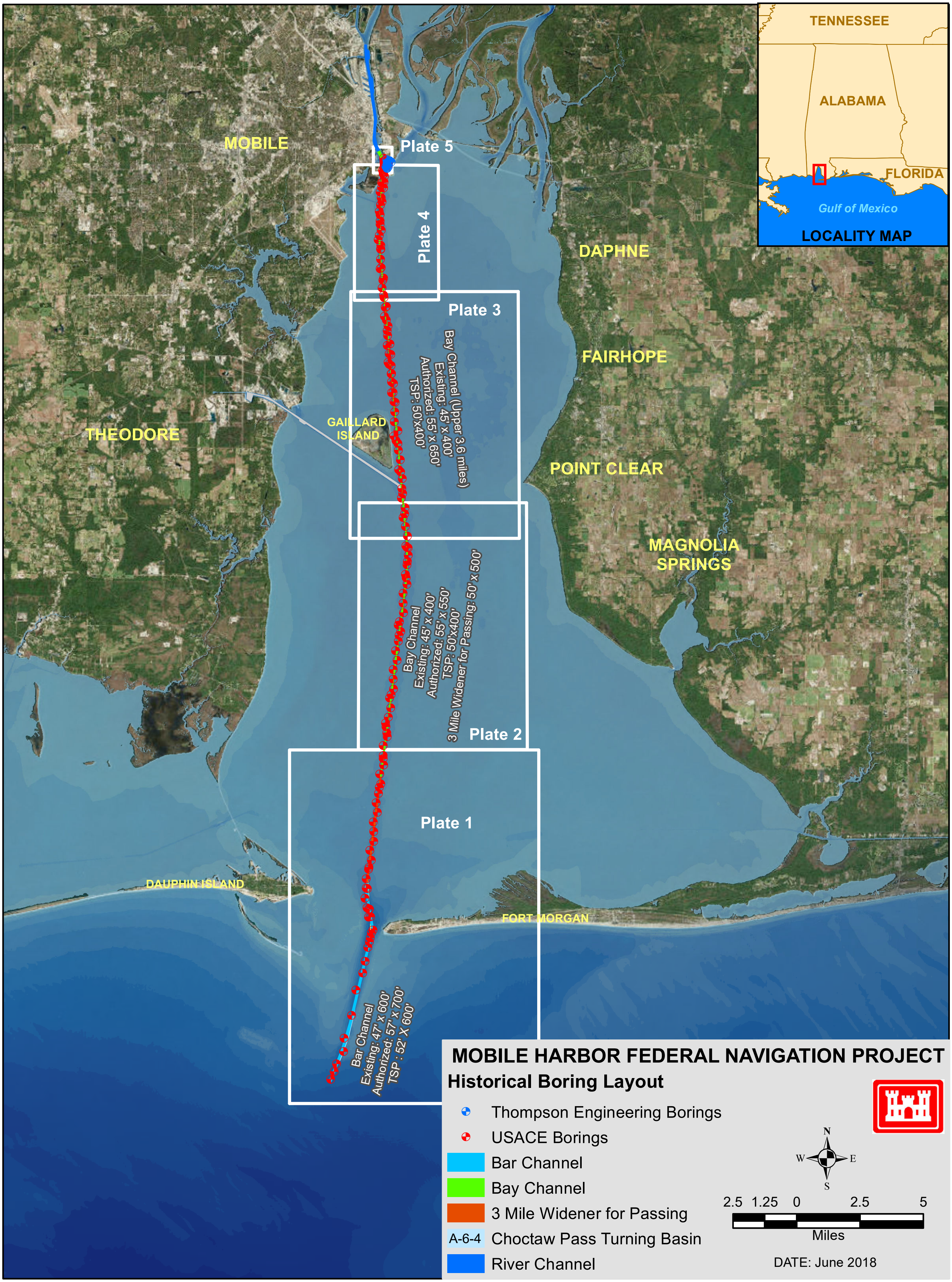
ATTACHMENT A-6

BORING LOGS AND LAB DATA

Table of Contents

SECTION 1. Historical Boring Location Maps

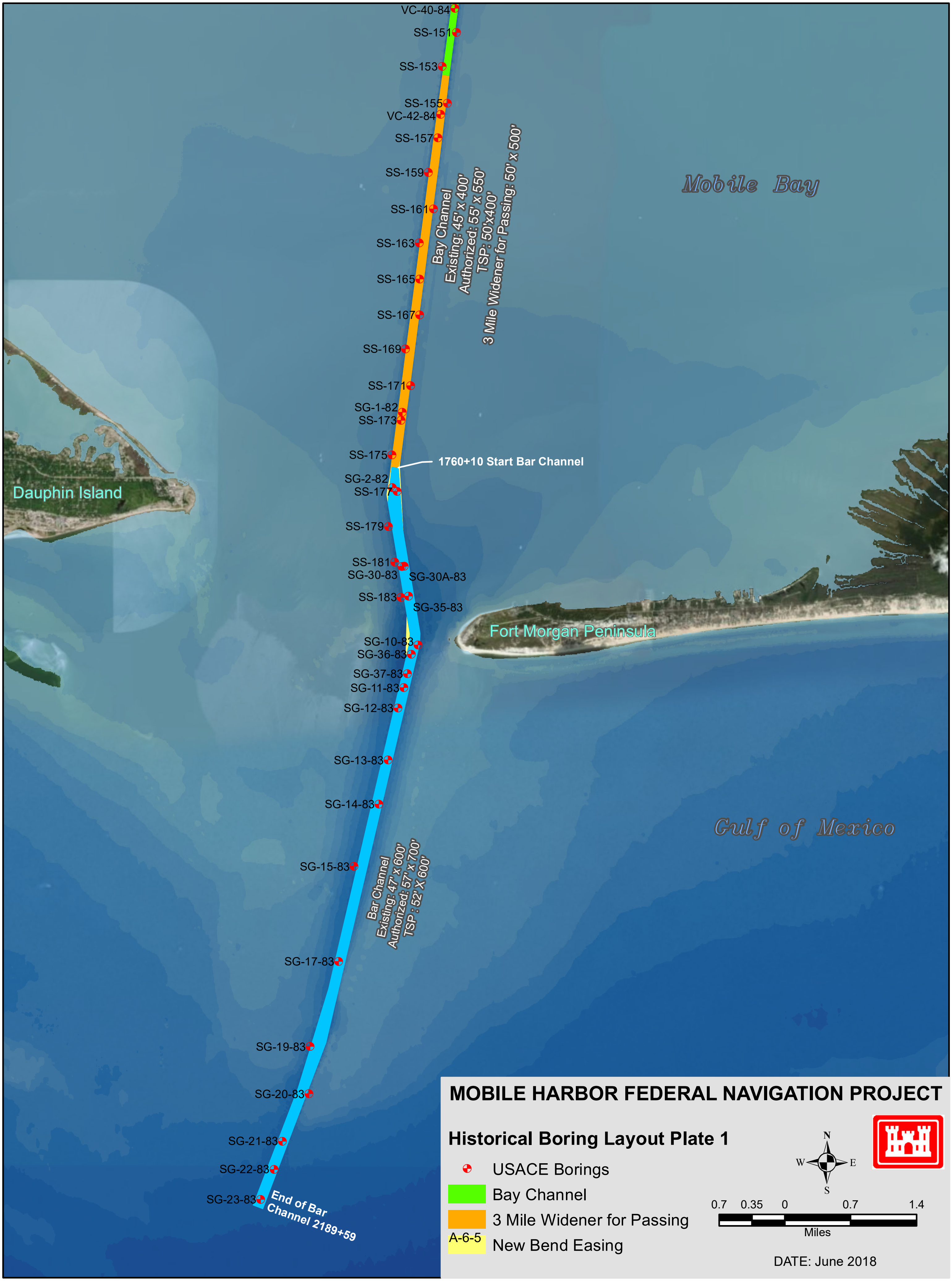


MOBILE HARBOR FEDERAL NAVIGATION PROJECT

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

DATE: June 2018



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

DATE: June 2018

MOBILE HARBOR FEDERAL NAVIGATION PROJECT

Historical Boring Layout Plate 2

DATE: June 2018

MOBILE HARBOR FEDERAL NAVIGATION PROJECT

Historical Boring Layout Plate 3

● USACE Borings

🟩 Bay Channel

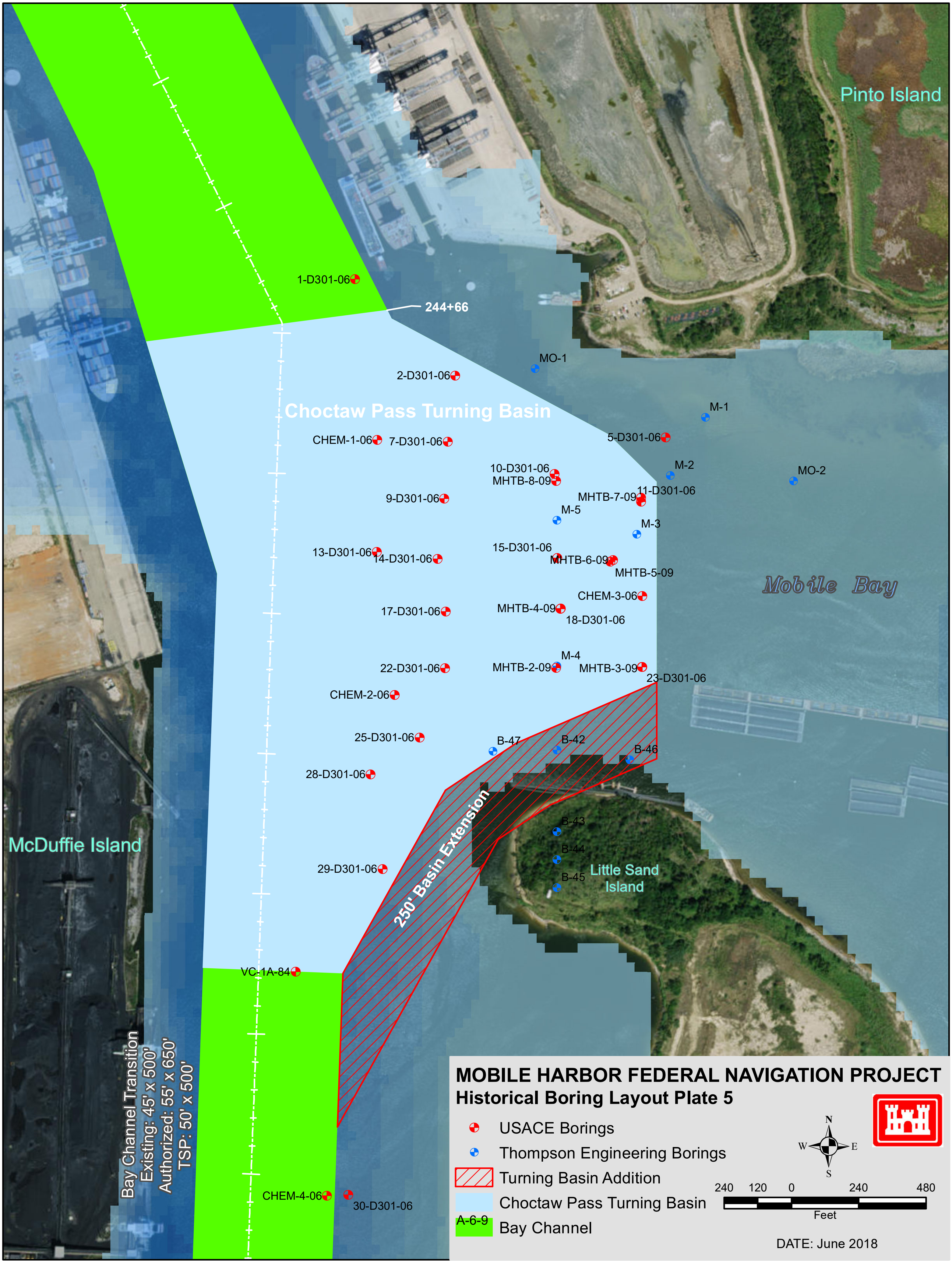
DATE: June 2018

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

DATE: June 2018



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

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, 35, 50/0.3'	- 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	LIOUID 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

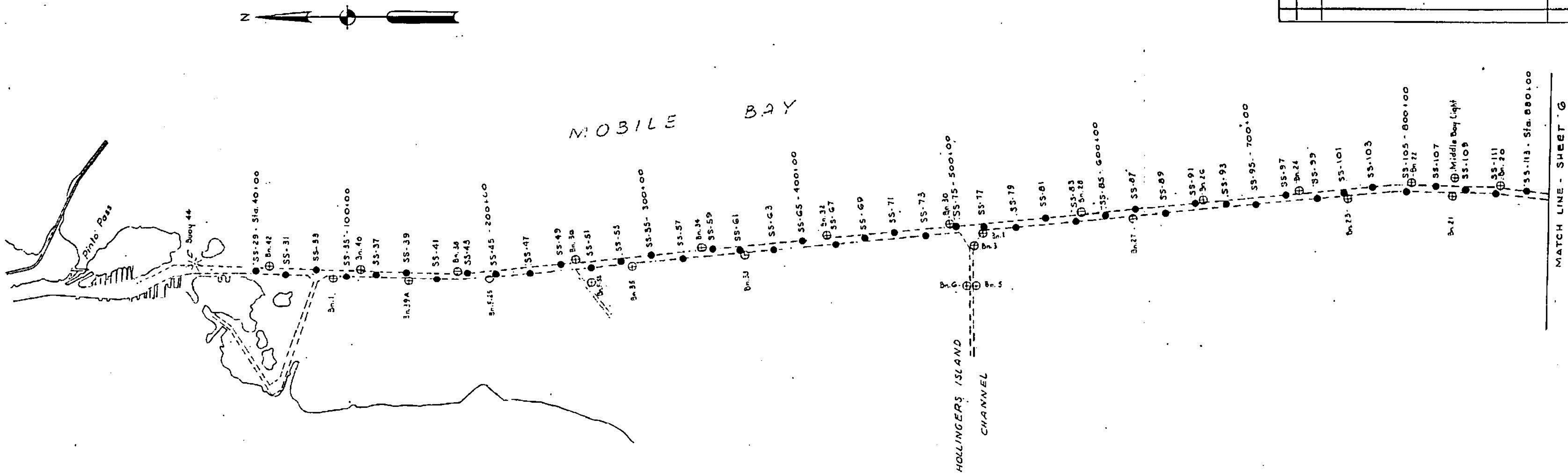
UD	UNDISTUBED
UL	UNACCOUNTABLE LOSS
UNACC	UNACCOUNTABLE
UNWEA	UNWEATHERED
V/	VERY
VERT	VERTICAL
VGY	VUGGY
W.C.	WATER CONTENT
W.L.	WATER LEVEL
W/	WITH
W/H	WEIGHT OF HAMMER
W/R	WEIGHT OF ROD
WD	WOOD
WEA	WEATHERED
WG	WEIGH
WHT	WHITE
X-BDD	CROSS-BEDDED
XL	CRYSTAL
XLN	CYRSTALLINE
YEL	YELLOW

SECTION 3. 1963 to 1964 Subsurface Investigation Boring Profiles

CORPS OF ENGINEERS   U. S. ARMY

REVISIONS

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

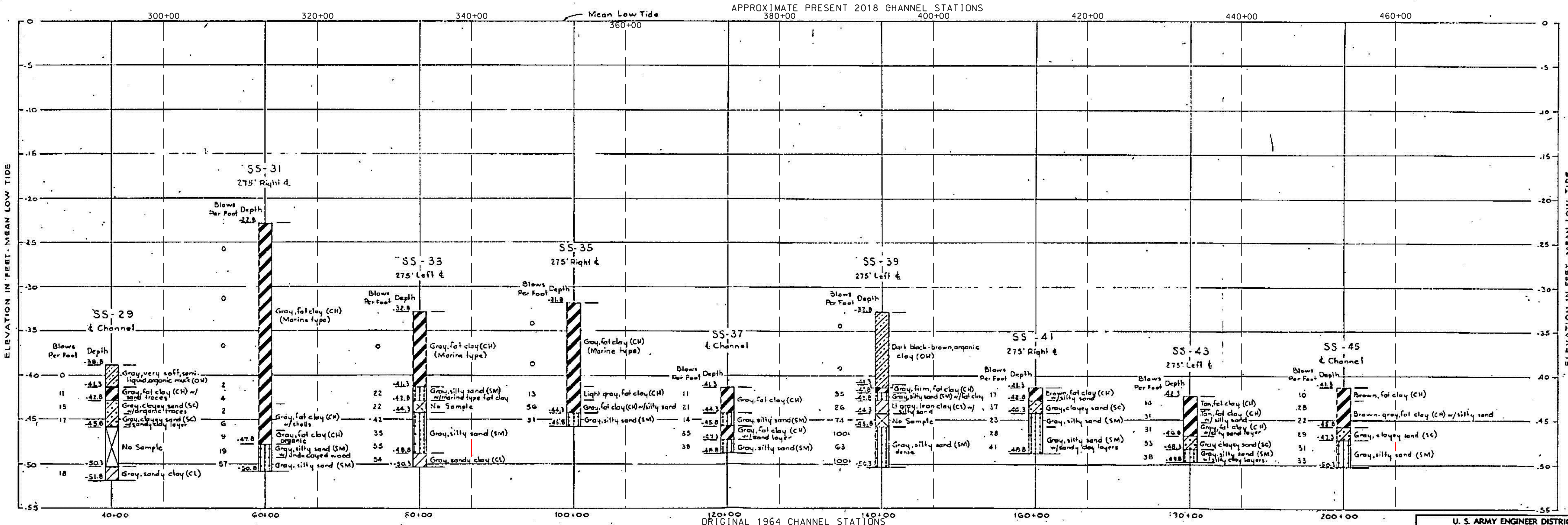


LAYOUT

SCALE IN FEET

0 2000 4000 6000 8000 10,000

APPROXIMATE PRESENT 2018 CHANNEL STATIONS



ORIGINAL 1964 CHANNEL STATIONS

NOTE:
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

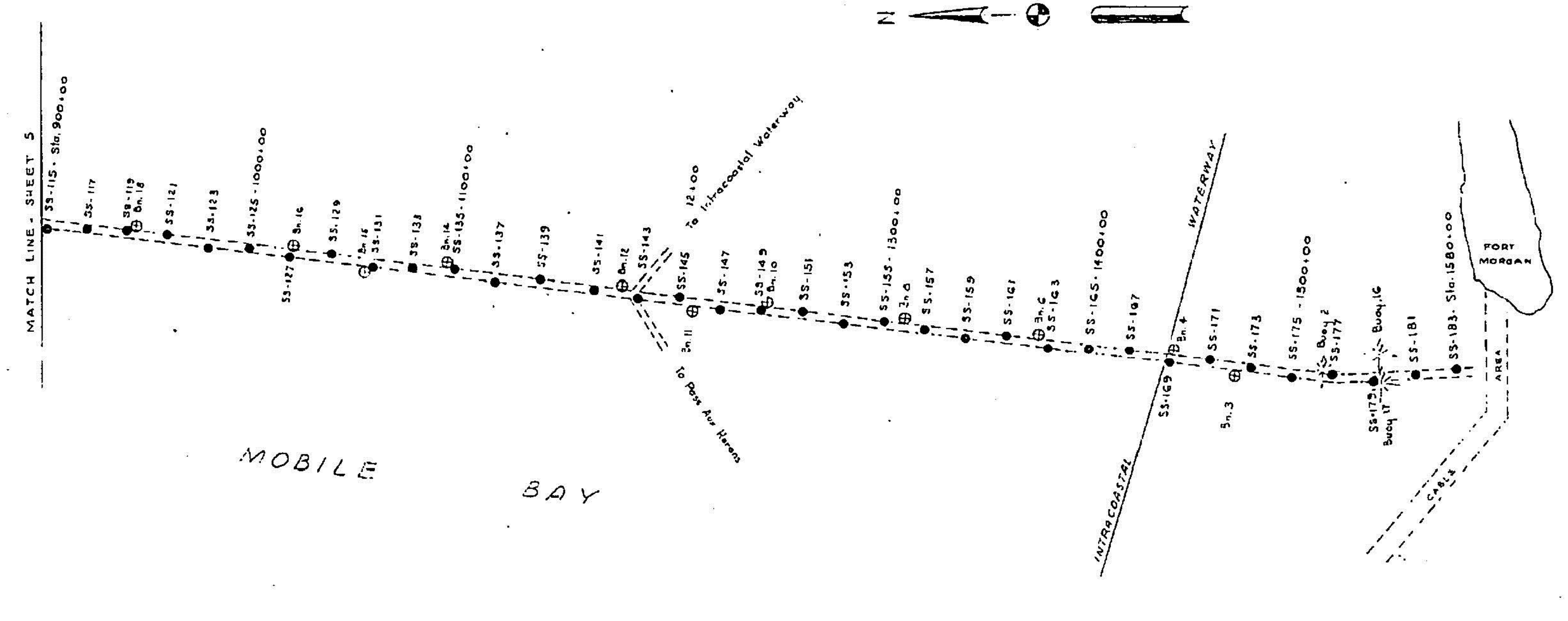
SH. REF. NO.
SPEC. NO. CIVENG-01-076-64-98
SIZE
FILE NO. D-13-2-153
DRAWING NO.
SCALE: AS SHOWN
DATE: MAY 1964.
SHEET 5 of 13

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS

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



LAYOUT

SCALE IN FEET

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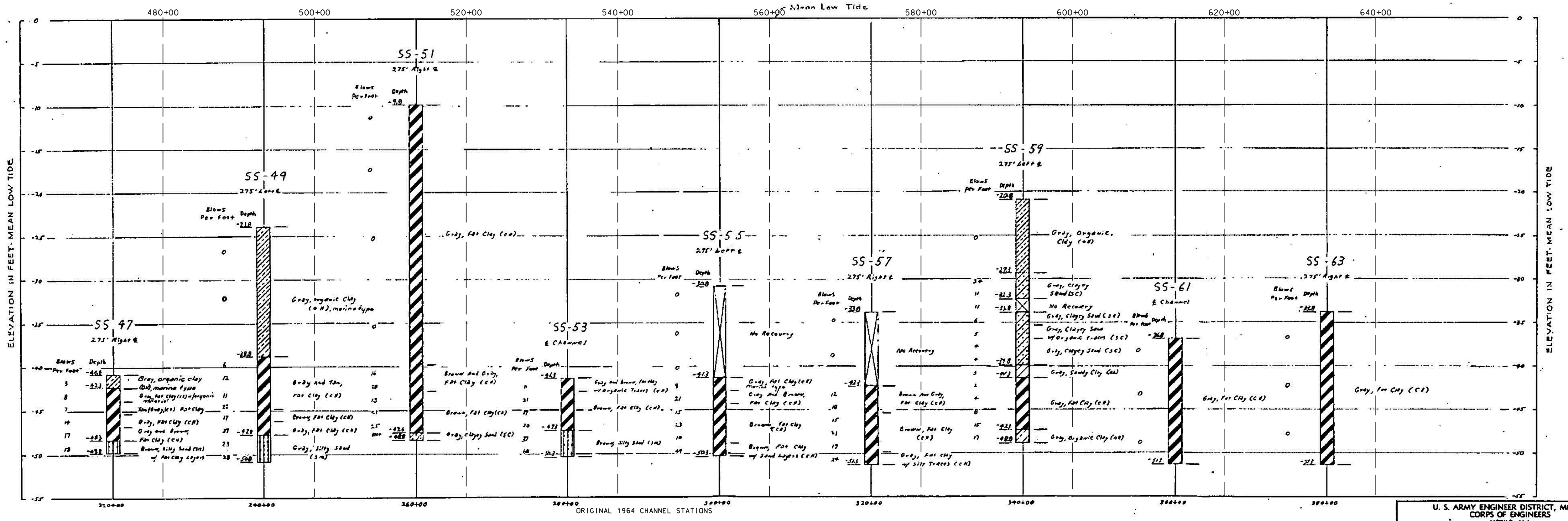


NOTES:

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

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

LEGEND

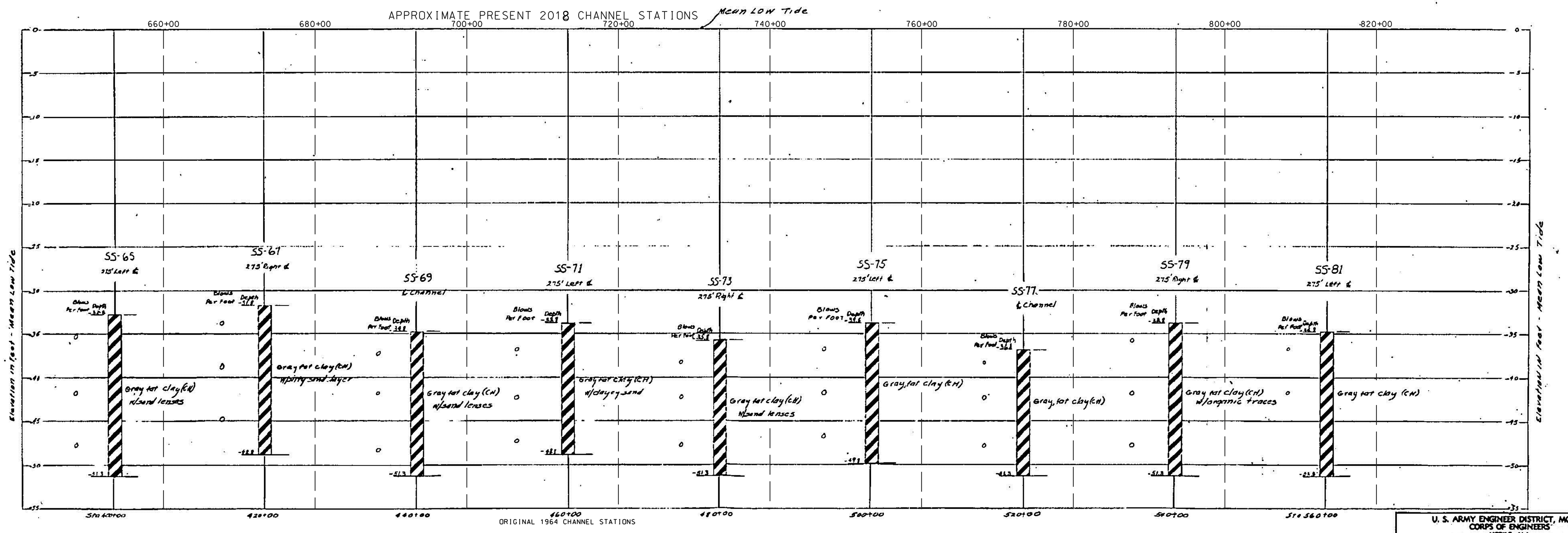
SM	▥	Silty sands, sand-silt mixtures
SC	▨	Clayey sands, sand-clay mixtures
ML	▥	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity
CL	▨	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
CH	▨	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.



NOTE:
For Layout of Borings, see Sheet 5.

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

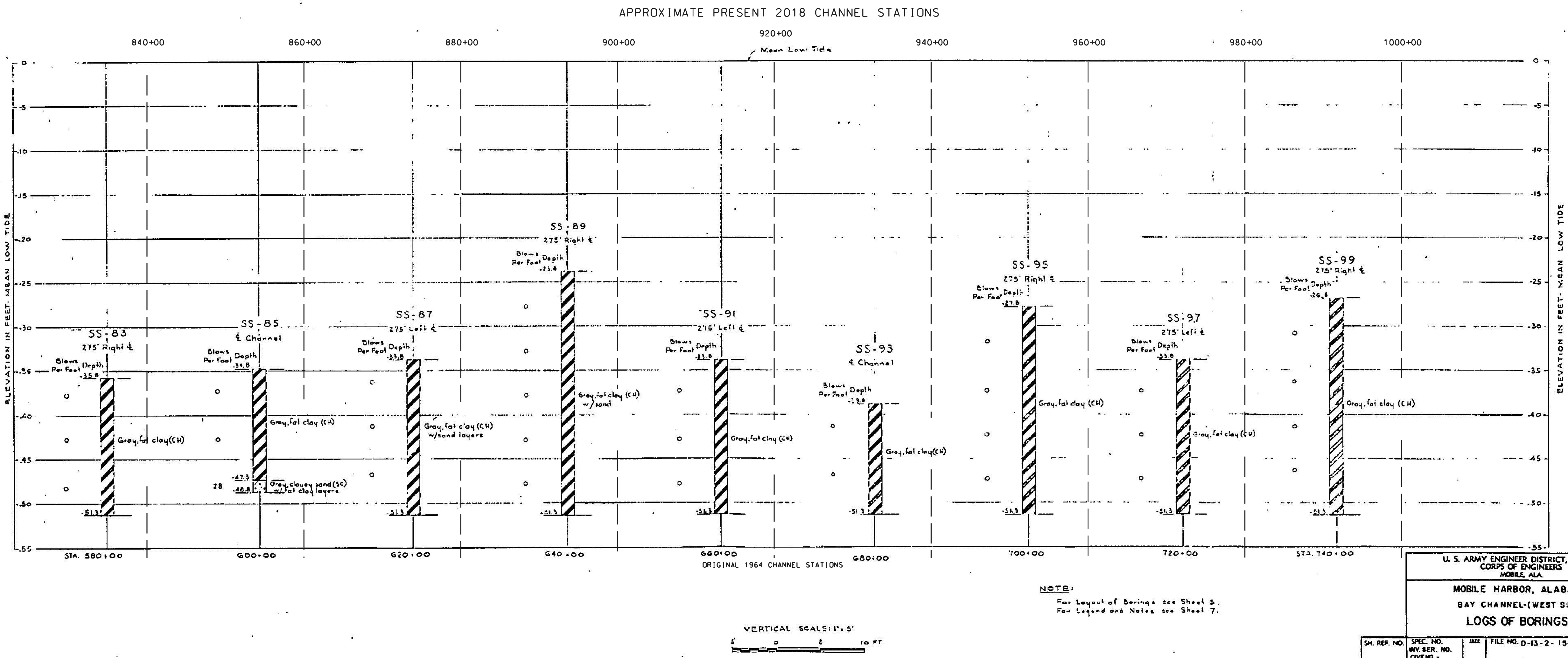
U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

MOBILE HARBOR, ALABAMA
BAY CHANNEL
LOGS OF BORINGS

SH. REF. NO.
SPEC. NO. CIVENG-01-076-64-98
SIZE
FILE NO. D-13-2-155
DRAWING NO.
SCALE: AS SHOWN
DATE: MAY 1964
SHEET 7 of 13

REVISIONS

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



NOTE:
For Layout of Borings see Sheet 5.
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-13-2-156 DRAWING NO.
	SCALE: AS SHOWN	DATE: MAY 1964	SHEET 8 of 13

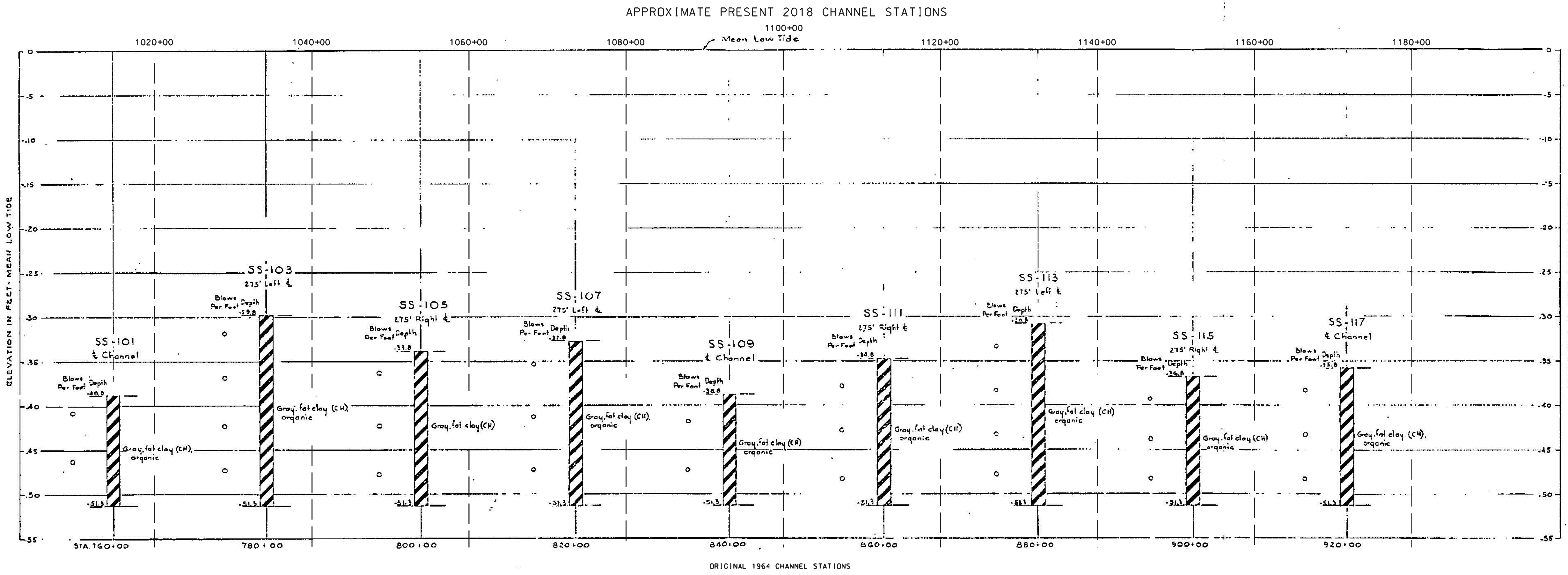
E-1-4

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS

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



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.

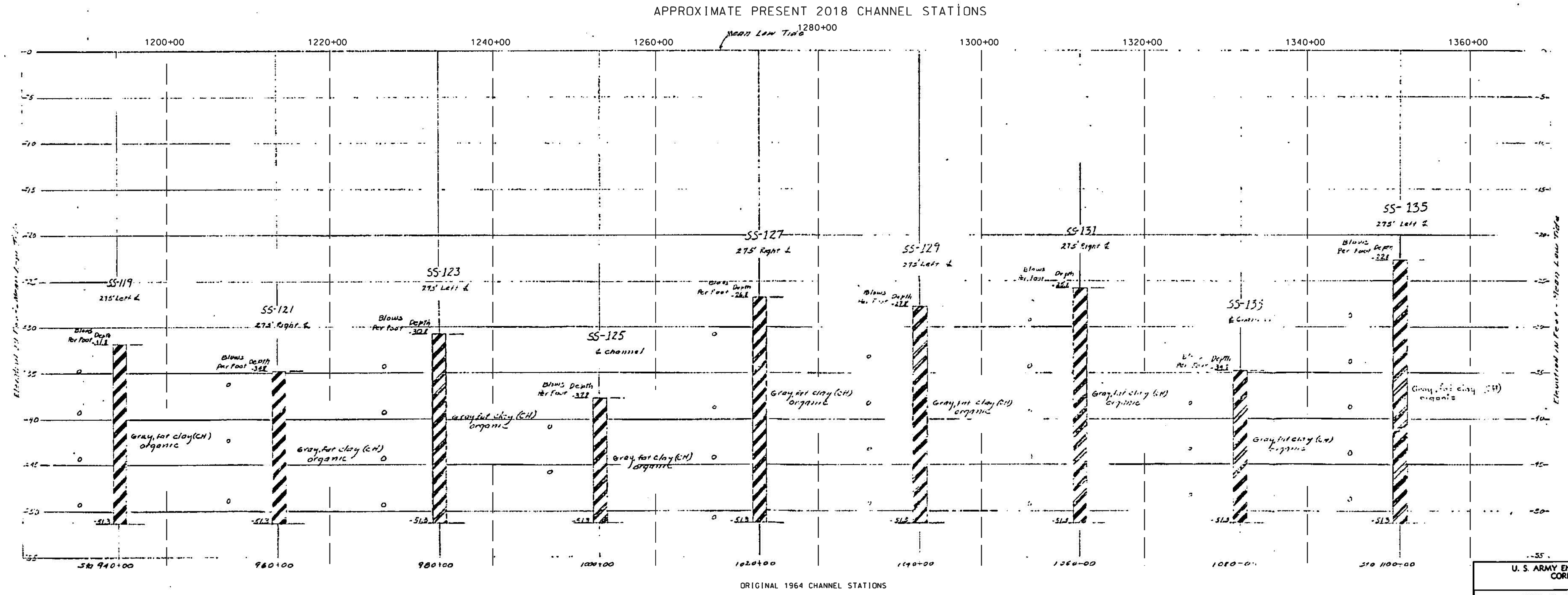
MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)

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

E-1-5

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



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.

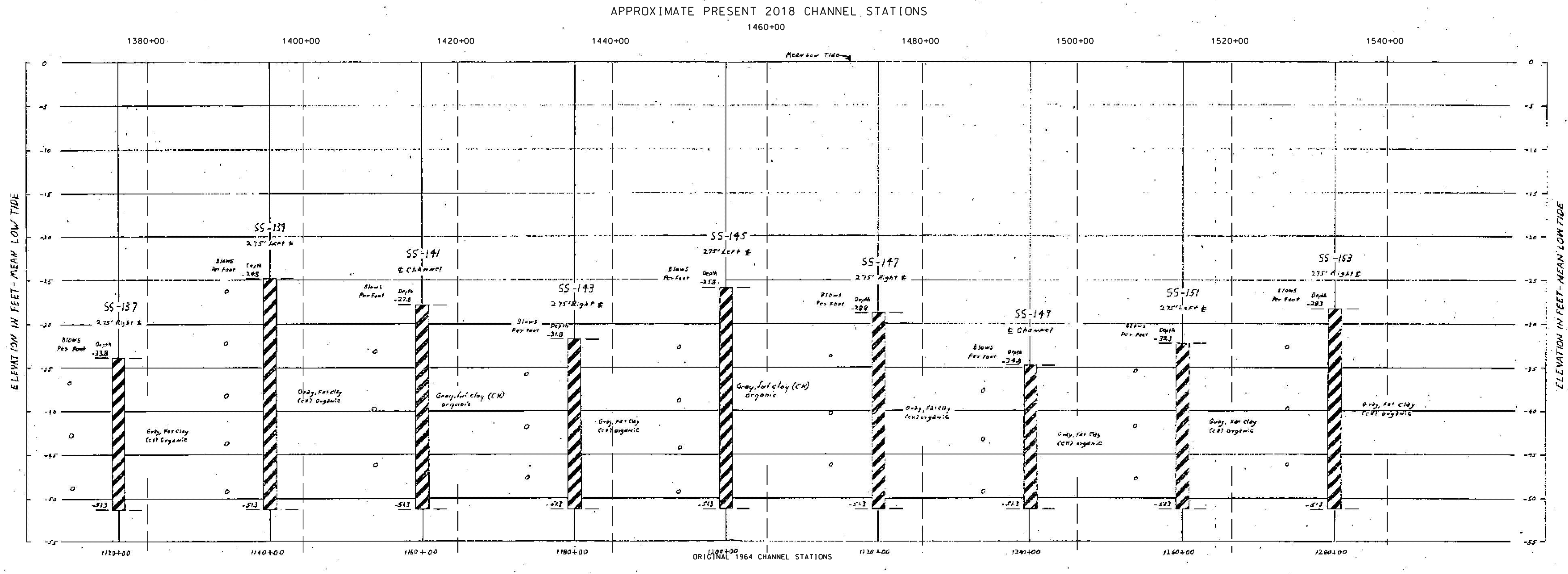
MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

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

E-1-6

REVISIONS

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



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-01-078-64-98
SIZE
FILE NO. D-13-2-159
DRAWING NO.
SCALE: AS SHOWN
DATE: MAY 1964
SHEET 11 of 13

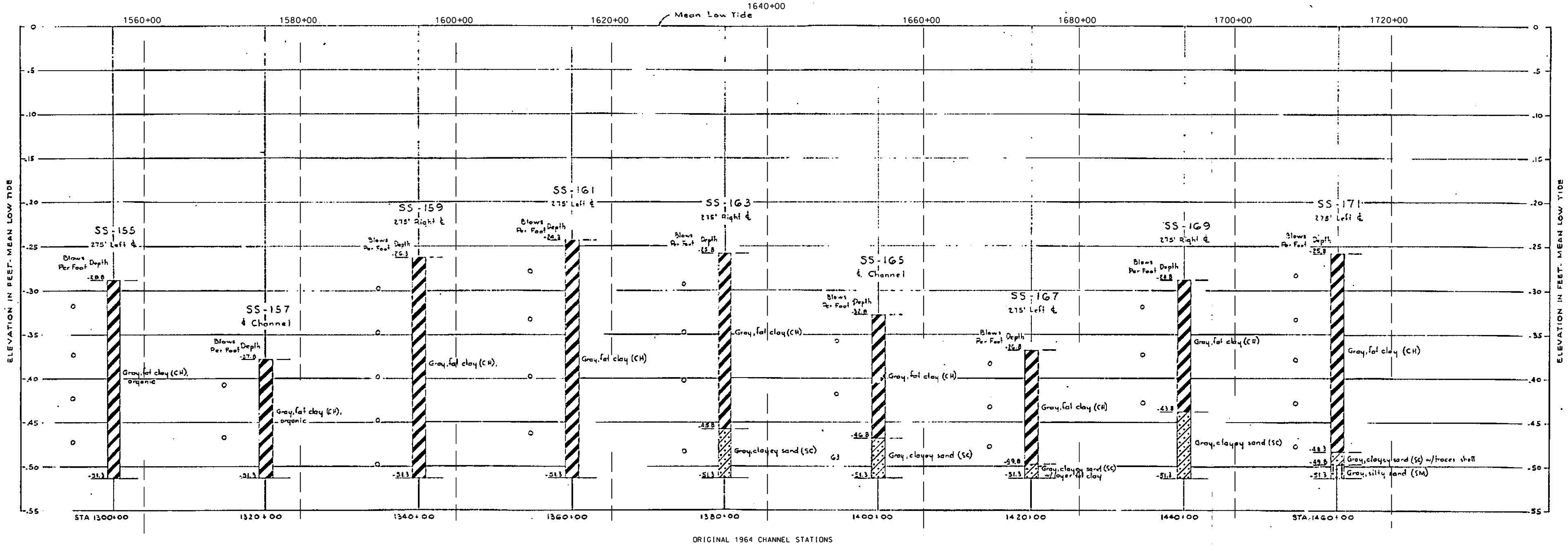
E-1-7

CORPS OF ENGINEERS

U. S. ARMY

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.

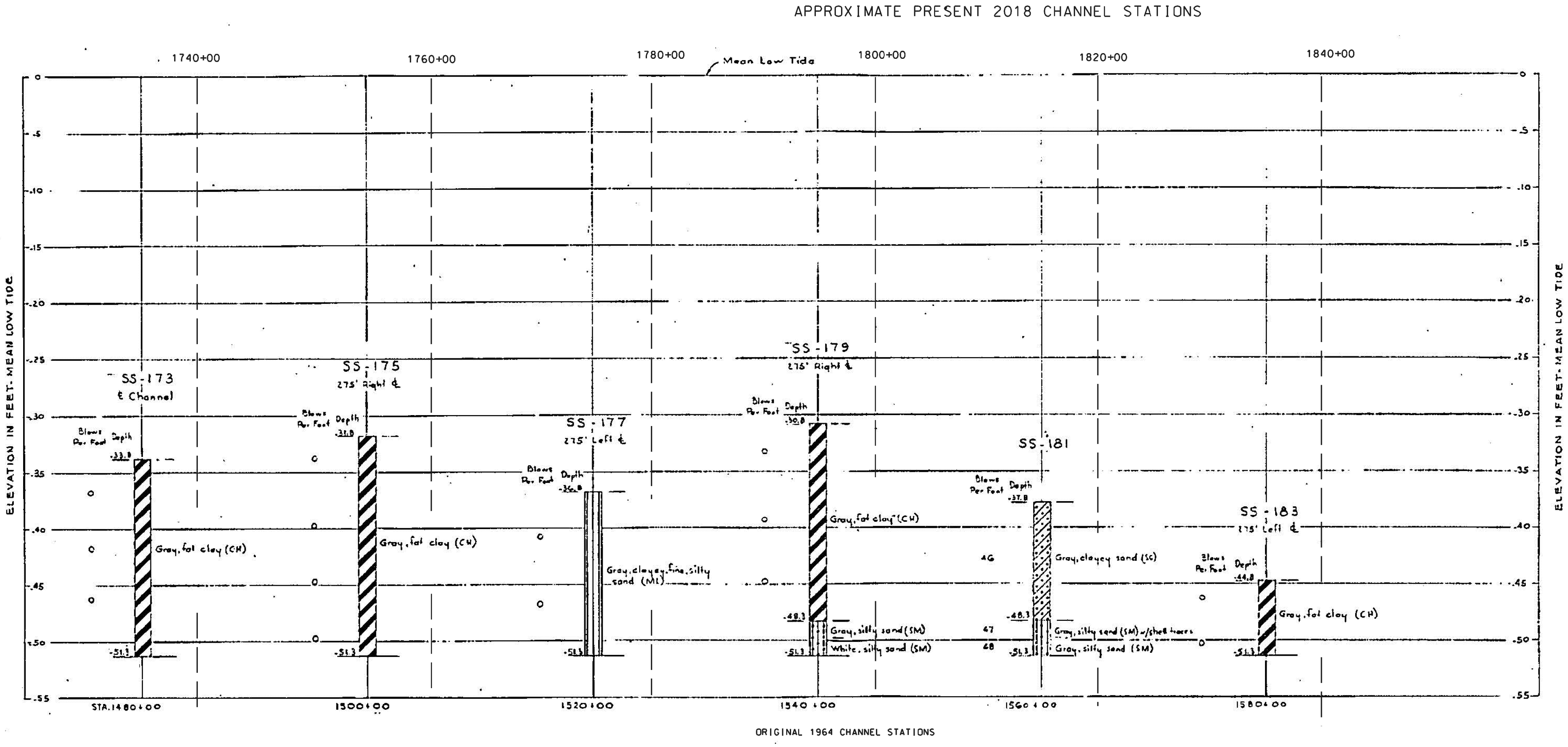
U. S. ARMY ENGINEER DISTRICT, MOBILE
CORPS OF ENGINEERS
MOBILE, ALA.

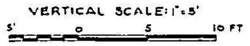
MOBILE HARBOR, ALABAMA
BAY CHANNEL-(WEST SIDE)
LOGS OF BORINGS

SH. REF. NO.
SPEC. NO.
INV. SER. NO.
CIVENG-
01-078-64-98
SCALE: AS SHOWN
SIZE
FILE NO. 0-13-2-160
DRAWING NO.
DATE: MAY 1964
SHEET 12 of 13

E-1-8

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





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. SER. NO.
CIVENG-
01-076-64-98
SIZE
FILE NO. D-13-2-161
DRAWING NO.
SCALE: AS SHOWN
DATE: MAY 1964
SHEET 13 of 13

E-1-9

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
2. LOCATION (Coordinates or Station) 2400' N BN 42 N. 239,560 E. 333,410
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SS-3-70
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 150.5'
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 5-5-70 | COMPLETED 5-5-70
17. ELEVATION TOP OF HOLE -4.0'
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	
	-4.0			
30	5.5		GRAYISH BROWN PR. GRD. SILTY SAND (SP-SM)	1
	6.0		NO SAMPLE	FISHTAILED
	9.0			
33	10.5		GRAYISH BROWN SILTY SAND (SM)	10
	12.0		NO SAMPLE	FISHTAILED
	14.0			
27	15.0 15.5		GRAYISH BROWN PR. GRD. SILTY SAND (SP-SM)	7
	18.0		NO SAMPLE	FISHTAILED
	19.0			
26	20.5		BROWN PR. GRD. SILTY SAND (SP-SM)	5
	21.0		NO SAMPLE	FISHTAILED
	24.0			
30	25.5		BROWN PR. GRD. SILTY SAND (SP-SM)	7/6
			NO SAMPLE	FISHTAILED
	27.0			
			CONT. ON SHEET 2	

MOB FORM 927
FEB 74

HOLE NO. SS-3-70

BORING LOG -S-(Cont Sheet)

ELEVATION TOP OF HOLE -40'

PROJECT MOBILE HARBOR IMPROVEMENTS

INSTALLATION **Mobile District**

SHEET 2 OF 5 SHEETS

W/C %	DEPTH	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	27.0		NO SAMPLE	FISHTAILED
27	29.0 30.5		BROWN PR. GRD. SILTY SAND (SP-SM)	10
			NO SAMPLE	FISHTAILED
25	34.0 35.5		TAN-BROWN SILTY SAND (SM)	19
			NO SAMPLE	FISHTAILED
41	39.0 40.5		TAN-BROWN SILTY SAND (SM)	35
			NO SAMPLE	FISHTAILED
19	44.0 45.5		TAN-BROWN SILTY SAND (SM)	34
			NO SAMPLE	FISHTAILED
15	49.0 50.5		LT. TAN PR. GRD. SILTY SAND (SP-SM) W/PEA GV.	48
			NO SAMPLE	FISHTAILED
21	54.0 55.5		TAN PR GRD. SILTY SAND (SP-SM) W/PEA. GV.	52
			NO SAMPLE	FISHTAILED
24	59.0 60.5		TAN PR GRD. SILTY SAND (SP-SM)	64
			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
19	64.0		TAN PR. GRD. SAND (SP)	83
	65.5		NO SAMPLE	FISHTAILED
16	69.0		TAN & GRAY CLAYEY SAND (SC) W/ GV.	82
	70.5		NO SAMPLE	FISHTAILED
24	74.0		BROWN PR. GRD SILTY SAND (SP-SM)	94
	75.5		NO SAMPLE	FISHTAILED
27	79.0		TAN PR. GRD. SAND (SP) W/TR. GV.	100+
	80.5		NO SAMPLE	FISHTAILED
28	84.0		GRAYISH TAN PR. GRD SAND (SP) W/TR. GV.	100+
	85.5		NO SAMPLE	FISHTAILED
29	89.0		GRAYISH TAN PR. GRD. SAND (SP) W/ TR. GV.	94
	90.5		NO SAMPLE	FISHTAILED
	94.0			

CONT. ON SHT. 4

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	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
29	94.0 95.5		GRAY FAT CLAY (CH)	25
	99.0		NO SAMPLE	FISHTAILED
26	100.5		GRAY SILTY FAT CLAY (CH) W/ SOME FINE SAND	28
	104.0		NO SAMPLE	FISHTAILED
29	105.5		TAN PR. GRD. SAND (SP)	60
	109.0		NO SAMPLE	FISHTAILED
28	110.5		TAN PR. GRD. SAND (SP)	55
	114.0		NO SAMPLE	FISHTAILED
23	114.5		TAN PR. GRD. SAND (SP)	100+
	119.0		NO SAMPLE	FISHTAILED
20	119.4		TAN PR. GRD. SAND (SP)	100+
	124.0		NO SAMPLE	FISHTAILED
19	124.4		TAN PR. GRD. SAND (SP)	100+
	129.0		NO SAMPLE	FISHTAILED

MOB FORM 927-A APR 74 R.C.

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
	134.0			
26	134.5		GRAYISH TAN PR. GRD. SAND(SP) COARSE	100+
			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	
	145.5			86
			NO SAMPLE	FISHTAILED
	149.0			
20			GRAY PR. GRD. SILTY SAND (SP-SM)	47
	150.5			
			BOTTOM OF HOLE	

MOB FORM 827-A R.C.
APR 74

HOLE NO. SS-3-70

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

1. PROJECT MOBILE HARBOR IMPROVEMENTS
2. LOCATION (Coordinates or Station) 1200' N BH42 N. 238,350 E. 333,380
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SS-4-70'
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 150.2'
10. SIZE AND TYPE OF BIT SPLITSPOON & FISHTAIL
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL
12. MANUFACTURER'S DESIGNATION OF DRILL FAILING (CD-47)
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 5-15-70 COMPLETED 5-15-70
17. ELEVATION TOP OF HOLE -3.7'
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 3.7		WATER	
34	5.2		BROWNISH GRAY SILTY FINE SAND (SM)	2
	6.0 8.7		NO SAMPLE	FISHTAILED
31	9.0 10.2		BROWNISH GRAY SILTY FINE SAND (SM) W/TR. OF SHELL	3
	12.0 13.7		NO SAMPLE	FISHTAILED
30	15.0 15.2		BROWNISH GRAY SILTY FINE SAND (SM) W/TR. OF SHELL	5
	18.0 18.7		NO SAMPLE	FISHTAILED
34	20.2		GRAY SANDY FAT CLAY(CH) W/TR. OF SHELL	5
	21.0 23.7		NO SAMPLE	FISHTAILED
39	24.0 25.2		GRAY FAT CLAY (CH)	4
	27.0		NO SAMPLE	FISHTAILED
			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)	5
	30.2		NO SAMPLE	FISHTAILED
22	33.7		LT. GRAY SILTY FINE SAND (SM)	32
	35.2		NO SAMPLE	FISHTAILED
25	38.7		LT. GRAY SILTY FINE SAND (SM)	48
	40.2		NO SAMPLE	FISHTAILED
26	43.7		TAN SILTY FINE SAND (SM)	84
	45.2		NO SAMPLE	FISHTAILED
25	48.7		TAN PR. GRD SILTY SAND (SP-SM)	78
	50.2		NO SAMPLE	FISHTAILED
23	53.7		TAN PR. GRD SAND (SP)	77
	55.2		NO SAMPLE	FISHTAILED
27	58.7		TAN PR. GRD SAND (SP)	75
	60.2		NO SAMPLE	FISHTAILED
	61.0		CONT. ON SHT. 3	

MOB 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	SYM.	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	61.0		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 -5-(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)	100+
			NO SAMPLE	FISHTAILED
27	98.7 99.7		TAN PR. GRD. SAND (SP) COARSE	100+
			NO SAMPLE	FISHTAILED
28	103.7 105.2		TAN PR. GRD. SAND (SP) COARSE	94
			NO SAMPLE	FISHTAILED
24	108.7 110.2		TAN PR. GRD. SAND (SP) COARSE	100+
			NO SAMPLE	FISHTAILED
28	113.7 114.2		TAN PR. GRD. SAND (SP) COARSE	100+
			NO SAMPLE	FISHTAILED
21	118.7 120.2		TAN PR. GRD SAND (SP) COARSE	95
			NO SAMPLE	FISHTAILED
24	123.7 125.2		GRAYISH BROWN PR. GRD. SAND (SP) COARSE	100+
	126.0		NO SAMPLE	FISHTAILED
			CONT. ON SHT. 5	

MOB FORM 927-A APR 74 R.C.

HOLE NO. SS-4-70

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

MOB FORM 927-A APR 74 R.C.

HOLE NO. SS-4-82

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) OPPOSITE BN 42 N. 237,120 E. 333,285		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-5-70	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 4-22-70 COMPLETED 4-23-70
8. DEPTH DRILLED INTO ROCK		17. ELEVATION TOP OF HOLE -6.5	
9. TOTAL DEPTH OF HOLE	153.0'	18. TOTAL CORE RECOVERY FOR BORING N/A %	
		19. SIGNATURE OF INSPECTOR C. DAVIS	

W/C %	DEPTH	CLASSIFICATION OF MATERIALS (DESCRIPTION)	STANDARD-PENETRATION (BLOWS PER FOOT) 0 20 40 60
	0.0 3.0 6.0	WATER	FISHTAILED
18	6.5 8.0	DK. GRAY CLAYEY, FN. SAND (SC) W/ SHELL	WH
	9.0 11.5	NO SAMPLE	FISHTAILED
29	12.0 13.0	GRAY SILTY FN. SAND (SM)	1
	15.0	NO SAMPLE	FISHTAILED
26	16.5 18.0	GRAY SILTY FN. SAND (SM)	4
	21.0	NO SAMPLE	FISHTAILED
30	21.5 23.0	GRAY SILTY FN. SAND (SM)	5
	24.0 26.5	NO SAMPLE	FISHTAILED
56	27.0 22.0	GRAY FAT CLAY (CH)	2

MOB FORM 927
APR 74

CONT. ON SHT. 2

HOLE NO. SS-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)	8
	33.0	☒		
		☒	NO SAMPLE	FISHTAILED
	36.5	▨		
86		▨	GRAY FAT CLAY (CH)	5
	38.0	☒		
		☒	NO SAMPLE	FISHTAILED
88	41.5	▨		
		▨	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
16	56.5	▨		
		▨	TAN-BROWN FR. GRD. SILTY SAND (SP-SM)	33
	58.0	☒		
		☒	NO SAMPLE	FISHTAILED
	61.5			55
			CONT ON SHT 2	

HOLE NO. SS-5-70

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	63.0		GRAYISH BROWN PR GRD. SILTY SAND (SP-SM)	55
			NO SAMPLE	FISHTAILED
19	66.5 68.0		TAN PR. GRD. SAND (SP)	42
			NO SAMPLE	FISHTAILED
14	71.5 73.0		TAN PR. GRD. SAND (SP)	100+
			NO SAMPLE	FISHTAILED
18	76.5 78.0		LT. TAN PR. GRD. SAND (SP)	100+
			NO SAMPLE	FISHTAILED
20	81.5 83.0		LT. TAN PR. GRD. SAND (SP)	76
			NO SAMPLE	FISHTAILED
20	86.5 88.0		TAN PR GRD. SAND (SP)	56
			NO SAMPLE	FISHTAILED
19	91.5 93.0		TAN PR GRD. SAND (SP)	53
	96.5		NO SAMPLE	FISHTAILED

MOB FORM 927-A
APR 74

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

MOB FORM 927-A
APR 74

HOLE NO. [illegible]-6 70

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

PROJECT	INSTALLATION	SHEET
MOBILE HARBOR IMPROVEMENTS	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	FISHTAIL
	136.5 136.9	·	TAN PR. GRD. SAND (SP) CSE.	100+
		☒	NO SAMPLE	FISHTAIL
	141.5 142.0	·	TAN PR. GRD. SAND (SP) CSE	100+
		☒	NO SAMPLE	FISHTAIL
	146.5 148.0	▨	GRAY SANDY FAT CLAY (CH) W/TR GV.	18
		☒	NO SAMPLE	FISHTAIL
	151.5 153.0	▥	LT GRAY SILTY SAND (SM)	37
			BOTTOM OF HOLE	

MOB FORM 927-A
APR 74

HOLE NO. SS 5 70

Hole No. CD-2-72

DRILLING LOG

DIVISION: SAD

INSTALLATION: MOBILE DISTRICT

SHEET 1 OF 1 SHEETS

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

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

1. PROJECT MOBILE SHIP CHANNEL
2. LOCATION (Coordinates or Station) STA. NO. 4, 300' W. CHANNEL ℄ @ BEACON NO. 17
3. DRILLING AGENCY MDO
4. HOLE NO. (As shown on drawing title and file number) CD-4-72
5. NAME OF DRILLER DOBBS
6. DIRECTION OF HOLE ☑ VERTICAL ☐ INCLINED ________ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE 50.2' (EL.
10. SIZE AND TYPE OF BIT 3" SHELBY TUBE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) STAFF GAGE, NOT CORR'TD. FOR TIDE
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN | DISTURBED — | UNDISTURBED 8
14. TOTAL NUMBER CORE BOXES —
15. DEPTH OF WATER 12.7'
16. DATE HOLE | STARTED 9-21-72 | COMPLETED 9-22-72
17. ELEVATION TOP OF HOLE
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. 8. MOVED BARGE APPROX. 10' NORTH OF CD-4-72 FISH TAILED TO DEPTH -47.7, THEN PUSHED SAMPLE NO. 8 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. SI., 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

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

PROJECT MOBILE SHIP CHANNEL | HOLE NO. CD-4-72

Hole No. CD-5-72

DRILLING LOG	DIVISION SAD	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 1 SHEETS

1. PROJECT
MOBILE SHIP CHANNEL

2. LOCATION (Coordinates or Station) STA NO.5, 500' Y/.
CHANNEL ℄ @ BEACON NO. 12.

3. DRILLING AGENCY
MDO

4. HOLE NO. (As shown on drawing title and file number) CD-5-72

5. NAME OF DRILLER
DOBBS

6. DIRECTION OF HOLE
☑ VERTICAL ☐ INCLINED ______ DEG. FROM VERT.

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE 50.2' (EL.

10. SIZE AND TYPE OF BIT 3" SHELBY TUBE

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
STAFF GAGE, NOT COR'TD FOR TIDE

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN | DISTURBED — | UNDISTURBED 8

14. TOTAL NUMBER CORE BOXES —

15. DEPTH OF WATER 12.7'

16. DATE HOLE | STARTED 9-22-72 | COMPLETED 9-22-72

17. ELEVATION TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING — %

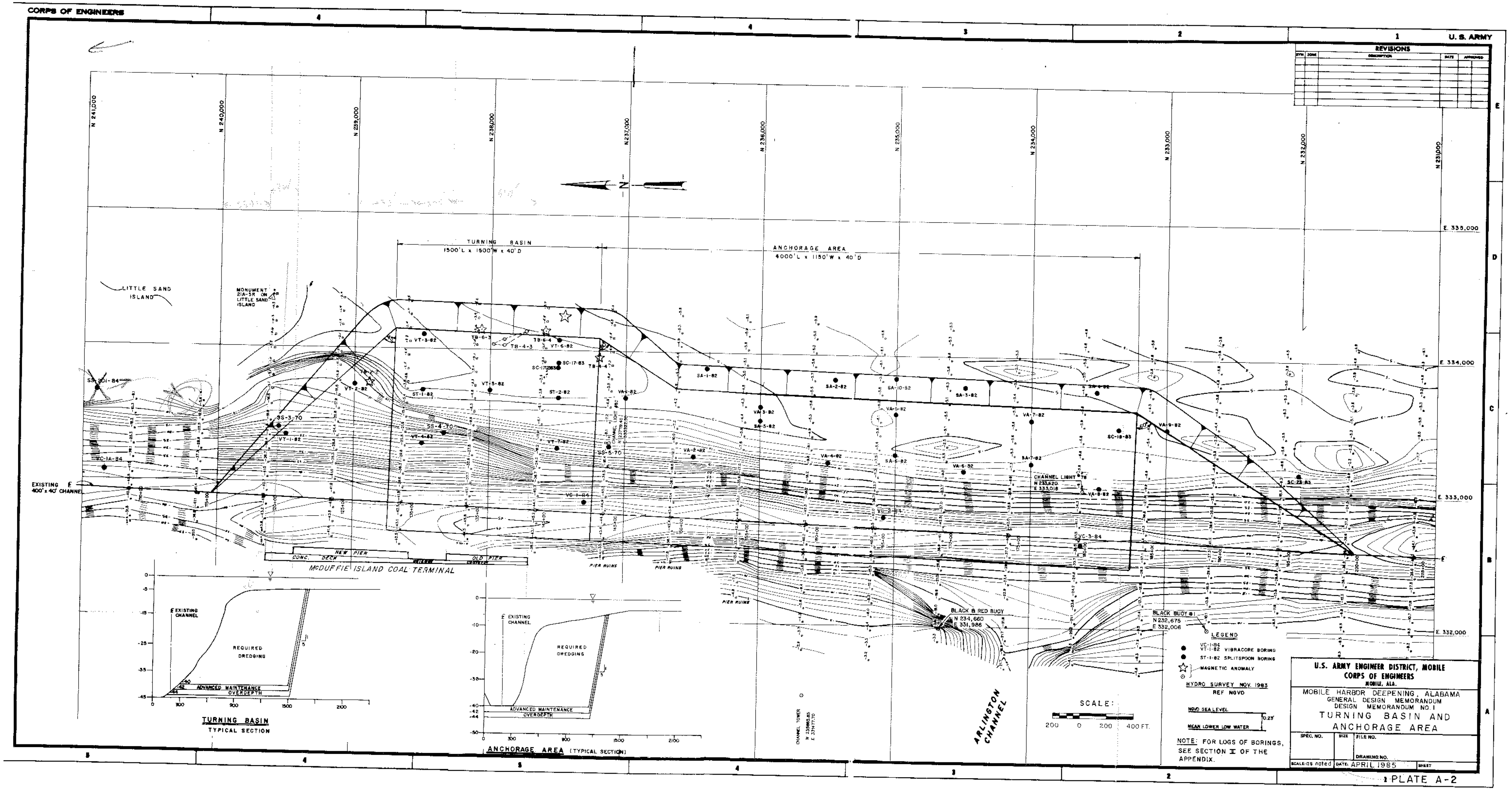
19. SIGNATURE OF INSPECTOR
WILSFORD

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	
		☒	NO SAMPLE			NOTE: CONDITION OF SAMPLE NO. 6 QUESTIONABLE. SAMPLE LOST. RE-ENTERED HOLE & RECOVERED 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

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

PROJECT MOBILE SHIP CHANNEL | HOLE NO. CD-5-72

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



LEGEND

- ● VC-1-84 VT-1-82 VIBRACORE BORING
- ● ST-1-82 SPLITSPOON BORING
- ☆ ⊙ MAGNETIC ANOMALY

HYDRO SURVEY NOV. 1983
REF NGVD

NGVD 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. I
TURNING BASIN AND
ANCHORAGE AREA

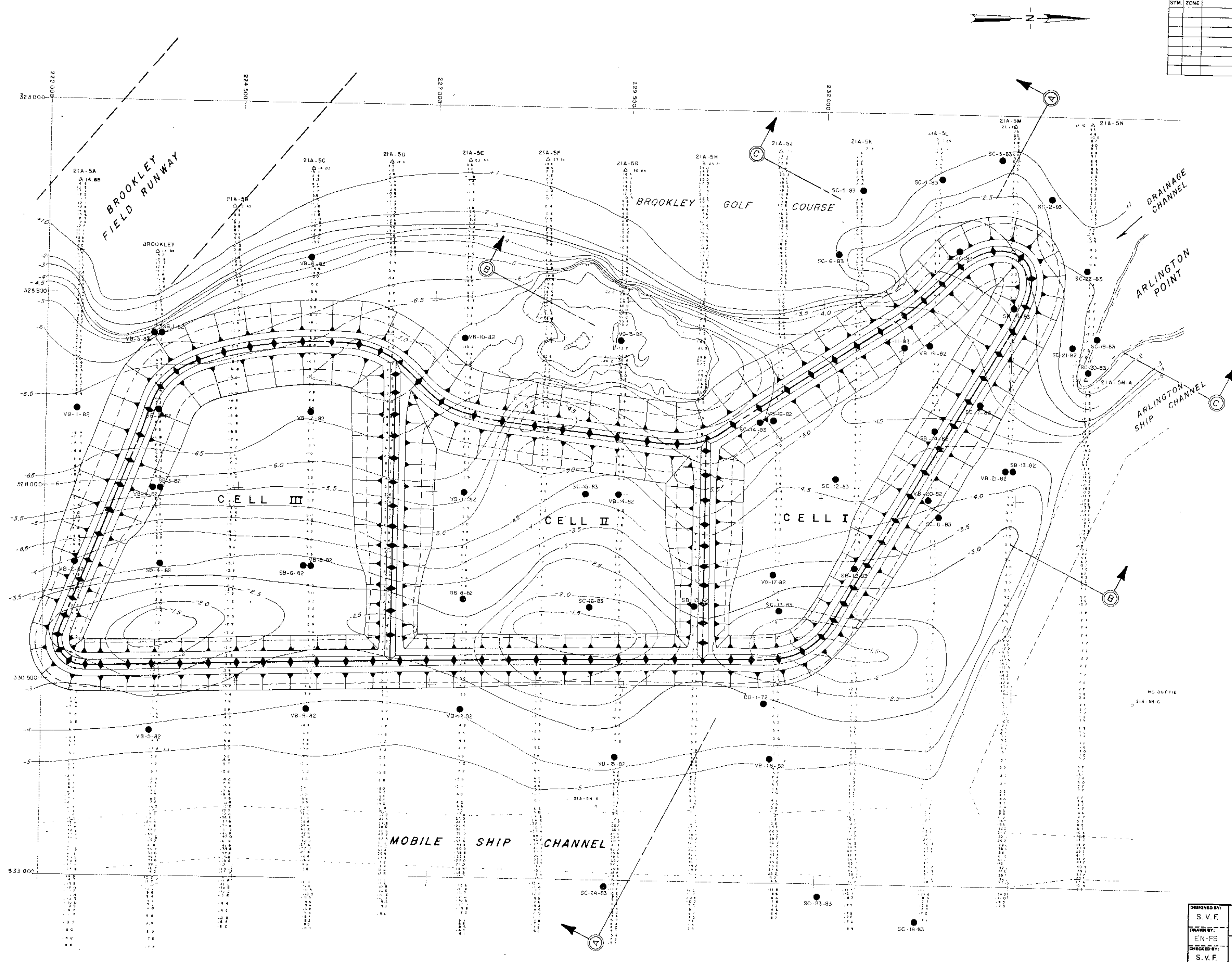
SPEC. NO.
SIZE
FILE NO.
DRAWING NO.
SCALE: as noted
DATE: APRIL 1985
SHEET

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

DESIGNED BY: S.V.F.
DRAWN BY: EN-FS
CHECKED BY: S.V.F.
SUPERVISED BY: S.V.F.

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

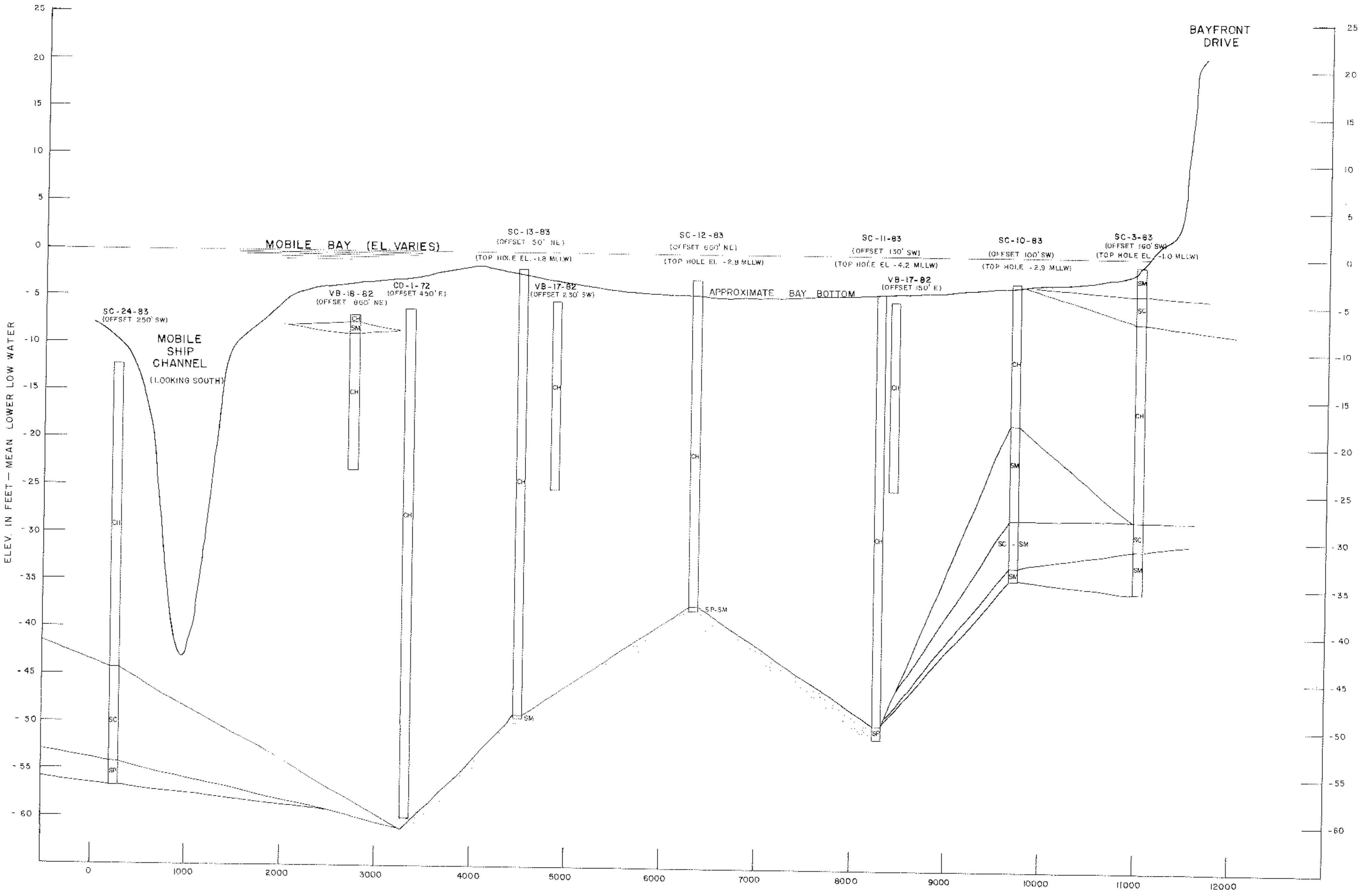
MOBILE HARBOR DEEPENING, ALABAMA
GENERAL DESIGN MEMORANDUM
DESIGN MEMORANDUM NO. 1
BROOKLEY CONTAINMENT AREA

SH. REF. NO.
SPEC. NO.
SIZE
FILE NO.
DRAWING NO.
DATE: APRIL 1985
SHEET

1 PLATE A-3

REVISIONS

SYM.	ZONE	DESCRIPTION	DATE	APPROVED



LEGEND

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

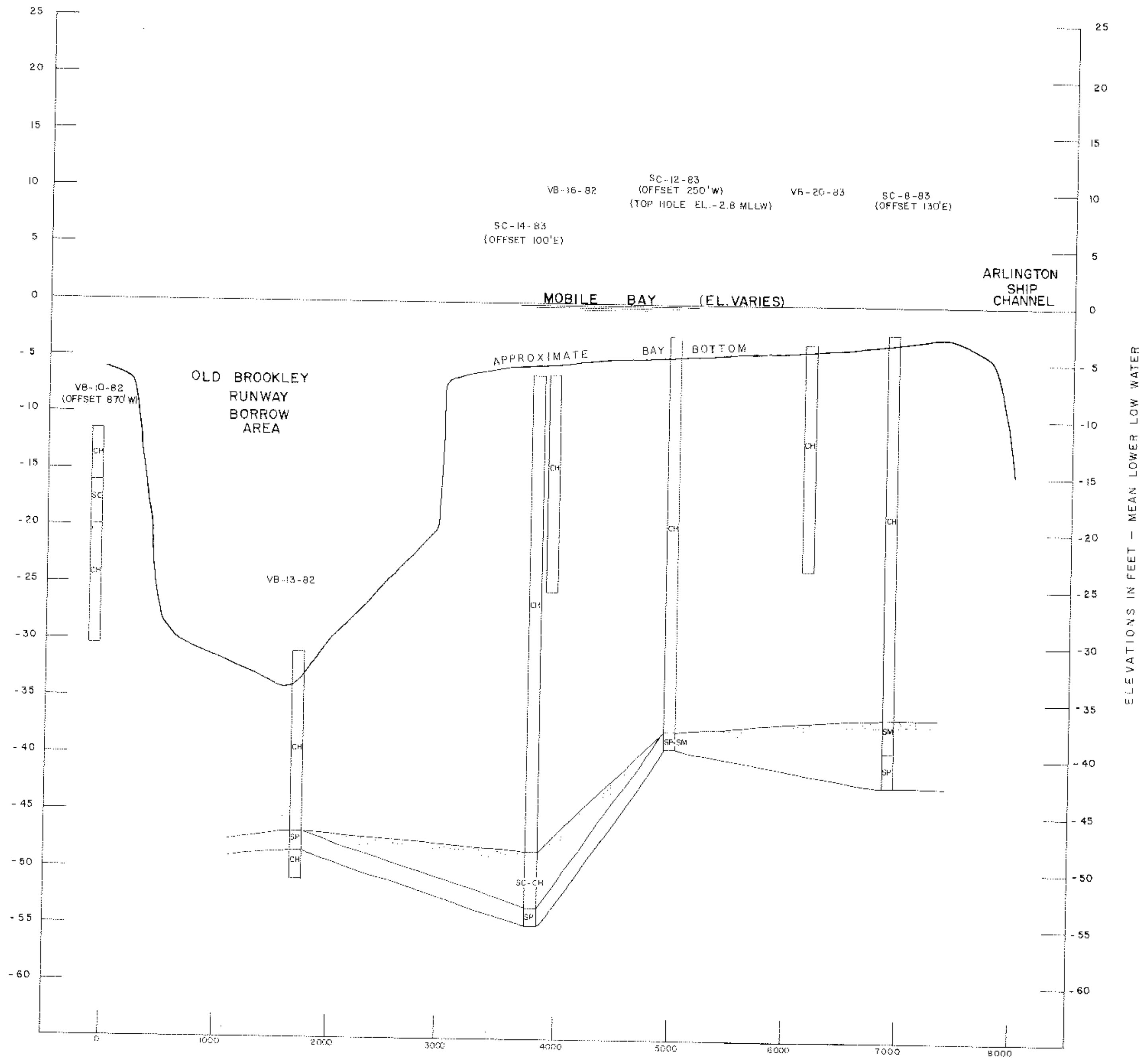
GEOLOGIC SECTION A-A

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

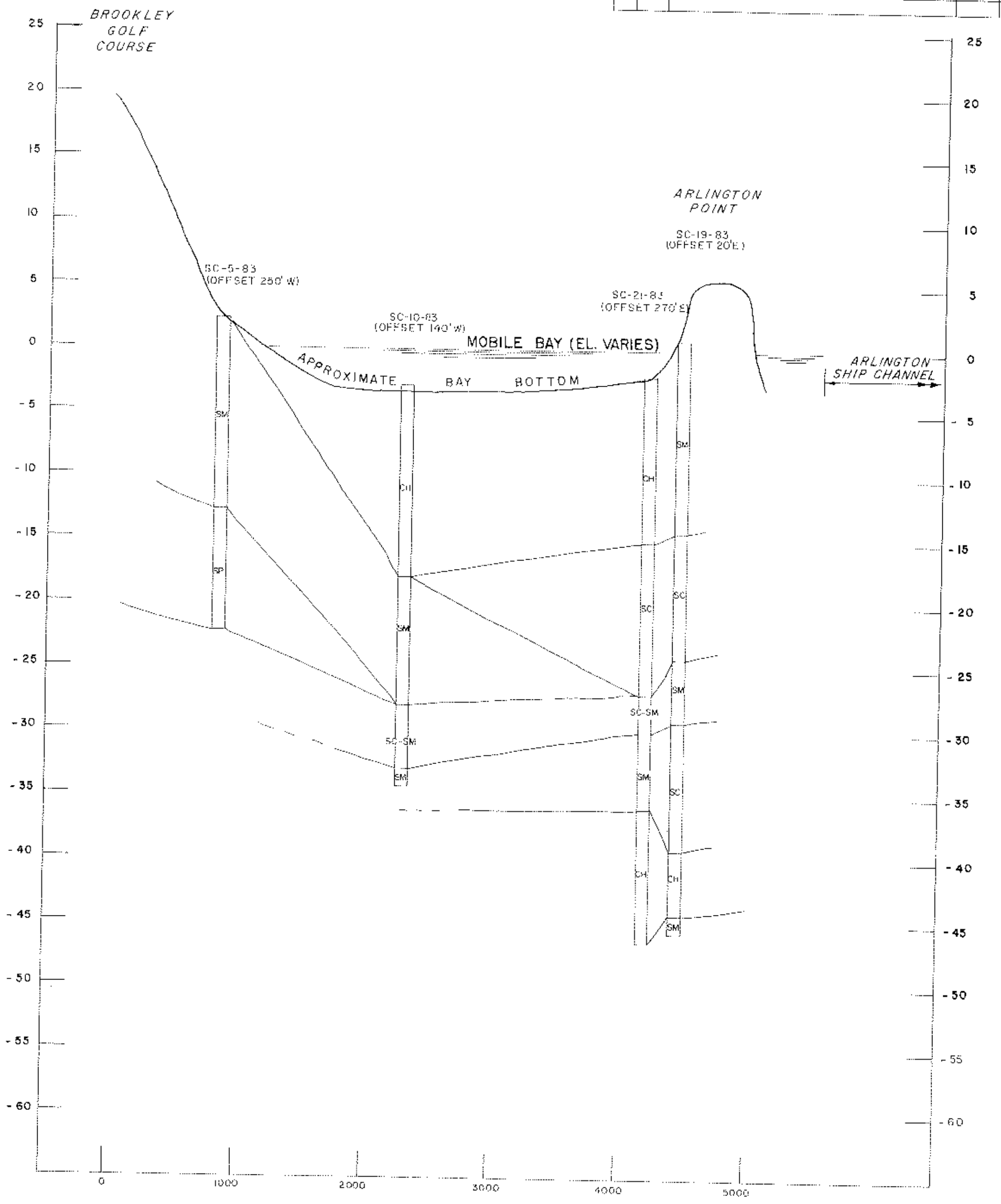
DESIGNED BY: S.L.L.	**U.S. ARMY ENGINEER DISTRICT, MOBILE** **CORPS OF ENGINEERS** **MOBILE, ALA.**
DRAWN BY: R.S.C.	MOBILE HARBOR DEEPENING, ALABAMA GENERAL DESIGN MEMORANDUM DESIGN MEMORANDUM NO. I
CHECKED BY: S.V.F.	BROOKLEY CONTAINMENT FOUNDATION
SUPERVISED BY: S.V.F.	GEOLOGIC SECTION A — A
SH. REF.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

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

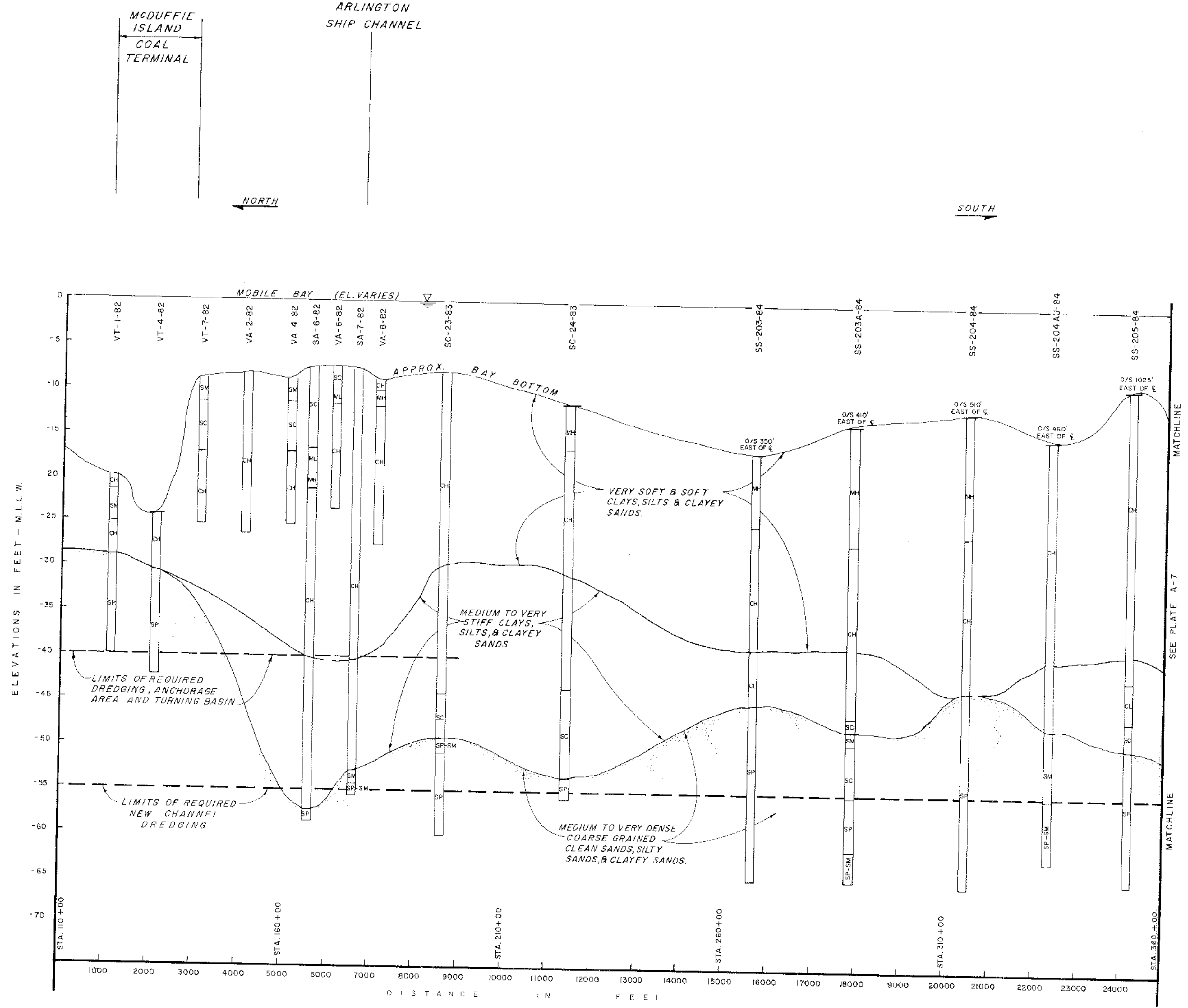
DESIGNED BY: S.L.L.
DRAWN BY: R.S.C.
CHECKED BY: S.V.F.
SUPERVISED BY: S.V.F.

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

MOBILE HARBOR DEEPENING, ALABAMA
GENERAL DESIGN MEMORANDUM
DESIGN MEMORANDUM NO. 1
BROOKLEY CONTAINMENT FOUNDATION
GEOLOGIC SECTIONS B-B & C-C

SH. REF. NO.
SPEC. NO.
SIZE
FILE NO.
DRAWING NO.
SCALE:
DATE: APRIL 1985
SHEET

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED



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.

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

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

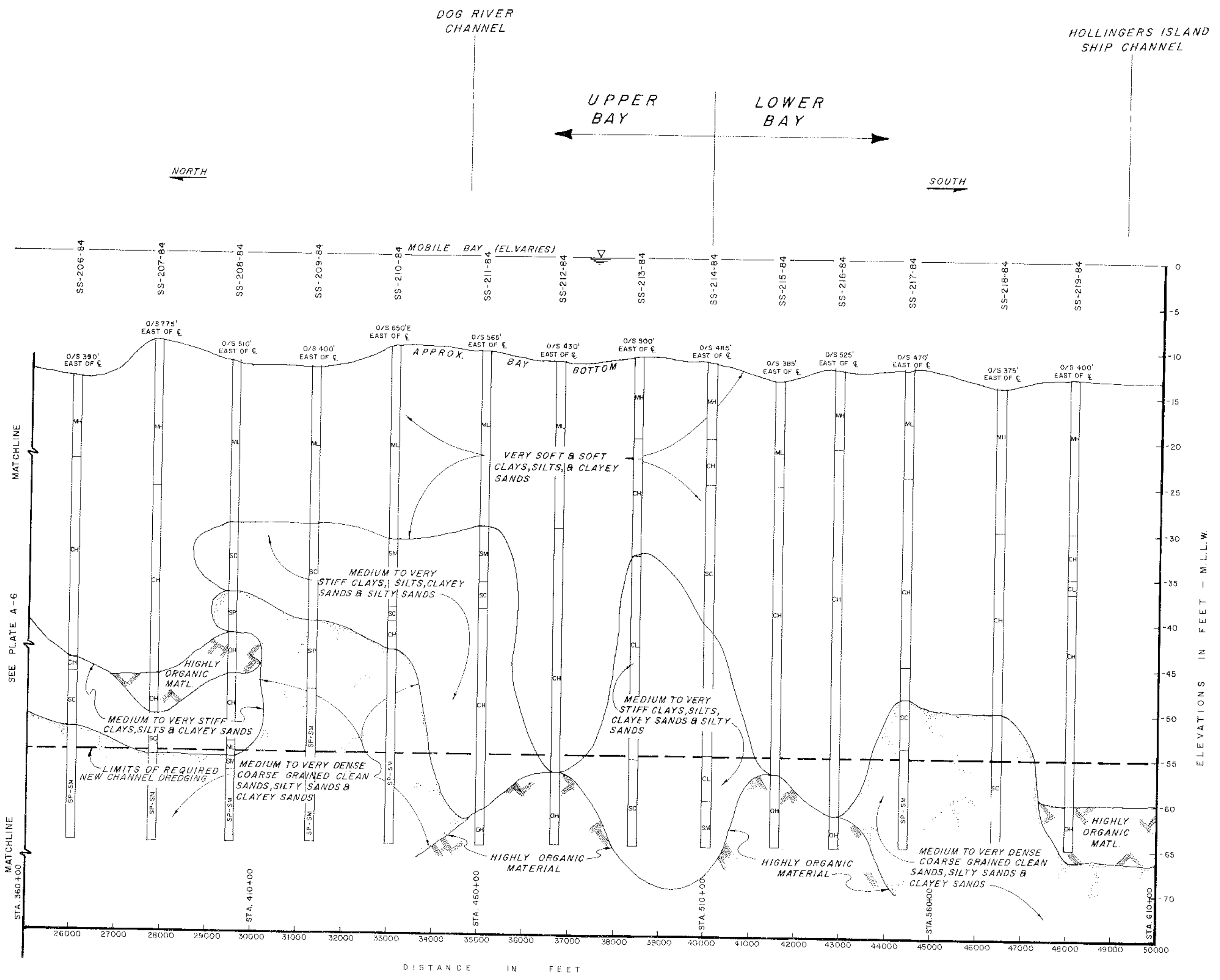
GEOLOGIC SECTION

SH. REF. NO.
SPEC. NO.
SIZE
FILE NO.
DRAWING NO.
SCALE:
DATE: APRIL, 1985
SHEET

CORPS OF ENGINEERS

U. S. ARMY

REVISIONS				
SYM.	ZONE	DESCRIPTION	DATE	APPROVED



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.

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

MOBILE HARBOR DEEPENING, ALABAMA
GENERAL DESIGN MEMORANDUM
DESIGN MEMORANDUM NO. 1
CHANNEL STA. 360+00 TO STA. 610+00

GEOLOGIC SECTION

SH. REF. NO. 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 330,200
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 (TBM or MSL) MSL
12. MANUFACTURER'S DESIGNATION OF DRILL F-314 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 (0.0)
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
63	0.0		GREENISH GRAY SILTY SANDY FAT CLAY (CH)	WR
48	1.5		GREENISH GRAY SILTY FAT CLAY (CH) W/A LITTLE SAND	
51	3.0		GREENISH GRAY FAT CLAY (CH) W/SOME SAND, LL = 52, PL = 17, PI = 35, -200 = 78.0%	3
43	4.5		GREENISH GRAY FAT CLAY (CH) W/SOME SAND	4
54	6.0		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND & SHELL	6
60	7.5		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND, LL = 86, PL = 27, PI = 59, -200 = 95.8%	10
59	9.0		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND & SHELL	8
56	10.5		GREENISH GRAY FAT CLAY (CH) W/TR. OF SAND	8
55	12.0		DK. BROWN SILTY FAT CLAY (CH) W/SOME SAND, -200 = 69.3%	11
63	13.5		DK. BROWN SILTY FAT CLAY (CH) W/SOME SAND	10
104	15.0		DK. BROWN SILTY FAT CLAY (CH) W/A LITTLE SAND & TR. DECAYED WOOD, LL ORG.	12
52	16.5		DK. BROWN FAT CLAY (CH) W/TR. SAND & DECAYED WOOD	15
	18.0		GREENISH GRAY FAT CLAY (CH) W/SOME SAND & TR. OF DECAYED WOOD	12
	19.5		GREENISH GRAY CLAYEY SAND (SC-H) HIGH LL	10
	21.0			20
	22.5		BOTTOM OF HOLE	
	24.0			
	27.0			

NOTES:
(1) [illegible]
(2) COORDINATES ARE ± 50'
(3) DEPTHS & ELEVATIONS ARE ± 2.0'

MOB FORM 927 1-C APR 74

HOLE NO. SG-1-82

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 329,650
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: 2" SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: F-314 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 (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 20 40 60
	0.0			
174			GREENISH GRAY SILTY FAT CLAY (CH)W/ SOME SAND	WR
172	1.5		GREENISH GRAY FAT CLAY (CH) W/A LITTLE SAND, -200 = 83.8%	
57	3.0		W/A TR. OF SAND LL: 81 PL: 22 PI: 59	
60	4.5			
65	6.0		W/TR. OF SAND & SHELL	
55	7.5		W/TR OF SAND, -200 = 94.9%	4
59	9.0		W/TR. OF SAND & SHELL	8
59	10.5		W/A LITTLE SAND & TR. OF SHELL	5
39	12.0		W/TR. SAND, SHELL & DECAYED WOOD, -200 = 95.1%	8
35	13.5			11
	15.0			5
			W/TR. OF SAND	11
	18.0			17
				8
	21.0			13
	22.5		BOTTOM OF HOLE	16
	24.0			
	27.0			

NOTES:
(1) 300 LB. HAMMER [illegible]
(2) [illegible] ± 0.5'
(3) DEPTHS & [illegible] ARE ± 0.0'

MOB FORM 927 [illegible]
APR 74

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
2. LOCATION (Coordinates or Station) N 82,462 E 331,087
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-10-83
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 15.4' (EL.)
10. SIZE AND TYPE OF BIT 3⅝" 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 4 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 -50.0'
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 W.C.	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 4 6	·	(SP) GREENISH GR. & GR. PR. GRAD. SD., F.-MED. GRA., MIC.		1	DEPTH 4.5'-5.0'
	8	▨	(CH) GREENISH GR. FAT CLAY, STF., W/ NUM. WOOD FRAGS.	86	2	DEPTH 8.0'-8.5'
	10 12 14	▨	(CH) DK. & LT. GREENISH GR. FAT CLAY, MOT., STF. NUM. WOOD FRAGS. BR. THICK FAT CLAY SEAM, (1/4"-1/2").	31 47	3 4	DEPTH 13.0'-13.5' 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	—

Hole No. SG - 11 - 83

DRILLING LOG

DIVISION: SAD

INSTALLATION: MDO

SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station): N 80,042 E 330,286
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG - 11 - 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: 20.4' (EL.)
10. SIZE AND TYPE OF BIT: 3 1/16" I.D. [illegible]
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 15 OCT 83 COMPLETED 15 OCT 83
17. ELEVATION TOP OF HOLE: -52.0'
18. TOTAL CORE RECOVERY FOR BORING: 100 %
19. SIGNATURE OF INSPECTOR: D. WILLIAMS & E. HERMAN EJW

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 2 4		(CH) GREENISH GR. FAT CLAY, FIRM, W/ OCC. SHELLS & SHELL FRAGS. V/ SDY. W/ NUM. SHELLS & SHELL FRAGS. NUM. SHELLS, SHELL FRAGS.		1	DEPTH 1.0'-2.0'
	6 8 10 12		(CH) GREENISH GR. FAT CLAY, SO.-STF., W/ OCC. DECOM. WOOD MTL. DECOM. WOOD MTL. PURPLE & GR. SIY., STF.		2	DEPTH 9.0'-10.0'
	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 20		(CH) PURPLE & GR. FAT CLAY, STF.	56	5	DEPTH 18.0'-18.4' NOTE: SEE SHEET 2.

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

PROJECT: MOBILE HARBOR SHIP CHANNEL HOLE NO. SG-11-83

DRILLING LOG (Cont Sheet) ELEV. ON TOP OF HOLE

Hole No. 56-11-83

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 MOB	SHEET 1 OF 1 SHEETS

1. PROJECT MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station) N 78,891 E 329,964
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-12-83
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 20.2'
10. SIZE AND TYPE OF BIT 4" V[illegible]
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE SAMPLER
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 COMPLETED
17. ELEVATION TOP OF HOLE -43.0'
18. TOTAL CORE RECOVERY FOR BORING %
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. SIY. SD., SL. CLY., MED. GRN., COMPACT W/NUM. SHELLS		1	LAB CLASS. : DEPTH 0.3'-0.7': CLASS : SP-SM -200 = 12 % % SHELL = 24.5 % NAT. H_2O = 297
	2		LT. GRN'ISH GR.		2	DEPTH 1.2'-1.8': -200 = 13%
	4 6		(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'.			
	8 10 12 14				3	DEPTH 7.8'-8.5': -200 = 78% LL: 45, PL: 20, PI: 25 % NAT. H_2O = 42
	16 18		(CH) GRN'ISH GR. & BR. [illegible] FAT CLAY, FIRM TO [illegible] W/OCC. LIG. ZONES. ALSO, OCC. LNS & LAM. OF F. GRA. SD (LT. GR.)		4	DEPTH 15.6'-16.1': -200 = 90% % NAT. H_2O = 49
			[illegible] OF TUBE			[illegible]

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE

PROJECT [illegible] HOLE NO. [illegible]

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 324,400	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
	16. DATE HOLE: STARTED 8-25-83; COMPLETED 8-25-83
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE -40.0'
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING 98 %
9. TOTAL DEPTH OF HOLE 22.4'	19. SIGNATURE OF INSPECTOR J. SHAW JSH

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. f
	0	▨	(OH) ORG. FAT CLAY, (MUCK), SO., BLK. TO DK. GR.		1
	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
	4 6 8	▨	(SC) CLY. SD., GLAUC., W/ NUM. SHELL FRAGS., (WHOLE & FRAG'D.), (PELECYPODS & GASTROPODS). ALSO, OCC. DECOM. WOOD FRAGS., GREENISH GR.		3 4
	10 12 14 16 18	▨	(CH) FAT CLAY, V/ STF., HOMOGENEOUS, W/ FEW SAND PKTS. & LENSES, (SP, MED. GRA., 0.15' MAX.). ALSO, SCATTERED SHELL FRAGS., GRAYISH GRN.		5

REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g

TUBE LENGTH : 22.5'
RECOVERY : 22.0'

LAB CLASS :
DEPTH 0.0'-0.7' :
% NAT. H_2O = 161
% SHELL = 13

DEPTH 2.3'-2.7' :
% SHELL = 6
LL : NP, PL : NP, PI : NP
CLASS. : SP
-200 = 4%

DEPTH 5.9'-6.5' :
CLASS. : SC
% NAT. H_2O = 30
LL : 33, PL : 17, PI : 16
-200 = 15%

DEPTH 7.9'-8.4' :
% NAT. H_2O = 26
% SHELL = 6

DEPTH 13.8'-14.4' :
% NAT. H_2O = 77
CLASS. : CH
LL : 97, PL : 27, PI : 70
-200 = 97%

NOTES :
DEPTH 1.5'-1.8', BLK. CARB. ZONE.
DEPTH 3.2'-3.3', SO. CL. LENS, HARDNESS "A".
DEPTH 6.0'-7.0', SHELL ZONE, (50% + COMPACT.)
DEPTH 9.6', DECOM. WOOD, DK. BR.

NOTE :
SEE SHEET 2.

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

PROJECT MOBILE HARBOR S/C HOLE NO. SG-1

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 RECOVERY 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			
			MAX. PENETRATION			B.O.H.

X

Hole No.

DRILLING LOG

DIVISION SOUTH ATLANTIC

INSTALLATION MOBILE DISTRICT

SHEET 1 OF 2 SHEETS

1. PROJECT MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station) N 73,500 E 328,900
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-14-83
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 25.2'
10. SIZE AND TYPE OF BIT 4" VIBRACORE
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL VIBRACORE SAMPLER
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN DISTURBED 7 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES
15. ELEVATION GROUND WATER
16. DATE HOLE STARTED 8-25-83 COMPLETED 8-25-83
17. ELEVATION TOP OF HOLE -40.0'
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
	0.0					TUBE LENGTH 24.8' RECOVERY 24.8' BOTTOM OF BAY
	8.4		(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.
	13.6		(SC) GRN'ISH GR. CLY. SD. COMPACT, GLAUC., C. GRA W/NUM. SHELL FRAGS.		3	
	14.1		SHELL ZONE W/CLAY		4	d. 13.6-14.1: SHELL ZONE (PELECYPODS & GASTROPODS 50% SHELL, COMPACT
	17.3		(CH), (SC)(SP) INTERMINGLED FAT CLAY, CLY SAND & PR. GRAD. SD. W/NUM. SHELL FRAGS., CLAY [illegible] LIG. GRN'ISH GR. & BR.			
			SEE SH. 2			

ENG FORM 1836 PREVIOUS EDITIONS MAY BE USED 127

PROJECT MOBILE HARBOR S/C HOLE NO. SG-14-83

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE | Hole No. SG-14-83

PROJECT: MOBILE SHIP CHANNE | INSTALLATION: MOBILE DISTRICT | 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
	17.5		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
	24.8					
	25.2		B.O.H.			MAX. PENETRATION 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, SDC 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 | 128 | PROJECT [illegible] | HOLE NO. SG-

Hole No. SG-15-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS

1. PROJECT
MOBILE HARBOR SHIP CHANNEL

2. LOCATION (Coordinates or Station)
N 64,993 E 327,500

3. DRILLING AGENCY
MOBILE DISTRICT

4. HOLE NO. (As shown on drawing title and file number) SG-15-83

5. NAME OF DRILLER
E. LACRONE

6. DIRECTION OF HOLE
☒ VERTICAL ☐ INCLINED ________ DEG. FROM VERT.

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE 18.2' (EL.)

10. SIZE AND TYPE OF BIT 3 1/16" I.D. VIBRACORE

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
MLLW

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 14 OCT 83 | COMPLETED 14 OCT 83

17. ELEVATION TOP OF HOLE -42.0'

18. TOTAL CORE RECOVERY FOR BORING 100 %

19. SIGNATURE OF INSPECTOR
D. WILLIAMS & J. SHAW 9CH

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
	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'
			B.O.H.			
	20					

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

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PROJECT MOBILE HARBOR SHIP CHANNEL | HOLE NO. SG-15-83

Hole No. SG-16-83

DRILLING LOG

DIVISION: SAD

INSTALLATION: MDO

SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station): N 66,961 E 327,696
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG-16-83
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: 20.6' (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 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: -36.0'
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~~ W.C. e	~~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					
	16		(CL) GREENISH GR. SDY. LEAN CLAY, SO., W/ NUM. SHELLS & SHELL FRAGS.			
	18			30	3	DEPTH 17.5'- 18.0'
	20		(SM) GREENISH GR. SDY [illegible], P. GRAD GRA., MIC., W/ OCC SHELL FRAGS			NOTE: SEE SHEET 2.

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

PROJECT: MOBILE HARBOR SHIP CHANNEL

HOLE NO. [illegible] -83

X

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE

Hole No. 56-16-83

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	SP.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
2. LOCATION (Coordinates or Station): N 64,663 E 326,632
3. DRILLING AGENCY: MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number): SG-17-83
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: 16.2' (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 6 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: -44.0'
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 8		(SC) GREENISH GR. CLY. SD., FIRM., W/ NUM. SHELLS & SHELL FRAGS.		4	DEPTH 8.6'-8.9'
	10 12 14		(SM) RUSTY BR. & GREENISH GR. SIY. SD., W/ OCC. CLAY ZONES, LIG., DECOM. WOOD FRAGS., MED. GRA.		5	DEPTH 12.0'-12.4'
	16				6	DEPTH 15.9'-16.2'
	18		B.O.H.			

