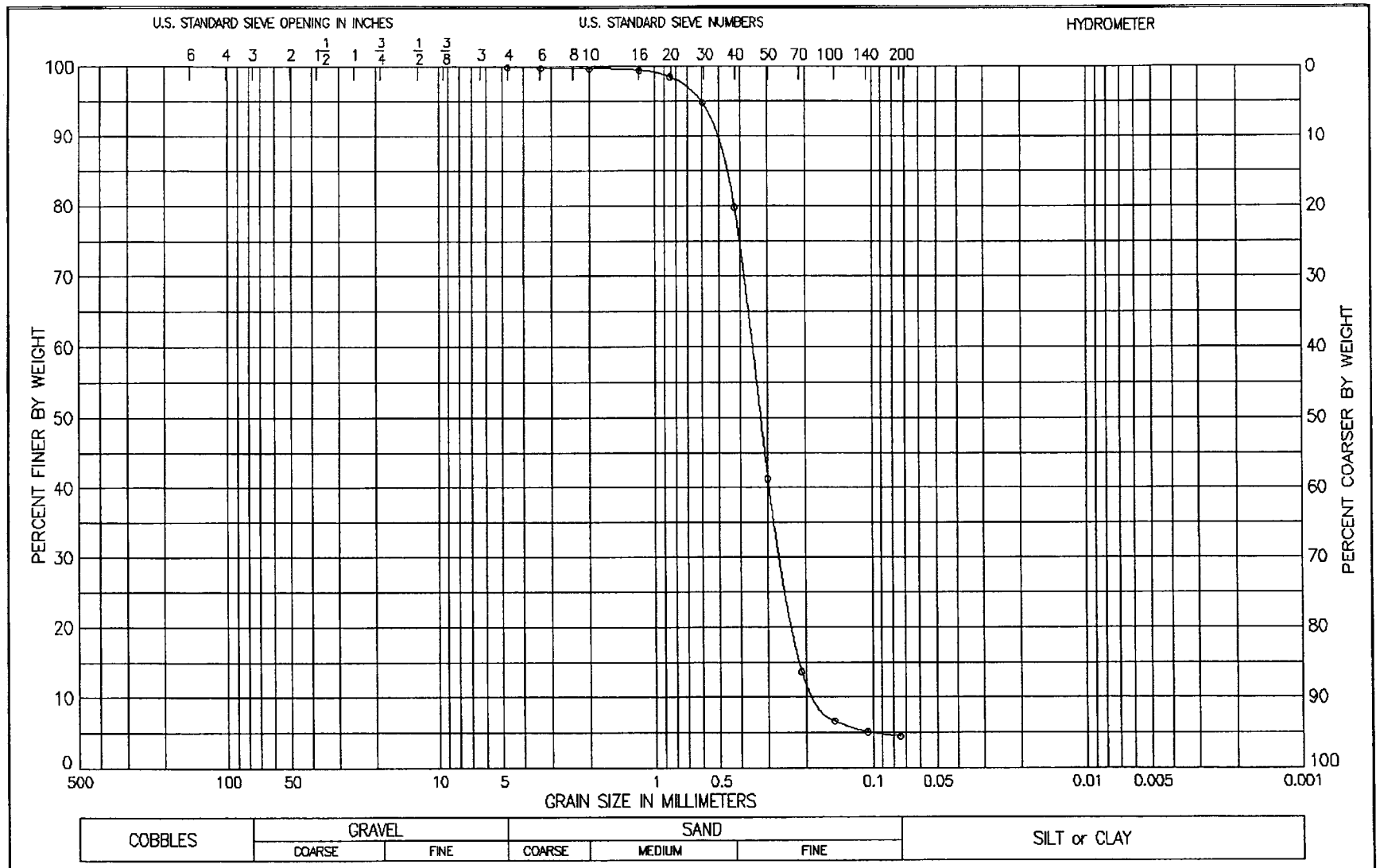
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 14–D301–06 SAMPLE NO. 6

DEPTH/ELEV 13.5–15.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

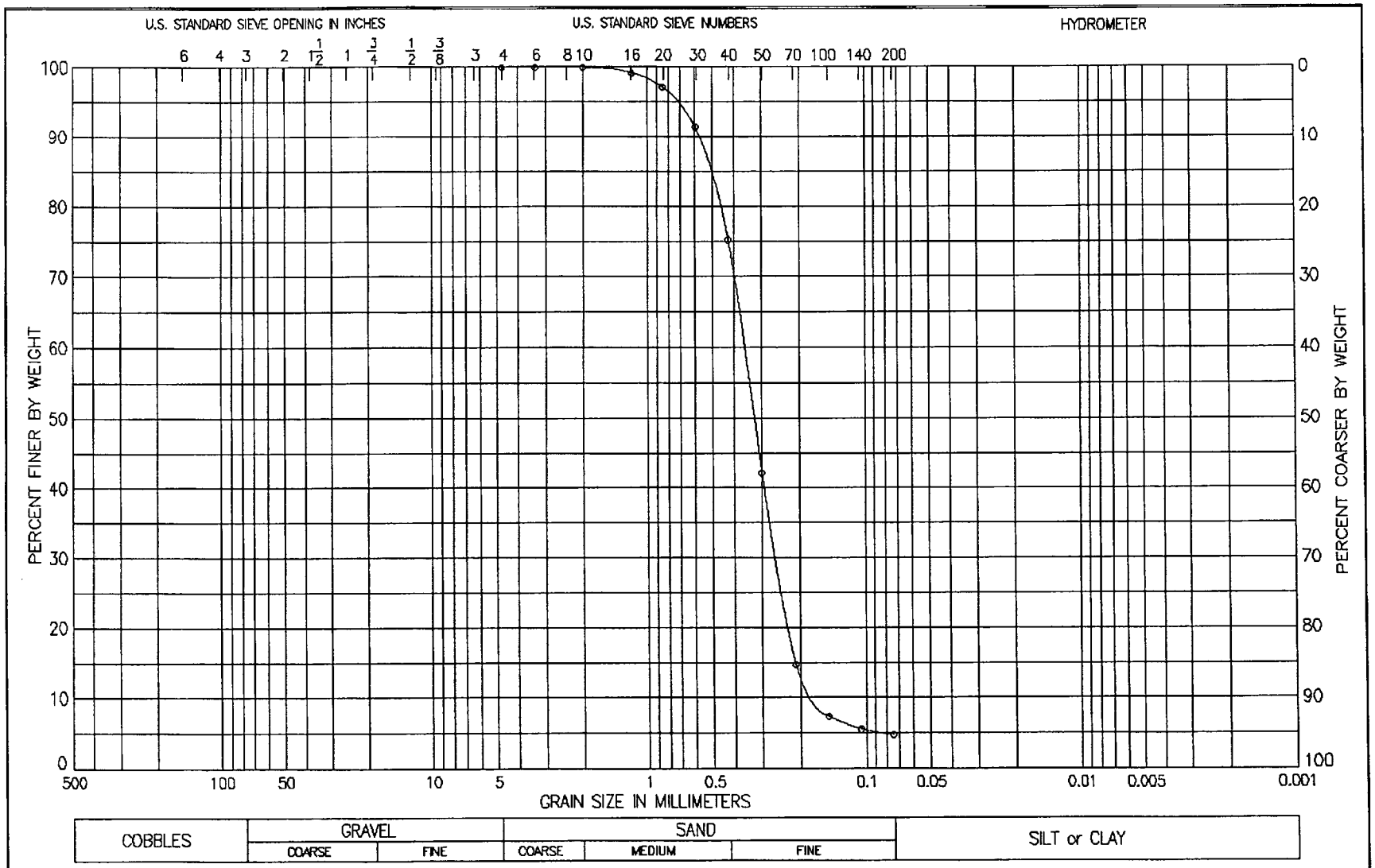
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 14–D301–06 SAMPLE NO. 11

