Hole No. SH-403

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION SAVANNAH, GA.	SHEET 1 OF 1 SHEETS

1. PROJECT SAVANNAH HARBOR DEEPENING FEASIBILITY STUDY
2. LOCATION (Coordinates or Station) LAT: 31°56'31.6649", LON: 80°40'8.9228"
3. DRILLING AGENCY SAVANNAH DISTRICT
4. HOLE NO. (As shown on drawing title and file number) SH-403
5. NAME OF DRILLER C. ROBBINS
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN 60.1' (INCL 49.6' WATER)
8. DEPTH DRILLED INTO ROCK 0.0'
9. TOTAL DEPTH OF HOLE 60.1'
10. SIZE AND TYPE OF BIT 1 3/8" I.D. SPLITSPOON 5 1/2" FISHTAIL
11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW
12. MANUFACTURER'S DESIGNATION OF DRILL FAILING 314
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 7; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES 0
15. ELEVATION GROUND WATER N/A
16. DATE HOLE: STARTED 14 OCT 97; COMPLETED 14 OCT 97
17. ELEVATION TOP OF HOLE 0.0' MLW
18. TOTAL CORE RECOVERY FOR BORING N/A %
19. SIGNATURE OF INSPECTOR J. [illegible] P.G.

ELEVATION a	DEPTH b	LEGEND c	CLASSIFICATION OF MATERIALS (Description) d	% CORE RECOVERY e	BOX OR SAMPLE NO. JAR	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g BLOWS
			WATER			SCALE CHANGE AT 45.0'. SET 6" DIAMETER STEEL CASING TO 53.6'.
	45		BOTTOM OF OCEAN 49.6'			
			(SP) BROWN MEDIUM TO COARSE POORLY GRADED SAND, TRACE OF SHELL FRAGMENTS AND FINE QUARTZ GRAVEL, CALCAREOUS.			
49.6'	50		51.1'	1	1	NO RECOVERY ON FIRST DRIVE. RE DRIVE 49.6' TO 51.1' THEN CONTINUED DRIVE TO 52.6'. RECOVERED BOTH DRIVES. 3 6 10
51.1'			GRAY, FINE TO MEDIUM GRAINED, TRACE OF SILT, NO GRAVEL. 54.1'	0.9	2	20 28 50
54.1'			TRACE OF FINE QUARTZ GRAVEL, NO SILT, SLIGHTLY CALCAREOUS. 55.6'		3	30 39 29
55.6'	55		COARSE GRAINED. 58.6'		4	BEGAN USING ZEOGEL DRILLING MUD AT 52.6'. 4 5 8
			(CL) DARK OLIVE GRAY SILTY LEAN CLAY, SOME FINE QUARTZ SAND, SLIGHTLY CALCAREOUS.	1	5	6 9 8
58.6'					6	12 11 18
60.1'	60		BOTTOM OF BORING 60.1'		7	6 9 12
	65					

STA -80 +005, ℄

N: 709,576.9 E 1,120,691.0

NOTE: Soils field classified in accordance with the Unified Soil Classification System.

BLOWS PER 1/2 FOOT

Number required to drive 1 3/8" ID Splitspoon w/140lb hammer falling 30".

Hole No. SH-434

DRILLING LOG	DIVISION South Atlantic	INSTALLATION Savannah District	SHEET 1 OF 1 SHEETS

1. PROJECT	Savannah Harbor Deepening
2. LOCATION (Coordinates or Station)	X - 1104039 Y - 717984
3. DRILLING AGENCY	Savannah District
4. HOLE NO. (As shown on drawing title and file number)	SH-434
5. NAME OF DRILLER	Wesley Herman
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	62.7' (48.4' water)
8. DEPTH DRILLED INTO ROCK	0.0'
9. TOTAL DEPTH OF HOLE	62.7'
10. SIZE AND TYPE OF BIT	1-3/8" ID Splitspoon; 5-1/2" Fishtail
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLLW
12. MANUFACTURER'S DESIGNATION OF DRILL	Failing 1500
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	Disturbed: 8; Undisturbed: 0
14. TOTAL NUMBER CORE BOXES	0
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	Started: 15 May 2002; Completed: 15 May 2002
17. ELEVATION TOP OF HOLE	0.0'
18. TOTAL CORE RECOVERY FOR BORING	N/A %
19. SIGNATURE OF INSPECTOR	Marvel Fletcher P.G.