LABORATORY CLASSIFICATION

SAM. #	CLASS	LL	PL	PI
2	CH	—	—	—
3	SC-CH	—	—	—
4	SC	—	—	—
5	SM	—	—	

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

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 59,083 E 325,029	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
	15. ELEVATION GROUND WATER
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ______ DEG. FROM VERT.	16. DATE HOLE — STARTED 14 OCT 83 — COMPLETED 14 OCT 83
	17. ELEVATION TOP OF HOLE -29.0'
7. THICKNESS OF OVERBURDEN	18. TOTAL CORE RECOVERY FOR BORING 97 %
8. DEPTH DRILLED INTO ROCK	19. SIGNATURE OF INSPECTOR
9. TOTAL DEPTH OF HOLE 30.0' (EL.)	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	∴				
	2	∴	(SP) GREENISH GR. & GR. PR. GRAD. SD., F.-MED. GRA., OCC. SLY., W/ OCC. SO. FAT CLAY LENSES & PKTS., MIC., W/ NUM. SHELL FRAGS.		1	DEPTH 2.0'-2.5'
	4	∴				
	6	∴				
	8	▨	(CH) GREENISH GR. FAT CLAY, SO.-FIRM, W/ OCC. PKTS. & LENSES OF SD.			
	10	▨				
		▨		93	2	DEPTH 11.0'-11.5'
	12	▨				
	14	▨				
		‖	(SM) GREENISH GR. SLY. SD., W/ NUM. FAT CLAY PKTS. & SHELL FRAGS.		3	DEPTH 14.8'-15.3'
	16	▨				
	18	▨	(CH) GREENISH GR. FAT CLAY, SO., W/ NUM. SLY. SD. PKTS. & LENSES			
	20	▨				NOTE: SEE SHEET 2.

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

PROJECT MOBILE HARBOR SHIP CHANNEL | HOLE NO. SG-19-83

X

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 RECOVERY 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 28	┆	(SM) GREENISH GR. SLY. SD., F. GRA., W/ NUM. SML. FAT CLAY PKTS. & NUM. SHELLS & SHELL FRAGS.		5	DEPTH 27.0′- 28.5′
	30	┆	(ML) OLIVE SDY. CLY. INORG. SILT		6	DEPTH 29.6′- 30.0′
			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

ENG FORM 1836-A JUN 67

PROJECT MOBILE HARBOR SHIP CHANNEL HOLE NO. SG-19-83

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 324,963

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 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 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 W.C.	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(CH) BL. & DK. GR. FAT CLAY, W/ SD. - SD., ORG.			
	2					
	4					
					1	DEPTH 4.8'-5.2'
	6					
	8		(SP) GR. & SL. GRN. PR. GRAD. SD., F. - MED. GRA., MIC.			
	10					
	12					
	14					
	16					
	18		(SP) GR. PR. GRAD. SD., F. - MED. GRA., MIC.			NOTE: SEE SHEET 2.
	20					

X

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-ERY~~ W. C. e	~~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

Hole No. SG-21-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 2 SHEETS

1. PROJECT
MOBILE HARBOR SHIP CHANNEL

2. LOCATION (Coordinates or Station)
N 54,566 E 323,416

3. DRILLING AGENCY
MOBILE DISTRICT

4. HOLE NO. (As shown on drawing title and file number) SG-21-83

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 29.3' (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 4 | 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 -41.0'

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	▨	(CH) GREENISH GR. FAT CLAY, SO., W/ OCC. SD. PKTS. & LENSES			
	2	▨	— BL. & DK. GR.			
		▨	— BL. & DK. GR.		1	DEPTH 2.6'-3.1'
	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			
	20		SEE SHEET 2 FOR DESCRIPTION			NOTE: SEE SHEET 2.

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

GPO 1969 OF - 31

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
2. LOCATION (Coordinates or Station) N 52,489 E 322,933
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-22-83
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 30.0' (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 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 -46.0'
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 RECOV-ERY~~ W%C. e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0 2	▨	(CH) BL., DK. GR. & OLIVE FAT CLAY, SO., W/ SOME SDY. PKTS.	129	1	DEPTH 1.5'-2.0'
	4 6 8 10 12	▨	(CH) & (SM) GREENISH GR. INTBDD. & INTLAM. FAT CLAY, SO. - FIRM, & SLY. SAND, F. - MED. GRA., MIC., W/ NUM. SHELL FRAGS., BOTH W/ DECOM. WOOD FRAGS.	42	2	DEPTH 6.0'-7.0'
	14 16 18	▨	(CH) GREENISH GR. FAT CLAY, FIRM, W/ NUM. SDY. PKTS., SHELLS & SHELL FRAGS., & OCC. DECOM. WOOD FRAGS.	50	3	DEPTH 15.5'-16.5'
	20		SEE SHEET 2 FOR DESCRIPTION. OCC. CLY. PKTS.			NOTE: SEE SHEET 2.

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PROJECT MOBILE HARBOR SHIP CHANNEL

HOLE NO. SG-[illegible]

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 ~~RECOV-ERY~~ 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. SLTY. 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

ENG FORM 1836-A
JUN 67

141

PROJECT
MOBILE HARBOR SHIP CHANNEL

HOLE NO.
SG-22-83

Hole No. SG-23-83

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

1. PROJECT MOBILE HARBOR SHIP CHANNEL
2. LOCATION (Coordinates or Station) N 51,289 E 342,247
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-23-83
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 30.2' (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 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUND WATER
16. DATE HOLE STARTED 13 OCT 83 COMPLETED 13 OCT 83
17. ELEVATION TOP OF HOLE -47.0'
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) GREENISH GR. FAT CLAY, SO.-FIRM, W/ A FEW SML. SD. LAM. BR.			
	4 6		(SM) GREENISH GR. SIY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS., & NUM. CLAY PKTS.		1	DEPTH 3.2'-4.0'
	8 10 12		(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.		2	DEPTH 10.5'-11.5'
	14 16 18		(CH) GREENISH GR. FAT CLAY, FIRM - STF., W/ OCC. SD. PKTS., SHELLS, SHELL FRAGS., & DECOM. WOOD FRAGS. GRAD. CONTACT		3	DEPTH 13.0'-14.0'
	20		SEE SHEET 2 FOR DESCRIPTION GRAD. CONTACT			NOTE: SEE SHEET 2.

X

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. SLY. 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	—	—	—

ENG FORM 1836-A
JUN 67

PROJECT MOBILE HARBOR SHIP CHANNEL

HOLE NO. SG-23-83

Hole No. SG-30A-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS

1. PROJECT
MOBILE HARBOR SHIP CHANNEL

2. LOCATION (Coordinates or Station)
N 86,880 E 330,315

3. DRILLING AGENCY
MOBILE DISTRICT

4. HOLE NO. (As shown on drawing title and file number) SG-30A-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 17.2' (EL.)

10. SIZE AND TYPE OF BIT 3 1/16" 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 3 | UNDISTURBED 0

14. TOTAL NUMBER CORE BOXES 0

15. ELEVATION GROUND WATER

16. DATE HOLE | STARTED 12 OCT 83 | COMPLETED 12 OCT 83

17. ELEVATION TOP OF HOLE -41.0'

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 W.C. e	BOX OR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0	⦀	(SM) DK. GR. SLTY. 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 12 14 16	▨	(CL) GREENISH GR. LEAN CLAY, V/ STF., W/ OCC. SHELLS & SHELL FRAGS.		3	DEPTH 16.7'-17.2'

B.O.H.

LABORATORY CLASSIFICATION

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

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PROJECT
MOBILE HARBOR SHIP CHANNEL

HOLE NO.
SG-30A-83

Hole No. 56-35-83

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	SHEET 1 OF 1 SHEETS
1. PROJECT MOBILE HARBOR SHIP CHANNEL		10. SIZE AND TYPE OF BIT 3$^{11}/_{16}$" I.D. VIBRACORE 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLLW	
2. LOCATION (Coordinates or Station) N 85,177 E 330,557		12. MANUFACTURER'S DESIGNATION OF DRILL BARGE	
3. DRILLING AGENCY MOBILE DISTRICT		13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 5 UNDISTURBED 0
4. HOLE NO. (As shown on drawing title and file number)	56-35-83	14. TOTAL NUMBER CORE BOXES 0	
5. NAME OF DRILLER E. LAGRONE		15. ELEVATION GROUND WATER	
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.		16. DATE HOLE	STARTED 12 OCT 83 COMPLETED 12 OCT 83
7. THICKNESS OF OVERBURDEN		17. ELEVATION TOP OF HOLE	-13.0'
8. DEPTH DRILLED INTO ROCK		18. TOTAL CORE RECOVERY FOR BORING	100 %
9. TOTAL DEPTH OF HOLE 16.8' (EL.)		19. SIGNATURE OF INSPECTOR D. WILLIAMS & E. HERMAN	EGH

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. 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 6 8 10	▨	(CH) GREENISH GR. FAT CLAY, STF., W/ OCC. SHELLS & SHELL FRAGS.	58	2	DEPTH 6.0'-6.5'
	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 #	CLASS.	LL	PL	PI	% SHELL
1	SP-SM	—	—	—	4.1
2	CH	91	35	56	—
3	CH	—	—	—	—

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PROJECT MOBILE HARBOR SHIP CHANNEL HOLE NO. 56-35-83

X

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		(CH) & (SM) DK. GR., BR. & GREENISH GR. FAT CLAY, SO., & SIY. SAND, F.-MED. GRA., W/ NUM. SHELLS & SHELL FRAGS., SD. LENSES			
	2				1	DEPTH 2.1'-3.1'
	4		(SM) GREENISH GR. & GR. SIY. SAND, F.-C. GRA., W/ NUM. SHELLS, SHELL FRAGS. & OLIVE BR. & GREENISH GR. CLAY PKTS., BEDS & LAM.			
	6				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		(CL) GREENISH GR. SIY. SDY. LEAN CLAY, V/ STF., W/ NUM. DECOM. WOOD FRAGS.			
	18			31	4	DEPTH 17.8'-18.8'
			MOSTLY WOOD FRAGS.			NOTE: SEE SHEET 2.
	20					

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PROJECT MOBILE HARBOR SHIP CHANNEL | HOLE NO. SG-36-83

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
2. LOCATION (Coordinates or Station) N 80,828 E 330,500
3. DRILLING AGENCY MOBILE DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SG-37-83
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 18.1' (EL.)
10. SIZE AND TYPE OF BIT 3 1/16" 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 4 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUND WATER
16. DATE HOLE STARTED 15 OCT 83 COMPLETED 15 OCT 83
17. ELEVATION TOP OF HOLE -56.0'
18. TOTAL CORE RECOVERY FOR BORING 100 %
19. SIGNATURE OF INSPECTOR D. WILLIAMS & J. SHAW SCH

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. - V/ 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	▨	(CH) GREENISH GR. FAT CLAY, STF.			
				31	3	DEPTH 5.0'-5.5'
	6					
	8					
	10					
	12					
	14					
	16		OLIVE GR.			
	18				4	DEPTH 17.7'-18.1'
			B.O.H.			
	20					

LABORATORY CLASSIFICATION

JAR #	CL.	LL	PL	PI	SP.G.	+200	-200
1	–	–	–	–	–	3.3	96.7
2	CH	–	–	–	–	–	–
3	SC-H	58	19	39	2.69	–	–

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

163

PROJECT MOBILE HARBOR SHIP CHANNEL

HOLE NO. SG-37-83

Hole No. 55-203-84

DRILLING LOG

DIVISION: SAD

INSTALLATION: MDO

SHEET 1 OF 3 SHEETS

1. PROJECT: MOBILE HARBOR DEEPENING
2. LOCATION (Coordinates or Station): N 225,200 E 392,700
3. DRILLING AGENCY: MDO   200' E. BN. 74
4. HOLE NO. (As shown on drawing title and file number): 55-203-84
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: 48.0' (EL. -63.7)
10. SIZE AND TYPE OF BIT: 1⅜" I.D. SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: FAILING 314
13. TOTAL NO. OF OVER-BURDEN 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 OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS/FT.
-15.7	0					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		NO SAMPLES** (FISHTAILED)			
	8					
	10			63		
	12					
-28.7						FISHTAILED
	14	▨		77	1	WR
		▨		75	2	WR
	16	▨				
		▨	(CH) GR. FAT CLAY [illegible]		3	[illegible]
	18	▨			4	[illegible]
-35.7	20	▨		87	5	

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

PROJECT: MOBILE HARBOR

HOLE NO.: 55-[illegible]

DRILLING LOG (Cont Sheet)

ELEVATION TOP OF HOLE: -15.7 MSL

Hole No. 55-203-84

PROJECT: MOBILE HARBOR DEEPENING

INSTALLATION: MDO

SHEET 2 OF 3 SHEETS

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	~~% CORE RECOV- ERY~~ W.C e	~~BOX OR~~ 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	WR
	22		HD. V/STIF.	42	7	WH
	24		"		8	21
			LT. GR.			
	26		"	38	9	31
			"	30	10	31
-43.7	28				11	47
	30				12	47
	32				13	46
			(SP) WHT. PR. GRAD. SAND, MED. - C. GRA.		14	44
	34				15	36
	36				16	40
	38				17	37
					18	37
55.7	40					
	42		NO SAMPLES (FISHTAILED)			
59.7	44					FISHTAILED

ENG FORM 1836-A (ER 1110 1 1801) GPO 1969 OF 224
JUN 67

PROJECT: MOBILE HARBOR

HOLE NO. 55-

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~~ WeC	~~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		(SP) WHT. PR. GRAD. SAND, MED.- C. GRA.		23	FISHTAILED
-63.7	48		B.O.H.			63

NOTE:
THE LAST SPLITSPOON DRIVE WAS 2.0'.

FINISHED HOLE 1625 hrs.
WATER DEPTH 16.3'.

HIGH TIDE @ 1421 hrs
LOW TIDE @ 0059

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
18	-	-	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
2. LOCATION (Coordinates or Station): N 162,100 E 338400
3. DRILLING AGENCY: MDO — 100' W. BN. 50
4. HOLE NO. (As shown on drawing title and file number): SS-222-84
5. NAME OF DRILLER: S. BOWDEN
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED ______ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 52.0' (EL. -64.4)
10. SIZE AND TYPE OF BIT: 1 3/8" I.D. SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MSL
12. MANUFACTURER'S DESIGNATION OF DRILL: FAILING 314
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ~~ELEVATION GROUND~~ WATER: DEPTH 13.0'
16. DATE HOLE: STARTED 10 MAY 84 COMPLETED 10 MAY 84
17. ELEVATION TOP OF HOLE: -12.4 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 RECOV-ERY~~ 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
	18		(CH) GR. FAT CLAY	116	1	
-30.9						WR
			NO SAMPLES (FISHTAILED)			
-32.4	20					FISHTAILED

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 RECOVERY~~ W.C.	~~BOX OR~~ 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
		▨	(CH) GR. FAT CLAY V/SO	105	2	
-35.9						WR
	24	☒	NO SAMPLES (FISHTAILED)			
	26					
-39.4						FISHTAILED
	28	▨	(CH) GR. FAT CLAY V/SO	106	3	
-40.9						WR
	30	☒	NO SAMPLES (FISHTAILED)			
-44.4	32					FISHTAILED
		▨	(CH) GR. FAT CLAY V/SO	92	4	
-45.9						WR
	34	☒	NO SAMPLES (FISHTAILED)			
	36					
-49.4						FISHTAILED
	38	▨	(CH) GR. FAT CLAY V/SO	90	5	
-50.9						WR
	40	☒	NO SAMPLES (FISHTAILED)			
-54.4	42					FISHTAILED
		▨	(CH) GR. FAT CLAY W/ TR. OF SD. V/S	80	6	
[illegible]						WR
[illegible]	44	☒	NO SAMPLES, (FISHTAILED)			FISHTAILED

ENG FORM 1836-A JUN 67 (ER 1110-1-1801) 287 PROJECT MOBILE HARBOR HOLE NO. SS-222-84

DRILLING LOG (Cont Sheet) Elev. Top of Hole -12.4 MSL

Hole No. SS-222-84

PROJECT	INSTALLATION	SHEET
MOBILE HARBOR DEEPENING	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.
-56.4 -59.4	44 46	☒	NO SAMPLES (FISHTAILED)			FISHTAILED
-60.9	48	▨	(CH) GR. FAT CLAY V/50	75	7	WH
-62.9	50	☒	NO SAMPLES (FISHTAILED)			FISHTAILED
-64.4	52	▨	(CH) GR. FAT CLAY V/50	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 240,891 E 393,064

3. DRILLING AGENCY
MDO

4. HOLE NO. (As shown on drawing title and file number) VC- 1A - 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 26.75' (EL -67.75)

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 -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	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'
	4	▨				
-46.0						
		▨			2	DEPTH 5.5'-6.0'
	6	▨				
	8	▨	(SC) & (SM) ALTERNATING POCKETS OF LIGHT GRAY CLAYEY SAND & SILTY SAND			
		▨			3	DEPTH 8.5'-9.0'
	10	▨				
	12	▨				
-54.0						
	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 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
-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 - 94

DRILLING LOG

DIVISION SAD

INSTALLATION MDO

SHEET 1 OF 2 SHEETS

1. PROJECT MOBILE HARBOR CHANNEL DEEPENING

2. LOCATION (Coordinates or Station) N 237,301 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 26.0' (EL. -68.0)

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 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

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
-42.0	0					
	2		(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	4			104	1	DEPTH 4.5'-5.0'
	6		LIGHT GRAY, VERY SOFT			
-48.6						
	8		(SC) LIGHT GRAY CLAYEY SAND, SOFT			
	10				2	DEPTH 9.5'-10.0'
-52.5						
	12		(SP) YELLOW POORLY GRADED SAND, COARSE GRAINED			
	14					
					3	DEPTH 14.5'-15.0'
	16					
	18		WHITE, COARSE GRAINED			
-62.0	20				4	DEPTH 19.5'-20.0'

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE.

PROJECT 291 MOBILE HARBOR

HOLE NO. VC - 1 - 94

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

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

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	WeC	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 :

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

Hole No. VC - 2 - 84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO
		SHEET 1 OF 2 SHEETS

1. PROJECT
MOBILE HARBOR CHANNEL DEEPENING

2. LOCATION (Coordinates or Station)
N 235,086 E 332,809

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. 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 OVER-BURDEN SAMPLES TAKEN	DISTURBED	UNDISTURBED
	4	0

14. TOTAL NUMBER CORE BOXES 0

15. ELEVATION GROUND WATER

16. DATE HOLE	STARTED	COMPLETED
	AUG. 1984	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~~ e W.C	~~BOX OR~~ SAMPLE NO. f	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'
	8	▨				
-49.8						
	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'

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

PROJECT 293 MOBILE HARBOR

HOLE NO. VC - 2 - 84

DRILLING LOG (Cont Sheet): ELEVATION TOP OF HOLE -41.0 Hole No. VC-2-84

PROJECT MOBILE HARBOR CHANNEL DEEPENING INSTALLATION MDO SHEET 2 OF 2 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
-61.0	20					
	22		(SP) LIGHT GRAY & WHITE POORLY GRADED SAND, COARSE GRAINED			
-65.93	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 Station)
N 277,605 E 392,619

3. DRILLING AGENCY
MDO

4. HOLE NO. (As shown on drawing title and file number) VC - 3 - 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 19.8' (EL. - 59.8)

10. SIZE AND TYPE OF BIT 4" VIBRACORE

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
MLLW ± 0 FT.

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 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

DH

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
-40.0	0	▨	(CH) DARK GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2	▨				
-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 (TRANSLUCENT)

295 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 392,570

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 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 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 DW

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
-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			
-52.0	10	⁞			2	DEPTH 9.5'-10.0'
	12	∴				
		∴	(SP) LIGHT GRAY POORLY GRADED SAND, MEDIUM GRAINED			LAB DATA :
	14	∴				SAM # CLASS LL PL PI 1 SP NP NP NP 2 SP NP NP NP
	16	∴				
	19	∴				
		∴	LIGHT GRAY, FINE GRAINED			NOTE: BOTTOM OF HOLE AT DEPTH 20.0'.
-62.0	20	∴				

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

PROJECT 296 MOBILE HARBOR

HOLE NO. VC- 4 - 84

Hole No. VC - 5 - 84

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

1. PROJECT MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station) N 229,581 E 332,505
3. DRILLING AGENCY MDO
4. HOLE NO. (As shown on drawing title and file number) VC - 5 - 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. -67.0)
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 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

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 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	⁘				
	19	⁘				
-62.0	20	⁘				

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

PROJECT MOBILE HARBOR

HOLE NO. VC - 5 - 84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -42.0 Hole No. VC-5-94

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					
			(SP) GRAY & YELLOW POORLY GRADED SAND WITH GRAVEL, (1" MAX.)			
	22					
	24		WHITE			
-67.0					3	DEPTH 24.5'-25.0'
			BOTTOM OF HOLE			LAB DATA :
	26					

LAB DATA :

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 227,270 E 392,355
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 (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: -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	~~BOX OR~~ 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 SOME ORGANIC MATERIAL			
	2					
	4				1	DEPTH 4.5'-5.0'
	6					
-49.0		▥	(SM) LIGHT GRAY POORLY GRADED SILTY SAND, FINE GRAINED			
	8					
	10				2	DEPTH 9.5'-10.0'
	12					
-54.5		░	(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	14				3	DEPTH 14.5'-15.0'
	16					
	18					
-62.0	20				4	DEPTH 19.5'-20.0'

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

PROJECT 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	~~BOX OR~~ 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 :

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

ENG FORM 1836-A MAY 67 PROJECT 300 MOBILE HARBOR HOLE NO. VC-6-84

Hole No. VC-7-84

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 392,591

3. DRILLING AGENCY
MDO

4. HOLE NO. (As shown on drawing title and file number) VC-7-84

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 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 -37.0

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	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

PROJECT 301 MOBILE HARBOR

HOLE NO. VC-7-84

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	~~% CORE RECOVERY~~ W.C	~~BOX OR~~ 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						
			BOTTOM OF HOLE			LAB DATA :
	28					

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
2. LOCATION (Coordinates or Station): N 220,599 E 332,740
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file number): VC - 8 - 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: 22.0' (EL. - 66.0)
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: - 44.0
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	~~% CORE RECOVERY~~ W C e	~~BOX OR~~ 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	▨				
		▨	LIGHT GRAY, SOFT, WITH A TRACE OF ROOTS			
-50.2	6					
		▧	(SC) LIGHT GRAY CLAYEY SAND		1	DEPTH 6.5'-7.0'
-52.0	8					
		⁘	(SP) LIGHT GRAY POORLY GRADED SAND		2	DEPTH 9.5'-10.0'
	10	⁘				
-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'

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

303 MOBILE HARBOR

HOLE NO. VC - 8 - 84

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	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-64.0	20	∴	(SP) WHITE POORLY GRADED SAND			
-66.0	22		BOTTOM OF HOLE			LAB DATA :

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

Hole No. VC-9-84

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 333,099

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
☒ 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 (TBM or MSL)
MLLW ± 8 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	W.C	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					
	8					
-50.8			(SP) YELLOW POORLY GRADED SAND		2	DEPTH 9.5'-10.0'
	10					
	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 MDO | SHEET 2 OF 2 SHEETS

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
-62.0	20					
	22		(SP) WHITE POORLY GRADED SAND WITH GRAVEL, (1" MAX.)			
-66.0	24				4	DEPTH 23.5'-24.0'
			BOTTOM OF HOLE			LAB DATA :

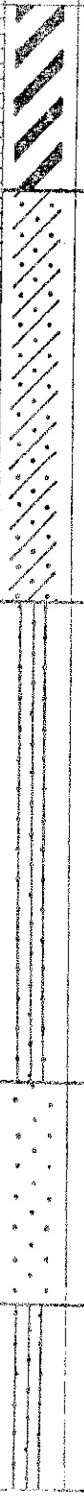
LAB DATA :

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	10. SIZE AND TYPE OF BIT 4" VIBRACORE
2. LOCATION (Coordinates or Station) N 214,776 E 333,272	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 - 10 - 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 - 43.0
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING N/A %
9. TOTAL DEPTH OF HOLE 22.7' (EL. - 65.7)	19. SIGNATURE OF INSPECTOR H. GATES



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
-43.0	0 2		(CH) DARK GRAY FAT CLAY WITH ORGANIC MATERIAL			
-45.5	4 6		(SC) LIGHT GRAY CLAYEY SAND WITH POCKETS OF SANDY LEAN CLAY	19	1	DEPTH 4.5'-5.0'
-51.0	8 10 12 14		(SM) LIGHT GRAY SILTY SAND WITH FINE GRAVEL		2	DEPTH 9.5'-10.0'
-57.5	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					

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. e	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					

LAB DATA :

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

ENG FORM 1836-A

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 file 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 (TBM or MSL) MLLW ± 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 -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~~ W.C.	~~BOX OR~~ 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'
			(SM) BEIGE SILTY SAND			
	12		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

Hole No. VC - 12 -

DRILLING LOG

DIVISION SAD

INSTALLATION MDO

SHEET 1 OF 2 SHEETS

1. PROJECT Mobile Harbor Channel Deepening

2. LOCATION (Coordinates or Station) N 209,534 E 393,812

3. DRILLING AGENCY MDO

4. HOLE NO. (As shown on drawing title and file 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 26.0' (EL. - 69.0)

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 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 - 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 OR~~ W-C e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	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					
-63.0	20				4	DEPTH 19.5'-20.0'

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

PROJECT 310 MOBILE HARBOR

HOLE NO. VC - 12 - 84

DRILLING LOG (Cont Sheet)	ELEVATION TOP OF HOLE -43.0	Hole No. VC-12-84
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					
	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

PROJECT 311 MOBILE HARBOR

HOLE NO. VC-12-84

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 207,341 E 394,049
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 (TBM 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~~ W.C e	~~BOX OR~~ 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	~~% CORE RECOVERY~~ W.C. e	~~BOX OR~~ 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			
	22	▨				
-65.7			BOTTOM OF HOLE			
	24					

LAB DATA :

SAM #	LOI (%)	-200(%)
1	-	96.4
2	24.8	86.5

ENG FORM 1836-A

PROJECT MOBILE HARBOR

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 204,630 E 334,568
3. DRILLING AGENCY: MDO
4. HOLE NO. (As shown on drawing title and file 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 (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: - 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 RECOVERY~~ W.C.	~~BOX OR~~ 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					
				90	2	DEPTH 11.5'-12.0'
	12					
	14					
			DARK GRAY, SOFT, WITH ORGANIC MATERIAL OF LEAVES AND WOOD			
	16					
	18					
-62.0	20			102	3	DEPTH 19.5'-20.0'

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

PROJECT: 314 MOBILE HARBOR

HOLE NO. VC - 14 - 84

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	▨				
		▨	LIGHT GRAY, SOFT		5	DEPTH 24.5'-25.0'
-68.0	26					
-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-15-84

DRILLING LOG	DIVISION SAD	INSTALLATION MDO	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
MDO

4. HOLE NO. (As shown on drawing title and file number) VC-15-84

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 (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 -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~~ W.C e	~~BOX OR~~ 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					
			(CH) GRAY FAT CLAY, SOFT, WITH SOME SAND			
	6					
				32	2	DEPTH 7.5'-8.0'
	8					
	10					
	12					
	14					
				41	3	DEPTH 14.5'-15.0'
	16					
	18		DARK GRAY TO GRAY, SOFT, WITH ORGANIC MATERIAL OF WOOD, ROOTS & LEAVES			
-63.0	20			67	4	DEPTH 19.5'-20.0'

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

316 PROJECT MOBILE HARBOR

HOLE NO. VC-15-84

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	~~BOX OR~~ 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	▨				
	26	▨	GRAY, SOFT, WITH ORGANIC MATERIAL			
	28	▨				
-73.0	30		BOTTOM OF HOLE			

LAB DATA :

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

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 794,849

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
☒ 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 (TBM or MSL)
MLLW ± 3 FT.

12. MANUFACTURER'S DESIGNATION OF DRILL
BARGE

13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED	UNDISTURBED
	5	0

14. TOTAL NUMBER CORE BOXES 0

15. ELEVATION GROUND WATER

16. DATE HOLE	STARTED	COMPLETED
	AUG. 1984	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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ 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'

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	~~% CORE RECOVERY~~ W.C	~~BOX OR~~ 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					
					5	DEPTH 27.5'-28.0'
-65.0	28					
			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

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 ± 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 -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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ 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					
-46.8					1	DEPTH 4.5'-5.0'
			(SC) LIGHT GRAY POORLY GRADED SILTY CLAYEY SAND			
	6					
	8					
			LIGHT GRAY, CLAYEY		2	DEPTH 9.5'-10.0'
	10					
	12					
	14				3	DEPTH 14.5'-15.0'
	16					
			LIGHT GRAY, POORLY GRADED, SILTY, CLAYEY			
	18					
-62.0	20					

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PROJECT 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	W.C	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-62.0	20		(SC) LIGHT GRAY POORLY GRADED SILTY CLAYEY SAND			
-63.0						
-64.2	22		(SM) LIGHT GRAY SILTY SAND WITH ORGANIC MATERIAL			
	24		(SM) LIGHT GRAY POORLY GRADED SILTY SAND			
					4	DEPTH 24.5'-25.0'
-68.7	26					
	28		BOTTOM OF HOLE			

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

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 (TBM or MSL): MLLW ± 0 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

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
-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'

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MAR 71

PROJECT 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	~~% CORE RECOVERY~~ W C e	~~BOX OR~~ 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
2. LOCATION (Coordinates or Station) N 194,476 E 995,266
3. DRILLING AGENCY MDO
4. HOLE NO. (As shown on drawing title and file number) VC - 19 - 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 25.2' (EL. - 67.2)
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 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 DH

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
-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	⁞				

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

324 PROJECT MOBILE HARBOR HOLE NO. VC - 19 - 84

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	~~% CORE RECOVERY~~ e W.C	~~BOX OR~~ 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 :

LAB DATA :

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

SAM #	LOI (%)
1	12.5

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 595,404	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 - 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
	16. DATE HOLE: STARTED AUG. 1984; COMPLETED AUG. 1984
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE -43.0
8. DEPTH DRILLED INTO ROCK	18. TOTAL CORE RECOVERY FOR BORING N/A %
9. TOTAL DEPTH OF HOLE 27.5' (EL. -70.5)	19. SIGNATURE OF INSPECTOR H. GATES

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	W.C	~~BOX OR~~ 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	▨				

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

PROJECT 326 MOBILE HARBOR

HOLE NO. VC-20-84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -49.0

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	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-69.0	20	▨				
	22	▨				
	24	▨				
		▨		42	4	DEPTH 24.5'-25.0'
	26	▨				
-70.5		▨				
	28		BOTTOM OF HOLE			LAB DATA:

LAB DATA:

SAM #	CLASS	LL	PL	PI
2	CH	55	22	33

ENG FORM 1836-A JUN 67

PROJECT 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
N. 183,900 E. 336,250

4. HOLE NO. (As shown on drawing title and file number) VC-21-84

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. -72.0)

10. SIZE AND TYPE OF BIT 4" VIBRACORE

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
MLLW 2 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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ 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			
	2	▨				
-45.0		⁘	(SP) GRAY & WHITE POORLY GRADED SAND, MEDIUM GRAINED			
	4	⁘			1	DEPTH 4.5'-5.0'
	6	⁘				
	8	⁘				
	10	⁘				
	12	⁘				
-55.6		▨	(CH) GRAY FAT CLAY WITH SAND			
-56.2	14	⁘	(SP) WHITE POORLY GRADED SAND, MEDIUM GRAINED		2	DEPTH 14.5'-15.0'
	16	⁘				
	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 e	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

2. LOCATION (Coordinates or Station)
DUE WEST BN 56, C/L CHANNEL

3. DRILLING AGENCY
MDO
N. 177,900 E. 336,800

4. HOLE NO. (As shown on drawing title and file number) VC - 22 - 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 (TBM 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 -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~~ W.C e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0	▨				
	2	▨	(CH) BLACK FAT CLAY WITH ORGANIC MATERIAL			
		▨		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'

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

PROJECT MOBILE HARBOR

HOLE NO. VC-22-84

DRILLING LOG (Cont Sheet) ELEVATION TOP OF HOLE -43.0

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	W.C	SAMPLE NO. f	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				202	5	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

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 BU 56, C/L CHANNEL
3. DRILLING AGENCY MDO N. 173,500 E. 337,200
4. HOLE NO. (As shown on drawing title and file number) VC - 23 - 84
5. NAME OF DRILLER C. FULLER
6. DIRECTION OF HOLE ☒ 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 (TBM 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 RECOVERY~~ W.C. e	~~BOX OR~~ 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	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'

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

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

ELEVATION	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	W.C.	SAMPLE NO.	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant)
-58.0	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

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 | N. 169,200 E. 337,600
4. HOLE NO. (As shown on drawing title and file number) 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 27.0' (EL. - 71.0)
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 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

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
-44.0	0	▨	(CH) BLACK & DARK GRAY FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL			
	2	▨				
	4	▨				
		▨		93	1	DEPTH 4.5'-5.0'
	6	▨	LIGHT GRAY, SOFT			
	8	▨				
	10	▨				
	12	▨				
	14	▨				
		▨		66	2	DEPTH 14.5'-15.0'
	16	▨				
-61.0		▨				
		▥			3	DEPTH 17.5'-18.0'
	18	▥	(OL) BLACK & BROWN ORGANIC SILT			
-64.0	20	▥				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT) 334 | 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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-64.0 -64.7	20	▥	(OL) BLACK & BROWN ORGANIC SILT			
	22	▨	(CH) LIGHT GRAY FAT CLAY, SOFT	64	4	DEPTH 20.5'-21.0'
-67.0						
	24 26	▥	(SM) WHITE POORLY GRADED SILTY SAND		5	DEPTH 24.5'-26.0'
-71.0						
	28		BOTTOM OF HOLE			

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 BN 50 & BN 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 (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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0	▨				
	2	▨				
		▨	(CH) GRAY FAT CLAY, SOFT			
	4	▨				
		▨		87	1	DEPTH 4.5'-5.0'
	6	▨				
	8	▨				
		▨		81	2	DEPTH 9.5'-10.0'
	10	▨				
	12	▨				
	14	▨				
		▨		87	3	DEPTH 14.5'-15.0'
	16	▨				
		▨		63	4	DEPTH 17.5'-18.0'
	18	▨				
-63.0	20	▨				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE. (TRANSLUCENT)
PROJECT 336 MOBILE HARBOR
HOLE NO. VC-26-84

DRILLING LOG (Cont Sheet)

ELEVATION TOP OF HOLE -43.0

Hole No. VC-26-34

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	▨	(CH) GRAY FAT CLAY, SOFT			
	24	▨				
-68.0		▨			5	DEPTH 24.5'-25.0'
			BOTTOM OF HOLE			LAB DATA :
	26					

SAM #	CLASS	LL	PL	PI
2	CH	-	-	-

ENG FORM JUN 67 1836-A

337

PROJECT MOBILE HARBOR

HOLE NO. VC-26-34

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
N. 159,300 E. 338,200

4. HOLE NO. (As shown on drawing title and file number) VC - 27 - 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 22.0' (EL. -60.0)

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 -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~~ W.C. e	~~BOX OR~~ 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'

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

PROJECT 338 MOBILE HARBOR

HOLE NO. VC-27-84

DRILLING LOG (Cont Sheet)

ELEVATION TOP 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	~~% CORE RECOVERY~~ ~~e~~ W.C	~~BOX OR~~ 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 & BU 46, C/L CHANNEL

3. DRILLING AGENCY
MDO | N. 156,850 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 (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 DH

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
-43.0	0	▨				
	2	▨	(CH) BLACK FAT CLAY, VERY SOFT			
	4	▨				
		▨		142	1	DEPTH 4.5'-5.0'
	6	▨				
	8	▨				
		▨		78	2	DEPTH 9.5'-10.0'
	10	▨	GRAY, VERY SOFT			
	12	▨				
	14	▨				
-58.5		▨				
	16	⁘				
		⁘	(SP) GRAY POORLY GRADED SAND		3	DEPTH 17.5'-18.0'
	18	⁘				
-63.0	20	⁘				

ENG FORM 1836 MAR 71 PREVIOUS EDITIONS ARE OBSOLETE

340 PROJECT MOBILE HARBOR | HOLE NO. VC-28-84

DRILLING LOG (Cont Sheet) | ELEVATION TOP OF HOLE -47.0 | 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 e	SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-67.0	20					
	22					
	24		(SP) GRAY POORLY GRADED SAND			
					4	DEPTH 24.5'-25.0'
	26					
	28					
-73.0	30					
			BOTTOM OF HOLE			LAB DATA :

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

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 Station) BETWEEN BN 41 & BN 42, C/L CHANNEL
3. DRILLING AGENCY MDO — N. 143,900 E. 336,600
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 (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	~~% CORE RECOVERY~~ W.C	~~BOX OR~~ 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			
-63.0	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	~~BOX OR~~ SAMPLE NO. f	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	-

Hole No. VC - 96 - 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 95 & BN 96, C/L CHANNEL
3. DRILLING AGENCY: MDO N. 131,600 E. 334,800
4. HOLE NO. (As shown on drawing title and file number): VC - 96 - 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: 28.5' (EL. - 70.5)
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: -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	~~% CORE RECOVERY~~ W.C	~~BOX OR~~ 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	137	1	DEPTH 1.5'-2.0'
	2					
	4					
	6					
	8		GRAY, SOFT			
				87	2	DEPTH 9.5'-10.0'
	10					
	12					
-56.0	14					
				33	3	DEPTH 15.5'-16.0'
	16		(SC) GRAY CLAYEY SAND, FINE GRAINED, SOFT, WITH A TRACE OF SHELLS, (1" MAX.)			
	18					
-62.0	20					

ENG FORM 1836 PREVIOUS EDITIONS ARE OBSOLETE (TRANSLUCENT)

PROJECT: 346 · MOBILE HARBOR
HOLE NO.: VC - 96 - 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 e	~~BOX OR~~ 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 MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station) BETWEEN BN 31 & BN 32, C/L CHANNEL
3. DRILLING AGENCY MDO — N. 123,500 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 (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	~~% CORE RECOVERY~~ W.C e	~~BOX OR~~ SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
-43.0	0	▨				
		▨	(CH) BLACK FAT CLAY, VERY SOFT, WITH ORGANIC MATERIAL	140	1	DEPTH 1.5'- 2.0'
	2	▨				
	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'
-63.0	20	▨				

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

PROJECT 348' MOBILE HARBOR

HOLE NO. VC - 38 - 84

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	~~% CORE RECOVERY~~ W C e	~~BOX OR~~ 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			LAB DATA :
	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

2. LOCATION (Coordinates or Station) BETWEEN BU 89 & BU 90, C/L CHANNEL

3. DRILLING AGENCY MDO | N. 118,200 E. 333,150

4. HOLE NO. (As shown on drawing title and file number) VC-40-84

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 28.7' (EL. -70.7)

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 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 RECOVERY~~ W.C. e	~~BOX OR~~ 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	▨				

PROJECT MOBILE HARBOR

HOLE NO. VC-40-84

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	~~% CORE RECOVERY~~ W.C	~~BOX OR~~ 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 MOBILE HARBOR CHANNEL DEEPENING
2. LOCATION (Coordinates or Station) BETWEEN BU 27 & BU 28, C/L CHANNEL
3. DRILLING AGENCY MDO | N. 112,250 E. 382,350
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 (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 - 41.0
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~~ 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 :
	2					
	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					
	18					NOTE : BOTTOM OF HOLE @ DEPTH 20.0'.
-61.0	20				4	DEPTH 19.5'-20.0'

LAB DATA :

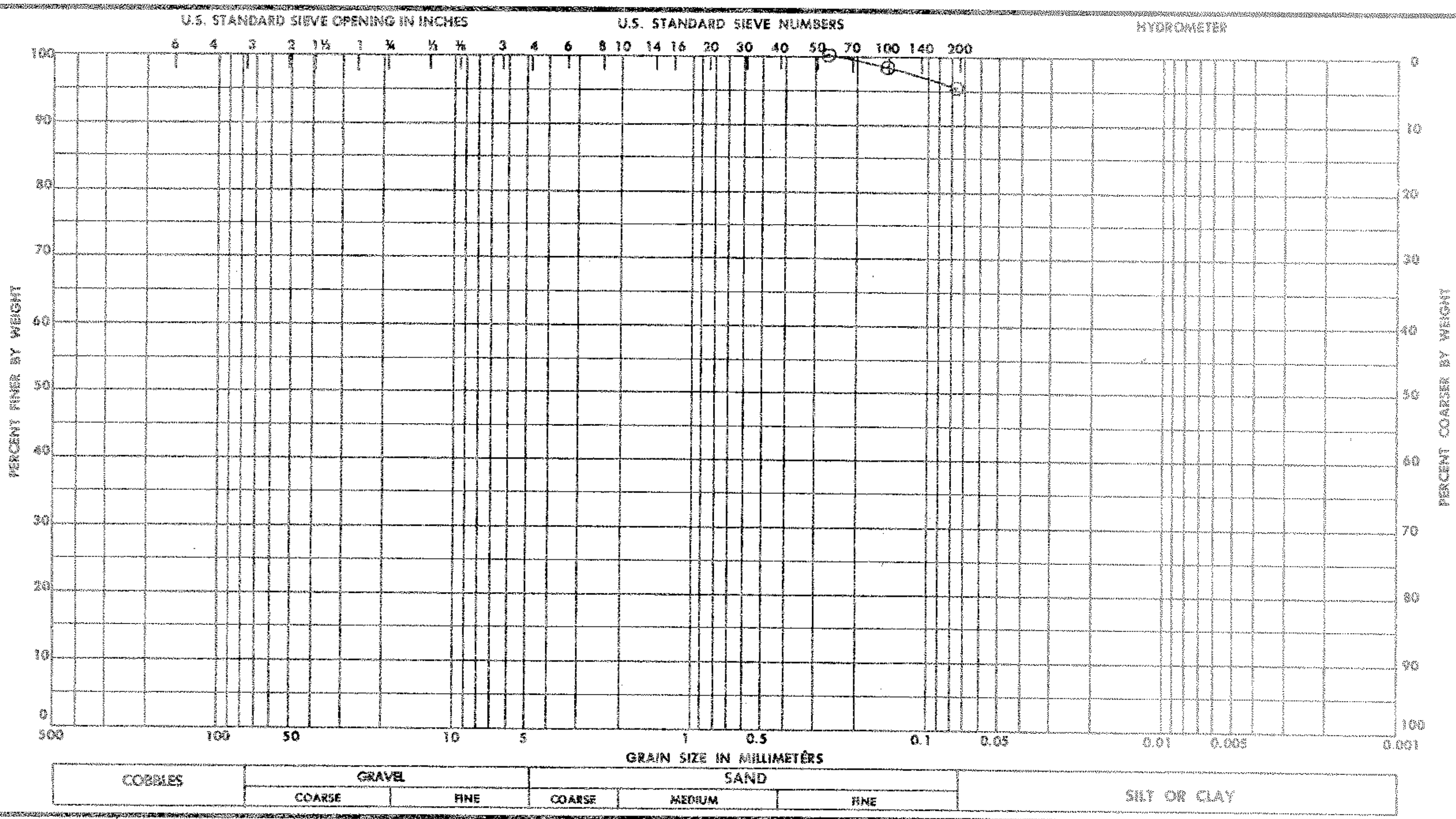
SAM #	CLASS	LL	PL	PI
1	CH	-	-	-
2	CH	-	-	-
3	CH	-	-	-
4	SM-H	-	-	-

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



Sample 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				

Project MOBILE HARBOR
CHANNEL DEEPENING
Area LAB NO.57/9000
Boring No. SG-2-82 SAMPLE NO. 3
Date 01/13/83

GRADATION CURVES

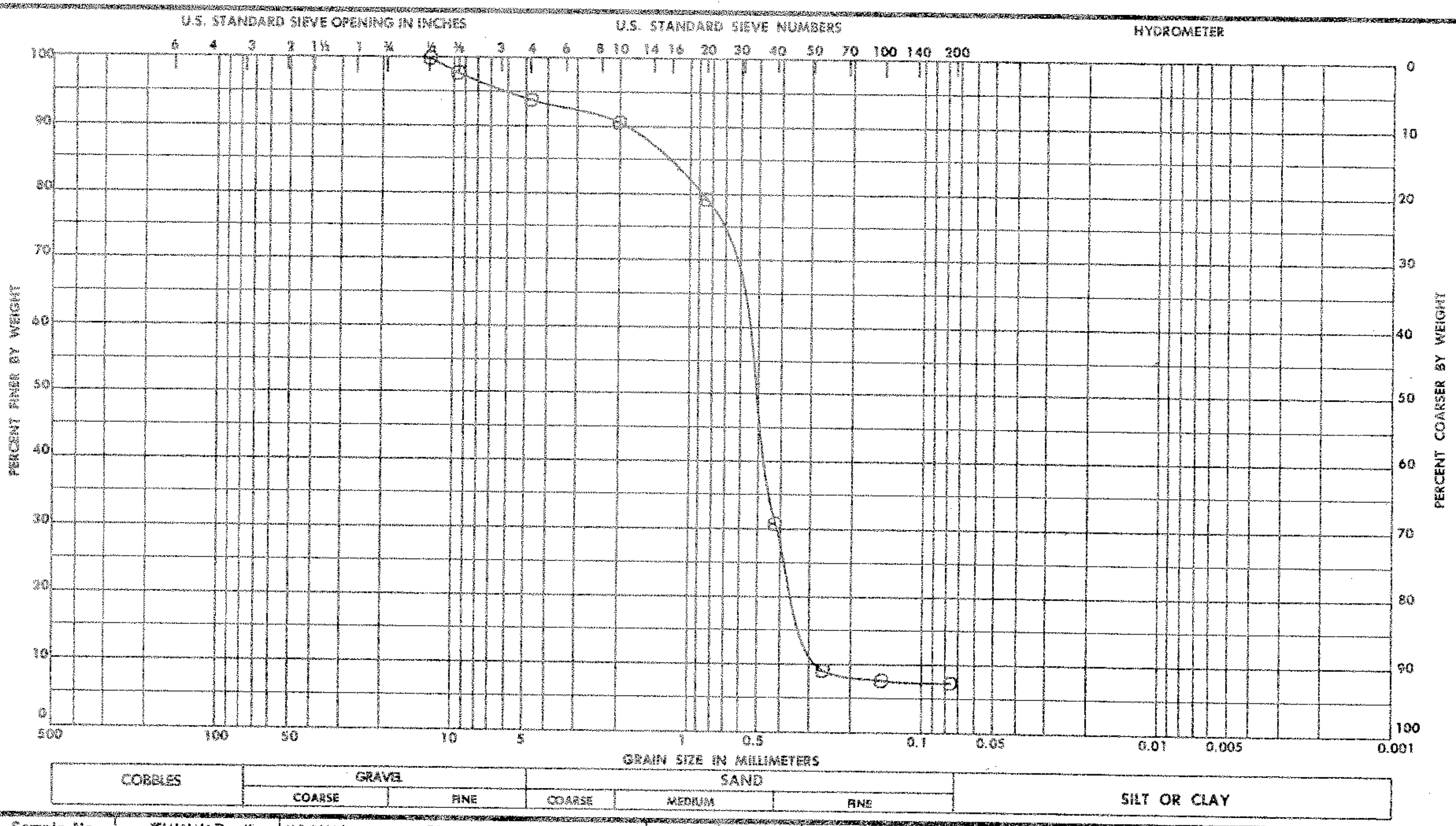
ENG FORM 1 MAY 63 2087

CHART NO. 89

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



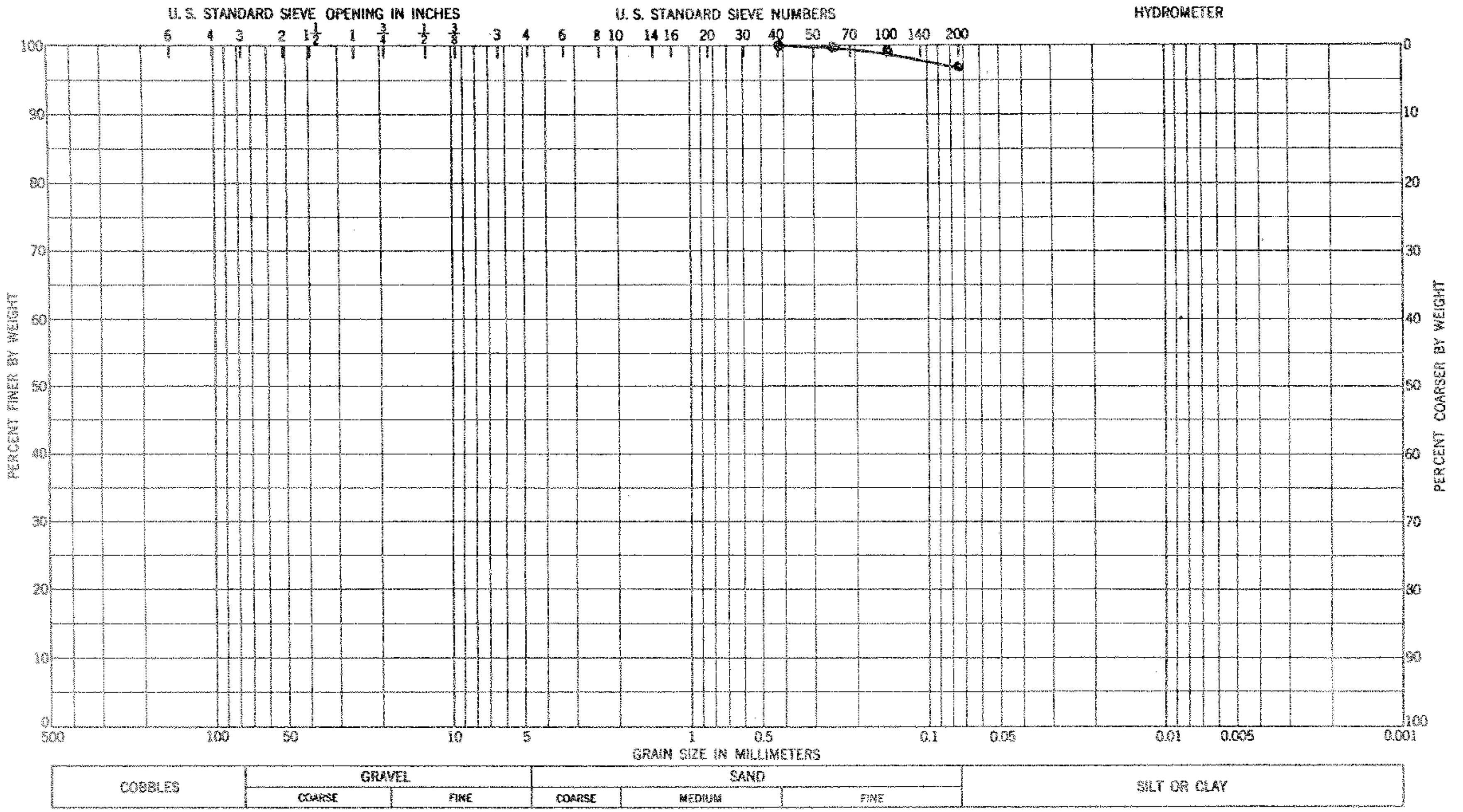
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	4.5-5.0'	POORLY GRADED SILTY SAND	--	--	--	--
		(SP-SM),TAN WITH A LITTLE SHELL				
		AND POCKETS OF BROWN (SC)				
		%SHELL= 15.6				

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

ENG FORM 1 MAY 63 2087

CHART NO. 111



Sample No.	~~Elev.~~ 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	--	--	--

Project Mobile Ship Channel

Channel Deepening

Area Lab No. 57/263

Boring No. SG-11-83, Sample No. 4

Date 21 May 1984

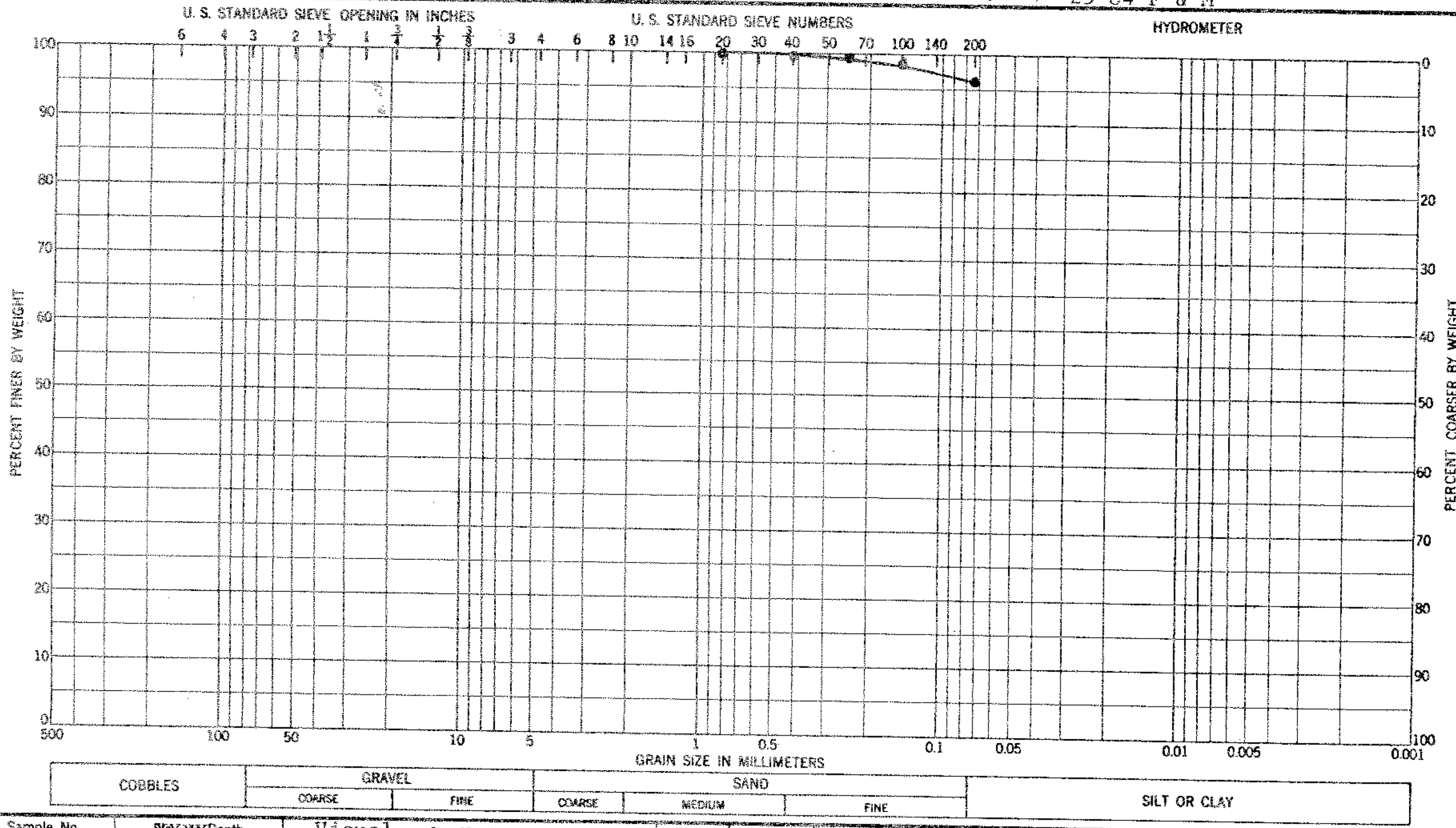
GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 112

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



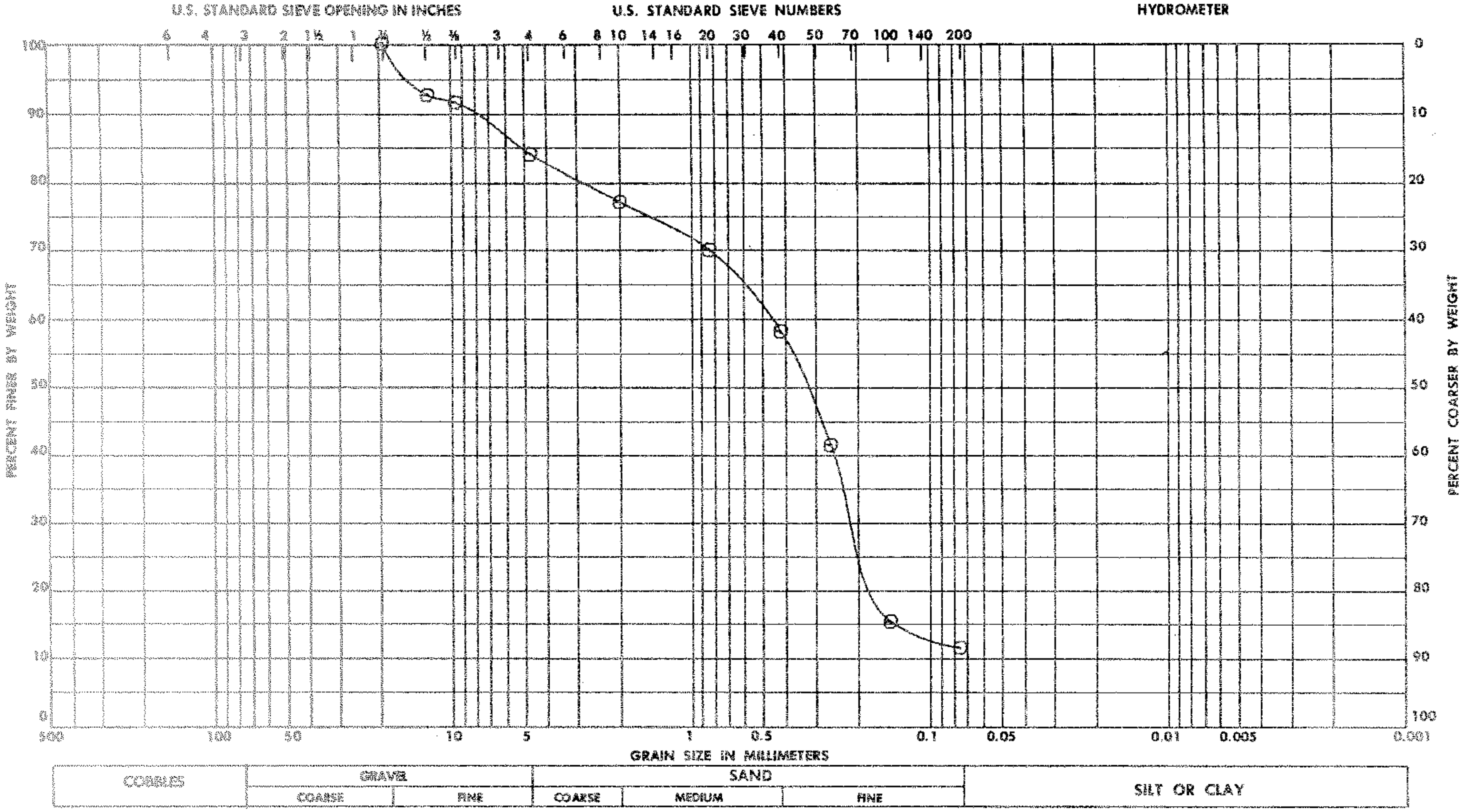
Sample No.	XXXX Depth	Visual Classification	Nat w %	LL	PL	PI
5	18.0-18.4'	Gray fat clay (CH) with a trace of sand	55.8	--	--	--

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 113



Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	0.3-0.7'	POORLY GRADED SILTY SAND	297.0	NP	NP	NP
		(SP-SM)				
		GRAY WITH SOME SHELL				
		PERCENT SHELL= 24.5%				

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

GRADATION CURVES

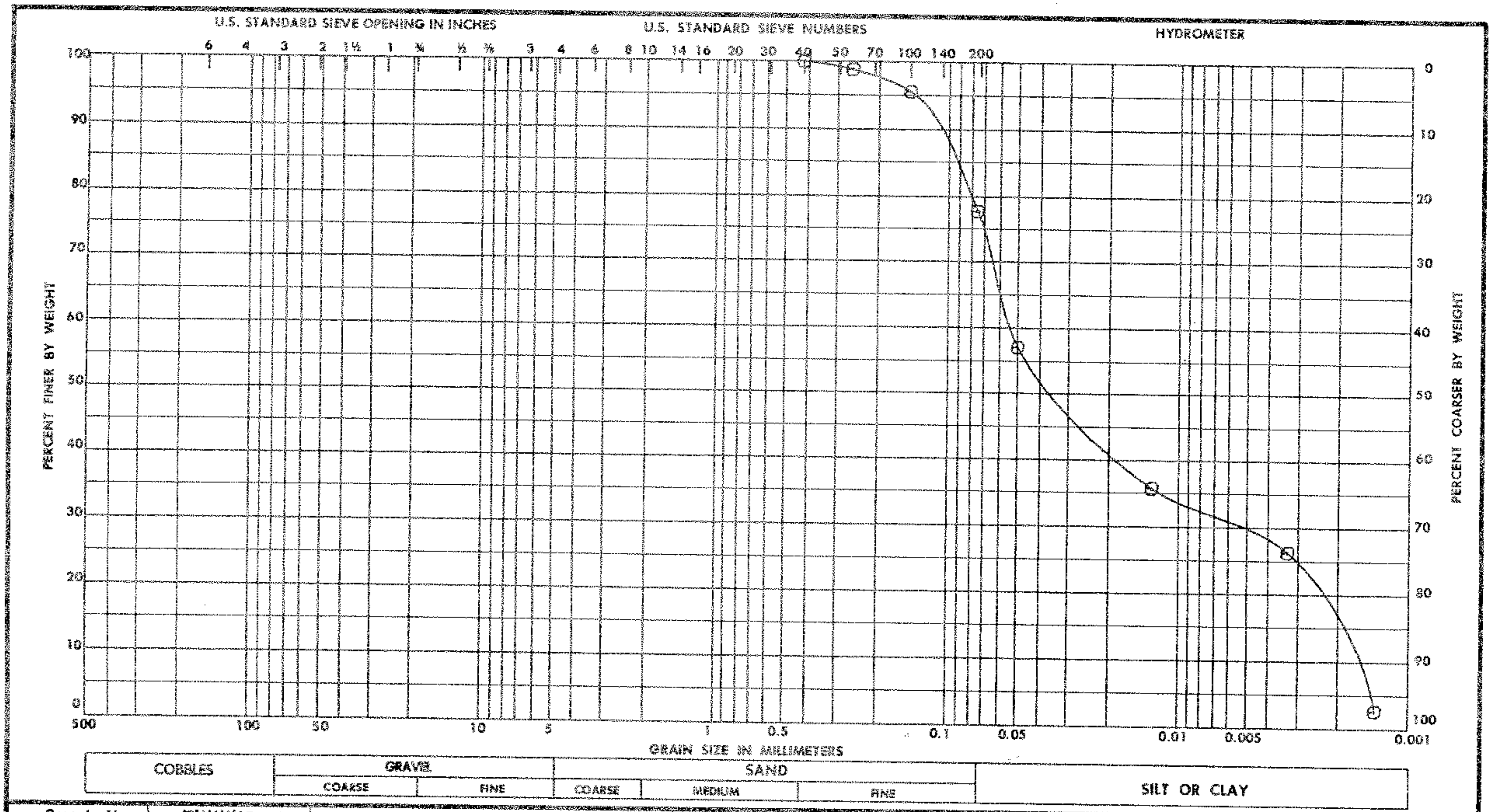
ENG FORM 1 MAY 63 2087

CHART NO. 114

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	Classification	Nat w %	LL	PL	PI
3	7.8-8.5'	LEAN CLAY (CL)	42.2	45	20	25
		GRAY WITH SOME SAND				

Project MOBILE SHIP CHANNEL
OUTER BAR

Area LAB NO.57/9848

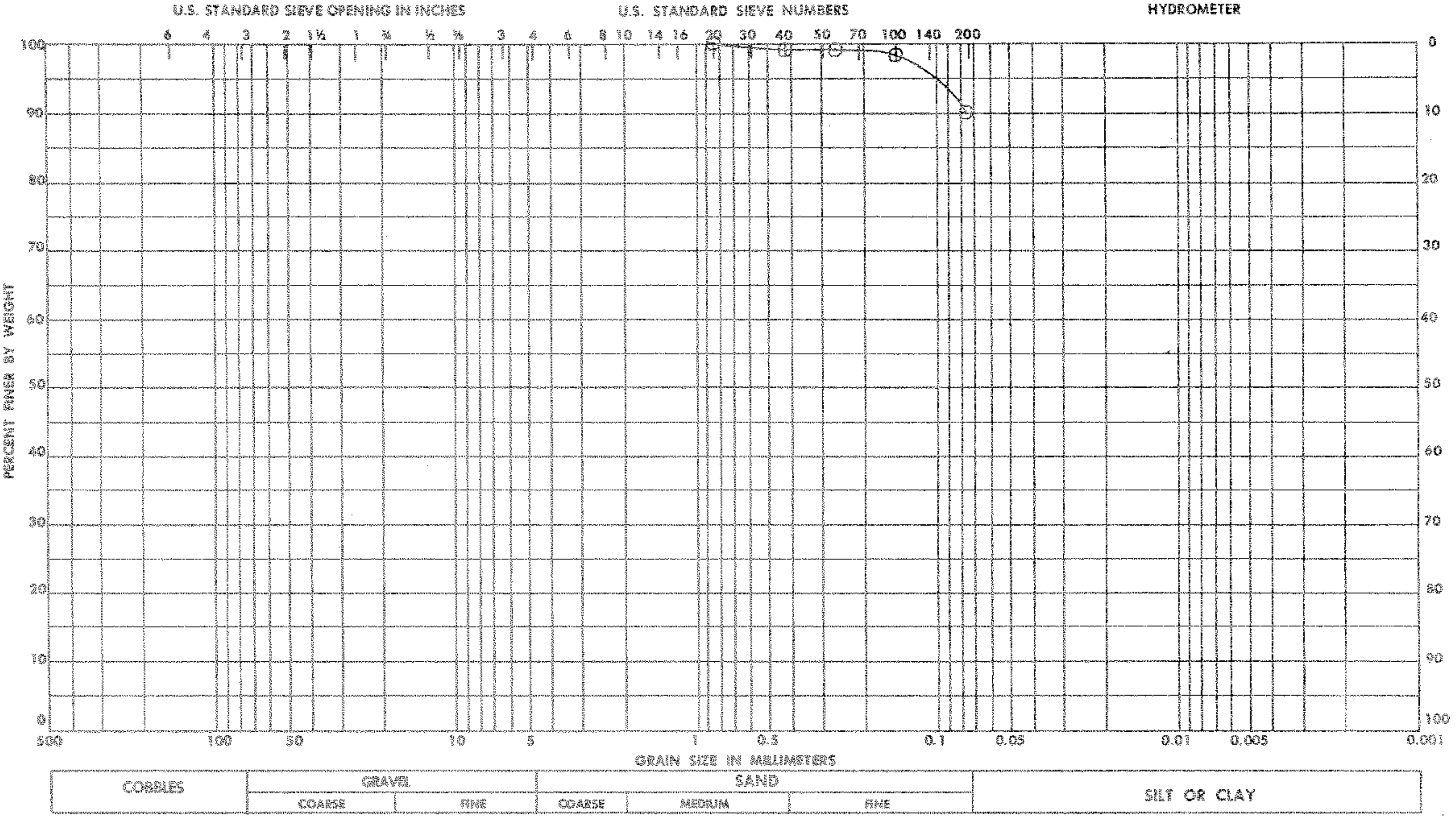
Boring No. SG-12-83 SAMPLE NO. 3

Date 11/21/83

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 115



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

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

GRADATION CURVES

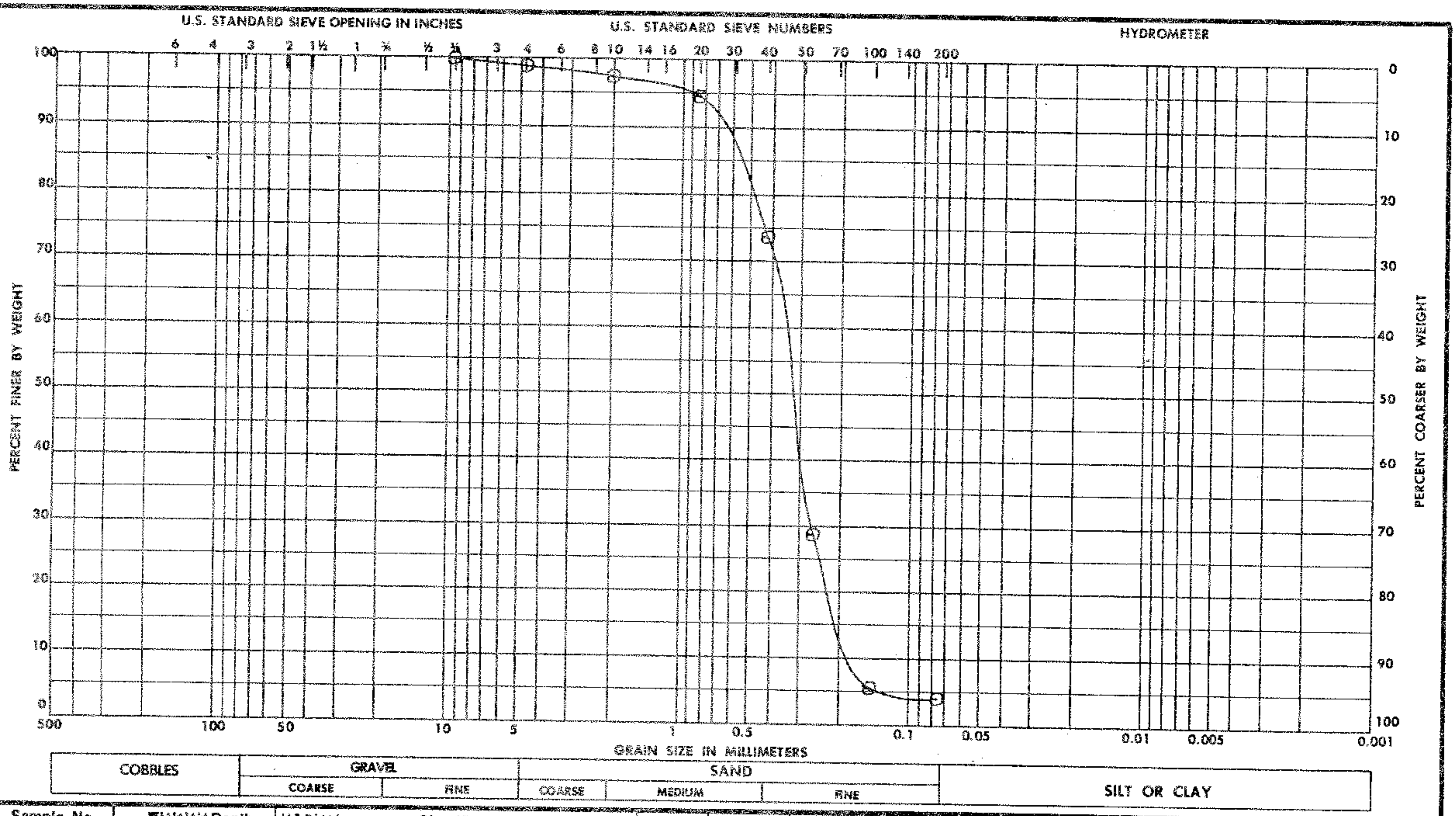
ENG FORM 1 MAY 63 2087

CHART NO. 116

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



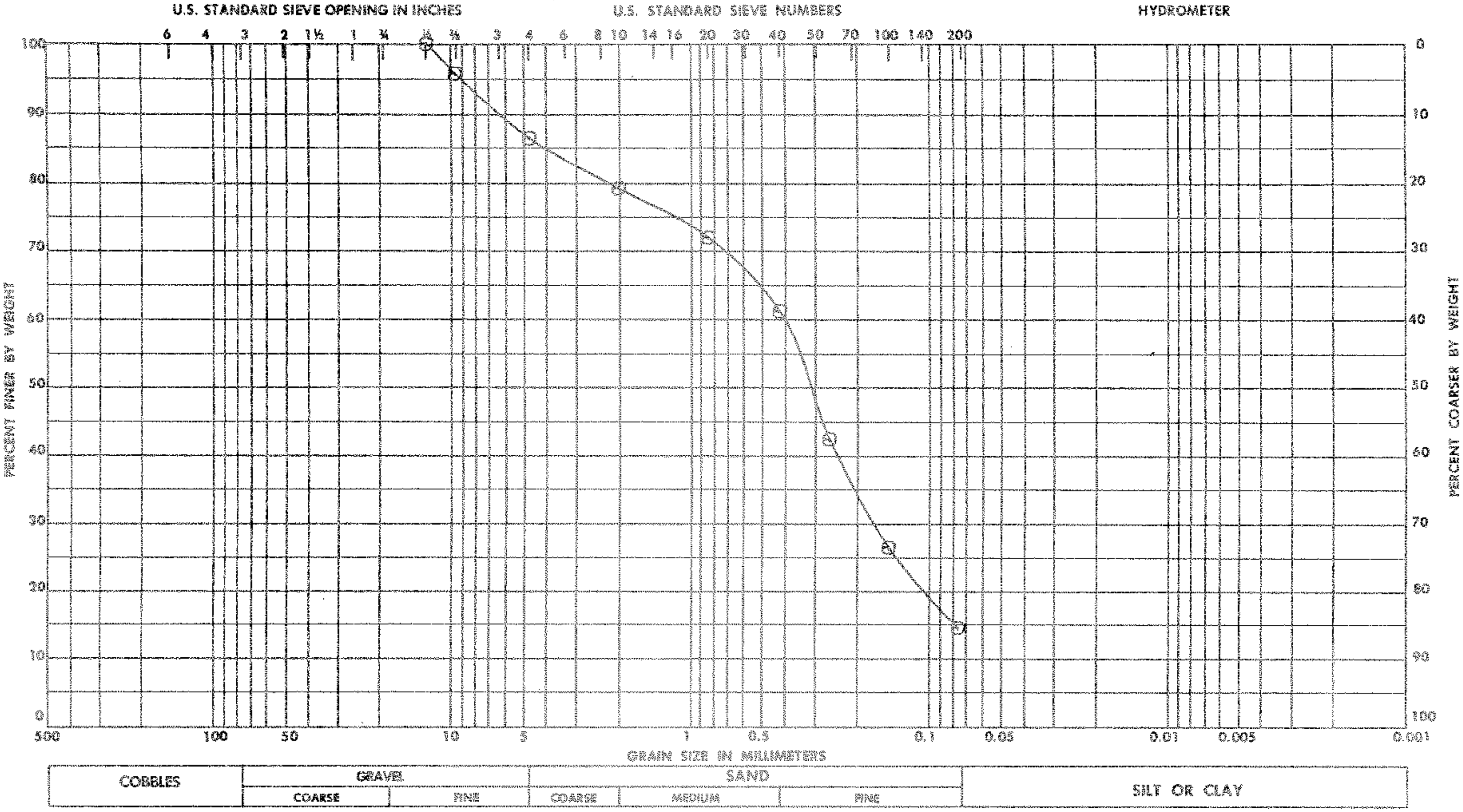
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	2.3-2.7'	POORLY GRADED SAND (SP)		NP	NP	NP
		GRAY WITH A TRACE OF SHELL				
		PERCENT SHELL= 5.5%				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 117



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				

Project MOBILE SHIP CHANNEL
OUTER BAR

Area LAB NO.57/9852

Boring No. 90-13-83 SAMPLE NO. 3

Date 11/22/83

GRADATION CURVES

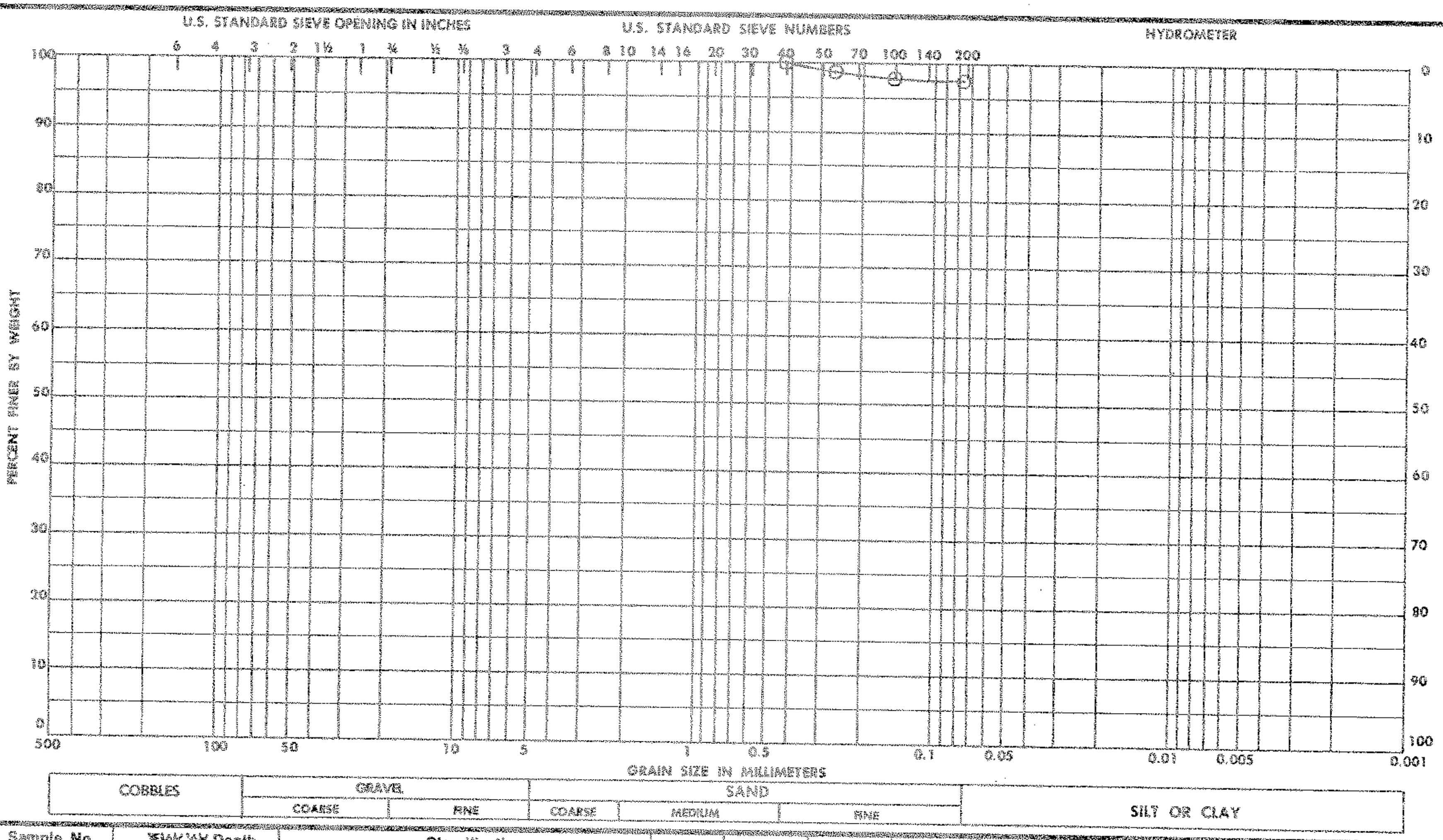
ENG FORM 1 MAY 63 2087

CHART NO. 118

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



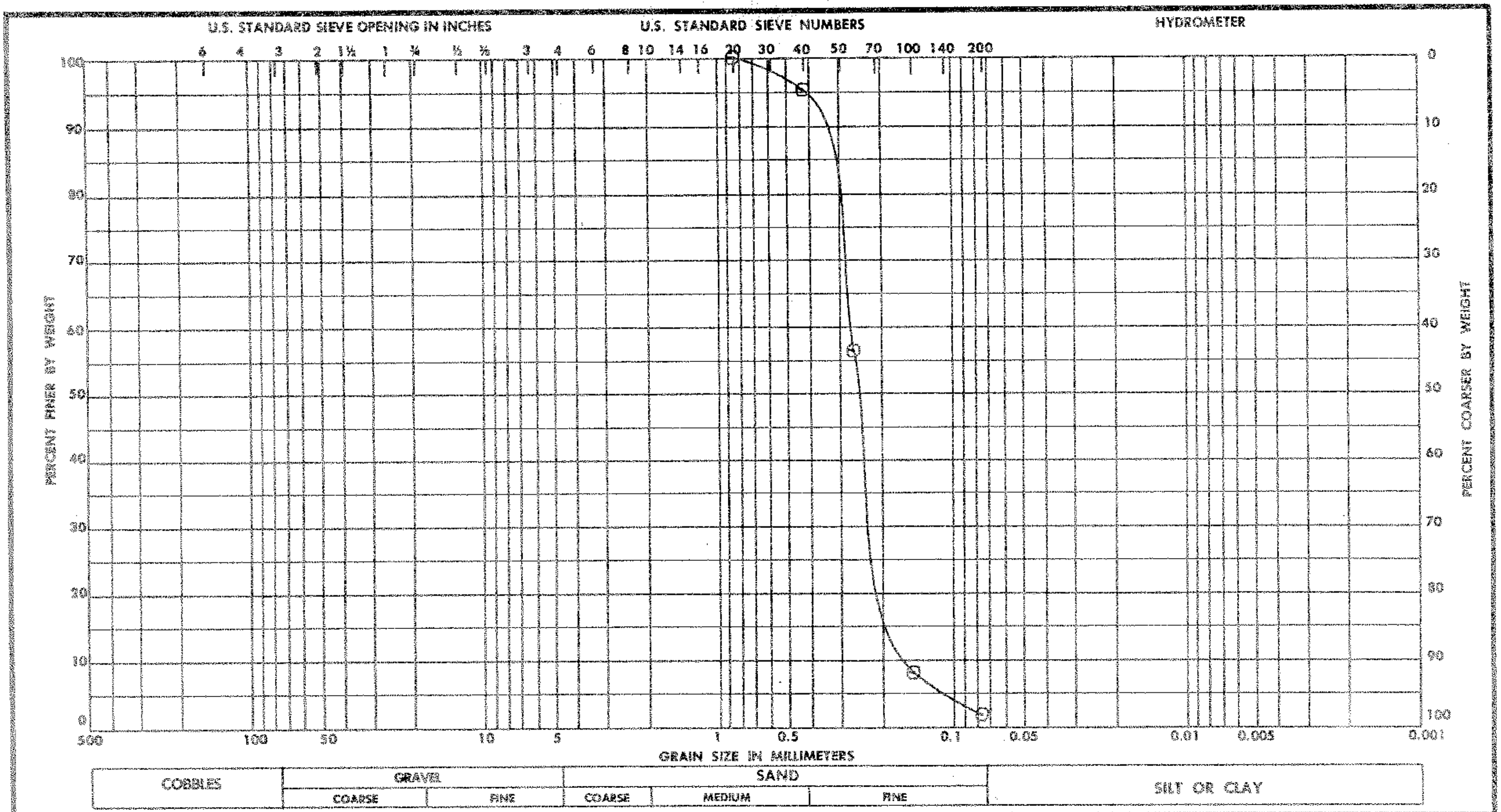
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
5	13.8-14.4'	FAT CLAY (CH)	76.6	97	27	70
		GRAY WITH A TRACE OF SAND				

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

ENG FORM 1 MAY 63 2087

CHART NO. 119



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

GRADATION CURVES

Project MOBILE SHIP CHANNEL
OUTER BAR
Area LAB NO.57/9855
Boring No. 90-14-83 SAMPLE NO. 1
Date 11/22/83

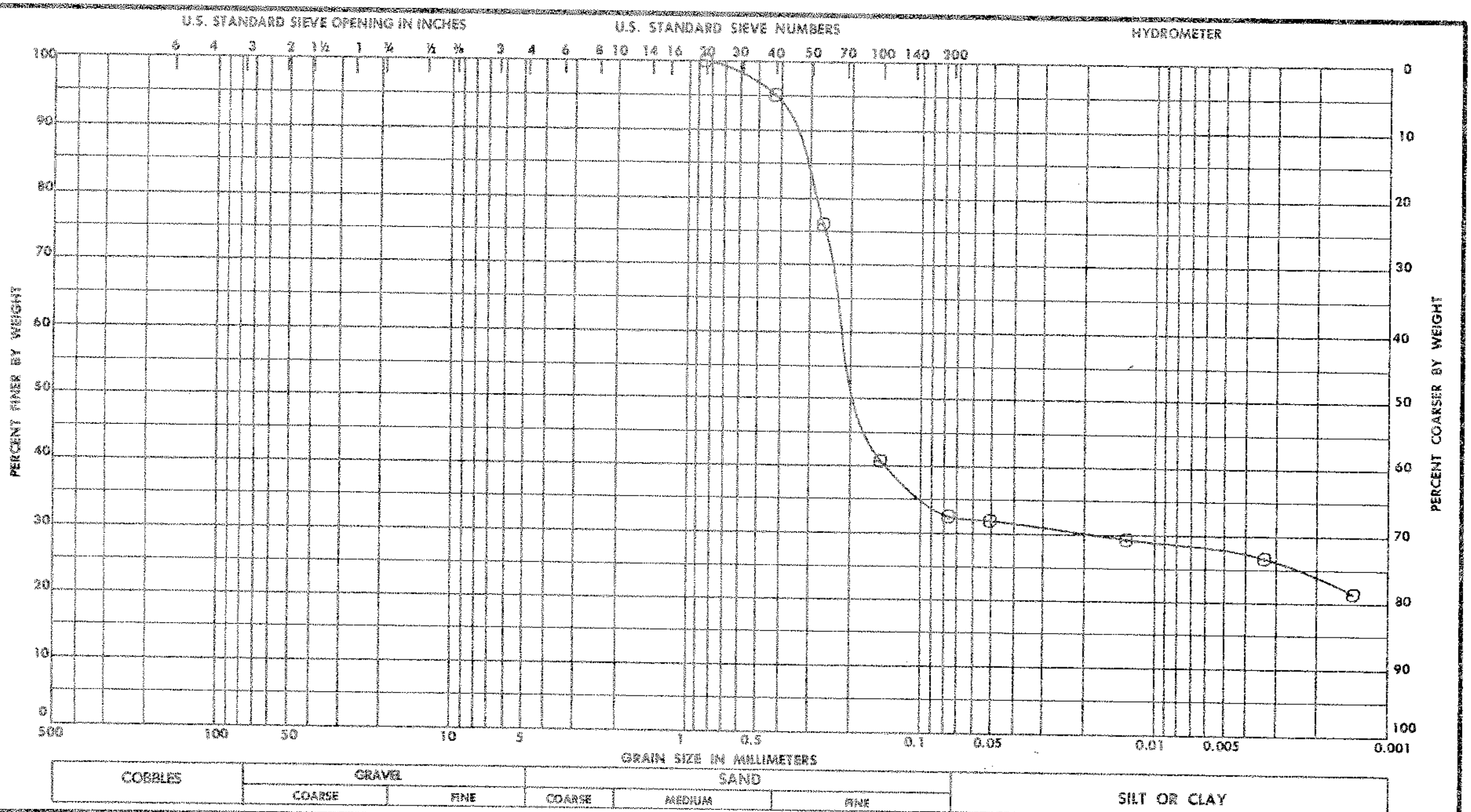
ENG FORM 1 MAY 63 2087

CHART NO. 120

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



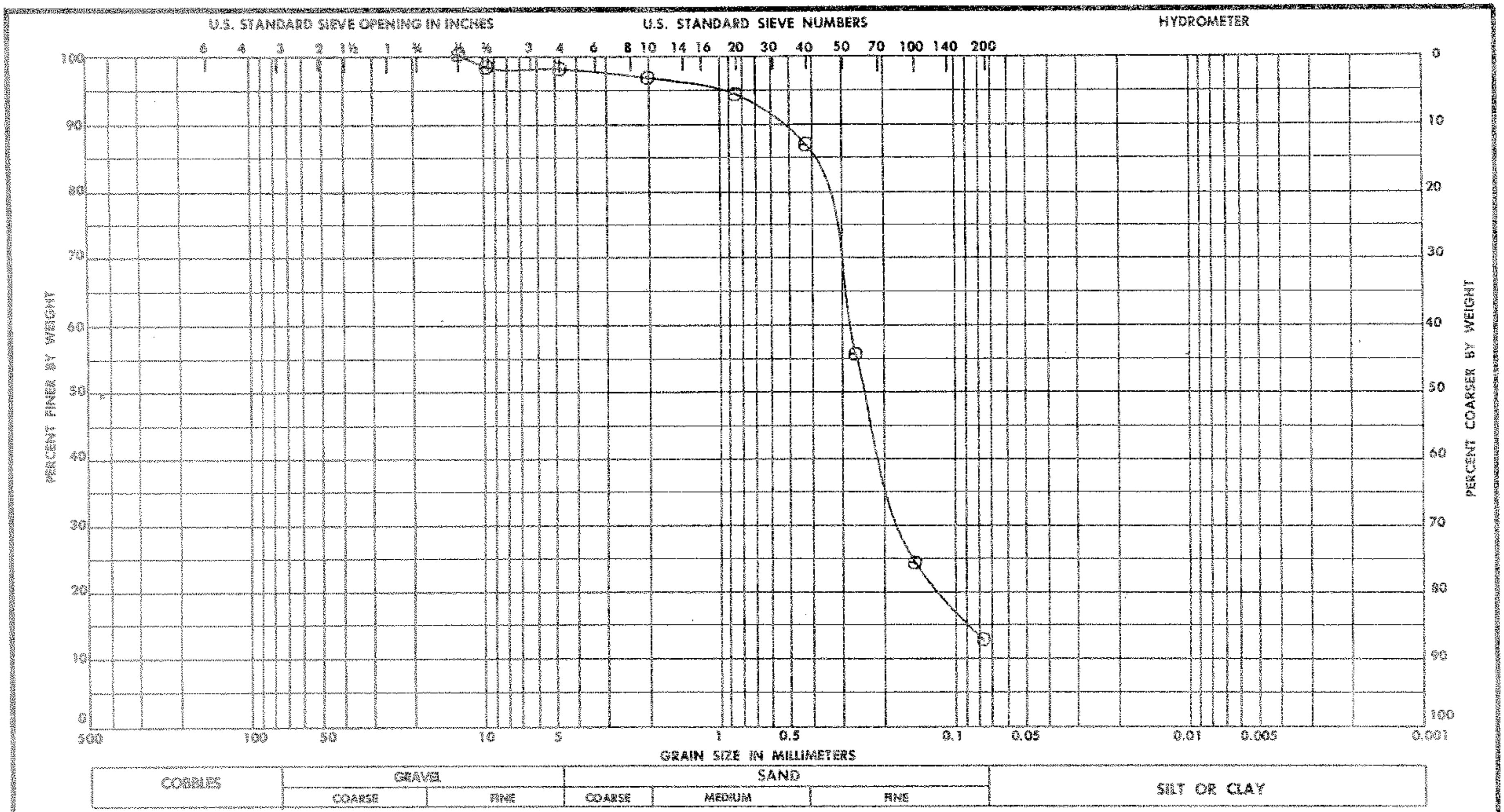
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	3.0-3.4'	CLAYEY SAND (SC)	58.7			
		GRAY				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 121



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				

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

GRADATION CURVES

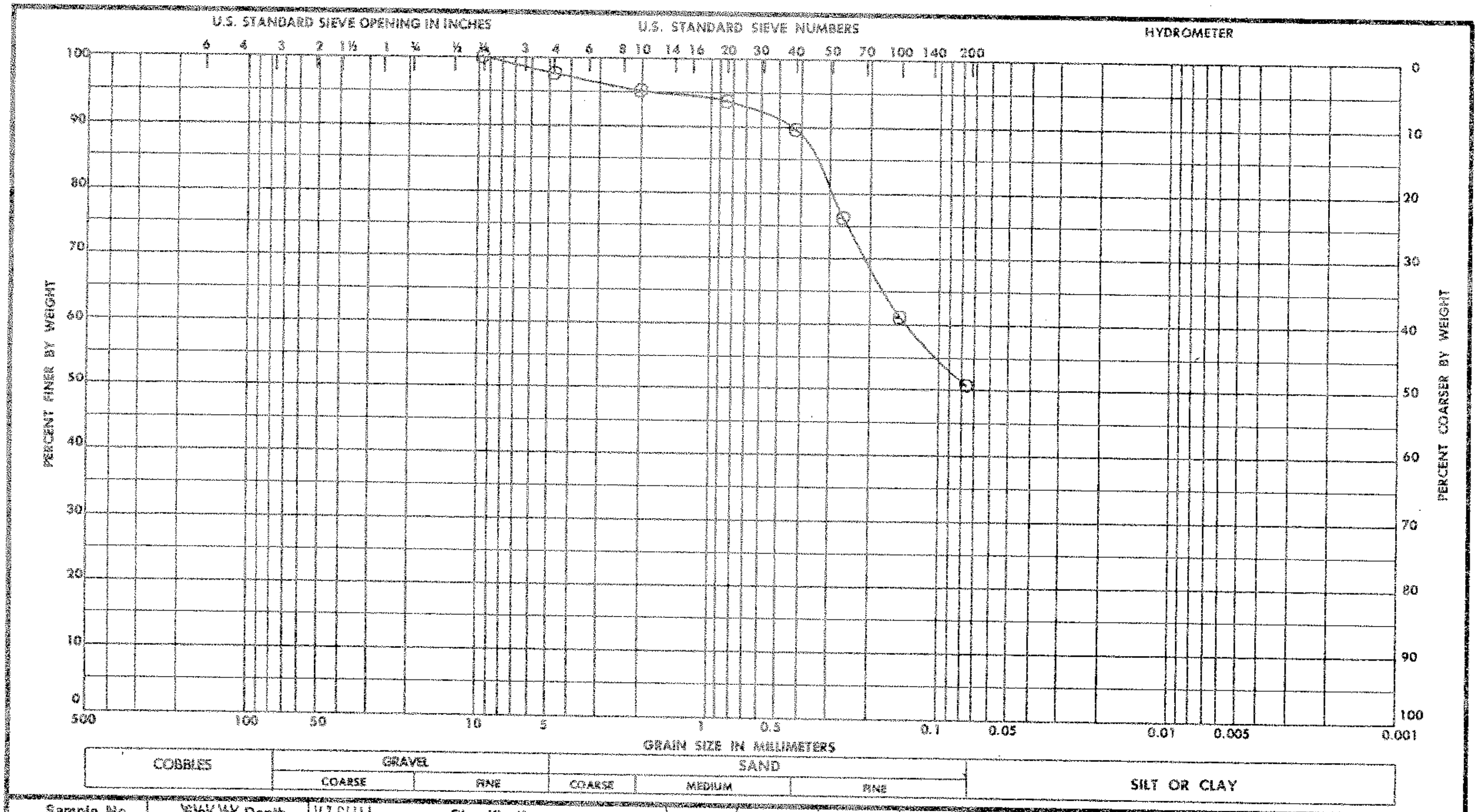
ENG FORM 1 MAY 63 2087

CHART NO. 122

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



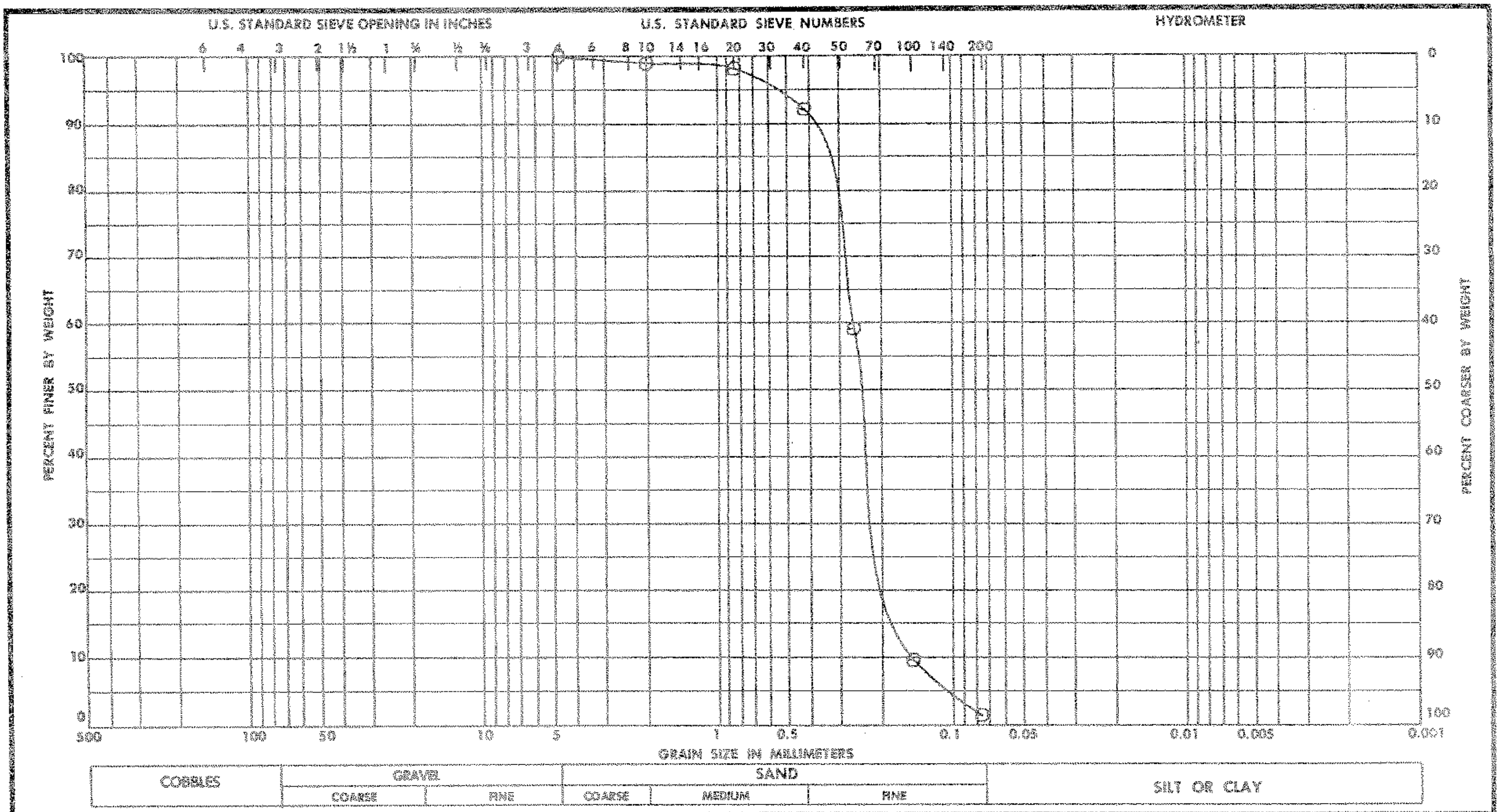
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	19.0-19.5'	FAT CLAY (CH)	41.2			
		GRAY, SANDY WITH A TRACE OF				
		SHELL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 123



Sample No.	~~Elev or~~ 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.57/193

Boring No. SG-15-83 SAMPLE NO. 1

Date 05/05/84

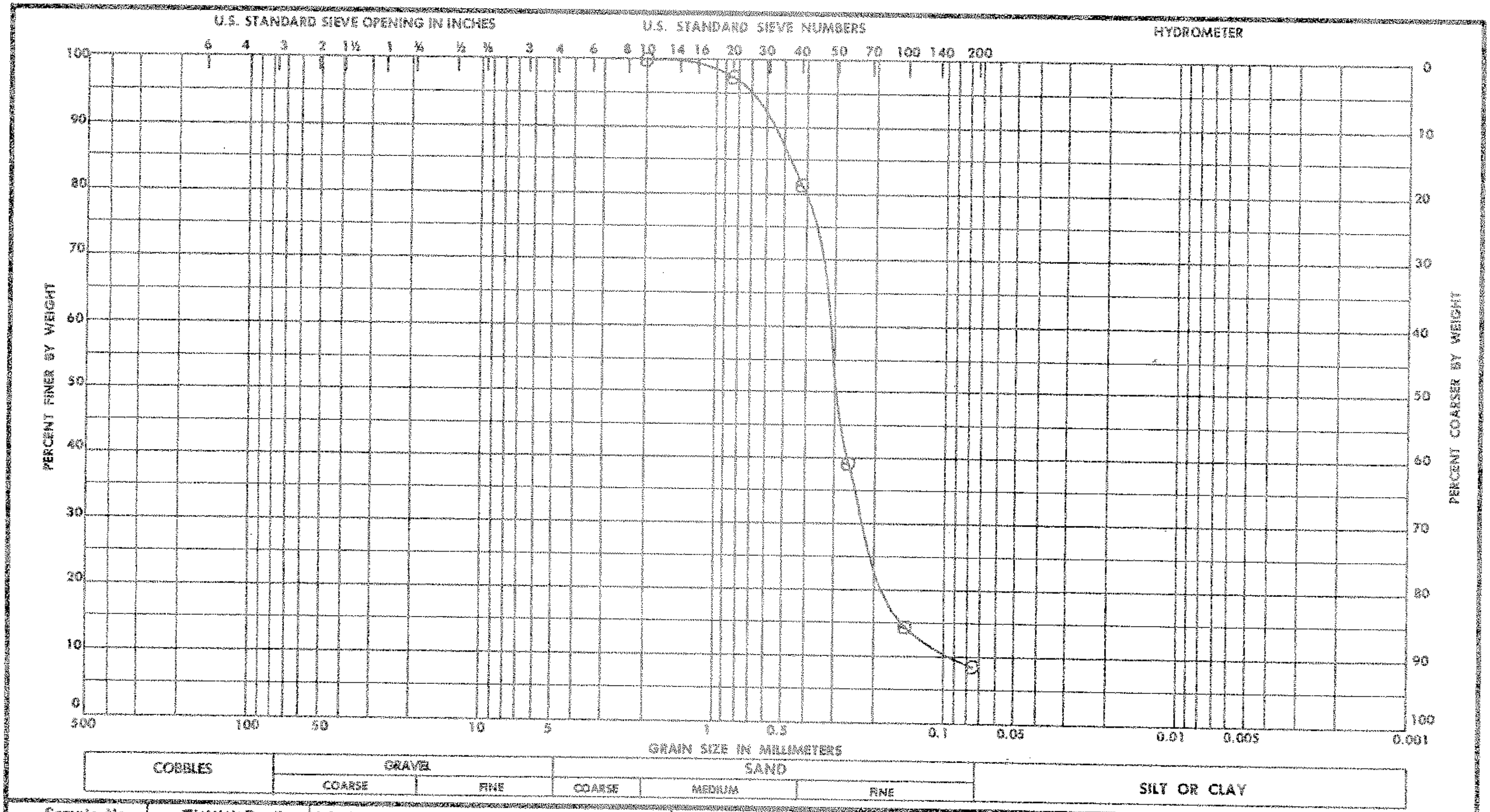
ENG FORM 1 MAY 63 2087

CHART NO. 124

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	--	NP	NP	NP
		(SP-SM),TANNISH GRAY				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/194