DEPTH/ELEV 30.0–31.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), BROWN

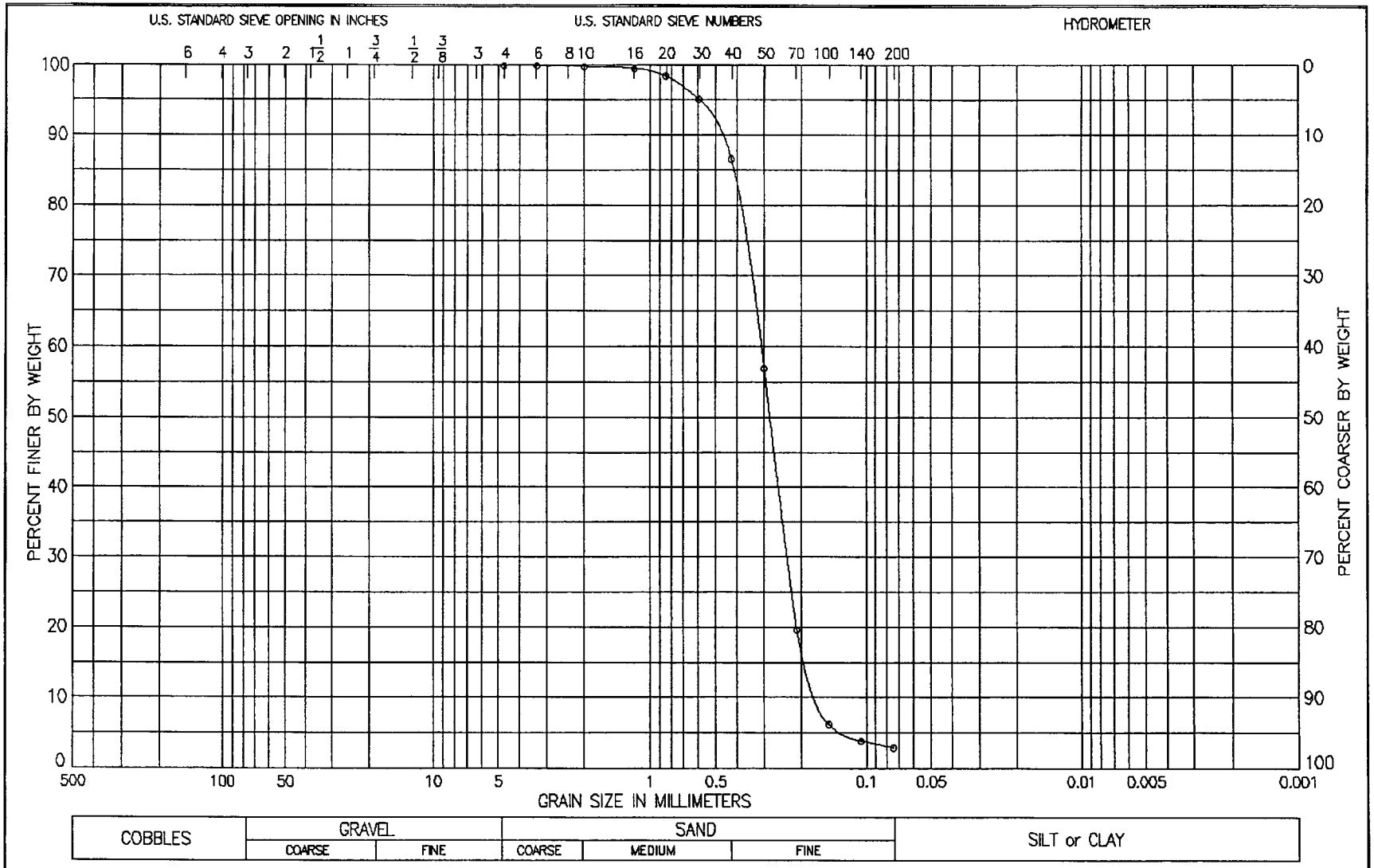
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 15-D301-06 SAMPLE NO. 11