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'	0		WATER			NOTES: SCALE CHANGE AT 45.0'. SET 6" STEEL CASING TO BOTTOM OF CHANNEL AND MIXED FLORIGEL DRILLING MUD.
	45					
-48.4'			BOTTOM OF CHANNEL: 48.4'		JAR	BLOWS
	50		(SM) DARK GRAY VERY FINE GRAINED SILTY SAND. TRACE of SHELLS, LAMINAE of fat clay.		1	0
					2	13
			LESS CLAY LAMINAE		3	38
			VERY FINE GRAINED SHELL FRAGMENTS		4	44
	55		GREY fine to COARSE GRAINED, SHELLY.		5	42
			A FEW GRAVEL SIZED CLAM SHELL FRAGMENTS.		6	11
			LESS SILTY		7	13
			LOOSE SHELLY HASH			17
	60					16
-61.0'			(SC-SM) GREEN, FINE GRAINED SILTY CLAYEY SAND		8	21
-62.7'			TOP OF MIOCENE: 61.0'			
			BOTTOM of BORING: 62.7'			
			NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.			BLOWS PER FOOT: NUMBER REQUIRED TO DRIVE 1-3/8" I.D. SPLITSPOON WITH 140 POUND HAMMER FALLING 30 INCHES.

Hole No. SH 435

DRILLING LOG	DIVISION South Atlantic	INSTALLATION Savannah Ga	SHEET 1 OF 1 SHEETS

1. PROJECT: Savannah Harbor
2. LOCATION (Coordinates or Station): Ga. X= 1105843 Y= 717416
3. DRILLING AGENCY: Savannah District
4. HOLE NO. (As shown on drawing title and file number): SH 435
5. NAME OF DRILLER: Herman
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE: 61.5'
10. SIZE AND TYPE OF BIT: 1 3/8" ID Split Spoon
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: Failing 1500
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: None
15. ELEVATION GROUND WATER: NA
16. DATE HOLE: STARTED 16 MAY 02; COMPLETED 16 MAY 02
17. ELEVATION TOP OF HOLE: 0'
18. TOTAL CORE RECOVERY FOR BORING: None %
19. SIGNATURE OF INSPECTOR

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
						Set 75 feet of casing to a depth of 59.5'
			Change of scale 1"=5'			
	50		Start of Sampling - 51'			water
			(SP) Sand, poorly graded fine to med qtz little fines, trace shell fragments up to 4mm, HCL RXN, wet, green to grey		1	1 (0-1-0)
					2	4 (0-0-4)
	55		(SW) Sand, well graded fine to coarse qtz, trace fine, trace shell fragments up to 5mm, HCL RXN, moist, gray 54'-54.7'		3	24
					4	(7-10-14)
			(SP) Sand, poorly graded fine to med qtz little fines, HCL RXN, Dry gray		5	42 (26-20-22)
			57'-59' trace coarse qtz sand + trace shell fragments up to 6mm		6	27 (14-14-13)
					7	17
	60		(ML) Silt, low plasticity, firm with little fine qtz sand, HCL RXN, moist, green (Miocene)		8	(5-9-8)
					9	29 (5-12-17)
			End of Boring 61.5'			

BLOWS PER FOOT:

Number required to drive 1 3/8" ID splitspoon w/140 lb. hammer falling 30"

NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.

Hole No. SH 436

DRILLING LOG	DIVISION South Atlantic	INSTALLATION Savannah Ga	SHEET 1 OF 1 SHEETS

1. PROJECT: Savannah Harbor
2. LOCATION (Coordinates or Station): X = 1108831 Y = 715512
3. DRILLING AGENCY: Savannah District
4. HOLE NO. (As shown on drawing title and file number): SH-436
5. NAME OF DRILLER: Herman
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 12'
8. DEPTH DRILLED INTO ROCK: 0'
9. TOTAL DEPTH OF HOLE: 61.2'
10. SIZE AND TYPE OF BIT: 1 3/8" ID Split Spoon
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: Failing 1500
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 9; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: None
15. ELEVATION GROUND WATER: NA
16. DATE HOLE: STARTED 20 Jun 02; COMPLETED 20 Jun 02
17. ELEVATION TOP OF HOLE: 0'
18. TOTAL CORE RECOVERY FOR BORING: None %
19. SIGNATURE OF INSPECTOR:

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
			Change of scale 1" = 5'			Set 70 feet of casing to a depth of -54.2'
	45					
			Start at Sample 49.2'			
			49.2-50.1 sand, poorly graded med to coarse qtz few shell frags, moist, tan to green (SP)		1	25 (WR-10-15)
	50		50.1-50.7 fine sand qtz few fines, green		2	39 (6-9-30)
			50.7-52.2 med to coarse qtz trace shells trace qtz pebbles		3	49 (7-20-29)
			52.2-53.7 fine to med qtz tan to green		4	35 (29-24-11)
	55				5	21 (6-10-11)
			55.2-56.7 trace shells		6	26 (6-9-17)
			Sand, fine grained quartz, with some silt, moist, green — Miocene		7	80 (16-32-48)
	60				8	49 (17-18-31)
					9	
			End of Boring at 61.2'			

BLOWS PER FOOT:

Number required to drive 1 3/8" ID splitspoon w/140 lb hammer falling 30".

NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.

Hole No. SH437

DRILLING LOG	DIVISION: South Atlantic	INSTALLATION: Savannah GA	SHEET 1 OF 1 SHEETS

1. PROJECT: Savannah Harbor Project
2. LOCATION (Coordinates or Station): X=1110560 Y=714976 GA
3. DRILLING AGENCY: Savannah District
4. HOLE NO. (As shown on drawing title and file number): SH437
5. NAME OF DRILLER: Herman
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN: 9 ft
8. DEPTH DRILLED INTO ROCK: 0 ft
9. TOTAL DEPTH OF HOLE: 60.6 ft
10. SIZE AND TYPE OF BIT: 1 3/8" ID Splitspoon
11. DATUM FOR ELEVATION SHOWN (TBM or MSL): MLW
12. MANUFACTURER'S DESIGNATION OF DRILL: Failing 1500
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 5; UNDISTURBED 0
14. TOTAL NUMBER CORE BOXES: N/A
15. ELEVATION GROUND WATER: N/A
16. DATE HOLE: STARTED 24 June 02; COMPLETED 24 June 02
17. ELEVATION TOP OF HOLE: 0
18. TOTAL CORE RECOVERY FOR BORING: None %
19. SIGNATURE OF INSPECTOR:

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
			Change scale 1"=5'			Set 72" of casing to a depth - 56.4'
	50		Start of Sampling -51.6'			water
	55		(SP) Sand, poorly graded med to coarse grained, trace shells, green to brown 52.1-54.6 fine to med grained qtz, trace subangular qtz gravel, grey to green 54.6-56.1 no gravel, little fines trace shells		1 2 3	25 (4-11-14) 43 (8-16-27) 56 (12-29-27)
	60		(SM) sand, silty, fine grained qtz, some silt, few layers of grey poorly graded qtz sand, moist to wet, when dry green (Miocene) 56.1-60.6 no lenses of SP		4 5	18 (7-5-8) 59 (13-24-35) 46 (27-46-50)
			End of Boring at -60.6'			

NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.

BLOWS PER FOOT: Number required to drive 1 3/8" ID splitspoon w/140 hammer falling 30".

Hole No. SH 4142

DRILLING LOG	DIVISION SOUTH ATLANTIC	INSTALLATION SAVANNAH, GA	SHEET 1 OF 1 SHEETS

1. PROJECT SAVANNAH HARBOR PROJECT	10. SIZE AND TYPE OF BIT 1 3/8" ID SPLITSPOON
2. LOCATION (Coordinates or Station) X = 1114468 Y = 712779 GA	11. DATUM FOR ELEVATION SHOWN (TBM or MSL) MLW
3. DRILLING AGENCY SAVANNAH DISTRICT	12. MANUFACTURER'S DESIGNATION OF DRILL FAILING 1500
4. HOLE NO. (As shown on drawing title and file number) SH 4142	13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN: DISTURBED 8; UNDISTURBED
5. NAME OF DRILLER ROUNDTREE / VANCAMP	14. TOTAL NUMBER CORE BOXES 0
6. DIRECTION OF HOLE ☒ VERTICAL ☐ INCLINED ____ DEG. FROM VERT.	15. ELEVATION GROUND WATER NA
	16. DATE HOLE: STARTED 25 JUL 02; COMPLETED 25 JUL 02
7. THICKNESS OF OVERBURDEN	17. ELEVATION TOP OF HOLE -47.4
8. DEPTH DRILLED INTO ROCK 0 FT	18. TOTAL CORE RECOVERY FOR BORING — %
9. TOTAL DEPTH OF HOLE 60.9 FT	19. SIGNATURE OF INSPECTOR Dan Polanek