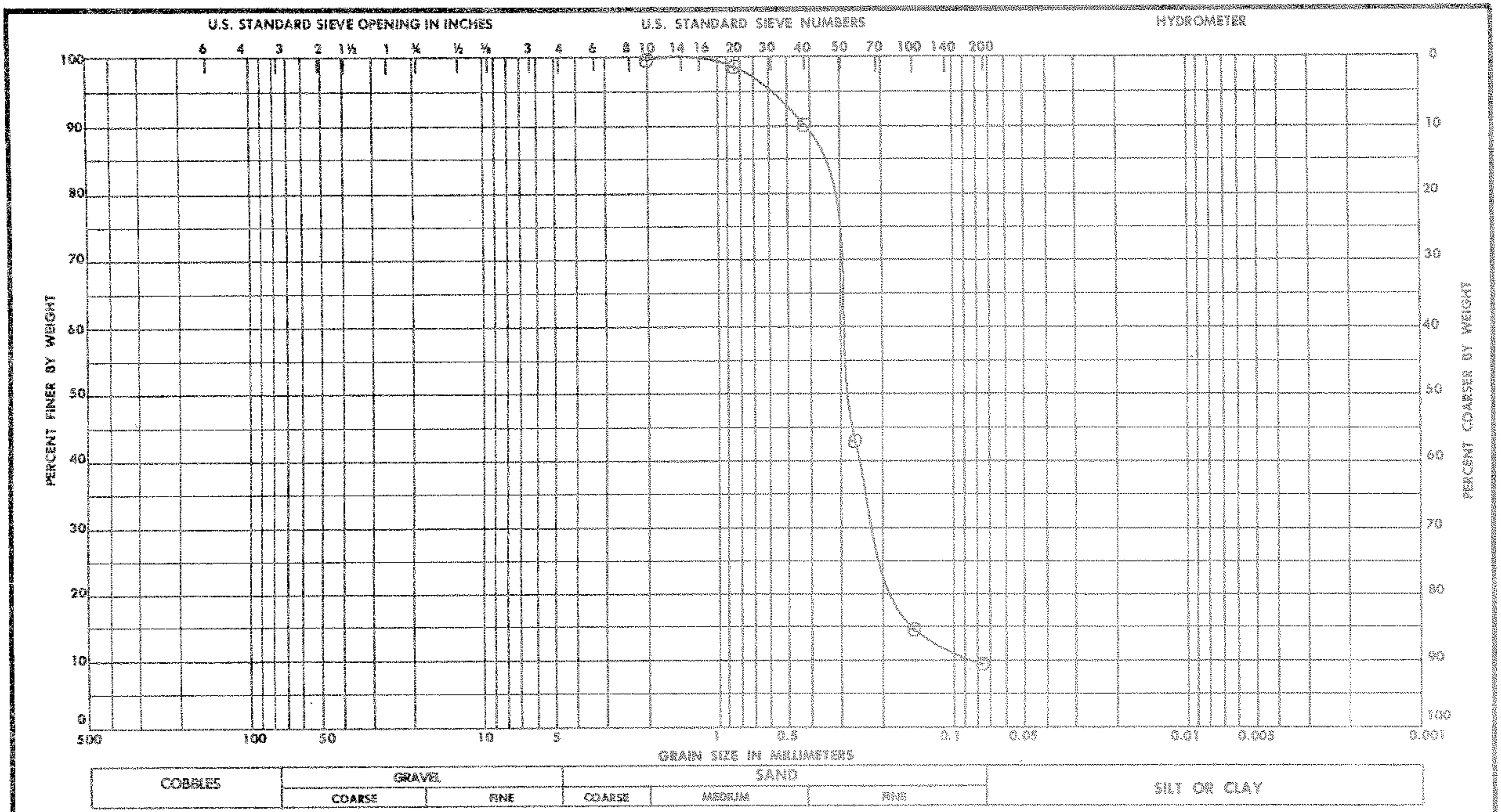
Boring No. SG-15-83 SAMPLE NO. 2

Date 05/05/84

GRADATION CURVES

ENG FORM 1 MAY 63 **2087**

CHART NO. 125



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				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/195
Boring No. SG-15-83 SAMPLE NO. 3
Date 05/05/84

GRADATION CURVES

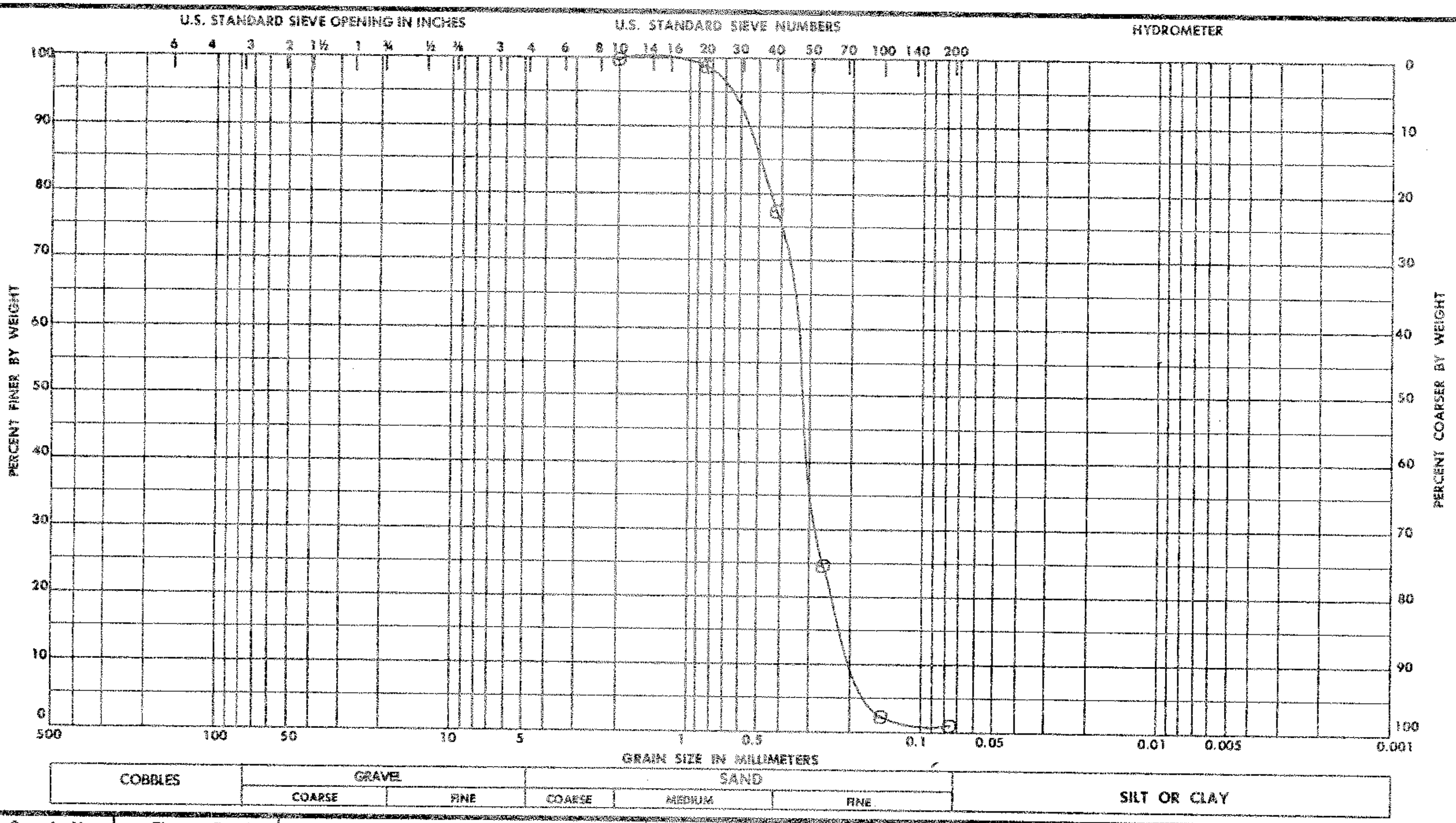
ENG FORM 1 MAY 63 2087

CHART NO. 126

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



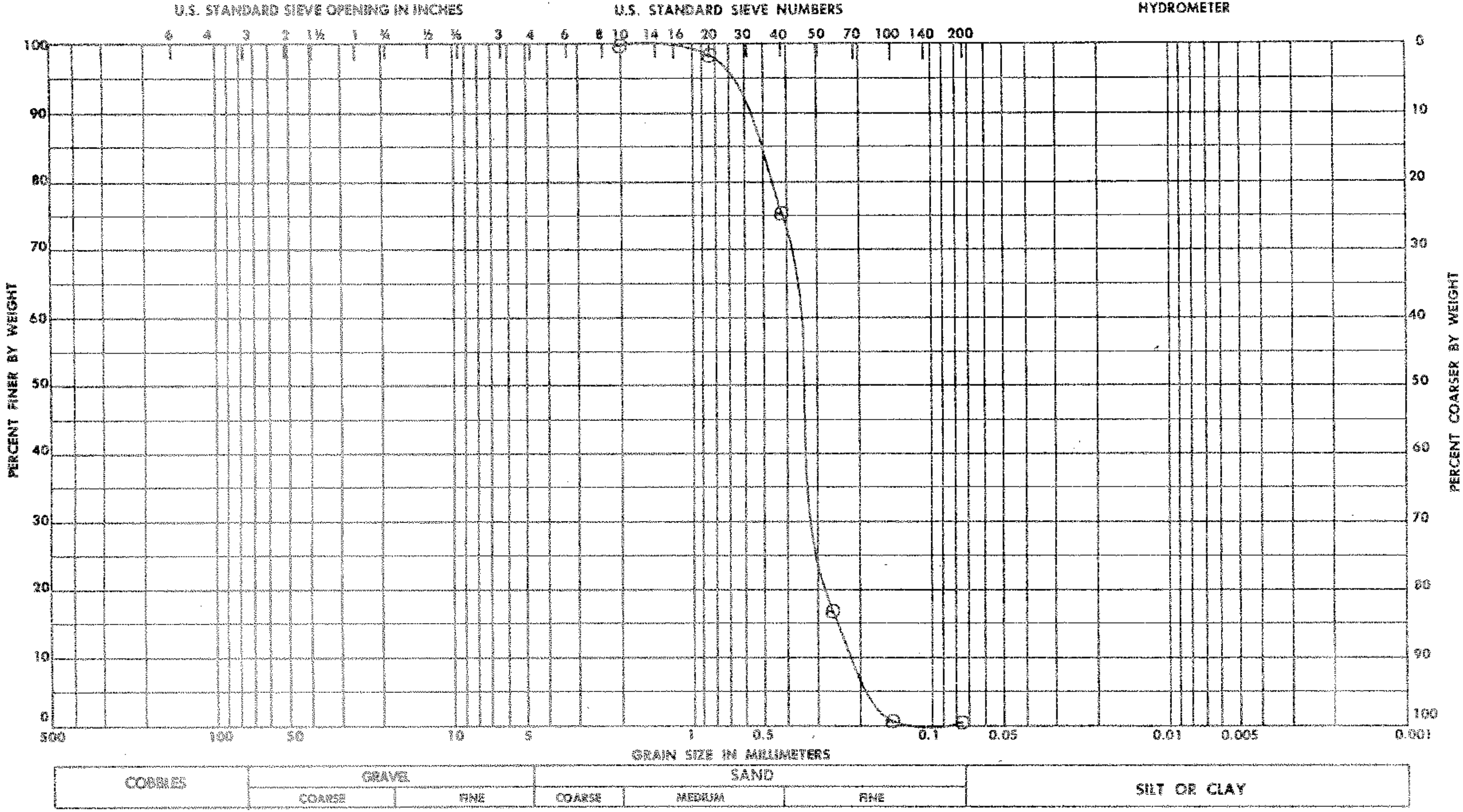
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	0.0-0.9'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 127



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				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/197

Boring No. SG-16-83 SAMPLE NO. 2

Date 05/05/84

GRADATION CURVES

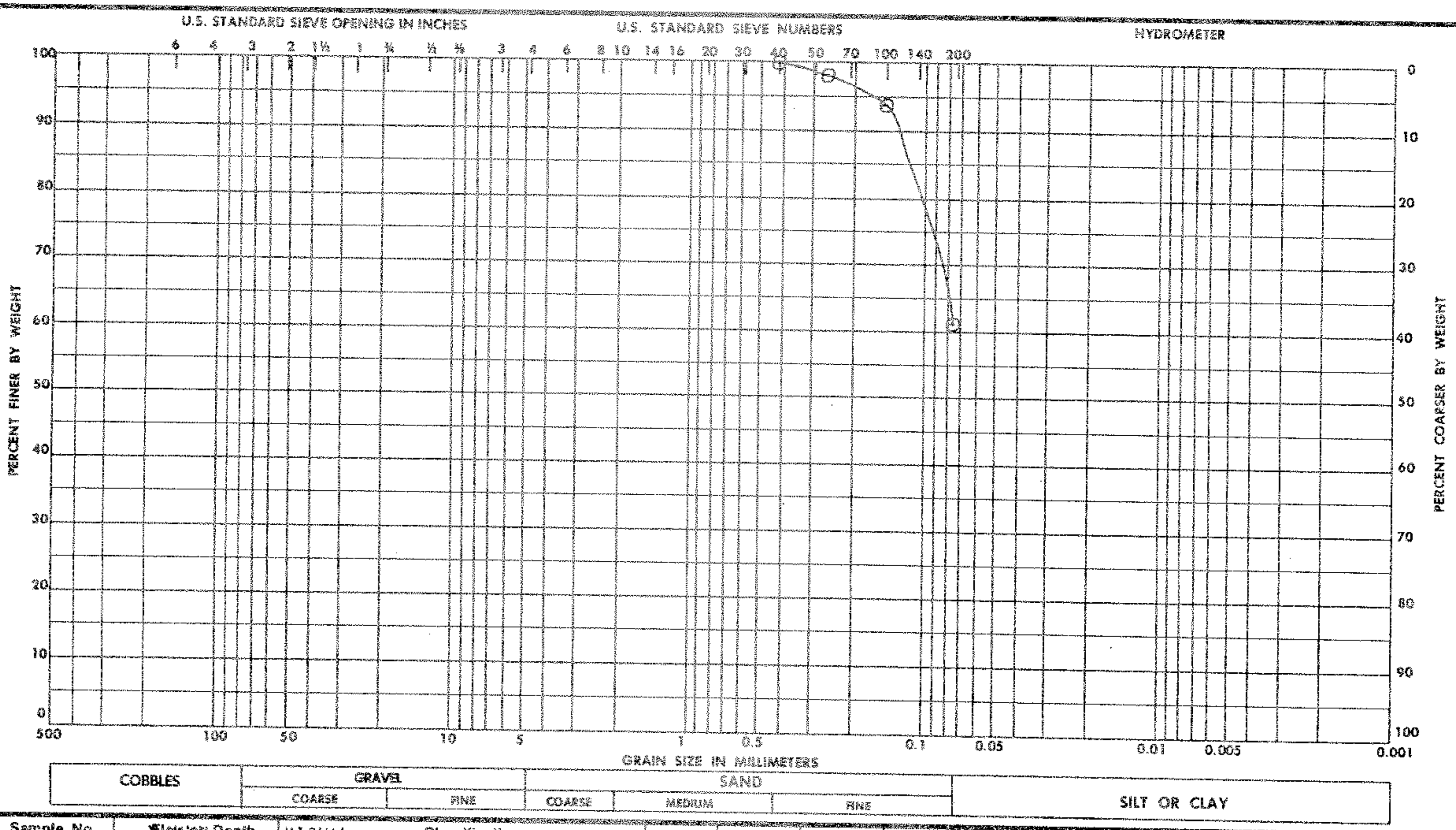
ENG FORM 1 MAY 63 2087

CHART NO. 128

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



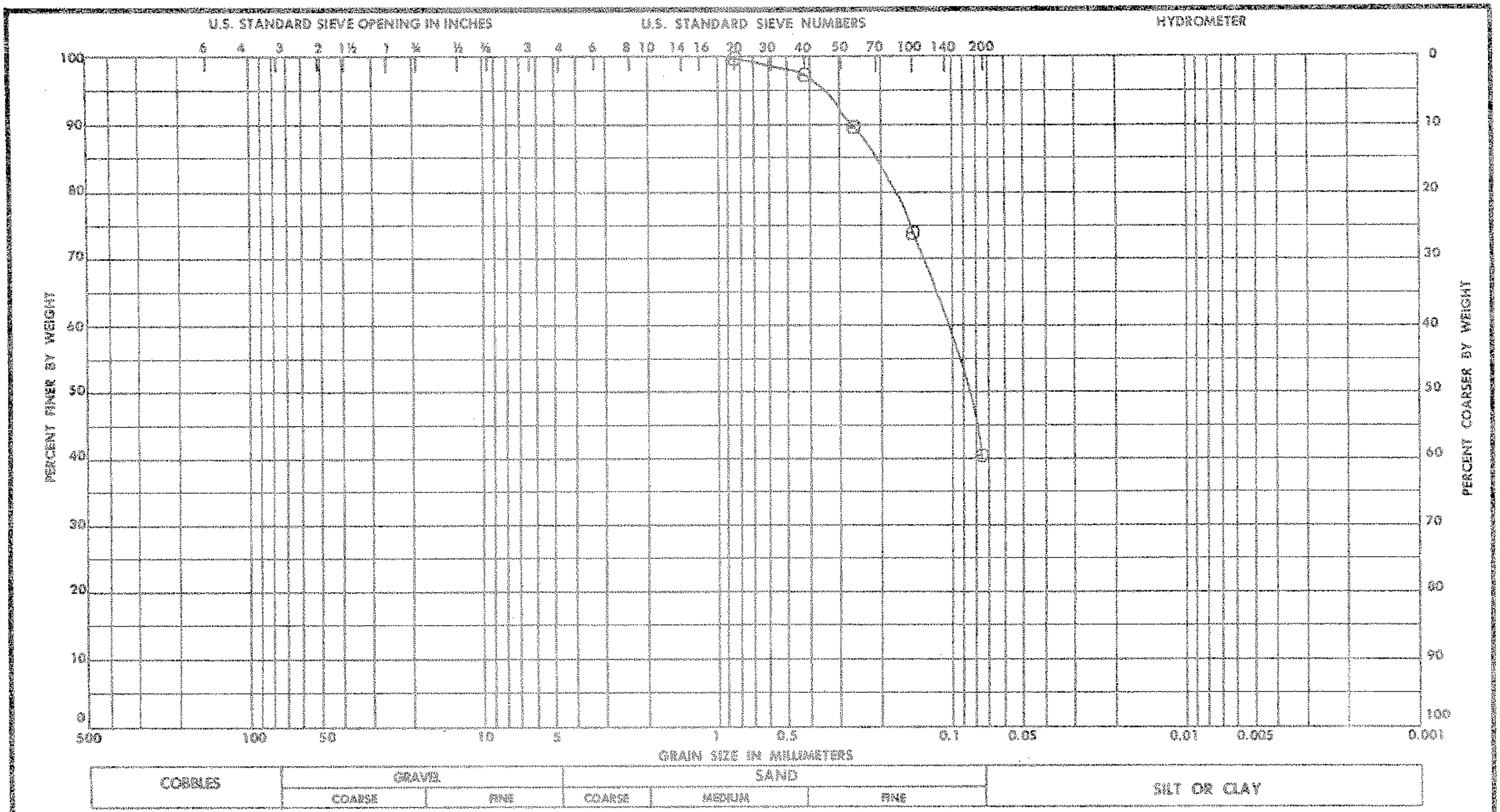
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	3.5-4.0'	FAT CLAY (CH)	53.9	--	--	--
		GRAY, SANDY, WITH A TRACE OF				
		SHELL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 129



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	5.0-5.6'	CLAYEY SAND HIGH LL	40.2	--	--	--
		(SC-H), GRAY WITH A TRACE OF				
		SHELL				

Project MOBILE SHIP CHANNEL

CHANNEL DEEPENING

Area LAB NO.57/200

Boring No. SG-17-83 SAMPLE NO. 3

Date 05/05/84

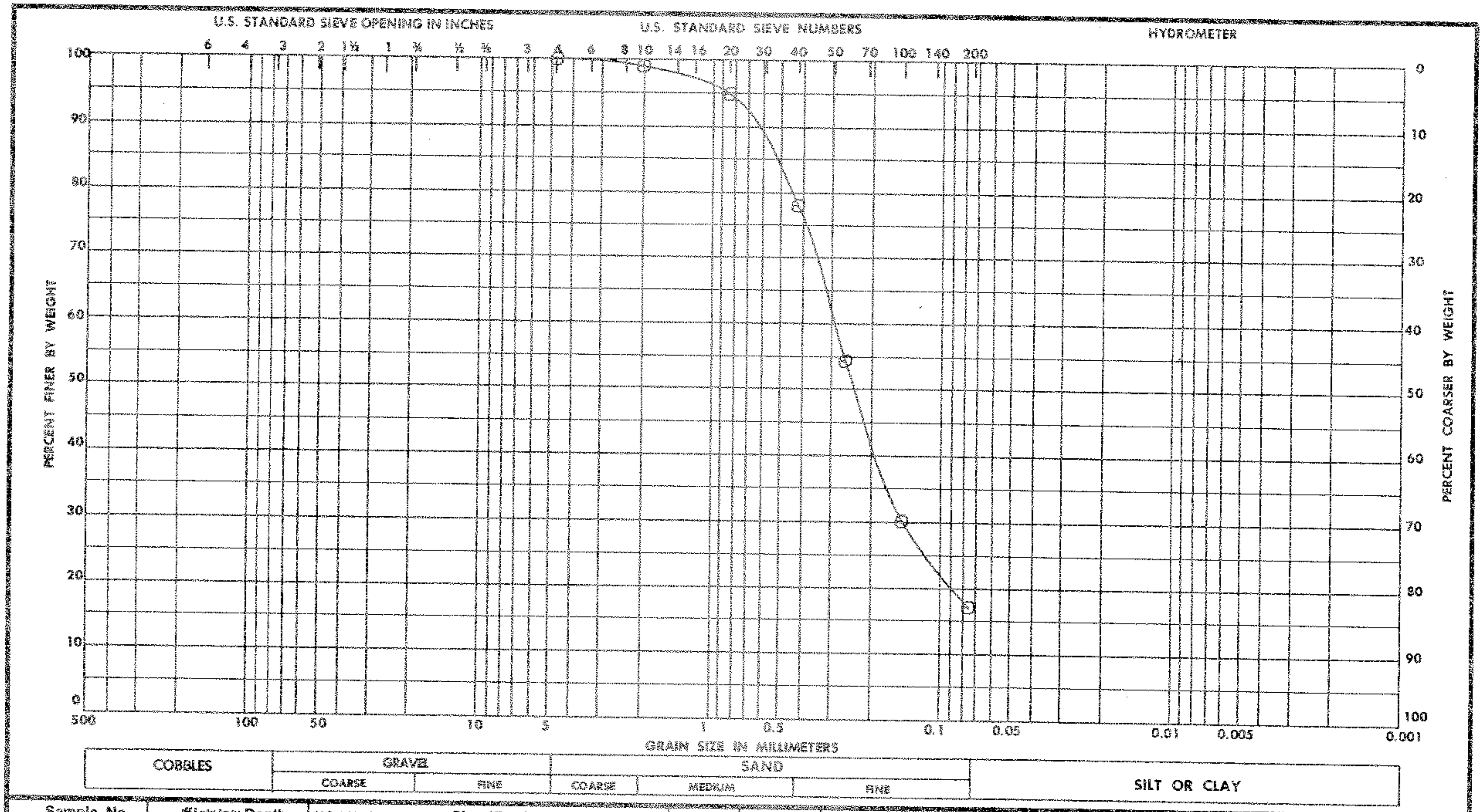
GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 130

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



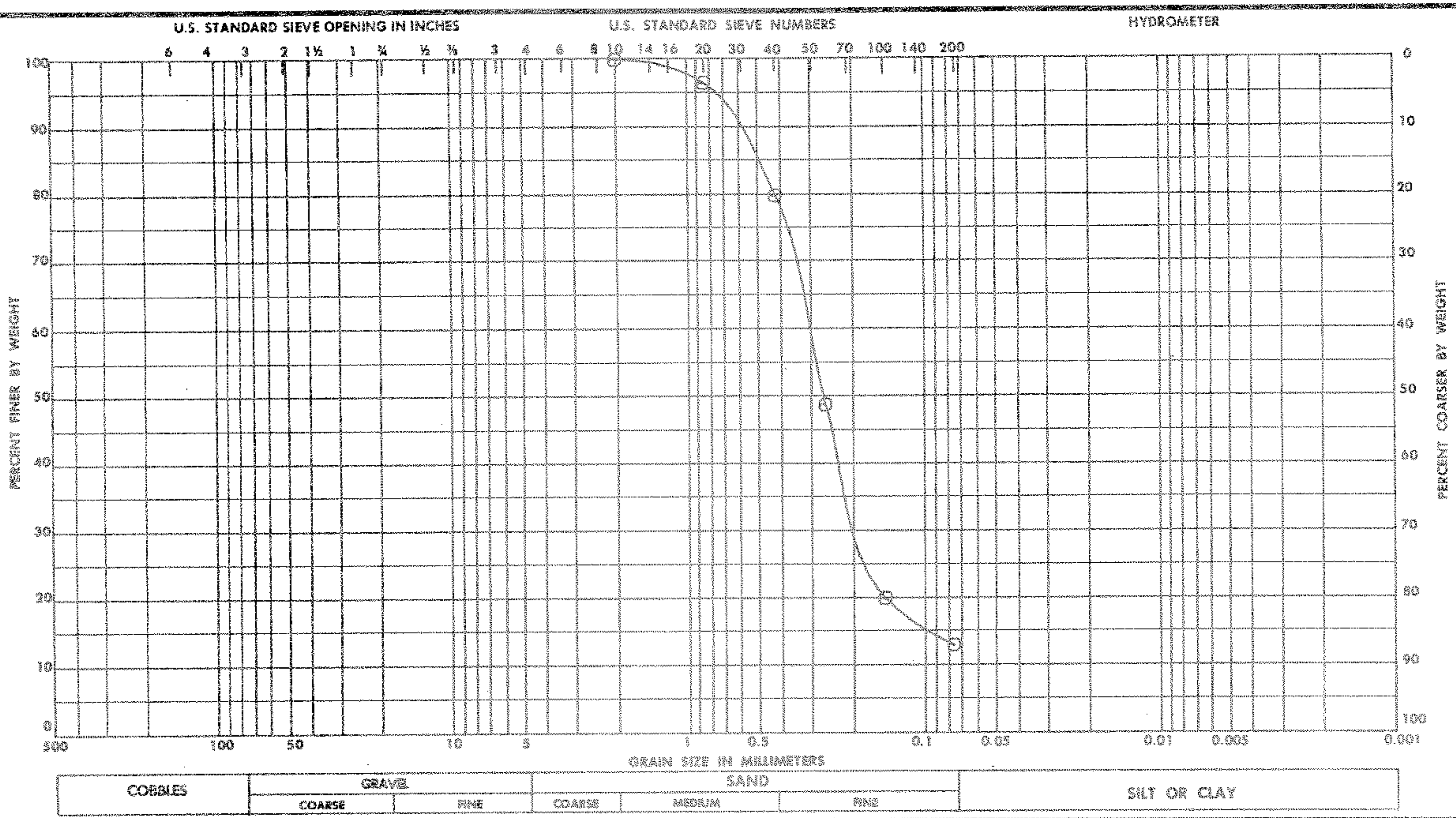
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	8.6-8.9	CLAYEY SAND (SC)	25.2	--	--	--
		GRAY WITH A TRACE OF SHELL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 131



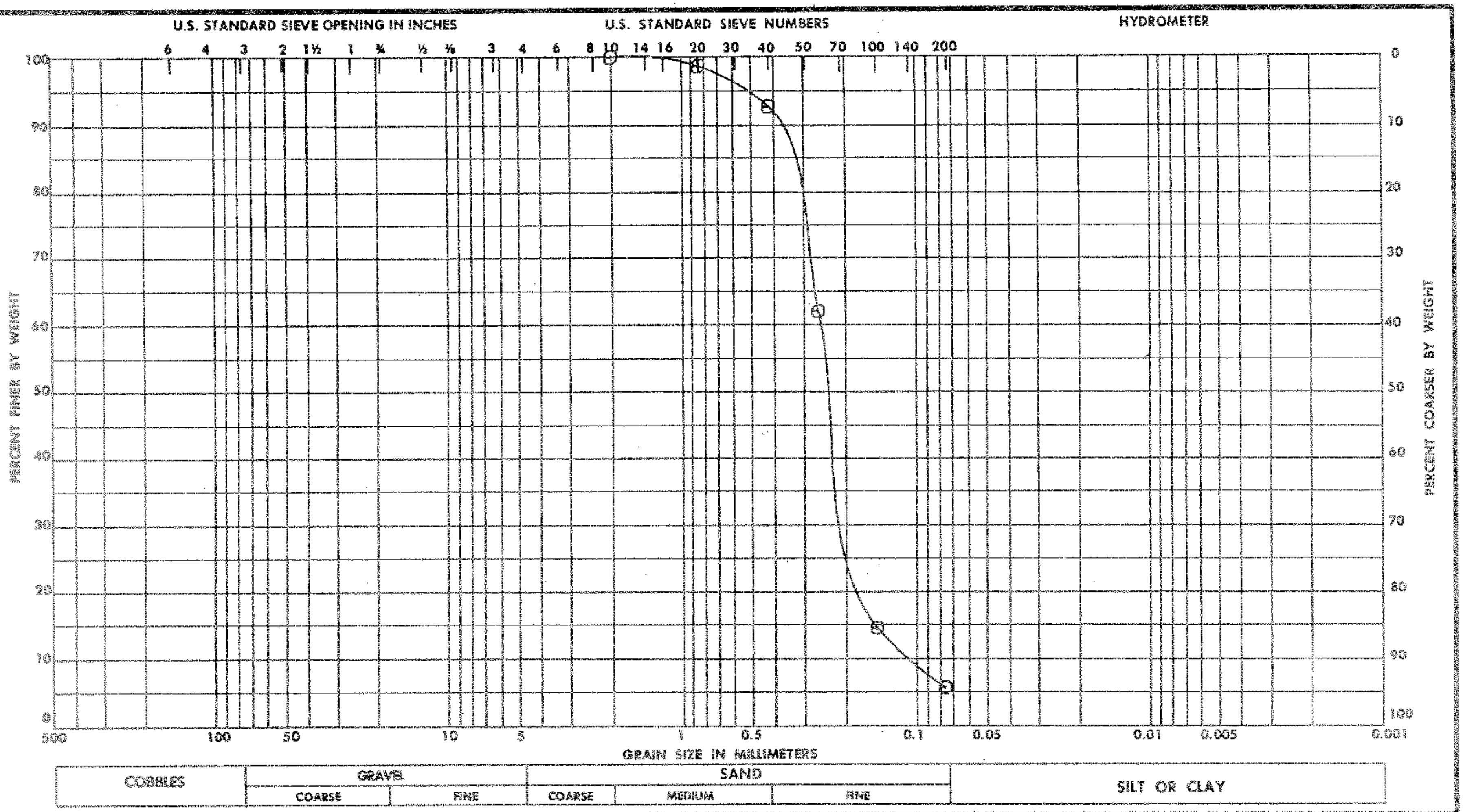
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	12.0-12.4'	SILTY SAND (SM)	--	--	--	--
		TAN,WITH POCKETS OF (SC)				

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 1 MAY 63 2087



Sample No.	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

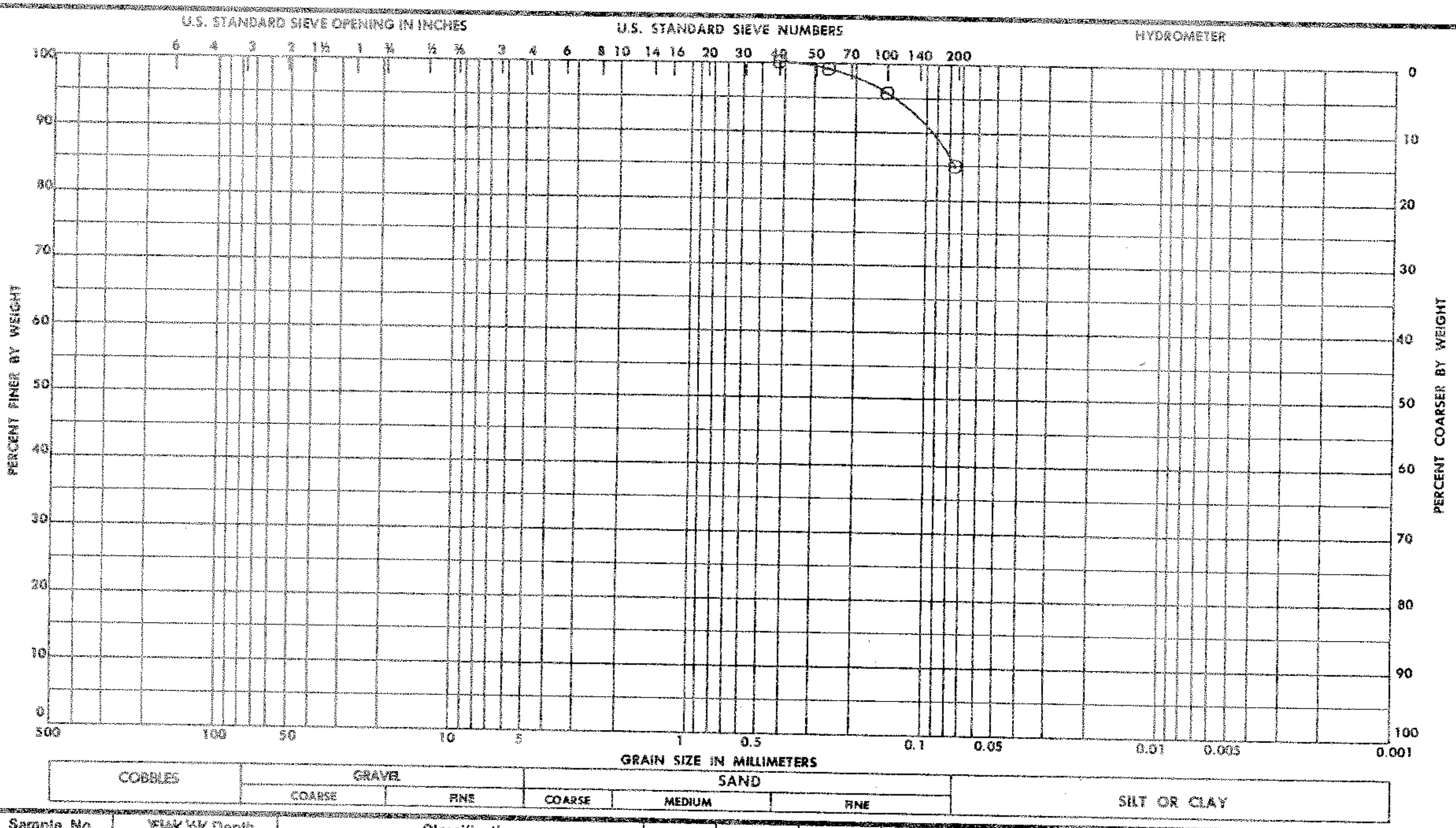
ENG FORM 1 MAY 63 2087

CHART NO. 136

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



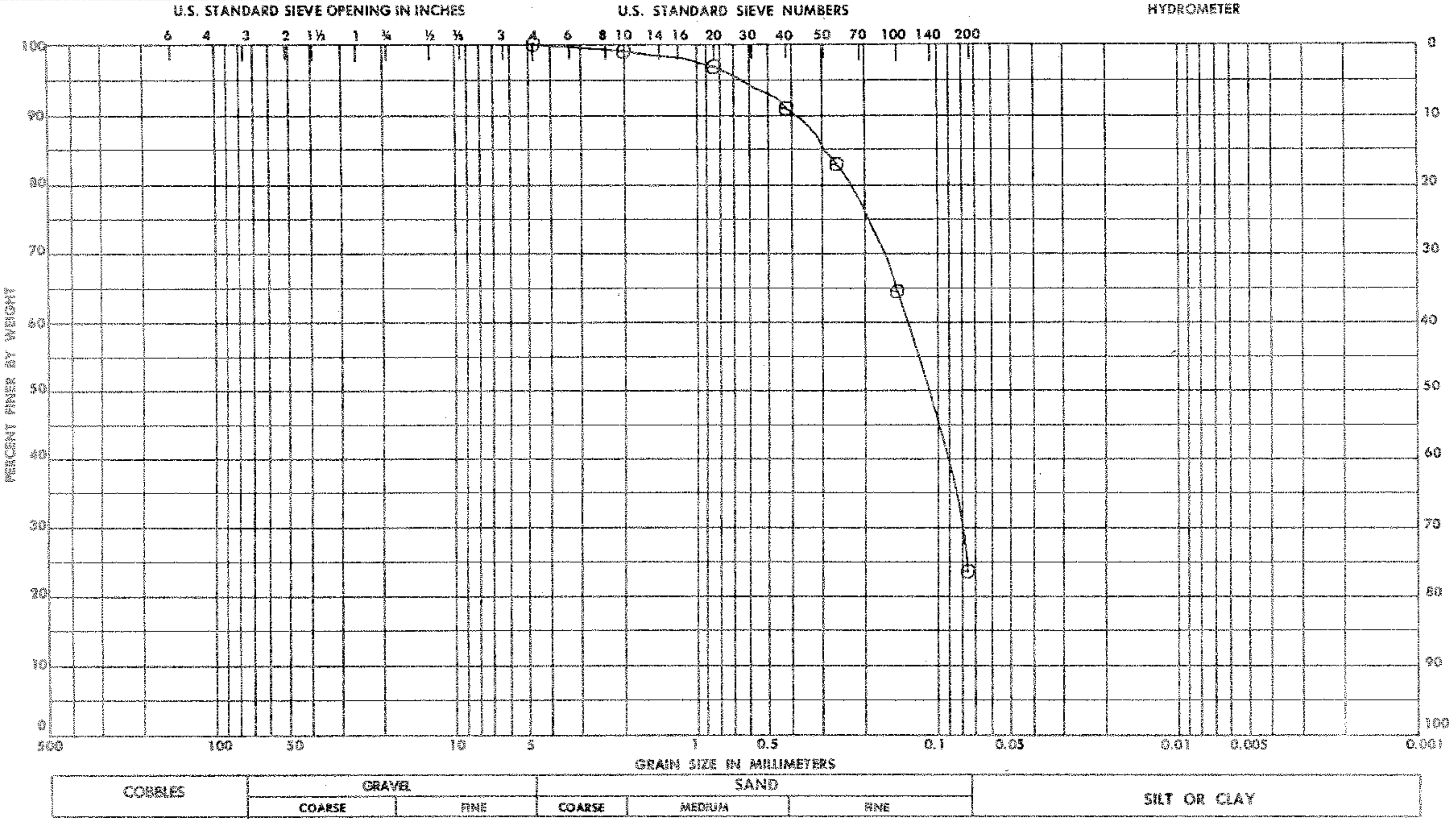
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	11.0-11.5'	FAT CLAY (CH)	92.9	127	44	83
		GRAY.WITH LITTLE SAND				
		Specific Gravity=2.61				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 137



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

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/209

Boring No. SG-19-83 SAMPLE NO. 5

Date 05/05/84

GRADATION CURVES

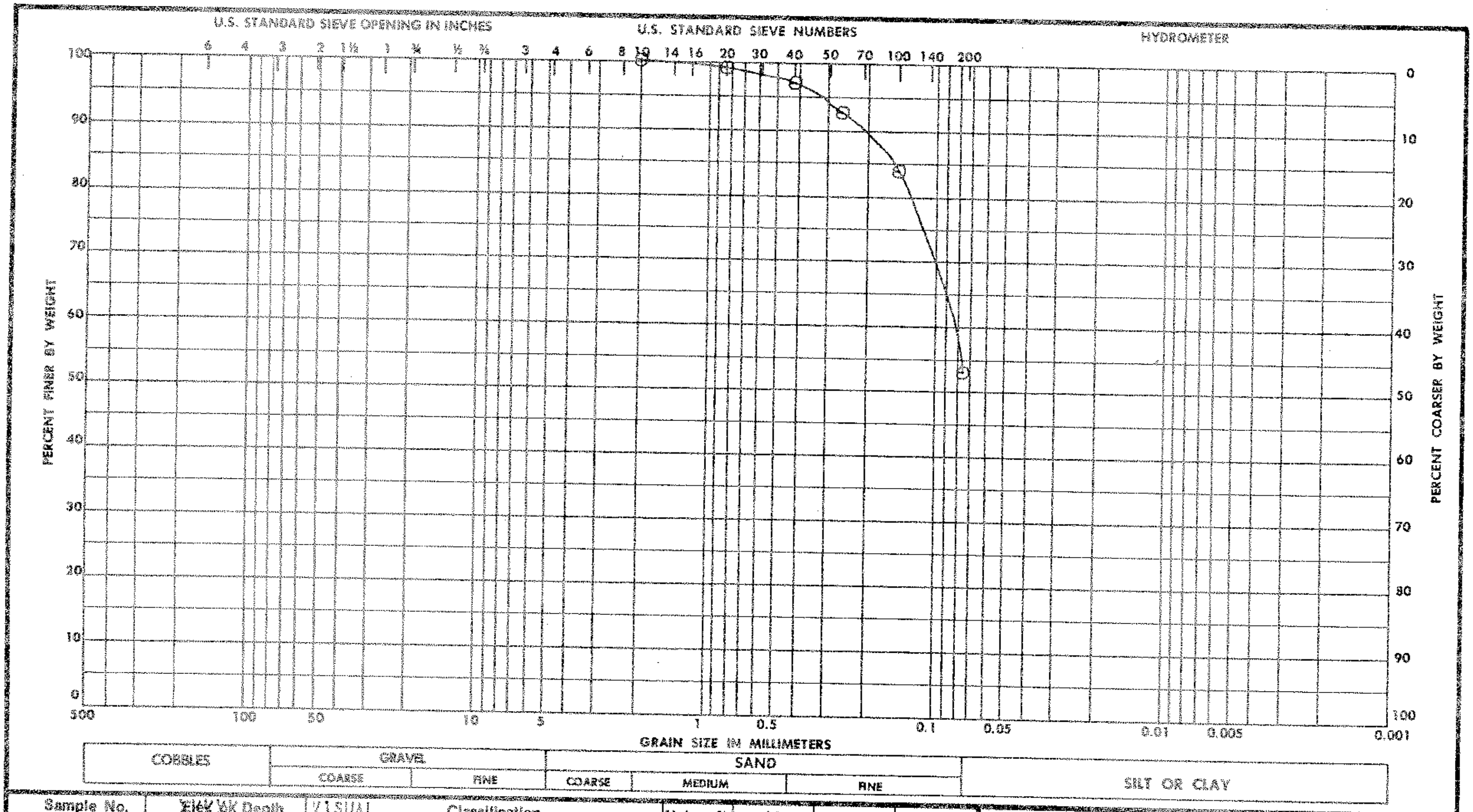
ENG FORM 1 MAY 63 2087

CHART NO. 138

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



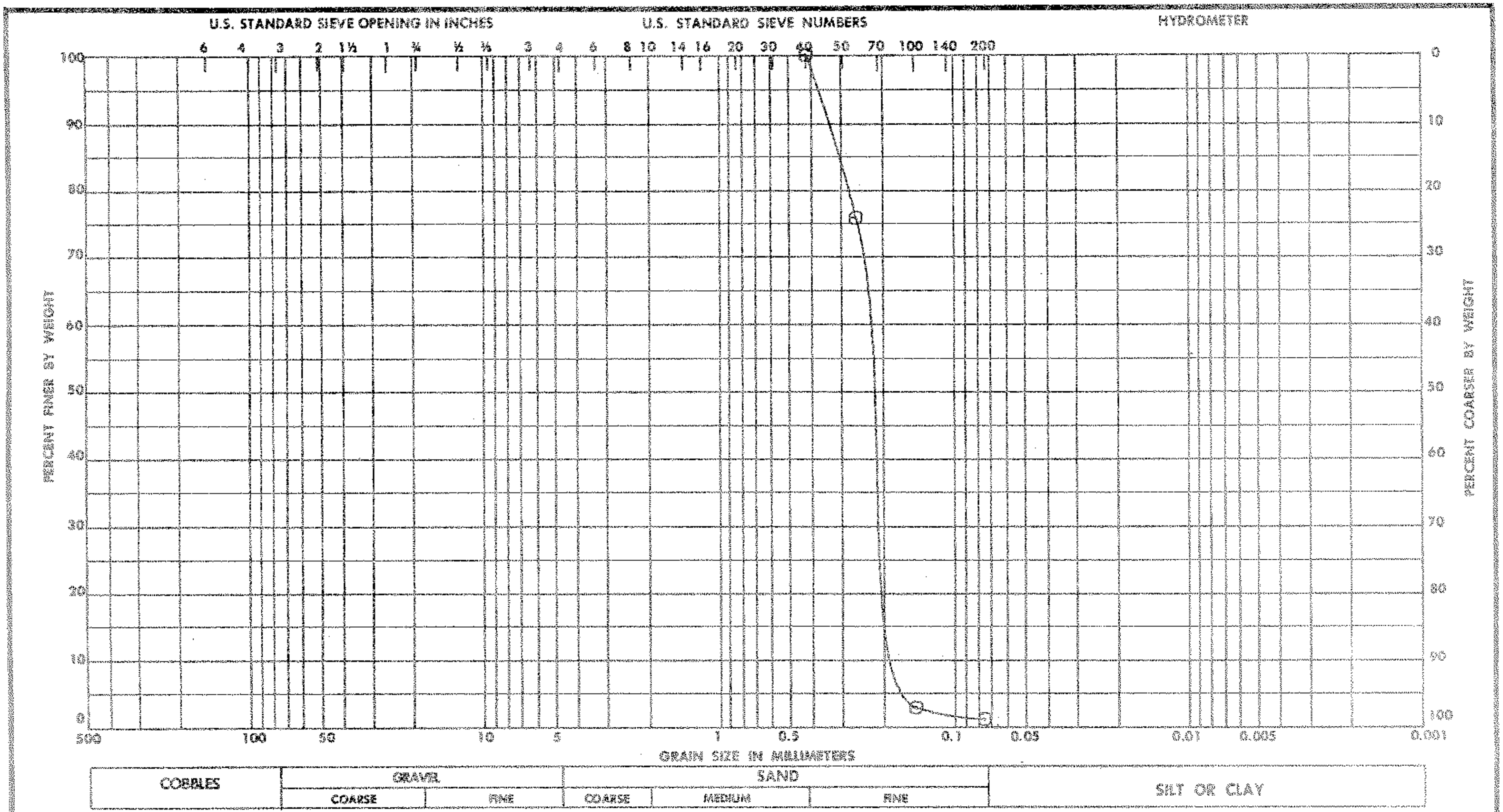
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	29.6-30.0'	FAT CLAY (CH), GRAY, SANDY WITH	--	--	--	--
		A TRACE OF SHELL				
		%SHELL= 5.2				

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 63 2087

CHART NO. 139



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

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/211

Boring No. SG-20-83 SAMPLE NO. 1

Date 05/05/84

GRADATION CURVES

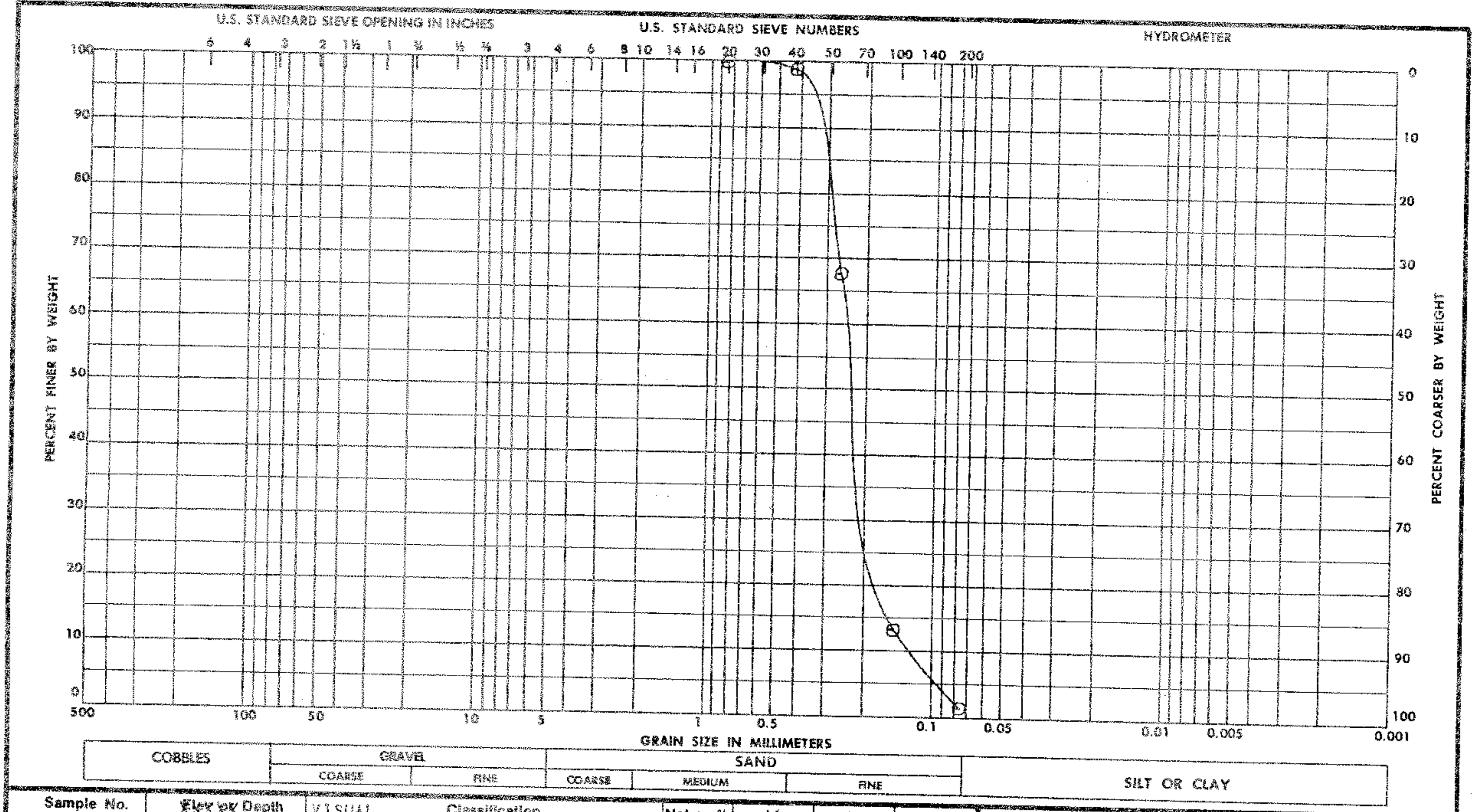
ENG FORM 1 MAY 63 2087

CHART NO. 140

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

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO. 57/212

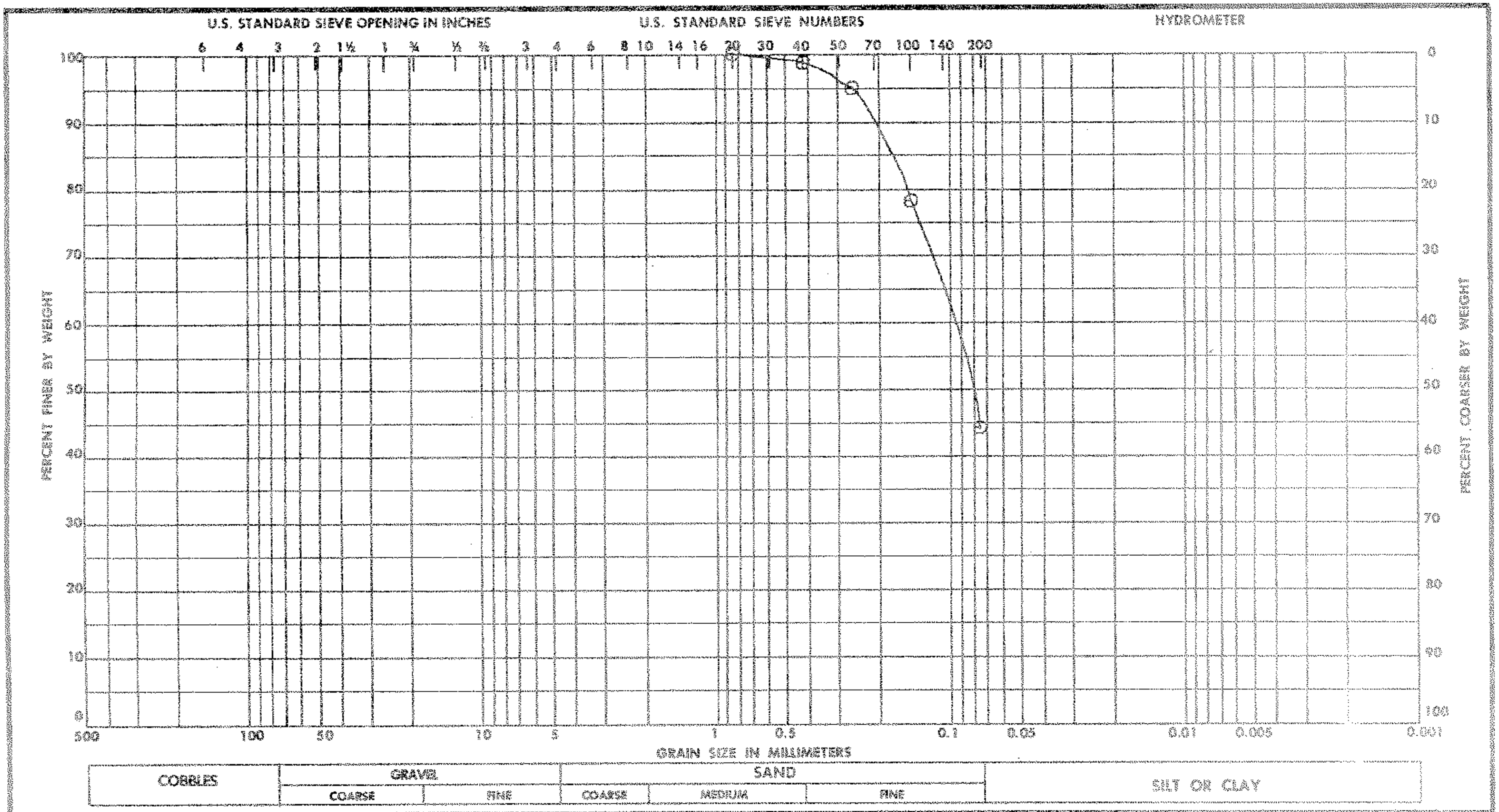
Boring No. SG-20-83 SAMPLE NO. 2

Date 05/05/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 141



Sample No.	XXX XX 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

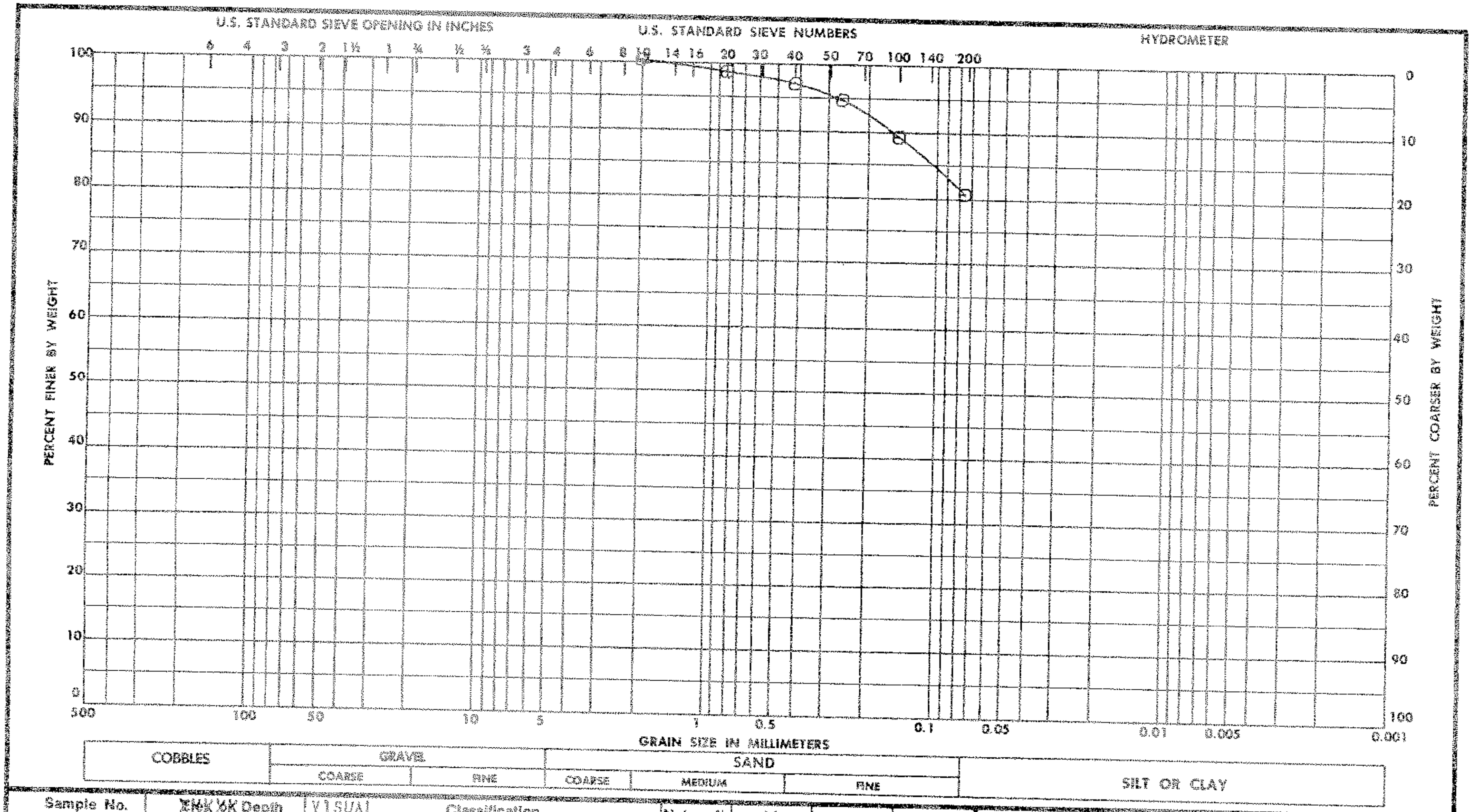
ENG FORM 1 MAY 63 2087

CHART NO. 142

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

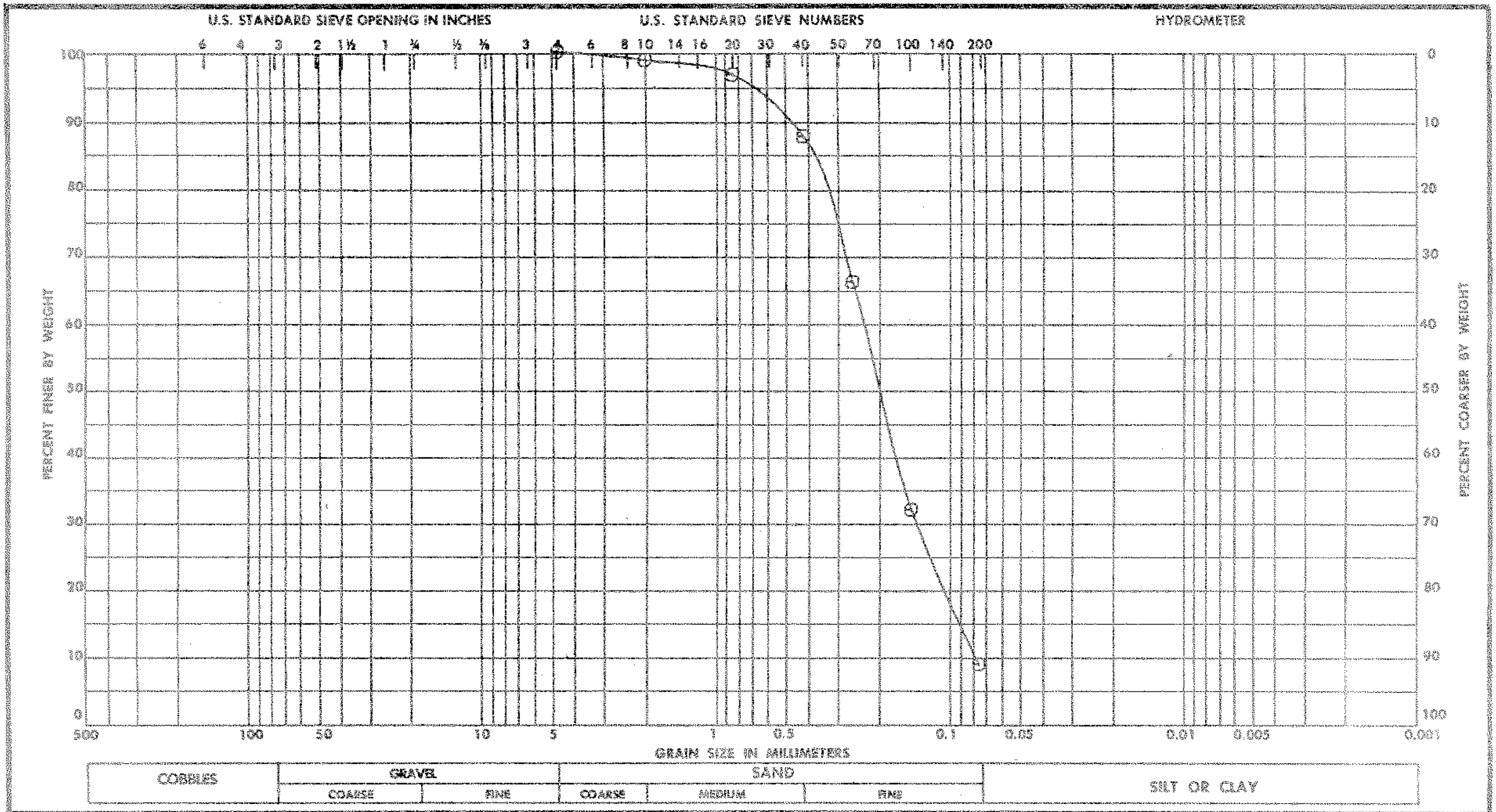


Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.5-16.5'	FAT CLAY (CH)	50.5	--	--	--
		GRAY WITH A LITTLE SAND AND				
		A TRACE OF SHELL				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/216
Boring No. SG-22-83 SAMPLE NO. 3
Date 05/05/84

GRADATION CURVES

CHART NO. 143



Sample No.	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				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/217
Boring No. SG-22-83 SAMPLE NO. 4
Date 05/05/84

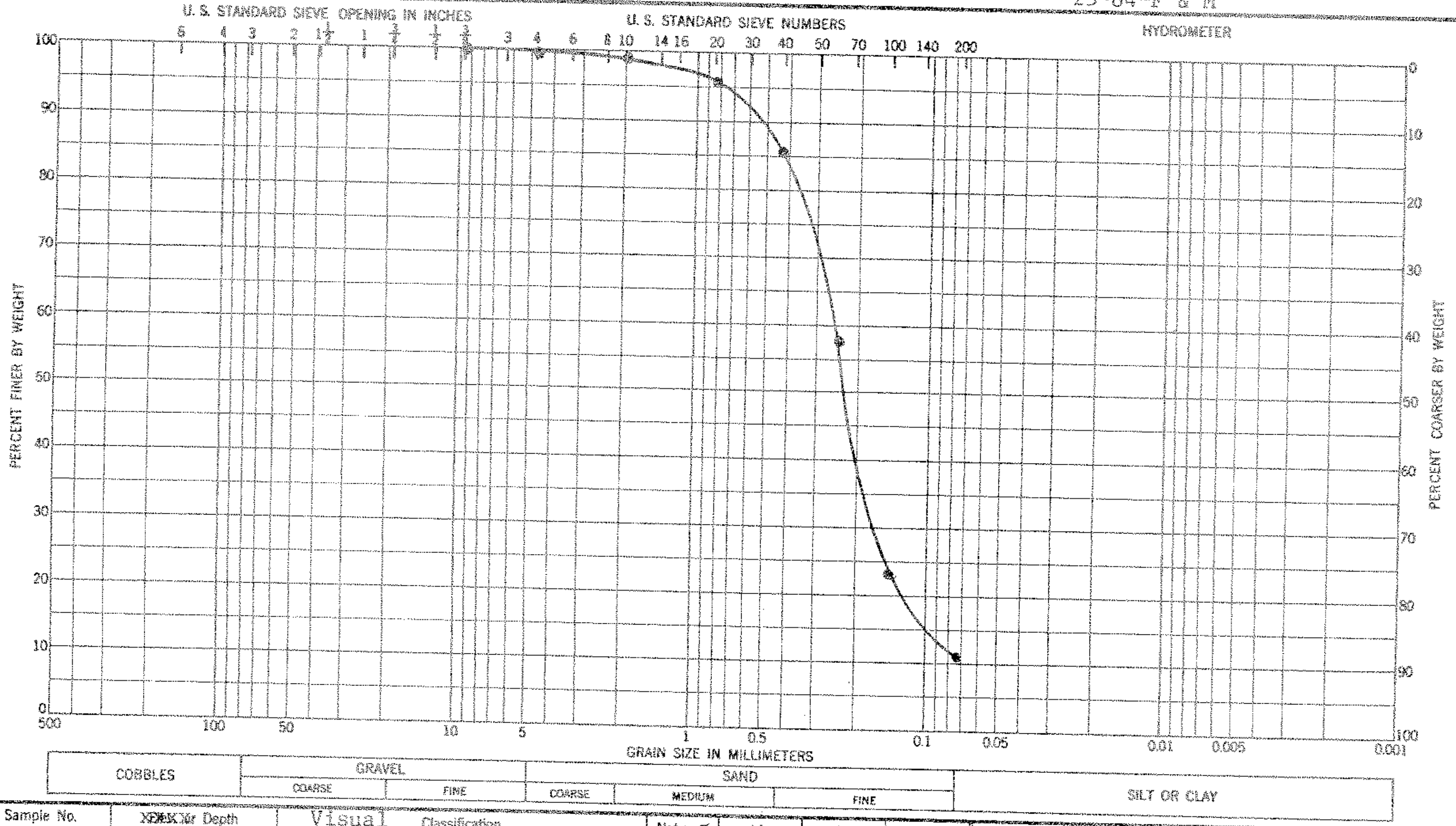
GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 144

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



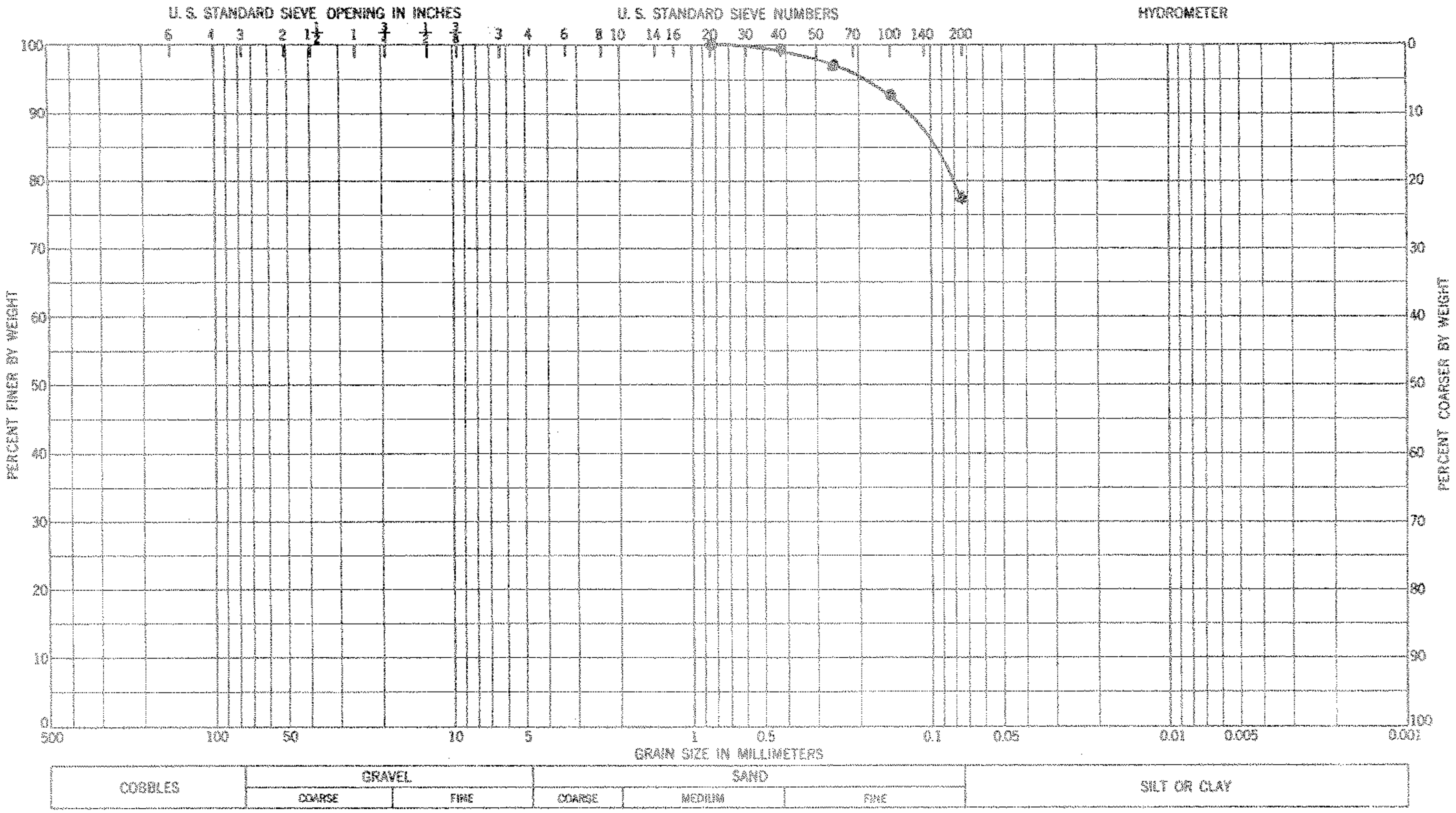
Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
1	3.2-4.0'	Gray poorly graded silty sand (SP-SM) with slightly plastic fines and with a trace of gravel	--	--	--	--

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 145



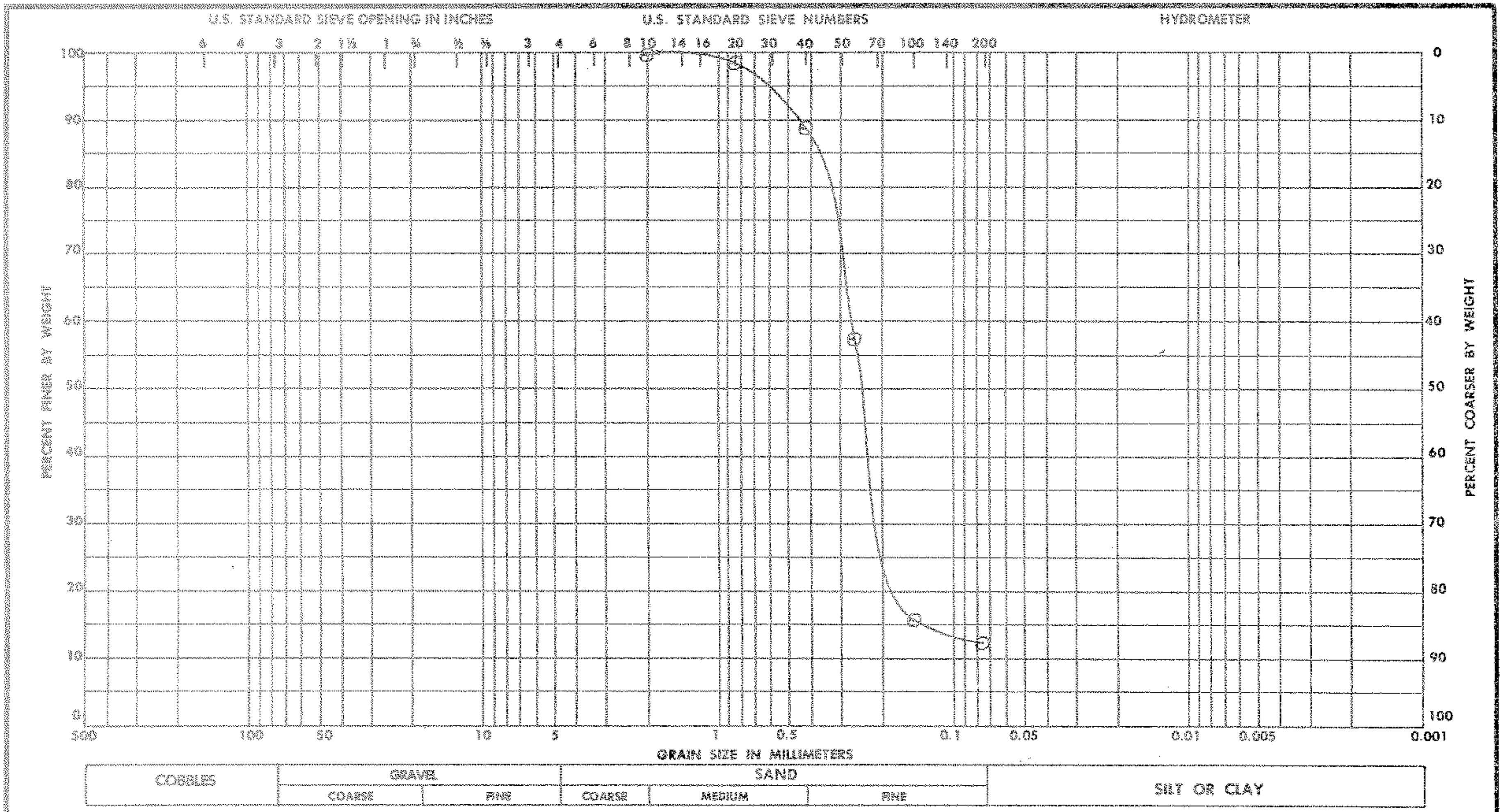
Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
2	10.5-11.5'	Gray fat clay (CH) with some sand	--	--	--	--

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 146



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

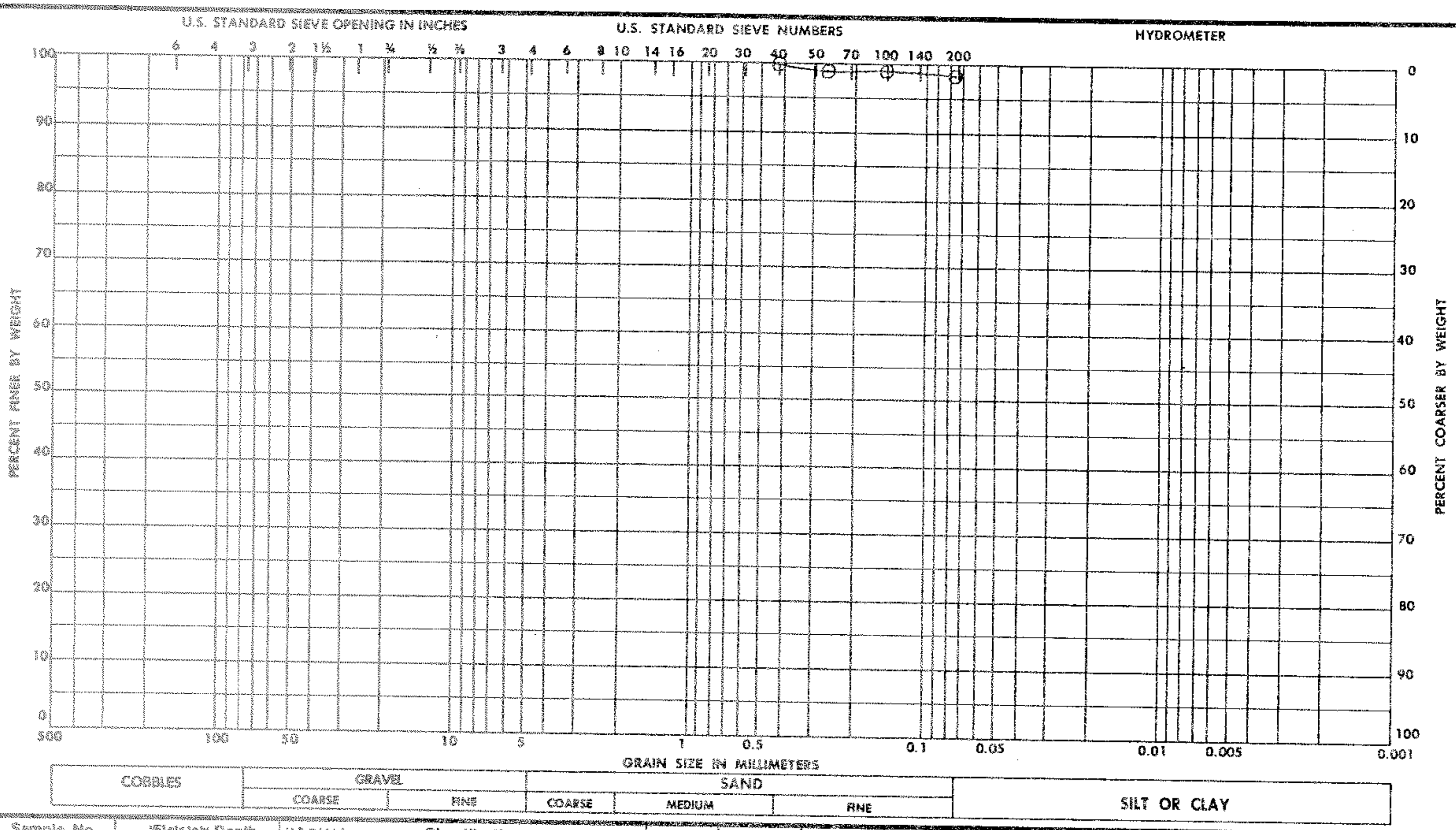
ENG FORM 1 MAY 63 2087

CHART NO. 158

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



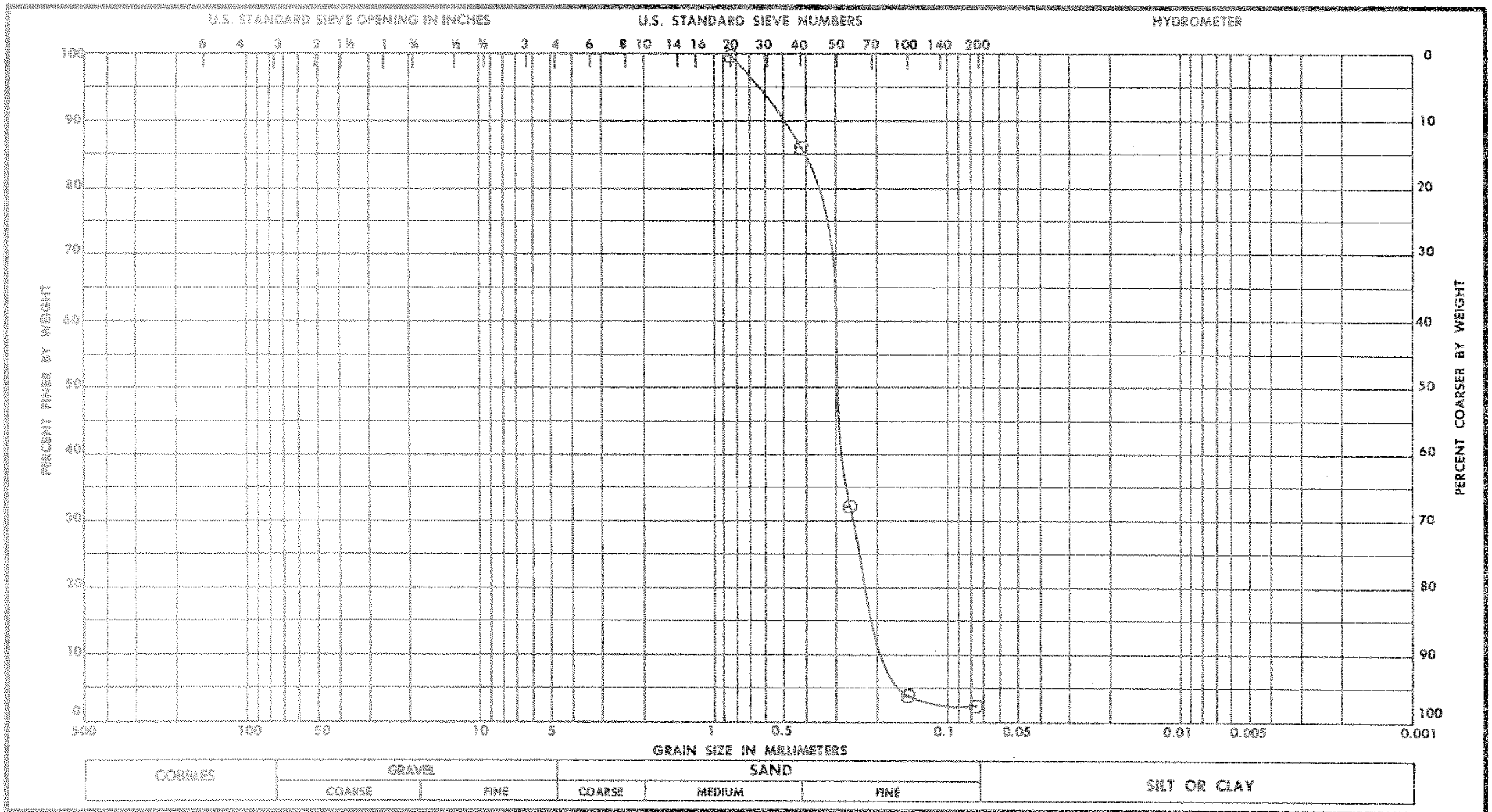
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	2.5-3.0'	FAT CLAY (CH)	42.6	--	--	--
		BROWNISH GRAY WITH A TRACE				
		OF SAND				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 159



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

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

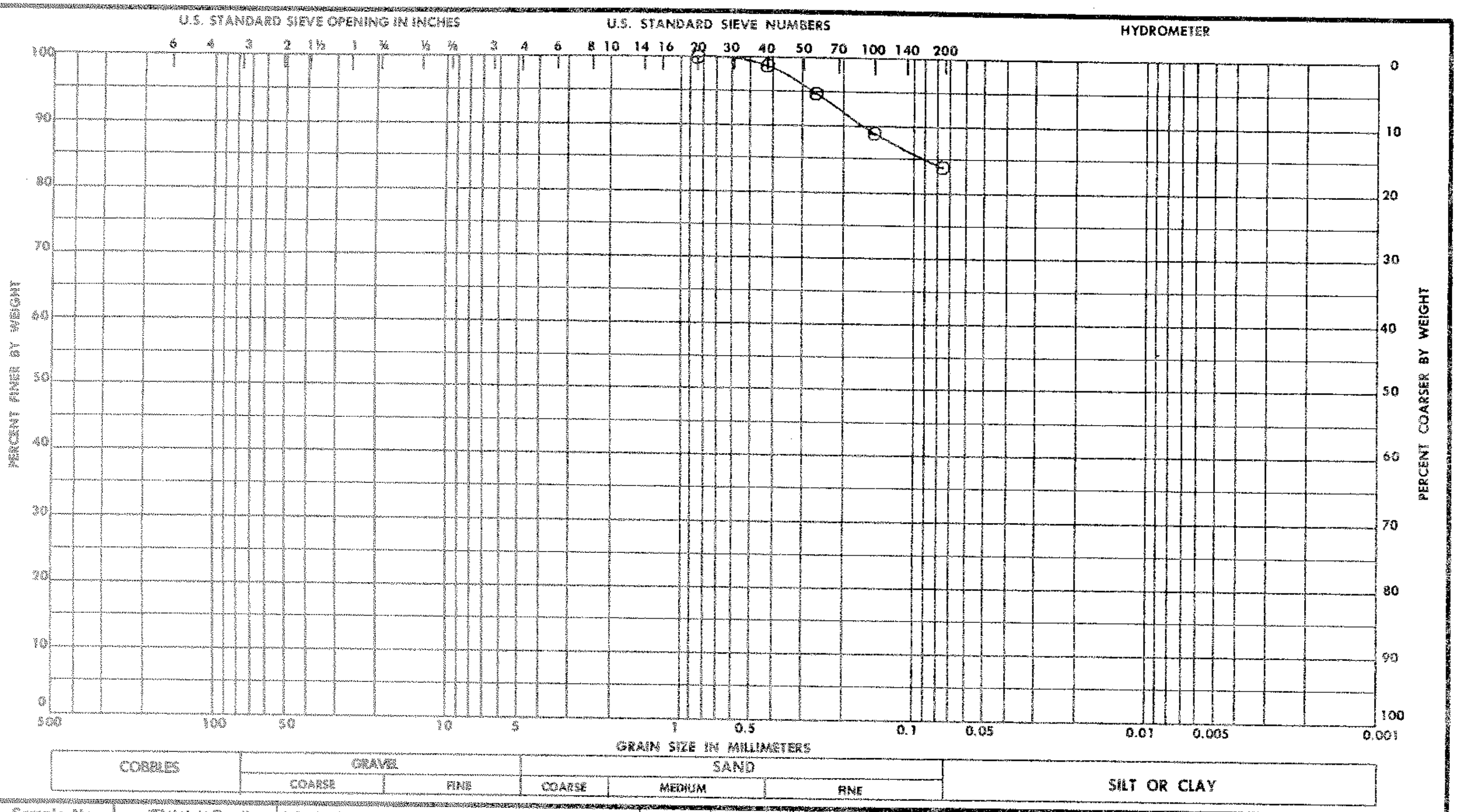
GRADATION CURVES

CHART NO. 160

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



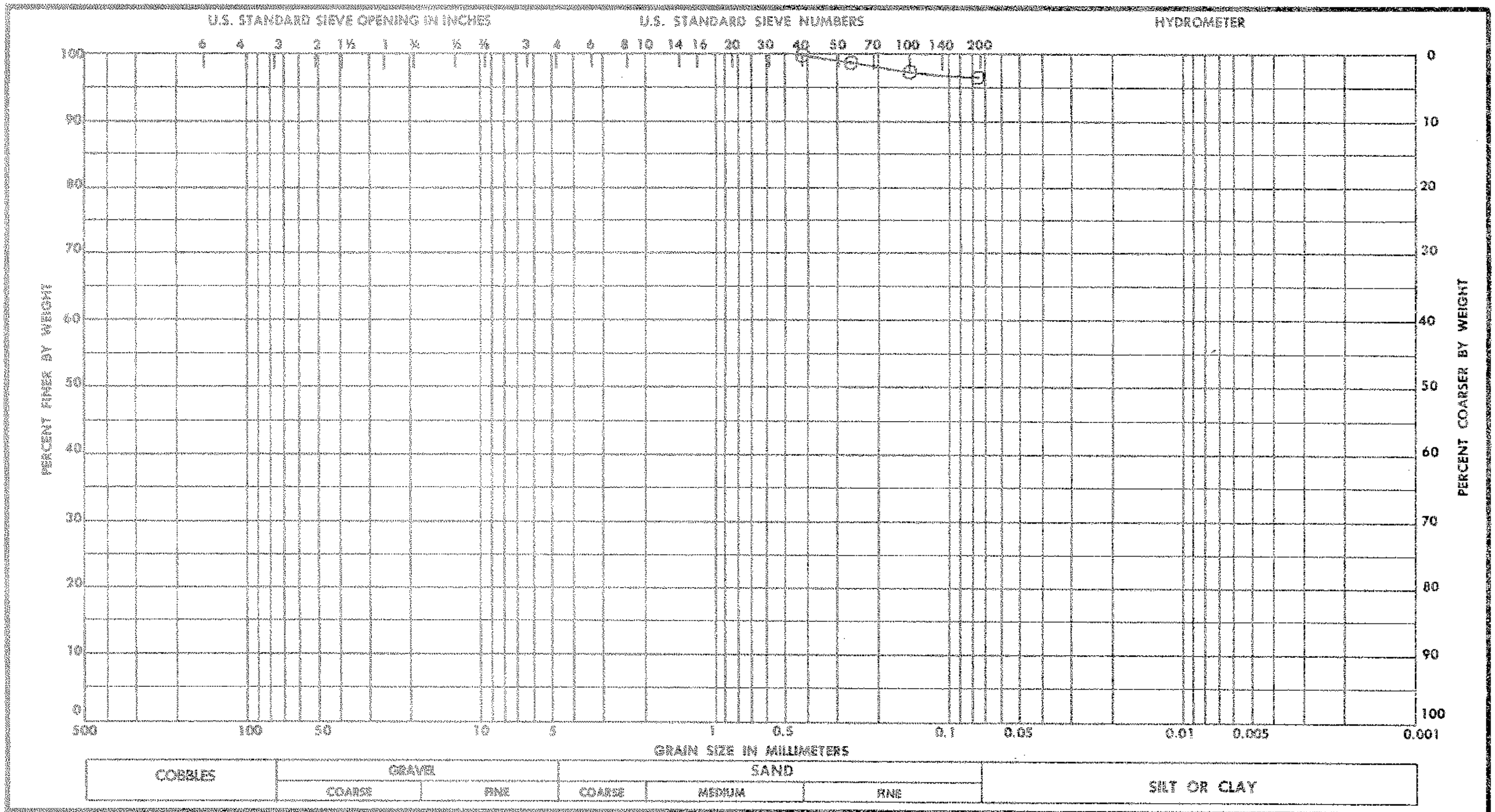
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	6.0-6.5'	FAT CLAY (CH) GRAY AND BROWN WITH A LITTLE SAND	102.5	--	--	--

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 161



Sample No.	~~Elev 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

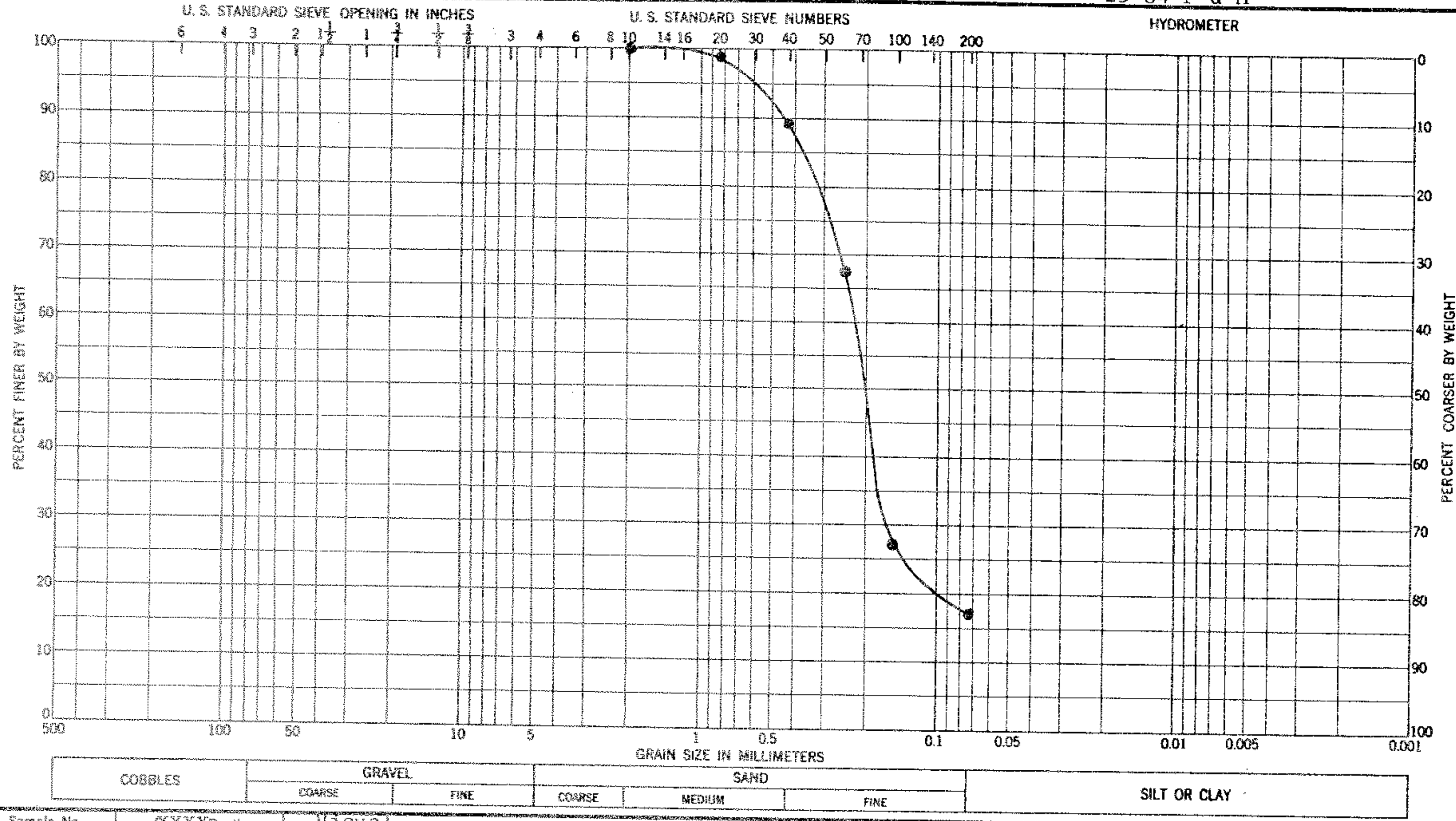
Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING
Area LAB NO.57/231
Boring No. SG-30-83 SAMPLE NO. 5
Date 05/05/84

ENG FORM 1 MAY 63 2087

CHART NO. 162

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



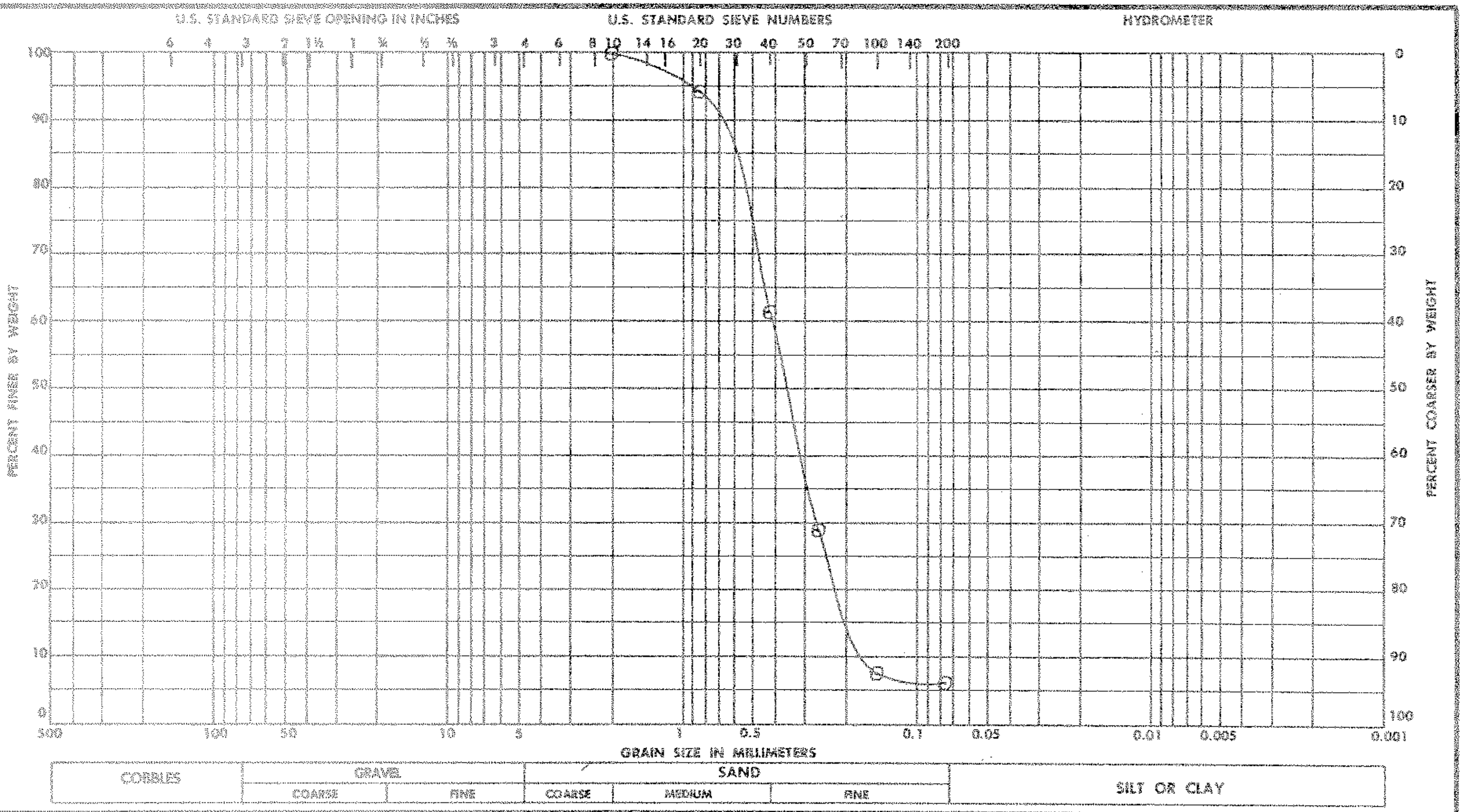
Sample No.	Depth	Visual Classification	Nat w %	LL	PL	PI
1	0.0-0.6'	Light tan silty sand (SM) with pockets of brown (SC-H)	–	–	–	–