DEPTH/ELEV 30.0-31.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

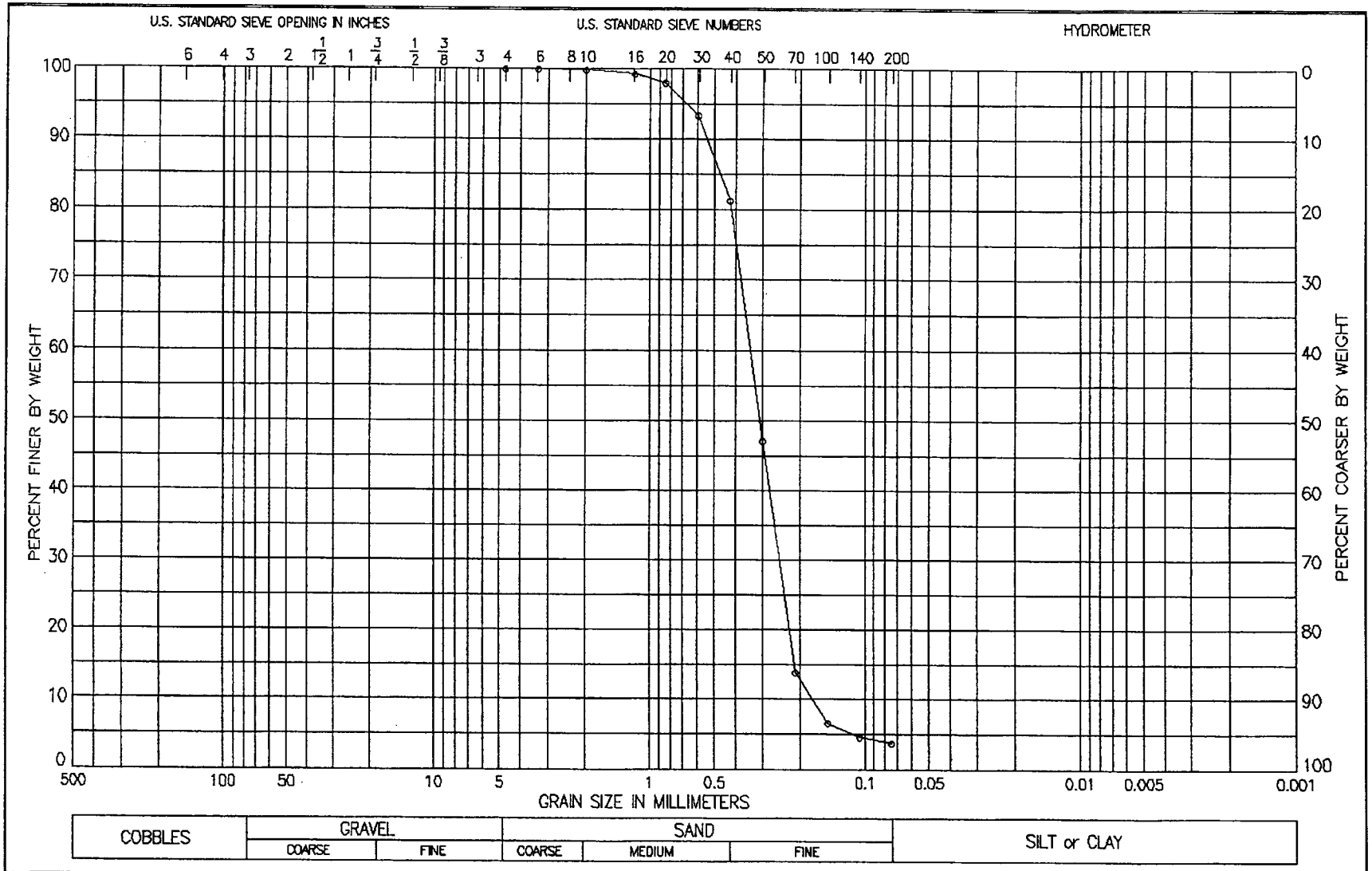
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 17-D301-06 SAMPLE NO. 12