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
						NOTE CHANGE OF SCALE AT 45'. SET 67 FEET OF CASING TO A DEPTH OF 51.3' ELEV. AT BOTTOM HARBOR 47.4' BOTTOM OF HARBOR
	45		WATER			
		SP	(SP) GRAY TO GRAY F-M SAND W/ 1-1½% SILT, POORLY GRADED, W/ <10% ROUNDED-SUBROUNDED BK FRAGS, SAND MOSTLY QTZ TR. SHELL FRAGS, MOD. RXN TO ACID		1	54
	50				2	39
			48.9-50.4' CONTAINS SILTY, W/ OCC. LENSES OF GRAY CLAY SILT INTERBEDDED BK FRAGS (MED SAND - ~¼" SIZE)		3	51
					4	37
	55		50.4-54.9 BECOMES GRAY TO LIGHT GRAY FINE TO MEDIUM F SAND, BK & SHELL FRAGS ESSENTIALLY ABSENT, NO ACID RXN OR CLAY LENSES		5	28
	56	SP				NO RECOVERY W/ 1 3/8" SPLIT NO FRAGMENTS ADDED W/ 1 3/8
	57	SM				17
	58	ML	54.9-55.4 BECOMES GRAY-GRAY CONTAINS TRACE SAND WEAK ACID RXN		6	26
	59		55.4-57.9', BECOMES GRAY TO LIGHT GRAY SILTY SAND AND <10% ROUNDED BK FRAG (SIMILAR TO SP) MOD RXN TO ACID W/ ZONES W/ TR. SILT		7	38
	60		57.9-58.4', NO RECOVERY		8	21
			58.4-59.9', GRAY M. SAND W/ ABUNDANT SHELL FRAGS FOR ABOUT 0.2',			END OF BORING
			(SM) FROM ~58.6', GRAY GREEN SILTY F. SAND W/ FREQ. LENSES OF SILT, W/ TR. ROUNDED BK FRAGS 1-2 mm DIAM, CEMENTED (STRONG ACID RXN) (MIOCENE)			
			(ML) 59.9-59.4, DK. GREEN-GRAY F. SANDY SILT W/ TR BK FRAGS (ROUNDED UP TO ~⅛" DIAM) WEAK ACID RXN TO OCC. MODERATE ACID RXN, TR. SHELL FRAGS (MIOCENE)			
			59.4-60.9 AS ABOVE W/ ZONES W/ TR. CLAY AND STRINGERS OF F. SAND, MOD. ACID RXN.			
			BORING TERMINATED AT A DEPTH OF [illegible]			

BLOWS PER FOOT:

Number required to drive 1 3/8" ID splitspoon hammer falling 30".

NOTE: Soils field classified in accordance with the [illegible] Soils Classification Sy[illegible]

Hole No. SH443

DRILLING LOG

DIVISION	SOUTH ATLANTIC
INSTALLATION	SAVANNAH, GA
SHEET	1 OF 1 SHEETS
1. PROJECT	SAVANNAH HARBOR PROJECT
2. LOCATION (Coordinates or Station)	X= 111859 Y= 710873 GA
3. DRILLING AGENCY	SAVANNAH DISTRICT
4. HOLE NO. (As shown on drawing title and file number)	SH443
5. NAME OF DRILLER	W IDINGAMP
6. DIRECTION OF HOLE	☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.
7. THICKNESS OF OVERBURDEN	7.5'
8. DEPTH DRILLED INTO ROCK	⊖
9. TOTAL DEPTH OF HOLE	60.8'
10. SIZE AND TYPE OF BIT	1 3/8" ID SPLITSPOON
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)	MLW
12. MANUFACTURER'S DESIGNATION OF DRILL	FAILING 1500
13. TOTAL NO. OF OVER-BURDEN SAMPLES TAKEN	DISTURBED 8 / UNDISTURBED
14. TOTAL NUMBER CORE BOXES	⊖
15. ELEVATION GROUND WATER	N/A
16. DATE HOLE	STARTED 26 JUL 02 / COMPLETED 26 JUL 02
17. ELEVATION TOP OF HOLE	-47.3'
18. TOTAL CORE RECOVERY FOR BORING	— %
19. SIGNATURE OF INSPECTOR	[signature]

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
						NOTE CHANGE OF SCALE AT 45'
	45					SET 74 FEET OF CASING TO A DEPTH OF 56.4'
	6					
	7		WATER			BOTTOM HARBOR -47.3' ELEV.
	8		NO RECOVERY		X	NO RECOVERY W.R.
	9	SP	(SP) OLIVE GRAY MED SAND, POORLY GRADED, W/ F SAND, W/ 5 LAYERS OF SH ~1/2" THICK (~2 PER FOOT), W/ OCCAS. SEAMS OF C. SAND - BK. FRAGS. W/ TR SHELL FRAGS (1-2 MM DIAM) AND BK FRAGS UP TO 3 MM DIAM, STRONG ACID RXN		1	9
	50	CL			2	W.R.
	2				3	W.R.
	3				4	W.R.
	4		(CL) DK GRAY F SANDY CLAY, TR TO LITTLE M-C SAND, WEAK ACID RXN, VERY SOFT		5	11
	55	ML	51.8-53.3, DEC F. SAND, W/ OCCAS. LAYERS OF MED-C SAND		6	9
	6		53.3-54.8, LAYERS OF MED-C. SAND ABSENT		7	14
	7				8	15
	8					
	9	(ML)	54.8-56.3, DK BRN F. SANDY SILT W/ ZONES OF SILTY F. SAND, TR. SHELL FRAGS & SUBORDINATE BLK BK FRAGS (MOD. ACID RXN) (MIOCENE)			
	60		56.3-57.8, AS ABOVE FINELY LAMINATED			
	1		57.8-59.3, GREENISH BRN SILT W/ SHARKS OR LENSES OF BLK. SILTY F. SAND			
	2		59.3-60.8, DK GREEN TO BLACK F. SANDY SILT, SL. LAMINATED			END OF BORING
			BORING TERMINATED AT A DEPTH OF -60.8' BELOW MLW ON 26 JUL 02			