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

ENG FORM 1 MAY 63 2087

CHART NO. 163



Sample No.	XXX XX 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

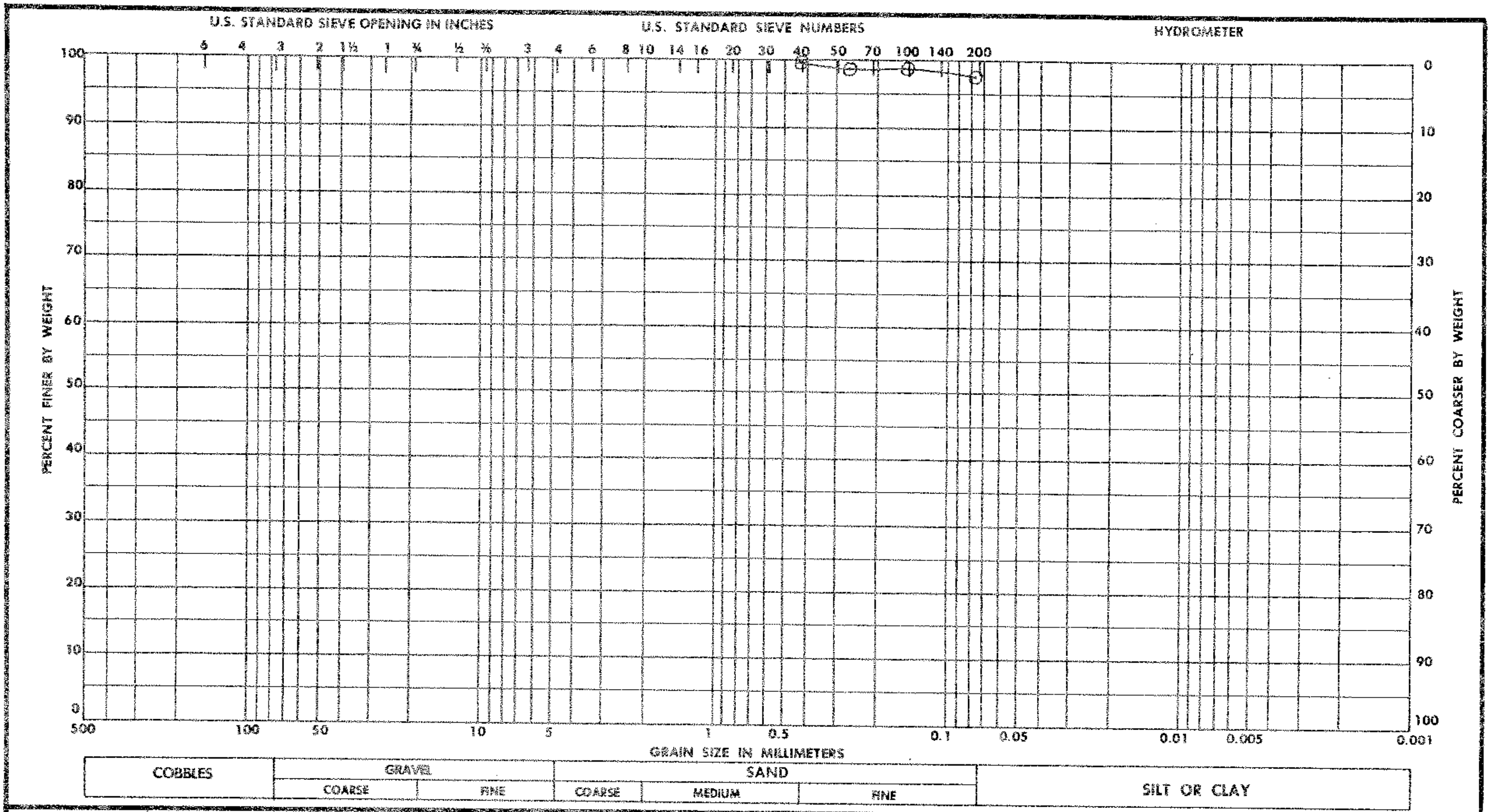
ENG FORM 1 MAY 63 2087

CHART NO. 174

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

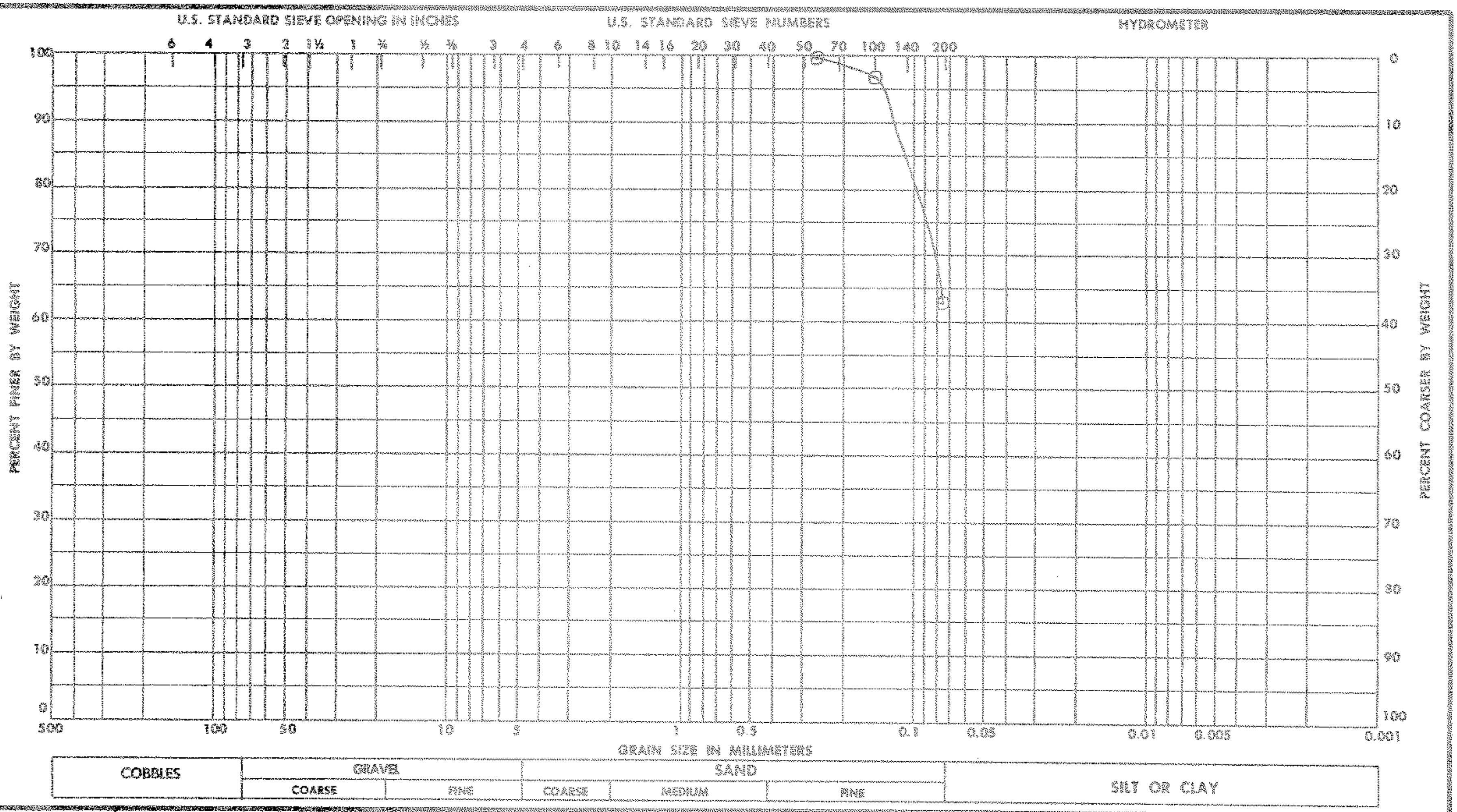
Area LAB NO.57/248

Boring No. SG-35-83 SAMPLE NO. 2

Date 05/05/84

ENG FORM 1 MAY 63 2087

CHART NO. 175



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

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

GRADATION CURVES

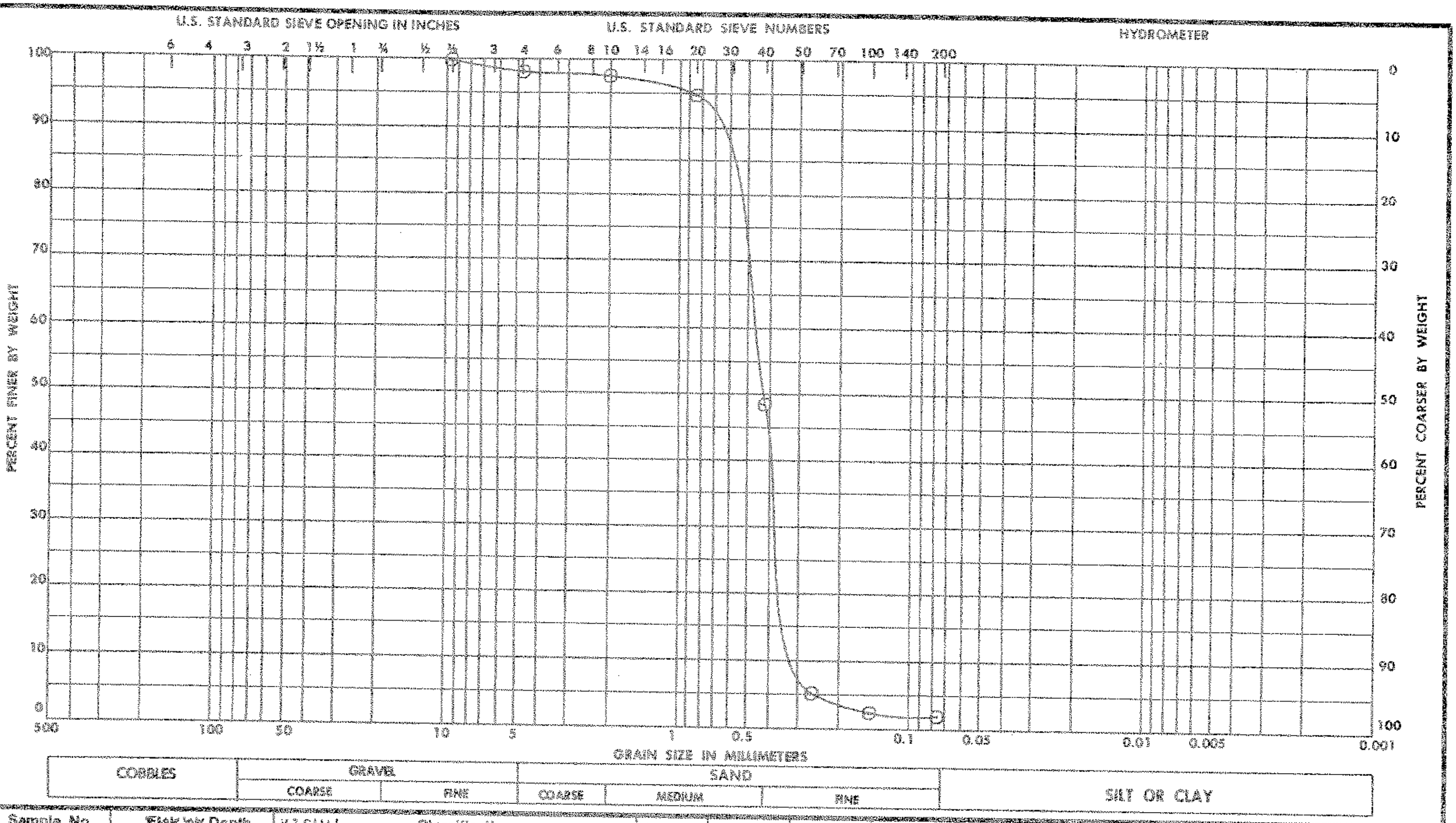
ENG FORM 1 MAY 63 2087

CHART NO. 176

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	2.1-3.1'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		RUST BROWN WITH A TRACE OF				
		SHELL., %SHELL= 3.0				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/250

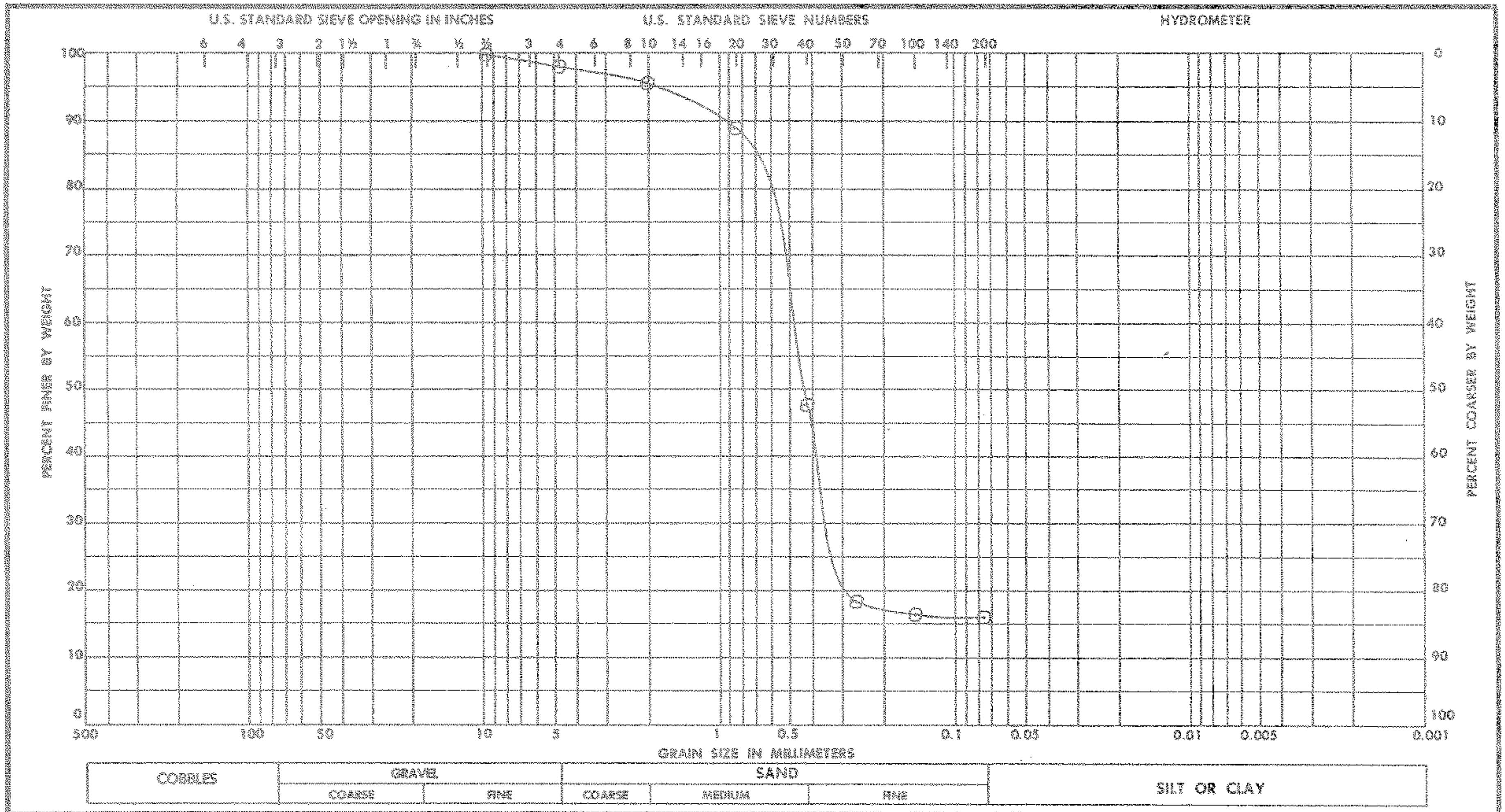
Boring No. SG-36-83 SAMPLE NO. 1

Date 05/18/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 177



Sample No.	~~Elev or~~ 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

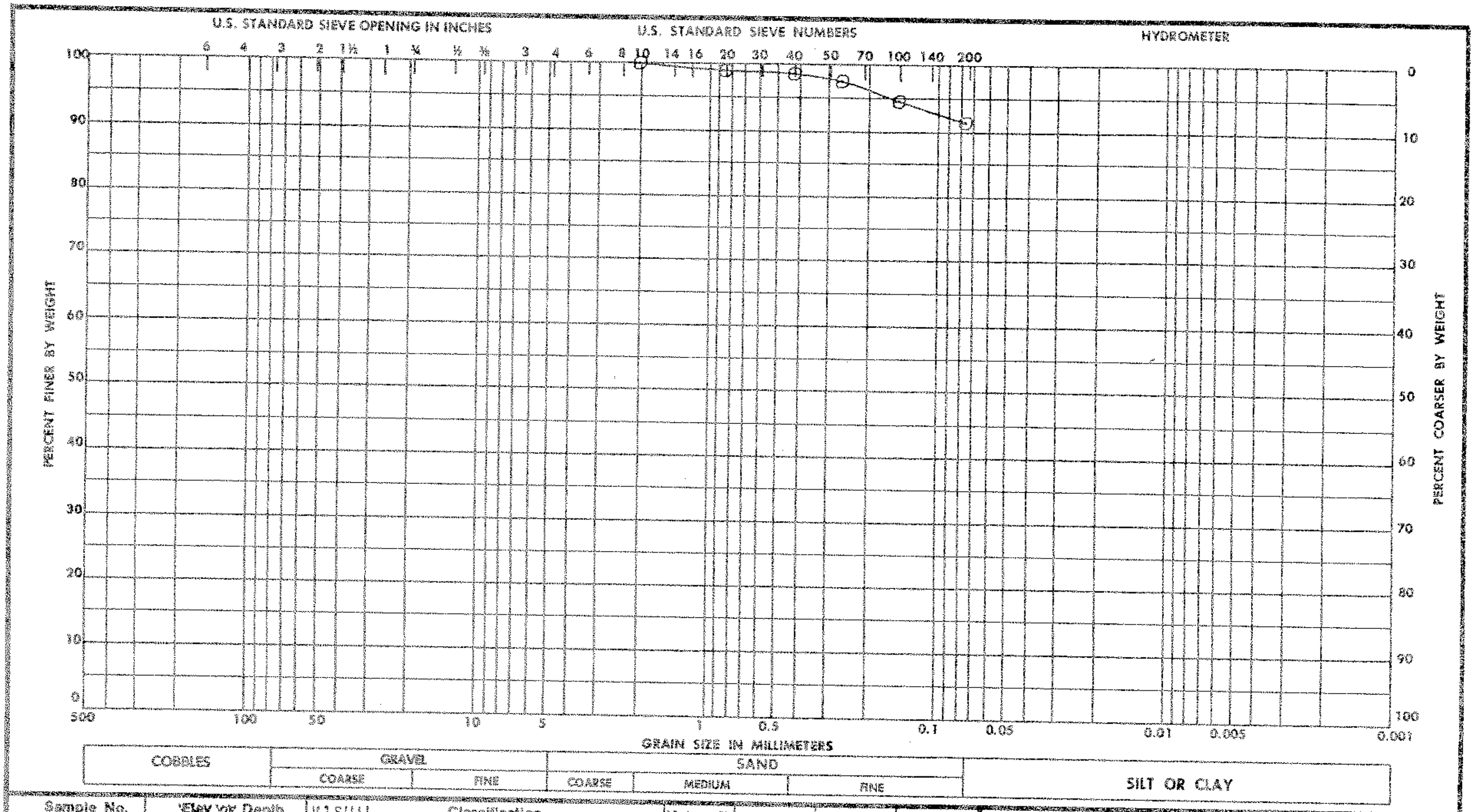
ENG FORM 1 MAY 63 2087

CHART NO. 178

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	108.5	--	--	--
		WITH A TRACE OF SAND AND SHELL				
		%SHELL= 8.9 LOI= 22.1%				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/252

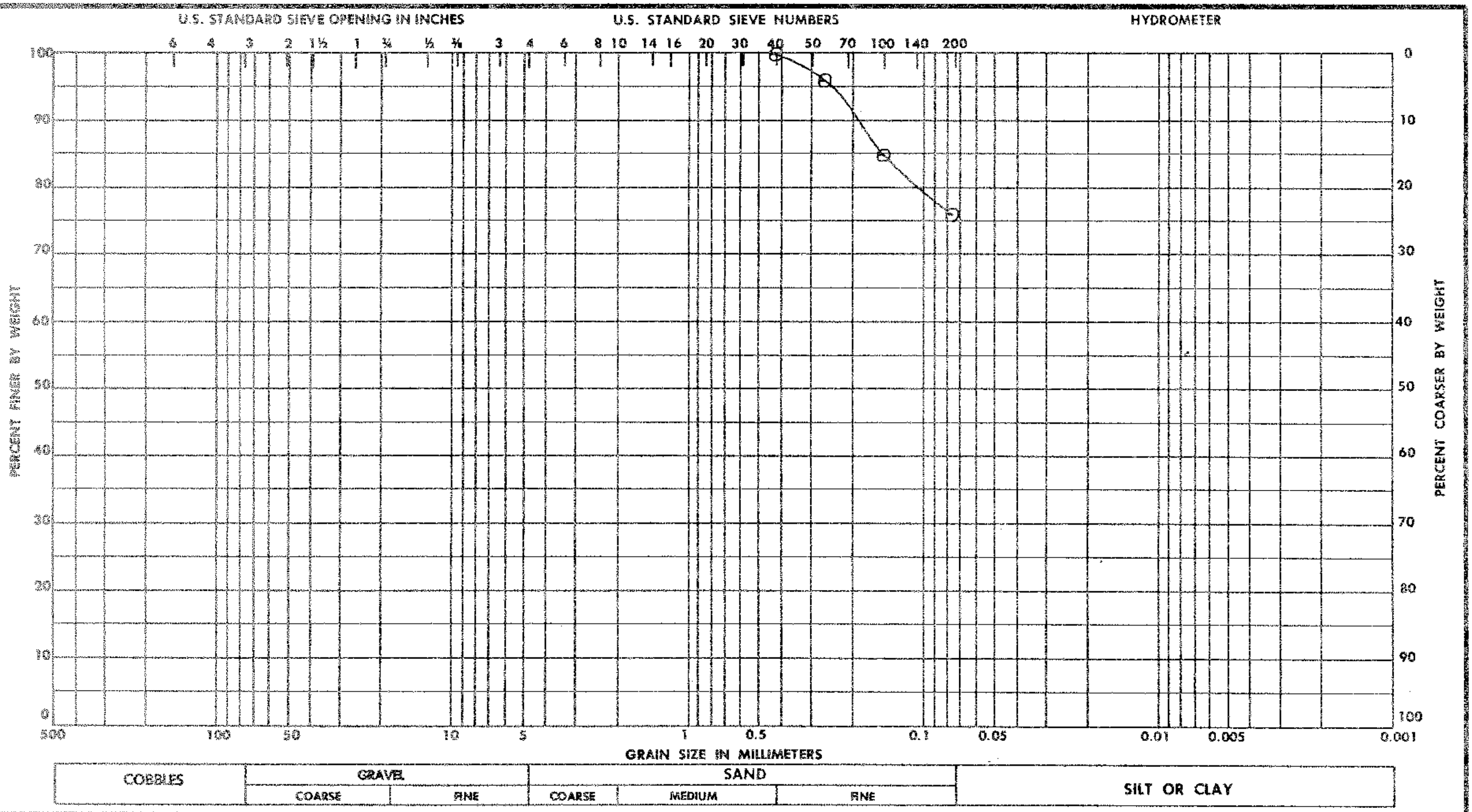
Boring No. SG-36-83 SAMPLE NO. 3

Date 05/18/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 179



Sample No.	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%				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/253

Boring No. SG-36-83 SAMPLE NO. 4

Date 05/18/84

GRADATION CURVES

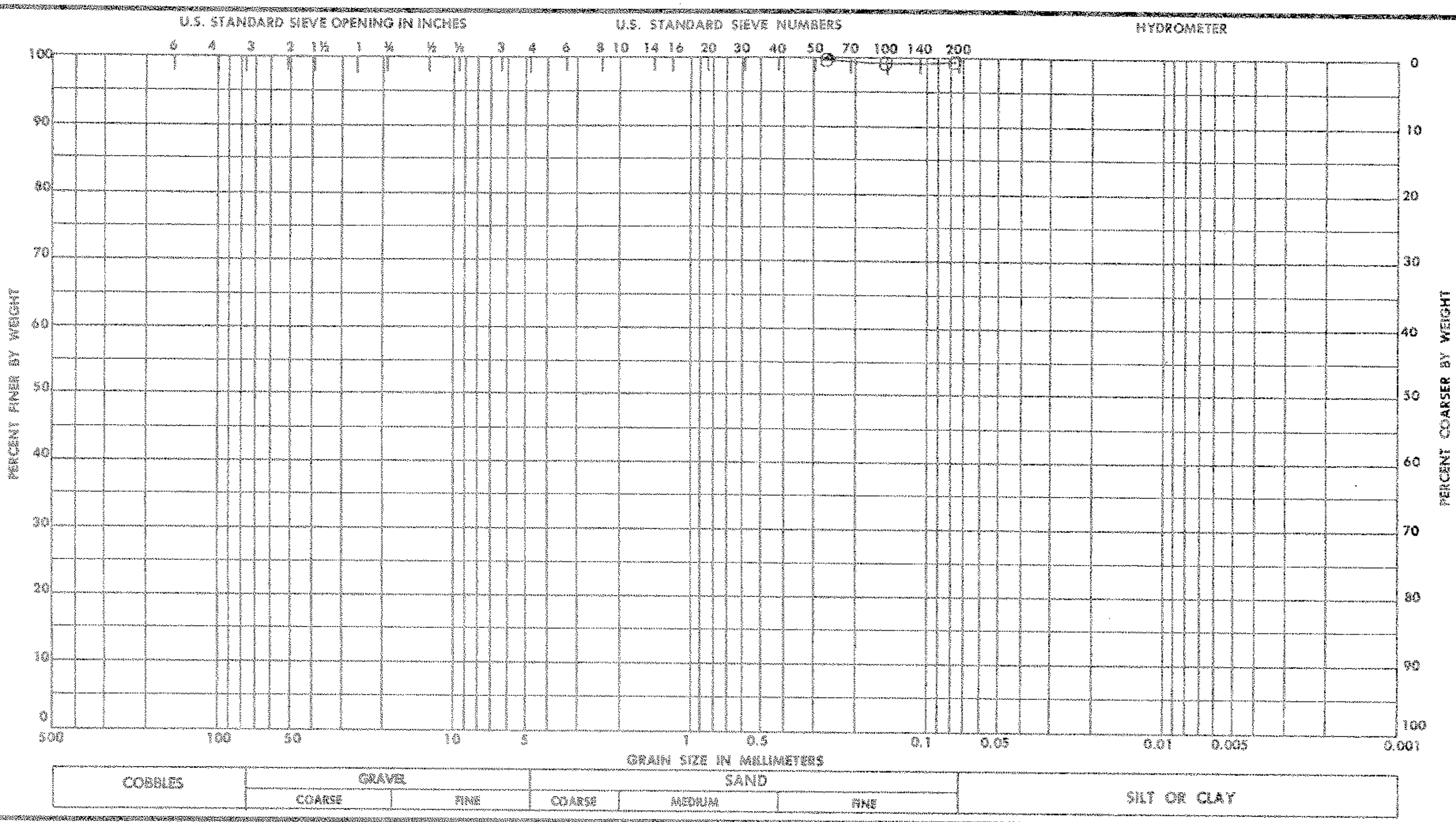
ENG FORM 1 MAY 63 2087

CHART NO. 180

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



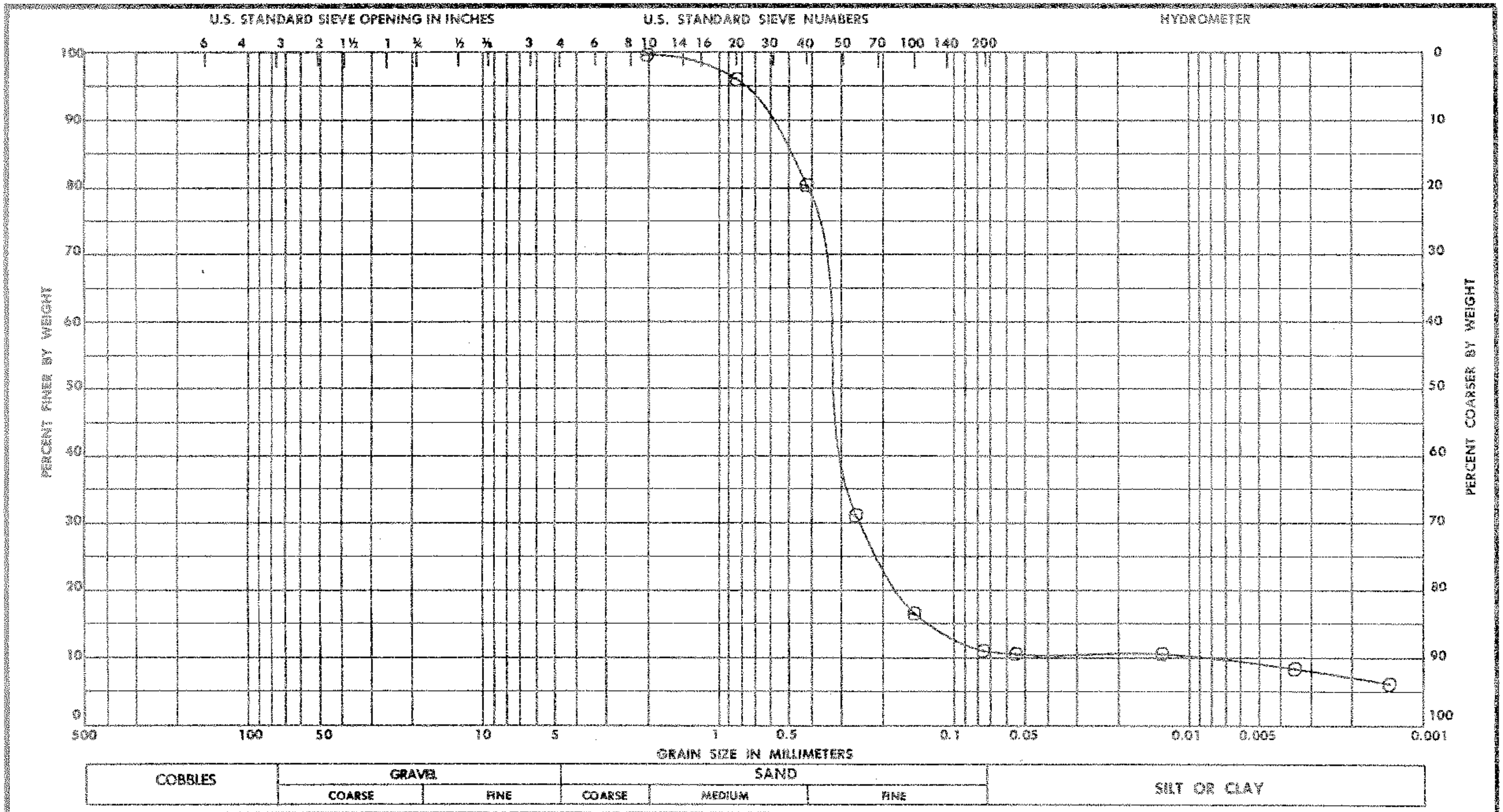
Sample No.	XXX XX Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	1.6-2.1'	FAT CLAY (CH), BROWNISH GRAY	--	--	--	--
		WITH A TRACE OF SAND				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 181



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				

Project MOBILE SHIP CHANNEL
CHANNEL DEEPENING

Area LAB NO.57/256

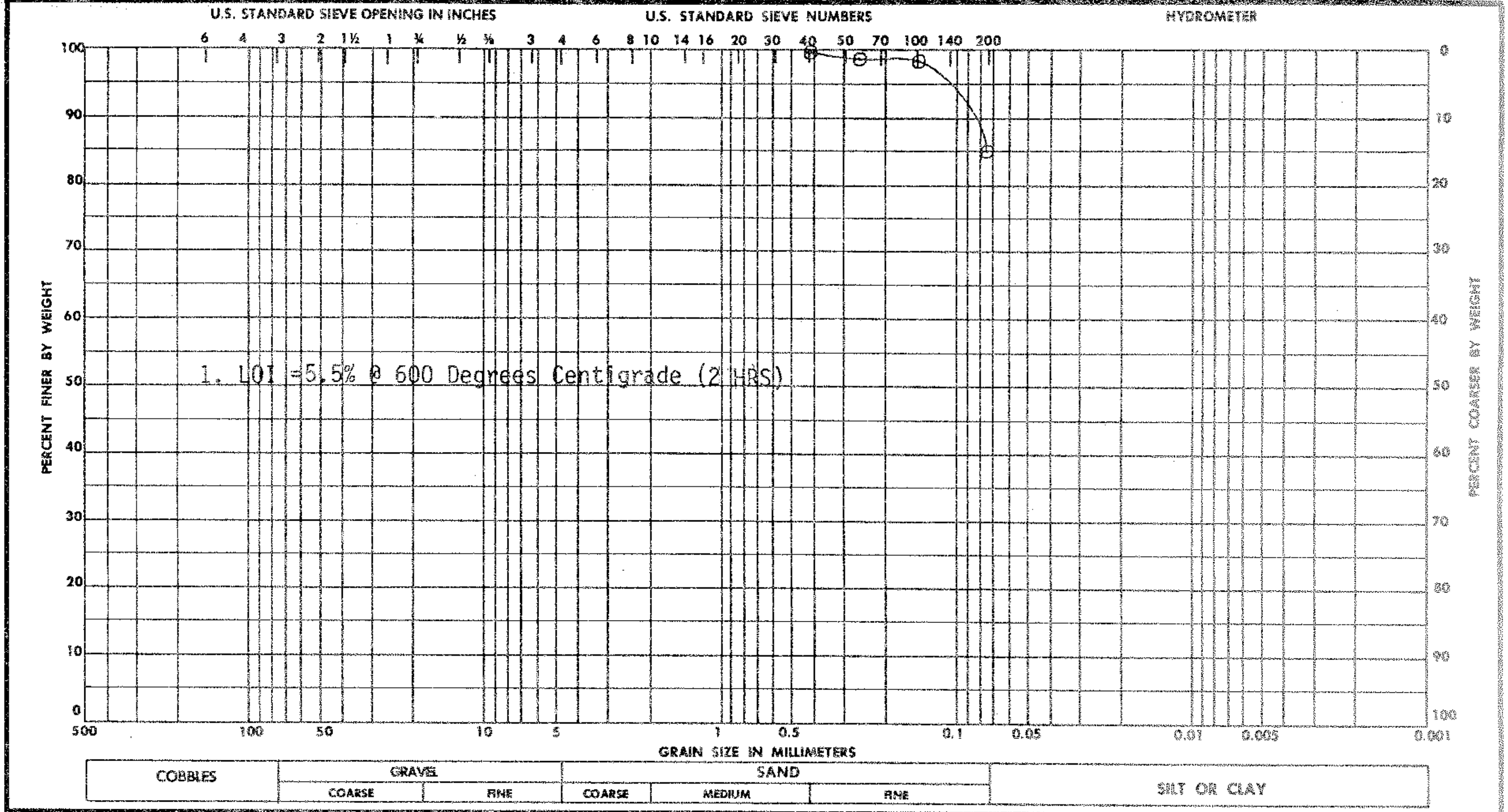
Boring No. SG-37-83 SAMPLE NO. 3

Date 05/18/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 182



1. LOI =5.5% @ 600 Degrees Centigrade (2 HRS)

Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	---	FAT CLAY (CH)	77.0	77	24	53
		GRAY WITH A LITTLE SAND, slightly organic				
		SPECIFIC GRAVITY = 2.68				

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

GRADATION CURVES

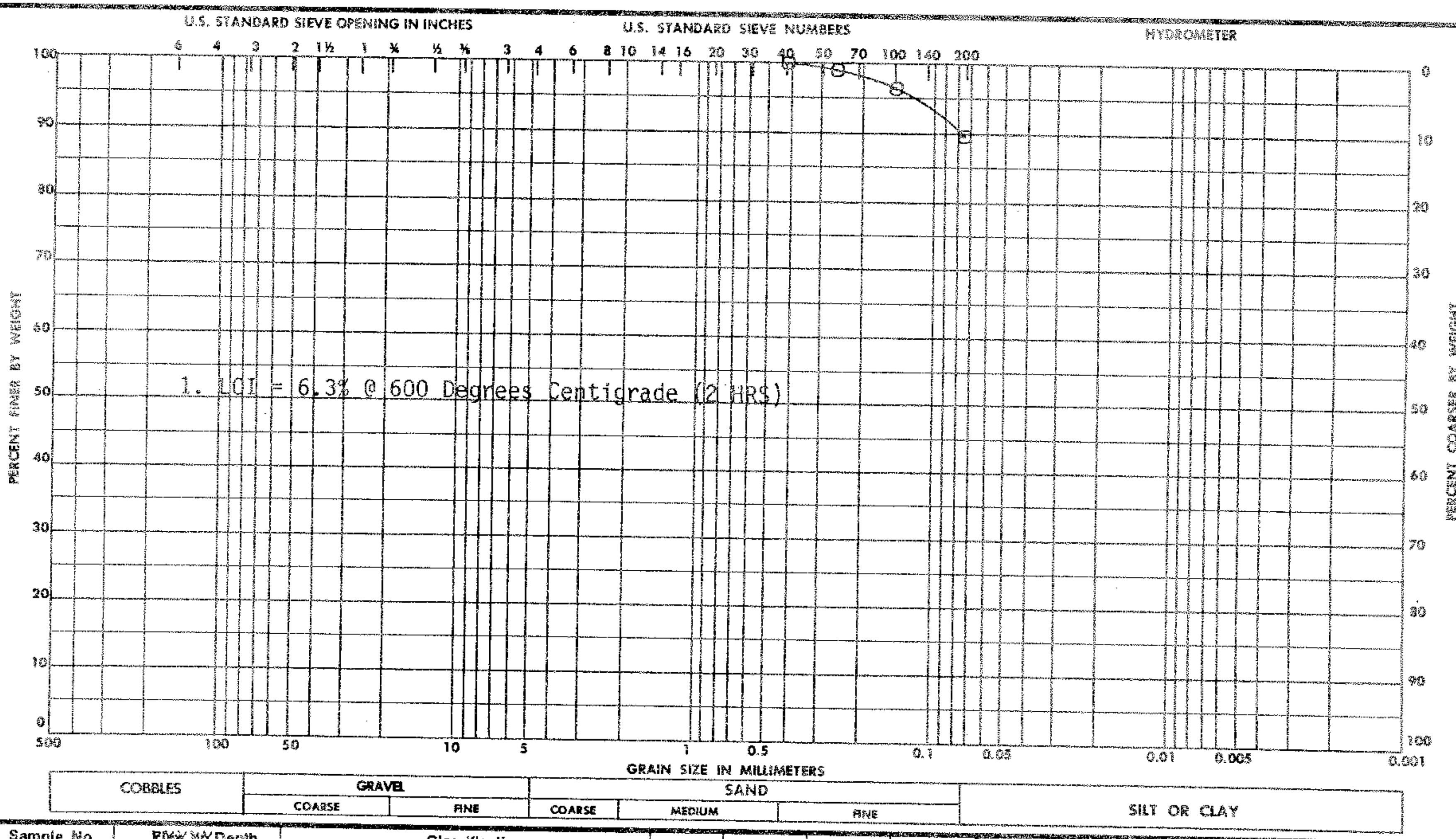
ENG FORM 1 MAY 63 2087

CHART NO. 386

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



1. LOI = 6.3% @ 600 Degrees Centigrade (2 HRS)

Sample No.	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

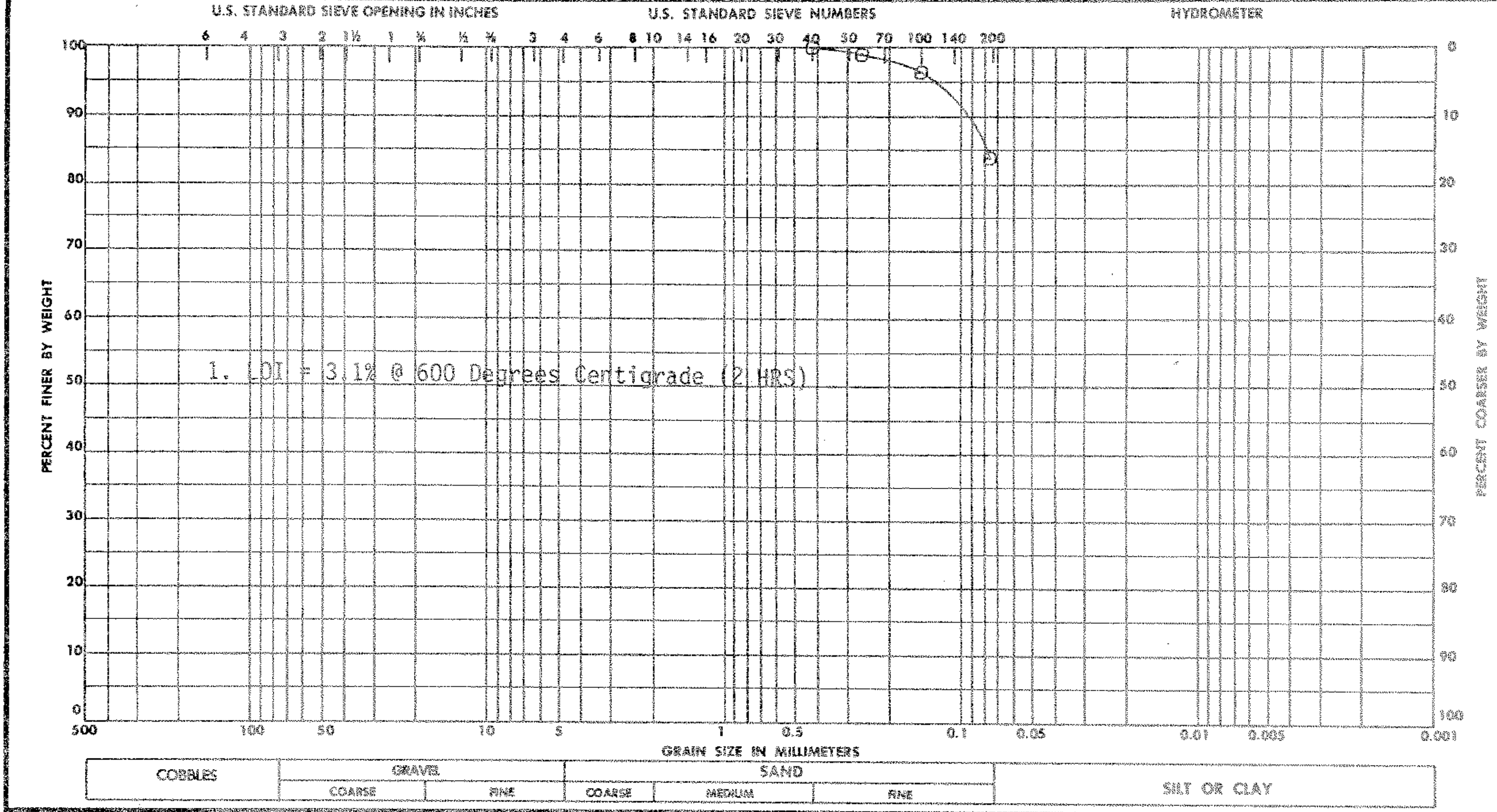
Area LAB NO.57/343

Boring No. SS-203 SAMPLE NO. 6

Date 08/22/84

ENG FORM 1 MAY 63 2087

CHART NO. 387



1. LOI = 3.1% @ 600 Degrees Centigrade (2 HRS)

Sample No.	~~Elev or~~ 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				

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

GRADATION CURVES

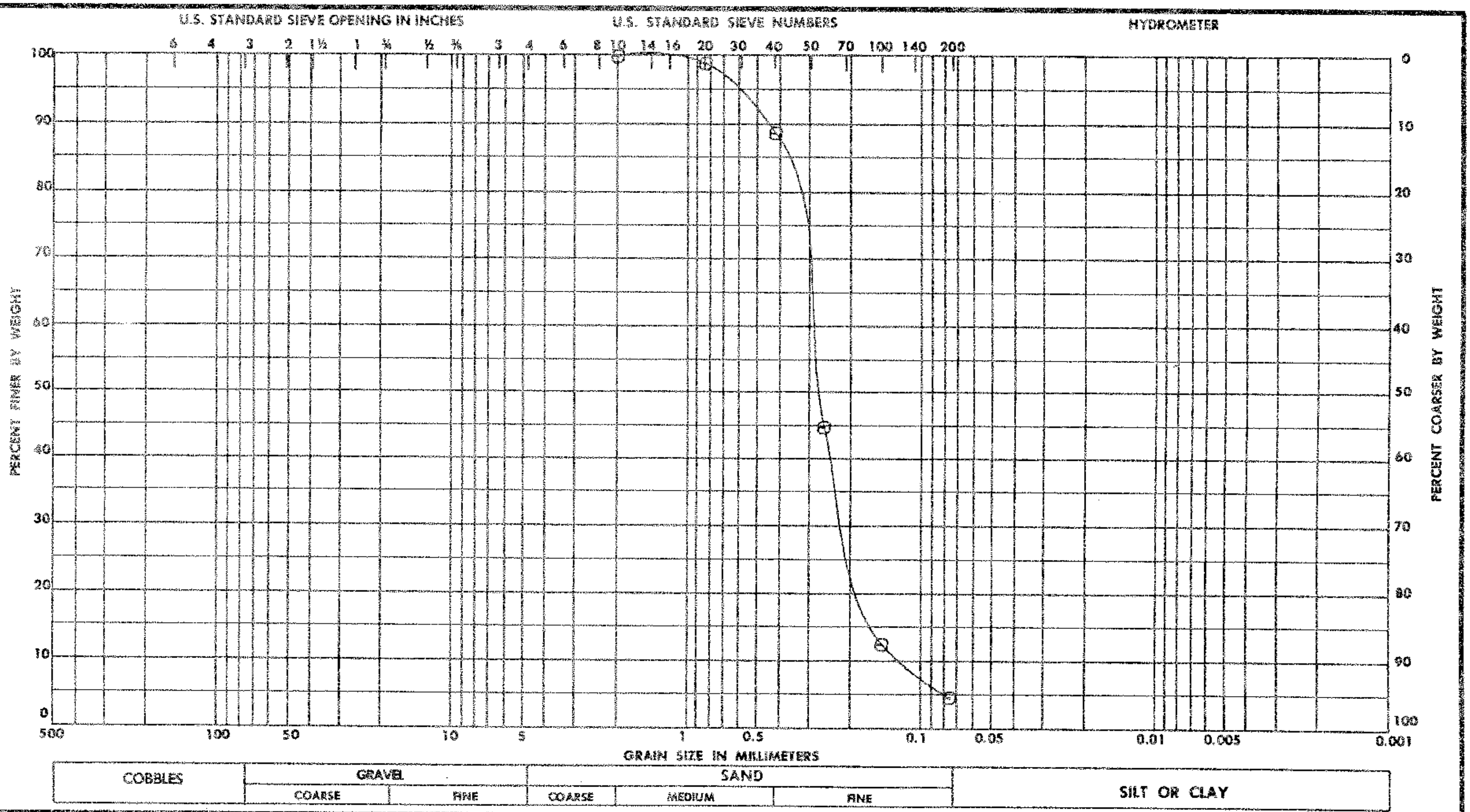
ENG FORM 1 MAY 63 2087

CHART NO. 388

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



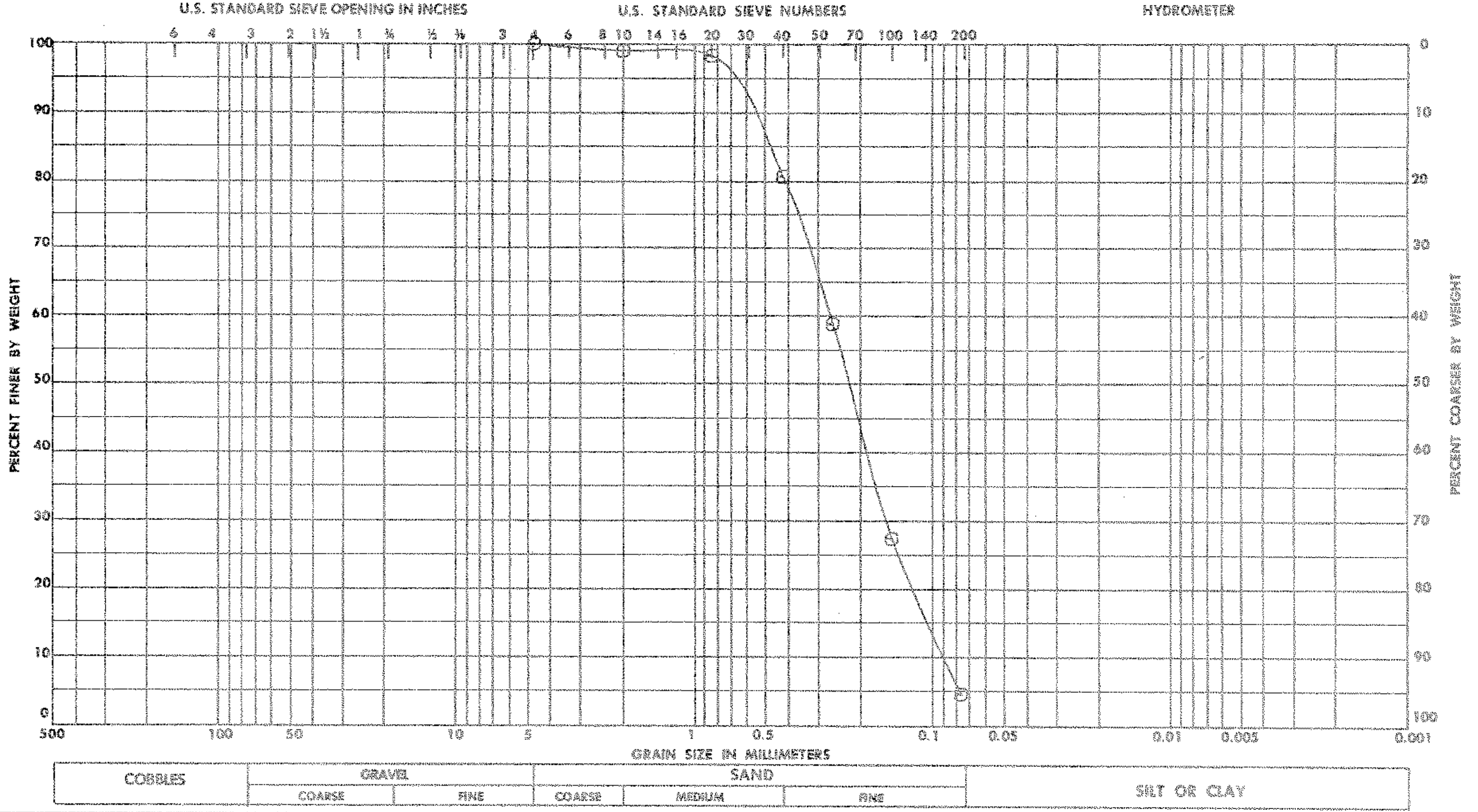
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
13	---	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

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

ENG FORM 1 MAY 63 2087

CHART NO. 389



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

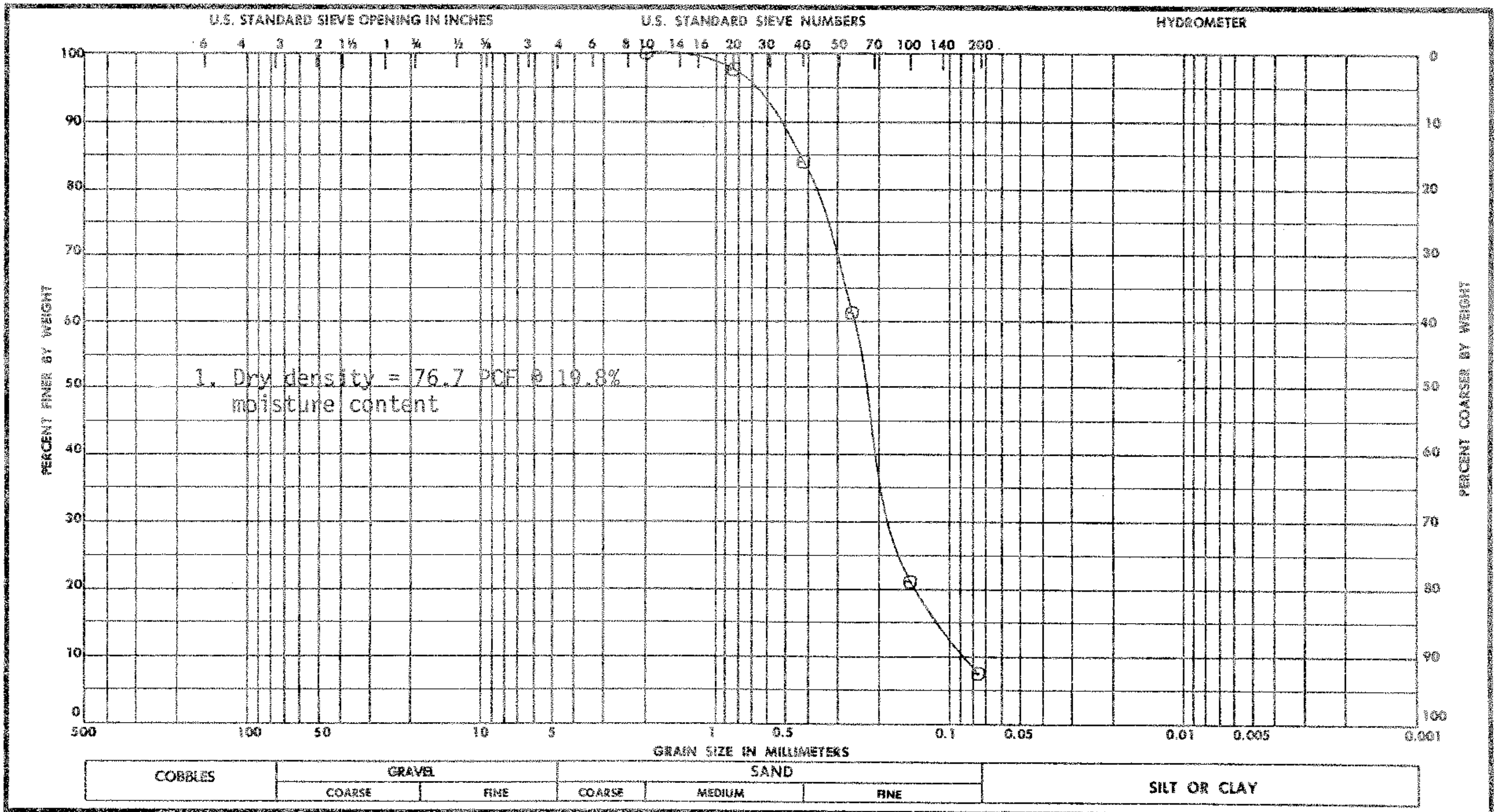
Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION
Area LAB NO.57/353
Boring No. SS-203 SAMPLE NO. 18
Date 08/15/84

GRADATION CURVES

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



1. Dry density = 76.7 PCF @ 19.8% moisture content

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

Project MOBILE HARBOR DEEPENING
SPOIL DIKE & ISLAND CONSTRUCTION

Area LAB NO.57/355

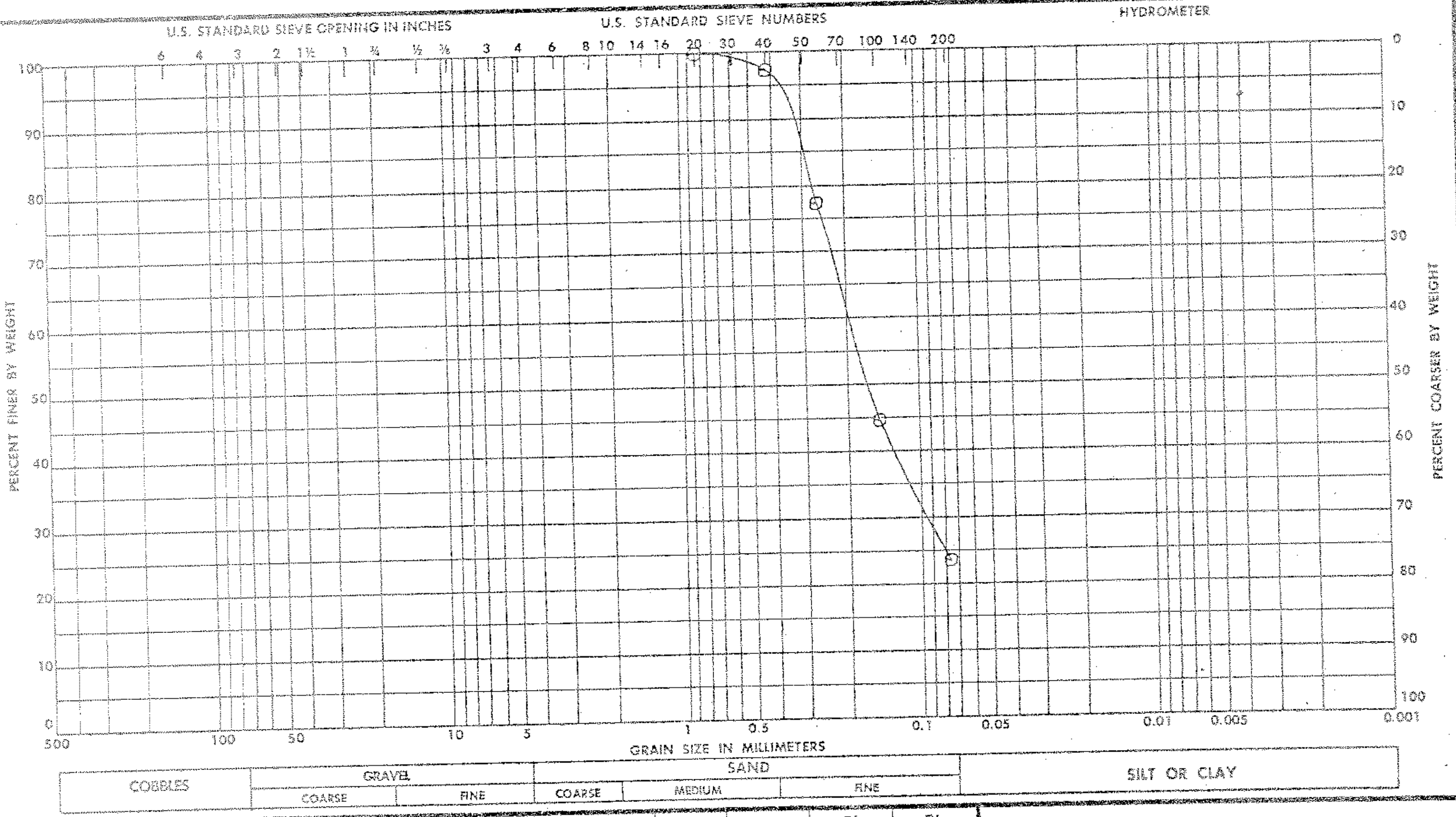
Boring No. SS-203 SAMPLE NO. 12-18

Date 08/15/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 391



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

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1101

Boring No. VC-1A-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

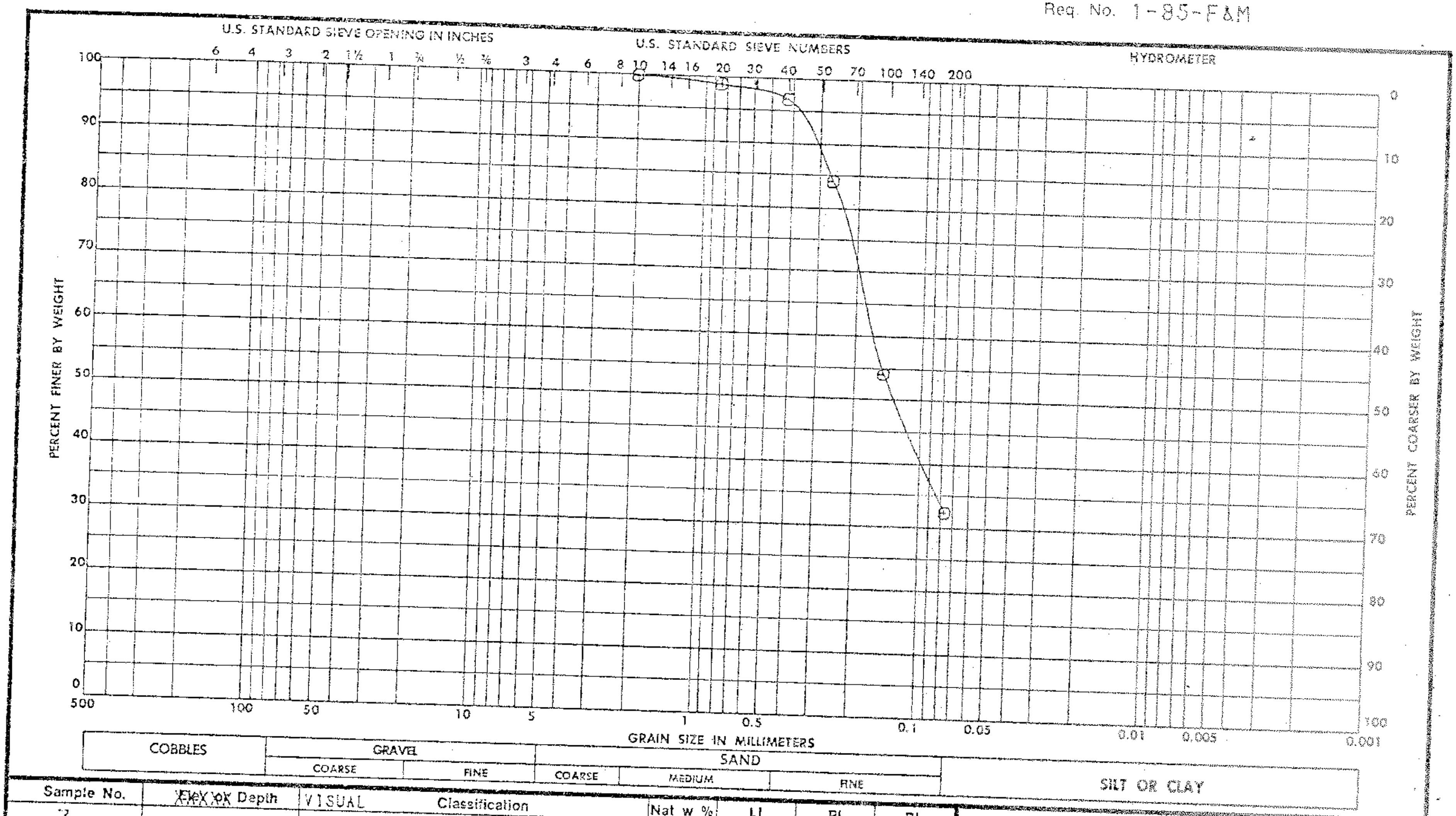
ENG FORM 1 MAY 63 2087

CHART NO. 516

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



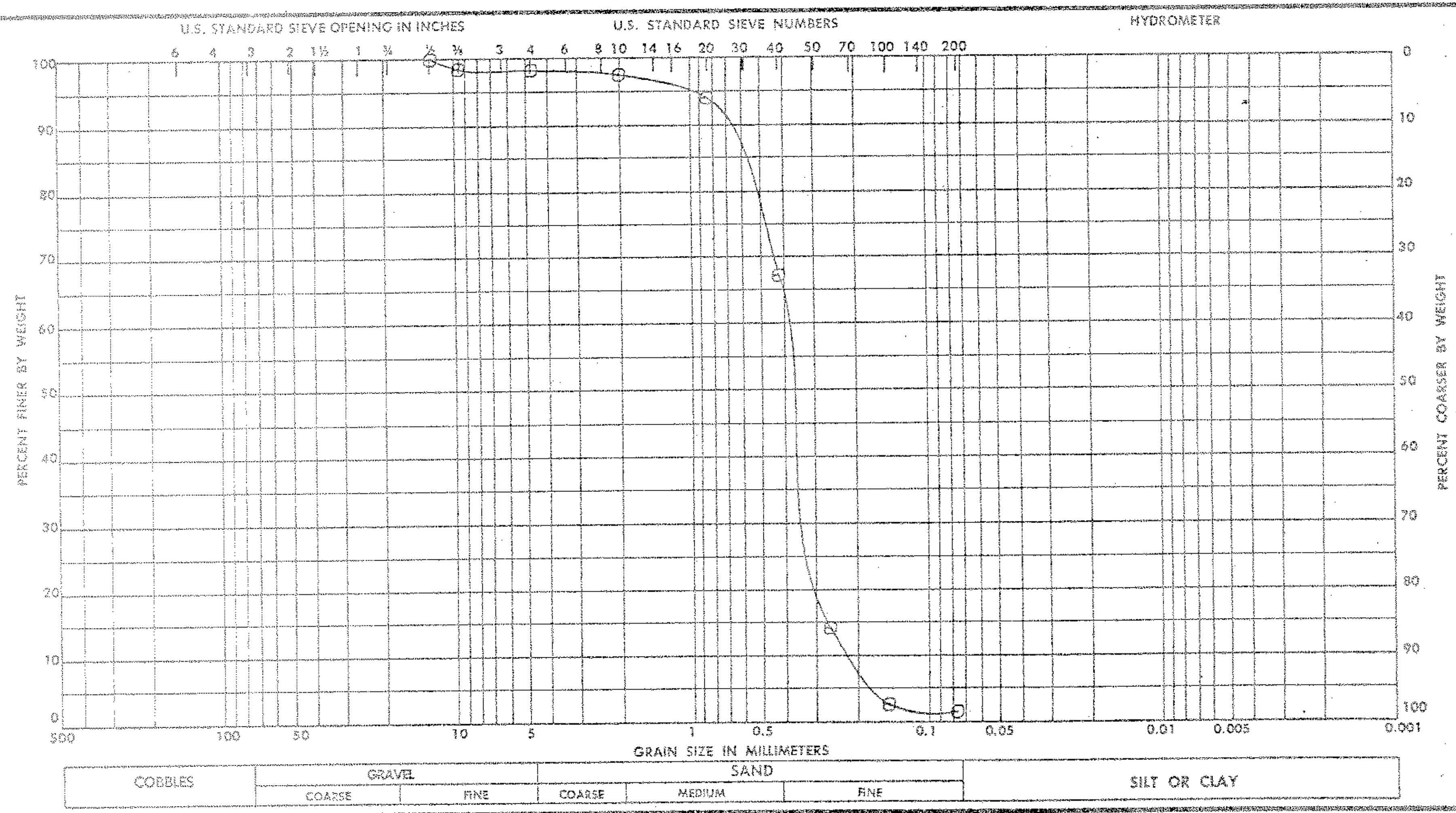
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	9.0'	SILTY SAND (SM)	--	--	--	--
		LT.GRAY WITH OCCASIONAL POCKETS				
		OF FAT CLAY (CH)				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 517



Sample No.	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

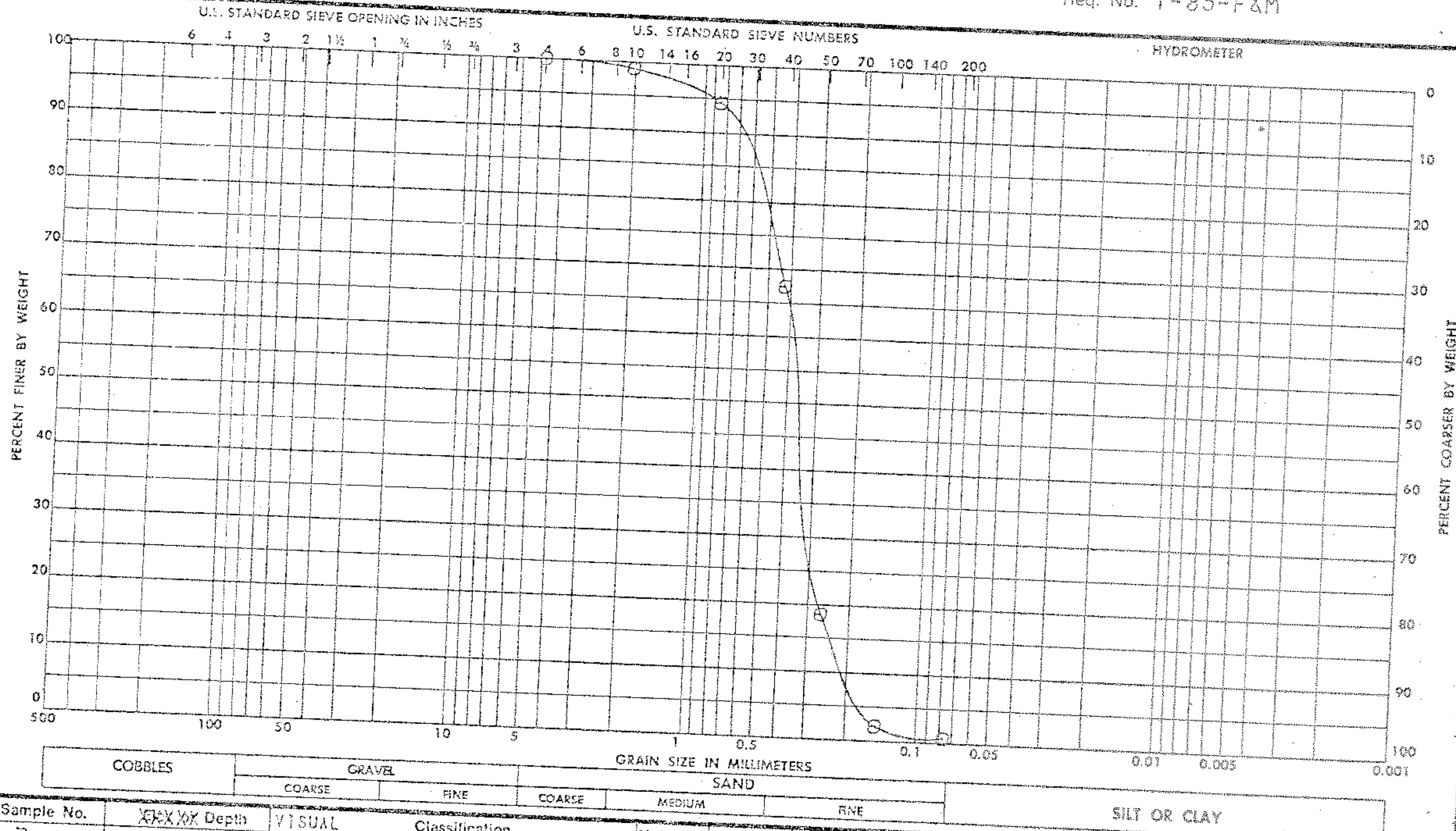
ENG FORM 1 MAY 63 2087

CHART NO. 518

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



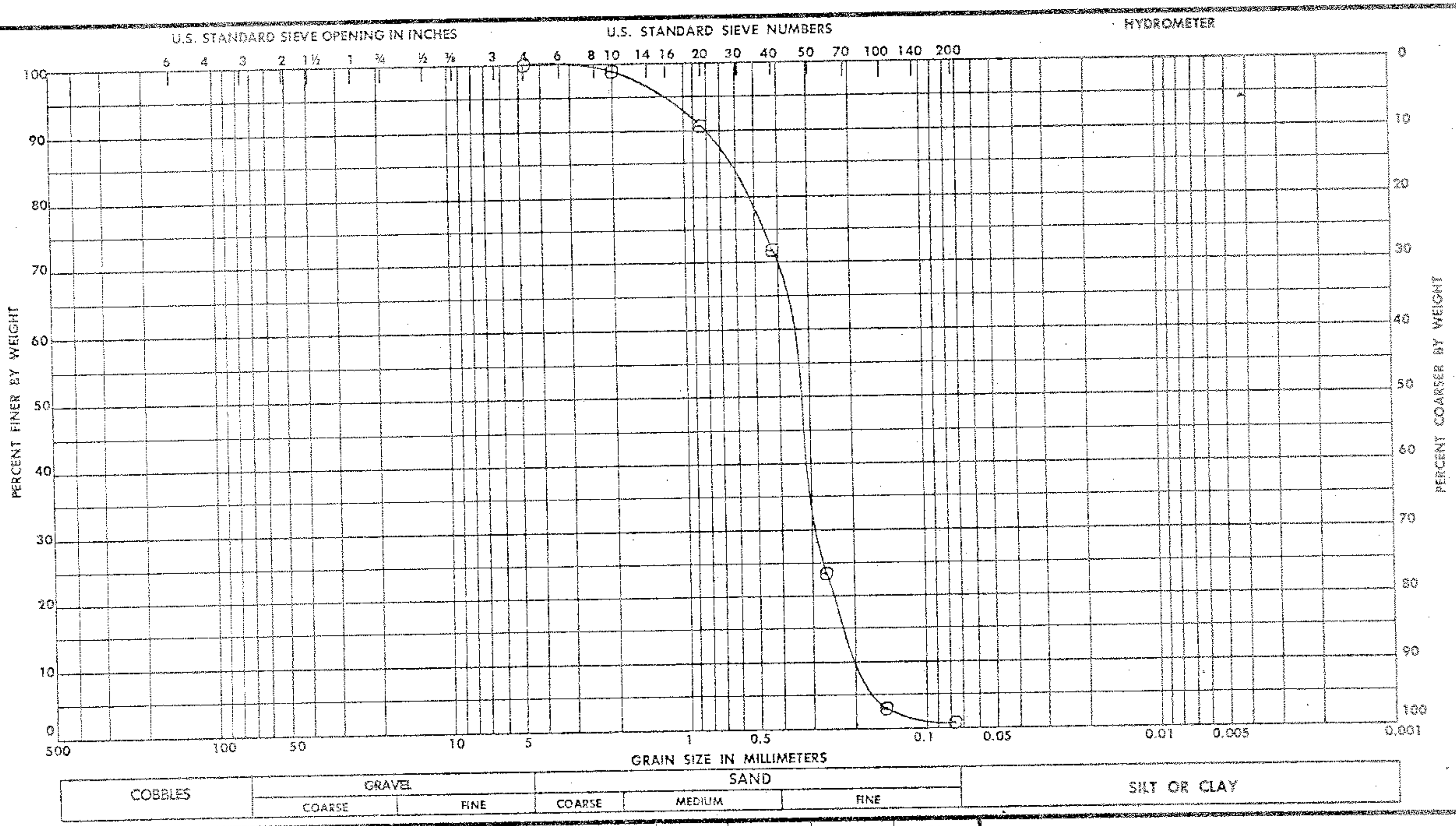
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 519



Sample No.	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

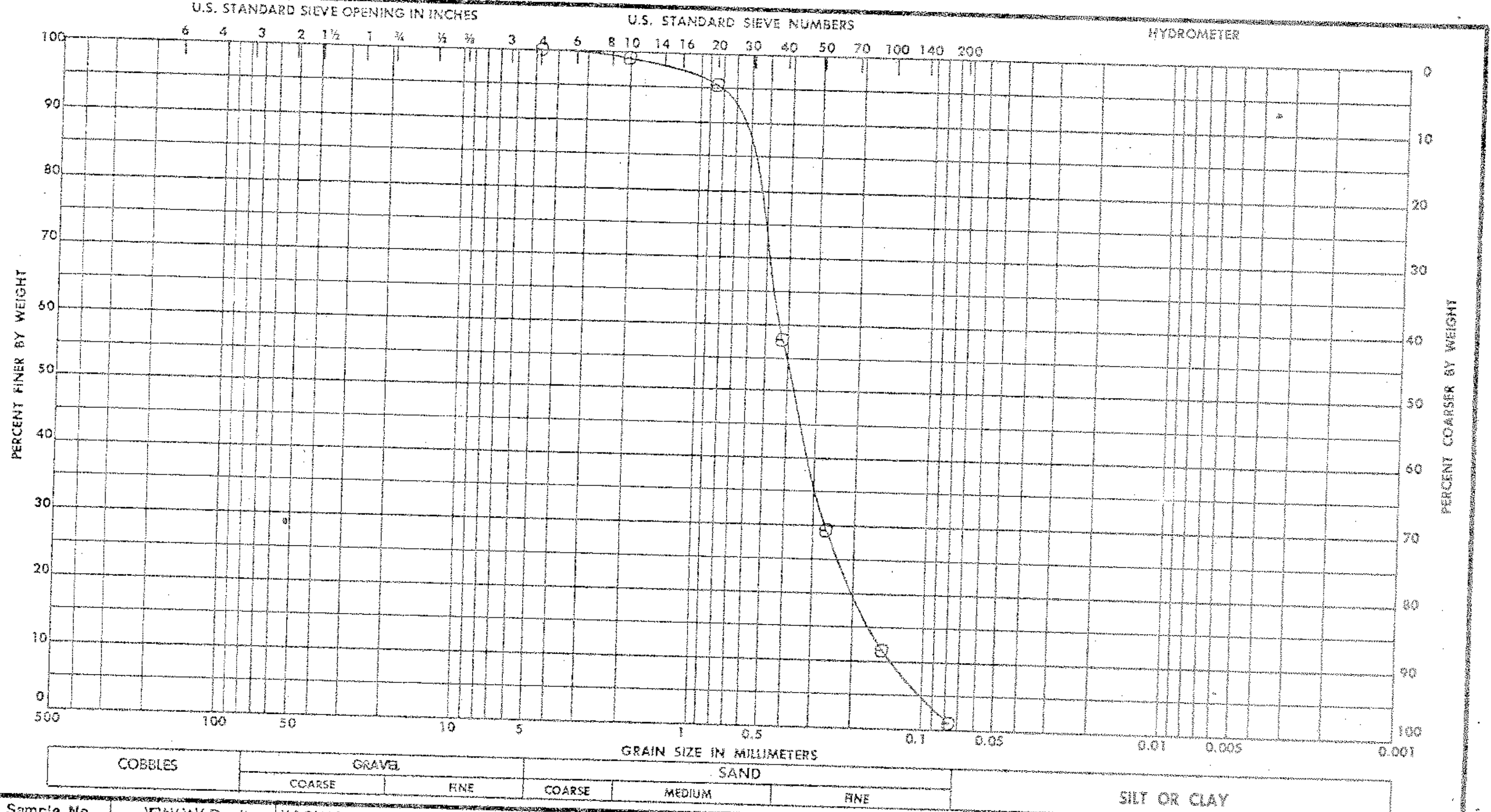
ENG FORM 1 MAY 63 2087

CHART NO. 520

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



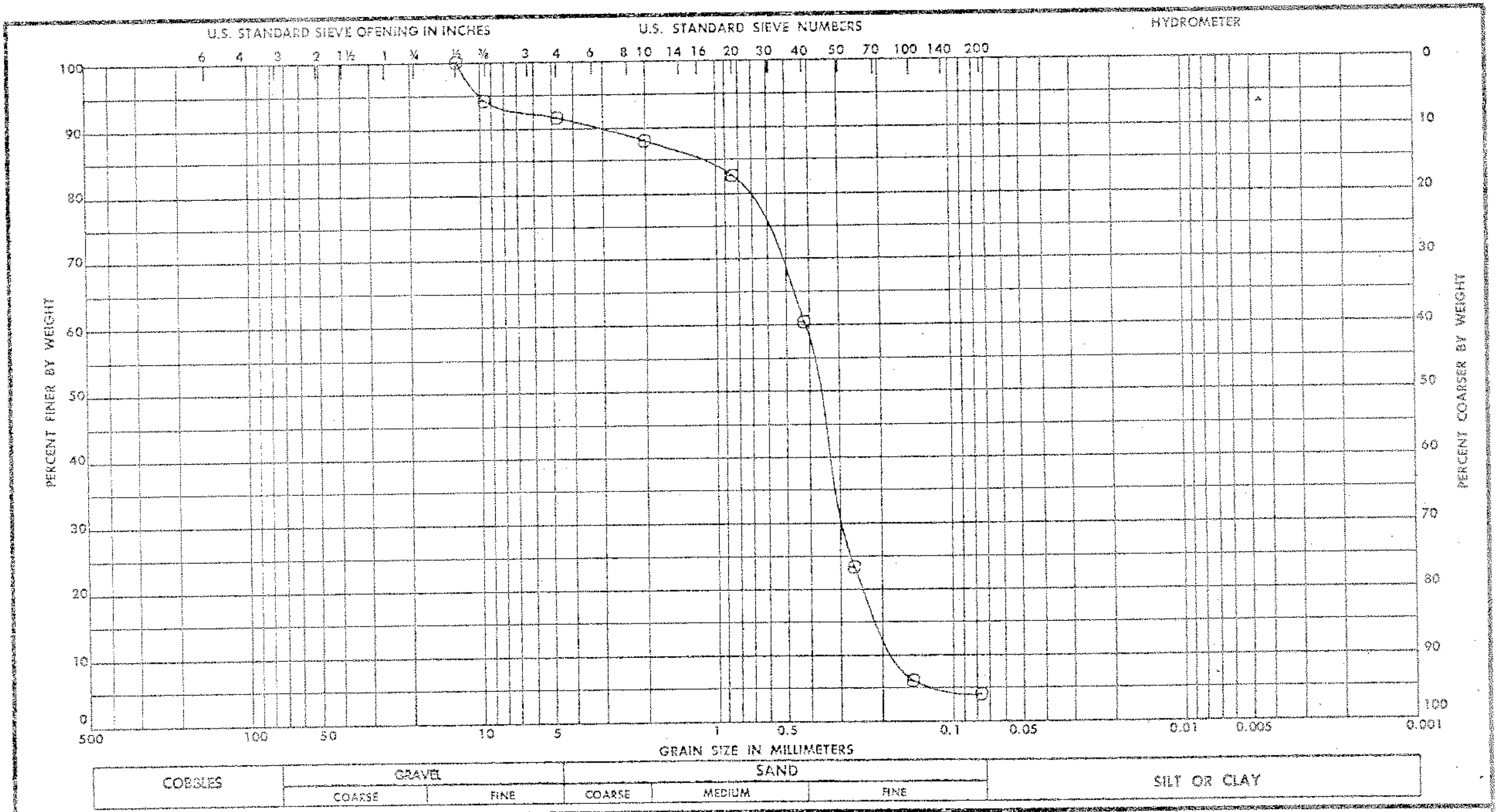
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	25.0'	POORLY GRADED SAND (SP) LT. GRAY	--	NP	NP	NP

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

GRADATION CURVES

ENG FORM 1 MAY 63 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				

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

GRADATION CURVES

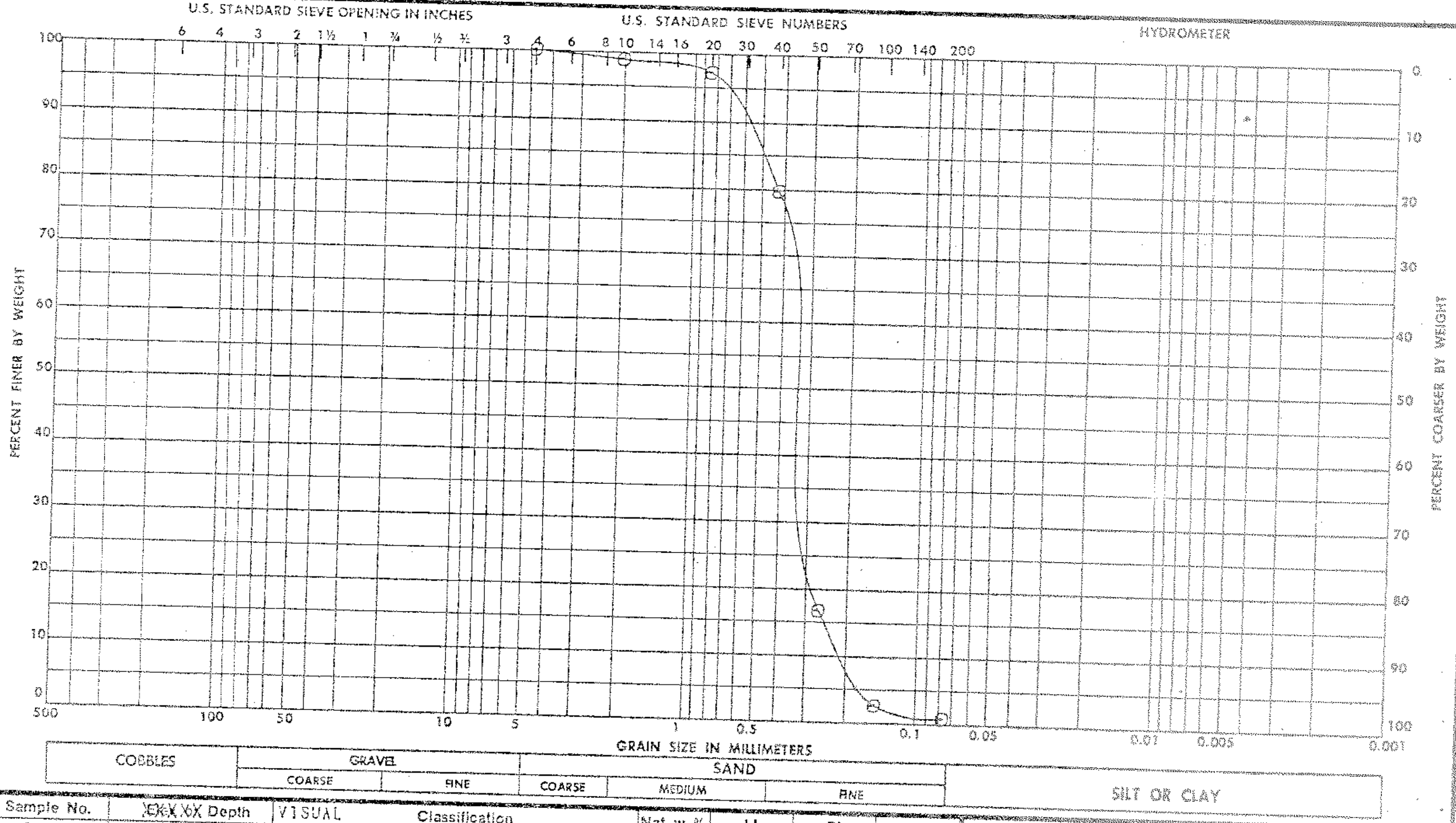
ENG FORM 1 MAY 63 2087

CHART NO. 522

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
5	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1113

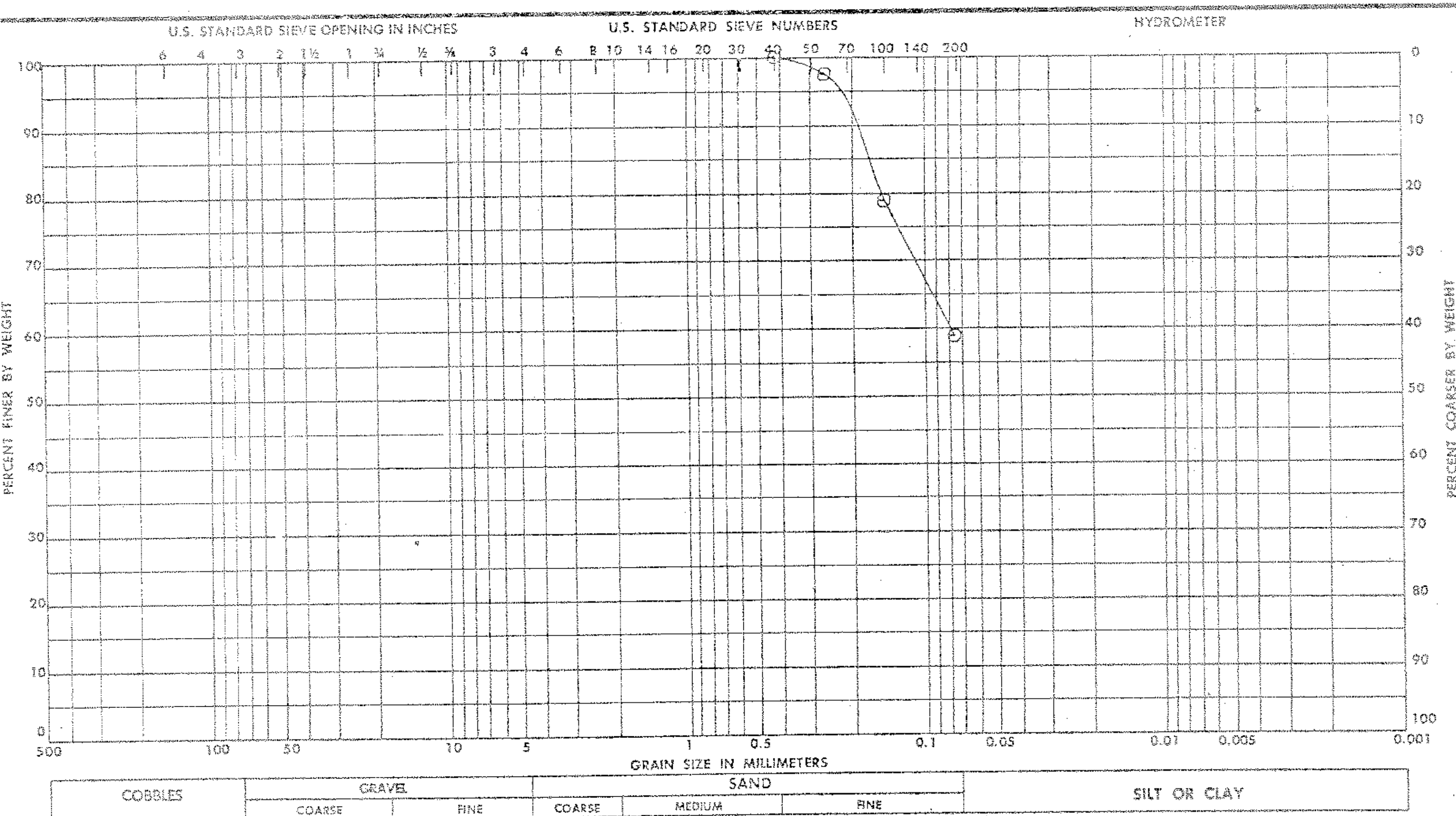
Boring No. VC-2-84 SAMPLE NO. 5

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 523



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

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

GRADATION CURVES

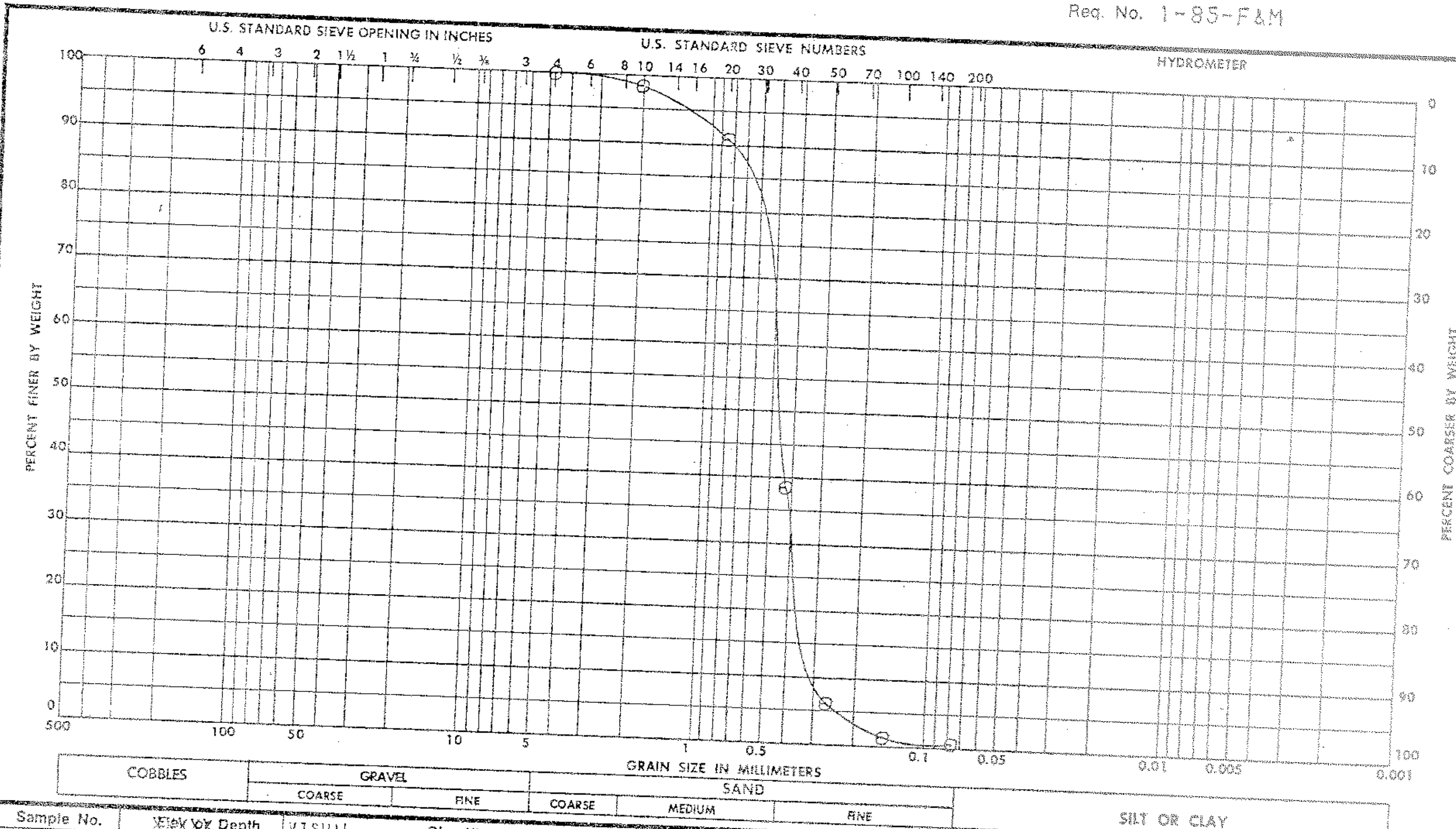
ENG FORM 1 MAY 63 2087

CHART NO. 524

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



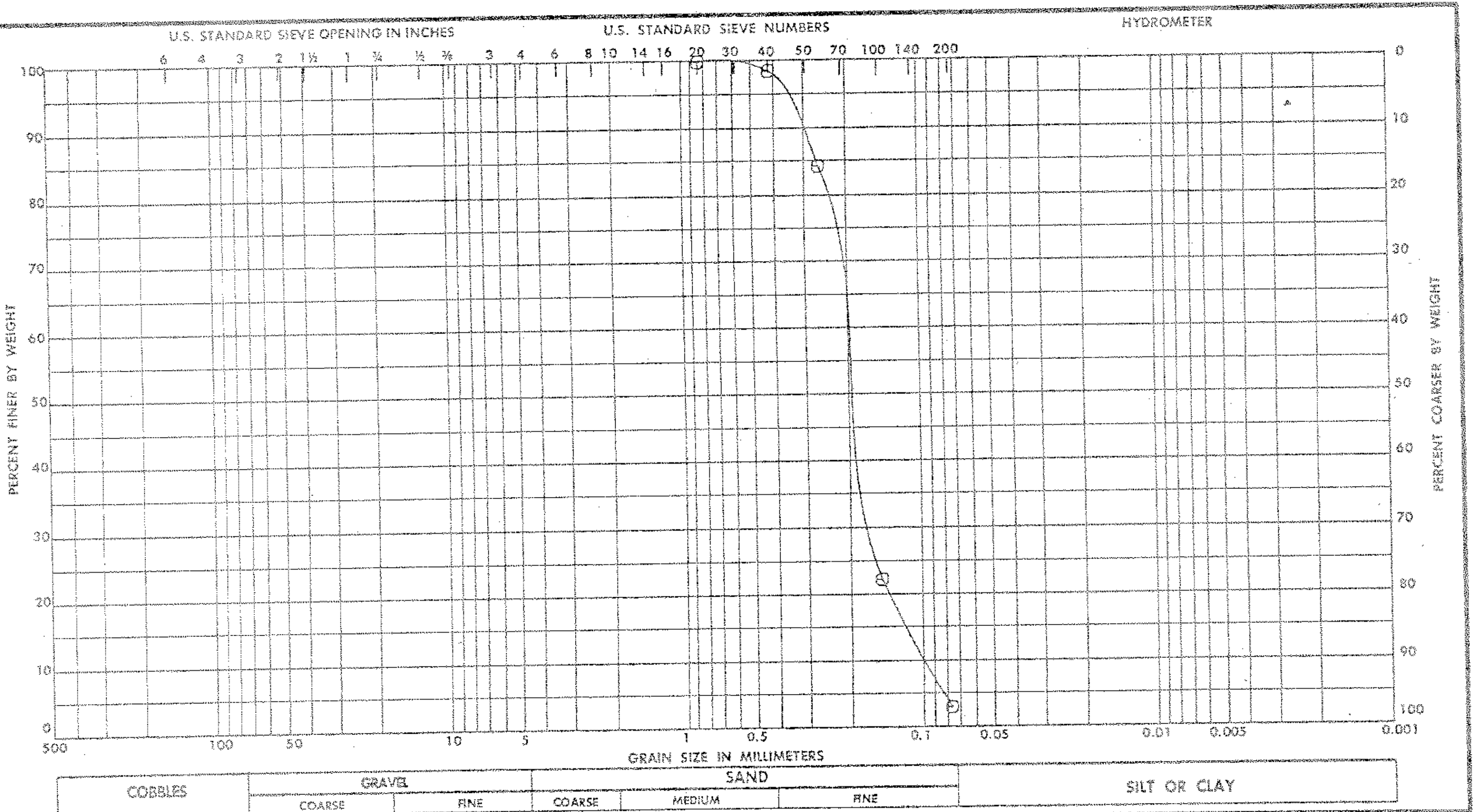
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP) LT. TAN	--	NP	NP	NP

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 525



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

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

GRADATION CURVES

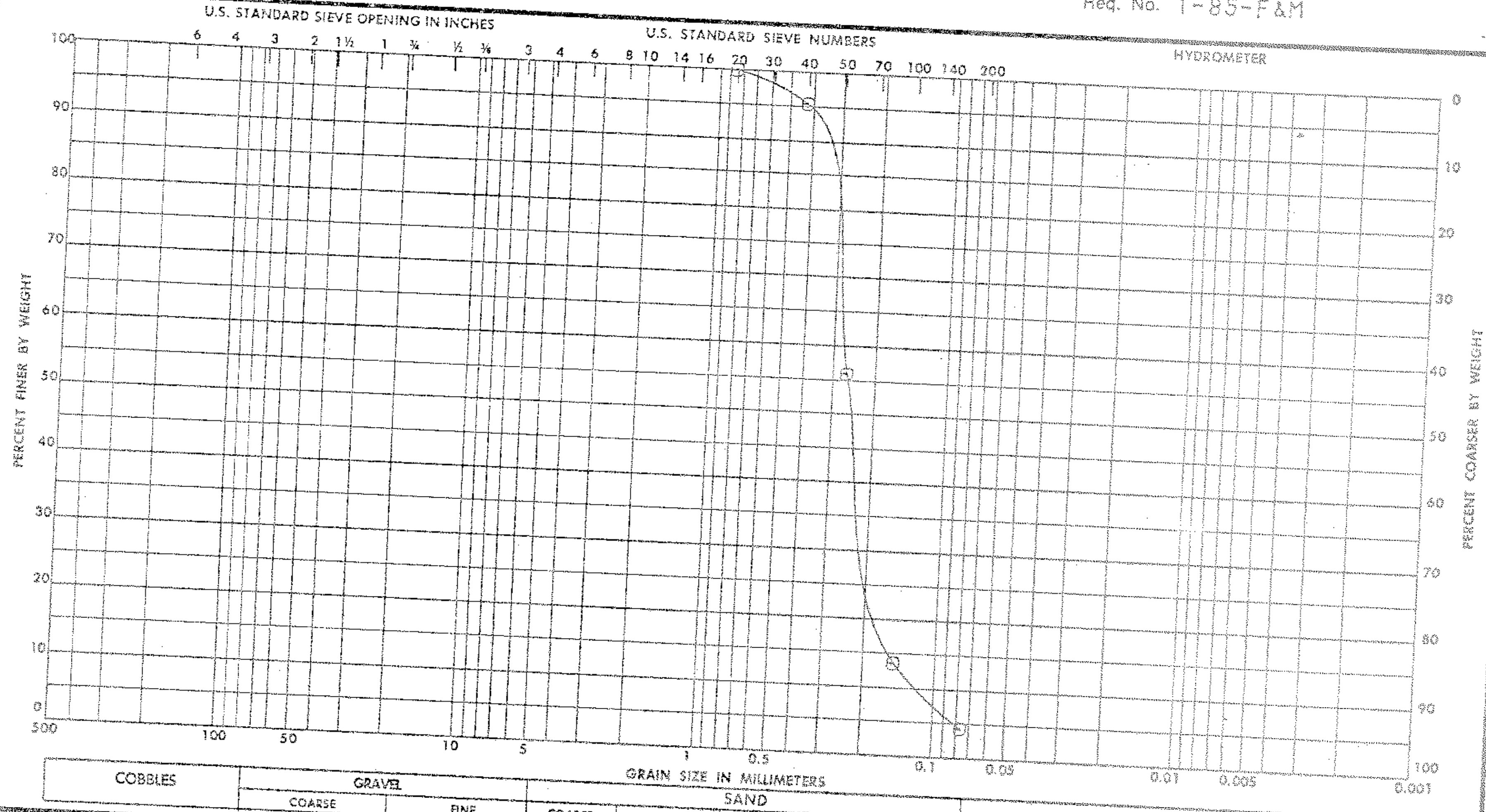
ENG FORM 1 MAY 63 2087

CHART NO. 526

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



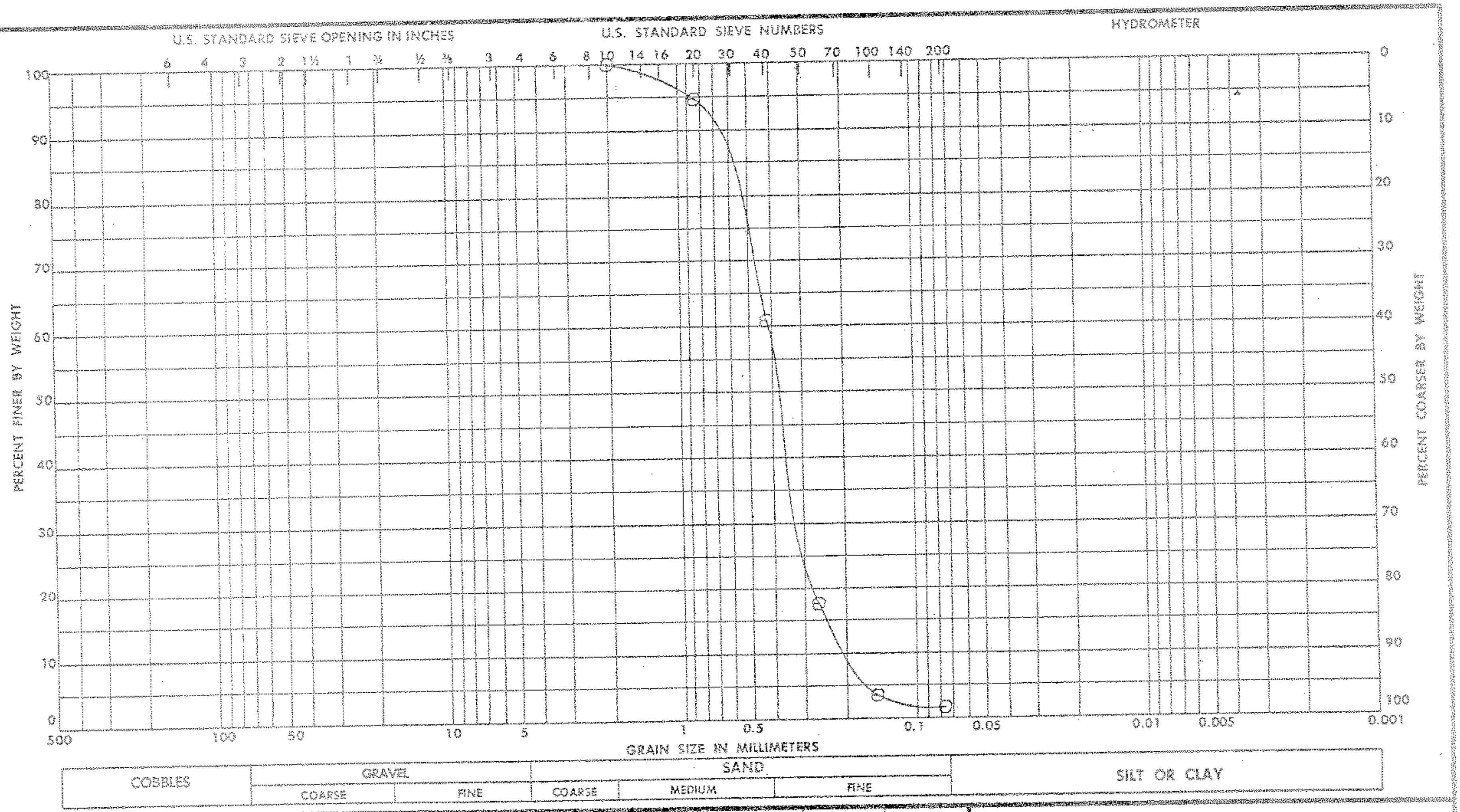
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	POORLY GRADED SAND (SP) LT. TAN	--	NP	NP	NP