DEPTH/ELEV 24.0-25.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

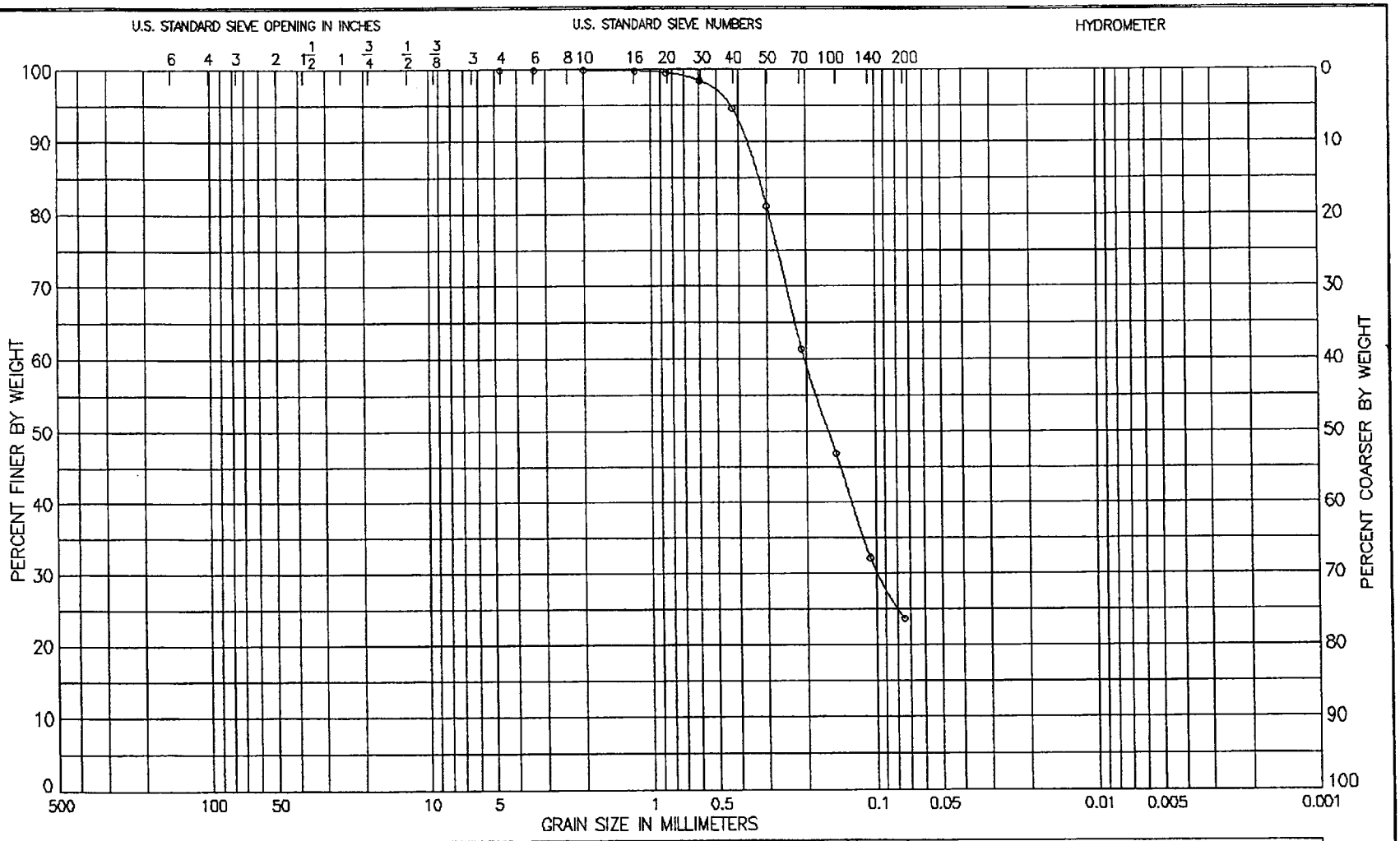
CLASSIFICATION
SAND (SP), GRAY

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 18-D301-06 SAMPLE NO. 11

DEPTH/ELEV 30.0-31.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

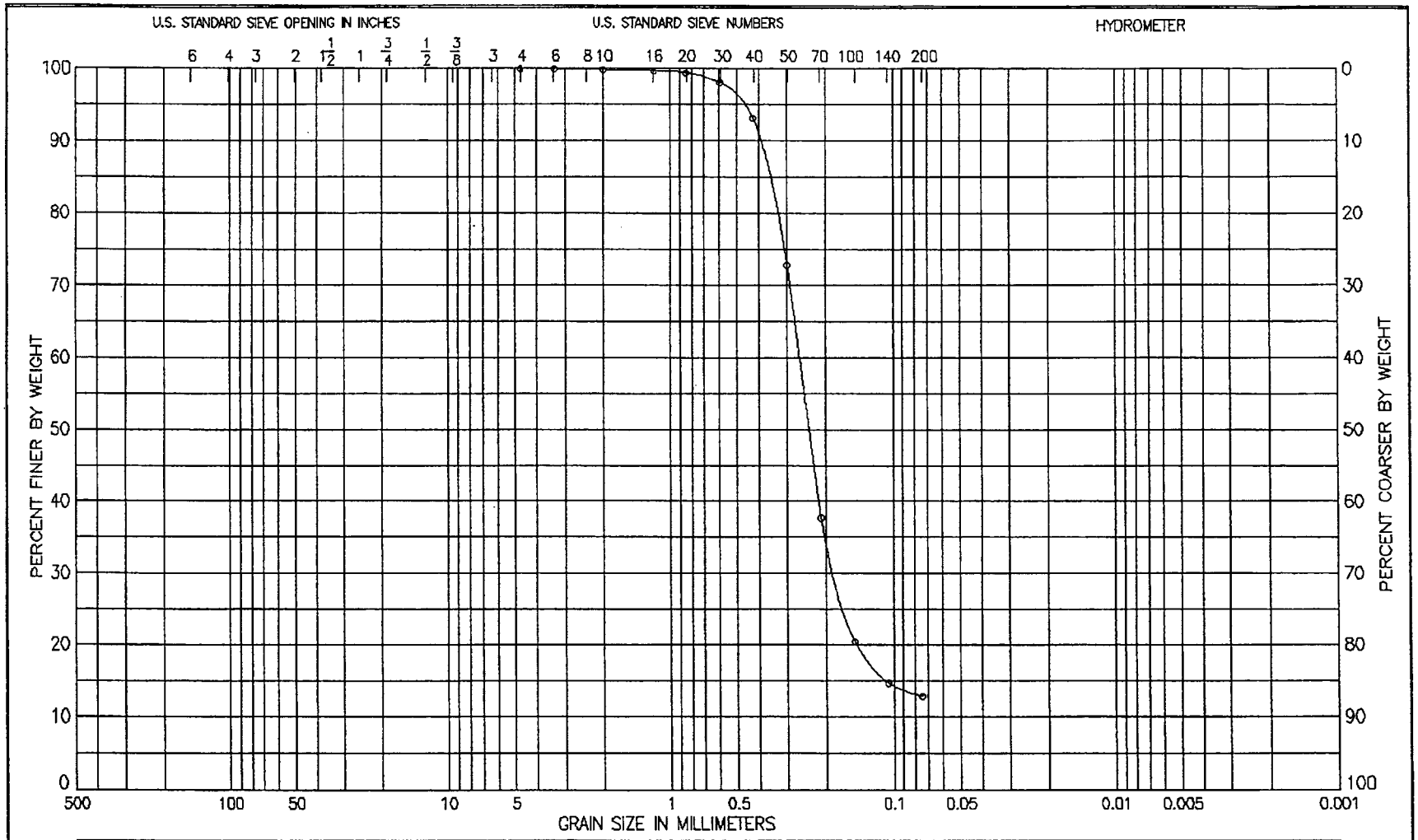
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 23-D301-06 SAMPLE NO. 4

DEPTH/ELEV 10.5-12.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

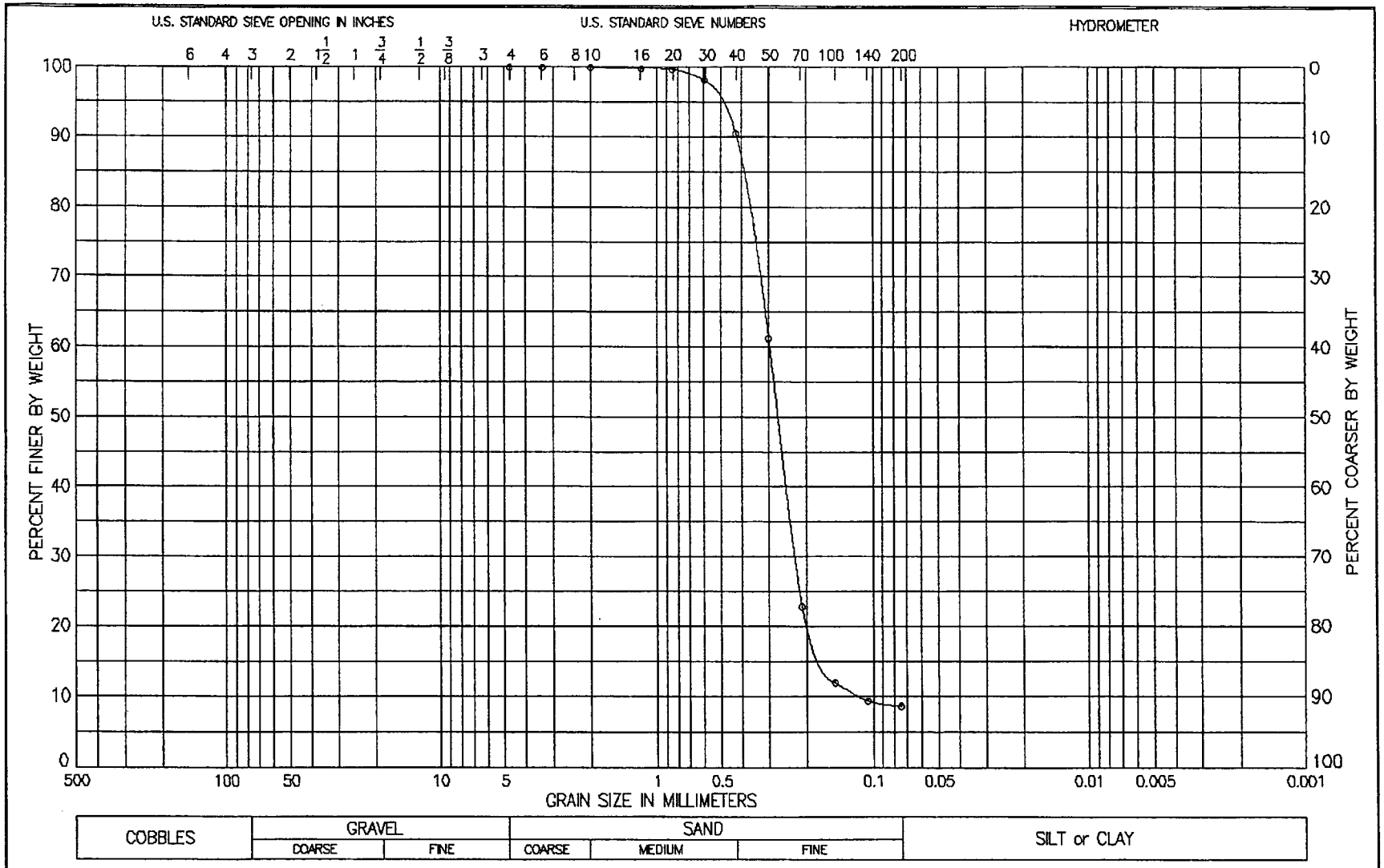
CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 25-D301-06 SAMPLE NO. 3