BLOWS PER FOOT:

Number required to drive 1 3/8" ID splitspoon w/ [illegible] hammer falling 30".

NOTE: Soils field classif[illegible] in accordance with the [illegible] Soils Classification Sy[illegible]

APPENDIX B

SAVANNAH HARBOR

LABORATORY DATA

EN-GS

TRANSMITTAL OF SAD LABORATORY REPORT(S)

TO: Savannah District ATTN: CESAS-ENGS	FROM: Director (CESAD-EN-FL) South Atlantic Division Laboratory Corps of Engineers, US Army P. O. Box 51 Marietta, Georgia 30061
PROJECT: Savannah Harbor Widening	Requisition No. SAS-EN-GS-87-23
SUBJECT: Test Reports	Work Order No. 5193

1. The test results shown on the enclosed General Test Report (SAD Form 158), are for those samples from the various holes where tests were requested for moisture content only. All other test results on samples that were tested for sieve analysis, Atterberg Limits, specific gravity, and visual classification are reported on ENG Form 2087 (gradation curves).

2. This completes all testing requested on Requisition No. SAS-EN-GS-87-23, which we are closing out. If you have questions, please contact Elton Shinn at 404/421-5299.

Encls

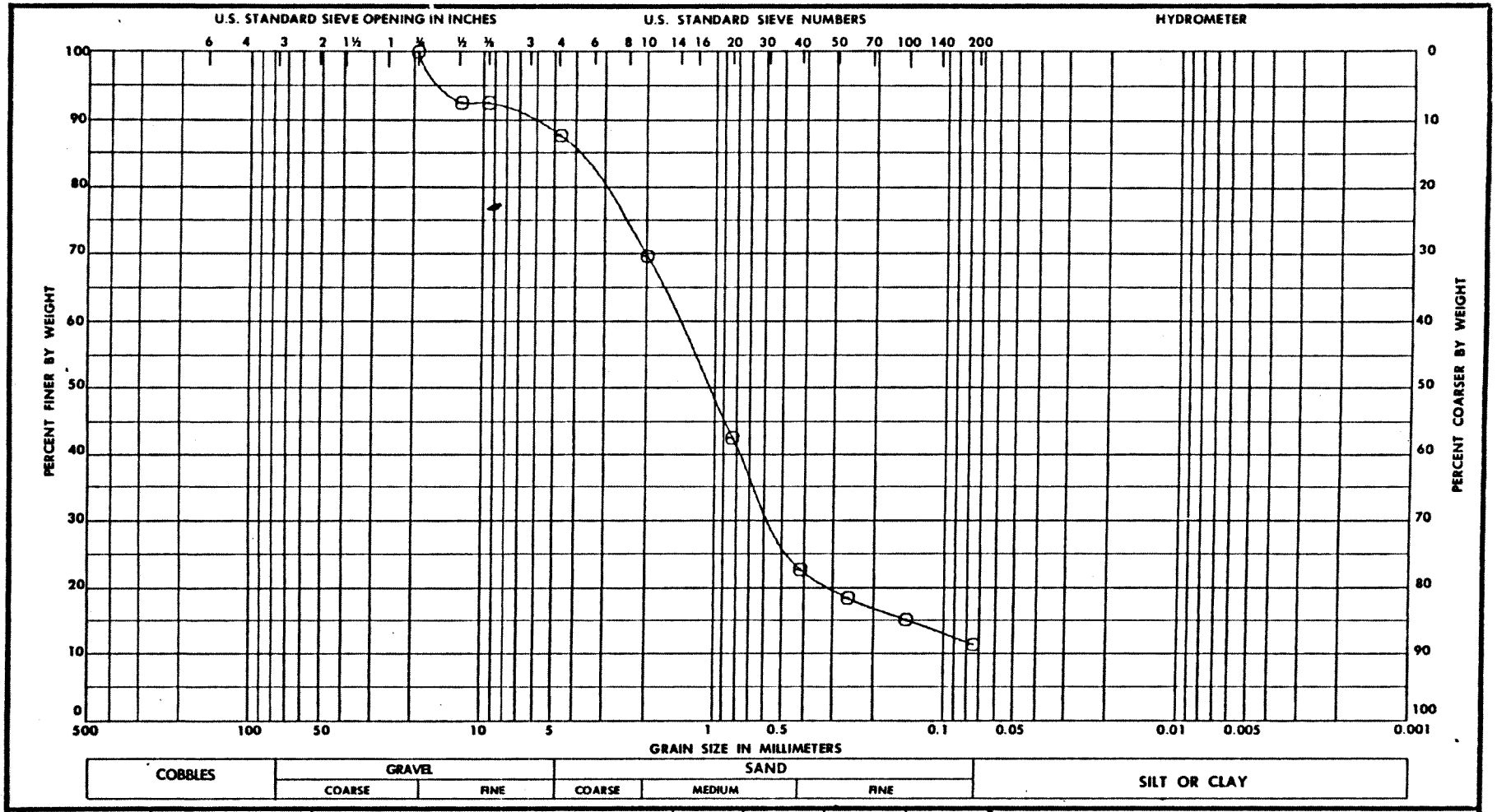
Submitted By: ROBERT J. STEPHENSON, P.E. Director, SAD Laboratory	*Signature*	*Date* 9 June 1987