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 527



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

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

GRADATION CURVES

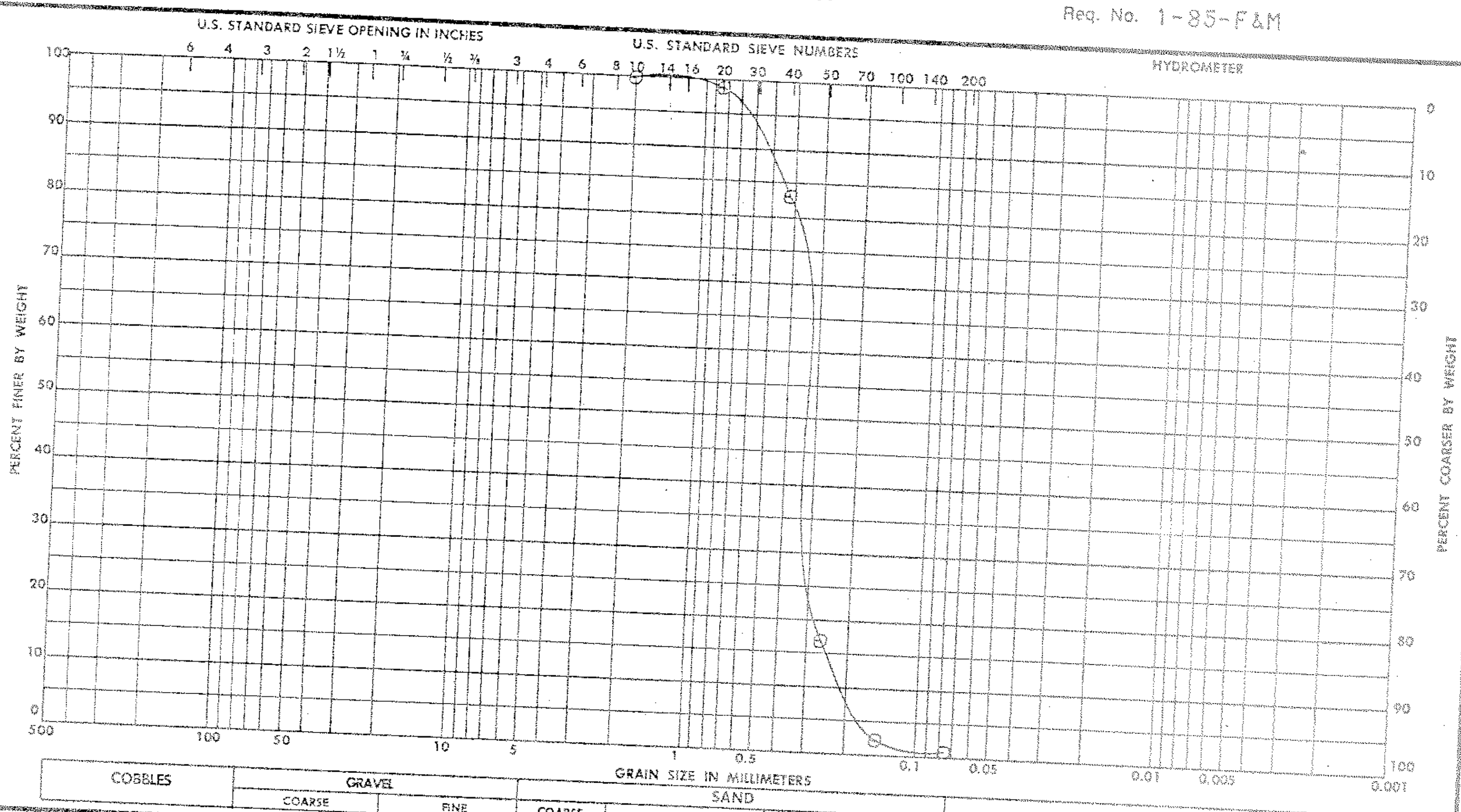
ENG FORM 1 MAY 63 2087

CHART NO. 528

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	15.0'	VISUAL POORLY GRADED SAND (SP) LT.GRAY	--	NP	NP	NP

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1120

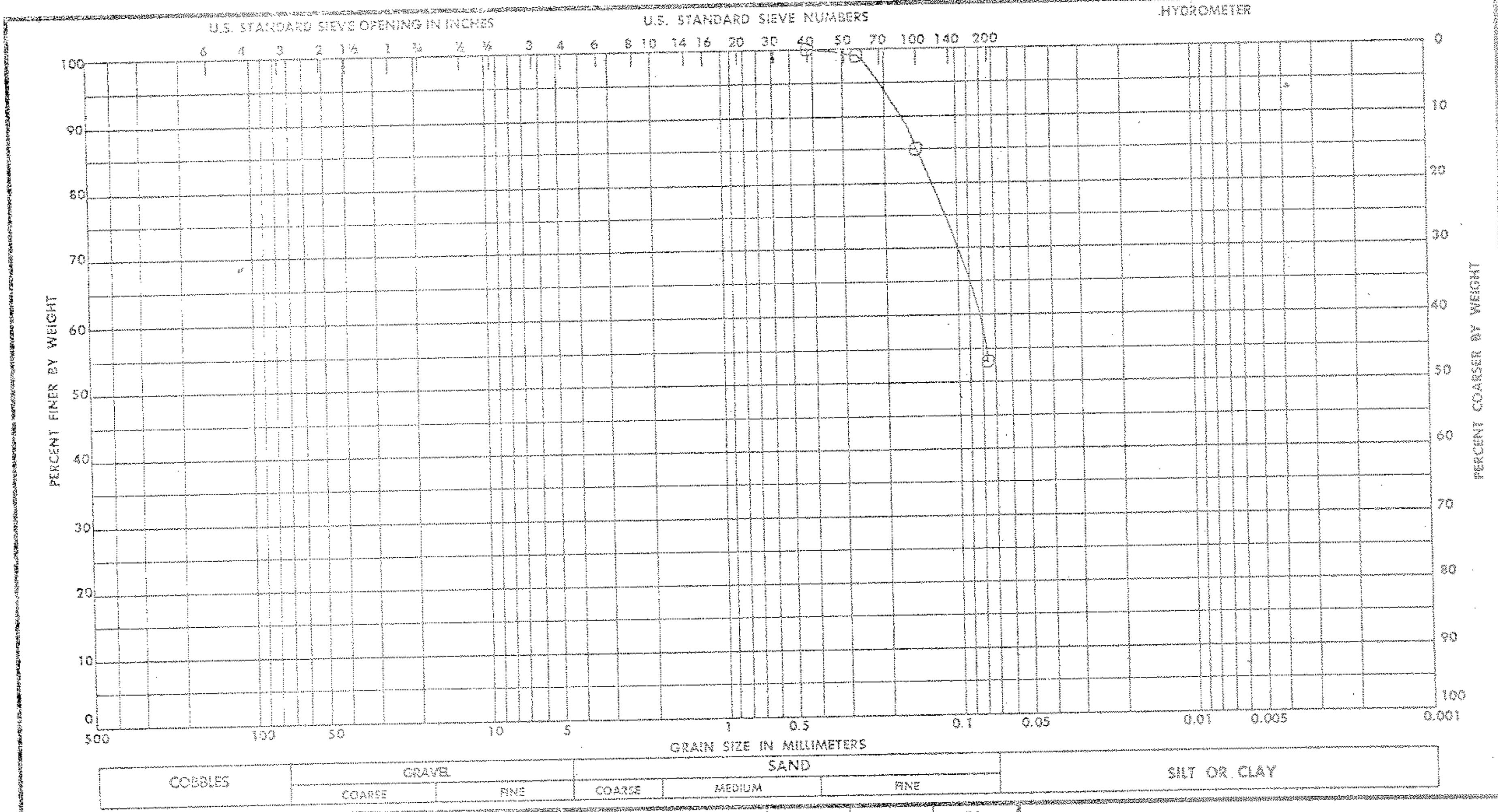
Boring No. VC-5-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 529



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

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

GRADATION CURVES

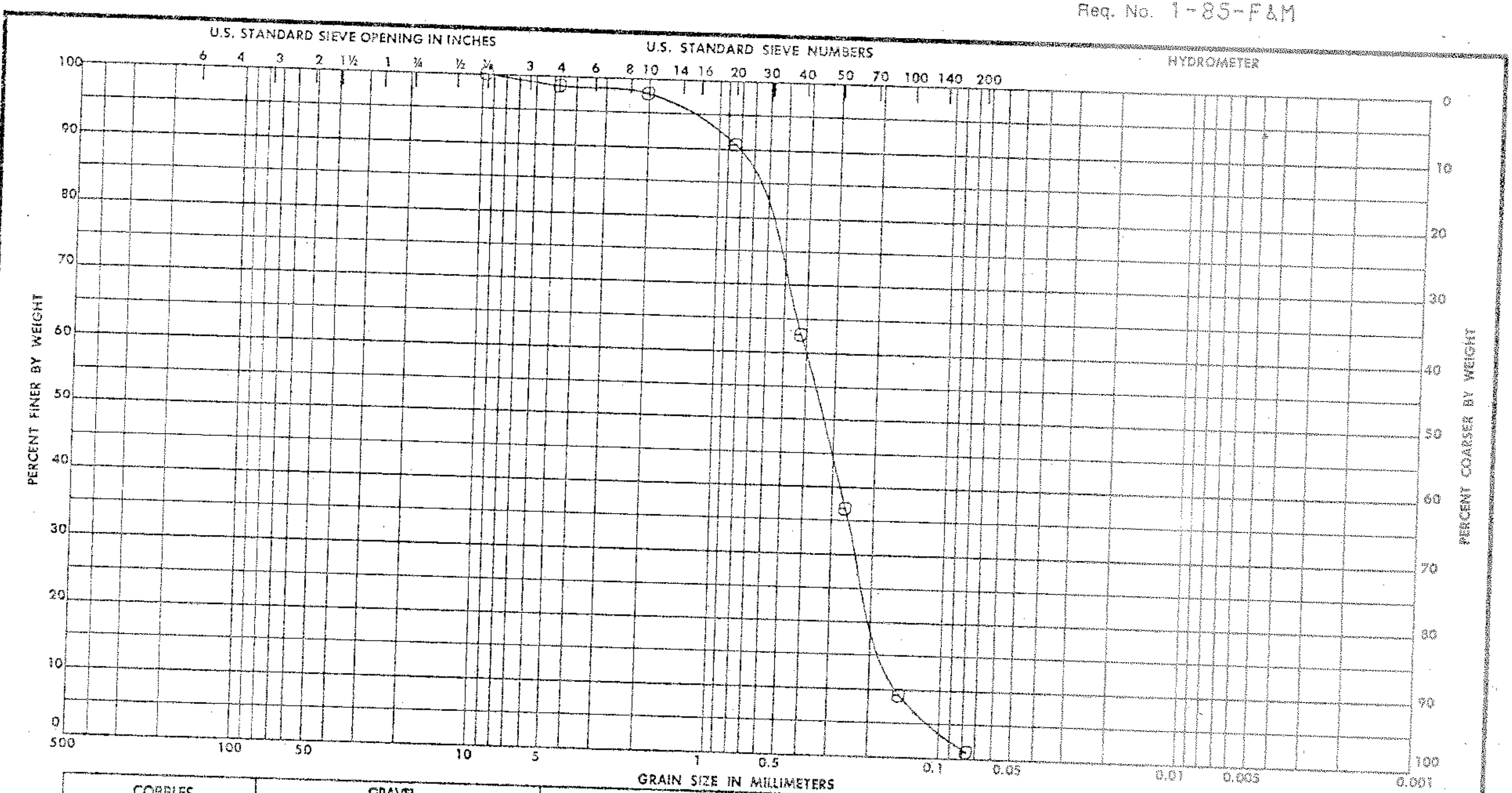
ENG FORM 1 MAY 63 2087

CHART NO. 530

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



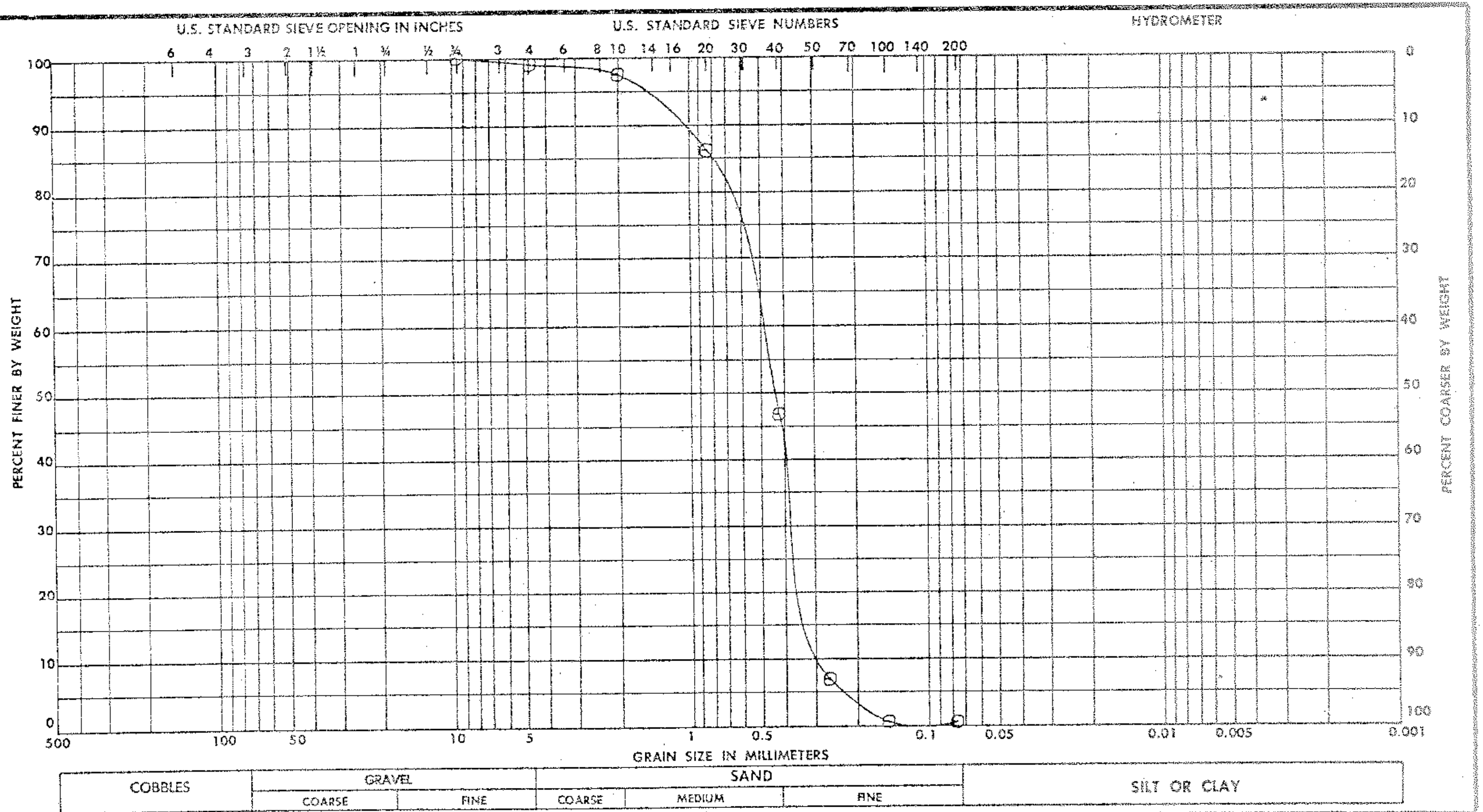
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN WITH A TRACE OF GRAVEL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 531



Sample No.	XXXX 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				

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

GRADATION CURVES

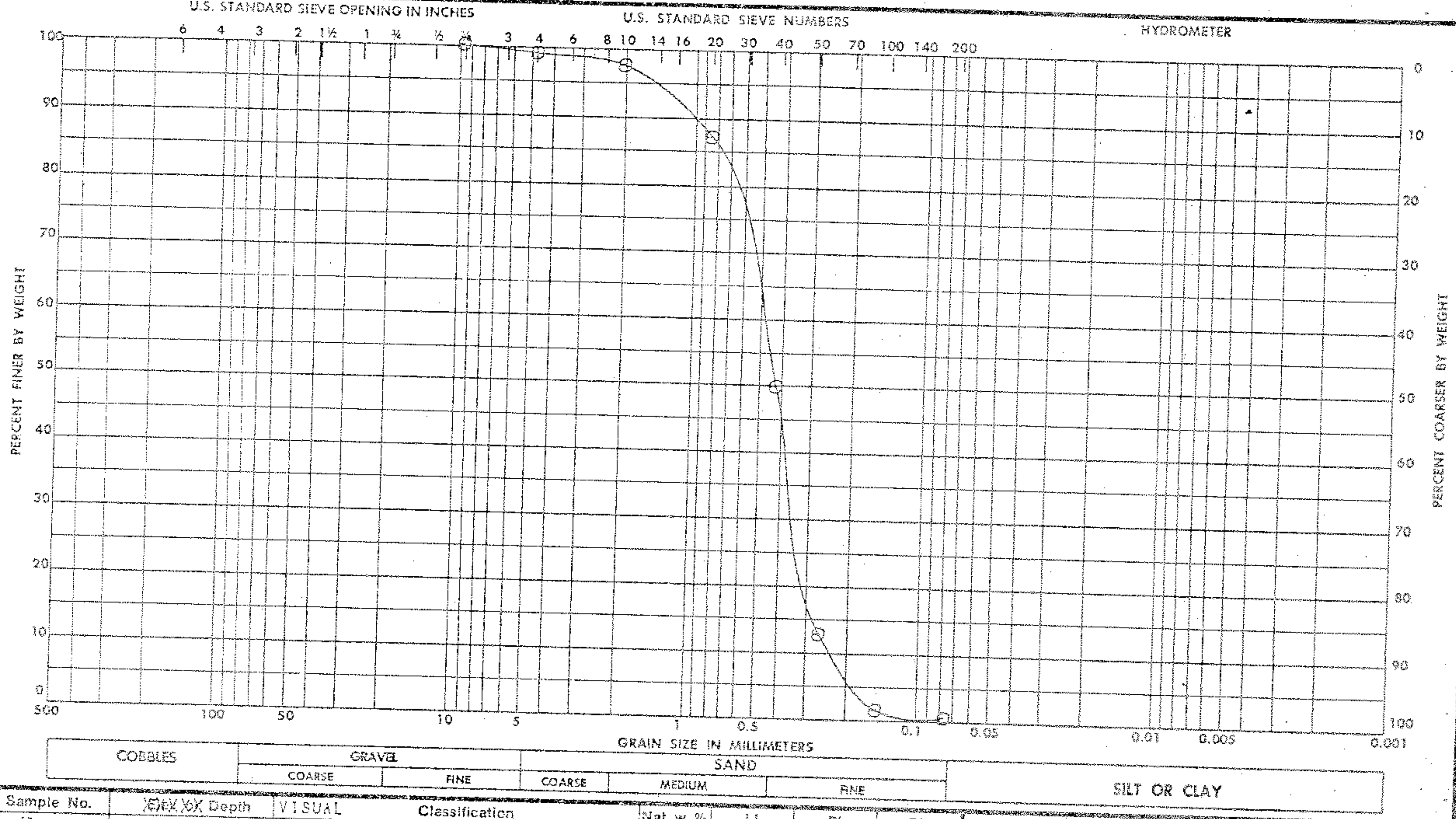
ENG FORM 1 MAY 63 2087

CHART NO. 532

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



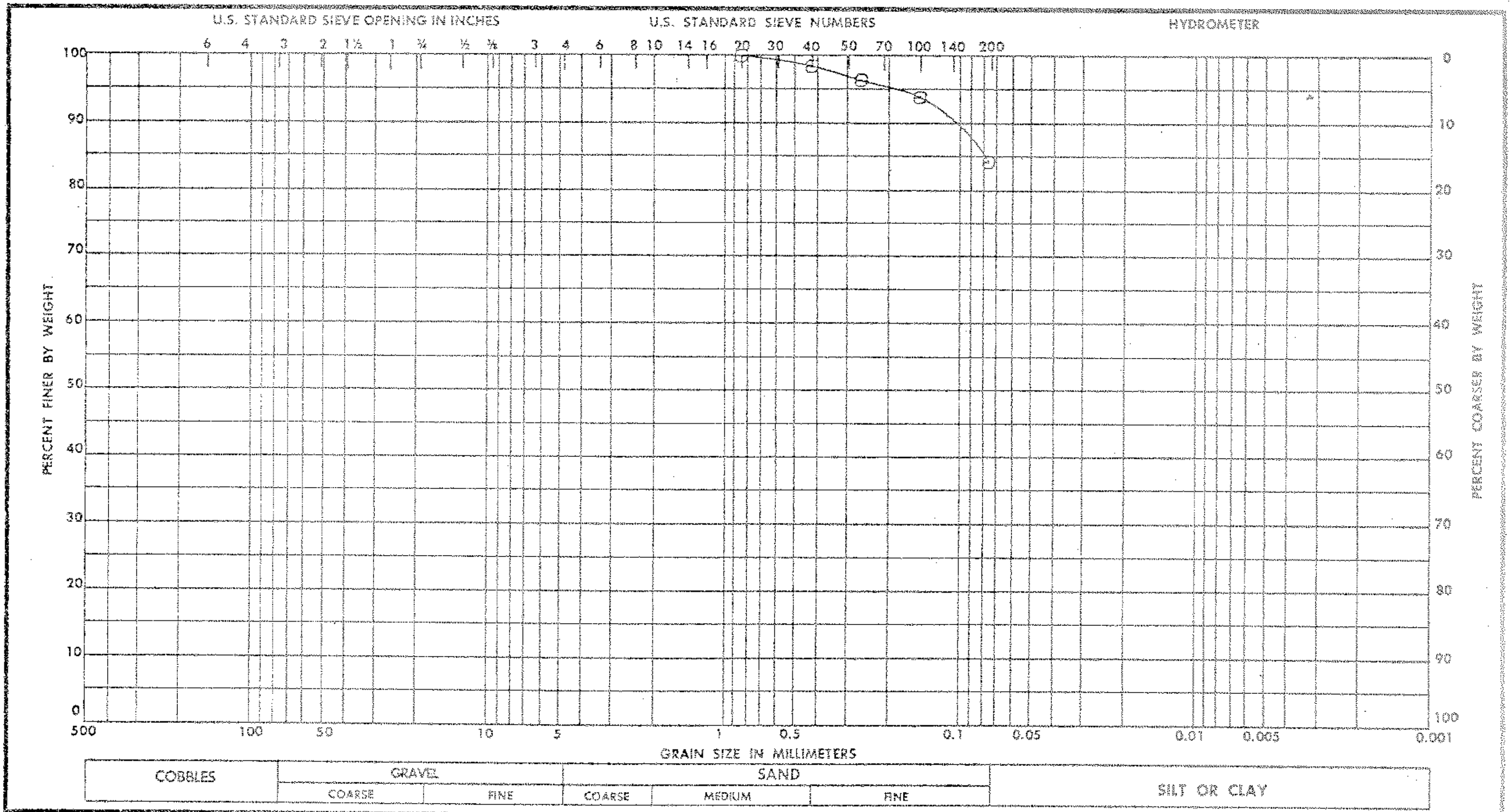
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF GRAVEL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 533



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				

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

GRADATION CURVES

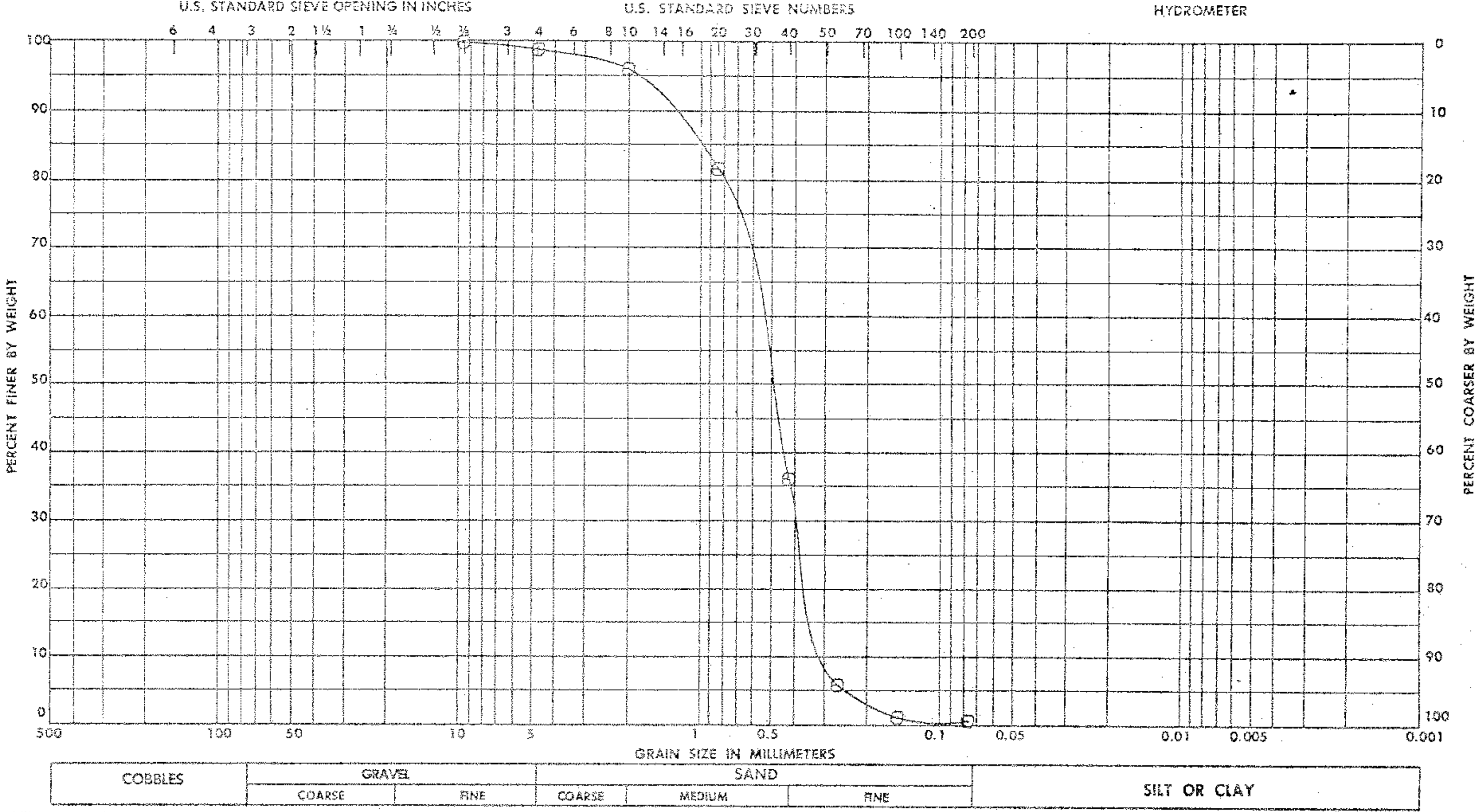
ENG FORM 1 MAY 63 2087

CHART NO. 534

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



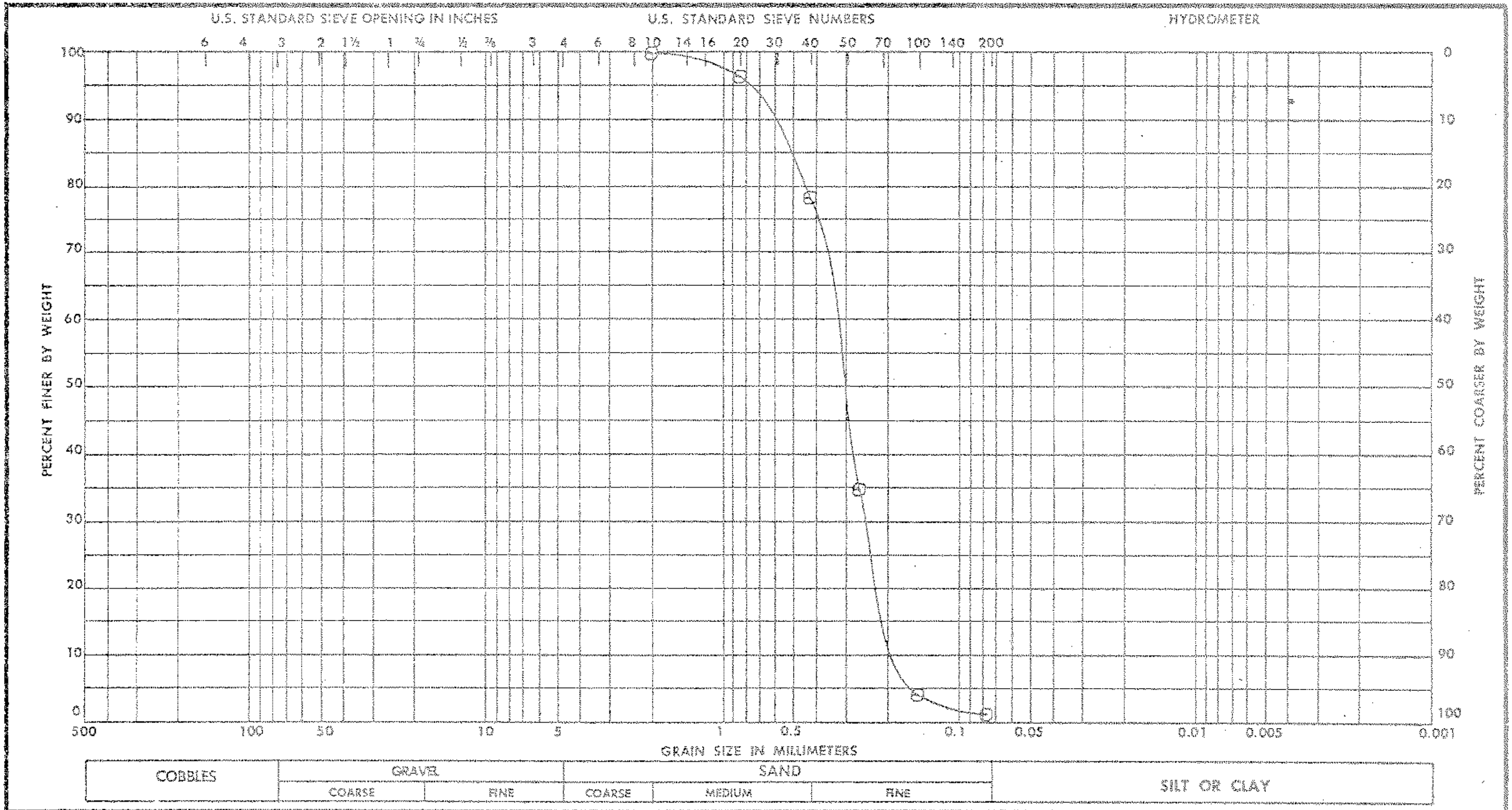
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.GRAY WITH A TRACE OF GRAVEL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 535



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

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

GRADATION CURVES

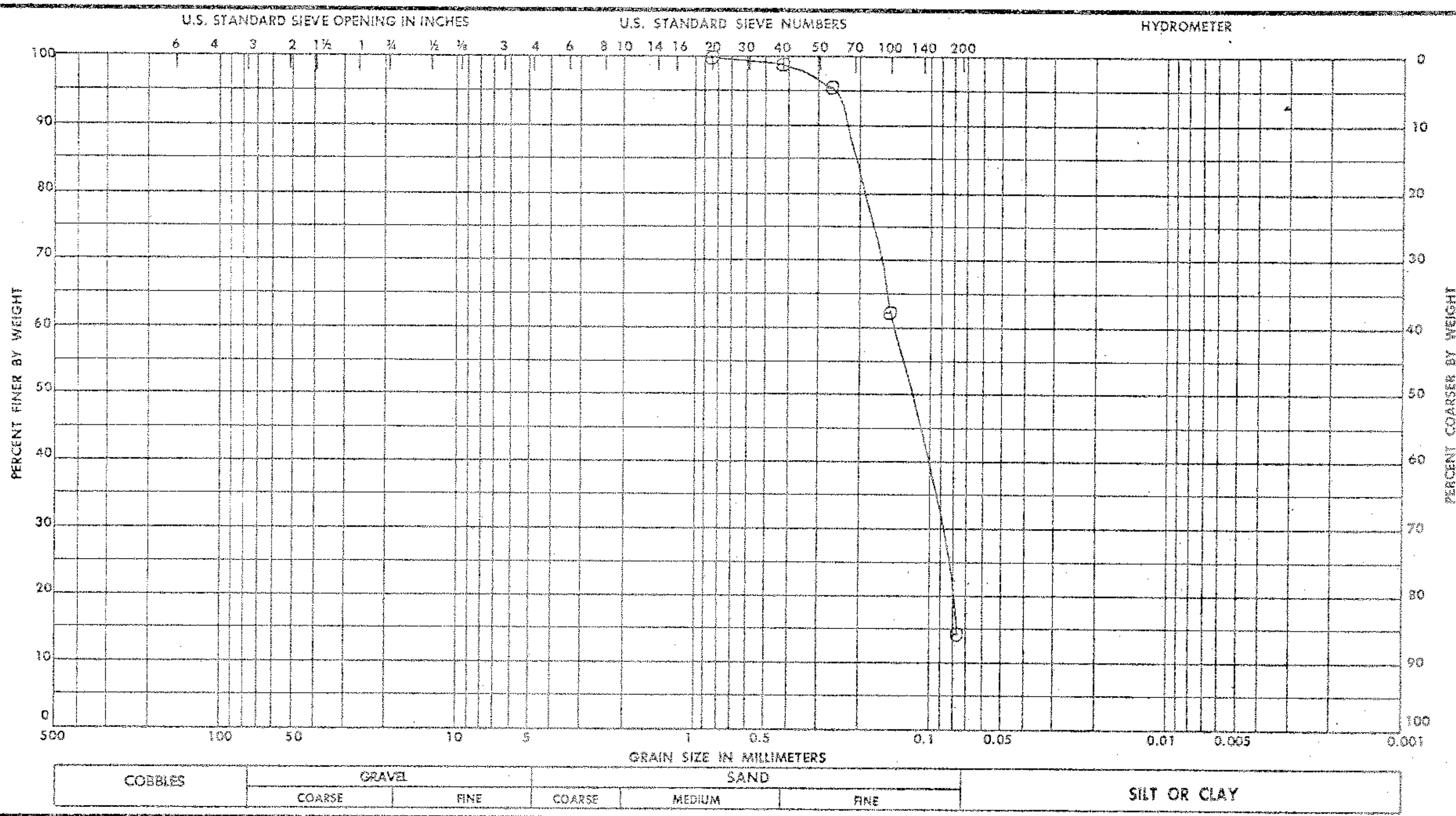
ENG FORM 1 MAY 63 2087

CHART NO. 536

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'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH TAN				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1130

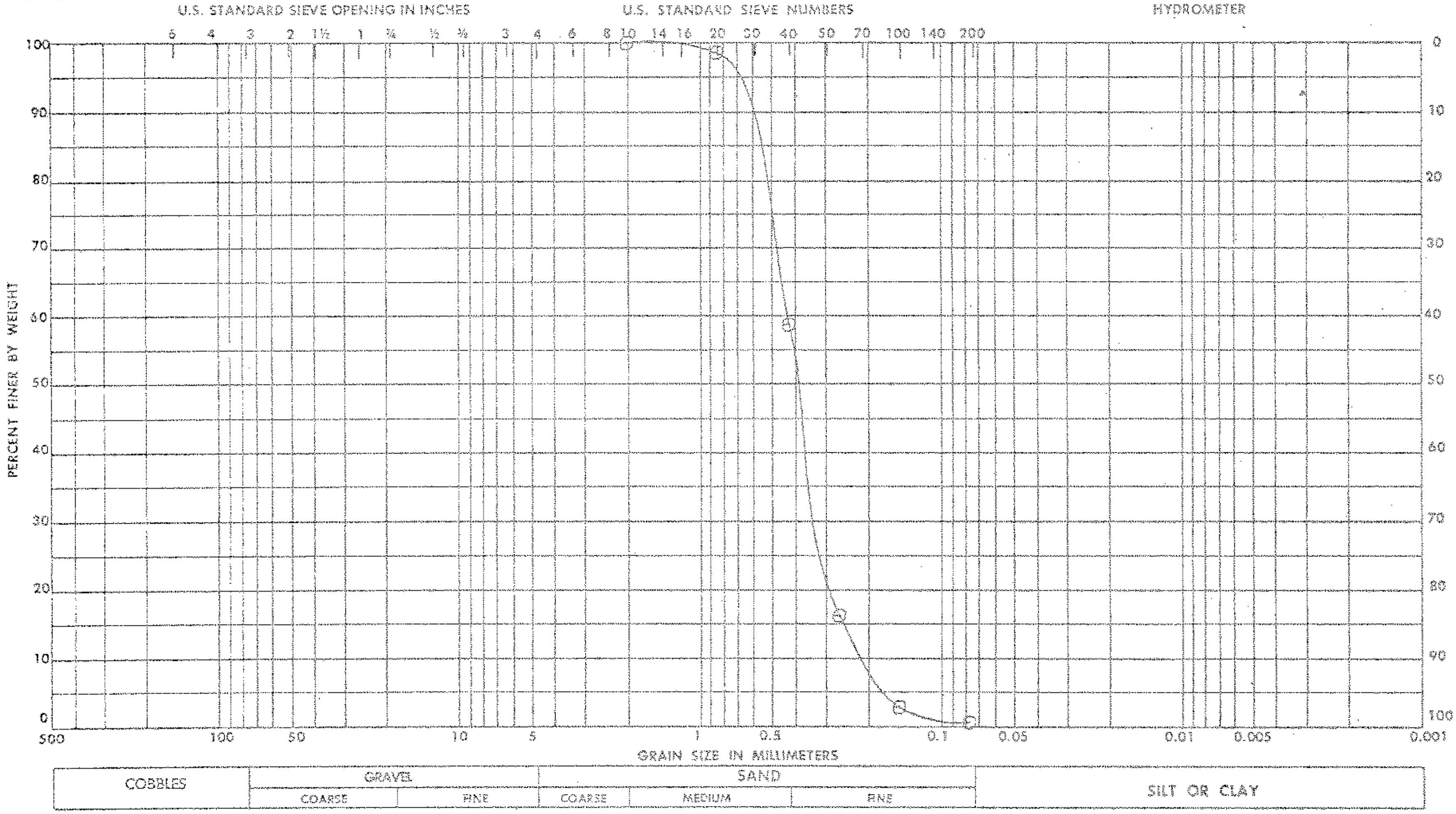
Boring No. VC-9-84 SAMPLE NO. 1

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 537



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

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1131

Boring No. VC-9-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

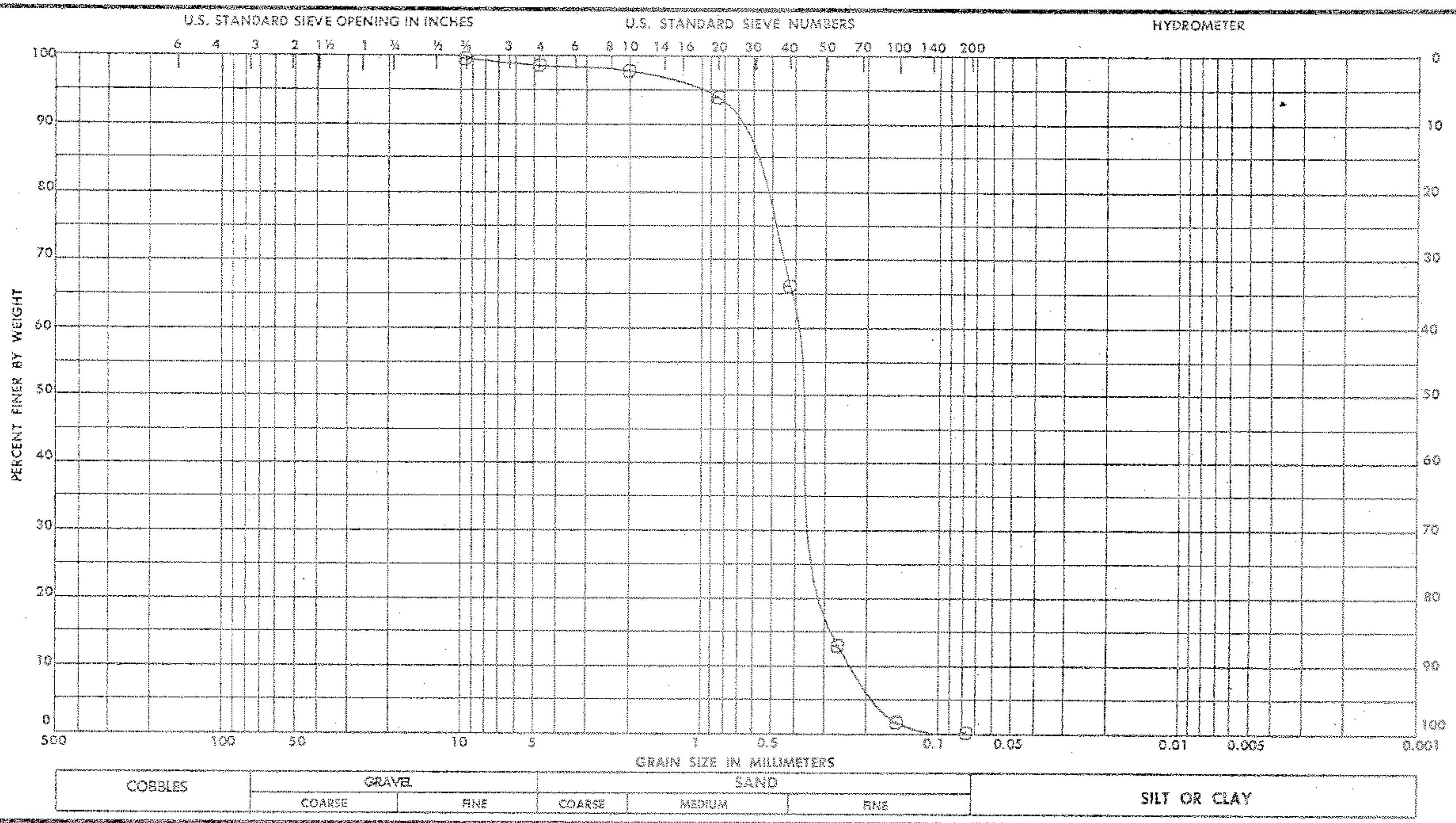
ENG FORM 1 MAY 63 2087

CHART NO. 538

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



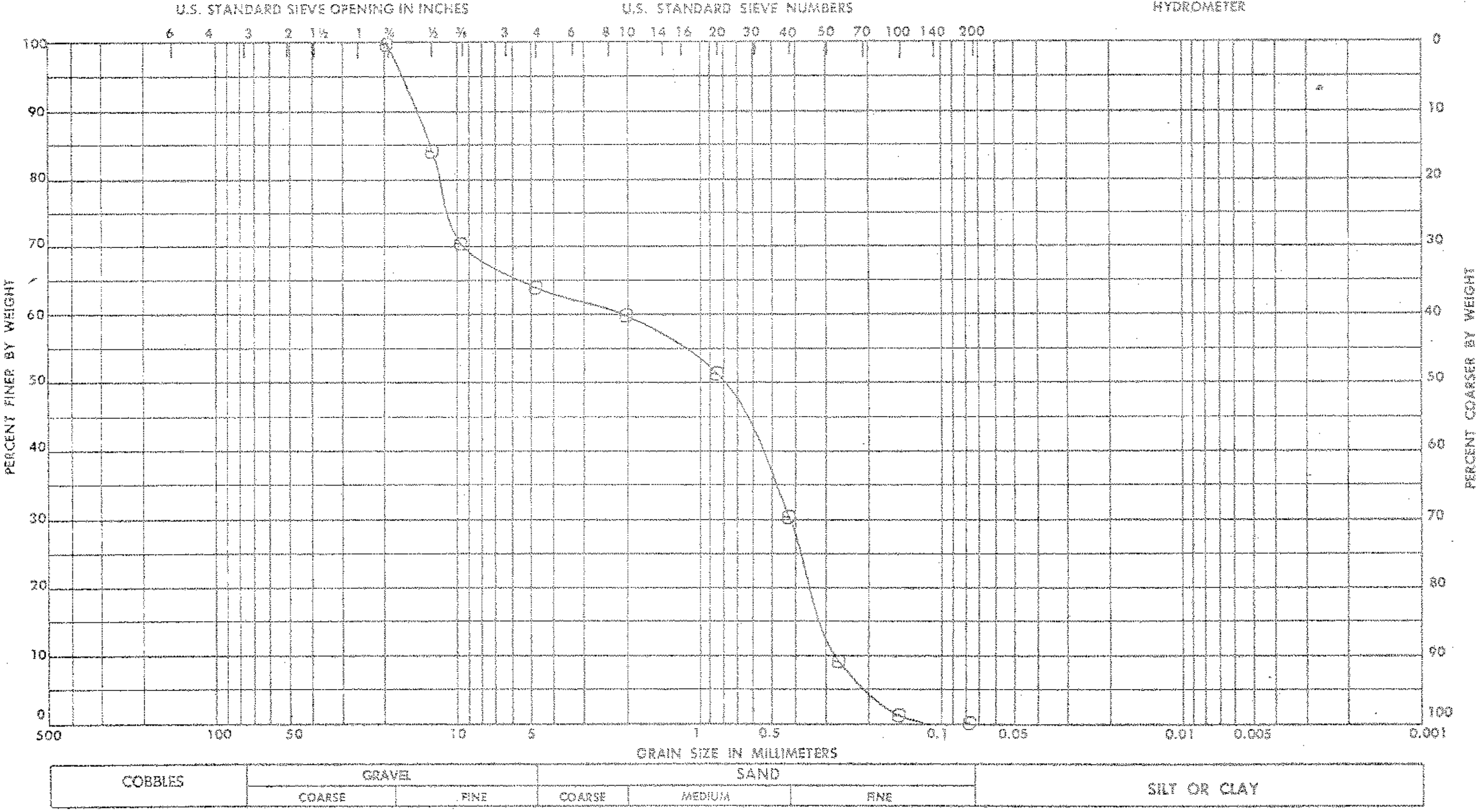
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN , WITH A TRACE OF				
		GRAVEL				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 539



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

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

GRADATION CURVES

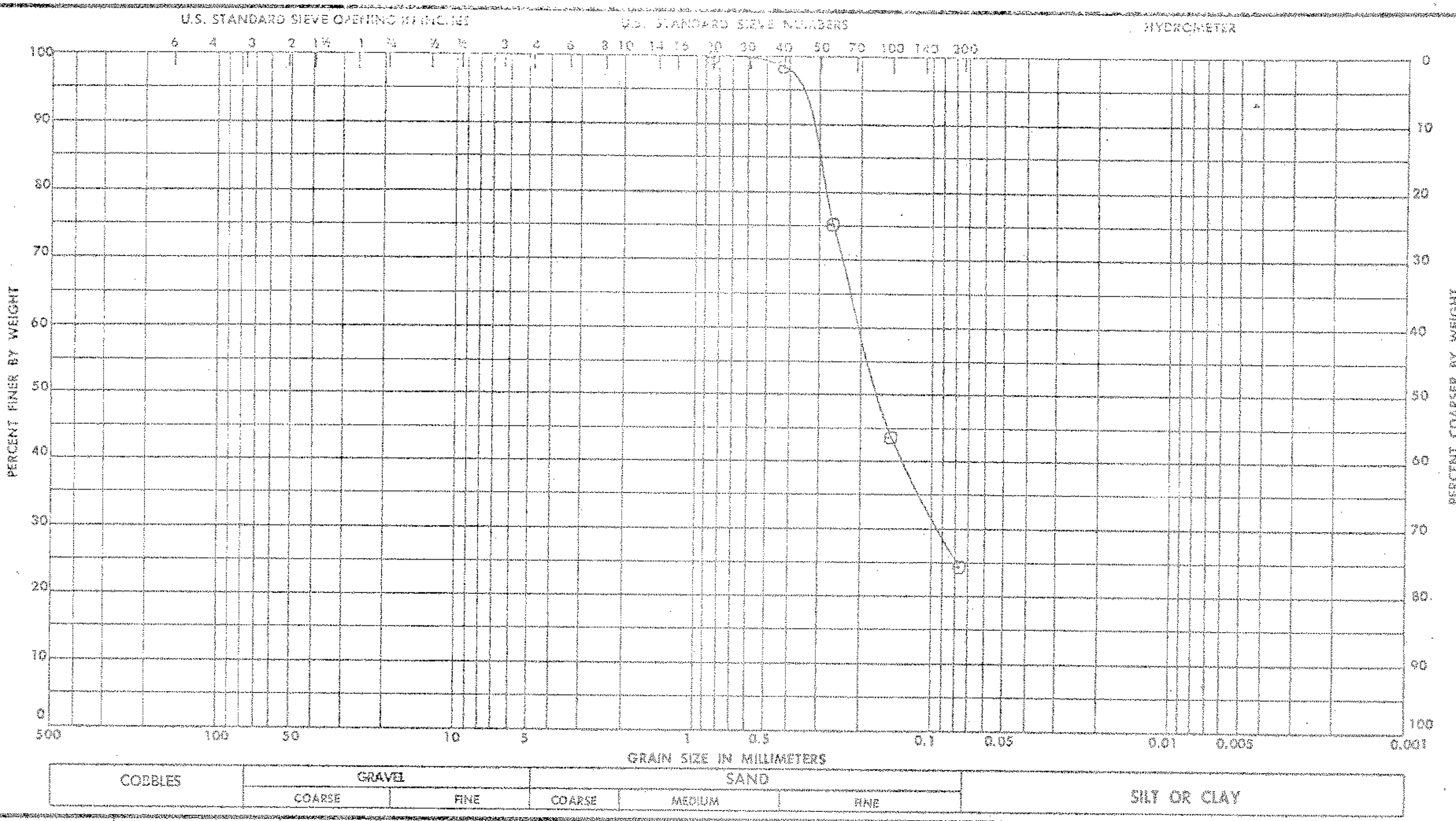
ENG FORM 1 MAY 63 2087

CHART NO. 540

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



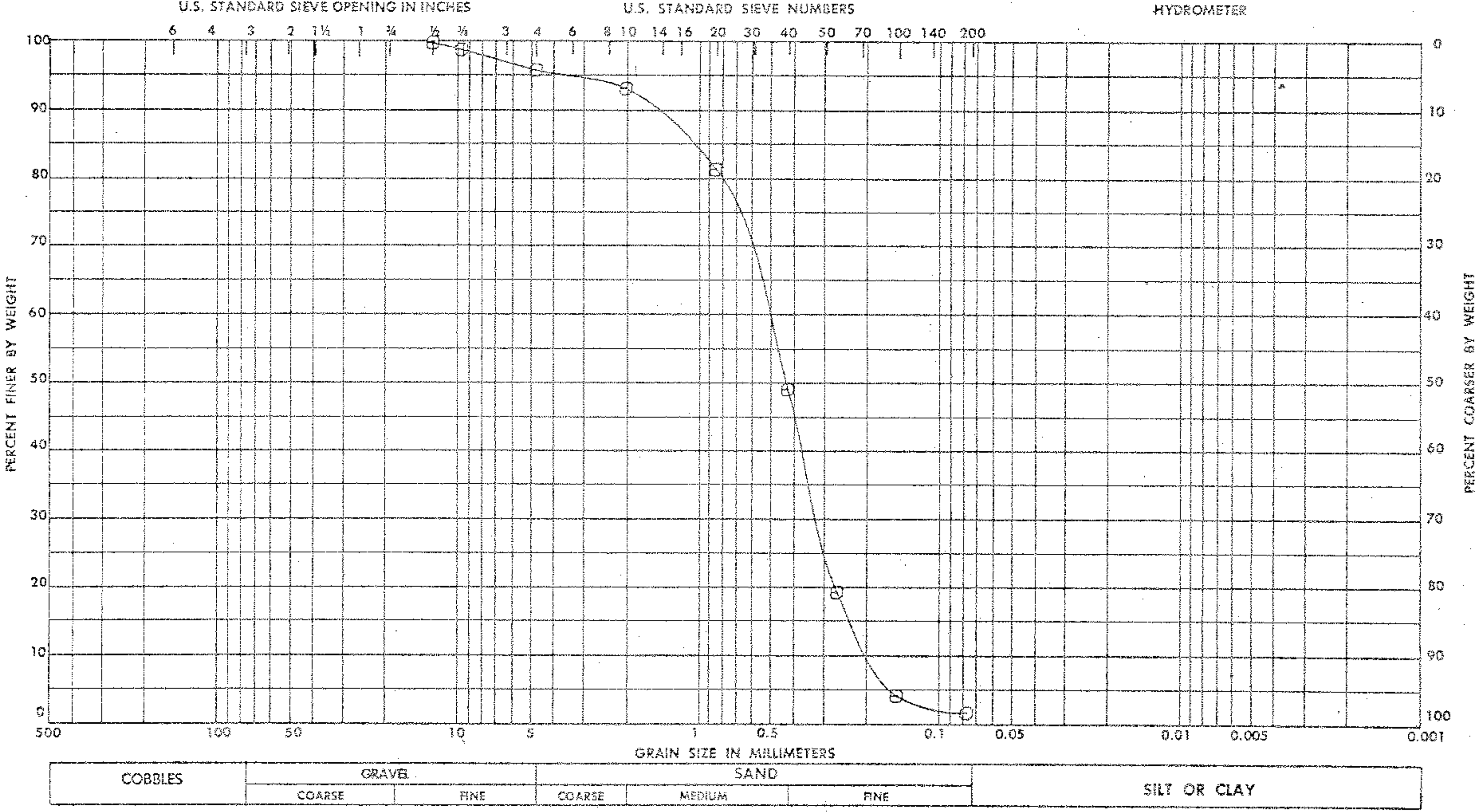
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	10.0'	SILTY SAND (SM)	--	--	--	--
		LT.GRAY,SLIGHTLY PLASTIC				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 541



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

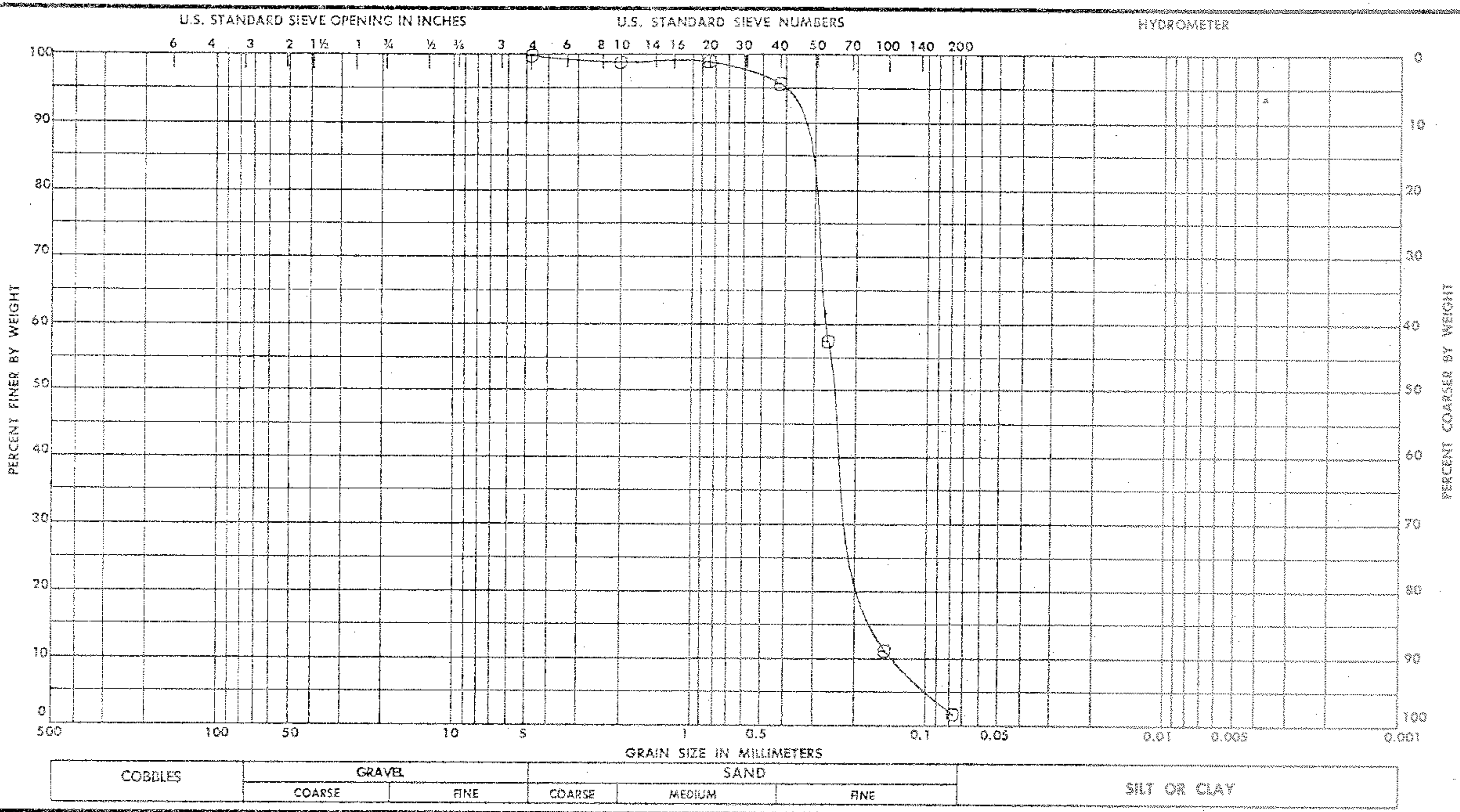
CHART NO. 542

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



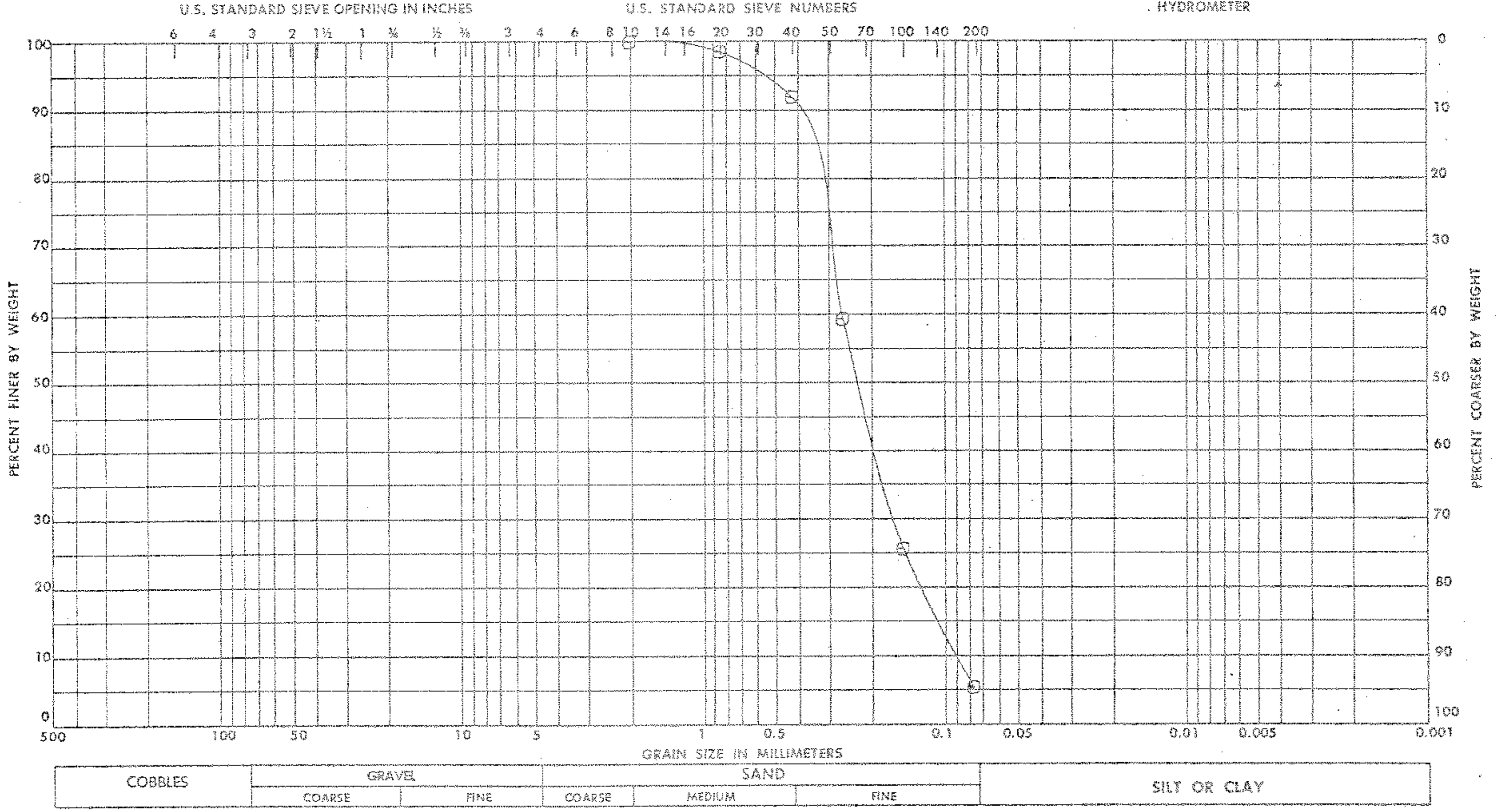
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	22.8'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.TAN WITH A TRACE OF MICA				

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				

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

GRADATION CURVES

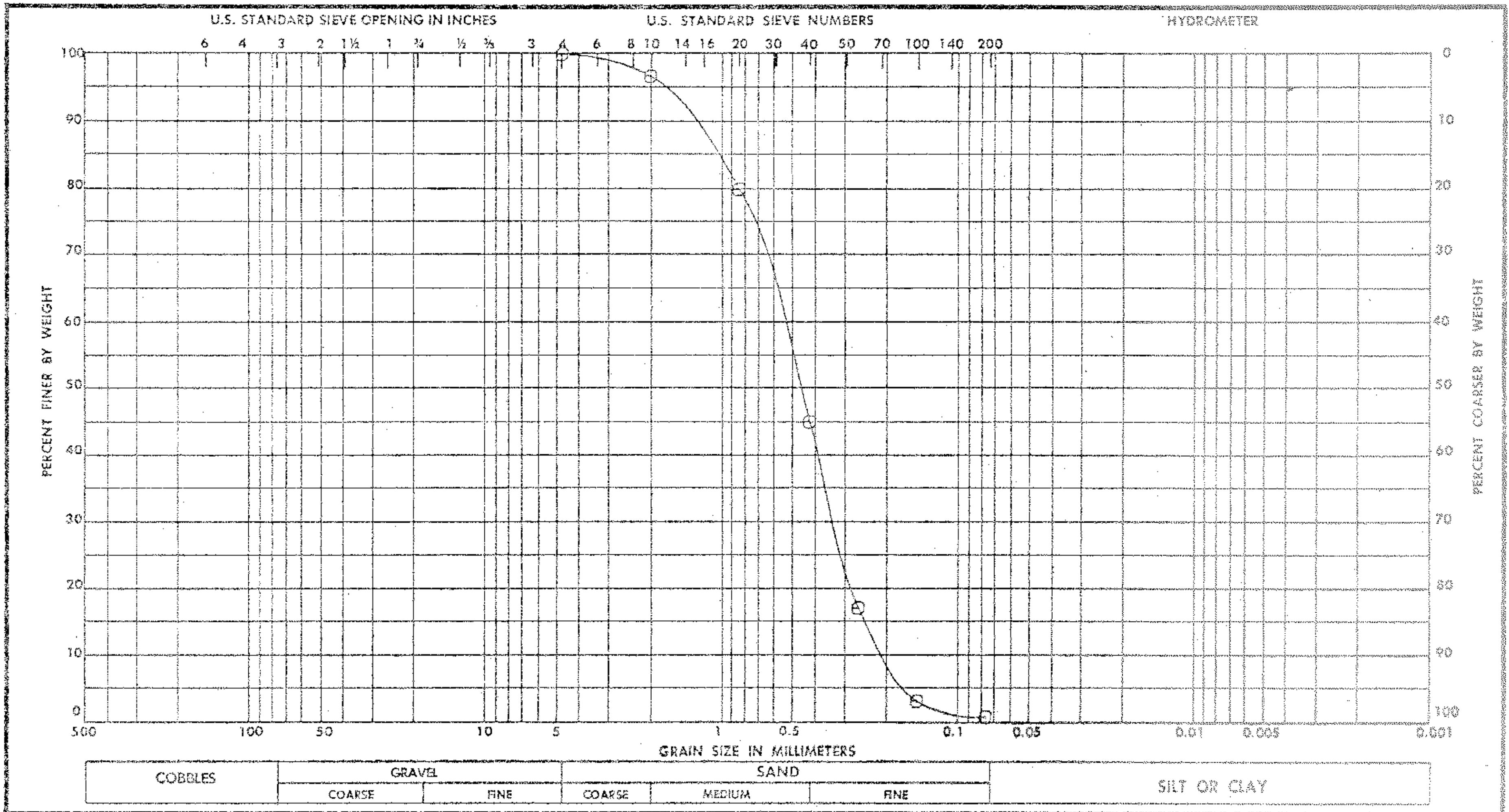
CHART NO. 544

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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1141

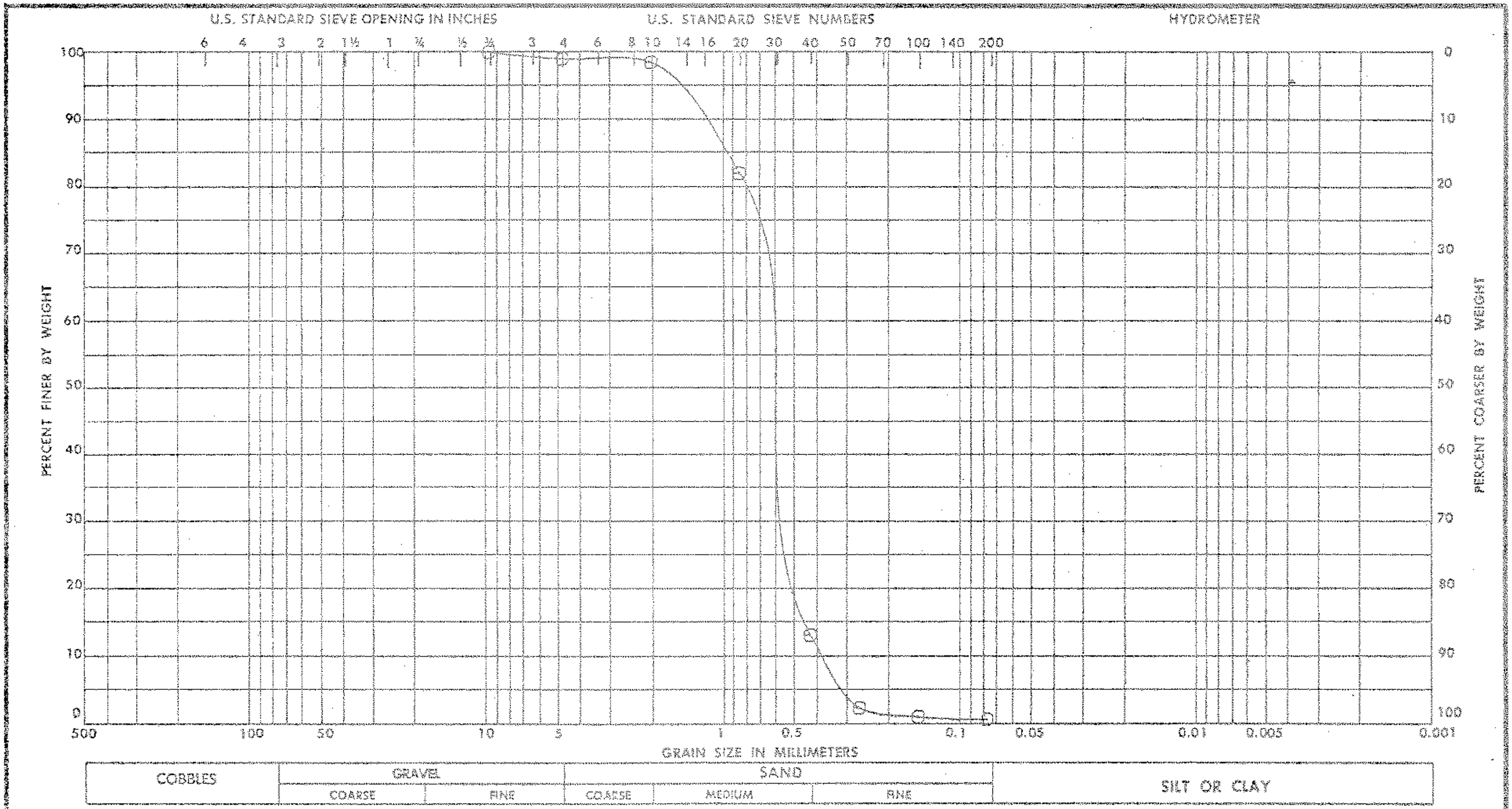
Boring No. VC-12-84 SAMPLE NO. 1

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 545



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				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1142

Boring No. VC-12-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

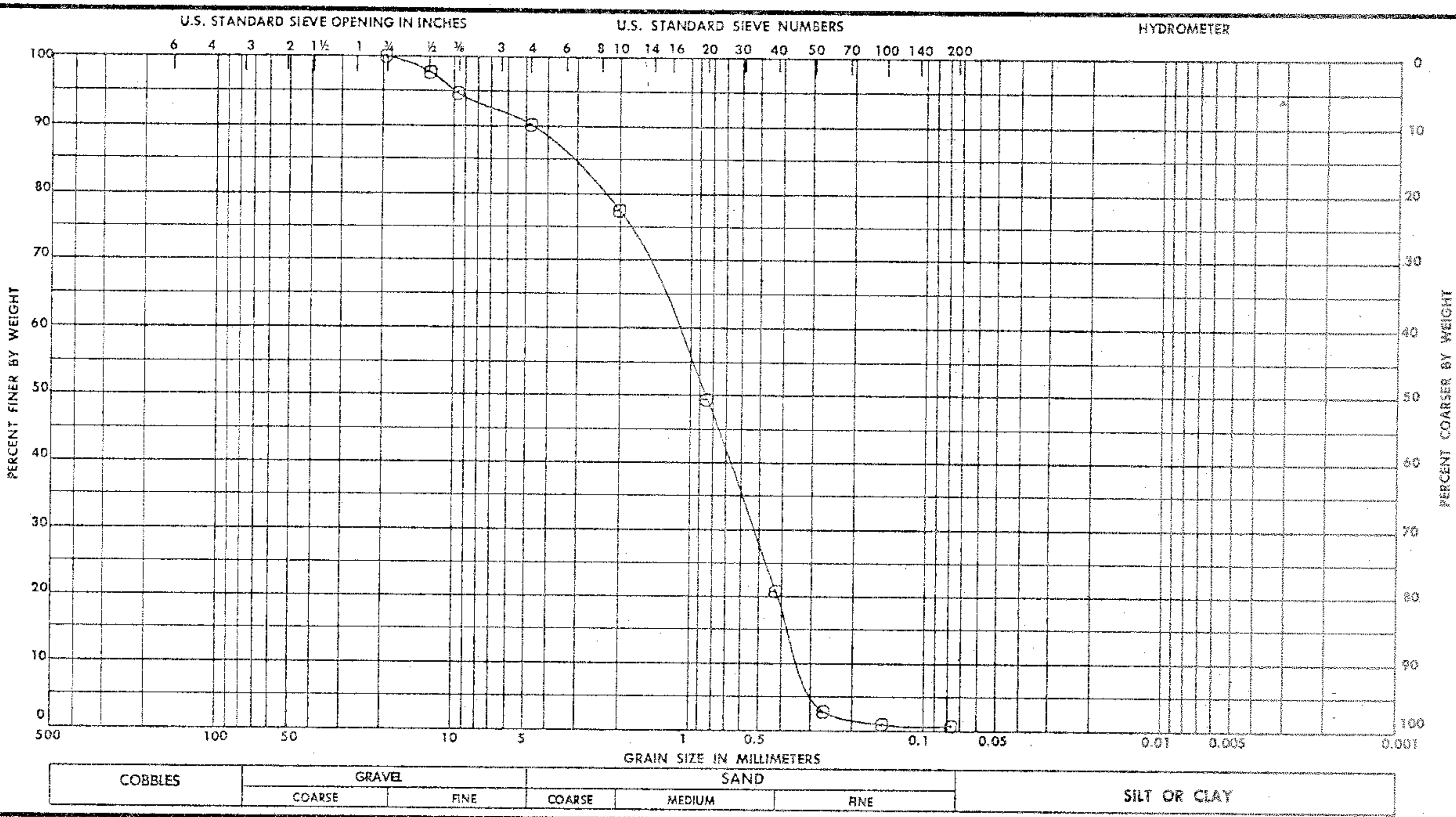
ENG FORM 1 MAY 63 2087

CHART NO. 546

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



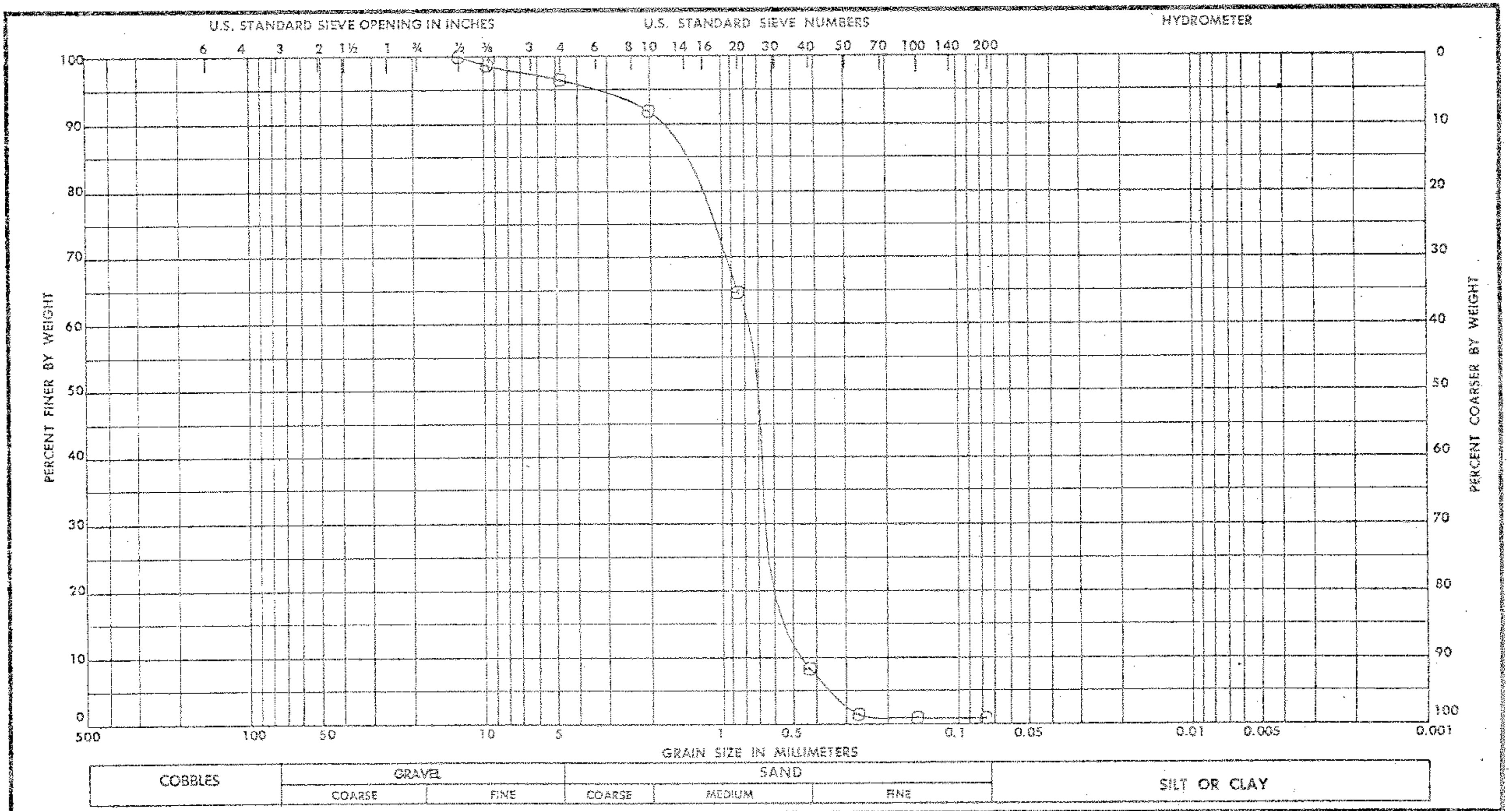
Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.GRAY WITH A TRACE OF GRAVEL				
		AND GRAVEL SIZE SHELL FRAGMENTS				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 547



Sample No.	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.				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO. 57/1144
Boring No. VC-12-84 SAMPLE NO. 4
Date 11/27/84

GRADATION CURVES

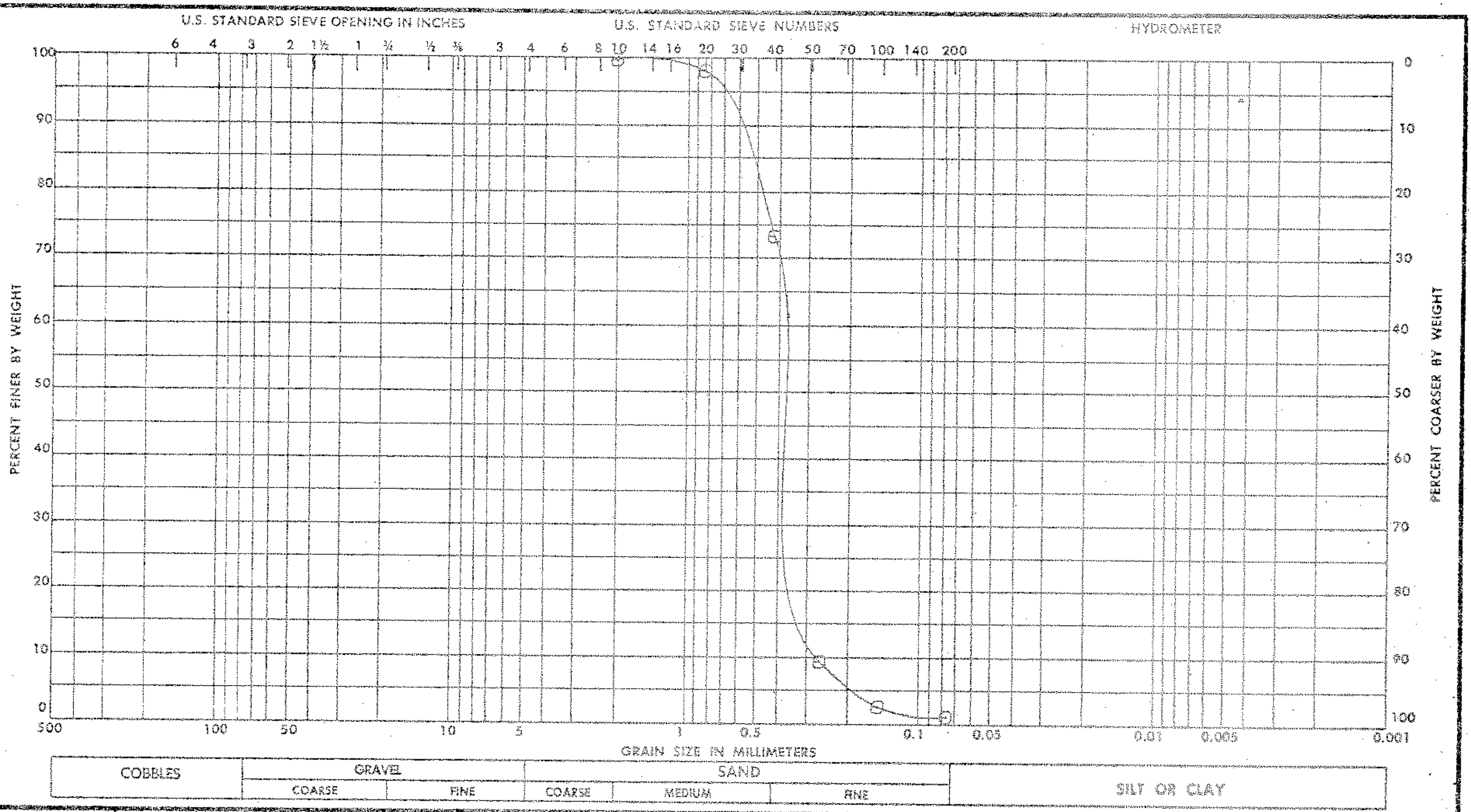
ENG FORM 1 MAY 63 2087

CHART NO. 548

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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1145

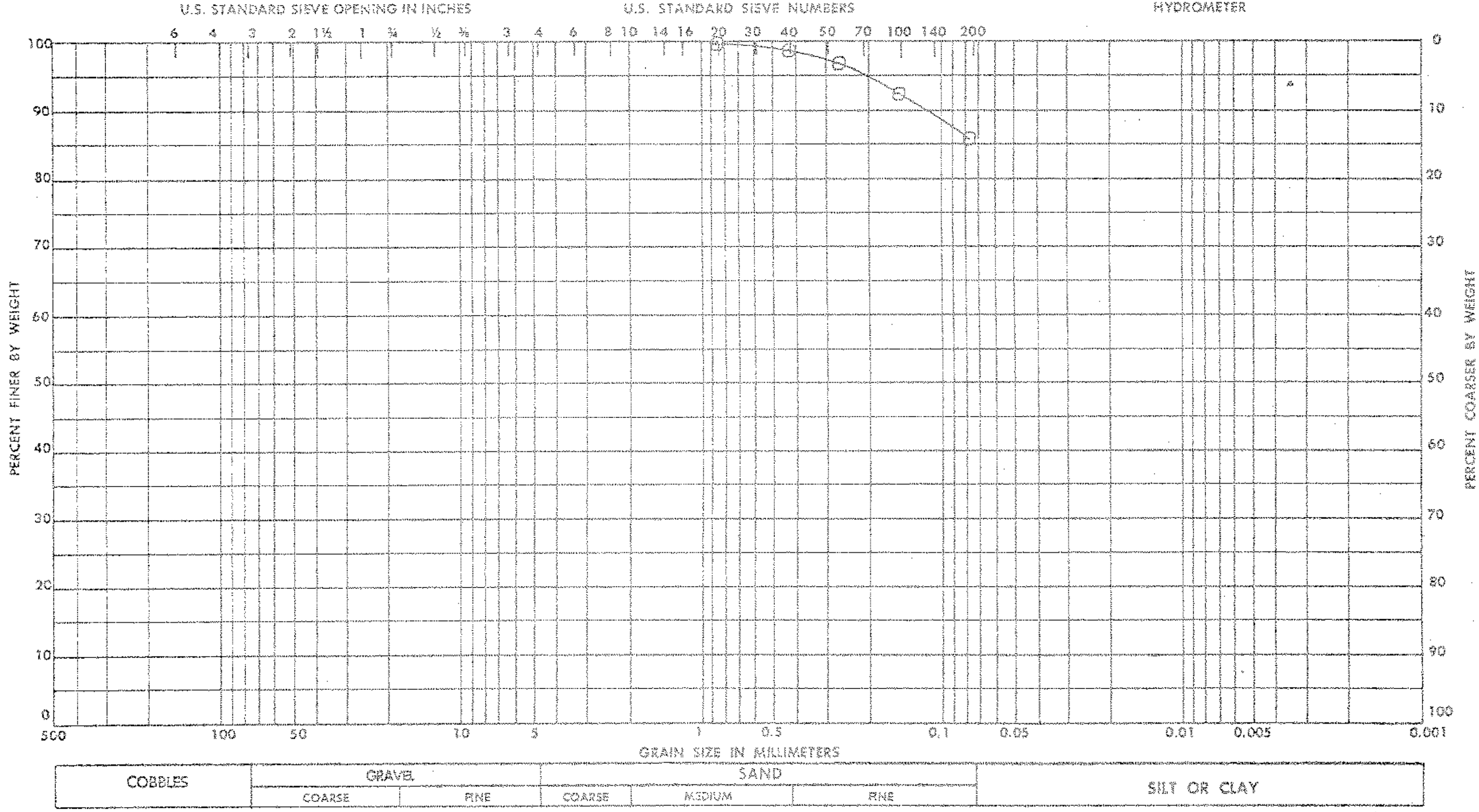
Boring No. VC-12-84 SAMPLE NO. 5

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 549



Sample No.	~~Elev 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				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO. 57/1151

Boring No. VC-14-84 SAMPLE NO. 4

Date 11/27/84

GRADATION CURVES

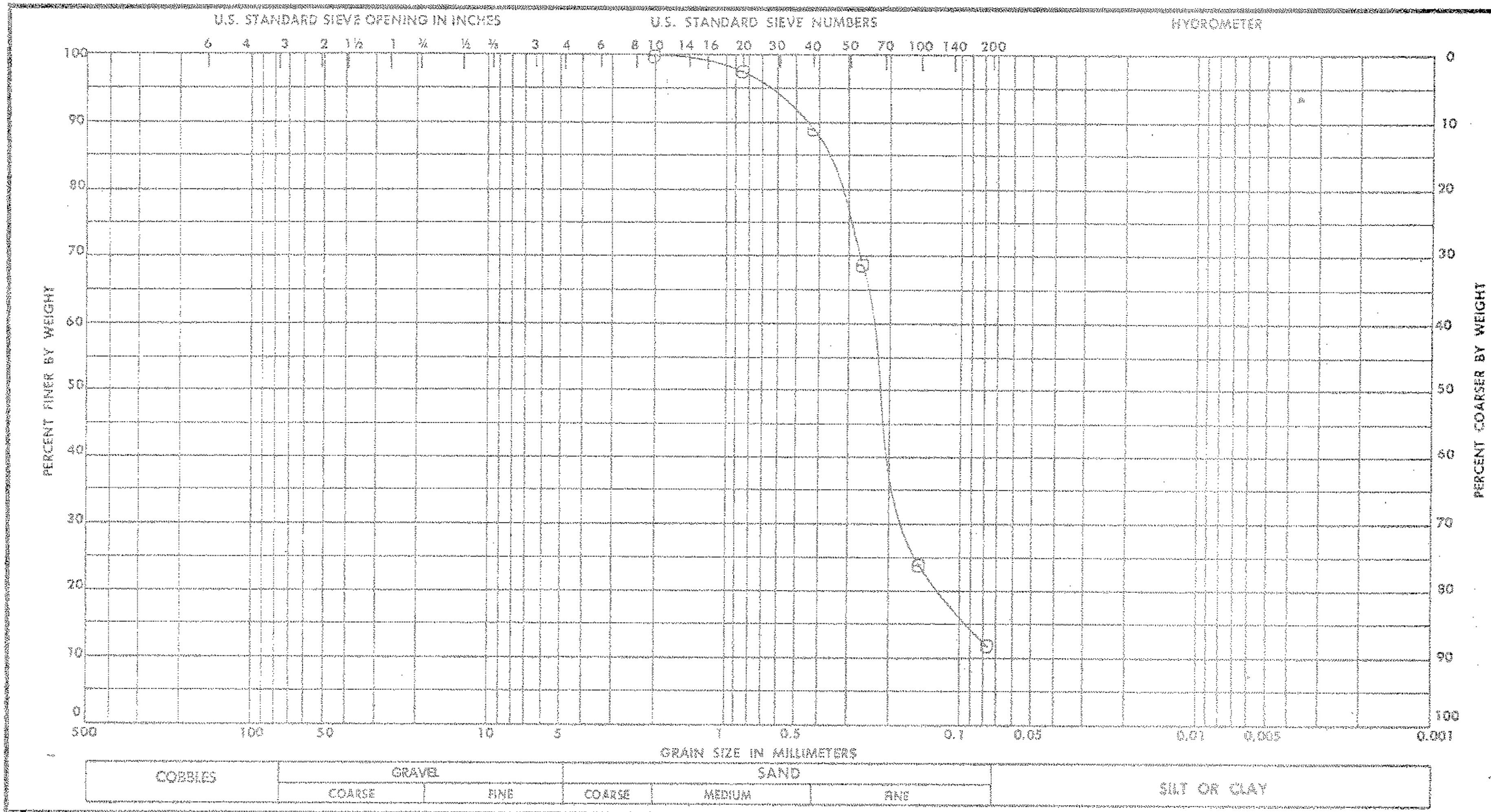
ENG FORM 1 MAY 63 2087

CHART NO. 550

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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1157

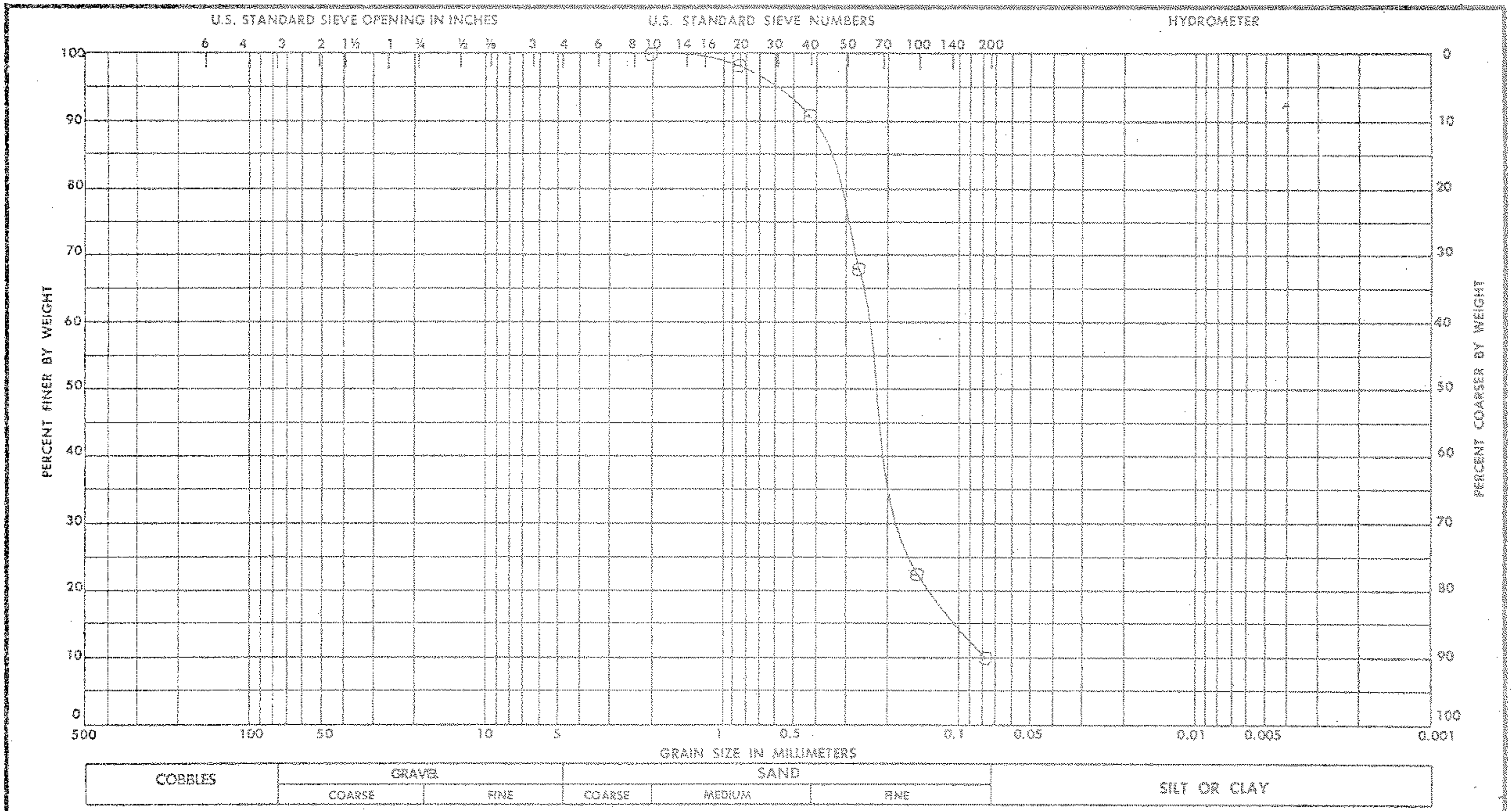
Boring No. VC-16-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 551



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				

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

GRADATION CURVES

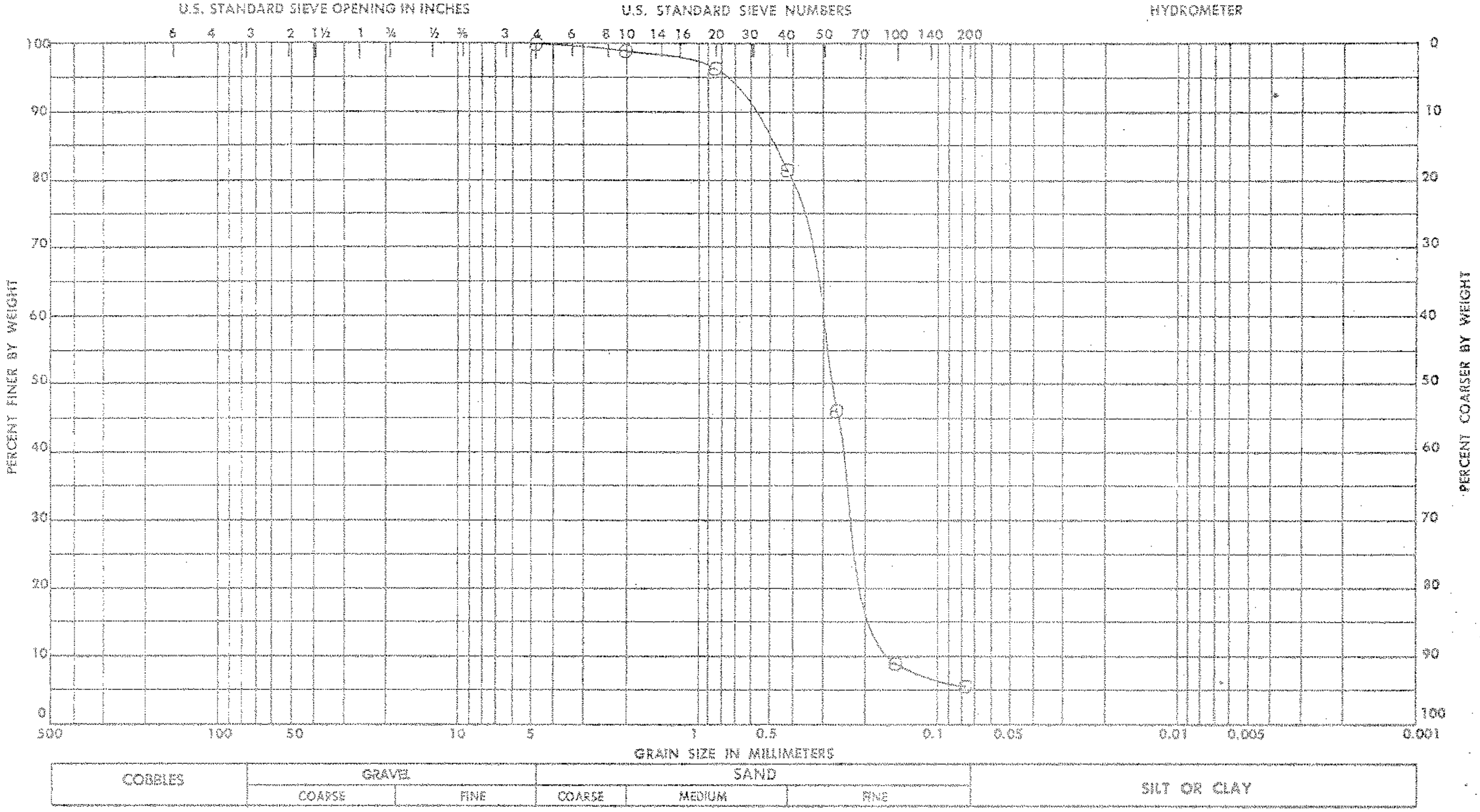
ENG FORM 1 MAY 63 2087

CHART NO. 552

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



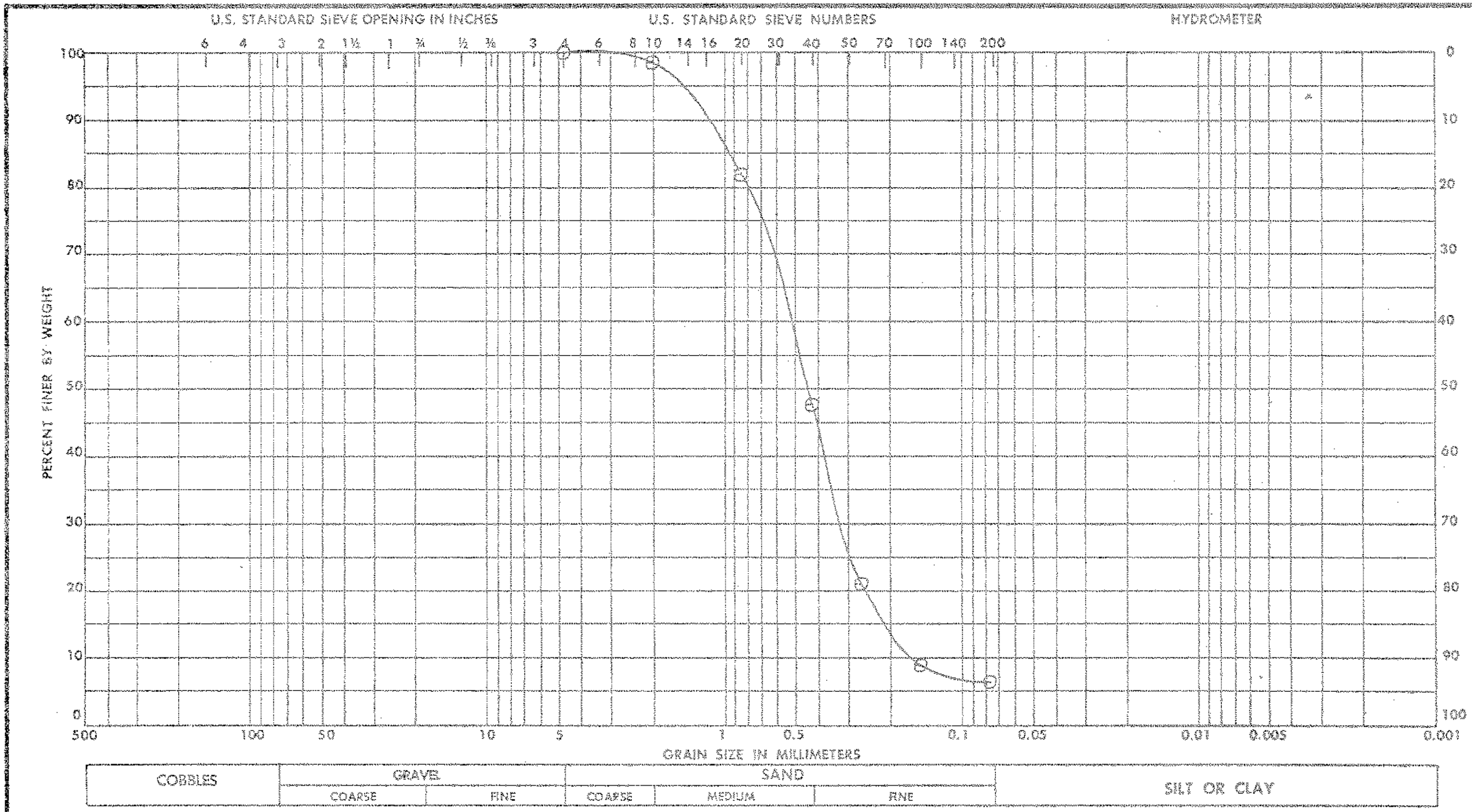
Sample No.	XXX XX Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	20.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		ROOTS AND MICA				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 553



Sample No.	XXXX 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				

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

GRADATION CURVES

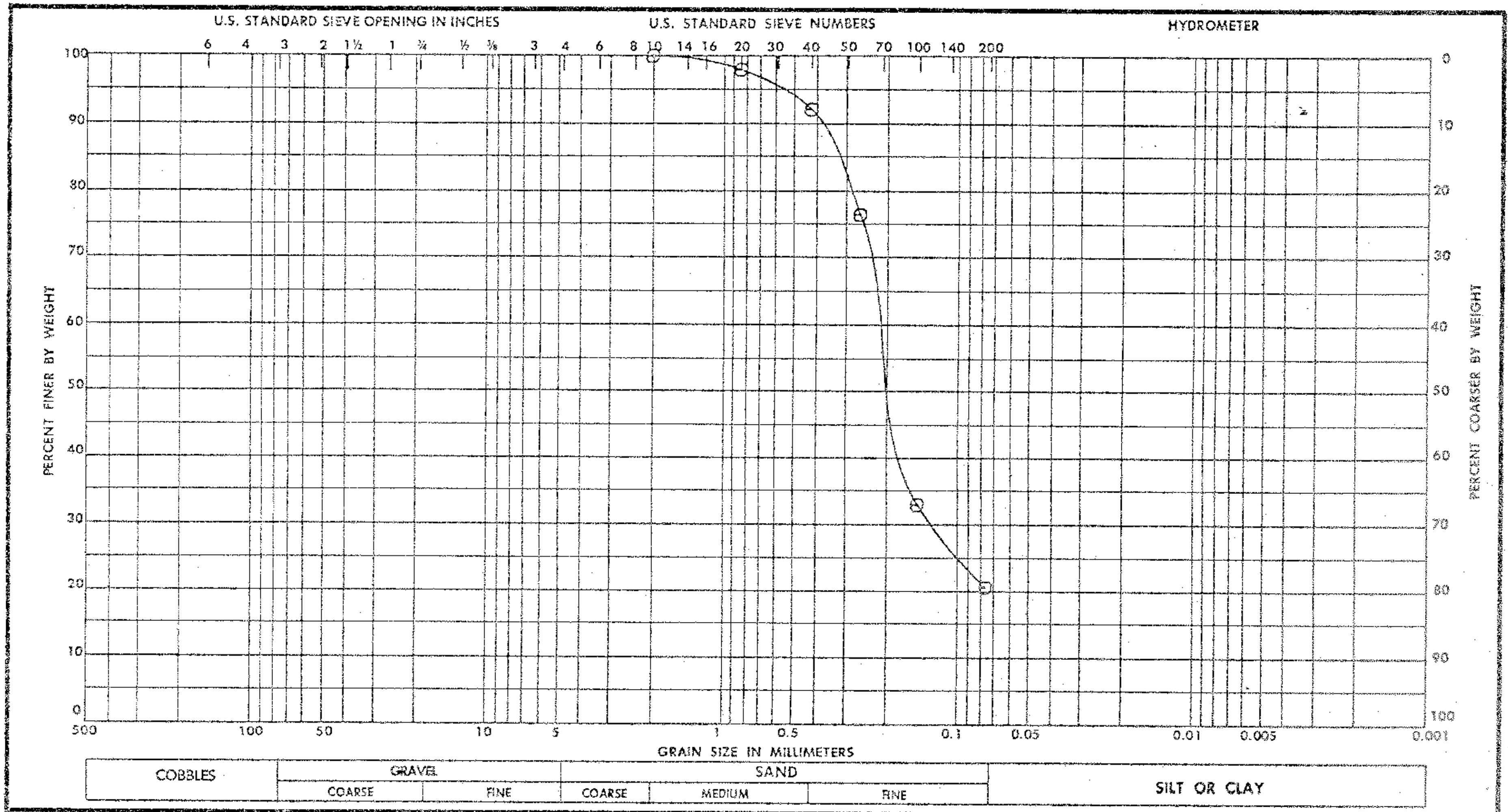
ENG FORM 1 MAY 63 2087

CHART NO. 554

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



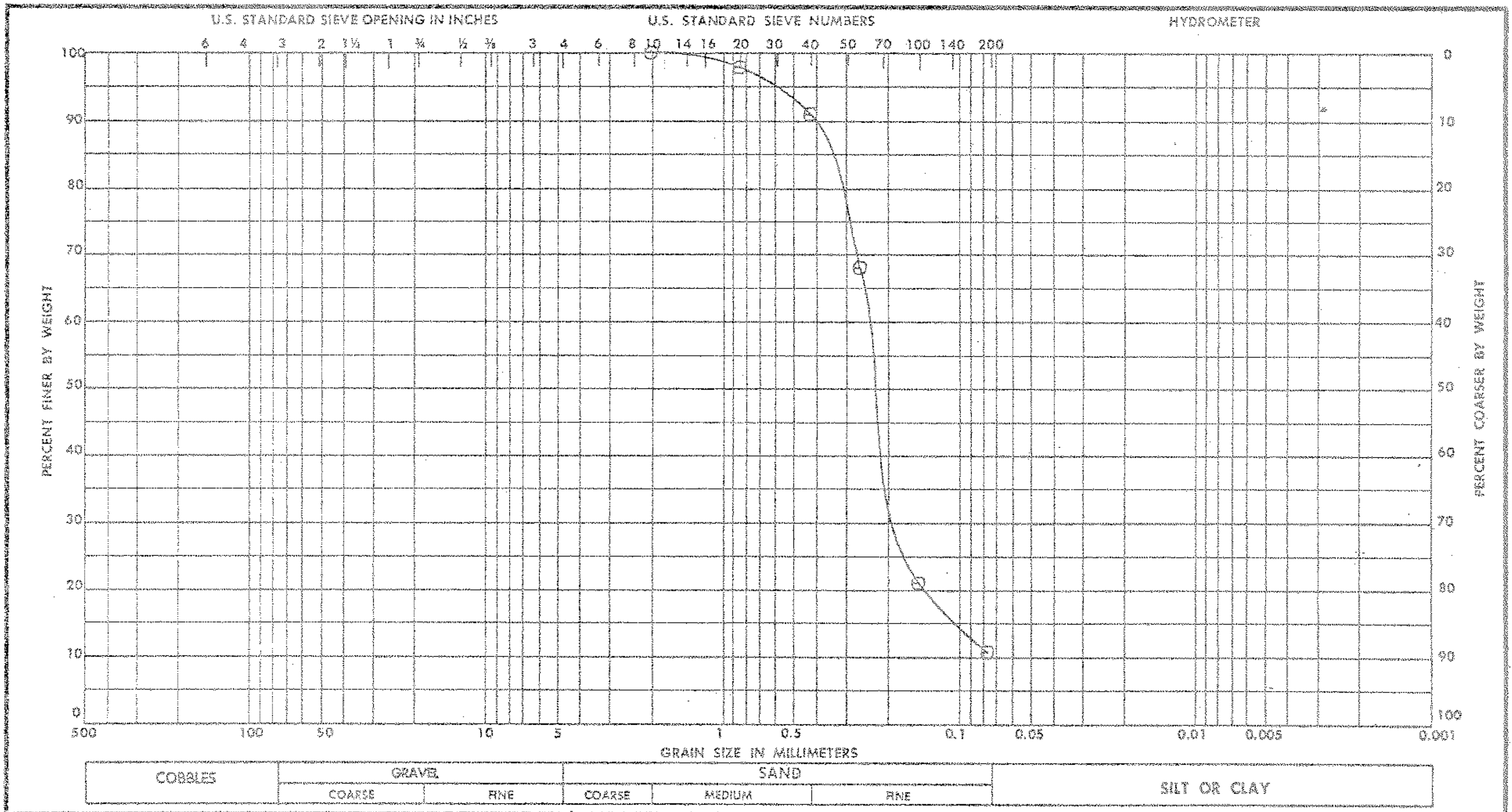
Sample No.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	5.0'	CLAYEY SAND (SC), GREENISH GRAY	--	--	--	--
		WITH A TRACE OF MICA				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 555