DEPTH/ELEV 6.0-7.5 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

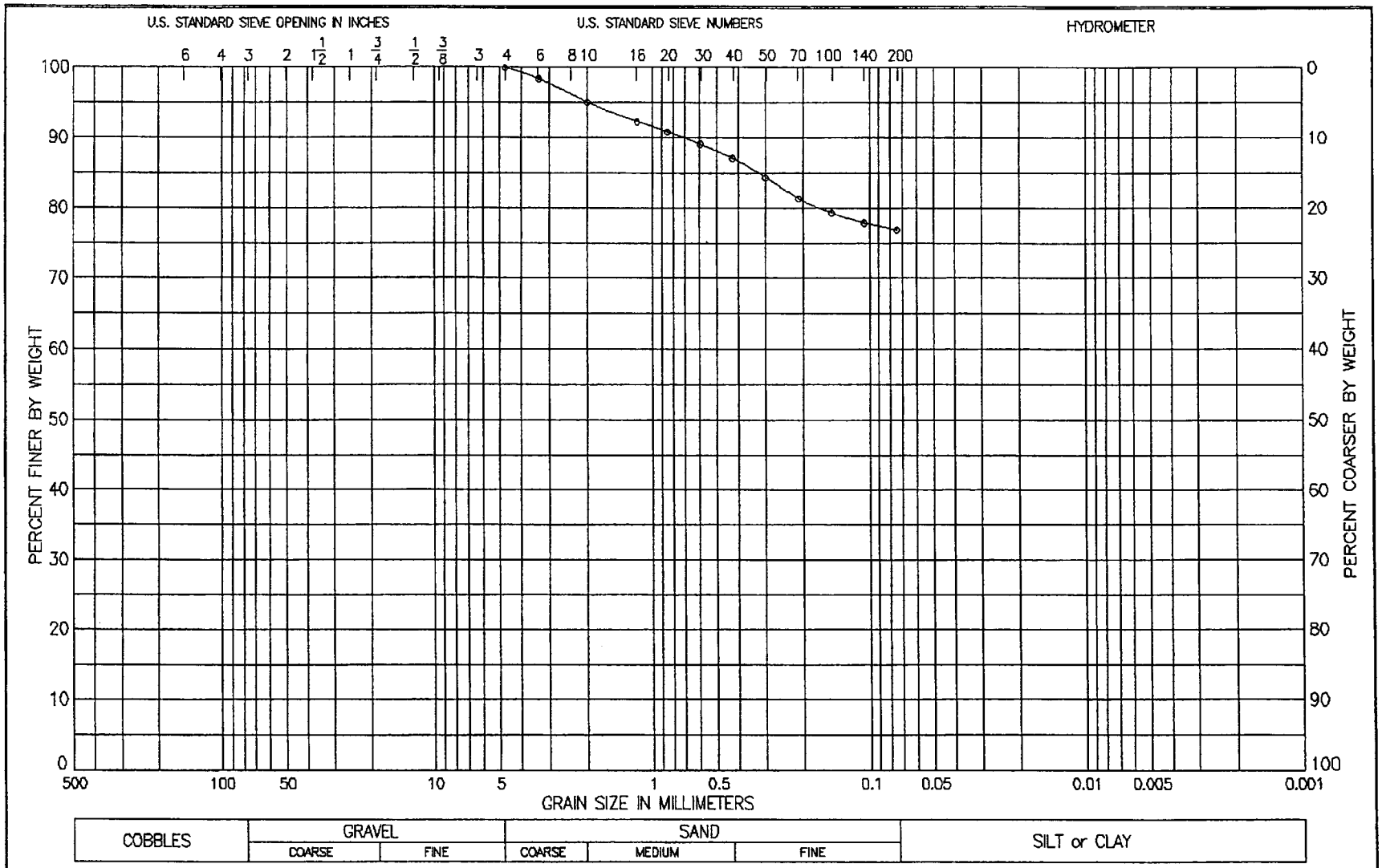
CLASSIFICATION
SILTY SAND (SP–SM), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 30–D301–06 SAMPLE NO. 2

DEPTH/ELEV 4.5–6.0 DATE 31 OCT 06



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SANDY CLAY (CL), GRAY VISUAL

GRADATION CURVE | LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 30-D301-06 SAMPLE NO. 6

DEPTH/ELEV. 16.5-18.0 DATE . 31 OCT 06

THE FOLLOWING VIRBACORE BORINGS WERE DRILLED BY
USACE-EN-G IN PRIOR YEARS 1982 & 1984

Hole No. SS-200-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS
1. PROJECT: MOBILE HARBOR DEEPENING		10. SIZE AND TYPE OF BIT: 3⅜" I.D. SPLITSPOON	
2. LOCATION (Coordinates or Station): N 842,050 E 333,450		11. DATUM FOR ELEVATION SHOWN (MSL or MLW): MSL	
3. DRILLING AGENCY: MDO	100' S. BN. 84	12. MANUFACTURER'S DESIGNATION OF DRILL: FAILING 314	
4. HOLE NO. (As shown on drawing title and file number): SS-200-84		13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED 23	UNDISTURBED 0
5. NAME OF DRILLER: E. LAGRONE		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. ~~ELEVATION GROUND WATER~~ DEPTH 12.6'	
7. THICKNESS OF OVERBURDEN		16. DATE HOLE: STARTED 27 APR 84	COMPLETED 27 APR 84
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE: -11.6 MSL	
9. TOTAL DEPTH OF HOLE: 52.4' (EL. -64.0)		18. TOTAL CORE RECOVERY FOR BORING: NA %	
		19. SIGNATURE OF INSPECTOR: D. HODGES	