SAD Form 3187
18 Jan 78

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

W.O. No. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
4	45.0-46.5'	POORLY GRADED SILTY CLAYEY	8.8	34	18	16
		SAND (SP-SM-SC)				
		TANNISH GRAY WITH A LITTLE				
		GRAVEL				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/388

Boring No. SH-69 SAMPLE NO. 4

Date 02/15/83

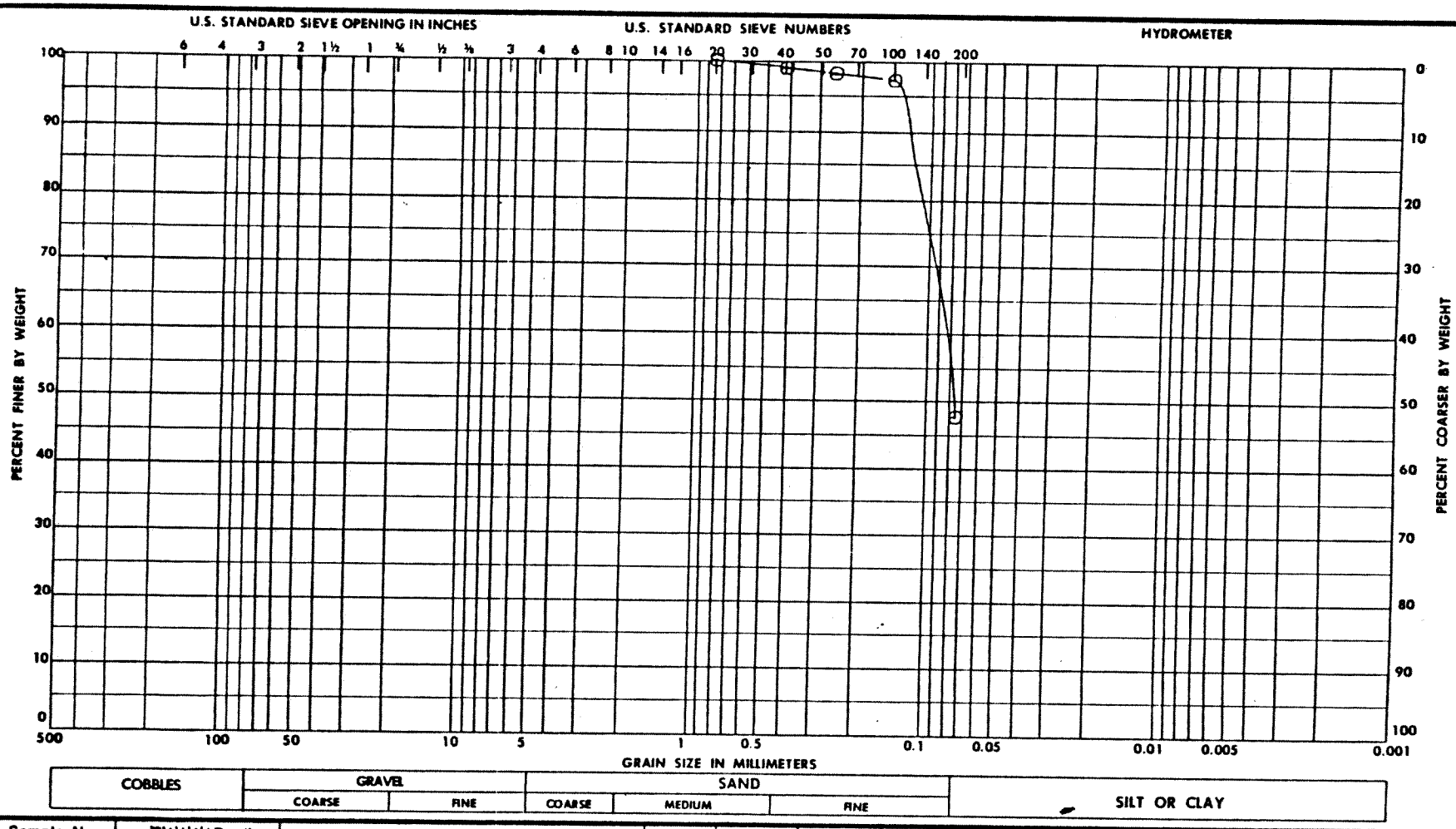
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
1	44.8-46.3'	CLAYEY SAND.HIGH LL (SC-H)	45.2	66	28	38
		GREENISH GRAY WITH A TRACE OF				
		MICA				