Sample No.	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				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1162

Boring No. VC-17-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

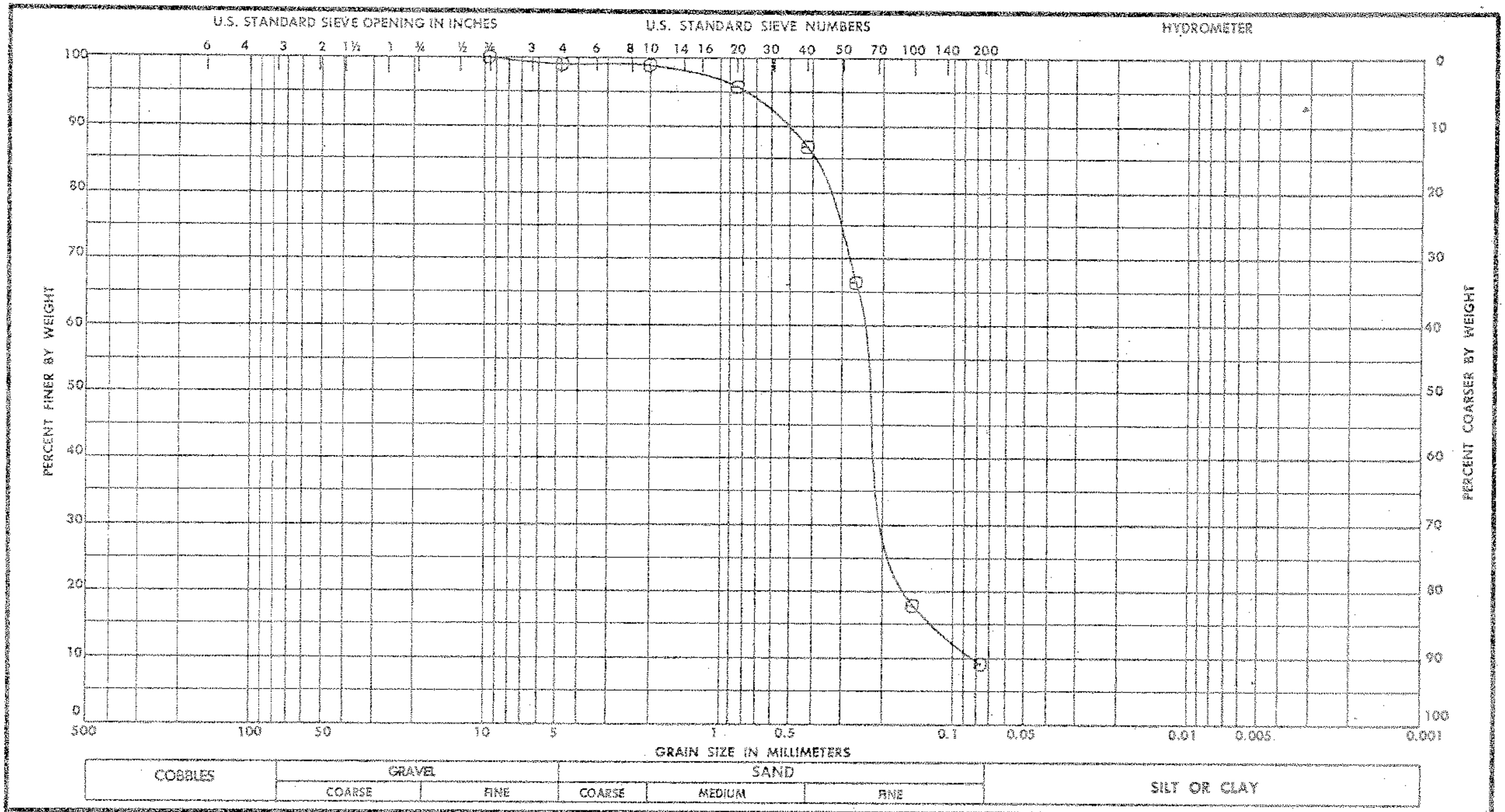
ENG FORM 1 MAY 63 2087

CHART NO. 556

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



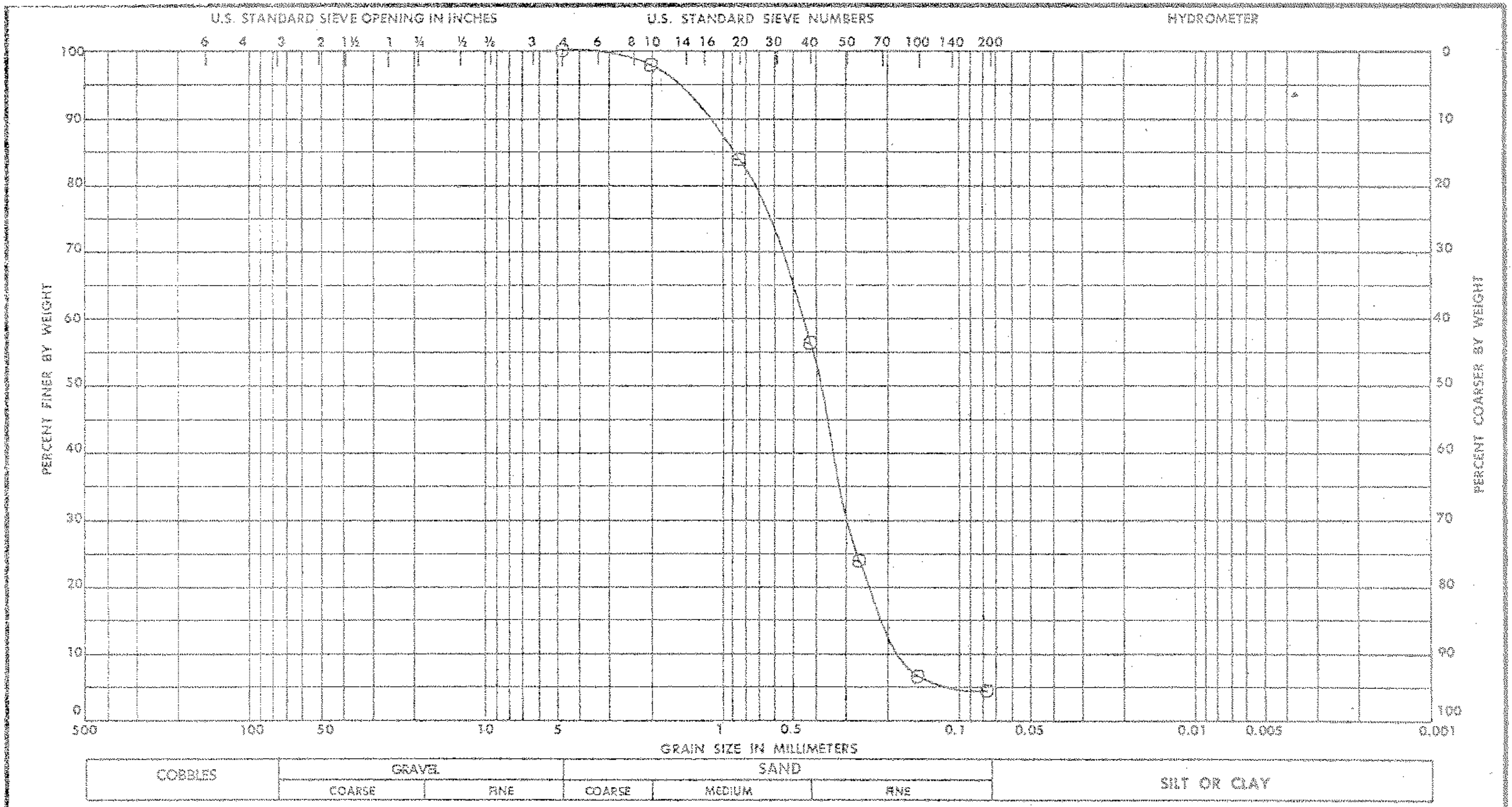
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	15.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GREENISH GRAY WITH A TRACE OF				
		MICA AND DECAYED WOOD FRAGMENTS				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 557



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.				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1164

Boring No. VC-17-84 SAMPLE NO. 4

Date 11/27/84

GRADATION CURVES

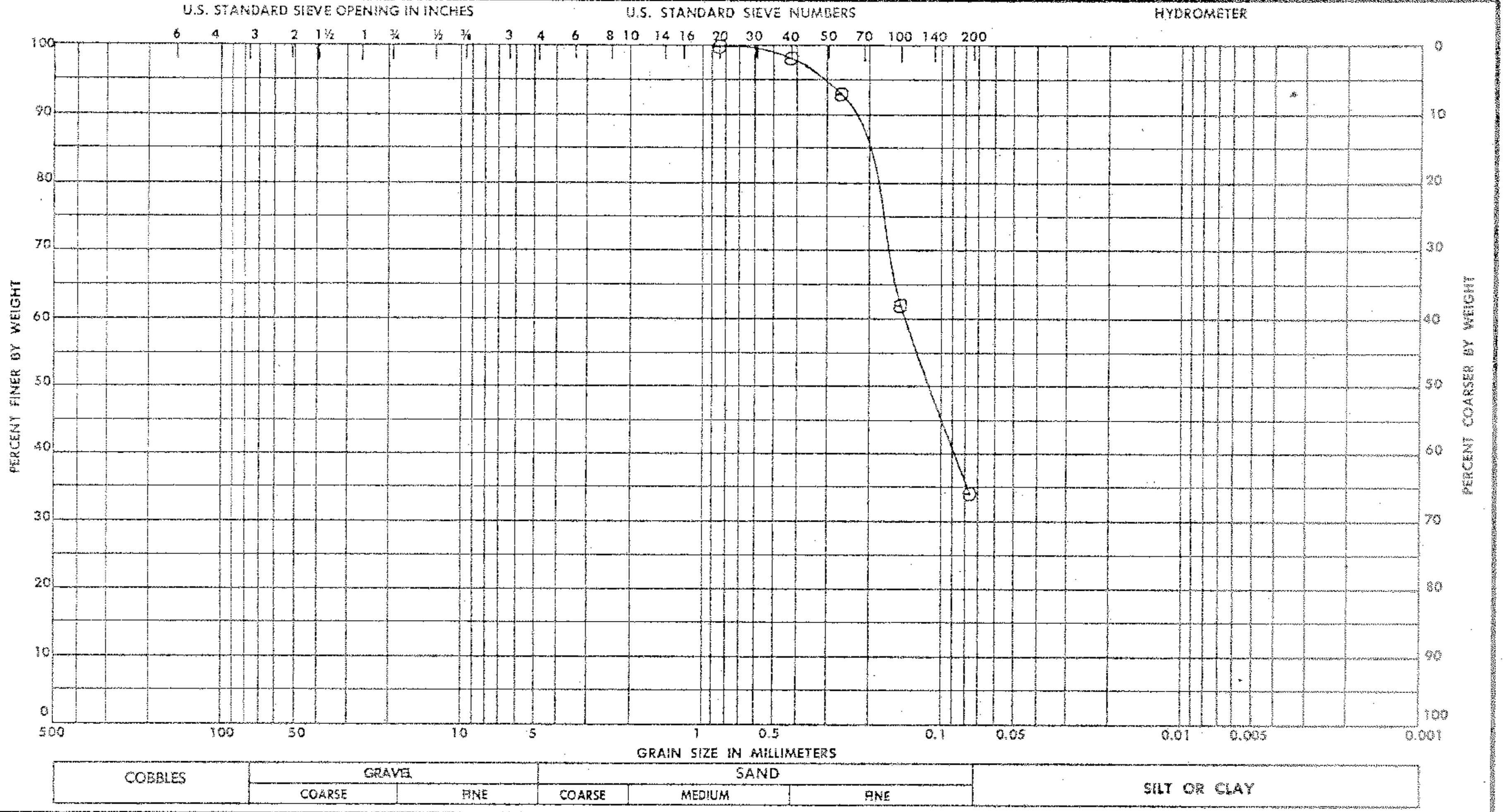
ENG FORM 1 MAY 63 2087

CHART NO. 558

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



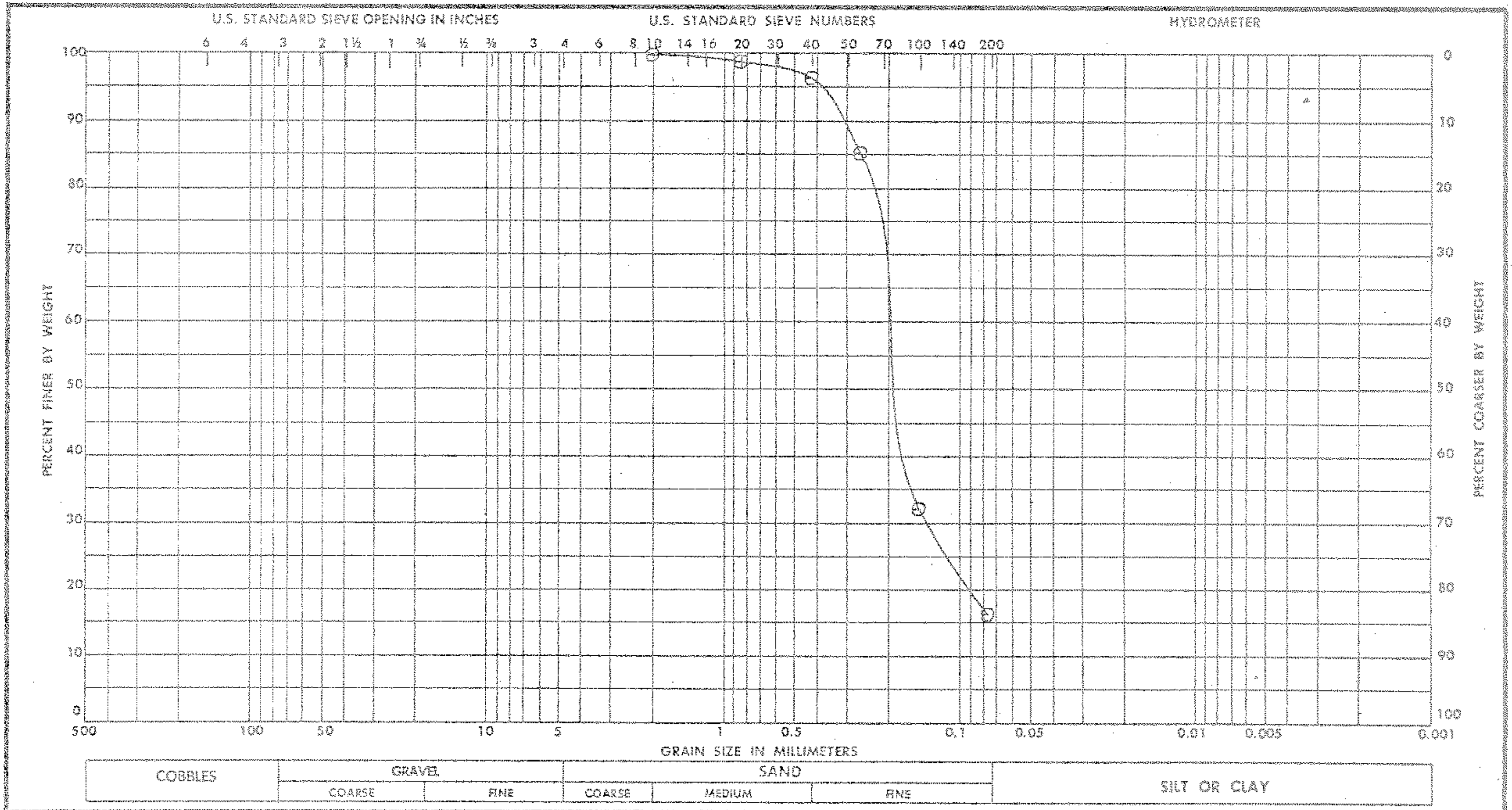
Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
1	5.0'	CLAYEY SAND (SC)	31.3	26	17	9
		GRAY WITH A TRACE OF MICA				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 559



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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1166
Boring No. VC-18-84 SAMPLE NO. 2
Date 11/27/84

GRADATION CURVES

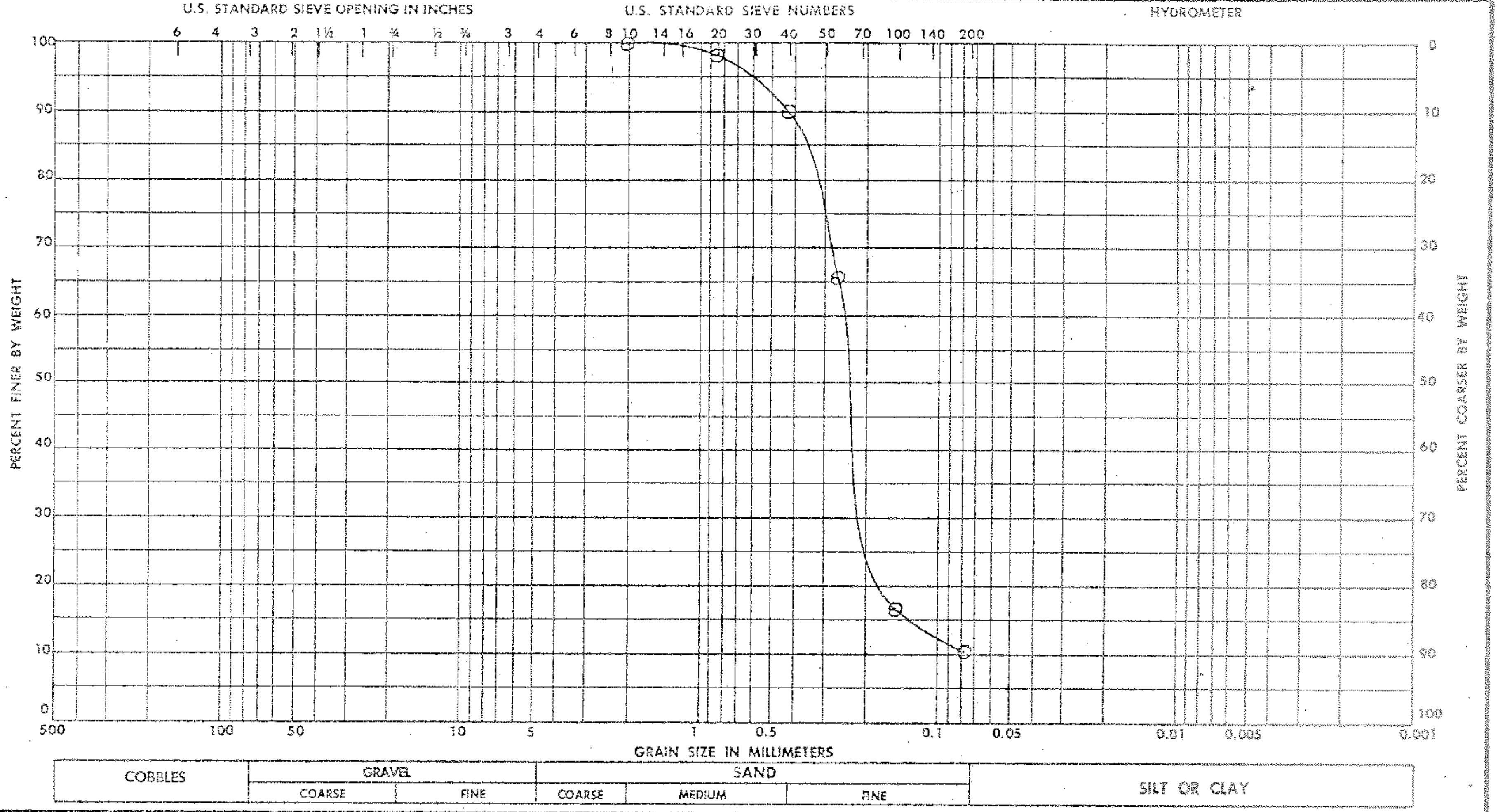
ENG FORM 1 MAY 63 2087

CHART NO. 560

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 SILTY SAND (SP-SM) GREENISH GRAY WITH A TRACE OF MICA	--	NP	NP	NP

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1167

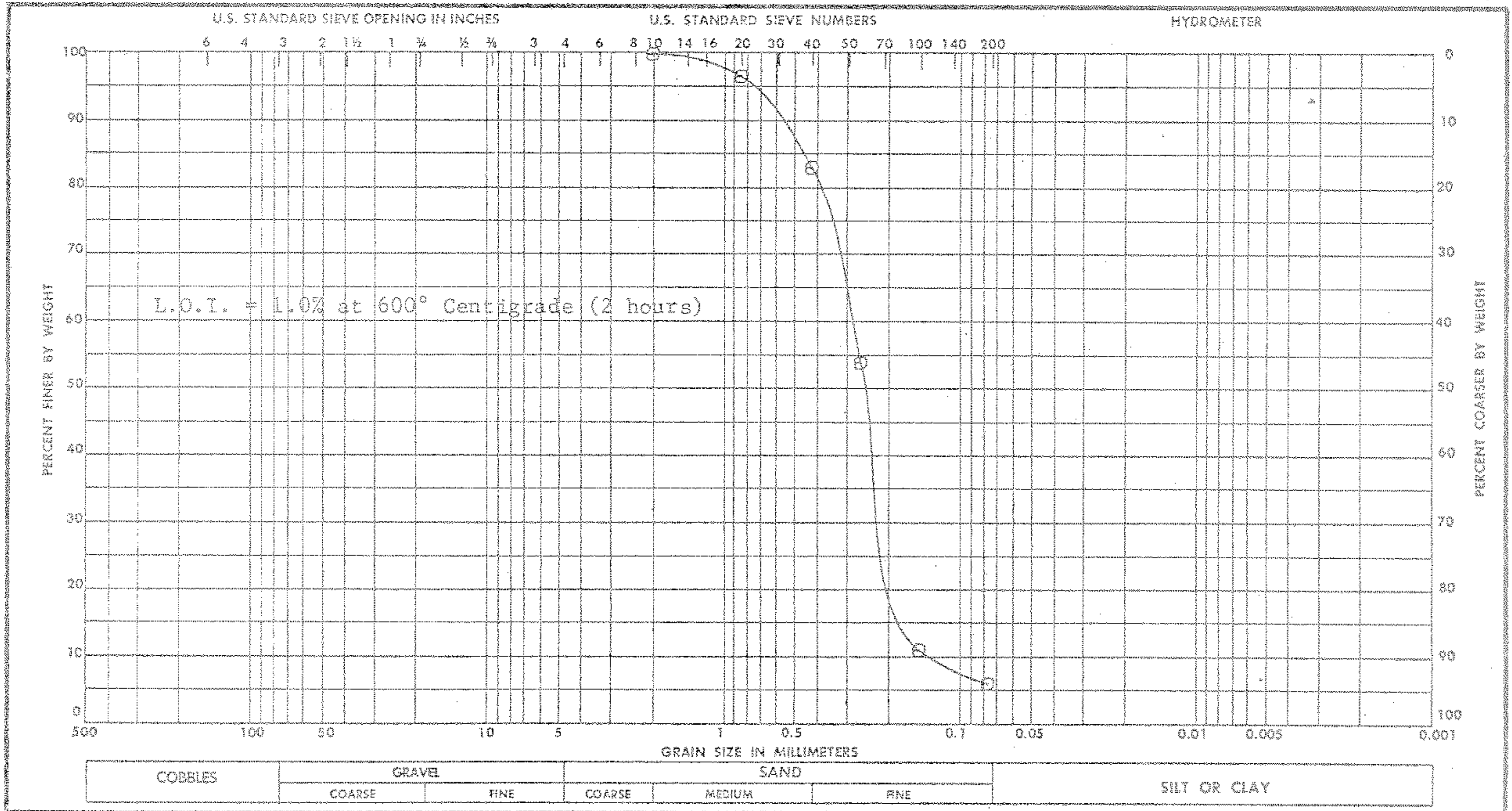
Boring No. VC-18-84 SAMPLE NO. 3

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 561



L.O.I. = 1.0% at 600° Centigrade (2 hours)

Sample No.	XXXX 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

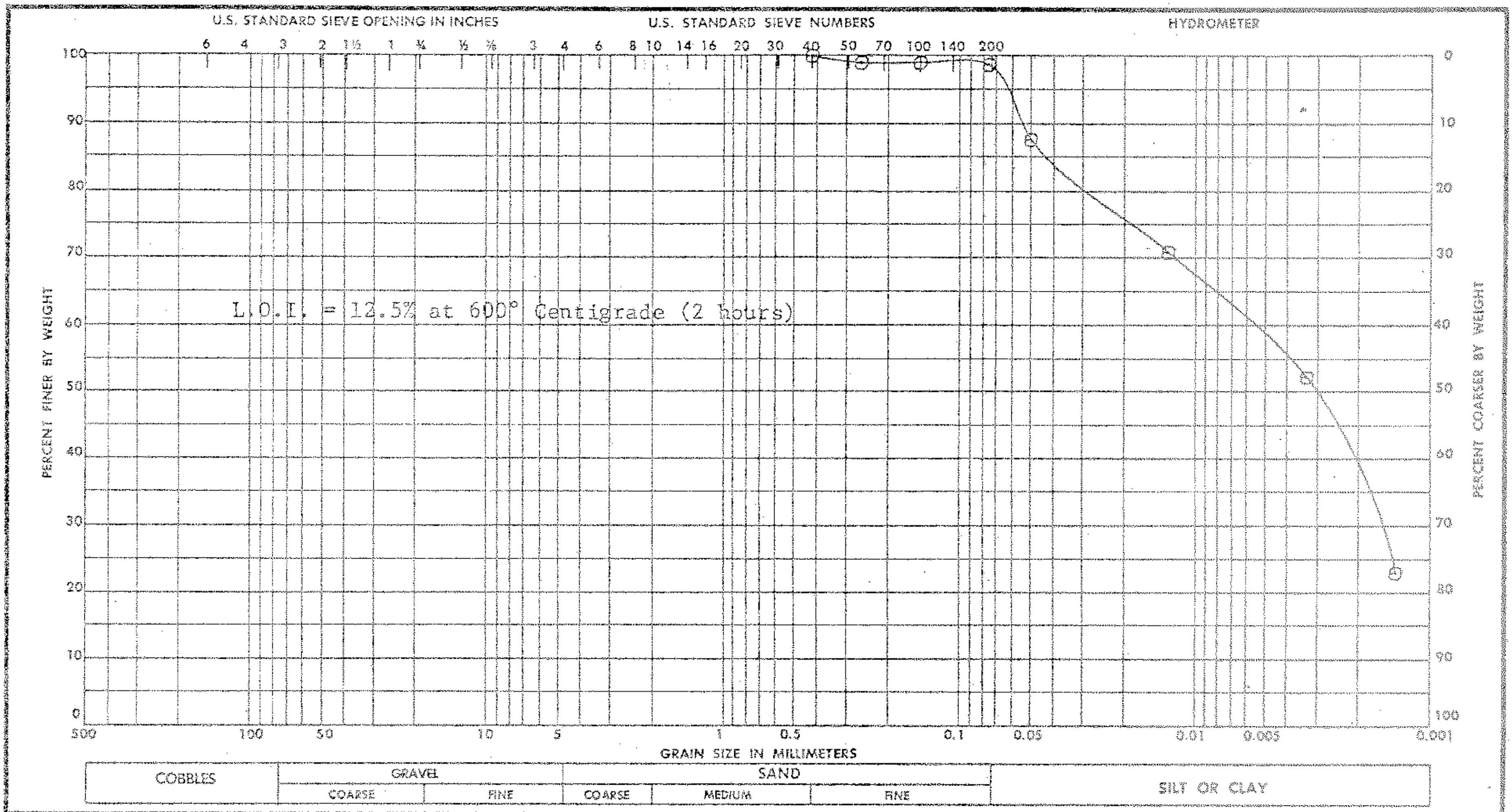
CHART NO. 562

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



L.O.I. = 12.5% at 600° Centigrade (2 hours)

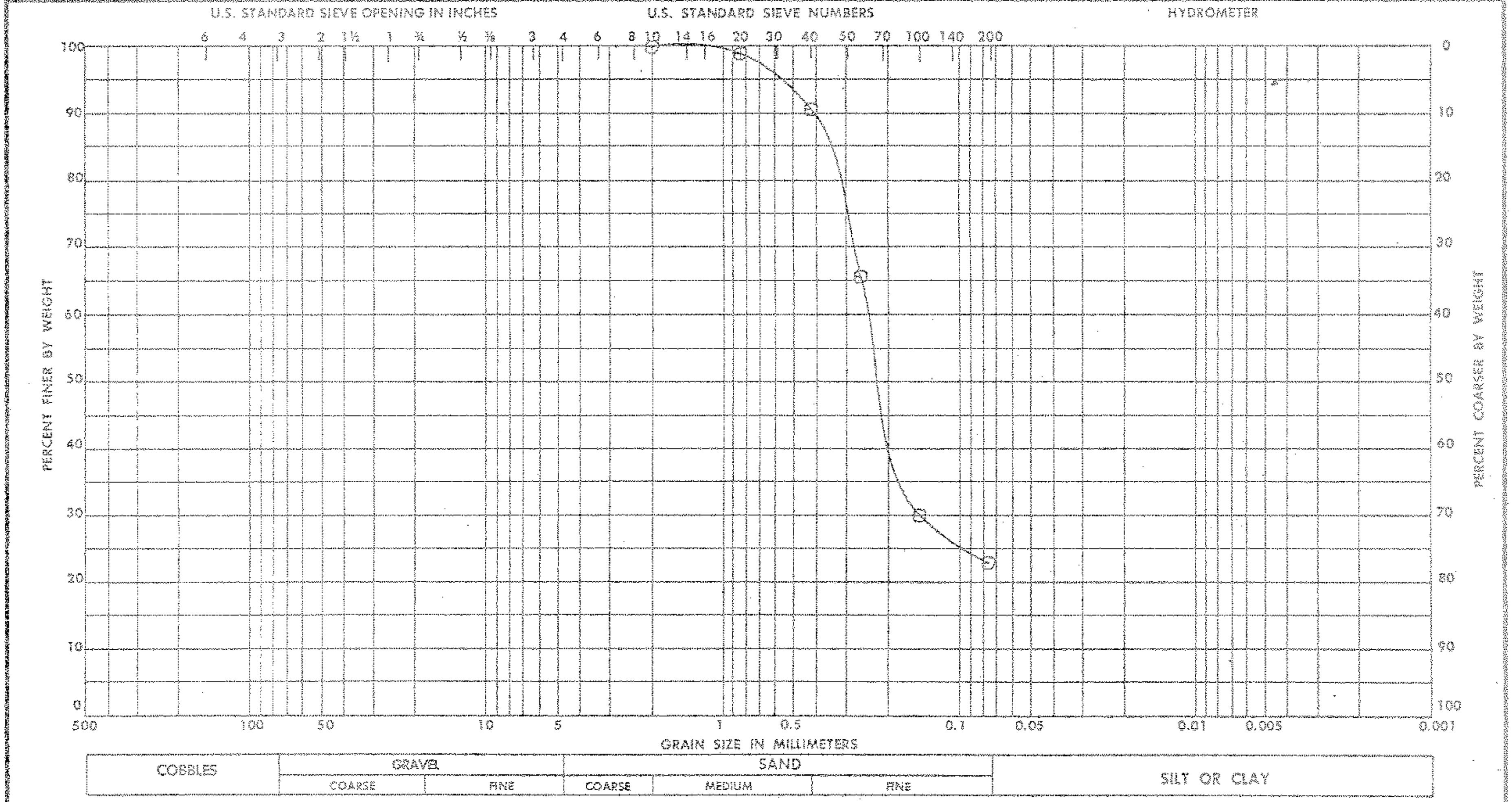
Sample No.	~~XXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	3.0'	ORGANIC FAT CLAY (CH), GRAY, SILTY, WITH A TRACE OF SAND	149.9	--	--	--

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 563



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

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

GRADATION CURVES

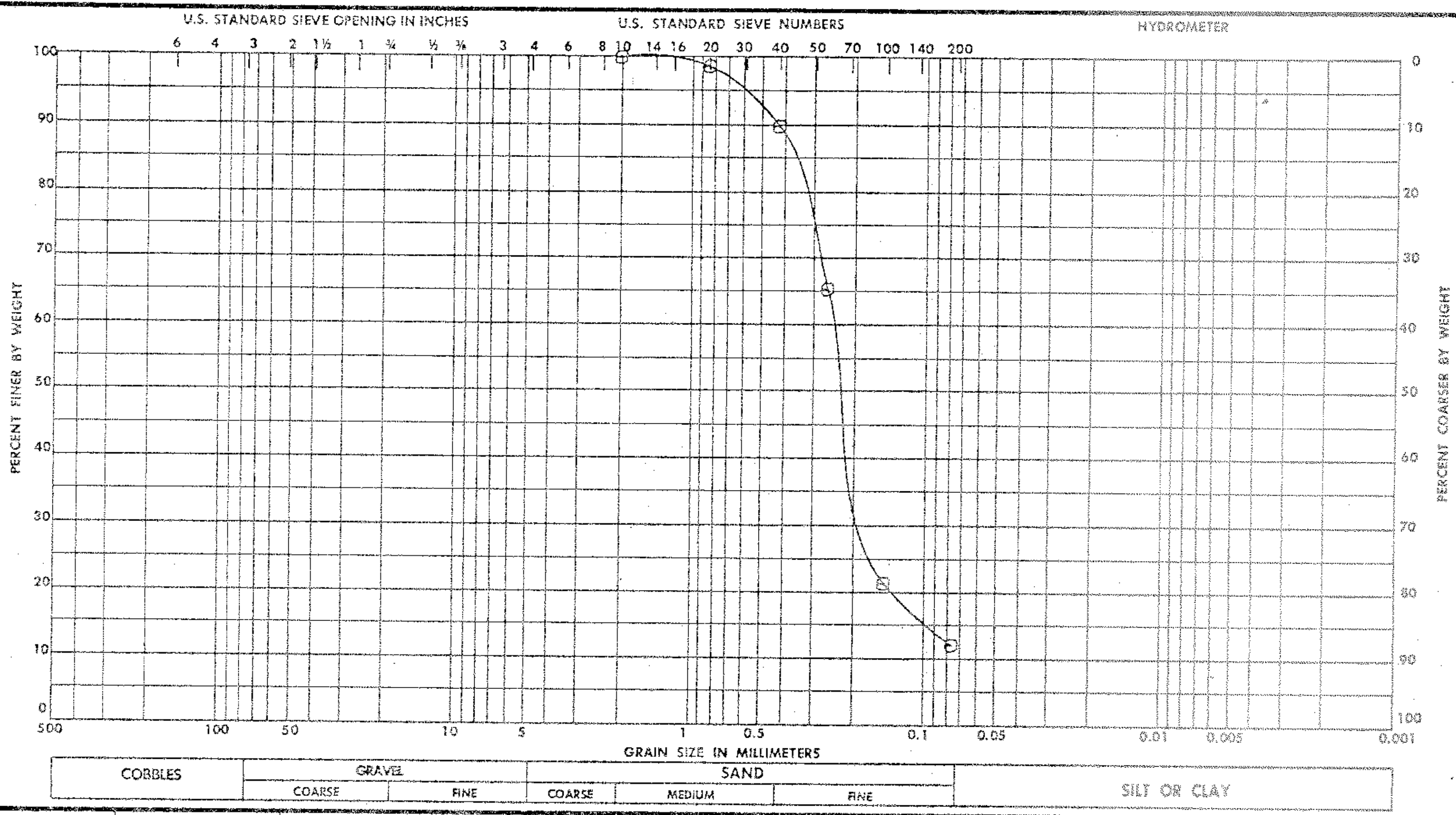
ENG FORM 1 MAY 63 2087

CHART NO. 564

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



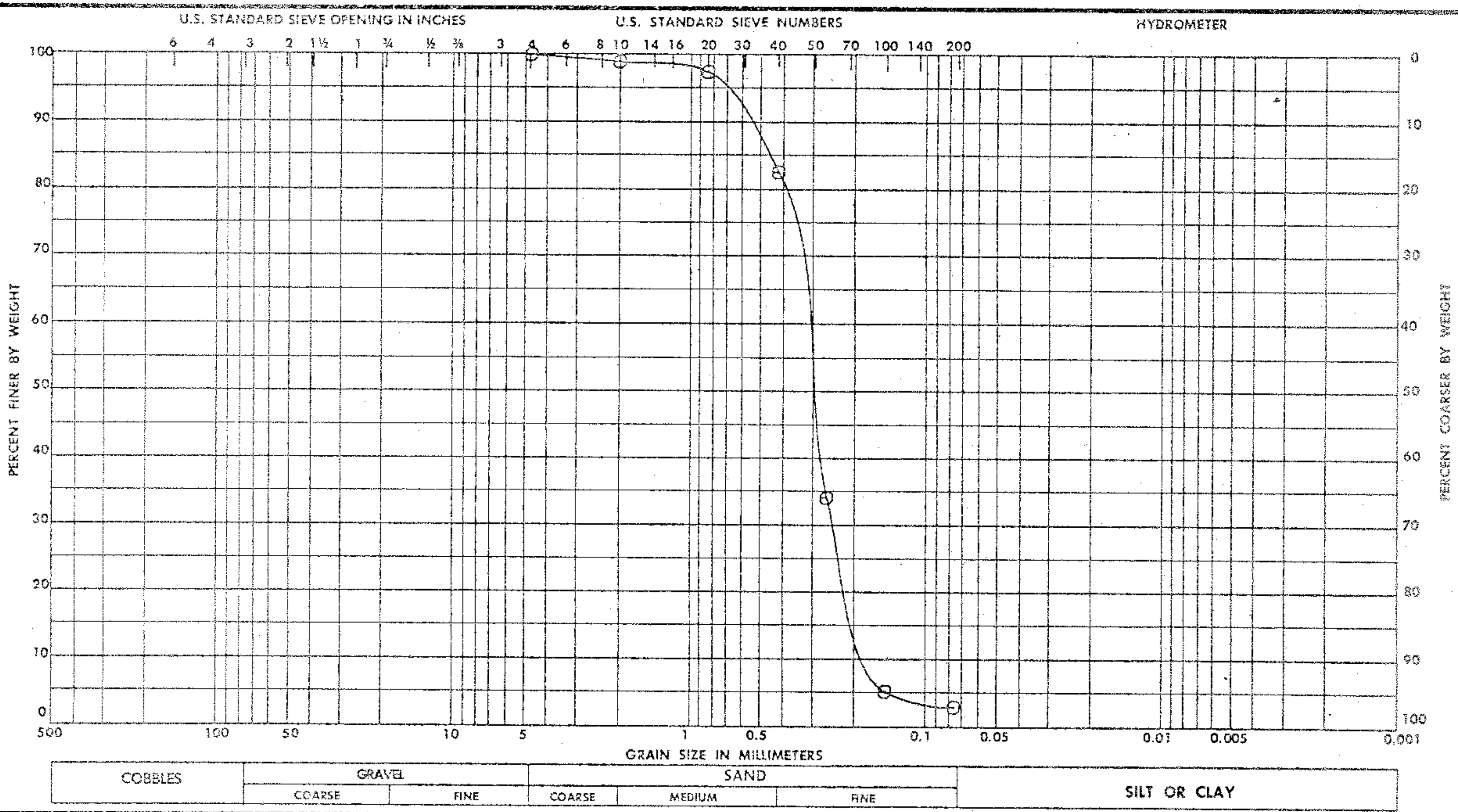
Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	12.0'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH GRAY WITH A TRACE OF				
		MICA				

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

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 565



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.				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1172

Boring No. VC-19-84 SAMPLE NO. 4

Date 11/27/84

GRADATION CURVES

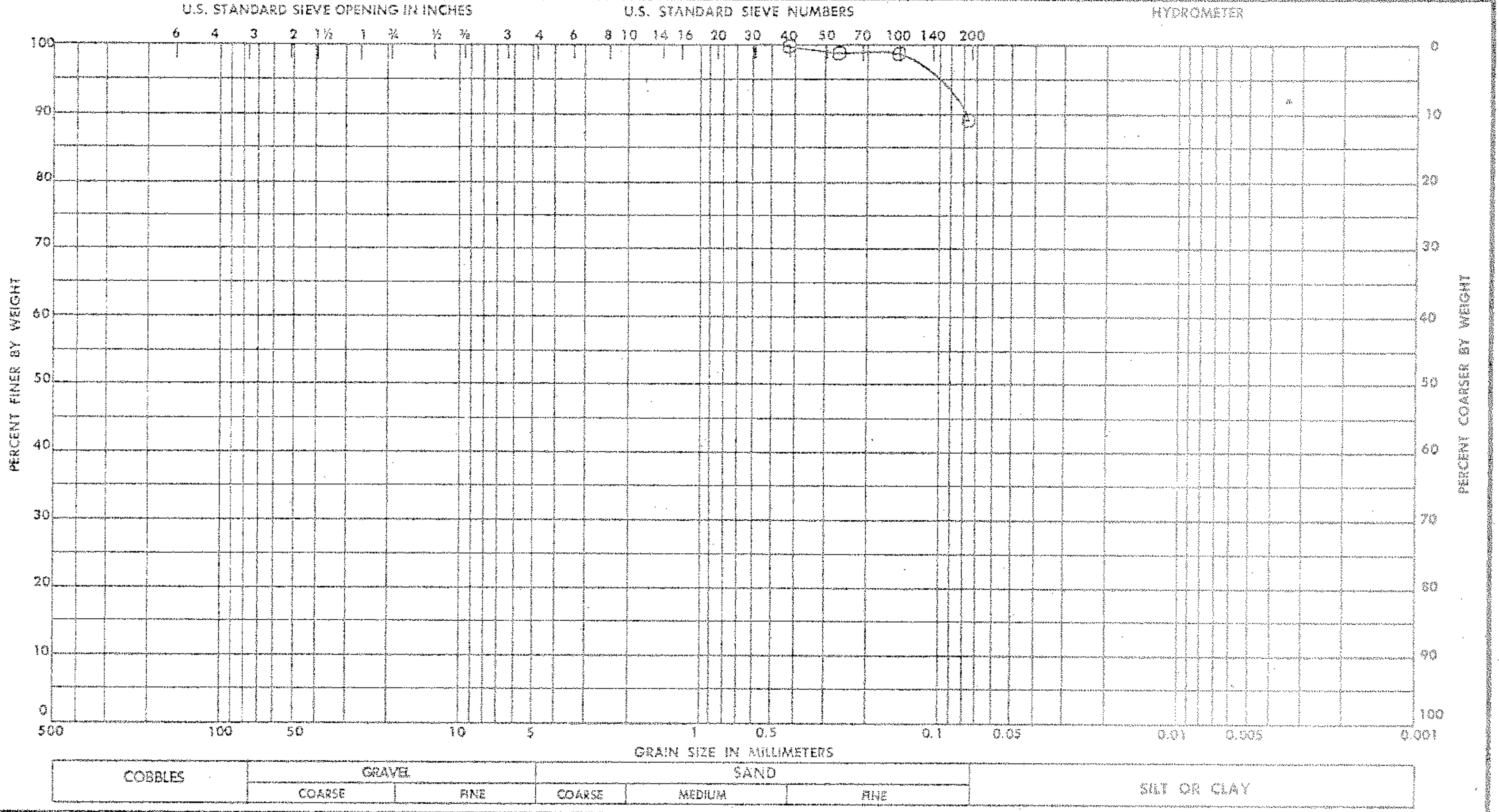
ENG FORM 1 MAY 63 2087

CHART NO. 566

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	10.0'	FAT CLAY (CH)	54.5	55	22	33
		GRAY WITH A LITTLE SAND				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1174

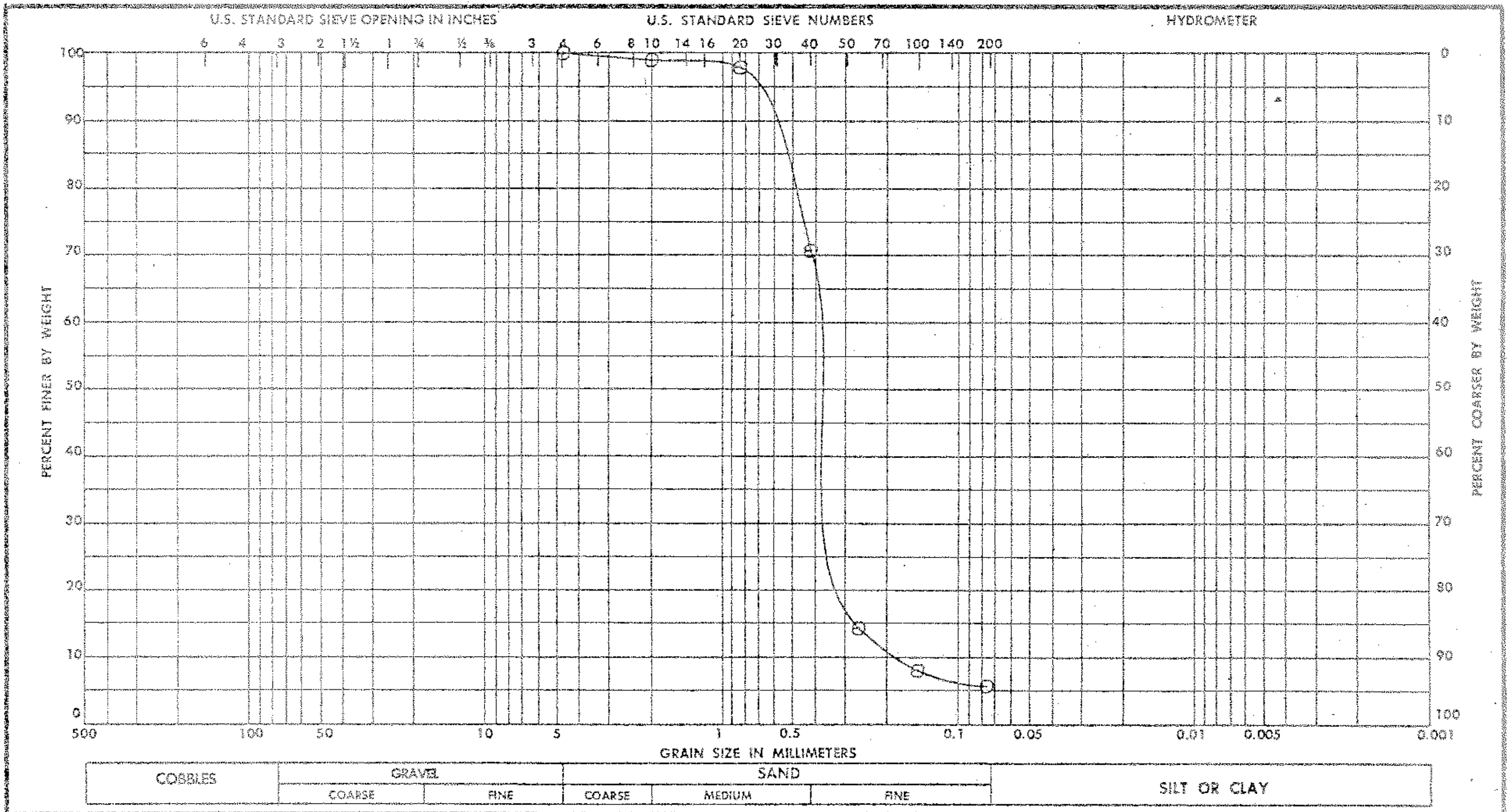
Boring No. VC-20-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 567



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

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

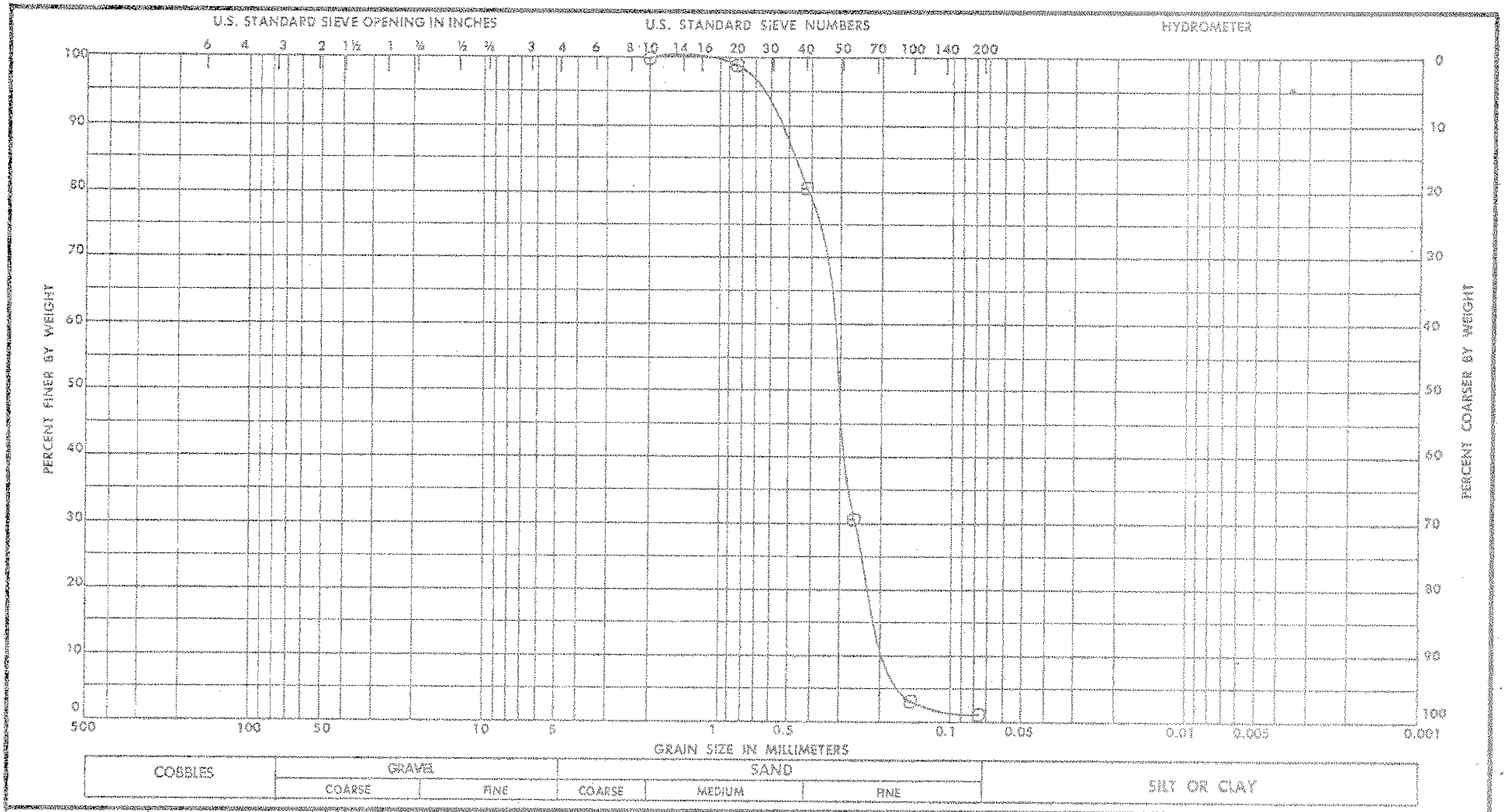
ENG FORM 1 MAY 63 2087

CHART NO. 568

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-FAM



Sample No.	XXXXX 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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1178

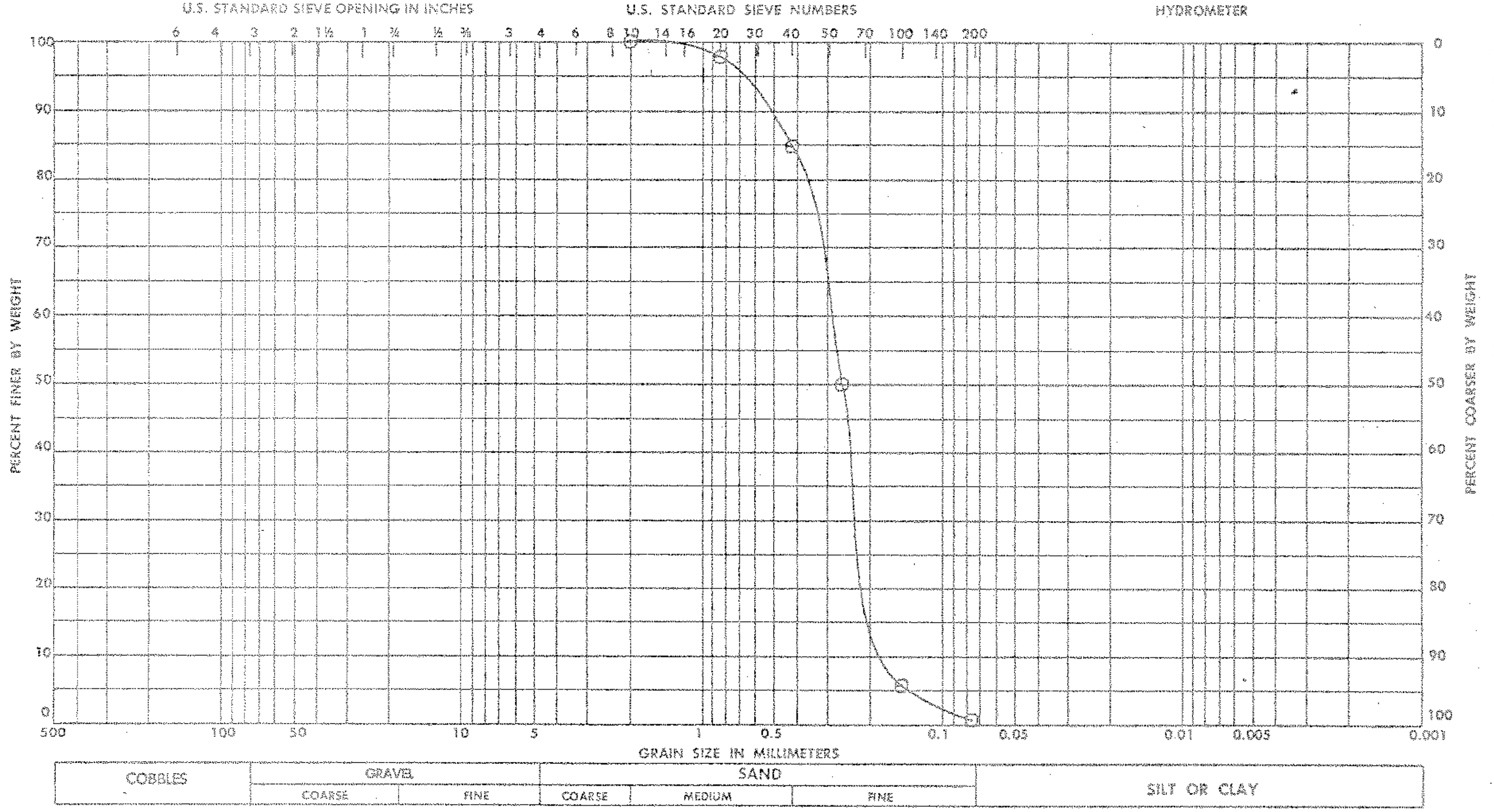
Boring No. VC-21-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 569



Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	25.0'	POORLY GRADED SAND (SP) LT.TAN	--	NP	NP	NP

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1179
Boring No. VC-21-84 SAMPLE NO. 3
Date 11/27/84

GRADATION CURVES

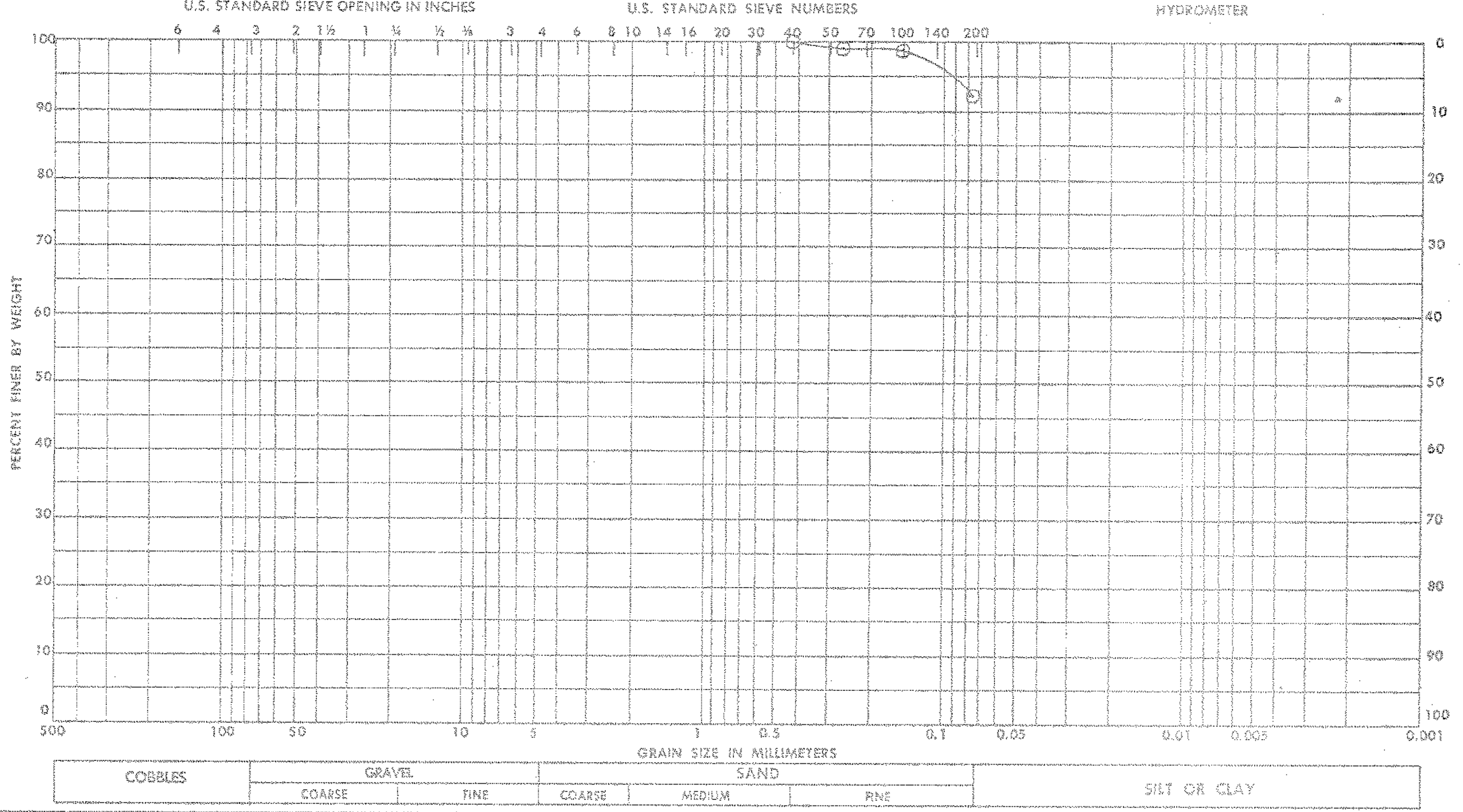
ENG FORM 1 MAY 63 2087

CHART NO. 570

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



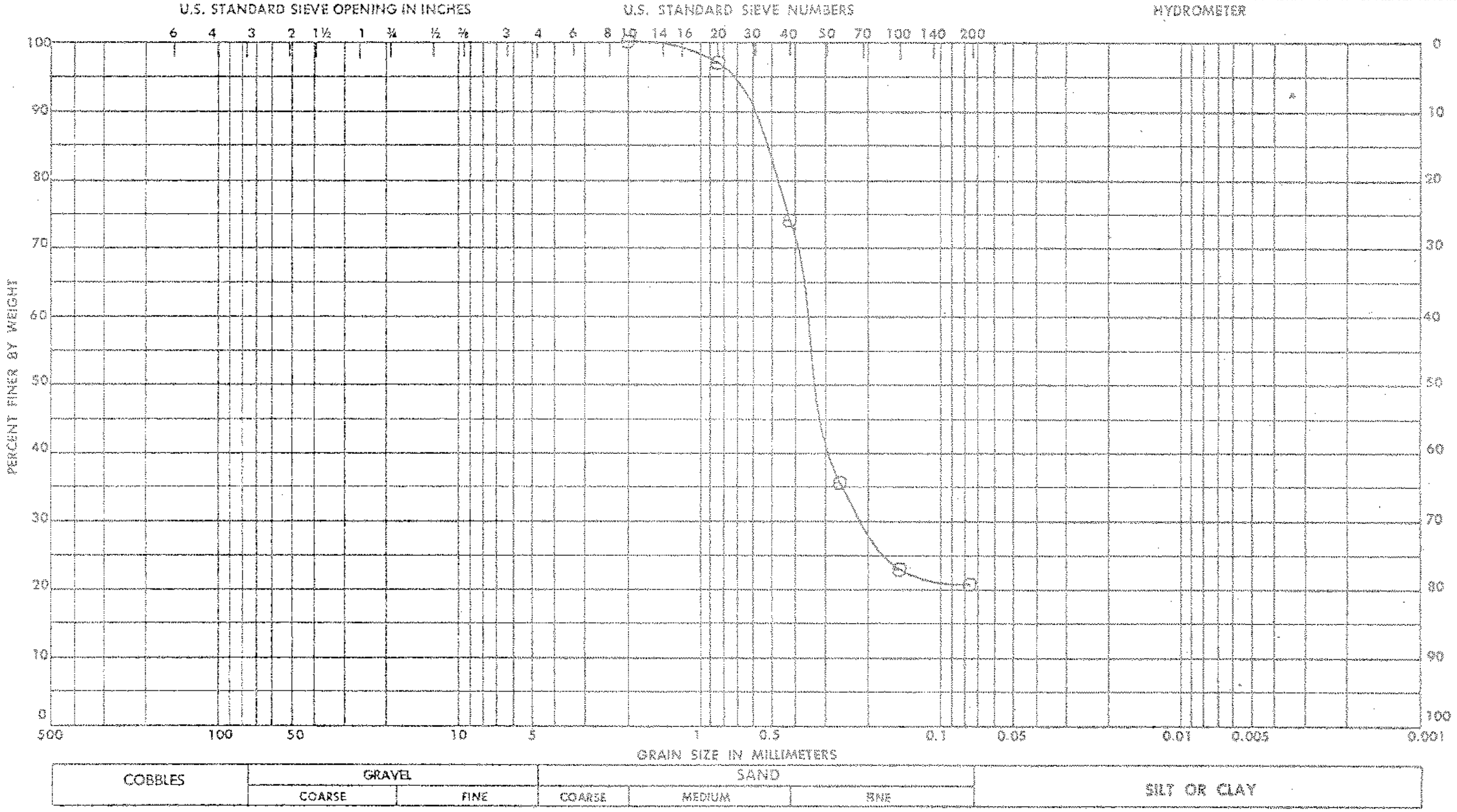
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	9.0'	FAT CLAY (CH)	66.5	56	23	33
		GRAY WITH A TRACE OF SAND				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1181
Boring No. VC-22-84 SAMPLE NO. 2
Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 571



Sample No.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	SILTY, CLAYEY SAND (SM-SC)	--	--	--	--
		GRAY WITH A TRACE OF MICA				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO. 57/1187

Boring No. VC-23-84 SAMPLE NO. 3

Date 11/27/84

GRADATION CURVES

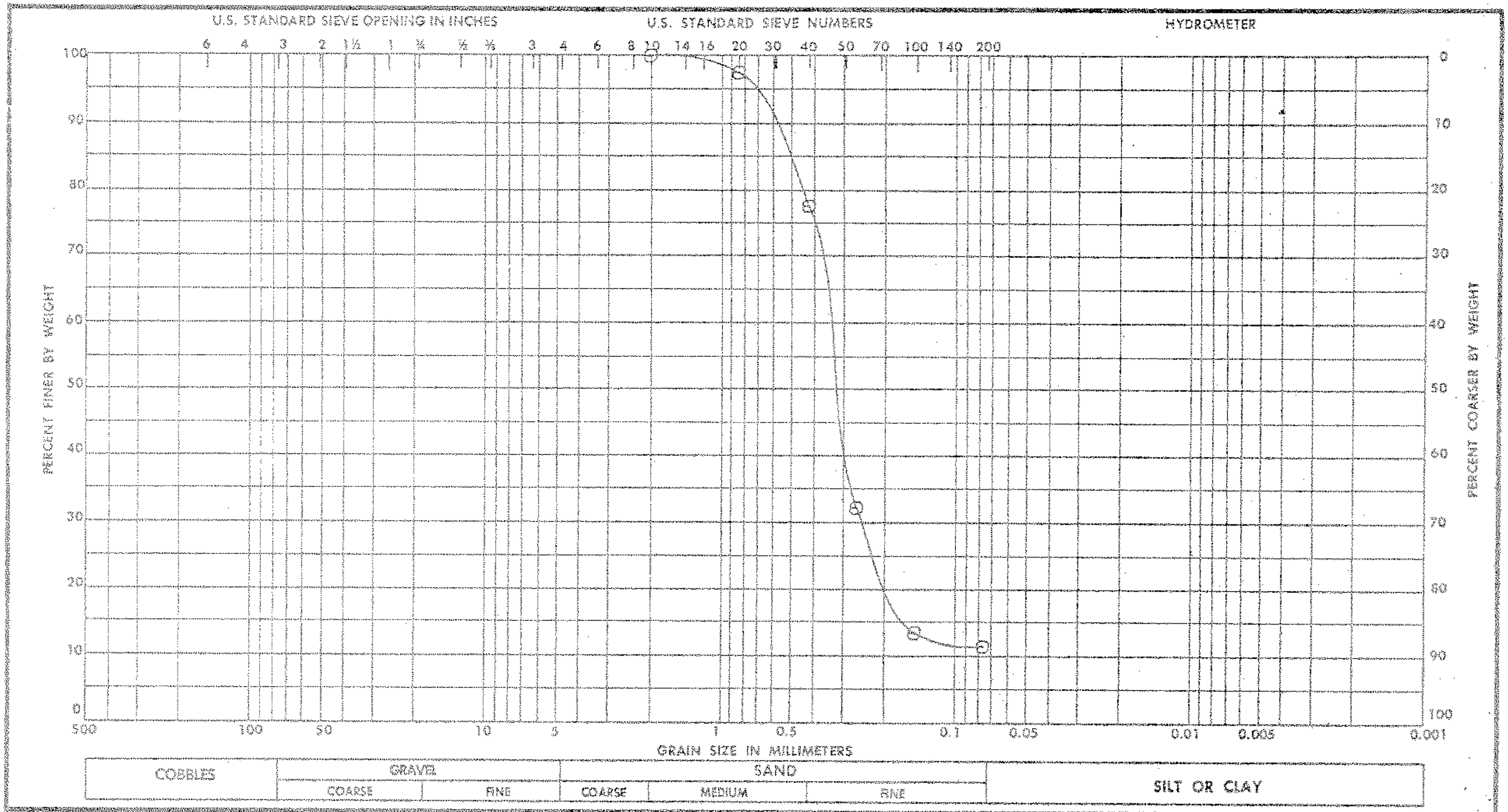
ENG FORM 1 MAY 63 2087

CHART NO. 572

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	25.0'	POORLY GRADED SILTY SAND	--	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF MICA				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1188

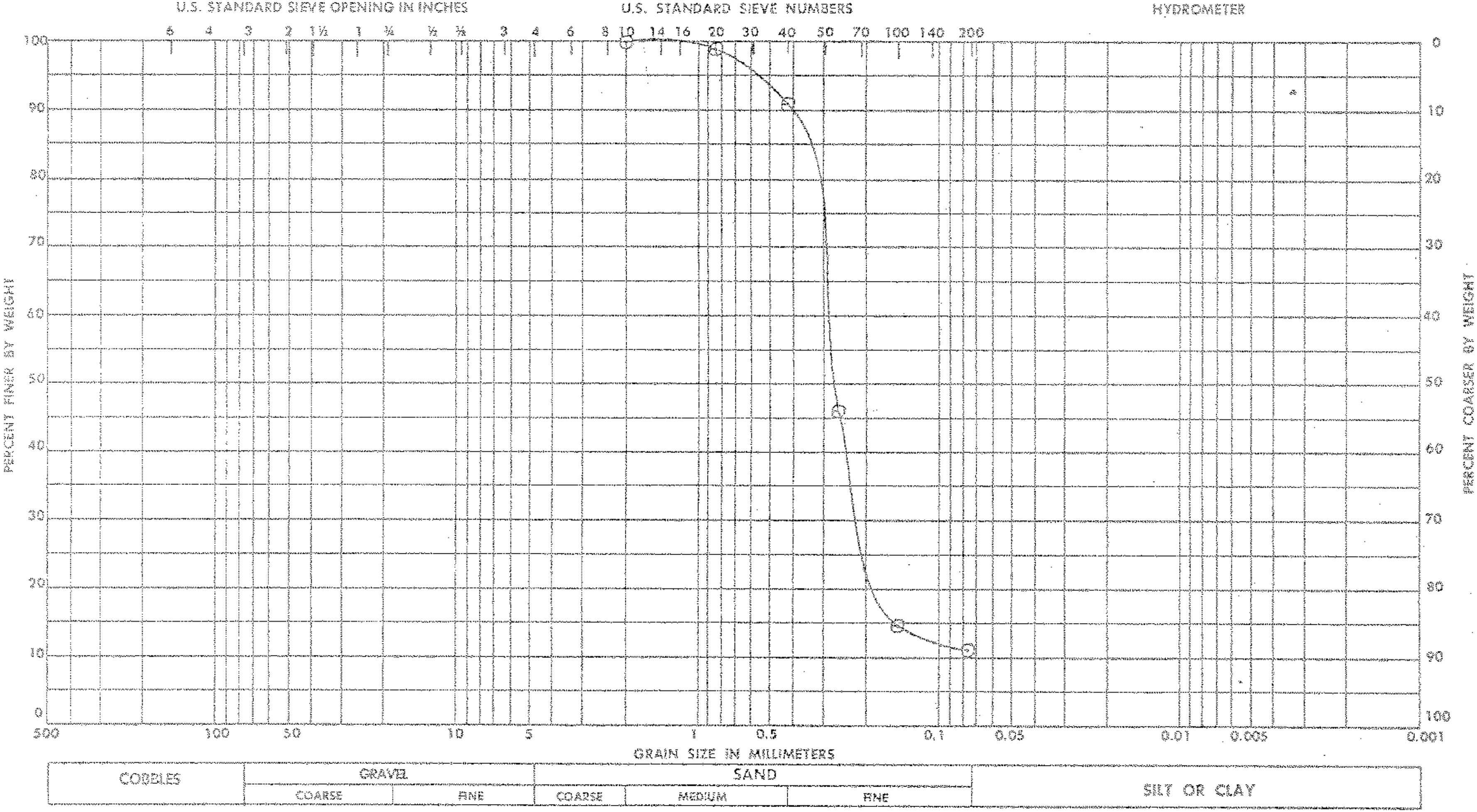
Boring No. VC-23-84 SAMPLE NO. 4

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 573



Sample No.	XXXXX 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				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1189

Boring No. VC-23-84 SAMPLE NO. 5

Date 11/27/84

GRADATION CURVES

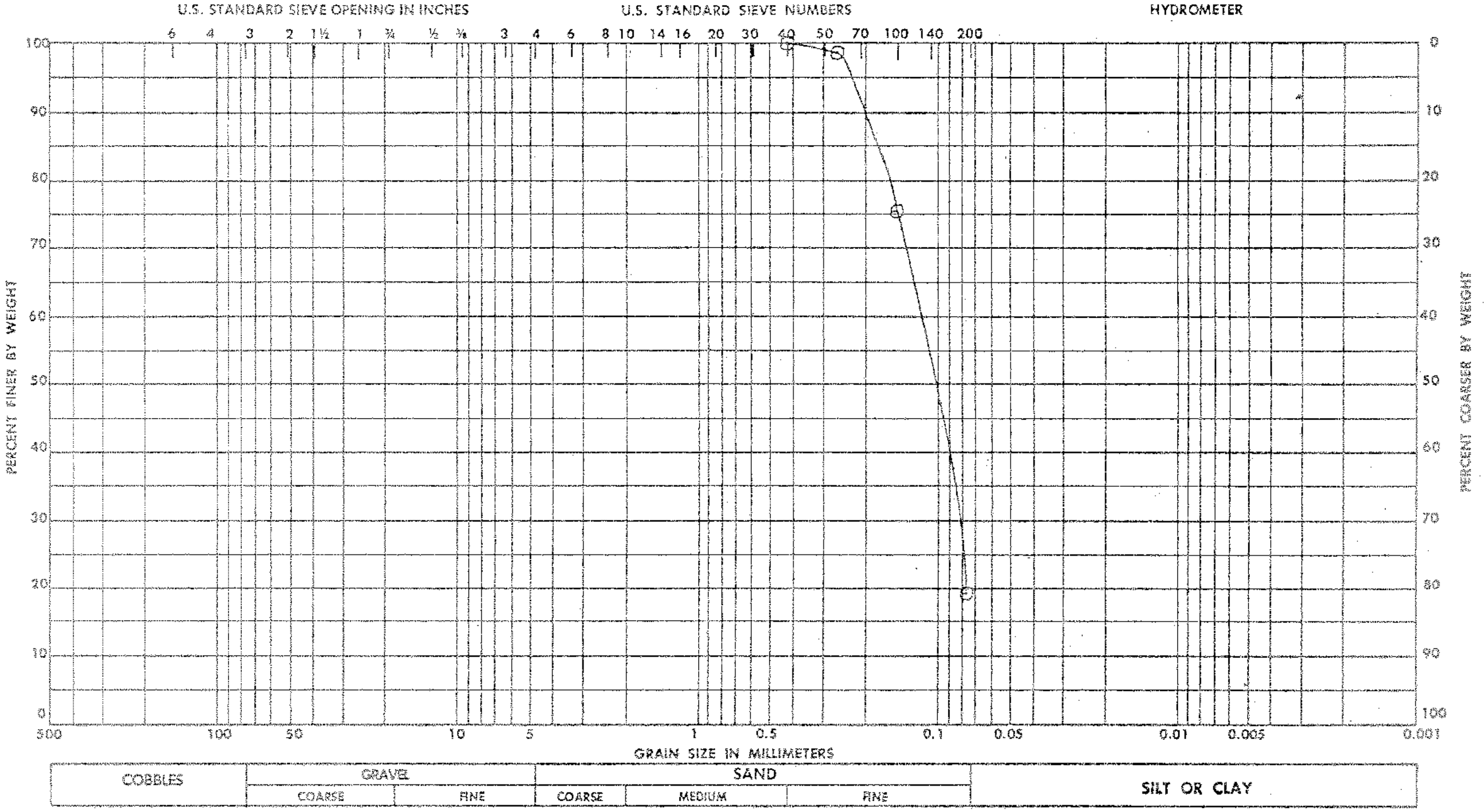
ENG FORM 1 MAY 63 2087

CHART NO. 574

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



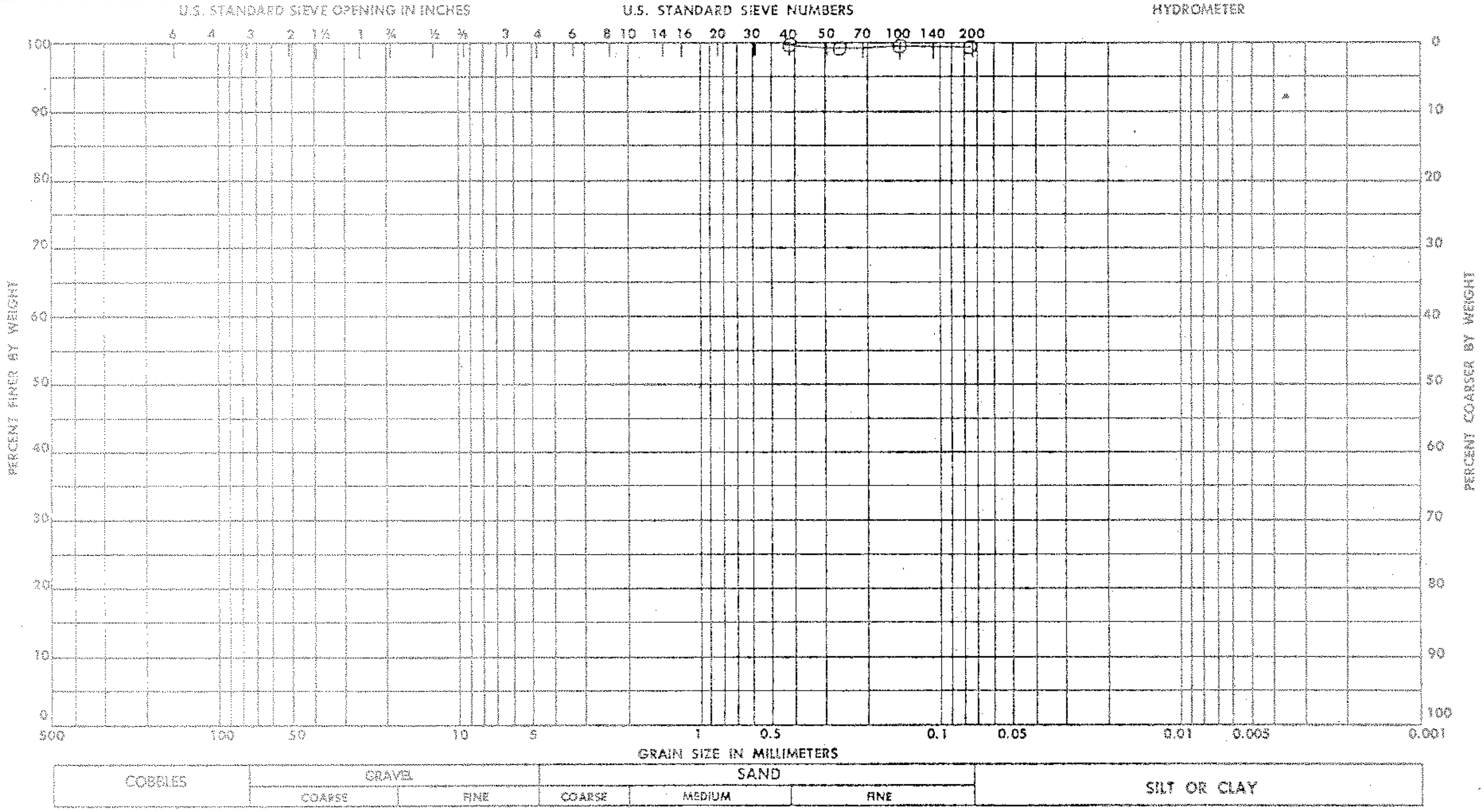
Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	25.0'	SILTY SAND (SM)	--	NP	NP	NP
		GREENISH TAN WITH A TRACE OF				
		MICA				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1193
Boring No. VC-24-84 SAMPLE NO. 5
Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 575



Sample No.	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				

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1195

Boring No. VC-26-84 SAMPLE NO. 2

Date 11/27/84

GRADATION CURVES

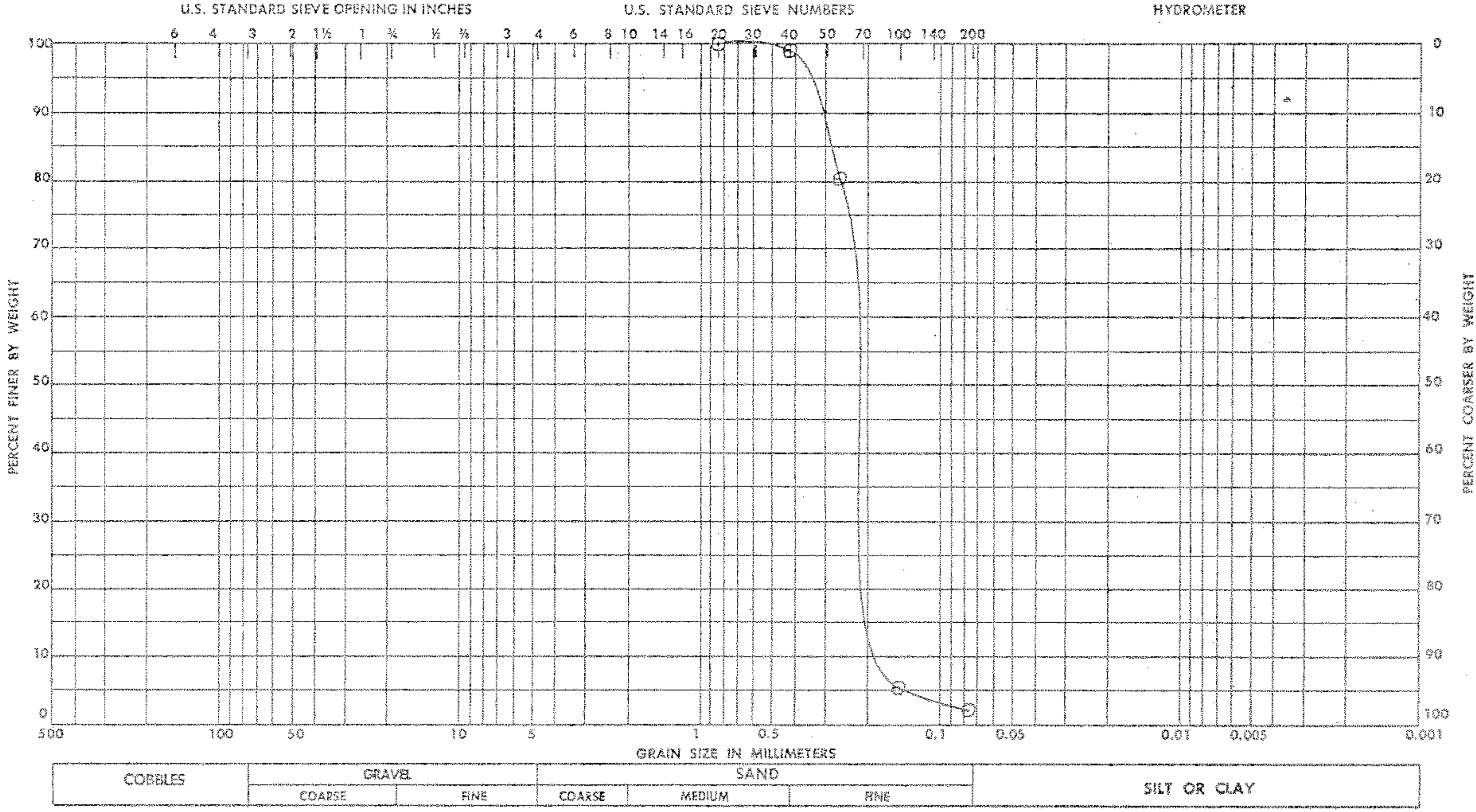
ENG FORM 1 MAY 63 2087

CHART NO. 576

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	18.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT. TAN WITH A TRACE OF MICA				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1204

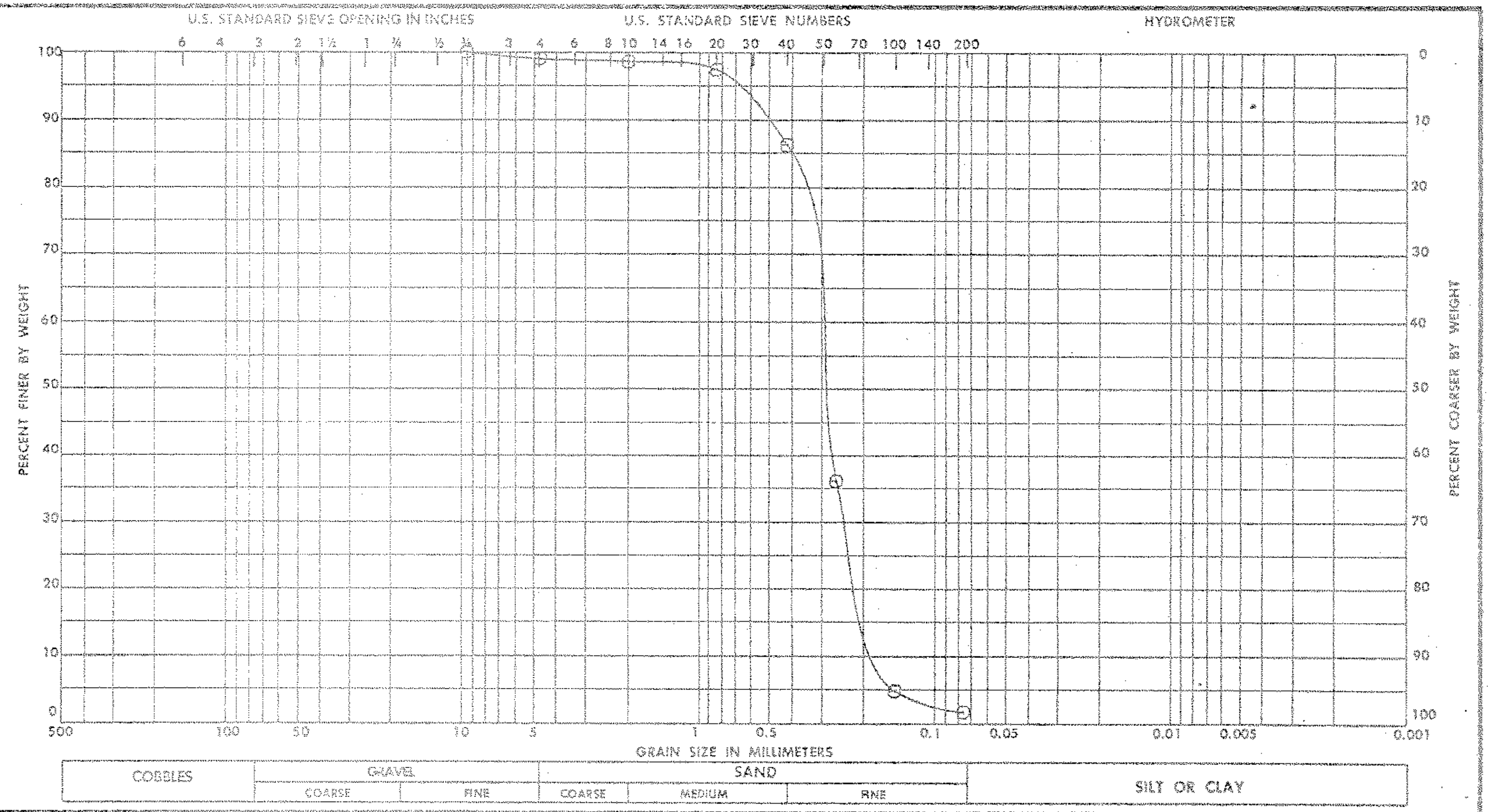
Boring No. VC-28-84 SAMPLE NO. 3

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 577



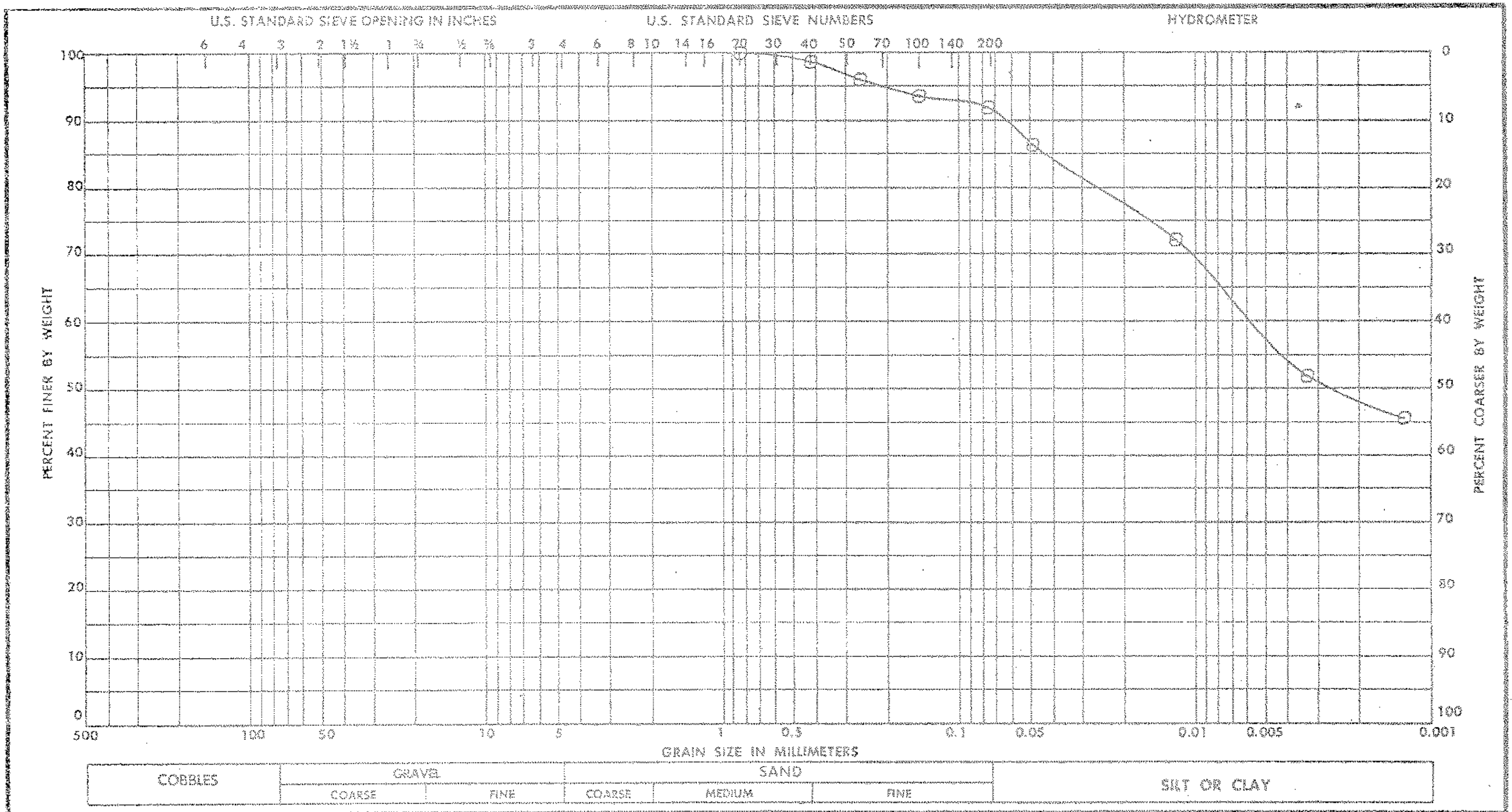
Sample No.	XXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	25.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		LT.GRAY, WITH A TRACE OF				
		GRAVEL				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1205
Boring No. VC-28-84 SAMPLE NO. 4
Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 578



Sample No.	Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	9.0'	FAT CLAY (CH), BLUISH GRAY WITH A TRACE OF SAND	88.2	--	--	--

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1210
Boring No. VC-32-84 SAMPLE NO. 2
Date 11/28/84

GRADATION CURVES

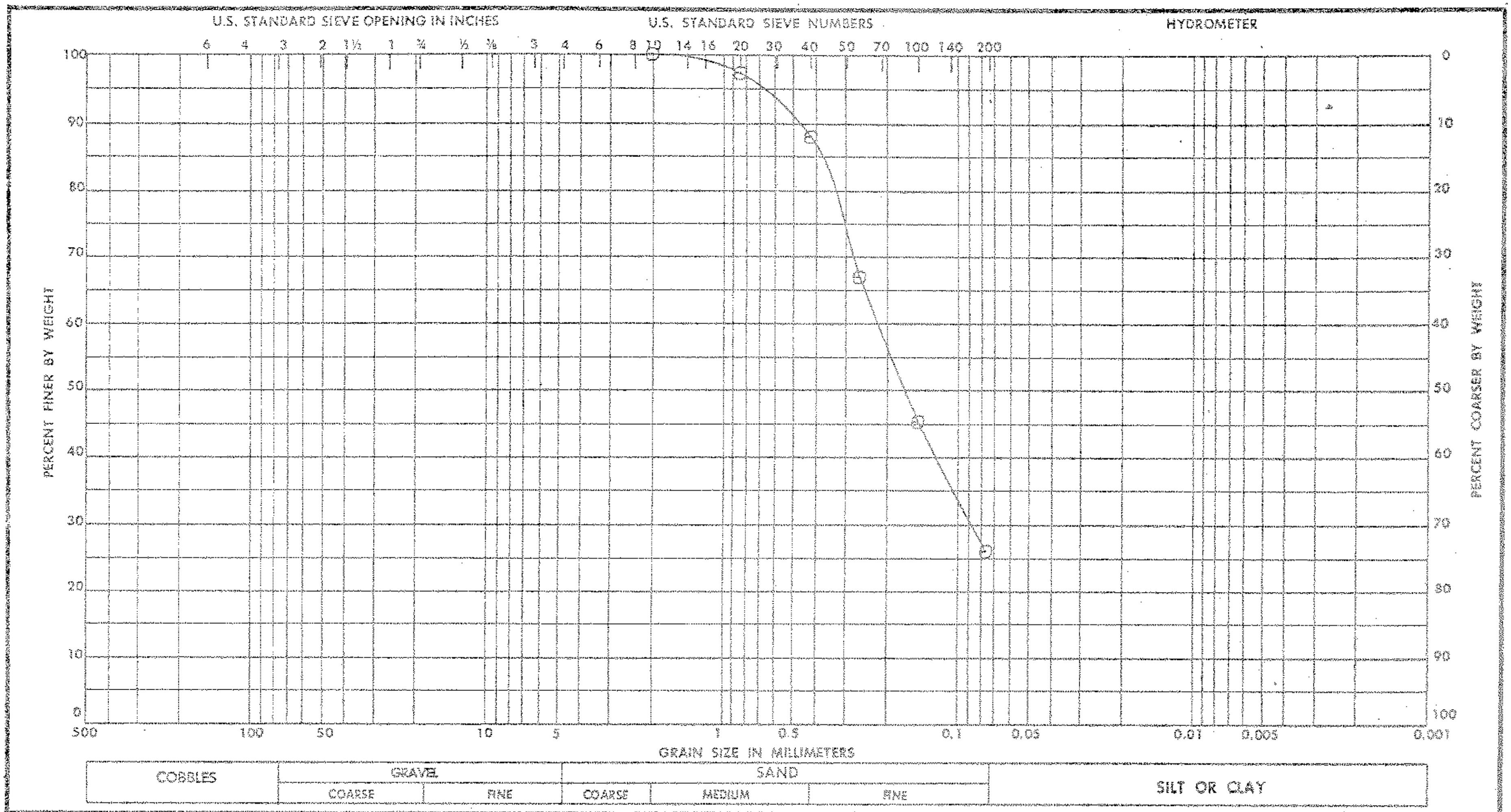
ENG FORM 1 MAY 63 2087

CHART NO. 580

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.	XXXXX Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	20.0'	CLAYEY SAND (SC), GRAY	--	--	--	--

Project MOBILE DISTRICT

MOBILE HARBOR DEEPENING

Area LAB NO.57/1211

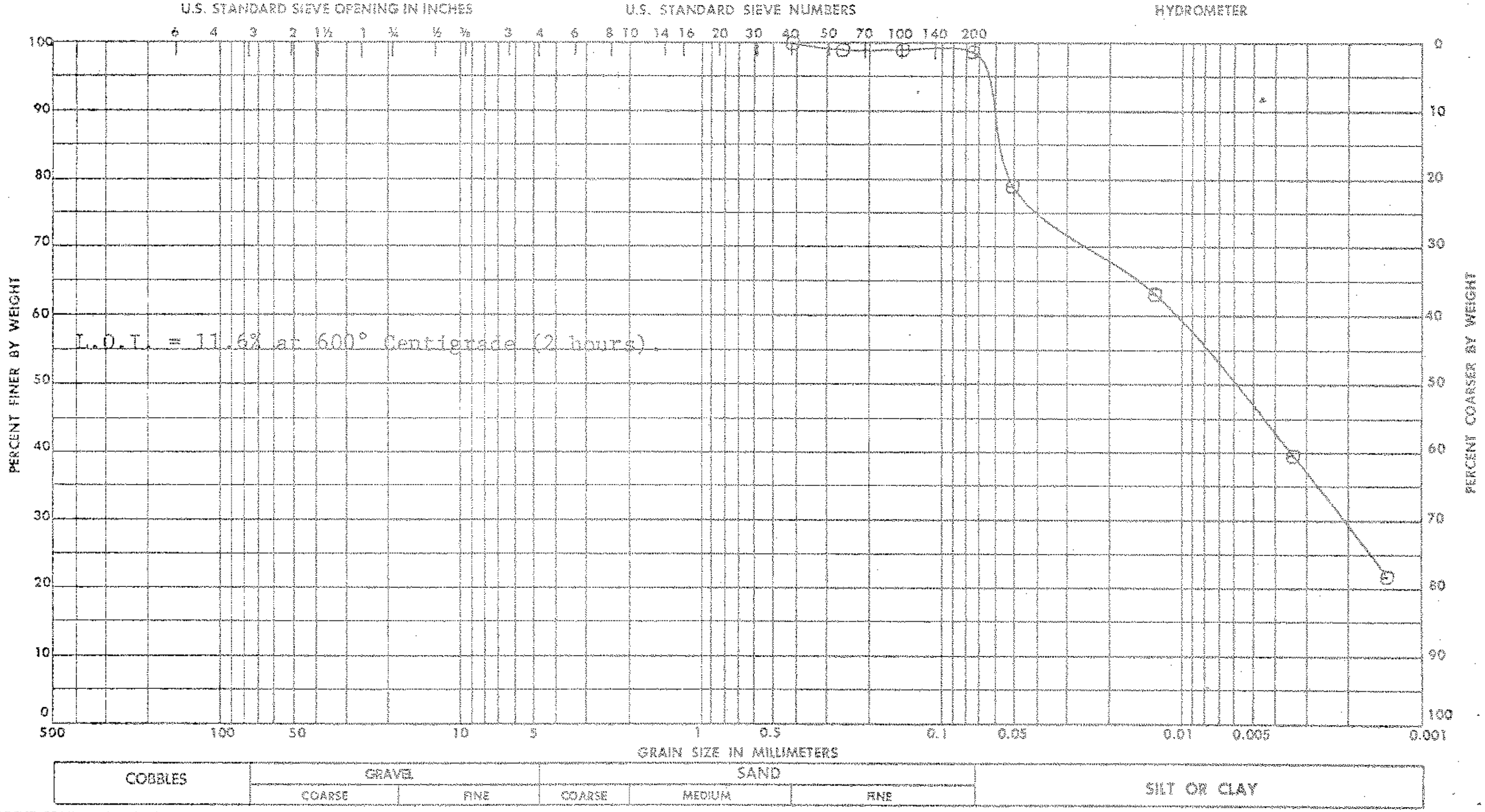
Boring No. VC-32-84 SAMPLE NO. 3

Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 581



L.O.I. = 11.6% at 600° Centigrade (2 hours)

Sample No.	~~Elev~~ 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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING

Area LAB NO.57/1224

Boring No. VC-36-84 SAMPLE NO. 1

Date 11/28/84

GRADATION CURVES

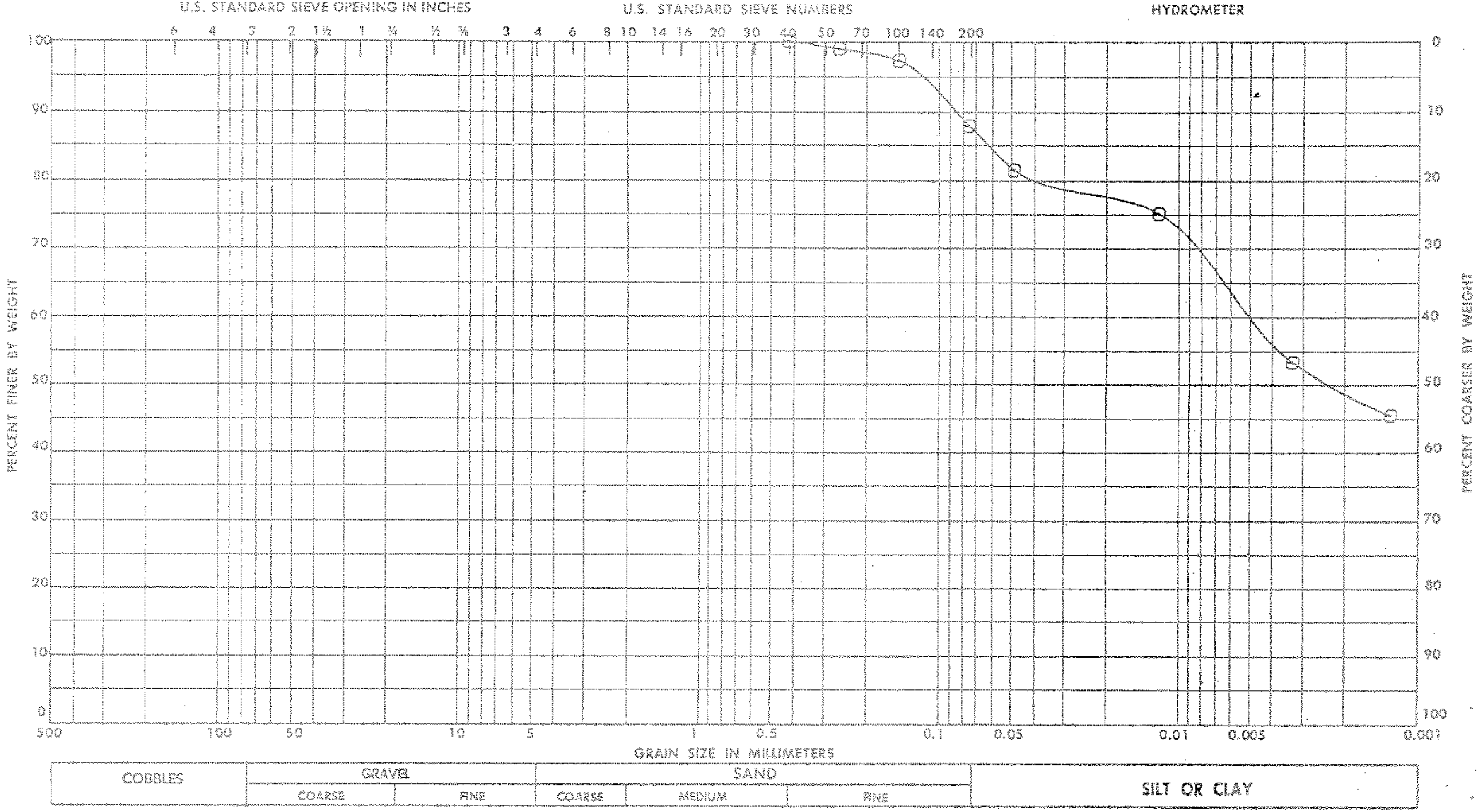
ENG FORM 1 MAY 63 2087

CHART NO. 582

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



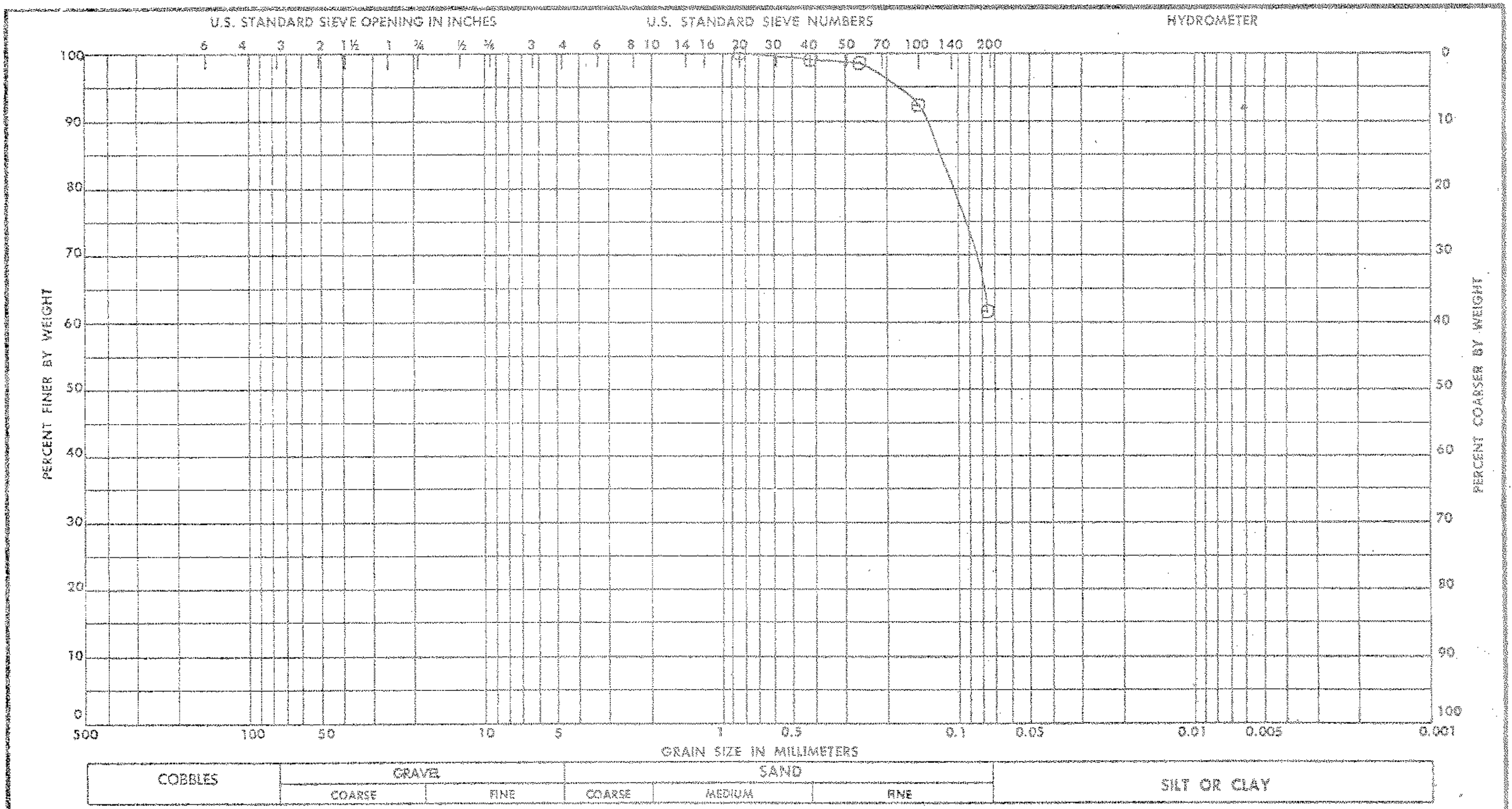
Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	10.0'	FAT CLAY (CH)	87.3	74	27	47
		GRAY WITH A LITTLE SAND				
		SPECIFIC GRAVITY = 2.72				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1225
Boring No. VC-36-84 SAMPLE NO. 2
Date 11/28/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 583



Sample No.	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				

Project MOBILE DISTRICT
MOBILE HARBOR DEEPENING
Area LAB NO.57/1226
Boring No. VC-30-84 SAMPLE NO. 3
Date 11/27/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CHART NO. 584

DISTI : MOBILE
PROJE : 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			

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

SHEET 1 OF 3

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}	
C-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					
C-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					
C-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								

FORM 2086 EDITION OF 1 MAR 58 IS OBSOLETE.
1 JAN 73

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. 538

TEST DATA SUMMARY

SHEET 2 OF 3

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}	
-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								
-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								
-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								

IG FORM 2086 EDITION OF 1 MAR 58 IS OBSOLETE.
1 JAN 73

T – TRIAXIAL COMPRESSION
UC– UNCONFINED COMPRESSION
DS – DIRECT SHEAR
Q – UNCONSOLIDATE UNDRAINED
S – CONSOLIDATED DRAIN
R – CONSOLIDATED UNDR

CHART NC

SHEET 3 OF 3

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																							
(1-5 Composite)																																	
	1														4.077	33.6	86.7	43.8	58.1		1.25 x 4.00						1.197						35 PCF Compos
	2														2.523	48.4	85.2	43.9	92.2		1.25 x 4.00						1.198						50 PCF Compos
	3														1.916	58.4	42.7	36.7	60.9		1.25 x 4.00						1.001						60 PCF Compos
	4														1.464	69.1	40.7	36.4	76.0		1.25 x 4.00						0.995						70 PCF Compos
	5														1.033	83.8	37.8	30.4	100		1.25 x 4.00						0.829						85 PCF Compos
SS-214U-84			CL	0	44	56		43	16	2.68																							
(1-7 Composite)																																	
	1														3.831	34.6	57.9	33.6	100.0		1.25 x 4.00						0.900						35 PCF Compos
	2														2.368	49.7	58.8	31.5	100.0		1.25 x 4.00						0.845						50 PCF Compos
	3														1.796	59.8	56.7	28.5	100.0		1.25 x 4.00						0.763						60 PCF Compos
	4														1.377	70.4	45.5	25.7	100.0		1.25 x 3.99						0.689						70 PCF Compos
	5														0.974	84.7	30.5	23.2	100.0		1.25 x 4.00						0.623						85 PCF Compos
	6																																
	7																																

T – TRIAXIAL COMPRESSION
UC– UNCONFINED COMPRESSION
DS – DIRECT SHEAR
Q – UNCONSOLIDATE UNDRAINED
S – CONSOLIDATED DRAI
R – CONSOLIDATED UNDF

ENG FORM 2086 EDITION OF 1 MAR 58 IS OBSOLETE.
1 JAN 73

CHART NO.