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ W e C	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS / FT.
-11.6	0					NOTES: FISHTAILED TO ELEV. -29.0 MSL AFTER SETTING 25' OF 6" CASING W/ 4' OF STICK-UP FROM WATER SURFACE. BEGAN SPLITSPOONING @ ELEV. -29.0 MSL. USED 1½ BAGS OF REVERT DRL. FLUID.
	2					
	4					
	6					
	8		NO SAMPLES (FISHTAILED)			
	10					
	12					
	14					
	16					
-29.0						FISHTAILED
	18		(SP) BR. PR. GRAD. SAND, MED. GRA., SIY.		1	7
			BR., MED. GRA.		2	
-31.6	20					

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)

PROJECT: MOBILE HARBOR | HOLE NO. SS-200-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -11.6 MSL | **Hole No. 55-200-84**

PROJECT: MOBILE HARBOR DEEPENING | INSTALLATION: MDO | SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY W e C	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-31.6	20					14
					3	17
	22		WHT., MED. - C. GRA.		4	56
	24				5	31
			GR. & WHT., MED. - C. GRA.		6	45
	26		TN. & WHT., MED. - C. GRA.		7	22
	28		GR. & WHT., MED. - C. GRA.		8	31
	30				9	34
			WHT., MED. - C. GRA.		10	45
	32				11	34
	34		TN., MED. - C. GRA.		12	33
					13	70
	36		TN. & YEL., MED. - C. GRA.		14	52
	38				15	38
			GR. & TN., MED. - C. GRA.		16	41
	40				17	36
	42		TN., MED. - C. GRA.		18	
-55.6	44		WHT., MED. - C. GRA.			

ENG FORM 1836-A (ER 1110-1-1801) | PROJECT | HOLE NO.

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -11.6 MSL | **Hole No.** SS-200-84

PROJECT: MOBILE HARBOR DEEPENING | INSTALLATION: MDO | SHEET 3 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOVERY~~ WeC	~~ROCK QUALITY DESIGNATION (RQD)~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-55.6	44					34
			WHT. & TN., MED. - C. GRA., W/ A LIT. GVL., (1/8" MAX.)		19	27
	46				20	33
	48		TN. & GR., MED. - C. GRA., GVL., (1/8" MAX.)		21	29
			TN. & OR., MED. - C. GRA., W/ A LIT. GVL., (1/8" MAX.)		22	32
	50					
			TN. & OR., MED. - C. GRA., GVL., (1/4" MAX.)		23	
-64.0	52					65
			B.O.H.			NOTE: THE LAST SPLITSPOON DRIVE WAS 2.0'.

SECTION 7. 1986 Subsurface Investigation Boring Logs and Lab Data

The Following Borings Were Drilled By Thompson Engineering Inc. (TET) in Support of the Proposed Navy Homeport at Pinto Island

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 2.5'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/25/86

GR. WATER DEPTH: 2.0'

BORING NO.: B-42

LOCATION: N241620.007 E333995.017

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			LOOSE to Very LOOSE fine to medium tan and gray SILTY SAND	1	7				
				2	8				
5				3	4				
				4	2				
10				5	1				
				6	2				
15				7	2				
				8	WOH				
20									
25				9	WOH				
			Very LOOSE fine gray CLAYEY SAND with organics	10	1				
30									
			LOOSE to FIRM fine tan SILTY SAND	11	9				
35									
				12	18				
40									
				13	18				
45			B.T. @ 46.5'						
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 4.8'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/29/86

GR. WATER DEPTH: 7.5'

BORING NO.: B-43

LOCATION: N241330.016 E333995.021

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			LOOSE fine brown SILTY SAND with organics	1	6				
			SOFT fine gray CLAY	2	2				
5				3	4				
			LOOSE to FIRM fine to medium tan SILTY SAND	4	8				
10				5	10				
			SOFT fine gray CLAY with SAND and thin SAND lenses	6	2				
15				7	2				
20			FIRM fine tan SILTY SAND with organics	8	13				
25			LOOSE to Very LOOSE fine gray SILTY SAND	9	7				
30				10	3				
35				11	2				
40				12	3				
45				13	2				
			B.T. @ 46.5'						
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 10.9'

PROJECT: Mobile Naval Hompeort Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/29/86

GR. WATER DEPTH: 5.5'

BORING NO.: B-44

LOCATION: N241230.016 E333995.018

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0			SOFT fine brown CLAY with organics	1	5					
			Very LOOSE fine brown CLAYEY SAND with organics	2	3					
5			FIRM fine to medium tan SILTY SAND	3	21					
			SOFT fine gray CLAY with SAND and organics	4	5					
10				5	5					
			LOOSE fine gray and tan CLAYEY SAND	6	7					
15			FIRM fine tan SILTY SAND with organics	7	15					
20			Very LOOSE to LOOSE fine gray and tan SILTY SAND	8	3					
25				9	3					
30				10	1					SM
35				11	5					
40				12	6					
45				13	9					
			B.T. @ 46.5'							
50										
55										

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 9.3'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/29/86

GR. WATER DEPTH: 3.0'

BORING NO.: B-45

LOCATION: N241130.001 E333995.017

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			LOOSE fine brown SILTY SAND with organics	1	5				
			SOFT to FIRM fine gray CLAY with organics and thin SAND lenses	2	8				
5				3	8				
				4	10				
10			LOOSE fine tan SILTY SAND with organics and pea gravel	5	6				
			SOFT fine gray CLAY with organics	6	6				
15			LOOSE to FIRM fine to medium gray and tan SILTY SAND	7	12				
20				8	6				
25				9	13				
30				10	14				
35				11	12				
40				12	17				
			B.T. @ 41.5'						
45									
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 3.3'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/25/86

GR. WATER DEPTH: 3.0'