Project SAVANNAH HARBOR.GA.
HARBOR WIDENING

Area LAB NO.97/395

Boring No. SH-71 SAMPLE NO. 1

Date 02/15/83

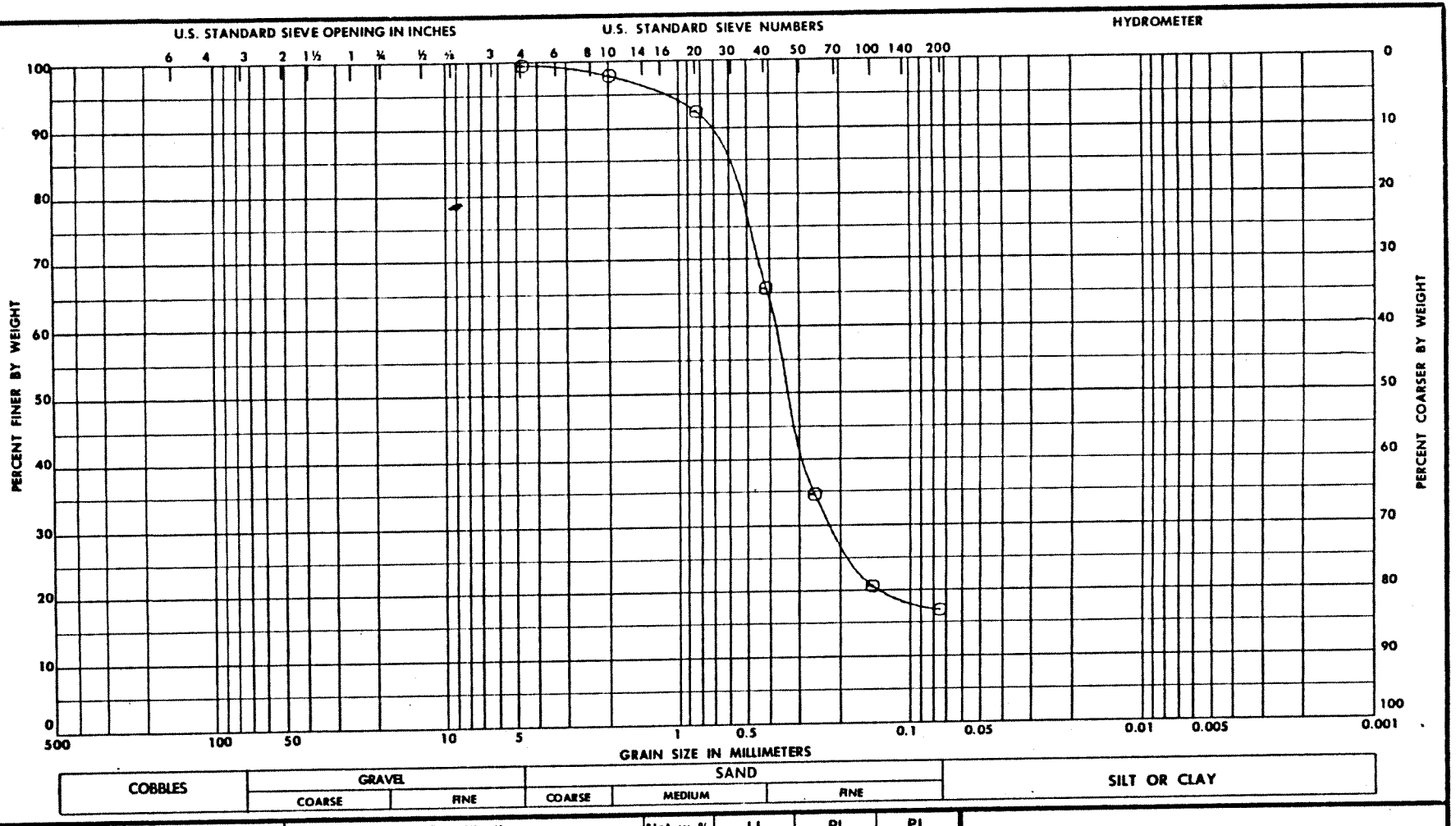
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
2	31.1-34.1'	CLAYEY SAND (SC) BROWNISH GRAY WITH A TRACE OF PEA SIZE GRAVEL, WOOD AND MICA	33.6	36	17	19