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 3 SHEETS

1. PROJECT MOBILE HARBOR DEEPENING

2. LOCATION (Coordinates or Station) N 242,050 E 333,450 100′ S. BN. 84

3. DRILLING AGENCY MDO

4. HOLE NO. (As shown on drawing title and file number) SS-200-84

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 52.4′ (EL. -64.0)

10. SIZE AND TYPE OF BIT 1 3/8" I.D. SPLITSPOON

11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MSL

12. MANUFACTURER'S DESIGNATION OF DRILL FAILING 314

13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN DISTURBED 23 UNDISTURBED 0

14. TOTAL NUMBER CORE BOXES 0

15. ~~ELEVATION GROUND~~ WATER DEPTH 12.6′

16. DATE HOLE STARTED 27 APR 84 COMPLETED 27 APR 84

17. ELEVATION TOP OF HOLE -11.6 MSL

18. TOTAL CORE RECOVERY FOR BORING NA %

19. SIGNATURE OF INSPECTOR D. HODGES DH

ELEVATION e	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.
-11.6	0 2 4 6 8 10 12 14 16		NO SAMPLES (FISHTAILED)			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.
-29.0						FISHTAILED
	18		(SP) BR. PR. GRAD. SAND, MED. GRA., SIY.		1	7
-31.6	20		BR., MED. GRA.		2	

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 RECOV-ERY~~ WcC	~~BOX OR~~ SAMPLE NO. f	REMARKS *(Drilling time, water loss, depth of weathering, etc., if significant)* g BLOWS/FT.
-31.6	20					14
			WHT., MED. - C. GRA.		3	17
	22				4	56
	24				5	31
	26		GR. & WHT., MED. - C. GRA.		6	45
			TN. & WHT., MED. - C. GRA.		7	22
	28		GR. & WHT., MED. - C. GRA.		8	31
	30		WHT., MED. - C. GRA.		9	34
	32				10	45
			TN., MED. - C. GRA.		11	34
	34				12	33
	36		TN. & YEL., MED. - C. GRA.		13	70
	38		GR. & TN., MED. - C. GRA.		14	52
					15	38
	40				16	41
	42		TN., MED. - C. GRA.		17	36
-55.6	44		WHT., MED. - C. GRA.		18	

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 RECOV-ERY~~ WeC	~~BOX OR~~ 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
	50		TN. & OR., MED. - C. GRA., W/ A LIT. GVL., (1/8" MAX.)		22	32
-64.0	52		TN. & OR., MED. - C. GRA., GVL., (1/4" MAX.)		23	65
			B.O.H.			NOTE : THE LAST SPLITSPOON DRIVE WAS 2.0'.

SECTION 6. 2006 and 2009 Subsurface Investigation Boring Logs, Lab Data, and Slope Stability Analyses

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. CHEM-1-06

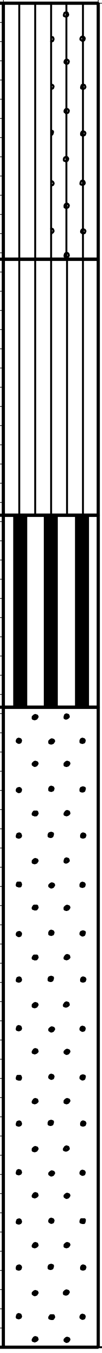
DRILLING LOG

DIVISION MOBILE DISTRICT

INSTALLATION MOBILE DISTRICT

SHEET 1 OF 2 SHEETS

1. PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR
2. LOCATION (Coordinates or Station) N 242805' E 1801859'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) CHEM-1-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 28.0'
10. SIZE AND TYPE OF BIT 3" SPLITSPOON / 140 LB HAM
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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 16 SEP 2006 COMPLETED 16 SEP 2006
17. ELEVATION TOP OF HOLE EL. -25.6'
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' WATER DEPTH: 26.3' TIDE: +0.7' START TIME: 0810 FINISH TIME: 1230 3.0" SPLITSPOON 2.0' DRIVES COORDINATES BY GPS	WR
	3.0				2		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
			POORLY GRADED SAND (SP), YELLOW		9		46
	18.0				10		30
-46.6	21.0				11		30

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. CHEM-1-06

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						
			POORLY GRADED SAND (SP), YELLOW		11		30
					12		51
	24.0		POORLY GRADED SAND (SP), YELLOWISH WHITE		13		53
	27.0				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
2. LOCATION (Coordinates or Station) N 241896' E 1801921'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) CHEM-2-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 30.0'
10. SIZE AND TYPE OF BIT 3" SPT W/ 140LB 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 19 SEP 2006 COMPLETED 19 SEP 2006
17. ELEVATION TOP OF HOLE EL. -23.7'
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
-31.7	8.0		SILT, SAND W/ DECAYING WOODY MATERIAL (MH-OL), GRAY		4		5
-33.7	9.0 10.0		STIFF FAT SANDY CLAY (CH), GRAY		5		9
			CLAYEY SAND (SC), GRAY		6		41
-37.7	12.0 14.0				7		39
	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	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
-44.7	21.0						
					11		91
					12		88
	24.0						
			POORLY GRADED SAND (SP), YELLOWISH		13		101
	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
2. LOCATION (Coordinates or Station) N 242249' E 1802804'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) CHEM-3-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 42.0'
10. SIZE AND TYPE OF BIT 3" SPT W/ 140LB 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 21 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 20 SEP 2006 COMPLETED 20 SEP 2006
17. ELEVATION TOP OF HOLE EL. -11.5'
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		SOFT SILTY MATERIAL (ML), GRAY		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
					3		WR
	6.0				4		WR
-19.5	8.0		SILTY SAND (SM), GRAY		5		5
	9.0						
-21.5	10.0		SOFT SILTY MATERIAL (MH-ML), GRAY		6		WR
	12.0				7		WR
	15.0				8		WR
					9		WR
	18.0				10		WR
					11		WR
-32.5	21.0						

ENG FORM 1836 (Facsimile) PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR HOLE NO. CHEM-3-06

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						
	30.0				15		58
					16		71
	33.0				17		78
	36.0		POORLY GRADED SAND (SP), YELLOWISH		18		76
					19		82
	39.0				20		81
					21		92
-53.5	42.0					B.O.H.	

ENG FORM 1836-A (Facsimile)	PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR	HOLE NO. CHEM-3-06

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
2. LOCATION (Coordinates or Station) N 240110' E 1801680'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) CHEM-4-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 28.0'
10. SIZE AND TYPE OF BIT 3" SPT W/ 140LB 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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 18 SEP 2006 COMPLETED 18 SEP 2006
17. ELEVATION TOP OF HOLE EL. -24.4'
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		SILTY SAND (SM), GRAY		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
	6.0				3		40
					4		12
	9.0				5		10
	12.0				6		2
					7		9
	15.0				8		10
	18.0				9		11
-44.4	20.0				10		10
-45.4	21.0		SOFT SILTY MATERIAL (ML-MH), GRAY		11		WR

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. CHEM-4-06

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	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
-45.4	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

2. LOCATION (Coordinates or Station) N 238418' E 1801621'

3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING

4. HOLE NO. (As shown on drawing title and file number) CHEM-6-06

5. NAME OF DRILLER E WOODS

6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL

7. THICKNESS OF OVERBURDEN -

8. DEPTH DRILLED INTO ROCK -

9. TOTAL DEPTH OF HOLE 22.0'

10. SIZE AND TYPE OF BIT 3" SPLITSPOON / 140 LB HAM

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 11 UNDISTURBED 0

14. TOTAL NUMBER CORE BOXES 0

15. ELEVATION GROUNDWATER N/A

16. DATE HOLE STARTED 14 SEP 2006 COMPLETED 14 SEP 2006

17. ELEVATION TOP OF HOLE EL. -31.0'

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
-31.0 -41.0	0.0 3.0 6.0 9.0 10.0		SOFT SILTY MATERIAL (ML), GRAY		1 2 3 4 5	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 WR WR WR WR
-47.0	12.0 15.0 16.0		SOFT SILTY MATERIAL (MH), GRAY		6 7 8		WR WR WR
-52.0	18.0 21.0		SANDY MATERIAL (SM), GRAY		9 10 11		13 16 42

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. CHEM-6-06

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

ENG FORM 1836-A (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. CHEM-6-06

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
2. LOCATION (Coordinates or Station) N 243377' E 1801780'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 1-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 34.5'
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 11 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 30 SEP 2006 COMPLETED 30 SEP 2006
17. ELEVATION TOP OF HOLE EL. -25.5'
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
	3.0	▥			JAR-1	BOH: 34.5' WATER DEPTH: 25.8' TIDE: +1.35' START TIME: 1143 FINISH TIME: 1325 COORDINATES BY GPS	WR
		▥			☒		WR
	6.0	▥			JAR-2		WR
		▥	SOFT SILTY MATERIAL (ML), DK. GRAY		☒		WR
	9.0	▥			JAR-3	JAR-3 d.7.5 - 9.0 CLAY (CL) W/ TRACE OF SAND, GRAY	WR
		▥			☒		WR
	12.0	▥			JAR-4		WR
		▥			☒		WR
	15.0	▥			JAR-5		WR
		▥	SOFT SILTY MATERIAL (ML), GRAY & DK. GRAY		☒		WR
	18.0	▥			JAR-6		WR
		▥	SOFT SILTY MATERIAL (ML), DK. GRAY		☒		WR
		▥	SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, DK. GRAY		JAR-7		3
-46.0	20.5	▨	FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, GRAY				
-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

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
-46.5	21.0						
-47.5	22.0	▨	CLAYEY FINE GRAIN SAND (SC), LT. BROWN		JAR-8		11
-49.5	24.0	⁘	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 SAND (SP), GRAY	12
-53.5	27.0 28.0	☒	NO SAMPLE		☒		
-55.0	29.5	⁘	POORLY GRADED FINE GRAIN SAND (SP), LT. YELLOW		JAR-10		28
-58.5	30.0 33.0	☒	NO SAMPLE		☒		
-60.0	34.5	⁘	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-11	B.O.H.	12

ENG FORM 1836-A (Facsimile)

PROJECT
MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO.
1-D301-06

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	☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL	15. ELEVATION GROUNDWATER	N/A
		16. DATE HOLE	STARTED 30 SEP 2006 / COMPLETED 30 SEP 2006
7. THICKNESS OF OVERBURDEN	-	17. ELEVATION TOP OF HOLE	EL. -18.9'
8. DEPTH DRILLED INTO ROCK	-	18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE	41.5'	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
		▥			JAR-1	BOH: 41.5' 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
-33.4	14.5	▥	SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, DK. GRAY		JAR-5		3
	15.0	▨	FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, GRAY				
-34.9	16.0	▨	FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, YELLOW		JAR-6		12
		⁘	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY				
-36.9	18.0	⁘	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
-38.9	20.0	☒	NO SAMPLE		☒		
-39.9	21.0	⁘	POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-8	NOTE: BEGAN 5.0' CENTERS.	14

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 SAND (SP), GRAY	12
	27.0		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
2. LOCATION (Coordinates or Station): N 242814' E 1802887'
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number): 5-D301-06
5. NAME OF DRILLER: E WOODS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN: -
8. DEPTH DRILLED INTO ROCK: -
9. TOTAL DEPTH OF HOLE: 61.5'
10. SIZE AND TYPE OF BIT: STD SPT/3" UNDISTURBED
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 4 UNDISTURBED 4
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUNDWATER: N/A
16. DATE HOLE: STARTED 4 OCT 2006 COMPLETED 4 OCT 2006
17. ELEVATION TOP OF HOLE: EL. -2.7'
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					
	3.0 6.0	☒	NO SAMPLE		☒	MARINE BORING BOH: 61.5' WATER DEPTH: 3.1' TIDE: +0.4' START TIME: 0857 FINISH TIME: 1215 COORDINATES BY GPS
-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					
		☒	NO SAMPLE		☒	
-14.7	12.0					
		▥	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					

ENG FORM 1836 (Facsimile)

PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO.: 5-D301-06

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						
-26.7	24.0	☒	NO SAMPLE		☒		
-29.7	27.0	▥	CLAYEY FINE GRAIN SAND (ML), GRAY		TUBE-4	PUSHED: 3.0' REC: 2.8' S.G.=2.68 TUBE-4 d.24.0 - 27.0, FINES=23.1%, D50=0.2mm O, MA,& H SILTY SAND (SM), GRAY	
-37.2	30.0 33.0 34.5	☒	NO SAMPLE		☒		
-38.7	36.0	▥	FINE GRAIN SAND W/ LITTLE SILT, LT. BROWN		JAR-1	JAR-1 d.34.5 - 36.0, FINES=5.3%, D50=0.21mm MA SILTY SAND (SP-SM), GRAY	3
-50.7	39.0 42.0 45.0 48.0	☒	NO SAMPLE		☒		

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 54.0						
-57.7	55.0	☒	NO SAMPLE		☒		
-59.2	56.5	⁘	POORLY GRADED FINE GRAIN SAND W/ TRACE OF PEA. GRAVEL, LT. BROWN		JAR-3		29
	57.0						
-62.7	60.0	☒	NO SAMPLE		☒		
-64.2	61.5	⁘	POORLY GRADED FINE GRAIN SAND, LT. BROWN		JAR-4	B.O.H.	24

ENG FORM 1836-A (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. 5-D301-06

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
2. LOCATION (Coordinates or Station) N 242799' E 1802110'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 7-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 45.0'
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 13 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 27 SEP 2006 COMPLETED 27 SEP 2006
17. ELEVATION TOP OF HOLE EL. -16.0'
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
			SOFT SILTY MATERIAL (ML) W/ SAND LENSES, DK. GRAY	69.3%	JAR-4	JAR-4 d.10.5 - 12.0, FINES=78.3% +/-200 SANDY CLAY (CL), GRAY	WR
	12.0				☒		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						
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		JAR-6	JAR-6 d.15.0 - 16.5, FINES=4.5%, D50=0.28mm MA SAND (SP), GRAY	8
					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						

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. 7-D301-06

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
2. LOCATION (Coordinates or Station)	N 242596' E 1802098'
3. DRILLING AGENCY	MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number)	9-D301-06
5. NAME OF DRILLER	E WOODS
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN	-
8. DEPTH DRILLED INTO ROCK	-
9. TOTAL DEPTH OF HOLE	45.0'
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 13 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUNDWATER	N/A
16. DATE HOLE	STARTED 26 SEP 2006 / COMPLETED 26 SEP 2006
17. ELEVATION TOP OF HOLE	EL. -15.9'
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
-15.9	0.0		SOFT SILTY MATERIAL (ML), DK. GRAY		☒	MARINE BORING	WR
					JAR-1	BOH: 45.0' WATER DEPTH: 15.9' TIDE: +1.41' START TIME: 1230 FINISH TIME: 1530 COORDINATES BY GPS	WR
	3.0				☒		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		SOFT SILTY MATERIAL (ML), DK. GRAY		☒		WR
					JAR-4		WR
	12.0				☒		WR
					JAR-5	JAR-5 d.13.5 - 15.0 CLAY (CH), GRAY	WR
	15.0				☒		WR
-32.4	16.5		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
-33.9	18.0		SOFT SILTY MATERIAL (ML), GRAY		JAR-7		5
-34.9	19.0		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 -36.9	DEPTH b 21.0	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
-40.9	24.0 25.0	☒	NO SAMPLE		☒	NOTE: BEGAN 5.0' CENTERS.	
-42.4	26.5	⁘	POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		JAR-9		12
-45.9	27.0 30.0	☒	NO SAMPLE		☒		
-47.4	31.5	⁘	POORLY GRADED FINE-MED GRAIN SAND (SP), LT. BROWN		JAR-10	JAR-10 d.30.0 - 31.5 SILTY SAND (SM), GRAY	10
-50.9	33.0 35.0	☒	NO SAMPLE		☒		
-52.4	36.5	⁘	POORLY GRADED FINE-MED GRAIN SAND (SP), LT. BROWN		JAR-11		9
-55.9	39.0 40.0	☒	NO SAMPLE		☒		
-57.4	41.5	⁘	POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF MED. & COARSE GRAIN SAND, LT. BROWN		JAR-12		8
-59.4	42.0 43.5	☒	NO SAMPLE		☒		
-60.9	45.0	⁘	POORLY GRADED FINE-MED. GRAIN SAND (SP) W/ TRACE OF COARSE GRAIN SAND, LT. BROWN & YELLOW		JAR-13	B.O.H.	8

ENG FORM 1836-A (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. 9-D301-06

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
2. LOCATION (Coordinates or Station) N 242683' E 1802491'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 10-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 56.5'
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 16 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 29 SEP 2006 COMPLETED 29 SEP 2006
17. ELEVATION TOP OF HOLE EL. -4.8'
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		SOFT SILTY MATERIAL (ML), DK. GRAY		☒	MARINE BORING	WR
					JAR-1	BOH: 56.5' WATER DEPTH: 5.5' TIDE: +0.73' START TIME: 1306 FINISH TIME: 1538 COORDINATES BY GPS	WR
	3.0		SOFT SILTY MATERIAL (ML), GRAY		☒		WR
					JAR-2		WR
	6.0				☒		WR
					JAR-3		WR
	9.0				☒		WH
			SOFT SILTY MATERIAL (ML) W/ SAND LENSES, GRAY		JAR-4	JAR-4 d.10.5 - 12.0 CLAY (CH) W/ TRACE OF SAND, GRAY	WH
	12.0				☒		WH
-18.3	13.5		SOFT PLASTIC SILTY MATERIAL (MH) W/ TRACE OF DECAYING WOODY MATERIAL, GRAY		JAR-5		WH
	15.0		SOFT PLASTIC SILTY MATERIAL (MH) W/ TRACE OF FINE GRAIN SAND, GRAY		☒		WH
				60.0%	JAR-6	JAR-6 d.16.5 - 18.0, FINES=65.7% +/-200 SANDY CLAY (CL), GRAY	WH
	18.0				☒		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						
-54.8	50.0	☒	NO SAMPLE		☒		
-56.3	51.5	⁘	POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN		JAR-15		41
-59.8	54.0 55.0	☒	NO SAMPLE		☒		
-61.3	56.5	⁘	POORLY GRADED FINE-MED GRAIN SAND (SP), YELLOWISH BROWN		JAR-16	B.O.H.	28

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
2. LOCATION (Coordinates or Station)	N 242584' E 1802799'
3. DRILLING AGENCY	MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number)	11-D301-06
5. NAME OF DRILLER	E WOODS
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN	-
8. DEPTH DRILLED INTO ROCK	-
9. TOTAL DEPTH OF HOLE	56.5'
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 18 / UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUNDWATER	N/A
16. DATE HOLE	STARTED 1 OCT 2006 / COMPLETED 1 OCT 2006
17. ELEVATION TOP OF HOLE	EL. -4.6'
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
-8.6	3.0 4.0				☒		5
			SILTY FINE GRAIN SAND (SM), GRAY		JAR-2		21
-12.1	6.0 7.5		SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY		JAR-3	NOTE: POLY SAL @ 6.0'. JAR-3 d.6.0 - 7.5 SILTY SAND (SM), GRAY	16
					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
-25.6	21.0				JAR-8		WR

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. 11-D301-06

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						
					☒		WR
	24.0		SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-9		WR
-30.1	25.5				☒		WR
	27.0		SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY		JAR-10		3
					☒		1
	30.0		LOOSE SILTY FINE GRAIN SAND (SM) W/ TRACE OF CLAY, GRAY		JAR-11	JAR-11 d.28.5 - 30.0, FINES=14.2%, D50=0.25mm MA SILTY SAND (SM), GRAY	WH
					JAR-12		WH
	33.0				☒		WH
-39.1	34.5		FINE GRAIN SAND (SM) W/ LITTLE SILT, LT. BROWN		JAR-13		4
-39.6	35.0		NO SAMPLE		☒		
-41.1	36.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-14	NOTE: BEGAN 5.0' CENTERS. JAR-14 d.35.0 - 36.5, FINES=2.6%, D50=0.29mm MA SAND (SP), GRAY	14
	39.0						
-44.6	40.0		NO SAMPLE		☒		
-46.1	41.5		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF SILT, LT. BROWN		JAR-15		26
	42.0						
-49.6	45.0		NO SAMPLE		☒		
-51.1	46.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-16		26
-52.6	48.0		NO SAMPLE		☒		

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
2. LOCATION (Coordinates or Station) N 242405' E 1801858'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 13-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 37.5'
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 11 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. -22.5'
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						
			SOFT SILTY MATERIAL (ML) W/ LITTLE FINE GRAIN SAND, GRAY		JAR-1	MARINE BORING	WR
	3.0					BOH: 37.5' WATER DEPTH: 23.6' TIDE: +1.1' START TIME: 1410 FINISH TIME: 1645 COORDINATES BY GPS	WR
-27.0	4.5						WR
	6.0		SOFT CLAYEY FINE GRAIN SAND (SC), GRAY		JAR-2	JAR-2 d.4.5 - 6.0, FINES=29.5%, D50=0.083mm +/-200 SILTY SAND (SM), GRAY	WR
-30.0	7.5						WR
-31.5	9.0		FINE GRAIN SANDY CLAY (CL), GRAY		JAR-3	JAR-3 d.7.5 - 9.0, L.C.=SM, FINES=18.3%, D50=0.086mm +/-200	4
			SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY		JAR-4	JAR-4 d.9.0 - 10.5, FINES=7.4%, D50=0.088mm +/-200 SILTY SAND (SP-SM), GRAY	4
	12.0						4
					JAR-5		8
	15.0						30
					JAR-6		34
-40.5	18.0		SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, LT. GRAY		JAR-7	JAR-7 d.16.5 - 18.0, L.C.=SP-SM, FINES=8.3%, D50=0.088mm +/-200	5
-43.5	21.0		NO SAMPLE			NOTE: BEGAN ALTERNATE SAMPLING AFTER 18.0'.	

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
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
-43.5 -45.0	21.0 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
-48.5	24.0 26.0	☒	NO SAMPLE		☒		
-50.0	27.5	⁘	POORLY GRADE FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-9		19
-53.5	30.0 31.0	☒	NO SAMPLE		☒		
-55.0	32.5	⁘	POORLY GRADE FINE GRAIN SAND (SP), LT. BROWN & WHITE		JAR-10		29
-58.5	33.0 36.0	☒	NO SAMPLE		☒		
-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
2. LOCATION (Coordinates or Station) N 242381' E 1802074'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 14-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 46.5'
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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 26 SEP 2006 COMPLETED 26 SEP 2006
17. ELEVATION TOP OF HOLE EL. -13.5'
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						
		▥	SOFT SILTY MATERIAL (ML) W/ TRACE OF FINE GRIAN SAND, GRAY		JAR-1	MARINE BORING	WR
	3.0	▥			☒	BOH: 46.5' WATER DEPTH: 14.8' TIDE: +1.35' START TIME: 0805 FINISH TIME: 1120 COORDINATES BY GPS	WR
		▥			JAR-2		WR
		▥			☒		WH
	6.0	▥			☒		WH
		▥	SOFT SILTY MATERIAL (ML) W/ SOME FINE GRIAN SAND, GRAY		JAR-3		WH
	9.0	▥			☒		WH
-25.5	12.0	▥			JAR-4	JAR-4 d.10.5 - 12.0, FINES=31.1%, D50=0.082mm +/-200 SILTY SAND (SM), GRAY	WH
-27.0	13.5	▮	SOFT SILTY PLASTIC MATERIAL (MH) W/ LITTLE FINE GRIAN SAND, GRAY		JAR-5	JAR-5 d.12.0 - 13.5, FINES=51.1% +/-200 SANDY SILT (ML), GRAY	WH
-28.5	15.0	▨	CLAYEY FINE GRAIN SAND (SC), GRAY		JAR-6	JAR-6 d.13.5 - 15.0, FINES=10.5%, D50=0.28mm MA SILTY SAND (SP-SM), GRAY	3
		⁝	SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY		JAR-7	JAR-7 d.15.0 - 16.5 SILTY SAND (SM), GRAY	6
	18.0	⁝			☒		8
		⁝			JAR-8		12
-34.5	21.0	⁝			☒		7

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. 14-D301-06

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

ENG FORM 1836-A (Facsimile)	PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR	HOLE NO. 14-D301-06

Proj. No.: ALW00204 Alt. Proj. No.: CH05D301 Hole No. 15-D301-06

DRILLING LOG	DIVISION MOBILE DISTRICT	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 3 SHEETS

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
☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL

7. THICKNESS OF OVERBURDEN -

8. DEPTH DRILLED INTO ROCK -

9. TOTAL DEPTH OF HOLE 50.5'

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 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
-10.3	0.0		SOFT SILTY MATERIAL (ML), DK. GRAY		JAR-1	MARINE BORING	WR
	3.0				☒	BOH: 50.5' WATER DEPTH: 11.9' TIDE: +1.65' START TIME: 0927 FINISH TIME: 1230 COORDINATES BY GPS	WR
							WR
	6.0				JAR-2		WR
					☒		WR
	9.0		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
			SOFT SILTY MATERIAL (ML) W/ LITTLE DECAYING WOODY MATERIAL, DK. GRAY & DK . BROWN		☒		WR
	12.0				JAR-4		WR
-23.8	13.5		SOFT SILTY MATERIAL (ML), DK. GRAY		☒		WR
	15.0		SOFT SILTY MATERIAL (MH), MORE PLASTICITY, DK. GRAY		JAR-5	JAR-5 d.13.5 - 15.0 CLAY (CH), GRAY	WR
-26.8	16.5				☒		WR
-28.3	18.0		SOFT SILTY MATERIAL (ML), DK. GRAY		JAR-6		WR
			SOFT SILTY MATERIAL (MH), MORE PLASTICITY, DK. GRAY		☒		WR
-31.3	21.0		SOFT SILTY MATERIAL (MH), MORE PLASTICITY W/ SAND LENSE, DK. GRAY	123.3%	JAR-7	JAR-7 d.19.5 - 21.0, FINES=96.4% +/-200 CLAY (CH) W/ TRACE OF SAND AND ORGANIC, GRAY LOI=4.2%	WR

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
-34.3	24.0		SOFT PLASTIC SILTY MATERIAL (MH) W/ SAND LENSES, DK. GRAY		JAR-8		WR
-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						
-45.3	35.0		NO SAMPLE				
-46.8	36.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-12		19
	39.0						
-50.3	40.0		NO SAMPLE				
-51.8	41.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-13		33
	42.0						
-55.3	45.0		NO SAMPLE				
-56.8	46.5		POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-14		22
-58.3	48.0		NO SAMPLE				

ENG FORM 1836-A (Facsimile)	PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR	HOLE NO. 15-D301-06

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	B.O.H.	5

DRILLING LOG

DIVISION: MOBILE DISTRICT
INSTALLATION: MOBILE DISTRICT
SHEET 1 OF 2 SHEETS

1. PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR
2. LOCATION (Coordinates or Station): N 242193' E 1802103'
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number): 17-D301-06
5. NAME OF DRILLER: E WOODS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN: -
8. DEPTH DRILLED INTO ROCK: -
9. TOTAL DEPTH OF HOLE: 46.5'
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 16, UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUNDWATER: N/A
16. DATE HOLE: STARTED 27 SEP 2006, COMPLETED 27 SEP 2006
17. ELEVATION TOP OF HOLE: EL. -13.5'
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
		⁞	LOOSE SILTY FINE GRAIN SAND (SM) W/ TRACE OF SHELLS, GRAY		JAR-1	BOH: 46.5' 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), GRAY		☒	JAR-1 d.1.5 - 3.0, FINES=17.9%, D50=0.086mm +/-200 SILTY SAND (SM) W/ SHELL, GRAY	WR
-18.0	4.5	‖	SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-2		WR
	6.0	‖			☒		WR
		‖			JAR-3	JAR-3 d.7.5 - 9.0 SILTY SAND (SM), GRAY	WR
	9.0	‖			☒		WR
		‖			JAR-4		WR
	12.0	‖			☒		WR
		‖			JAR-5		WR
-28.5	15.0	▨	CLAYEY FINE GRAIN SAND (SC), GRAY		JAR-6		4
		▨			JAR-7	JAR-7 d.16.5 - 18.0, FINES=11.0%, D50=0.087mm +/-200 SILTY SAND (SP-SM), GRAY	2
	18.0	▨			JAR-8		2
-33.0	19.5	▨	SILTY CLAY (CL) W/ SOME FINE GRAIN SAND, LT. GRAY		JAR-9		4
-34.0	20.5	▨	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
-37.5	24.0	▨			JAR-11	JAR-11 d.22.5 - 24.0, FINES=4.3%, D50=0.088mm +/-200 SAND (SP), GRAY	14
-39.0	25.5	⁘	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
-43.5	27.0 30.0	☒	NO SAMPLE		☒	NOTE: BEGAN 5.0' CENTERS.	
-45.0	31.5	⁘	POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. BROWN		JAR-13		22
-48.5	33.0 35.0	☒	NO SAMPLE		☒		
-50.0	36.5	⁘	POORLY GRADED FINE GRAIN SAND (SP), LT. BROWN		JAR-14		40
-53.5	39.0 40.0	☒	NO SAMPLE		☒		
-54.0	40.5	■	SOFT PLASTIC SILTY MATERIAL (MH), GRAY				
-55.0	41.5	⁘	POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. ORANGE		JAR-15		5
-58.5	42.0 45.0	☒	NO SAMPLE		☒		
-60.0	46.5	⁘	POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. GRAY		JAR-16	B.O.H.	21

DRILLING LOG	DIVISION MOBILE DISTRICT	INSTALLATION MOBILE DISTRICT	SHEET 1 OF 3 SHEETS

1. PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR
2. LOCATION (Coordinates or Station) N 242203' E 1802512'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 18-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 49.5'
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 29 SEP 2006 COMPLETED 29 SEP 2006
17. ELEVATION TOP OF HOLE EL. -11.5'
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						
		▥	SOFT SILTY MATERIAL (ML), DK. GRAY		☒	MARINE BORING	WR
	3.0	▥			JAR-1	BOH: 49.5' WATER DEPTH: 12.3' TIDE: +0.8' START TIME: 0805 FINISH TIME: 1115 COORDINATES BY GPS	WR
		▥			☒		WR
	6.0	▥			JAR-2		WR
		▥			☒		WR
	9.0	▥		28.7%	JAR-3	JAR-3 d.7.5 - 9.0, FINES=28.6%, D50=0.083mm +/-200 SILTY SAND (SM), GRAY	WR
		▥	SOFT SILTY MATERIAL (ML) W/ LITTTLE FINE GRAIN SAND, GRAY		☒		WR
		▥	SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-4		WR
	12.0	▥			☒		WR
	15.0	▥			JAR-5		WR
		▥			☒		WR
-29.5	18.0	▥	SOFT SILTY MATERIAL (ML) W/ TRACE OF SHELL FRAGMENTS, GRAY		JAR-6		WH
-31.0	19.5	▨	FAT CLAY (CH) W/ LITTLE FINE GRAIN SAND, BROWN		JAR-7		4
-32.5	21.0	⁝	LOOSE SILTY FINE GRAIN SAND (SM) W/ LITTLE CLAY, GRAY		☒		WH

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	B.O.H.	24

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
2. LOCATION (Coordinates or Station): N 241991' E 1802101'
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number): 22-D301-06
5. NAME OF DRILLER: E WOODS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN: -
8. DEPTH DRILLED INTO ROCK: -
9. TOTAL DEPTH OF HOLE: 45.0'
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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUNDWATER: N/A
16. DATE HOLE: STARTED 28 SEP 2006 COMPLETED 28 SEP 2006
17. ELEVATION TOP OF HOLE: EL. -15.1'
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						
		⁝	LOOSE SILTY FINE GRAIN SAND (SM), GRAY		☒	MARINE BORING	WR
	3.0	⁝			JAR-1	BOH: 45' WATER DEPTH: 16.7' TIDE: +1.6' START TIME: 1200 FINISH TIME: 1535 COORDINATES BY GPS	WR
-19.6	4.5	⁝			☒	JAR-1 d.1.5 - 3.0 SILTY SAND (SM) W/ TRACE OF WOOD AND SHELL, GRAY	1
	6.0	‖	SOFT SILTY MATERIAL (ML) W/ SOME FINE GRAIN SAND, GRAY		JAR-2		2
		‖			☒		WH
	9.0	‖			JAR-3	JAR-3 d.7.5 - 9.0 SILTY SAND (SM), GRAY	2
		‖			☒		1
	12.0	‖			JAR-4		2
		‖			☒		WH
-29.6 -30.1	14.5 15.0	■	FAT CLAY W/ LITTLE FINE GRAIN SAND (CH), LT. BROWN		JAR-5		3
-31.6	16.5	▨	CLAYEY FINE GRIAN SAND (SC), LT. GRAY		JAR-6		2
	18.0	∴	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
		∴	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-8		18
-36.1	21.0	∴			JAR-9		21

ENG FORM 1836 (Facsimile)

PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. 22-D301-06

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						
-40.1	24.0 25.0	☒	NO SAMPLE		☒	NOTE: BEGAN 5.0' CENTERS.	
-41.6	26.5	∴	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-10		19
-45.1	27.0 30.0	☒	NO SAMPLE		☒		
-46.6	31.5	∴	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-11	JAR-11 d.30.0 - 31.5 SILTY SAND (SM), BROWN	28
-50.1	33.0 35.0	☒	NO SAMPLE		☒		
-51.6	36.5	∴	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		JAR-12		31
-55.1	39.0 40.0	☒	NO SAMPLE		☒		
-56.6	41.5	∴	POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY & WHITE		JAR-13		25
-58.6	42.0 43.5	☒	NO SAMPLE		☒		
-60.1	45.0	∴	POORLY GRADED FINE-MED GRAIN SAND (SP), YELLOWISH BROWN		JAR-14	B.O.H.	28

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
2. LOCATION (Coordinates or Station) N 241995' E 1802802'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 23-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 45.0'
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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 28 SEP 2006 COMPLETED 28 SEP 2006
17. ELEVATION TOP OF HOLE EL. -15.1'
18. TOTAL CORE RECOVERY FOR BORING
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'.	WH
		▥	SOFT SILTY MATERIAL (ML) W/SOME FINE GRAIN SAND, GRAY		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

ENG FORM 1836-A (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. 23-D301-06

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 COORDINATE DATUM	MLLW, FEET 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	☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL	15. ELEVATION GROUNDWATER	N/A
		16. DATE HOLE	STARTED 9 SEP 2006 / COMPLETED 9 SEP 2006
7. THICKNESS OF OVERBURDEN	-	17. ELEVATION TOP OF HOLE	EL. -24.3'
8. DEPTH DRILLED INTO ROCK	-	18. TOTAL CORE RECOVERY FOR BORING	
9. TOTAL DEPTH OF HOLE	36.0'	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
-24.3	0.0						
-27.3	3.0		SOFT FLUFFY SILTY MATERIAL (ML), GRAY			MARINE BORING BOH: 36.0' WATER DEPTH: 25.4' TIDE: +1.1' START TIME: 1313 FINISH TIME: 1600 COORDINATES BY GPS	WR 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
	15.0						
-40.8	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

ENG FORM 1836 (Facsimile)

PROJECT MOBILE HARBOR TURNING BASIN
MOBILE HARBOR

HOLE NO. 25-D301-06

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	☒	NO SAMPLE		☒		
-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	☒	NO SAMPLE		☒		
-51.3	27.0	⁘	DENSE POORLY GRADED FINE GRAIN SAND (SP), YELLOWISH BROWN & LT. GRAY		JAR-11		29
-52.8	28.5	☒	NO SAMPLE		☒		
-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	☒	NO SAMPLE		☒		
-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	☒	NO SAMPLE		☒		
-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

ENG FORM 1836-A (Facsimile)	PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR	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
2. LOCATION (Coordinates or Station): N 241612' E 1801836'
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number): 28-D301-06
5. NAME OF DRILLER: E WOODS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN: -
8. DEPTH DRILLED INTO ROCK: -
9. TOTAL DEPTH OF HOLE: 33.0'
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 14 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUNDWATER: N/A
16. DATE HOLE: STARTED 9 SEP 2006 COMPLETED 9 SEP 2006
17. ELEVATION TOP OF HOLE: EL. -28.3'
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						
			LOOSE FINE GRAIN SAND(SM) W/ SOME SILT, GRAY		J-1	MARINE BORING	WR
					J-2	BOH: 33.0' WATER DEPTH: 29.1' TIDE: +0.84' START TIME: 0850 FINISH TIME: 1210 COORDINATES BY GPS	WR
	3.0						
-32.8	4.5				J-3	J-3 d.3.0 - 4.5 SILTY SAND (SM), GRAY	WR
-34.3	6.0		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
			MED. STIFF FAT CLAY (CH) W/ LITTLE SILT, LT. GRAY		J-5	J-5 d.6.0 - 7.5 SILTY SAND (SM), GRAY	4
-37.3	9.0		STIFF FAT CLAY (CH) W/ LITTLE SILT & FINE GRAIN SAND, LT. GRAY		J-6		9
-37.8	9.5		MED. PLASTIC SILTY CLAY (CL), LT. GRAY				
			POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. BROWN		J-7		19
-40.3	12.0		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE OF CLAY, LT. GRAY		J-8		15
-41.8	13.5	☒	NO SAMPLE		☒		
-43.3	15.0		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		J-9	NOTE: BEGAN 3' CENTERS	42
-44.8	16.5	☒	NO SAMPLE		☒		
-46.3	18.0		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY		J-10		33
-47.8	19.5	☒	NO SAMPLE		☒		
-49.3	21.0		POORLY GRADED FINE GRAIN SAND (SP), LT. GRAY				29

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	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
-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
2. LOCATION (Coordinates or Station) N 241275' E 1801878'
3. DRILLING AGENCY MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number) 29-D301-06
5. NAME OF DRILLER E WOODS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN -
8. DEPTH DRILLED INTO ROCK -
9. TOTAL DEPTH OF HOLE 36.0'
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 17 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUNDWATER N/A
16. DATE HOLE STARTED 8 SEP 2006 COMPLETED 8 SEP 2006
17. ELEVATION TOP OF HOLE EL. -25.2'
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
	6.0				JAR-4		4
-32.7	7.5		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
-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
	12.0		HIGH PLASTICITY (MH) W/ TRACE ORGANICS, MOIST, DARK GRAY, 5/Y-4/1		JAR-8		2
					JAR-9		2
	15.0				JAR-10	JAR-10 d.13.5 - 15.0, FINES=98.8% +/-200 CLAY (CH), GRAY LOI=1.8%	5
					JAR-11	NOTE: SAMPLE FALLS APART IN WATER.	5
	18.0				JAR-12		4
-44.7	19.5				☒		3
-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
	24.0		POORLY GRADED FINE GRAIN SAND (SP) W/ TRACE ORGANICS, WET, MED. DENSE, OLIVE YELLOW, 5/Y-6/1		JAR-15		21
					☒		27
	27.0						26
							27
	30.0		POORLY GRADED COARSE GRAIN SAND (SP), WET, MED. DENSE, OLIVE YELLOW, 5/Y-6/4		JAR-16		19
					☒		18
	33.0						17
							10
-61.2	36.0				JAR-17	B.O.H.	15

ENG FORM 1836-A (Facsimile)	PROJECT MOBILE HARBOR TURNING BASIN MOBILE HARBOR	HOLE NO. 29-D301-06

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
2. LOCATION (Coordinates or Station): N 240113' E 1801756'
3. DRILLING AGENCY: MOBILE DISTRICT / EA ENGINEERING
4. HOLE NO. (As shown on drawing title and file number): 30-D301-06
5. NAME OF DRILLER: E WOODS
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED DEG. FROM VERTICAL
7. THICKNESS OF OVERBURDEN: -
8. DEPTH DRILLED INTO ROCK: -
9. TOTAL DEPTH OF HOLE: 36.0'
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 12 UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: 0
15. ELEVATION GROUNDWATER: N/A
16. DATE HOLE: STARTED 5 OCT 2006 COMPLETED 5 OCT 2006
17. ELEVATION TOP OF HOLE: EL. -25.3'
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
					JAR-1	BOH: 36.5' 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 SILTY SAND (SP-SM), GRAY	WR
	6.0		LOOSE SILTY FINE GRAIN SAND (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						

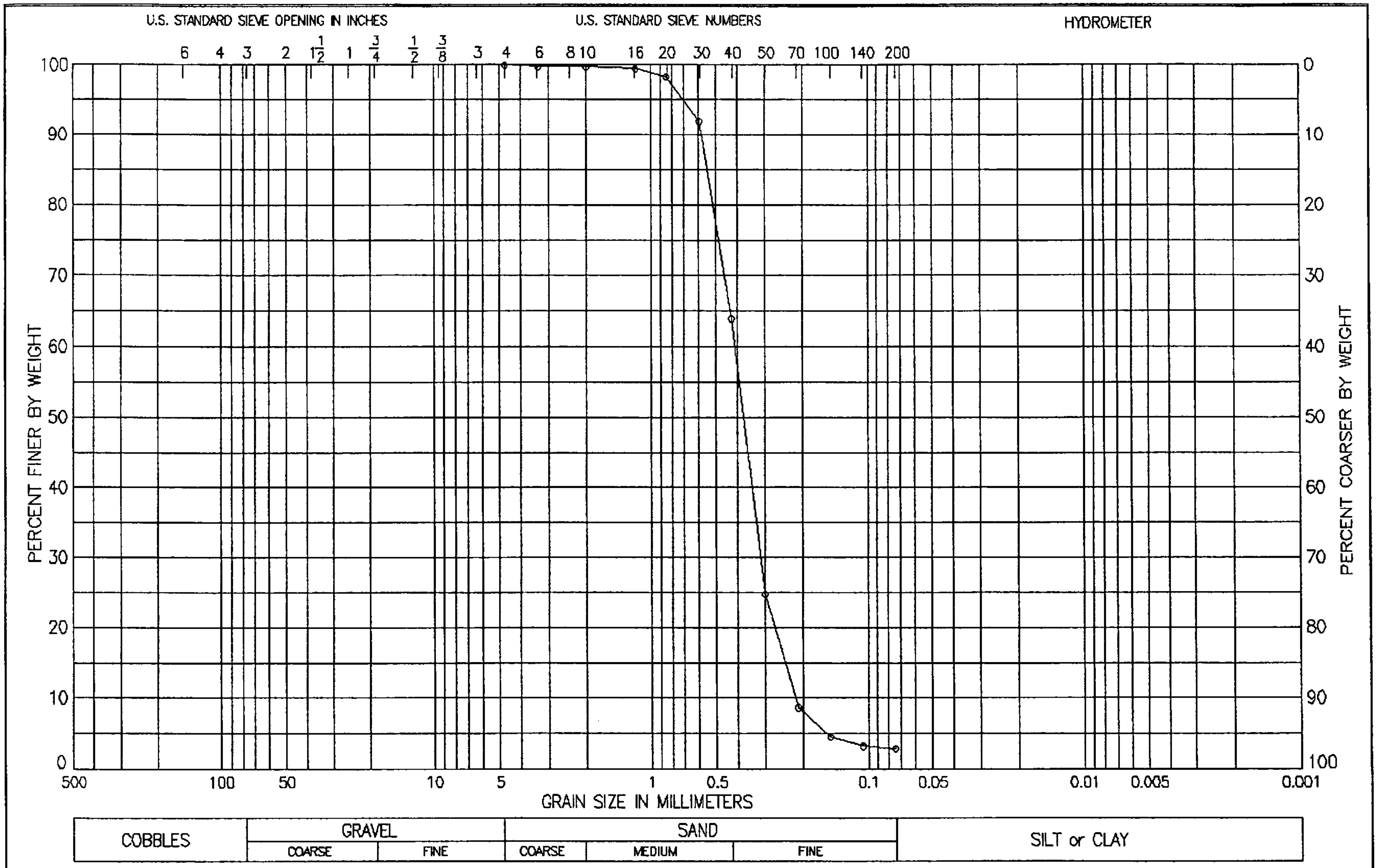
ENG FORM 1836 (Facsimile)

PROJECT: MOBILE HARBOR TURNING BASIN MOBILE HARBOR

HOLE NO. 30-D301-06

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		SOFT SILTY MATERIAL (MH), DK. GRAY		☒		WR
					JAR-9		WR
	27.0				☒		WR
-54.3	29.0						
			SILTY FINE GRAIN SAND (SM), GRAY		JAR-10		3
-55.3	30.0						
			POORLY GRADED MED. GRAIN SAND (SP), LT. YELLOW		JAR-11		4
					☒		2
-58.3	33.0						
		☒	NO SAMPLE				
-59.8	34.5						
			POORLY GRADED FINE-MED. GRAIN SAND (SP), LT. YELLOW		JAR-12		30
-61.3	36.0					B.O.H.	



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

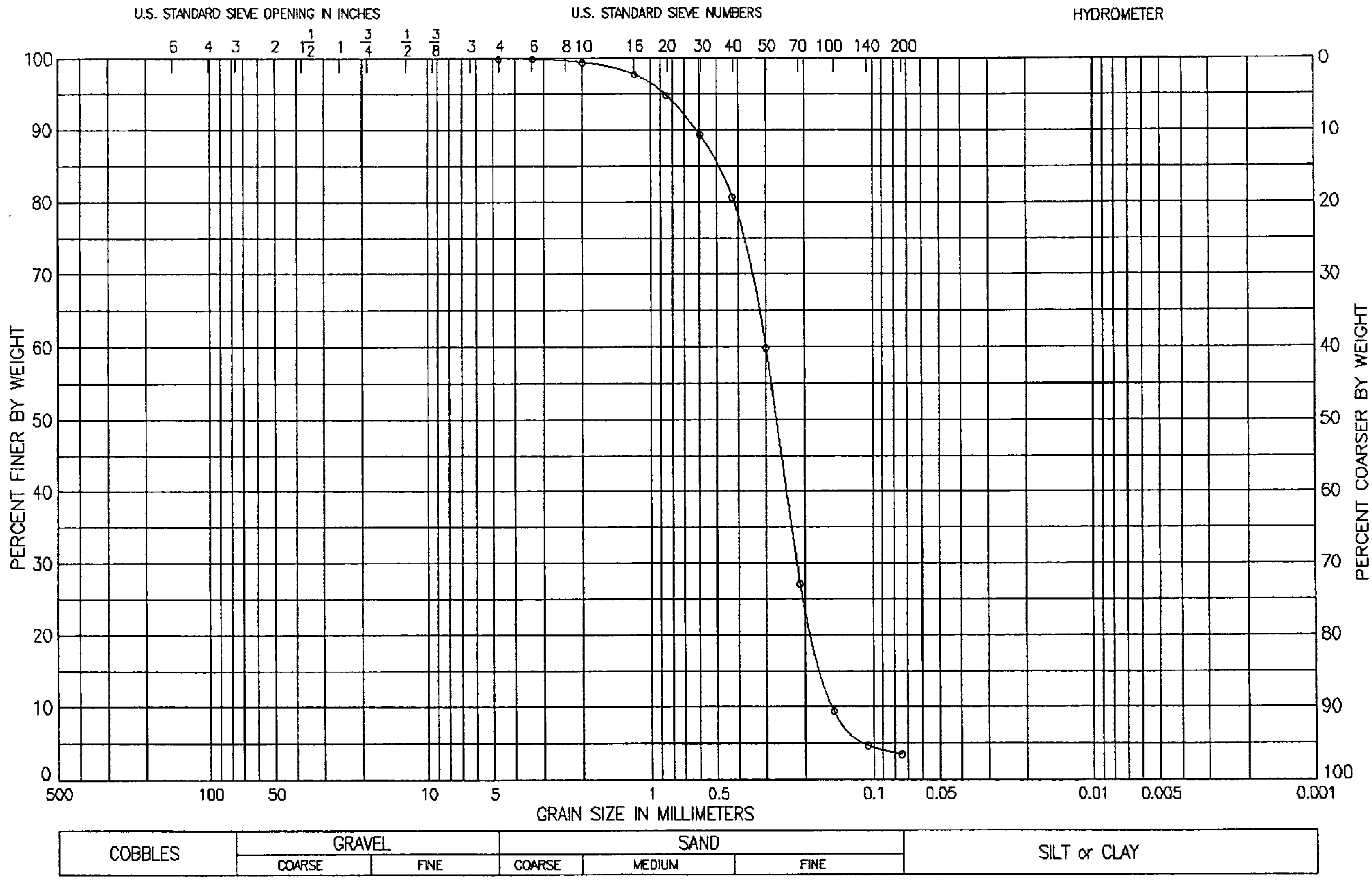
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 1-D301-06 SAMPLE NO. 9

DEPTH/ELEV 22.5-24.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

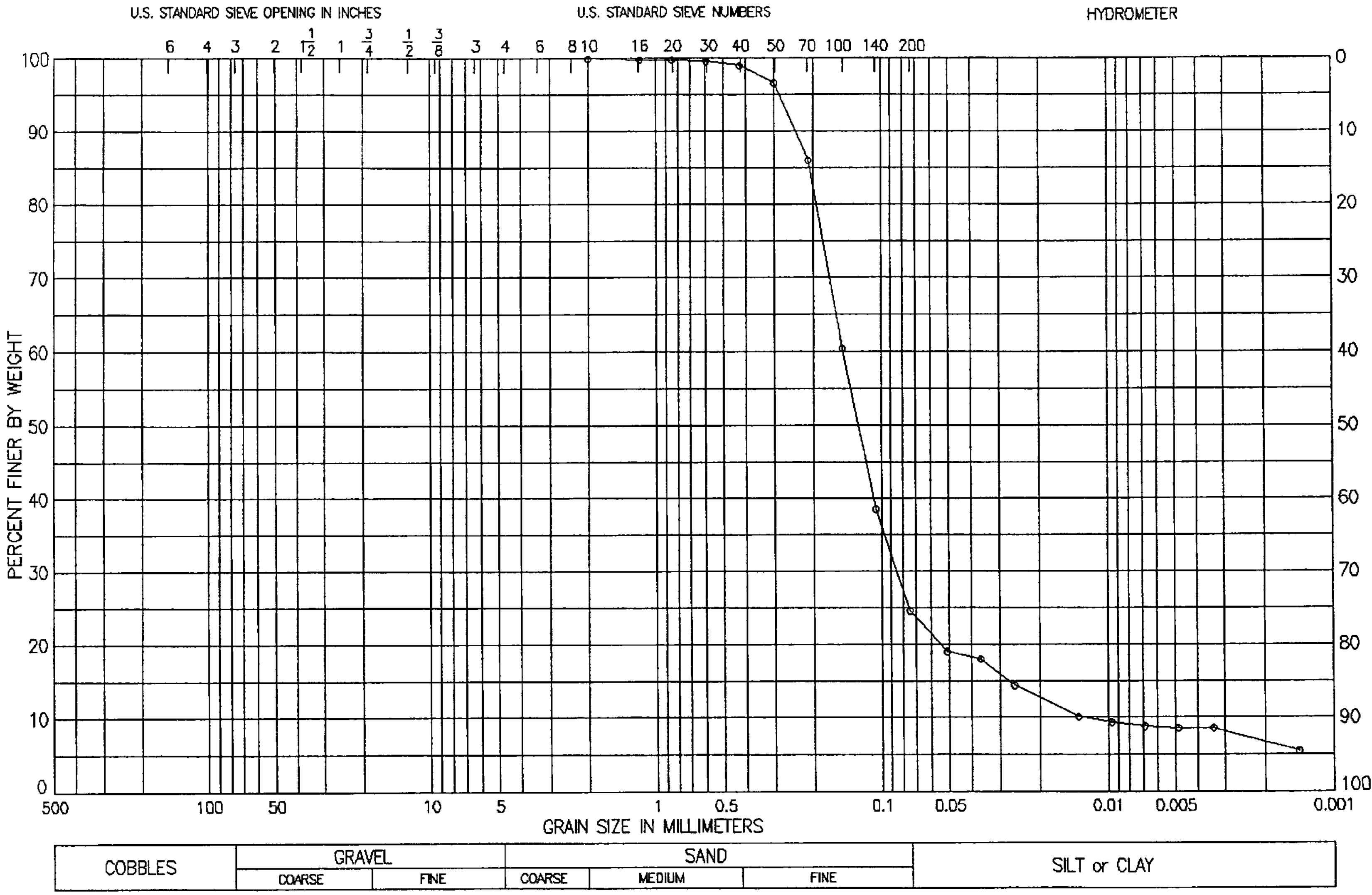
PROJECT MOBILE HARBOR TURNING BASIN

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 NP	PL	PI	GS 2.68 EST	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SM), GRAY

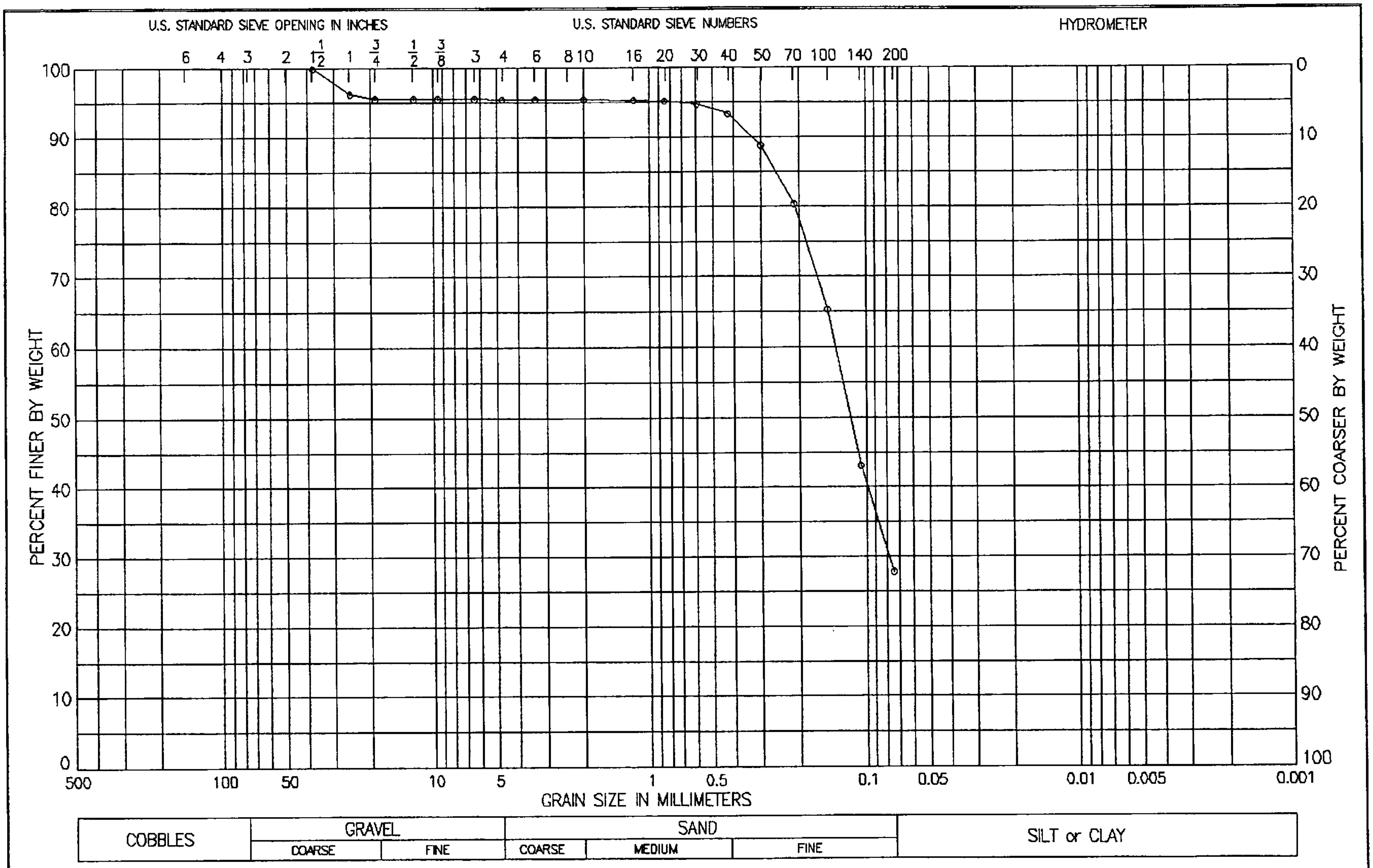
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 1

DEPTH/ELEV 8.0-11.0 DATE 13 NOV 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

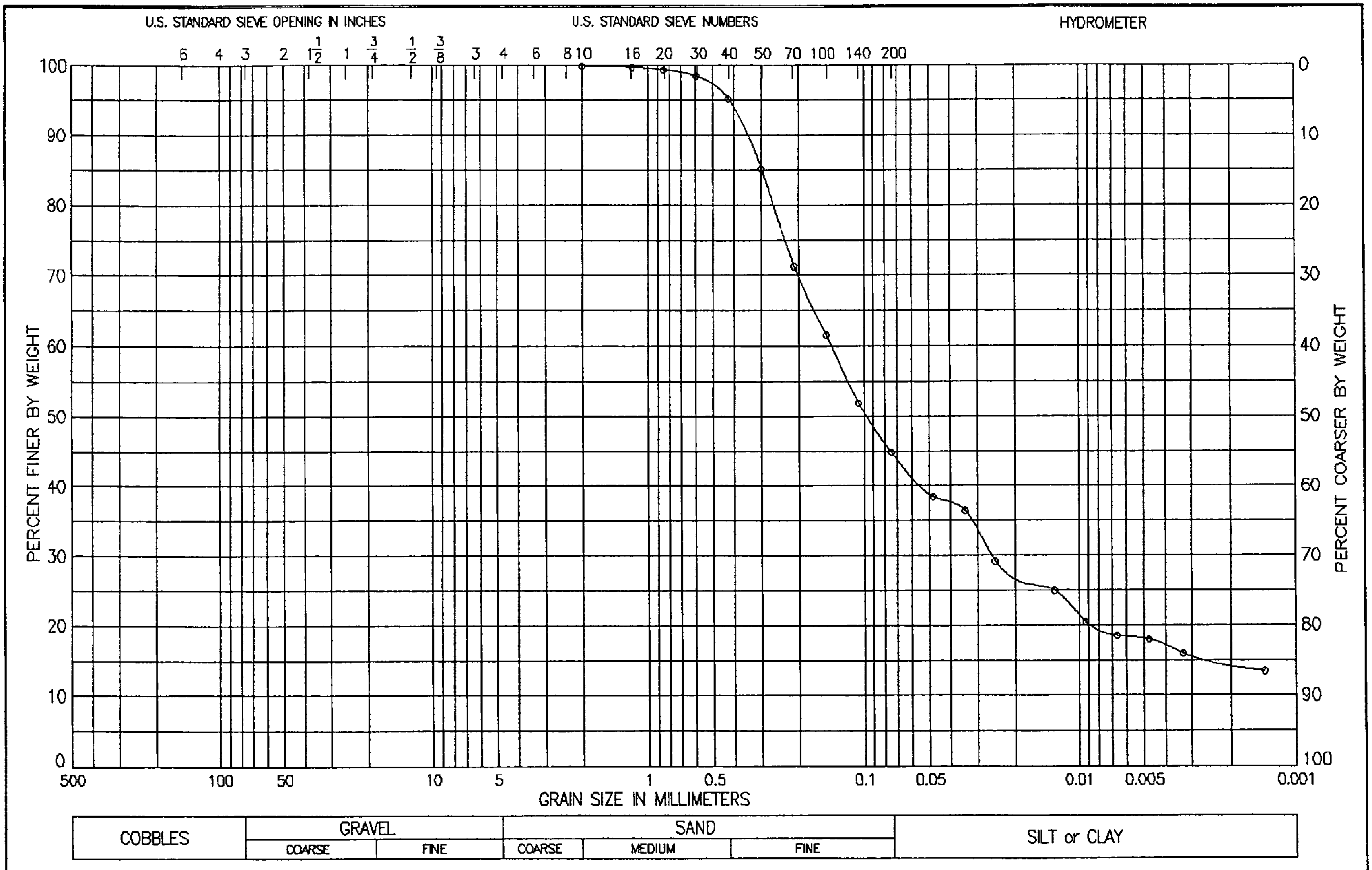
CLASSIFICATION
SILTY SAND (SM), GRAY; TRACE OF GRAVEL VISUAL
INSUFFICIENT SAMPLE FOR ACCURATE GRADATION

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 2
DEPTH/ELEV 12.5-15.0 DATE 13 NOV 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL NP	PL	PI	GS 2.68 EST	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SM), GRAY

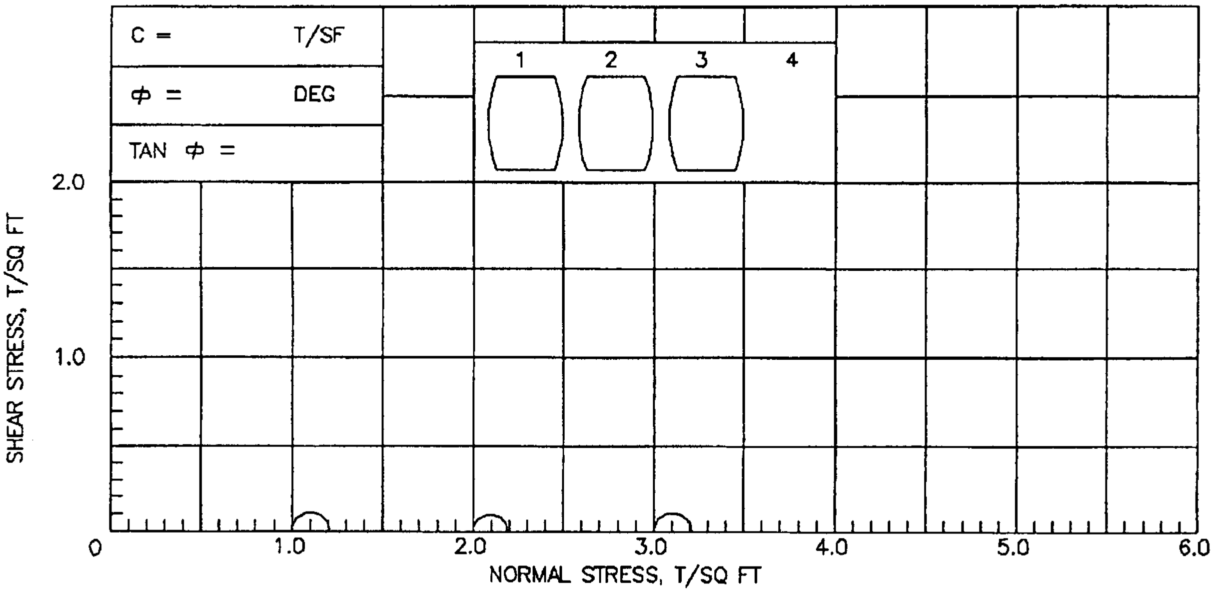
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 3

DEPTH/ELEV 17.0-20.0 DATE 13 NOV 06

GRADATION CURVE

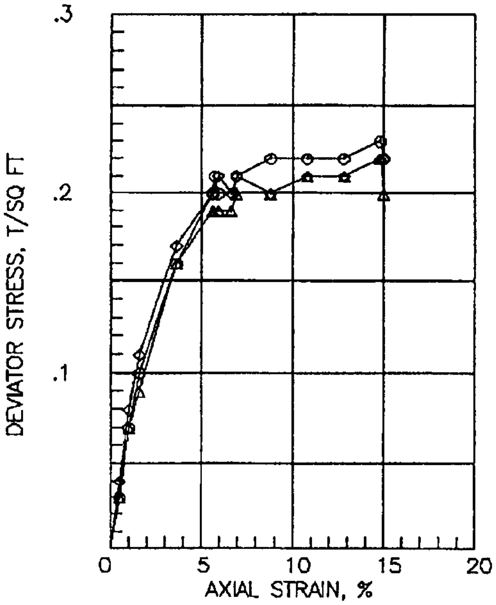
LABORATORY USA ERDC - STF/GSL



C = T/SF

⌽ = DEG

TAN ⌽ =



	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

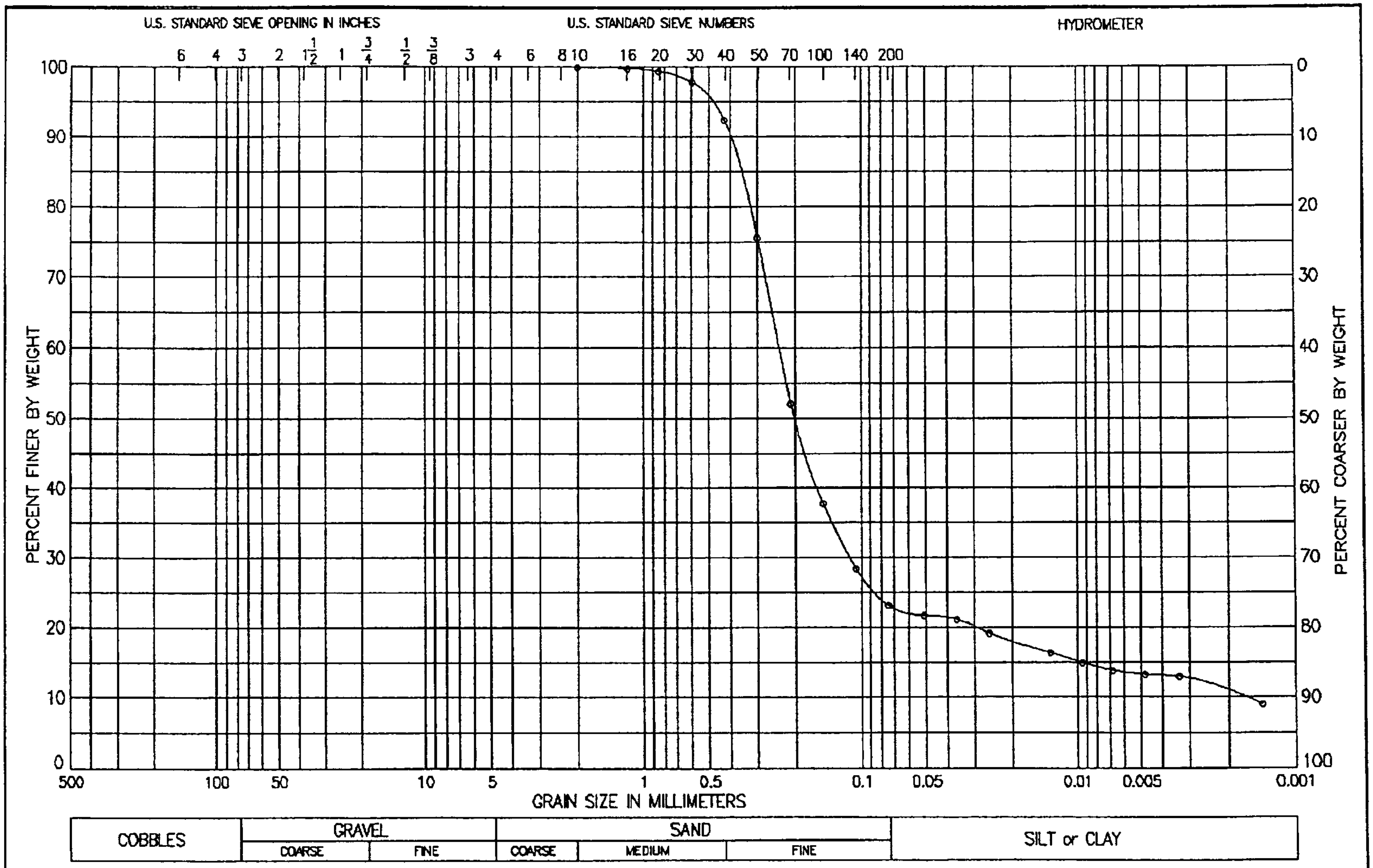
DEPTH/ELEV 17.0–20.0

TECH. CEC

LABORATORY USAE WES – STF/GL

DATE 11–3–06

TRIAXIAL COMPRESSION TEST REPORT



LL NP	PL	PI	GS 2.68 EST	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SM), GRAY

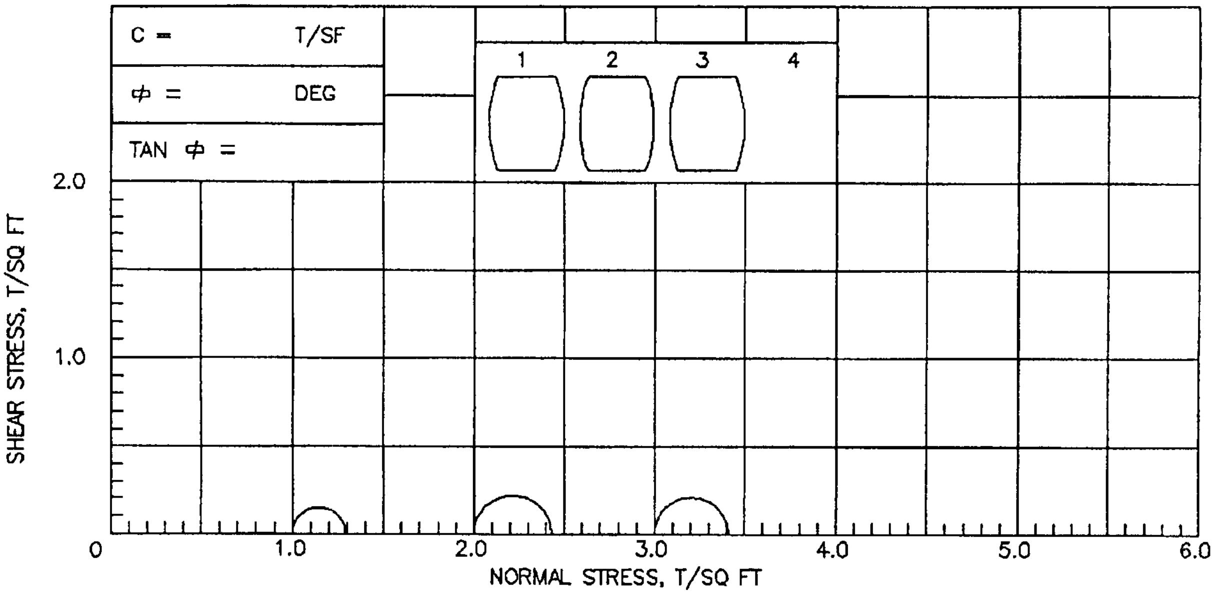
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. TUBE 4

DEPTH/ELEV 24.0-27.0 DATE 13 NOV 06

GRADATION CURVE

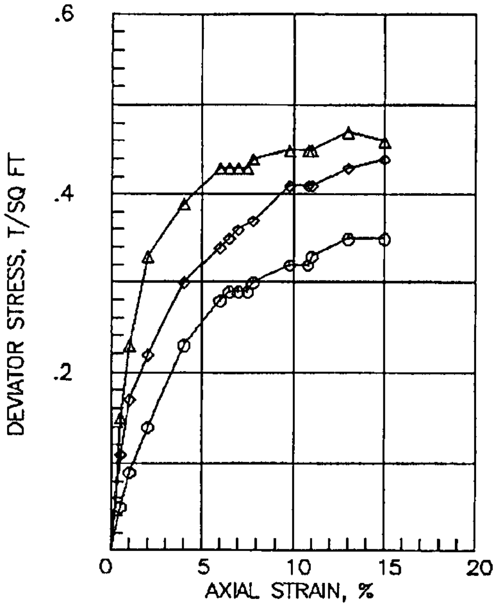
LABORATORY USA ERDC – STF/GSL



C = T/SF

ɸ = DEG

TAN ɸ =



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

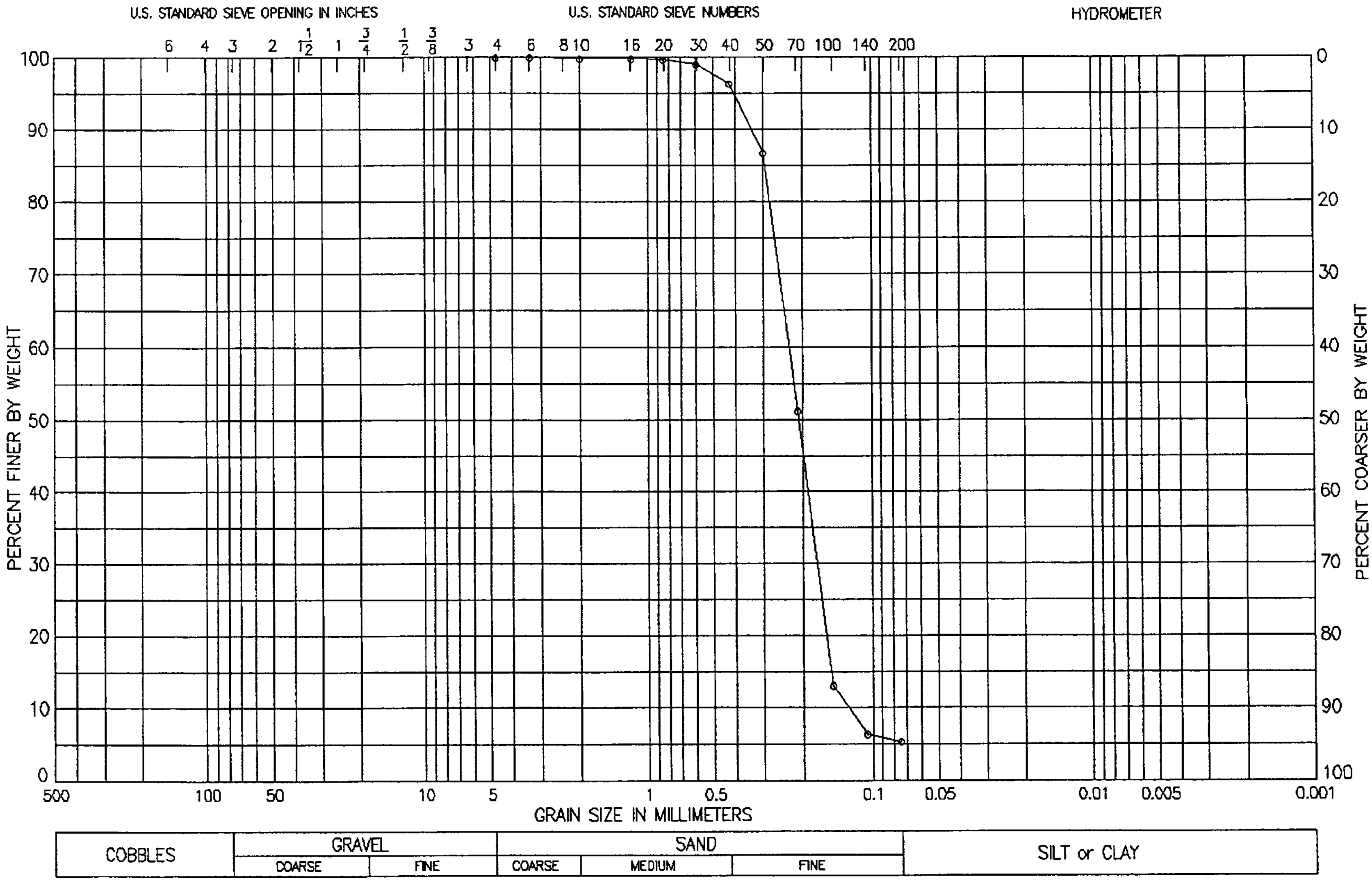
REMARKS:

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

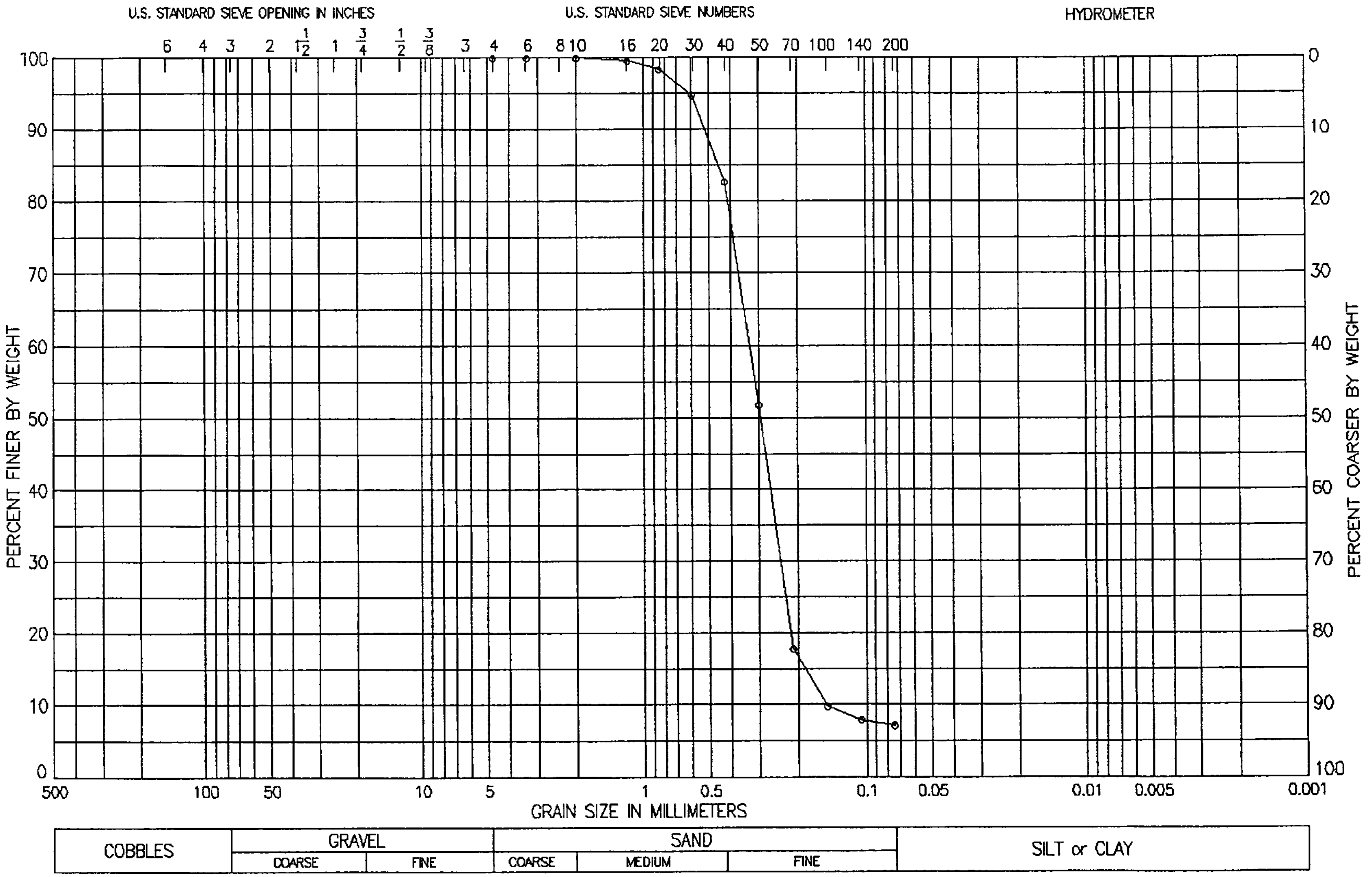
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 5-D301-06 SAMPLE NO. 1

DEPTH/ELEV 34.5-36.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SP-SM), GRAY VISUAL

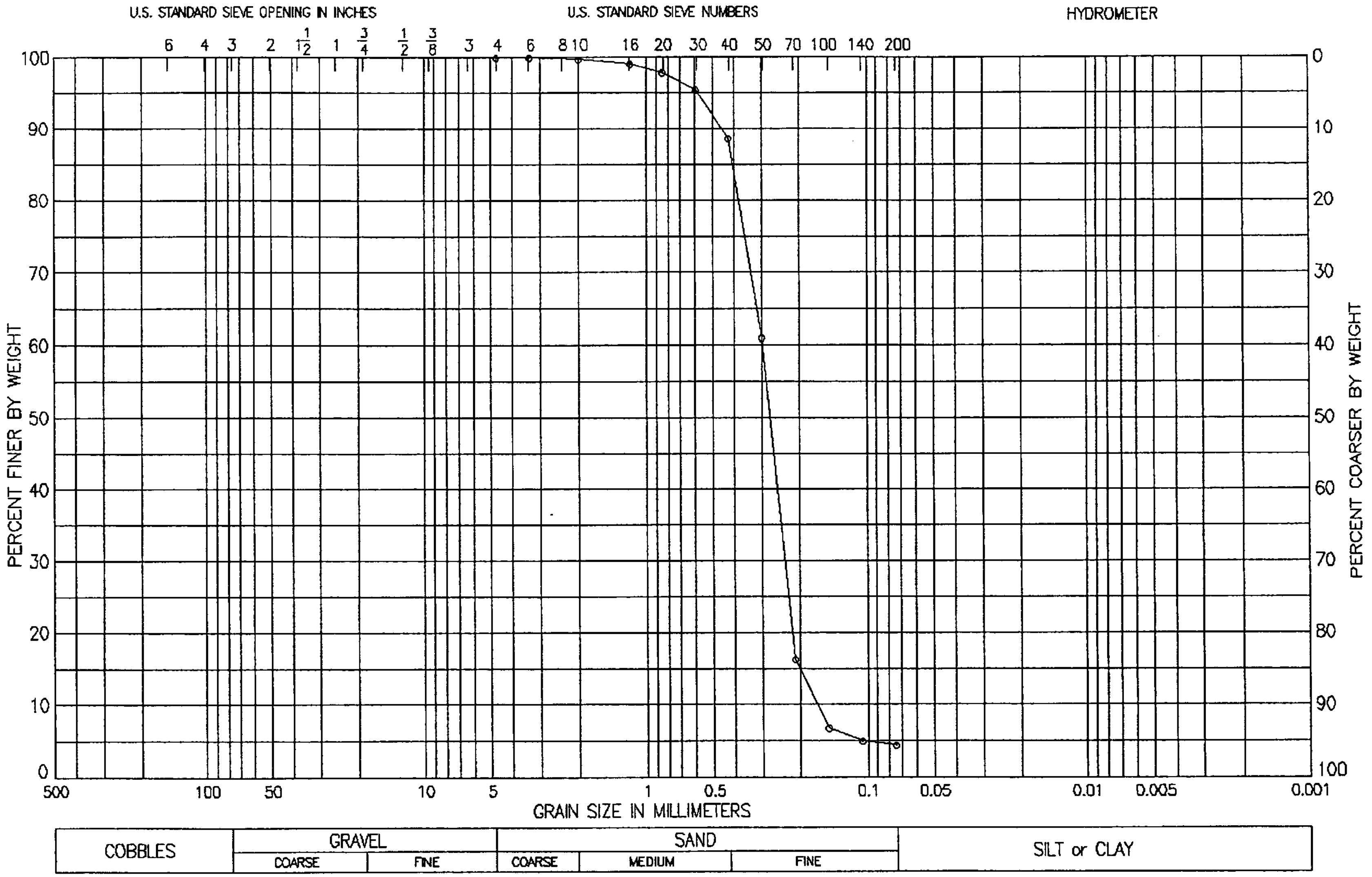
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 7-D301-06 SAMPLE NO. 5

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

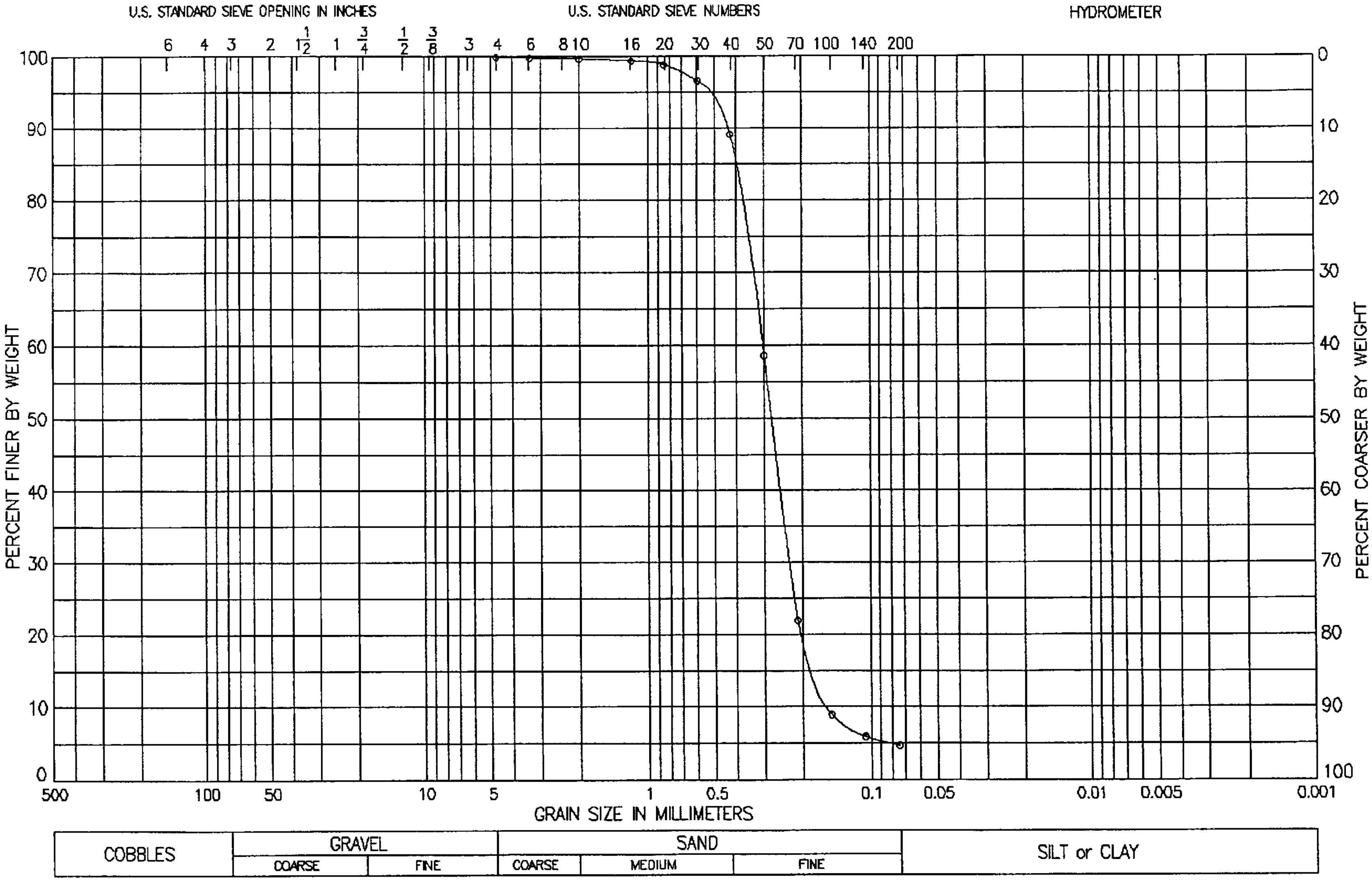
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 7-D301-06 SAMPLE NO. 6

DEPTH/ELEV 15.0-16.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

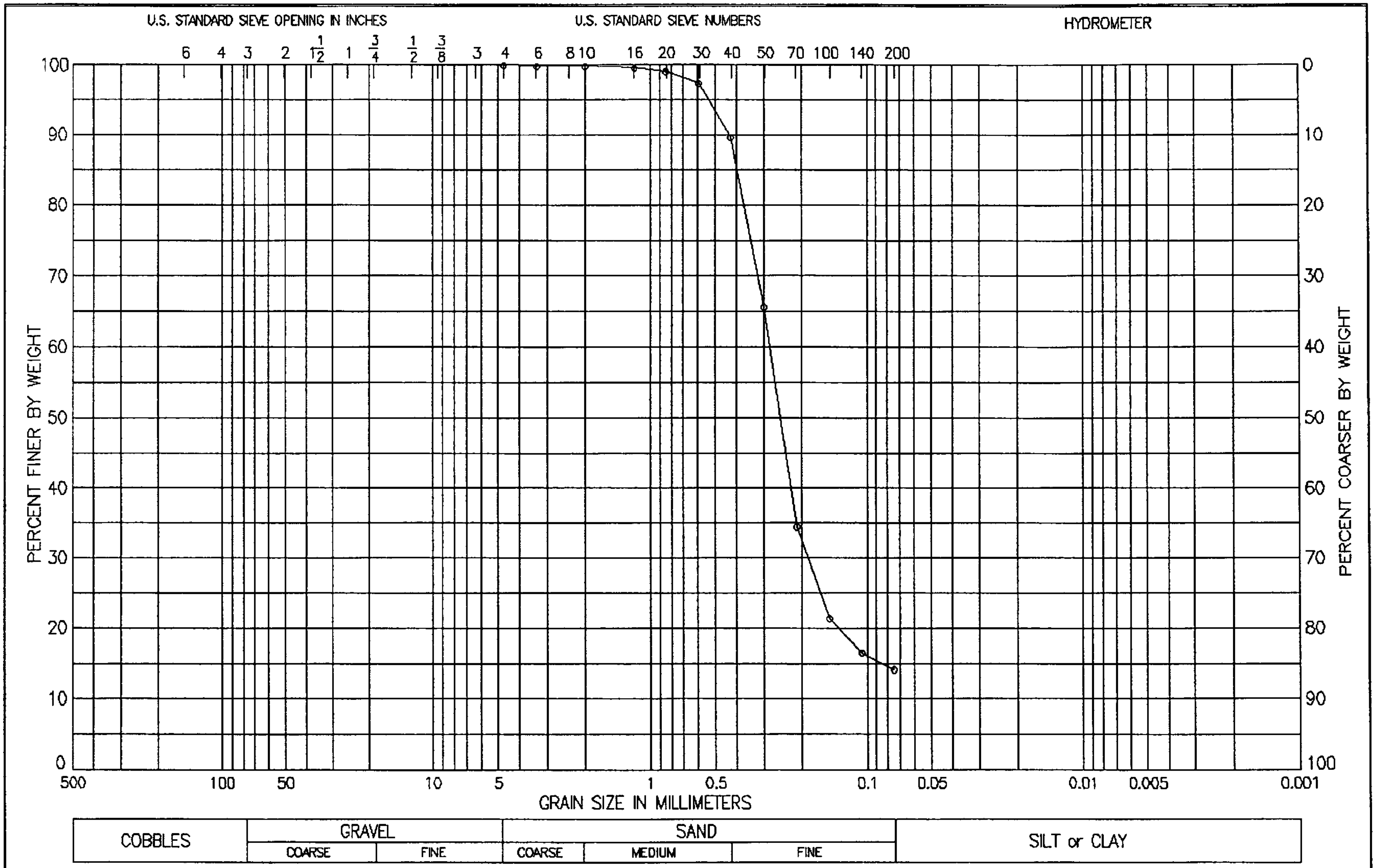
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 9-D301-06 SAMPLE NO. 8

DEPTH/ELEV 19.5-21.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

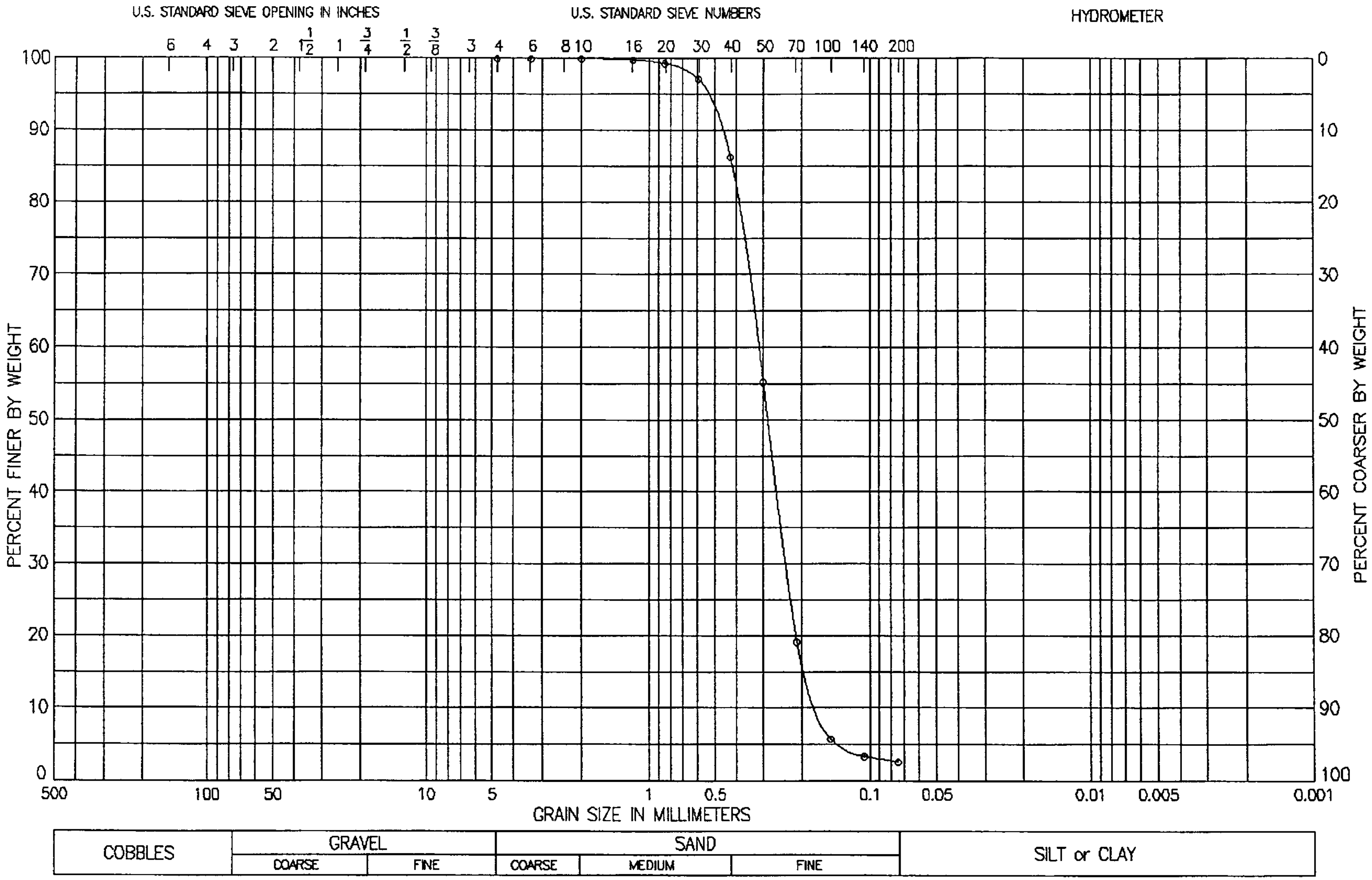
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 11-D301-06 SAMPLE NO. 11