BORING NO.: B-46

LOCATION: N241584.841 E334254.547

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0			LOOSE fine tan SILTY SAND with organics	1	6					
			LOOSE fine to medium gray SILTY SAND	2	5					
5				3	3					
			Very LOOSE fine gray CLAYEY SAND	4	WOH					
10				5	WOH					SM
				6	WOH					
15			Very LOOSE fine gray SILTY SAND with shell fragments and organics	7	WOH					
20				8	1					SM
25			Very LOOSE to FIRM fine gray and tan SILTY SAND	9	WOH					
30				10	1					
35				11	9					
40				12	17					
45				13	22					
			B.T. @ 46.5'							
50										
55										

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: 4.5'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/24/86

GR. WATER DEPTH: 4.5'

BORING NO.: B-47

LOCATION: N241616.221 E333766.667

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0			FIRM to SOFT fine gray CLAY with thin SAND lenses and organics	1	11					
5				2	3					
10			SOFT fine gray SANDY CLAY with organics	3	3					
15			LOOSE fine gray SILTY SAND	4	4					
20			Very LOOSE to LOOSE fine to medium gray SILTY SAND with shell fragments	5	1					SM
25				6	3					
30			LOOSE fine gray SILTY SAND	7	2					
35			LOOSE fine gray SILTY SAND	8	3					SM
40			FIRM fine to medium white SAND	9	20					
45				10	29					
50			B.T. @ 46.5'							
55										

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: Sea Level

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86008

DATE DRILLED: 3/21/86

WATER DEPTH: 4.5'

BORING NO.: MO-1

LOCATION: N242,980 E333,916

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			WATER						
5			Very LOOSE fine dark brown SILT	1	WOR				
				2	WOR				
10				3	WOR				
				4	WOR				
			Very SOFT fine dark brown SILTY CLAY	5	WOR				
15				6	WOR				
				7	WOR				
			LOOSE fine gray SILTY SAND	8	5				
20			SOFT fine gray and dark brown SILTY CLAY	9	8				
			LOOSE fine brown and gray CLAYEY SAND w/thin gray CLAY lenses	10	2				
25				11	4				
				12	8				
30			FIRM medium to coarse tan SAND w/pea gravel	13	18				
				14	16				
				15	13				
35				16	11				
			B.T. @ 36.5'						
40			Marine Boring Samples Obtained with 3-inch O.D. X 24-inch length Split-Barrel samples						
45									
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION: Sea Level

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86008

DATE DRILLED: 3/22/86

WATER DEPTH: 2.0'

BORING NO.: MO-2

LOCATION: N242,580 E334,837

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			WATER						
			Very LOOSE fine dark brown SILT	1	WOR				
5			Very SOFT fine gray CLAY w/thin SAND lenses	2	WOR				
				3	WOR				
10				4	WOR				
				5	1				
				6	1				
15			Very LOOSE fine to medium brown CLAYEY SAND	7	1				
			Very SOFT fine gray CLAY w/thin SAND lenses	8	1				
20			Very LOOSE fine to medium tan and gray CLAYEY SAND	9	WOH				
				10	WOH				
				11	1				
25				12	3				
				13	3				
30				14	2				
				15	2				
				16	6				
35			LOOSE fine gray and tan SILTY SAND	17	1				
				18	5				
40			B.T. @ 38.0'						
			Marine Boring Samples Obtained with 3-inch O.D. X 24-inch length Split-barrel sampler.						
45									
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities DATUM: NGVD

JOB NO.: E86-008 DATE DRILLED: 9/30/86 WATER DEPTH: 0.5'

BORING NO.: M-1 LOCATION: N242,807.01 E334,525.01 TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			WATER						
			Very LOOSE fine dark brown and tan SILTY SAND	1	1				
5									
10									
15			Very LOOSE fine gray CLAYEY SAND	2	WOH				
20				3	WOH				
25				4	1				
30				5	1				
35			FIRM to DENSE fine to medium tan SAND	6	14				
40				7	9				
45				8	30				
50				9	30				
55				10	36				

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 9/30/86

WATER DEPTH: 0.5'

BORING NO.: M-1 (continued)

LOCATION: N242,807.01 E334,525.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
55			DENSE fine to medium tan SAND	10	36				
60				11	37				
65				12	17				
70			FIRM medium to coarse orange SAND with pea gravel	13	24				
75			FIRM fine tan SILTY SAND	14	19				
80			FIRM fine tan CLAYEY SAND	15	27				
85				16	22				
			HARD fine gray SILTY CLAY						
90			FIRM fine tan SAND	17	16				
95				18	18				
			B.T. @ 95.5'						
100									
105									
110									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/23/86

GR. WATER DEPTH: 1.0'

BORING NO.: M-2

LOCATION: N242,600.01 E334,400.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0			WATER							
			Very LOOSE fine to medium gray and tan SILTY SAND	1	WOH					
5										
				2	WOH					
10										
				3	WOH					
15										
				4	WOH					
20										
				5	WOH					
25										
				6	WOH					SM
30										
				7	WOH					SP-SM
35										
			FIRM to DENSE fine to coarse tan SAND	8	12					
40										
				9	35					
45										
				10	22					
50										
				11	54					
55										

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/23/86

GR. WATER DEPTH: 1.0'

BORING NO.: M-2 (continued)

LOCATION: N242,600.01 E334,400.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
55			DENSE fine to coarse tan SAND	11	54				
60				12	40				
65			FIRM to DENSE medium to coarse tanand yellow SAND	13	14				
70				14	30				
75				15	32				
80				16	27				
85			DENSE fine gray CLAYEY SAND	17	32				
90			DENSE fine gray SAND	18	34				
95			FIRM fine gray CLAYEY SILT	19	25				
100			STIFF to HARD fine gray SILTY CLAY	20	22				
105				21	44				
110			DENSE coarse yellow and tan SAND with pea gravel	22	45				
			B.T. @ 110.5'						

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/18/86

GR. WATER DEPTH: 3.5'

BORING NO.: M-3

LOCATION: N242,390.01 E334,280.02

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH (5 10 20 30 40 50)	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0			WATER							
5			Very LOOSE fine gray and tan SILTY SAND	1	2					
10			Very SOFT fine gray CLAY with organics	2	WOH					
15				3	WOH					
20				4	WOH					
25				5	WOH					
30			Very SOFT to SOFT fine gray CLAY with thin SAND lenses	6	WOH					
35			FIRM to DENSE fine to medium tan SAND	7	2					SM
40			FIRM to DENSE fine to medium tan SILTY SAND	8	43					
45				9	28					
50				10	26					
55				11	37					

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/18/86

GR. WATER DEPTH: 3.5'

BORING NO.: M-3 (continued)

LOCATION: N242,390.01 E334,280.02

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
55			DENSE to Very DENSE fine to medium tan SAND	11	37				
60				12	61				
65				13	47				
70			Very DENSE fine tan and orange SAND with pea gravel	14	79				
75			Very DENSE fine to coarse tan and gray SAND	15	77 +				
80				16	100 +				
85				17	100 +				
90				18	100 +				
95				19	100 +				
100				20	100 +				
105				21	100 +				
110			Very DENSE fine to medium tan SAND	22	100 +				

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/18/86

GR. WATER DEPTH: 3.5'

BORING NO.: M-3 (continued)

LOCATION: N242,390.01 E334,280.02

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
110			Very DENSE fine to medium tan SAND with pea gravel	22	100 +				
			Very DENSE fine tan and gray SAND with pea gravel and thin CLAY lenses						
115				23	100 +				
120				24	100 +				
			B.T. @ 120.5'						
125									
130									
135									
140									
145									
150									
155									
160									
165									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/19/86

GR. WATER DEPTH: 15.0'

BORING NO.: M-4

LOCATION: N241,900.01 E333,995.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			WATER						
15			LOOSE fine gray SILTY SAND with organics	1	2				
20			Very LOOSE fine gray SILTY SAND	2	WOH				
25				3	WOH				
30			SOFT fine gray CLAY with SAND and organics	4	6				
35			LOOSE to FIRM fine tan SAND	5	6				
40				6	18				
			B.T. @ 40.5'						
45									
50									
55									

THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES

MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

CLIENT: Southern Division, Naval Facilities Engineering Command

GROUND ELEVATION:

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

DATE DRILLED: 4/19/86

GR. WATER DEPTH: 16.5'

BORING NO.: M-5

LOCATION: N242,440.00 E333,995.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT. NO	BLOWS PER FT. GRAPH 5 10 20 30 40 50	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
0			WATER						
5									
10									
15									
20			Very SOFT fine dark brown and gray CLAY with thin SAND lenses and organics	1	WOR				
25				2	WOR				
30				3	WOR				
35				4	WOR				
40			DENSE fine tan and brown SAND	5	41				
45			B.T. @ 43.0'						
50									
55									

ATTACHMENT A – 7

COST ESTIMATE

****** TOTAL PROJECT COST SUMMARY ******

PROJECT: **Mobile Harbor GRR**
PROJECT NO: P2 444633
LOCATION: Mobile, Alabama

DISTRICT: SAM Mobile District PREPARED: 4/17/2018
POC: CHIEF, COST ENGINEERING,George Brown
UPDATED: June 2018

This Estimate reflects the scope and schedule in report; Mobile Harbor Integrated GRR and Supplemental EIS

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)					TOTAL PROJECT COST (FULLY FUNDED)				
						Program Year (Budget EC): Effective Price Level Date:									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	**TOTAL ($K)**	**TOTAL FIRST COST** ($K)	A %	COST ($K)	CNTG ($K)	FULL ($K)	
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*	*K*	*L*	*M*	*N*	*O*	
12	NAVIGATION PORTS & HARBORS	$256,231	$106,914	41.7%	$363,145	0.0%	$256,231	$106,914	$363,145	$363,145	#	$280,823	$117,081	$397,904	
	CONSTRUCTION ESTIMATE TOTALS:	$256,231	$106,914		$363,145	0.0%	$256,231	$106,914	$363,145	$363,145	#	$280,823	$117,081	$397,904	
01	LANDS AND DAMAGES	$40	$0	0.0%	$40	0.0%	$40	$0	$40	$40	#	$44	$0	$44	
30	PLANNING, ENGINEERING & DESIGN	$6,064	$2,478	40.9%	$8,542	0.0%	$6,064	$2,478	$8,542	$8,542	#	$7,117	$2,905	$10,022	
31	CONSTRUCTION MANAGEMENT	$2,903	$1,127	38.8%	$4,030	0.0%	$2,903	$1,127	$4,030	$4,030	#	$3,596	$1,397	$4,993	
	PROJECT COST TOTALS:	$265,238	$110,519	41.7%	$375,756		$265,238	$110,519	**$375,756**	**$375,756**	#	$291,580	$121,383	$412,963	



ESTIMATED TOTAL PROJECT COST: **$412,963**

Note: Excludes Associated Costs

****** TOTAL PROJECT COST SUMMARY ******

PROJECT: **Mobile Harbor GRR**
PROJECT NO: P2 444633
LOCATION: Mobile, Alabama

DISTRICT: **SAM Mobile District** **PREPARED:** **4/17/2018**
POC: **CHIEF, COST ENGINEERING,George Brown**

This Estimate reflects the scope and schedule in report; Mobile Harbor Integrated GRR and Supplemental EIS

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)						TOTAL PROJECT COST (FULLY FUNDED)			
						Program Year (Budget EC): 2018									
						Effective Price Level Date: 1 OCT 17									
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST ($K)	CNTG ($K)	CNTG (%)	TOTAL ($K)	ESC (%)	COST ($K)	CNTG ($K)	**TOTAL ($K)**	Spent Thru: **1-Oct-17** ($K)	**TOTAL FIRST COST** ($K)	INFLATED (%)	COST ($K)	CNTG ($K)	FULL ($K)
A	*B*	*C*	*D*	*E*	*F*	*G*	*H*	*I*	*J*		*K*	*L*	*M*	*N*	*O*
12	NAVIGATION PORTS & HARBORS	$9,118	$2,279	25.0%	$11,397	0.0%	$9,118	$2,279	$11,397	$0	$11,397	5.1%	$9,586	$2,397	$11,983
02	RELOCATIONS	$487	$122	25.0%	$609	0.0%	$487	$122	$609	$0	$609	9.4%	$533	$133	$666
	CONSTRUCTION ESTIMATE TOTALS:	$9,605	$2,401		$12,006	0.0%	$9,605	$2,401	$12,006	$0	$12,006	5.4%	$10,120	$2,530	$12,649
01	LANDS AND DAMAGES	$0	$0	-	$0	-	$0	$0	$0	$0	$0	-	$0	$0	$0
30	PLANNING, ENGINEERING & DESIGN	$0	$0	0.0%	$0	-	$0	$0	$0	$0	$0	-	$0	$0	$0
31	CONSTRUCTION MANAGEMENT	$0	$0	0.0%	$0	-	$0	$0	$0	$0	$0	-	$0	$0	$0
	PROJECT COST TOTALS:	$9,605	$2,401	25.0%	$12,006		$9,605	$2,401	**$12,006**	$0	**$12,006**	5.4%	$10,120	$2,530	$12,649

ESTIMATED TOTAL PROJECT ASSOCIATED COST: **$12,649**

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ASSOCIATED TPCS