DEPTH/ELEV 28.5-30.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

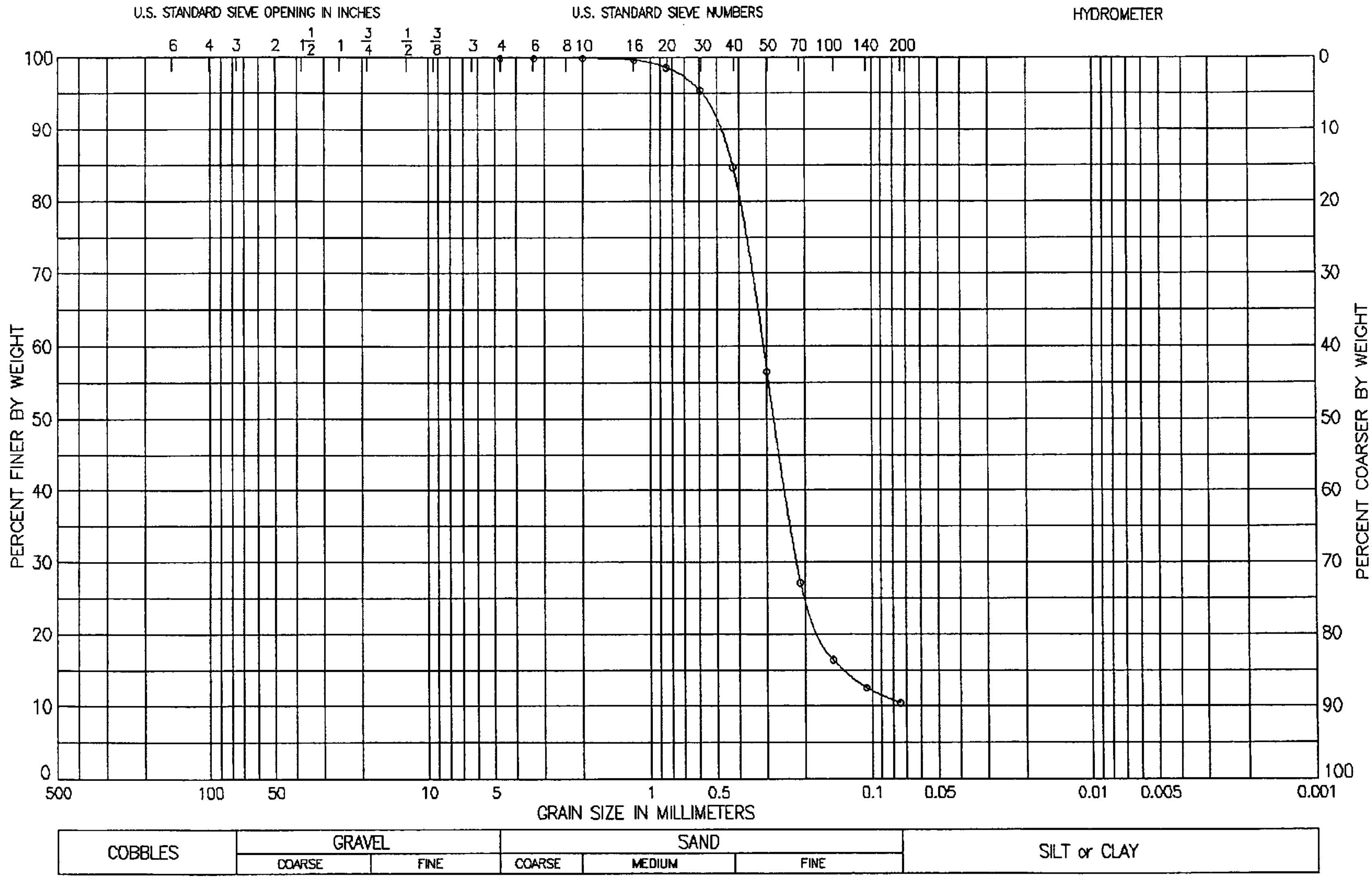
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 11-D301-06 SAMPLE NO. 14

DEPTH/ELEV 35.0-36.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SP–SM), GRAY VISUAL

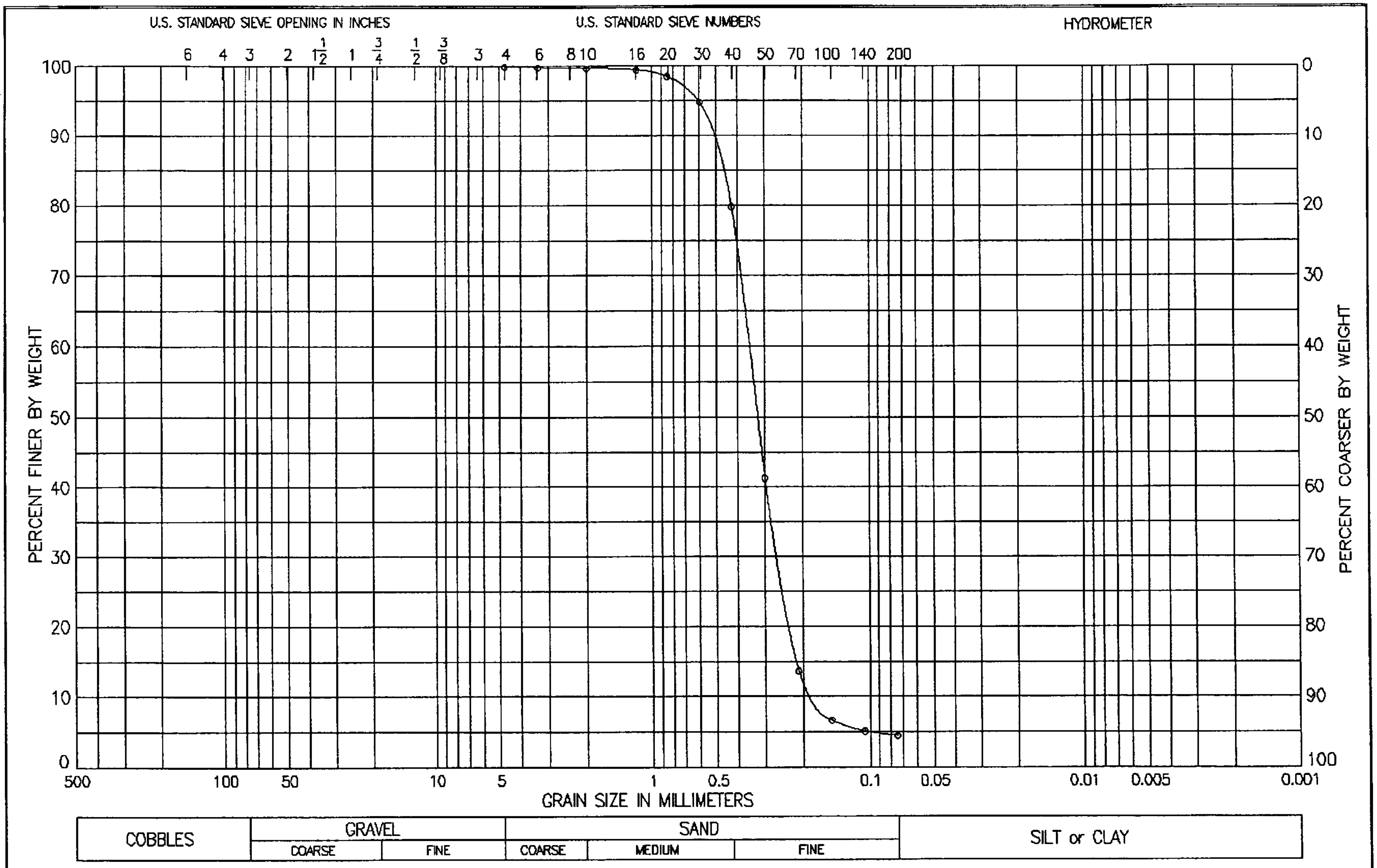
PROJECT MOBILE HARBOR TURNING BASIN

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

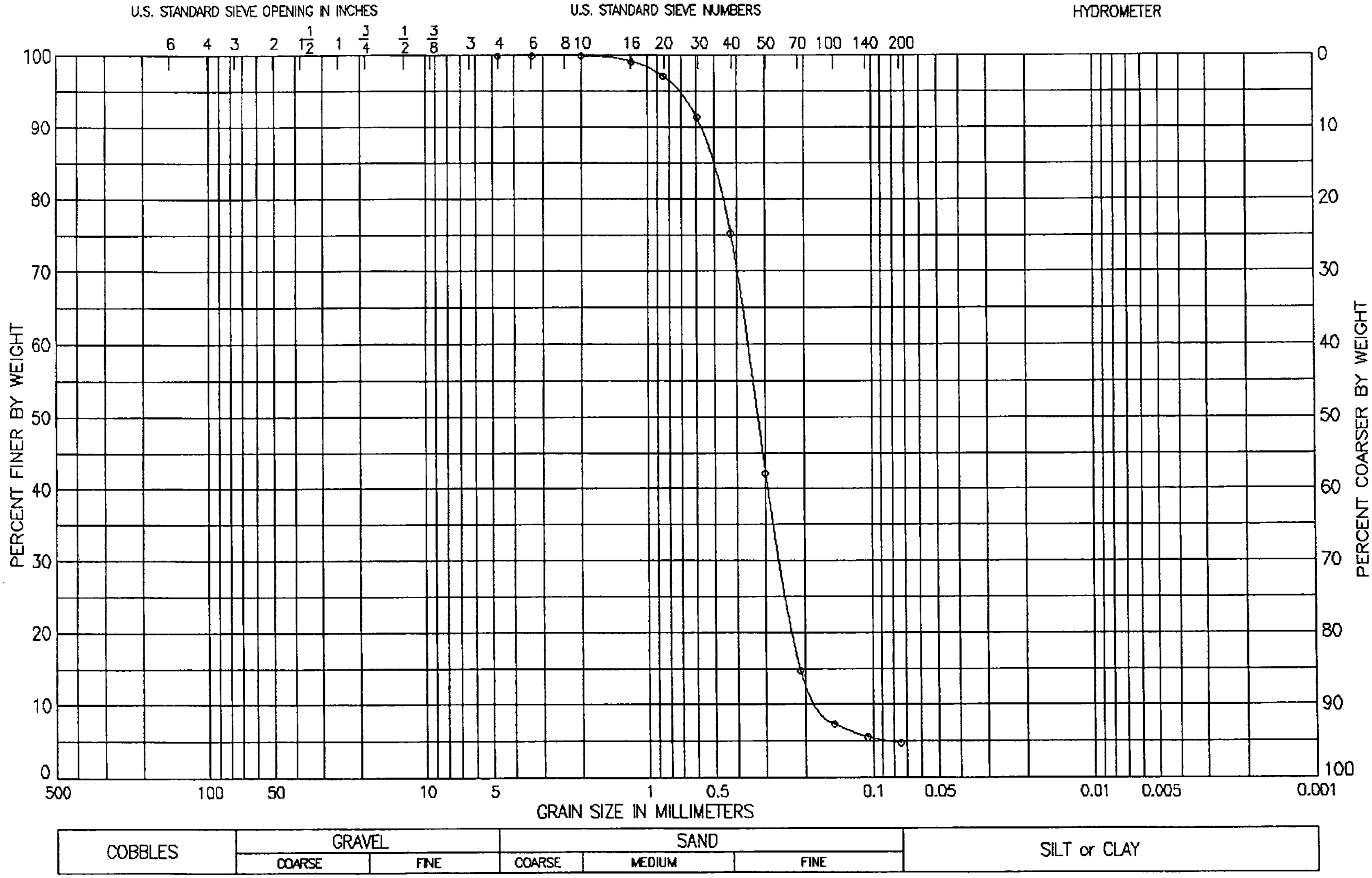
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 14-D301-06 SAMPLE NO. 11

DEPTH/ELEV 30.0-31.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL

PL

PI

GS

NAT W,%

ORG,%

CLASSIFICATION
SAND (SP), BROWN

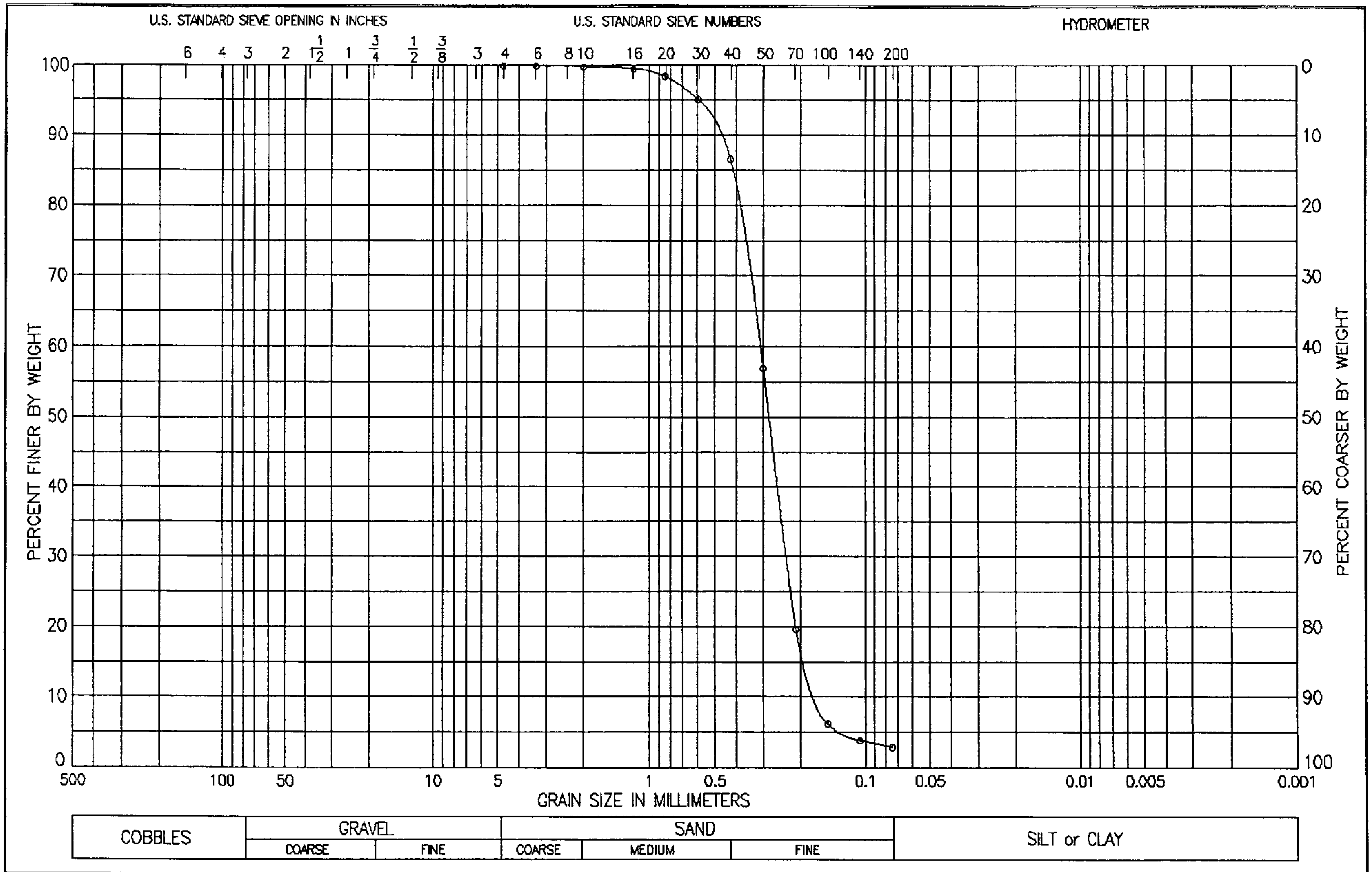
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 15-D301-06 SAMPLE NO. 11

DEPTH/ELEV 30.0-31.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SAND (SP), GRAY

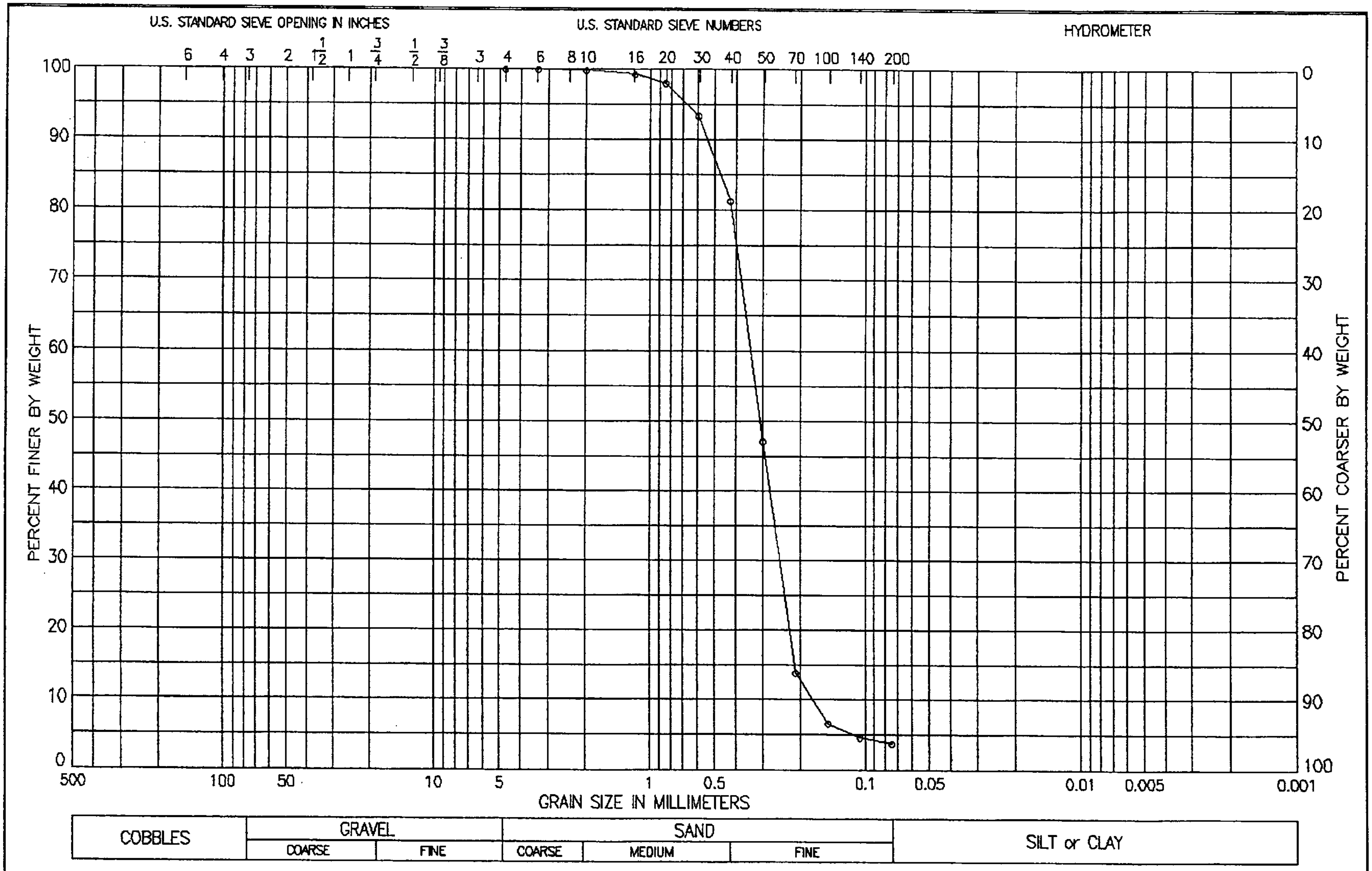
GRADATION CURVE

LABORATORY USA ERDC – STF/GSL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 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

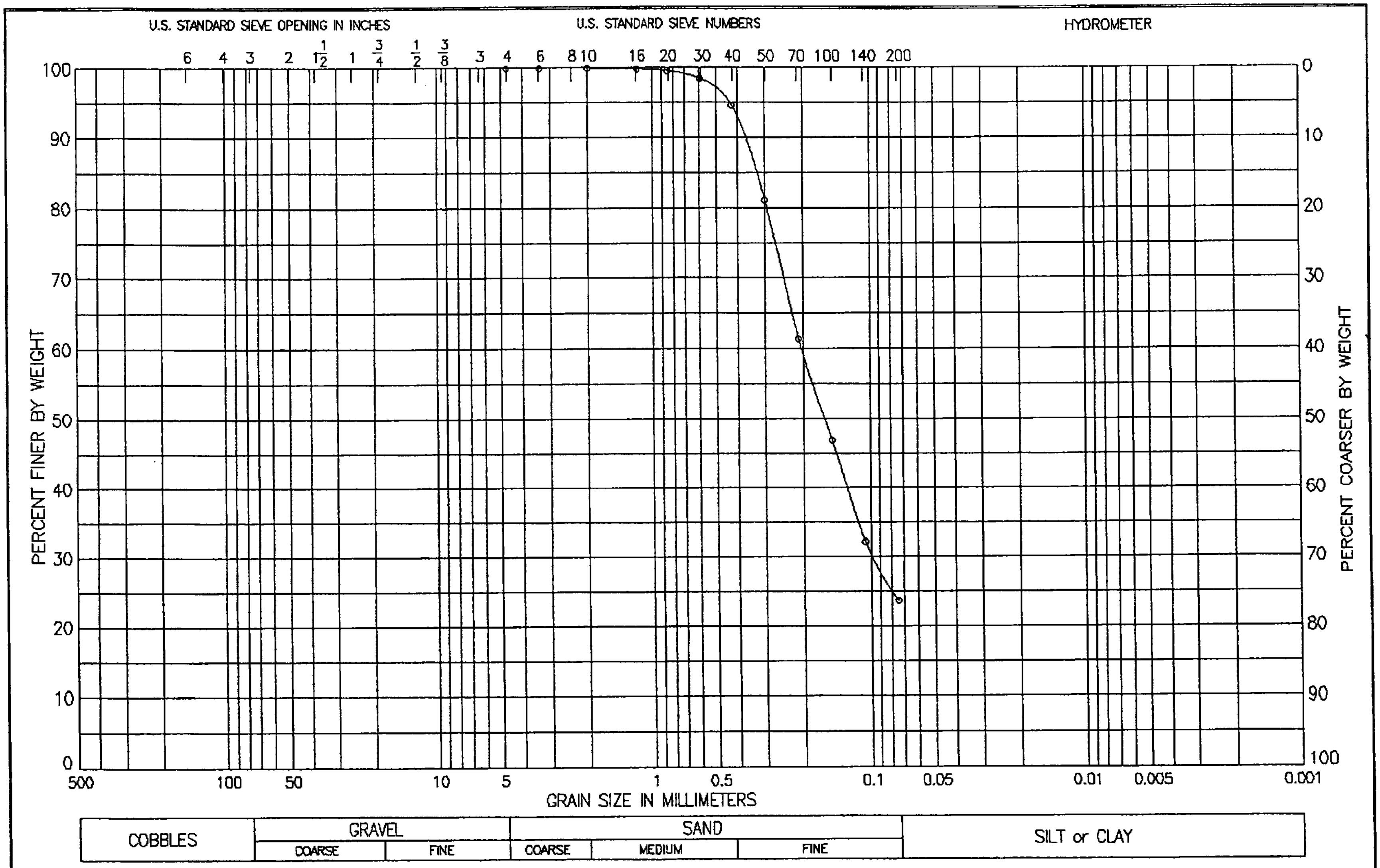
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 18-D301-06 SAMPLE NO. 11

DEPTH/ELEV 30.0-31.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

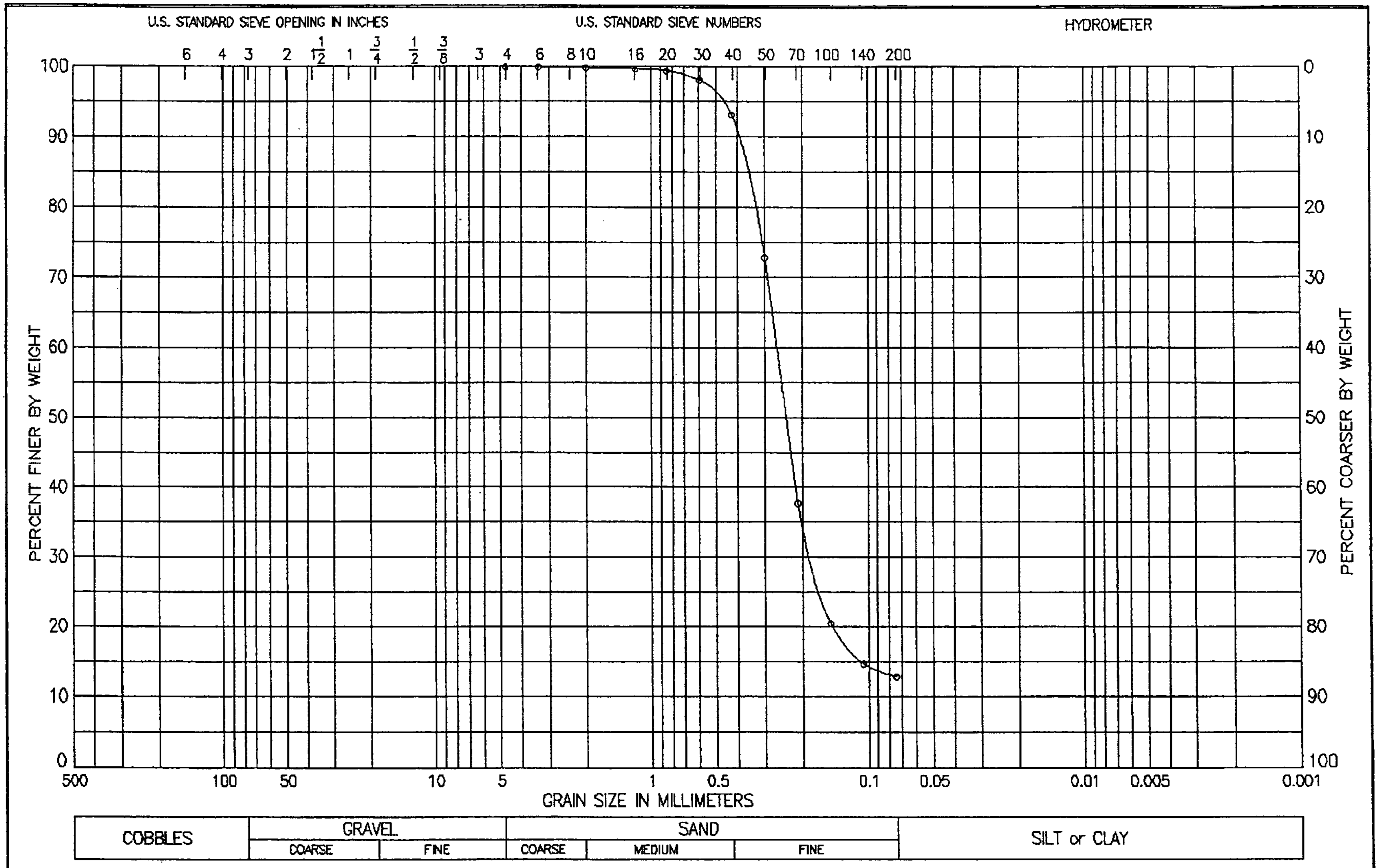
CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

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,%

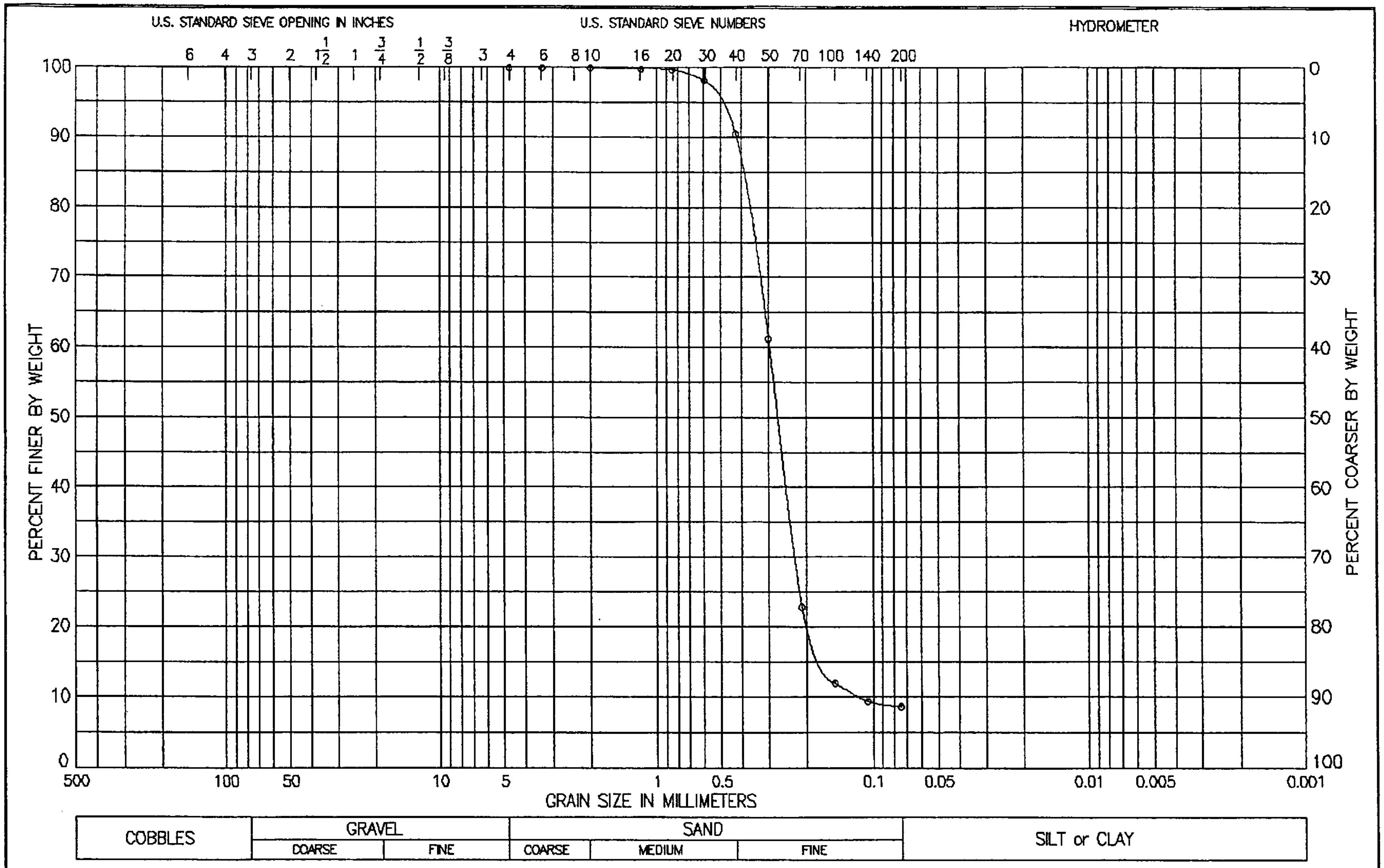
CLASSIFICATION
SILTY SAND (SM), GRAY VISUAL

PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 25-D301-06 SAMPLE NO. 3
DEPTH/ELEV 6.0-7.5 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SILTY SAND (SP–SM), GRAY VISUAL

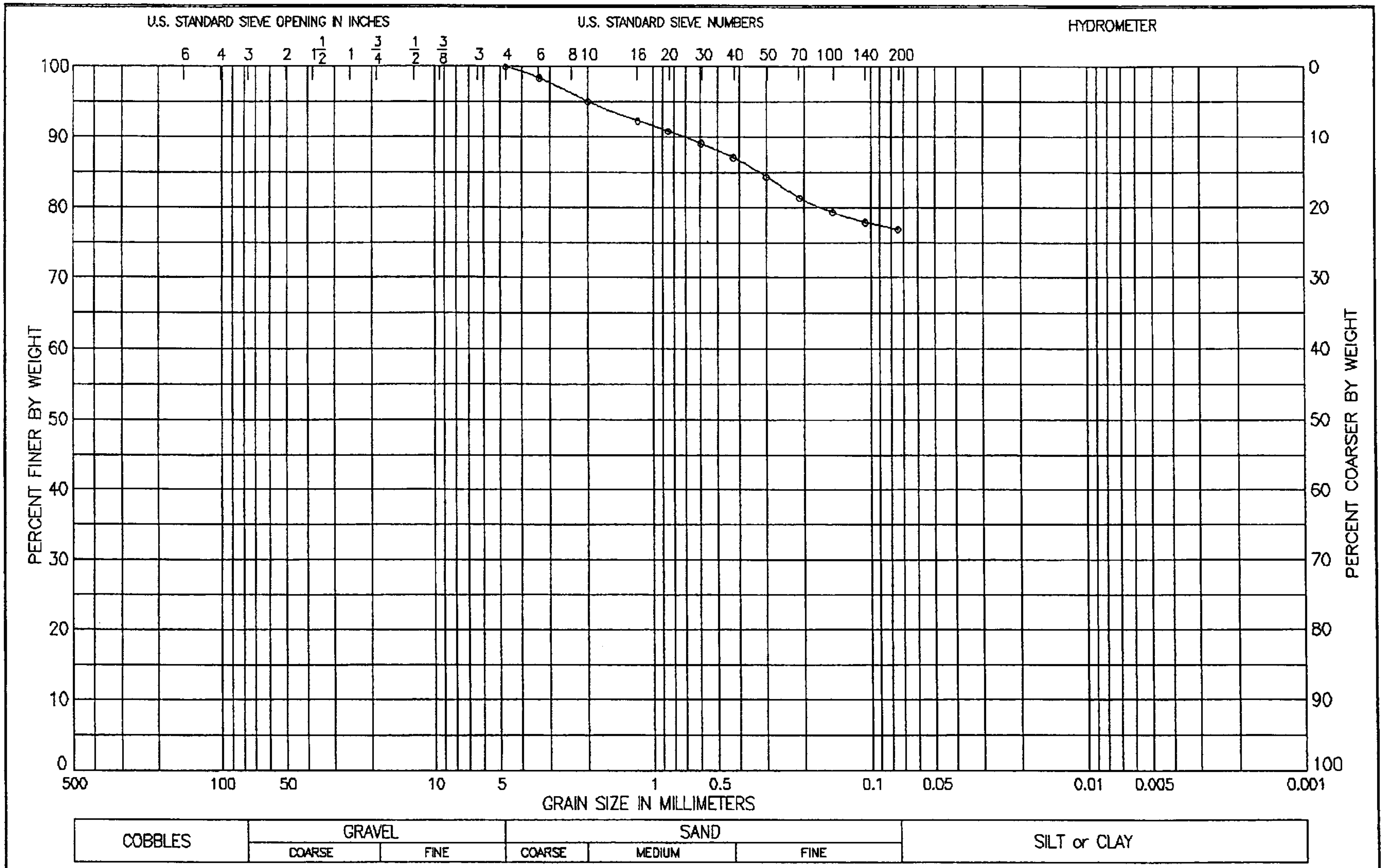
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 30–D301–06 SAMPLE NO. 2

DEPTH/ELEV 4.5–6.0 DATE 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC – STF/GSL



LL	PL	PI	GS	NAT W,%	ORG,%

CLASSIFICATION
SANDY CLAY (CL), GRAY VISUAL

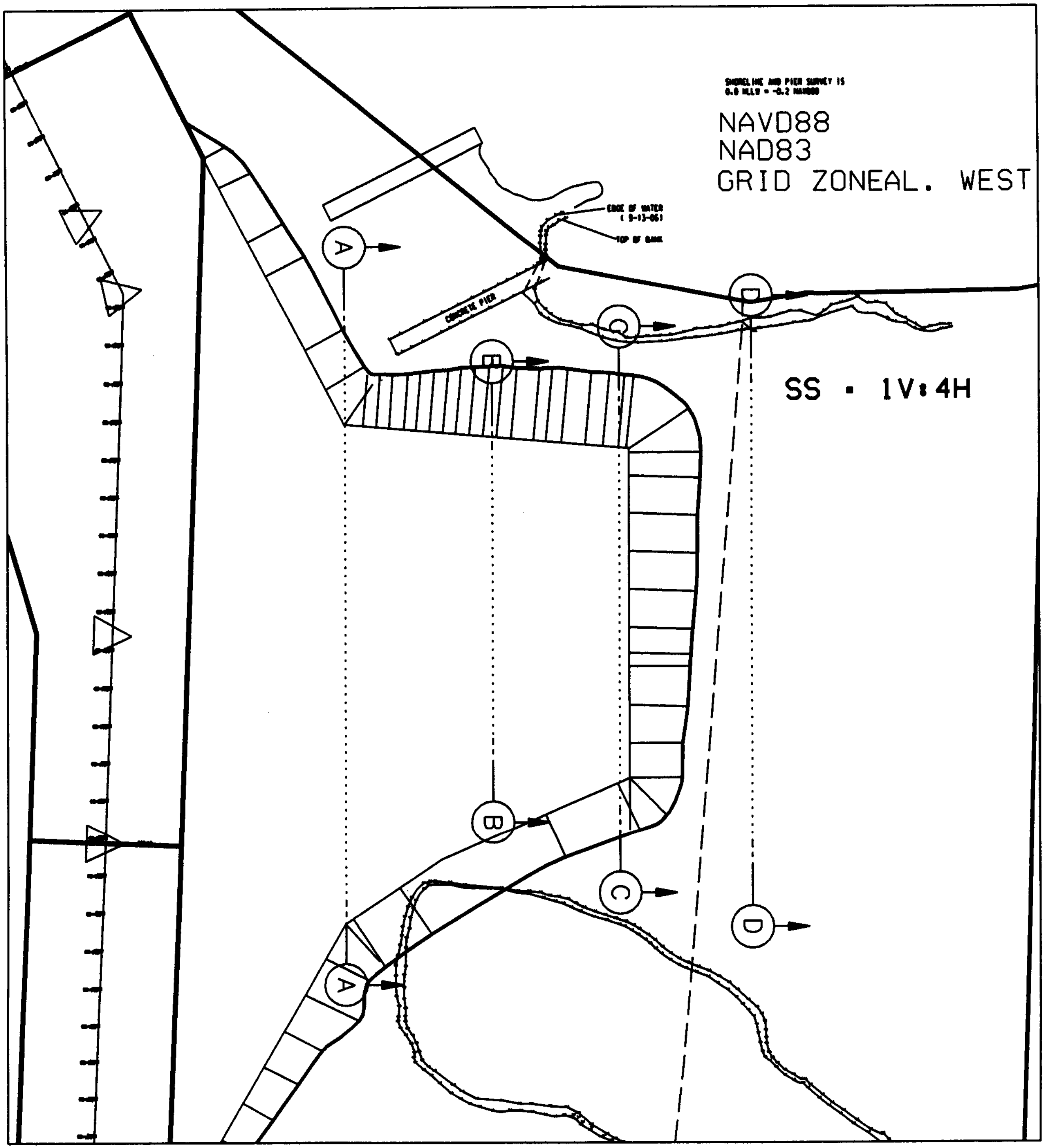
PROJECT MOBILE HARBOR TURNING BASIN

BORING NO. 30-D301-06 SAMPLE NO. 6

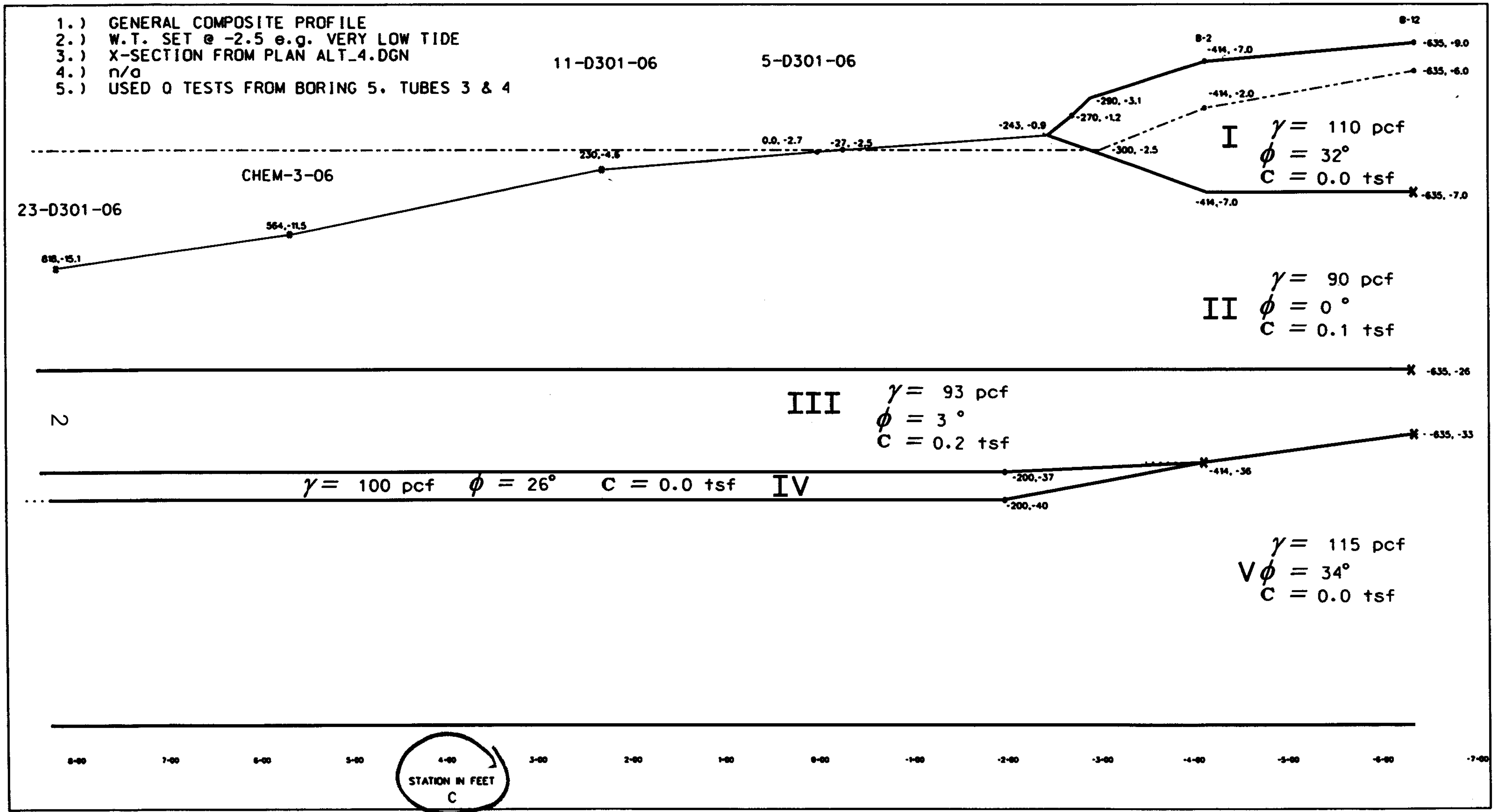
DEPTH/ELEV . 16.5-18.0 DATE . 31 OCT 06

GRADATION CURVE

LABORATORY USA ERDC - STF/GSL

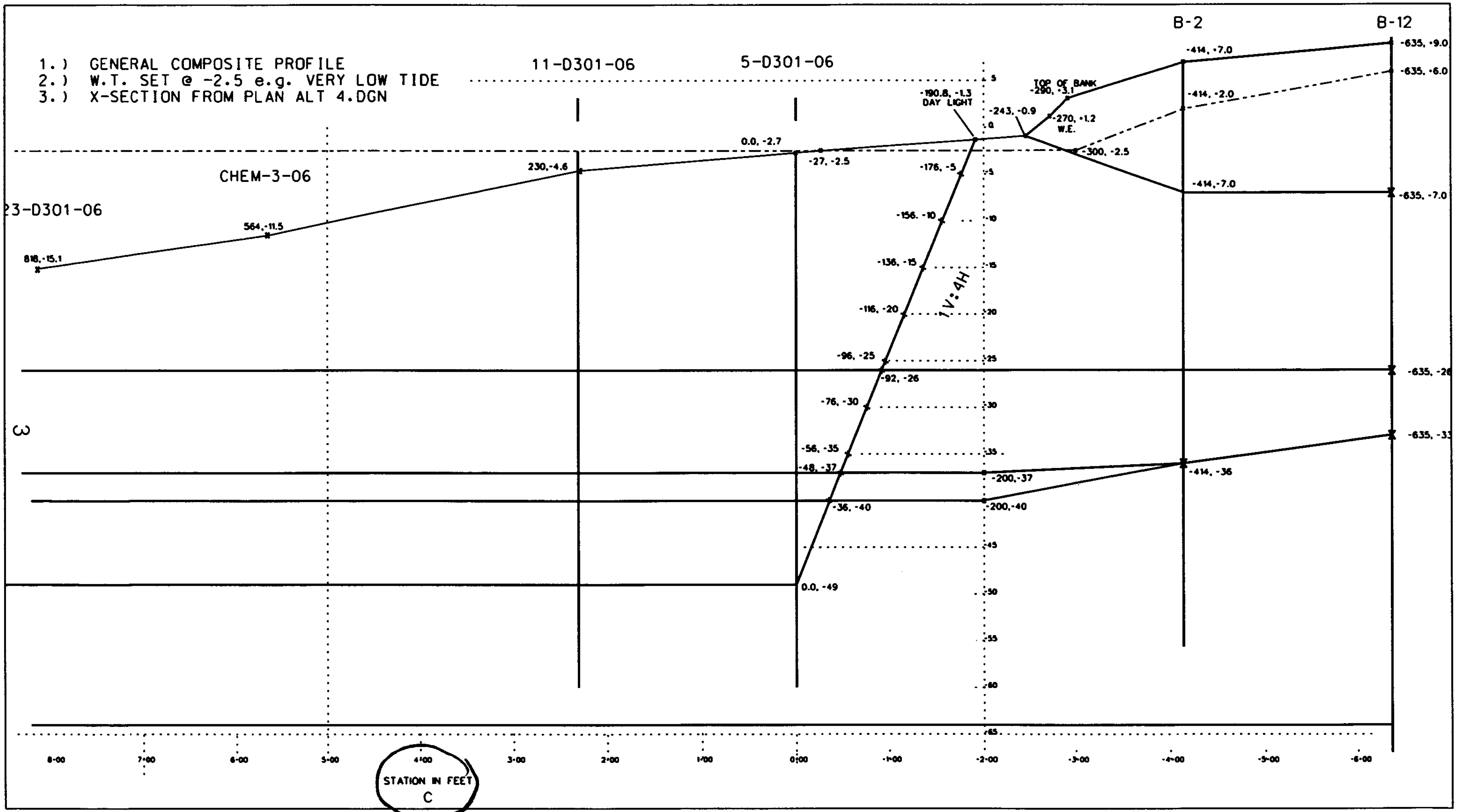


POST-LAB UTEXAS PROFILE 1on4.dgn 12/28/2006 8:15:14 AM

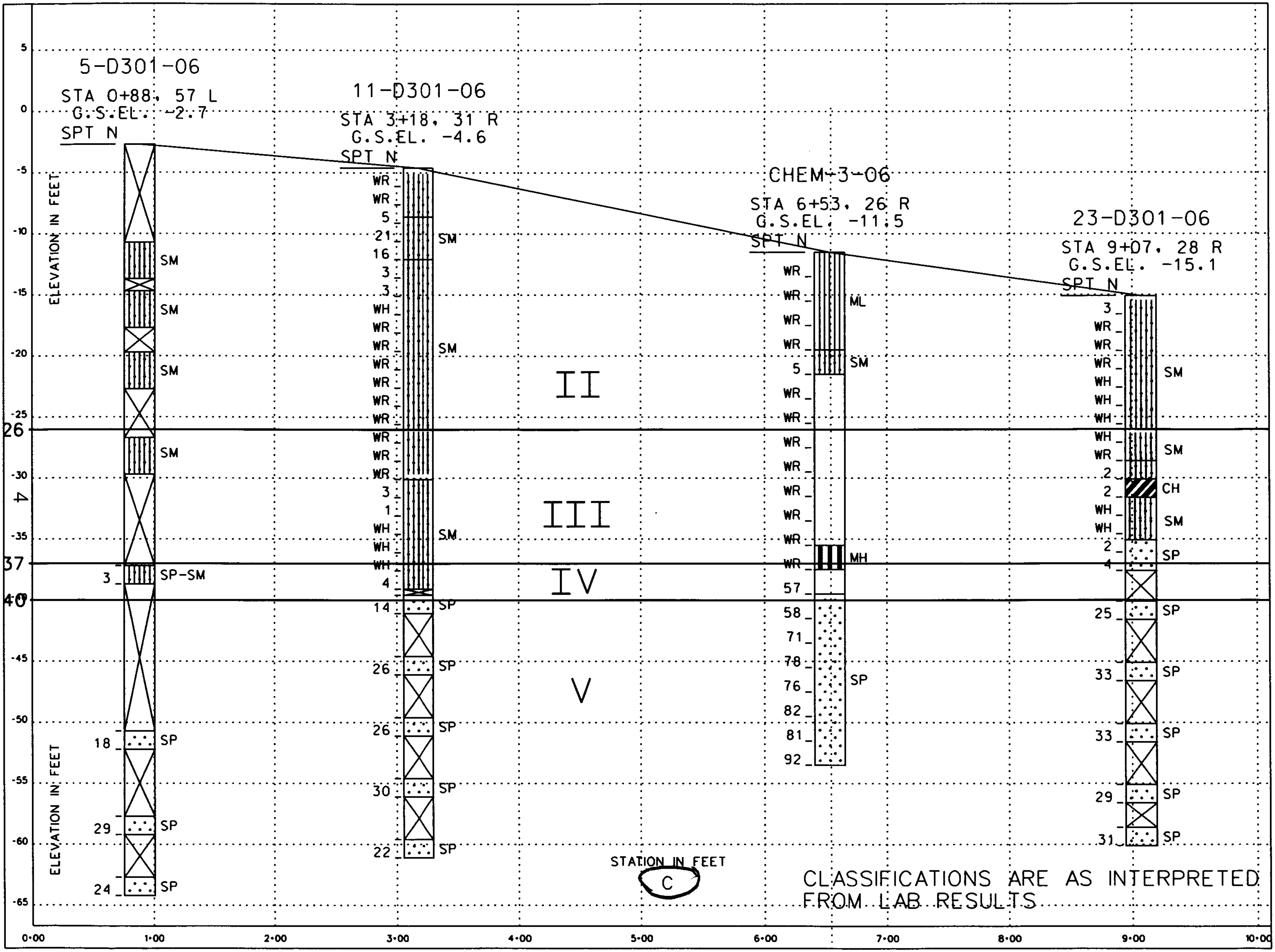


1.) GENERAL COMPOSITE PROFILE
2.) W.T. SET @ -2.5 e.g. VERY LOW TIDE
3.) X-SECTION FROM PLAN ALT_4.DGN
4.) n/a
5.) USED Q TESTS FROM BORING 5. TUBES 3 & 4

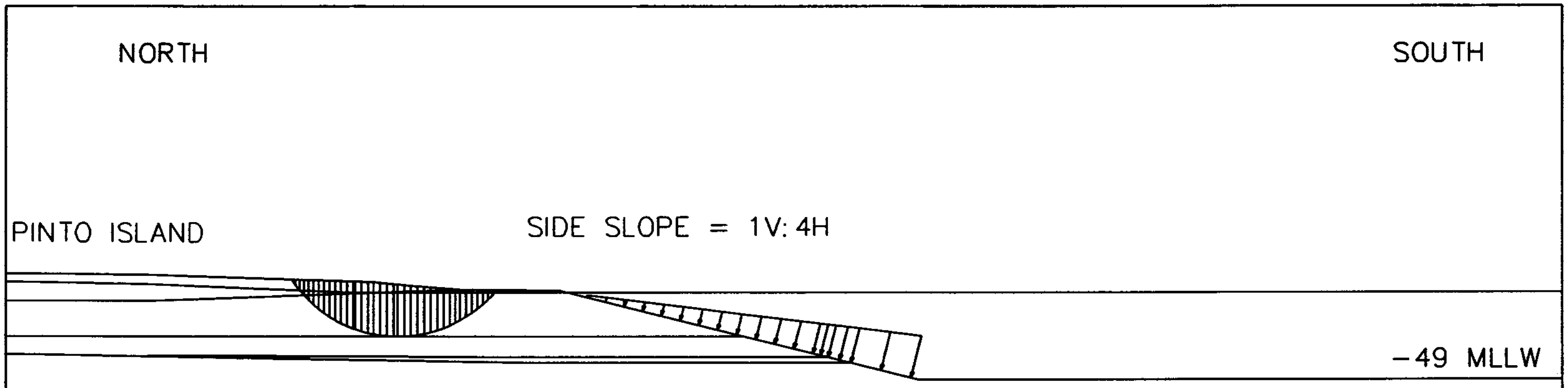
POST-LAB UTEXAS PROFILE.dgn 11/28/2006 1:12:02 PM



POST-LAB UTEXAS PROFILE 1on4.dgn 12/28/2006 8:00:12 AM

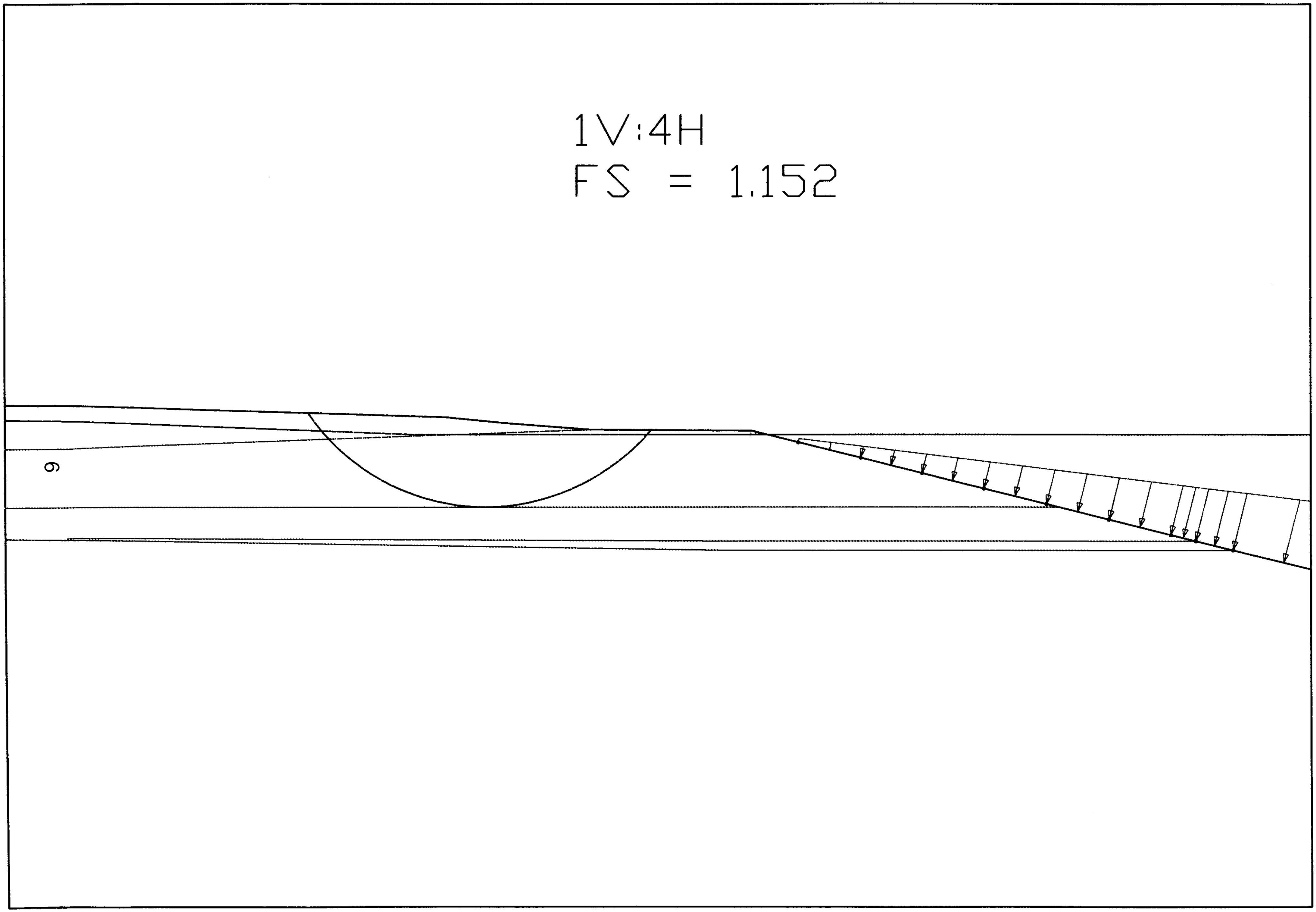


POST-LAB UTEXAS PROFILE 1on4.dgn 12/28/2006 8:08:35 AM



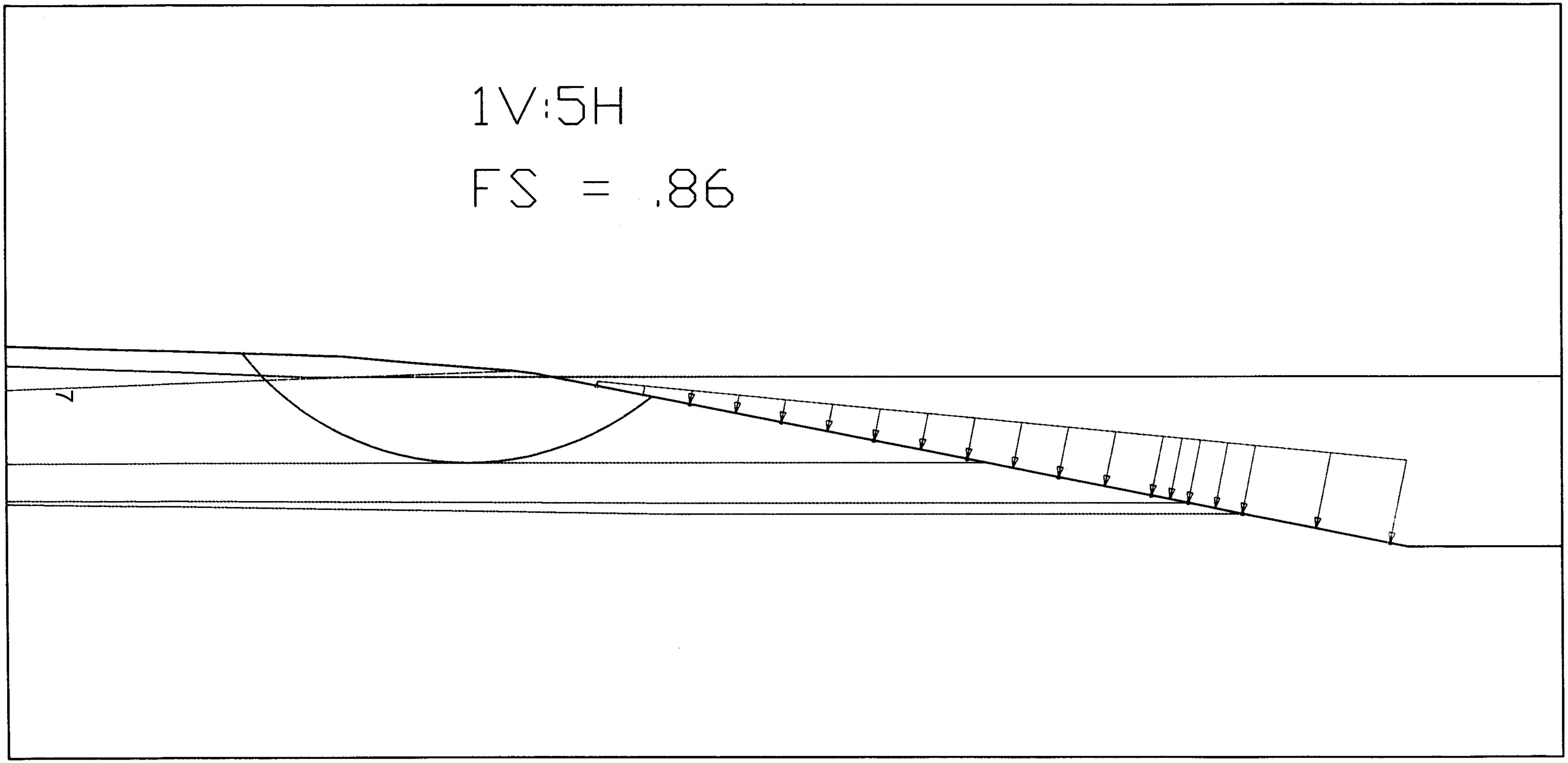
```
TABLE NO. 21
          *****  1-STAGE FINAL CRITICAL CIRCLE INFORMATION  *****
          X Coordinate of Center - - - - - - - -  -277.000
          Y Coordinate of Center - - - - - - - -    43.500
          Radius - - - - - - - - - - - - - - -         69.500
          Factor of Safety - - - - - - - - - -       1.152
          Side Force Inclination - - - - - - - -    -1.37

          Number of circles tried  - - - - - - -  194
          No. of circles F calc. for - - - - - -  149
1         UTEXAS3 - VER. 1.120 - 10/08/92 - (C) 1985-1992 S. G. WRIGHT
          Date: 12:12:2006   Time: 14:17:27   Input file: CNT.IN
             Mobile Harbor Turning Basin 1V:4H
             CIRCLE
              CIRCLE  SEARCH
```

CNT.DXF 12/12/2006 2:36:51 PM



CNR.DXF 11/29/2006 2:12:06 PM

P
T
R

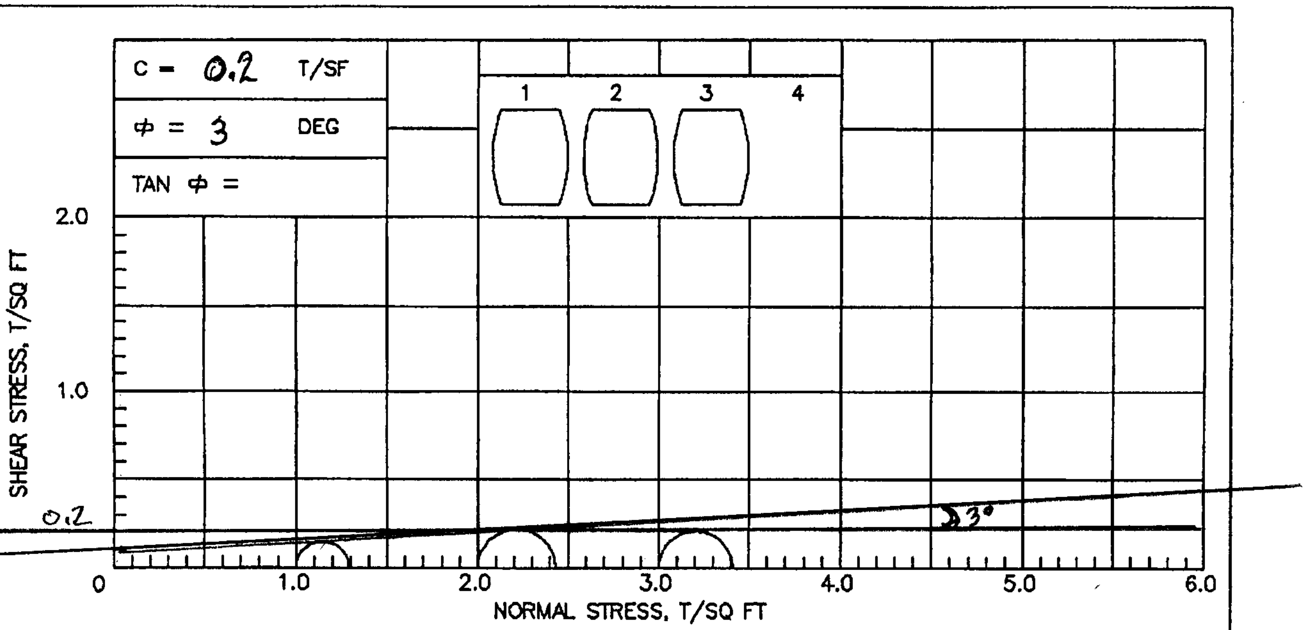


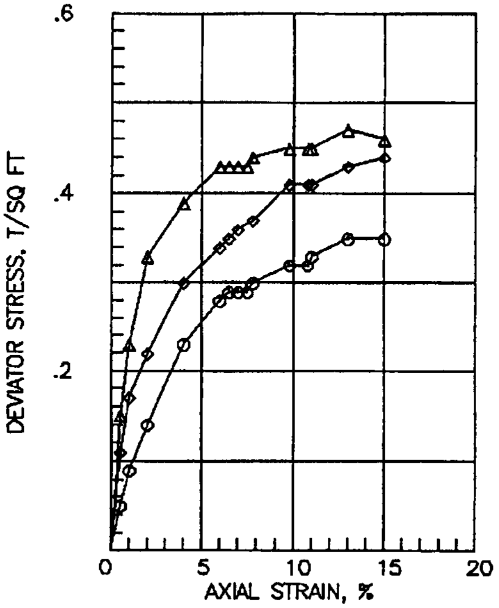
CNT.DXF 11/29/2006 2:09:36 PM

C = 0.2 T/SF

Φ = 3 DEG

TAN Φ =





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

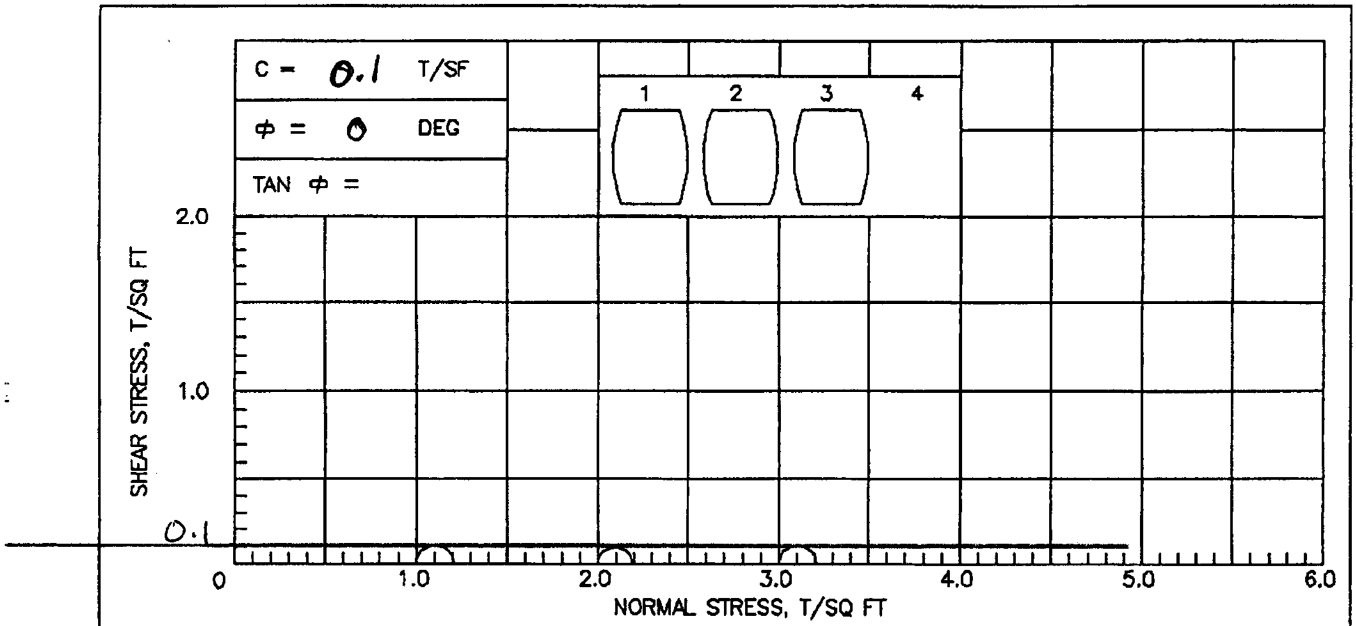
TRIAXIAL COMPRESSION TEST REPORT

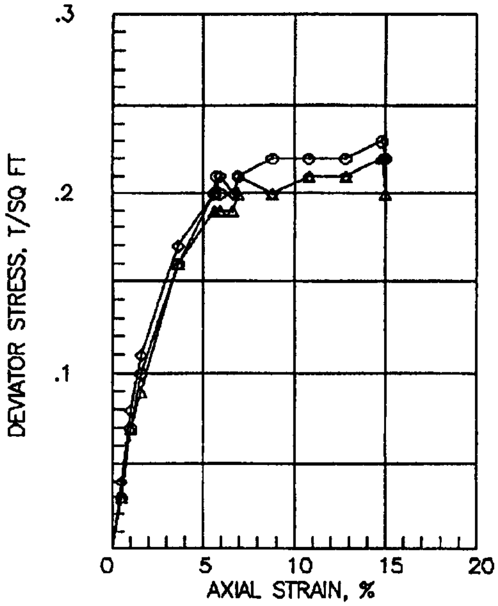
EL -26.7 to -29.7 MLLW

C = 0.1 T/SF

ϕ = 0 DEG

TAN ϕ =





	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–D301–06

SAMPLE NO. TUBE 3

DEPTH/ELEV 17.0–20.0

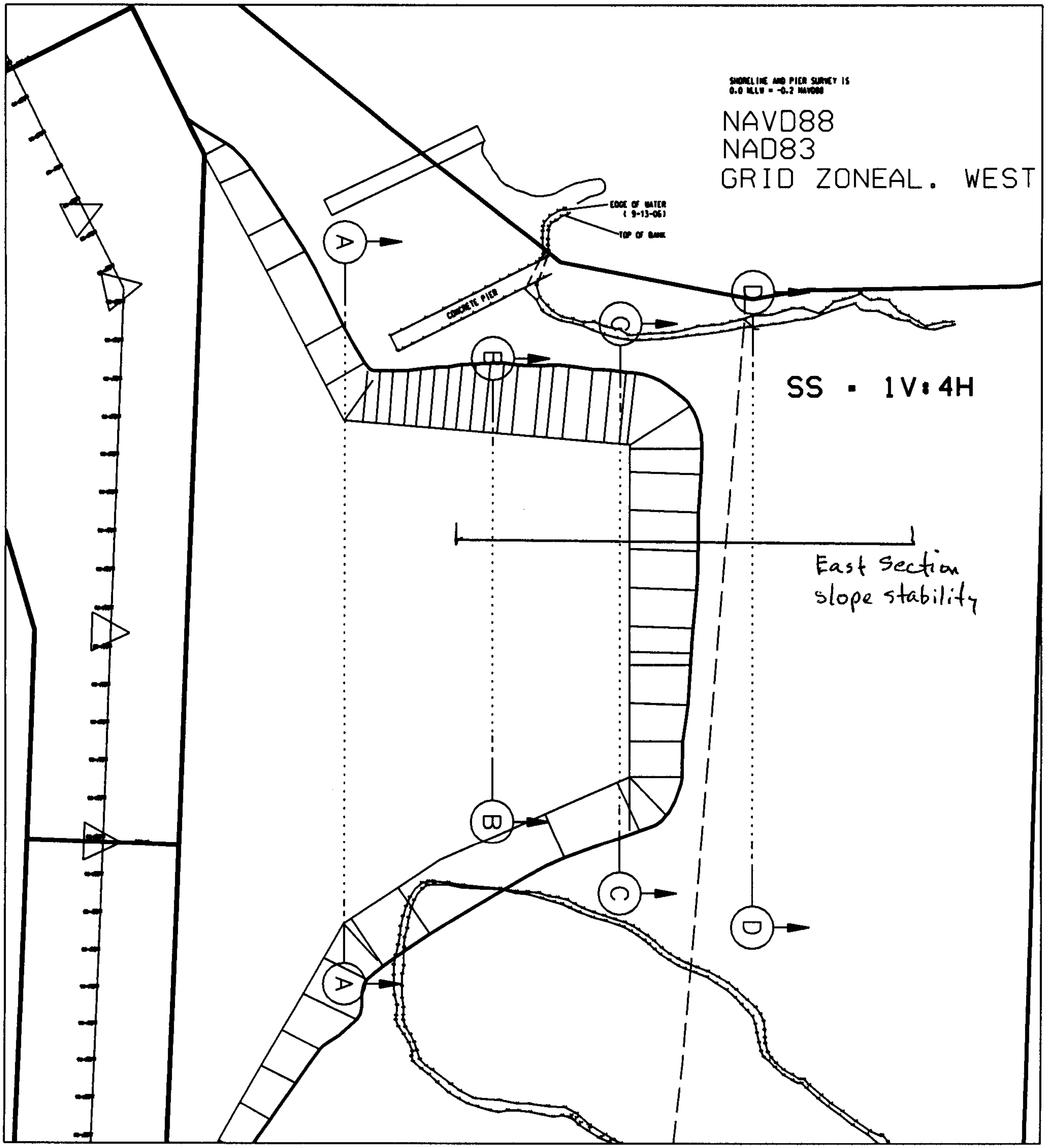
TECH. CEC

LABORATORY USAE WES – STF/GL

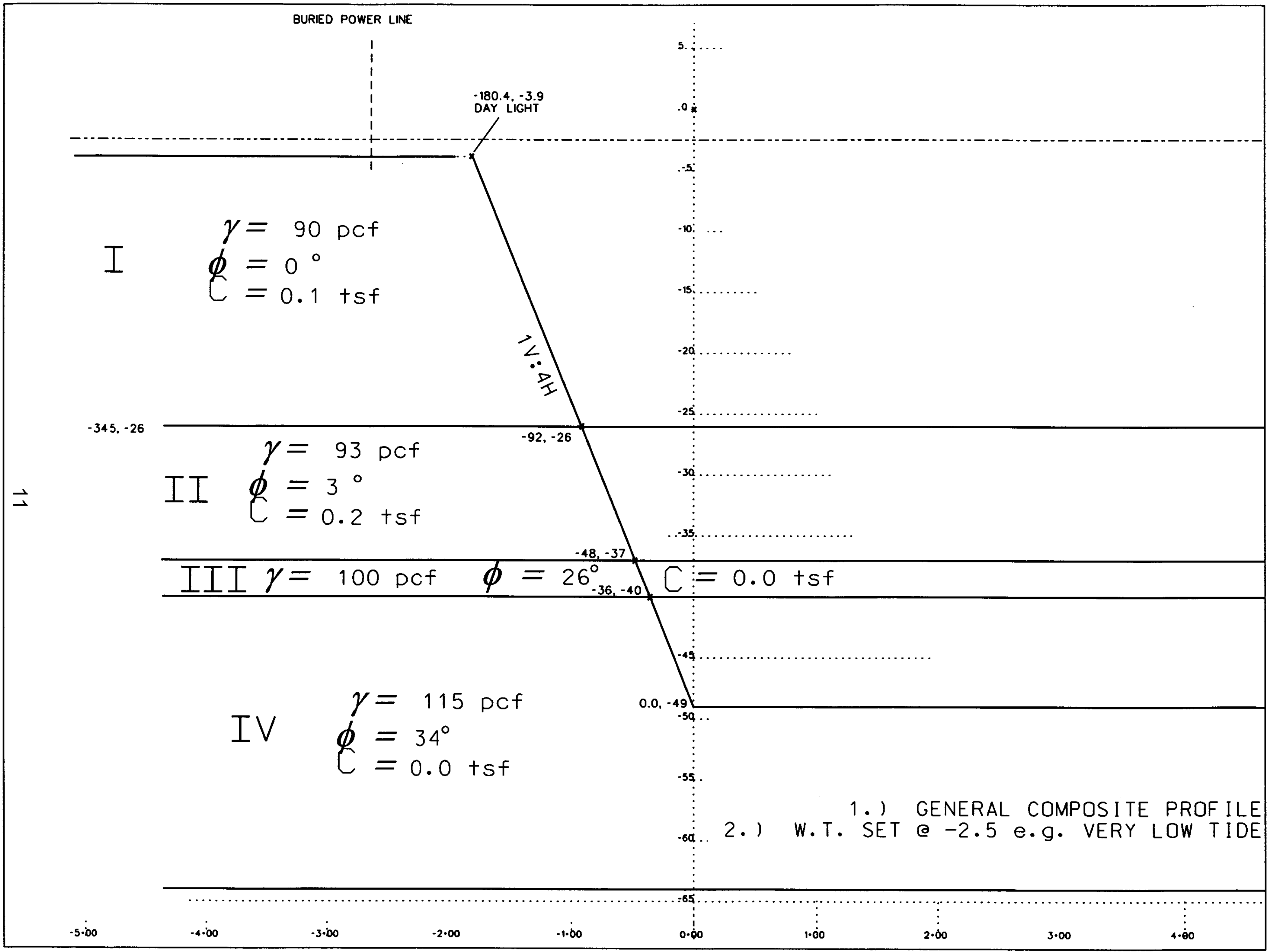
DATE 11–3–06

TRIAXIAL COMPRESSION TEST REPORT

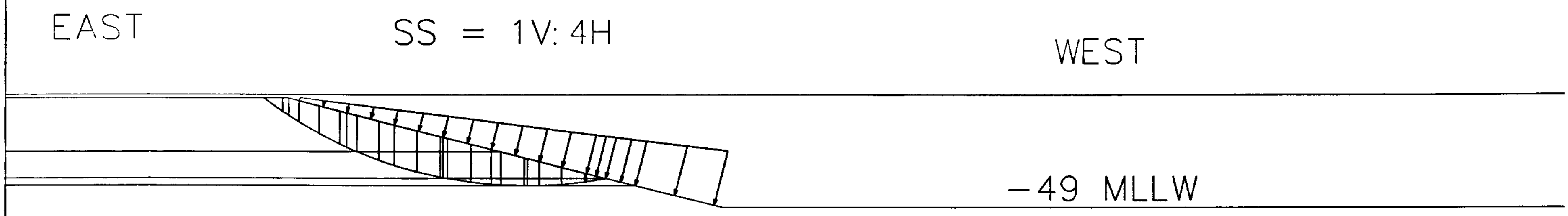
-17.7 to -22.7 MLLW



POST-LAB UTEXAS PROFILE 1on4.dgn 12/28/2006 8:15:14 AM



1.) GENERAL COMPOSITE PROFILE
2.) W.T. SET @ -2.5 e.g. VERY LOW TIDE



```
TABLE NO. 21
            *****  1-STAGE FINAL CRITICAL CIRCLE INFORMATION   *****
            X Coordinate of Center - - - - - - - -    -81.000
            Y Coordinate of Center - - - - - - - -    145.500
            Radius - - - - - - - - - - - - - - - -      185.500
            Factor of Safety - - - - - - - - - - -      2.500
            Side Force Inclination - - - - - - -       -1.27

            Number of circles tried  - - - - - - -    65
            No. of circles F calc. for - - - - - -   63
1           UTEXAS3 - VER. 1.120 - 10/08/92 - (C) 1985-1992 S. G. WRIGHT
            Date: 12:15:2006   Time: 12:35:43   Input file: CW.IN
              Mobile Harbor Turning Basin 1V:4H
              CIRCLE
               CIRCLE  SEARCH
```

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

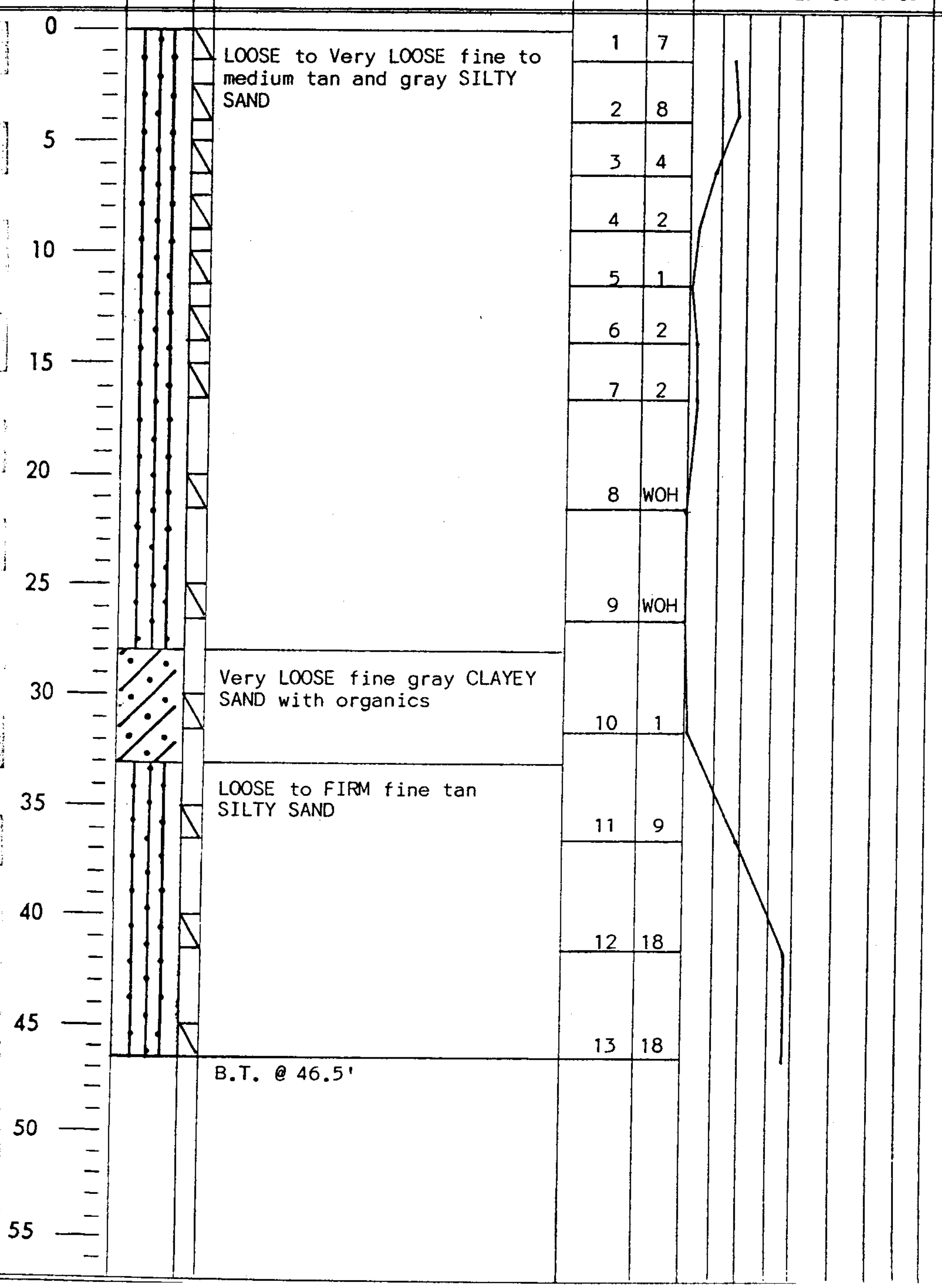
GR. WATER DEPTH: 2.0'

BORING NO.: B-42

LOCATION: N241620.007 E333995.017

TYPE BORING: ASTM D-1586

DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
LOOSE to Very LOOSE fine to medium tan and gray SILTY SAND	1	7			
	2	8			
	3	4			
	4	2			
	5	1			
	6	2			
	7	2			
	8	WOH			
	9	WOH			
Very LOOSE fine gray CLAYEY SAND with organics	10	1			
LOOSE to FIRM fine tan SILTY SAND	11	9			
	12	18			
	13	18			
B.T. @ 46.5'					



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

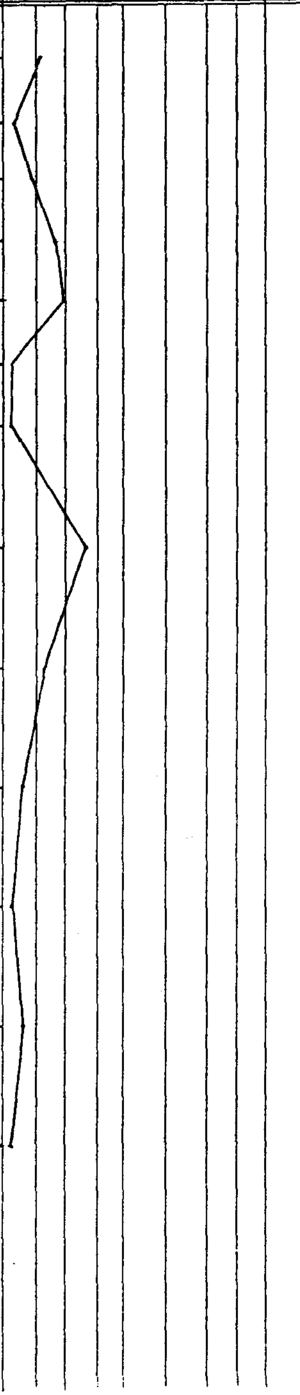
GR. WATER DEPTH: 7.5'

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

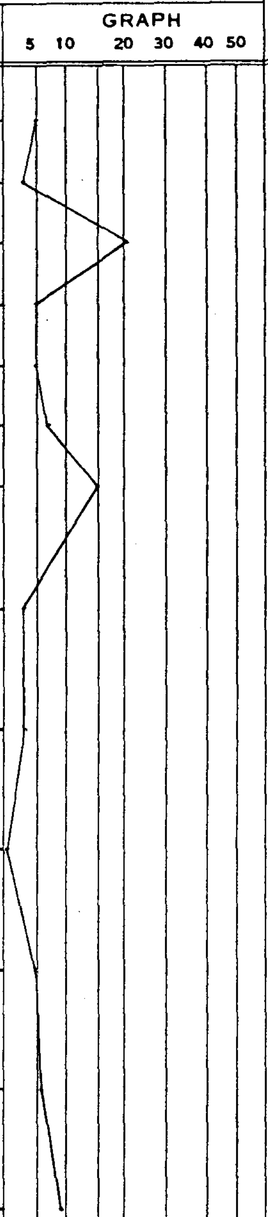
GR. WATER DEPTH: 5.5'

BORING NO.: B-44

LOCATION: N241230.016 E333995.018

TYPE BORING: ASTM D-1586

DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	P. I.	
SOFT fine brown CLAY with organics	1	5				
Very LOOSE fine brown CLAYEY SAND with organics	2	3				
FIRM fine to medium tan SILTY SAND	3	21				
SOFT fine gray CLAY with SAND and organics	4	5				
	5	5				
LOOSE fine gray and tan CLAYEY SAND	6	7				
FIRM fine tan SILTY SAND with organics	7	15				
Very LOOSE to LOOSE fine gray and tan SILTY SAND	8	3				
	9	3				
	10	1				SM
	11	5				
	12	6				
	13	9				
B.T. @ 46.5'						



DEPTH IN FEET: 0, 5, 10, 15, 20, 25, 30, 35, 40, 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: 9.3'

PROJECT: Mobile Naval Homeport Facilities

DATUM: NGVD

JOB NO.: E86-008

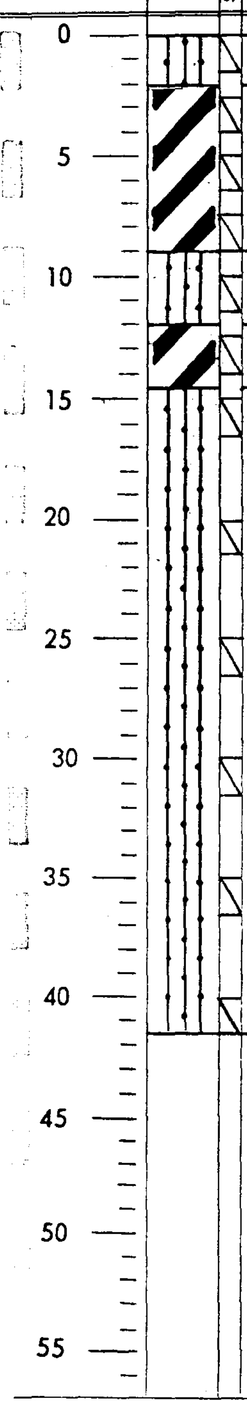
DATE DRILLED: 4/29/86

GR. WATER DEPTH: 3.0'

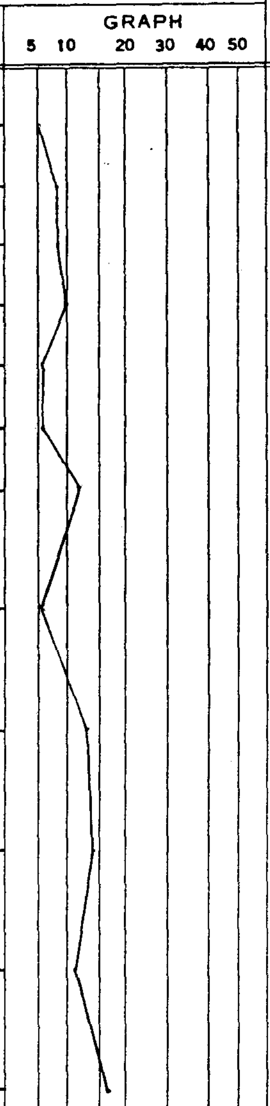
BORING NO.: B-45

LOCATION: N241130.001 E333995.017

TYPE BORING: ASTM D-1586



DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.
LOOSE fine brown SILTY SAND with organics	1	5			
SOFT to FIRM fine gray CLAY with organics and thin SAND lenses	2	8			
	3	8			
	4	10			
LOOSE fine tan SILTY SAND with organics and pea gravel	5	6			
SOFT fine gray CLAY with organics	6	6			
LOOSE to FIRM fine to medium gray and tan SILTY SAND	7	12			
	8	6			
	9	13			
	10	14			
	11	12			
	12	17			
B.T. @ 41.5'					



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
			Very LOOSE fine gray SILTY SAND with shell fragments and organics	6	WOH					
15				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					
50 55			B.T. @ 46.5'							

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

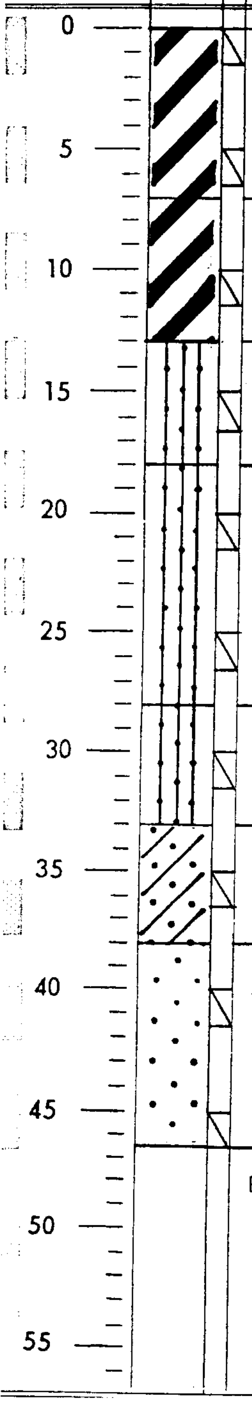
DATE DRILLED: 4/24/86

GR. WATER DEPTH: 4.5'

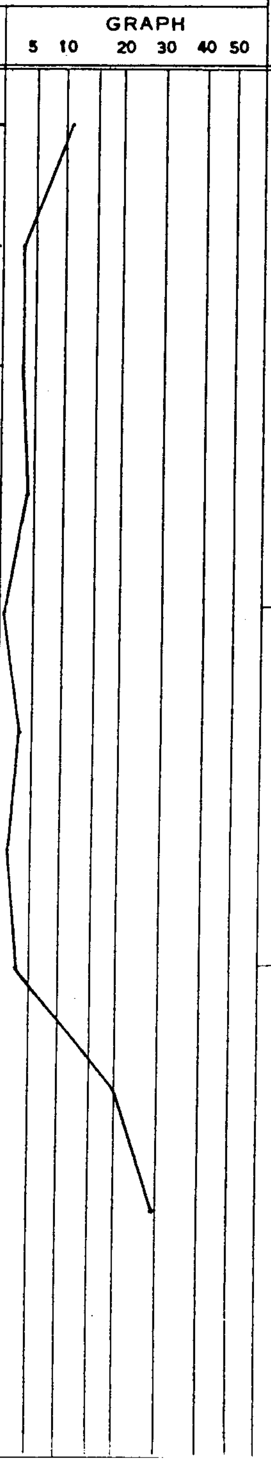
BORING NO.: B-47

LOCATION: N241616.221 E333766.667

TYPE BORING: ASTM D-1586



DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	P. I.	
FIRM to SOFT fine gray CLAY with thin SAND lenses and organics	1	11				
	2	3				
SOFT fine gray SANDY CLAY with organics	3	3				
LOOSE fine gray SILTY SAND	4	4				
Very LOOSE to LOOSE fine to medium gray SILTY SAND with shell fragments	5	1				SM
	6	3				
LOOSE fine gray SILTY SAND	7	2				
LOOSE fine gray SILTY SAND	8	3				SM
FIRM fine to medium white SAND	9	20				
	10	29				
B.T. @ 46.5'						



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

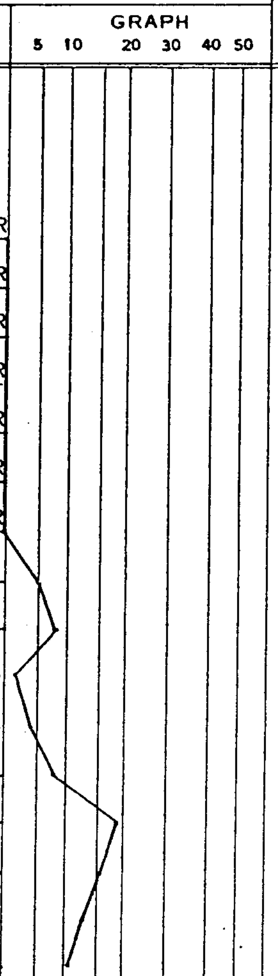
WATER DEPTH: 4.5'

ORING NO.: MO-1

LOCATION: N242,980 E333,916

TYPE BORING: ASTM D-1586

DEPTH IN FEET	DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	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' Marine Boring Samples Obtained with 3-inch O.D. X 24-inch length Split-Barrel samples					
40						
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

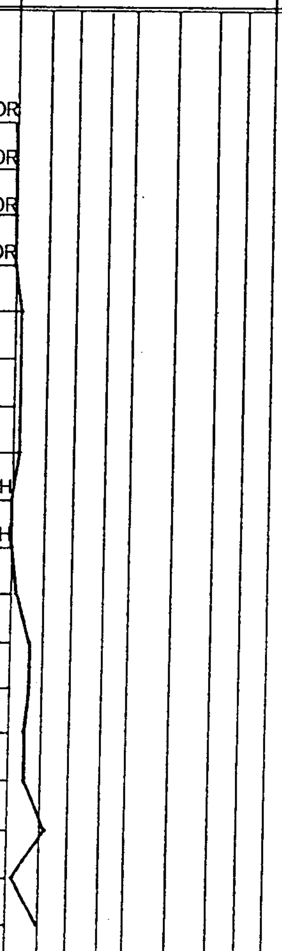
WATER DEPTH: 2.0'

BORING NO.: MO-2

LOCATION: N242,580 E334,837

TYPE BORING: ASTM D-1586

DEPTH IN FEET	LOG	SAMPLE	DESCRIPTION	NO.	BLOWS PER FT.		% W.C.	ATTERBERG LIMITS	
					NO	GRAPH 5 10 20 30 40 50		L. L.	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'						
45			Marine Boring Samples Obtained with 3-inch O.D. X 24-inch length Split-barrel sampler.						
50									
55									



THOMPSON ENGINEERING TESTING, INC.

ENGINEERS TESTING LABORATORIES
MOBILE, ALABAMA BILOXI, MISSISSIPPI

TEST BORING LOG

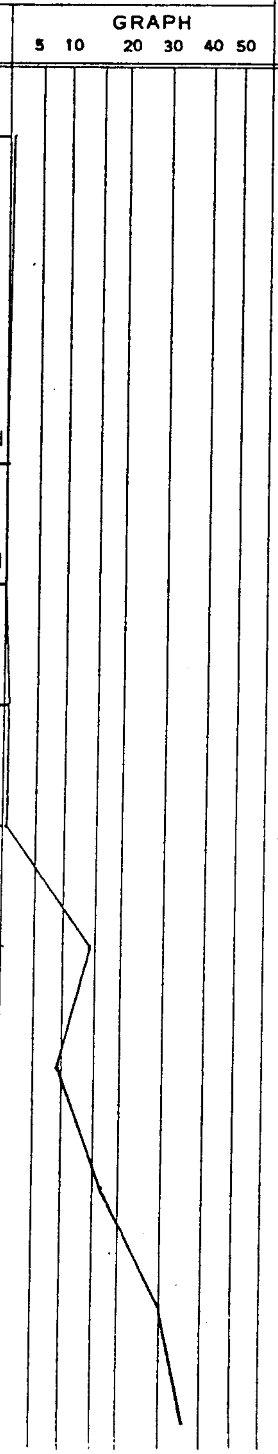
CLIENT: Southern Division, Naval Facilities Engineering Command
GROUND ELEVATION:

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	DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	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

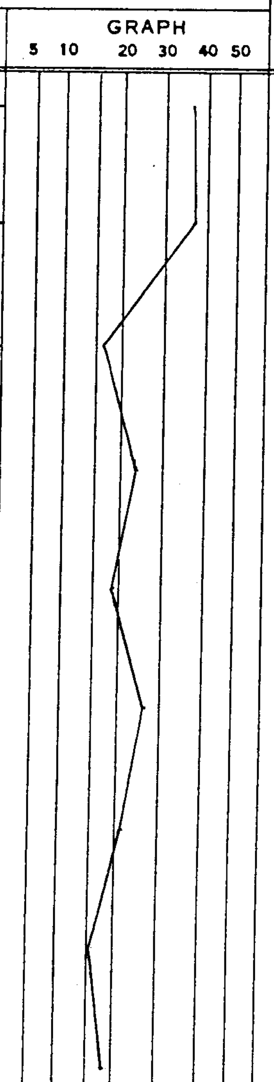
WATER DEPTH: 0.5'

BORING NO.: M-1 (continued)

LOCATION: N242,807.01 E334,525.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	DESCRIPTION	NO.	BLOWS PER FT. NO	% 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

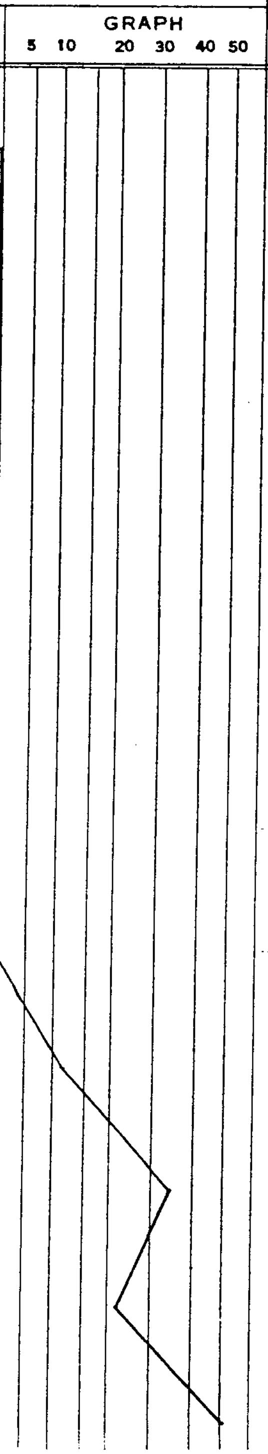
GR. WATER DEPTH: 1.0'

BORING NO.: M-2

LOCATION: N242,600.01 E334,400.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	ATTERBERG LIMITS P. I.	
0	WATER						
	Very LOOSE fine to medium gray and tan SILTY SAND	1	WOH				
10		2	WOH				
15		3	WOH				
20		4	WOH				
25		5	WOH				
30		6	WOH				SM
35		7	WOH				SP-SM
	FIRM to DENSE fine to coarse tan SAND						
40		8	12				
45		9	35				
50		10	22				
55		11	54				



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

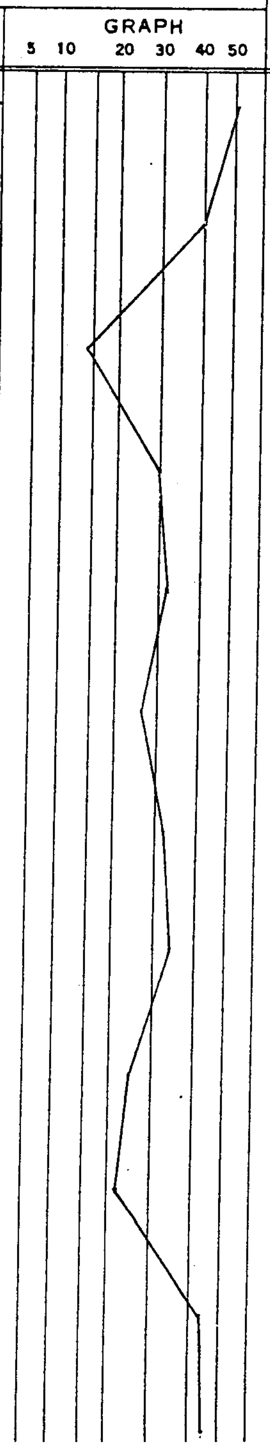
GR. WATER DEPTH: 1.0'

BORING NO.: M-2 (continued)

LOCATION: N242,600.01 E334,400.01

TYPE BORING: ASTM D-1586

DEPTH IN FEET	DESCRIPTION	NO.	BLOWS PER FT. NO	% 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

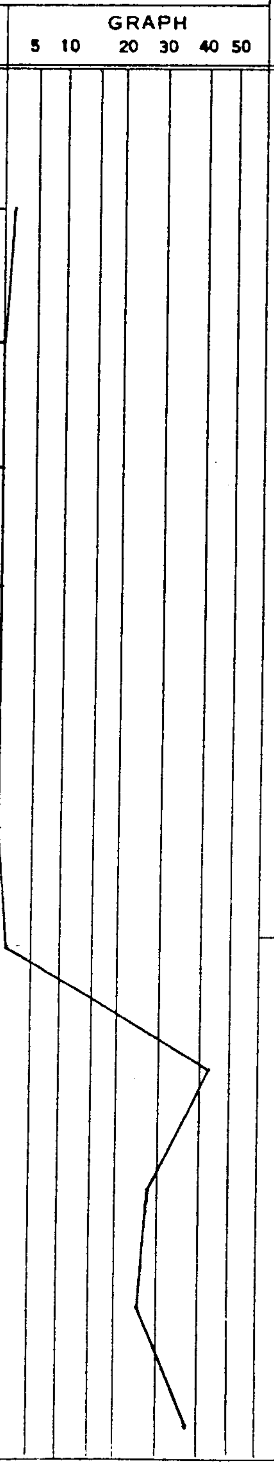
GR. WATER DEPTH: 3.5'

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	% 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					



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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

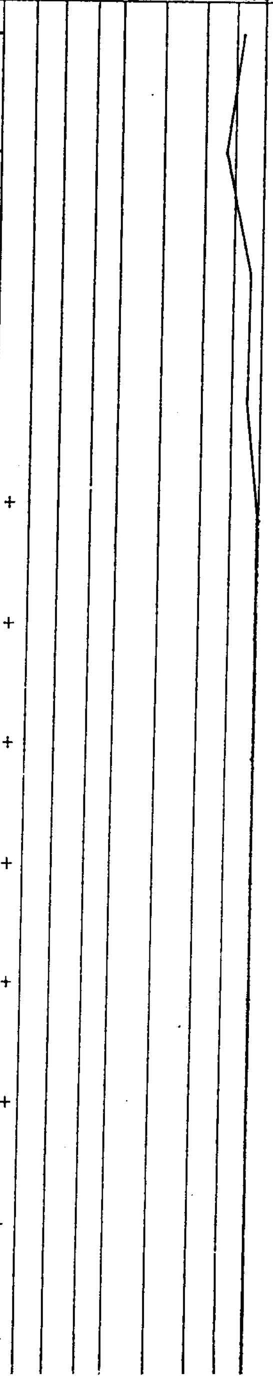
GR. WATER DEPTH: 3.5'

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.		% W.C.	ATTERBERG LIMITS	
					NO	GRAPH 5 10 20 30 40 50		L. L.	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.		% W.C.	ATTERBERG LIMITS			
					NO	GRAPH 5 10 20 30 40 50		L. L.	P. I.		
110			Very DENSE fine to medium tan SAND with pea gravel	22	100	+					
115			Very DENSE fine tan and gray SAND with pea gravel and thin CLAY lenses	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	DESCRIPTION	NO.	BLOWS PER FT. NO	% W.C.	ATTERBERG LIMITS L. L.	P. I.
0	WATER					
5						
10						
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						

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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.		% W.C.	ATTERBERG LIMITS				
					NO	GRAPH 5 10 20 30 40 50		L. L.	P. I.			
0			WATER									
5												
10												
15												
	▨		Very SOFT fine dark brown and gray CLAY with thin SAND lenses and organics									
20	▨											
	▨	◺		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												