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/398

Boring No. SH-72A SAMPLE NO. 2

Date 02/15/83

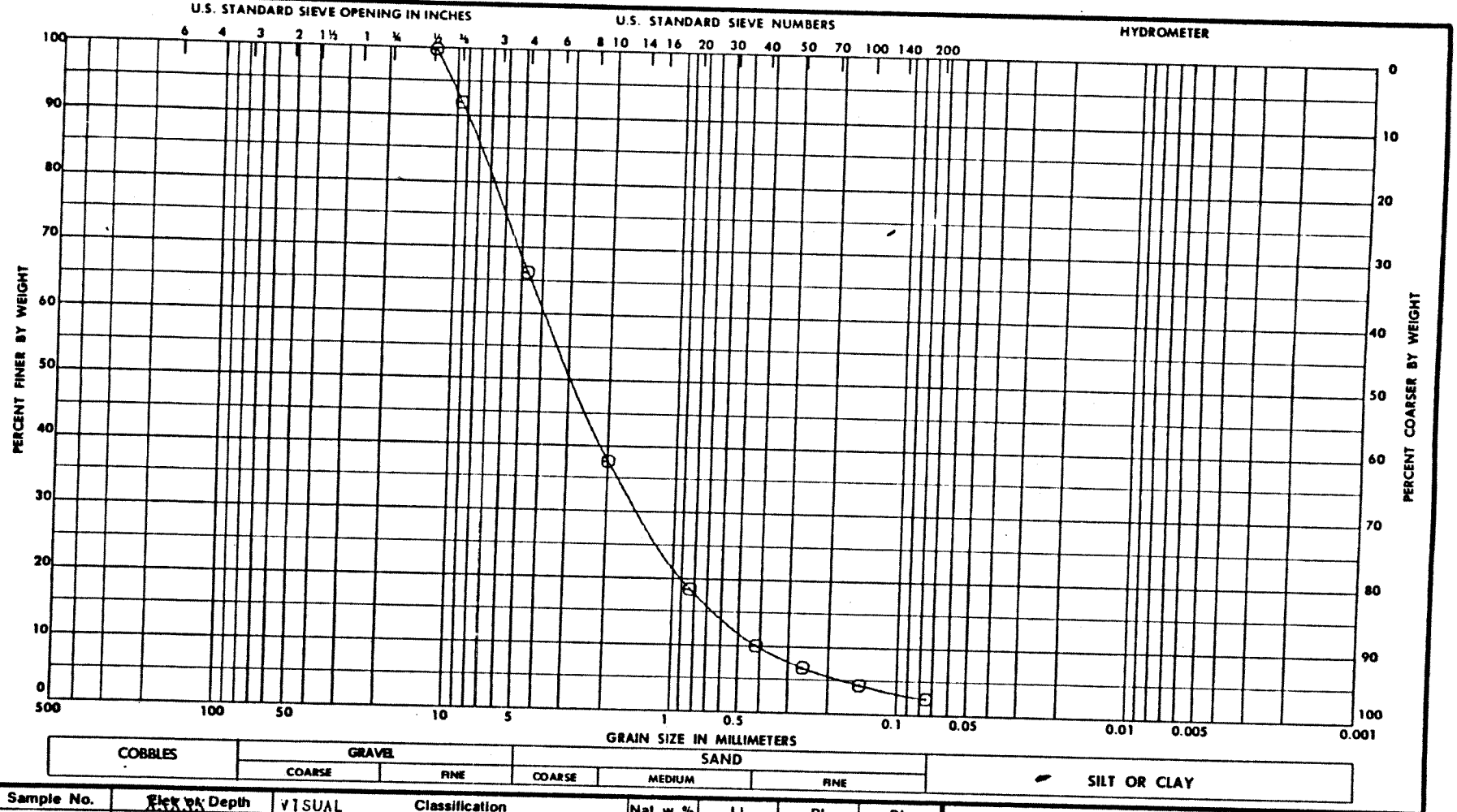
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	38.6-40.1'	POORLY GRADED SAND (SP) TAN WITH SOME GRAVEL AND A TRACE OF MICA	4.4	NP	NP	NP

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/400

Boring No. SH-72A SAMPLE NO. 4

Date 02/15/83

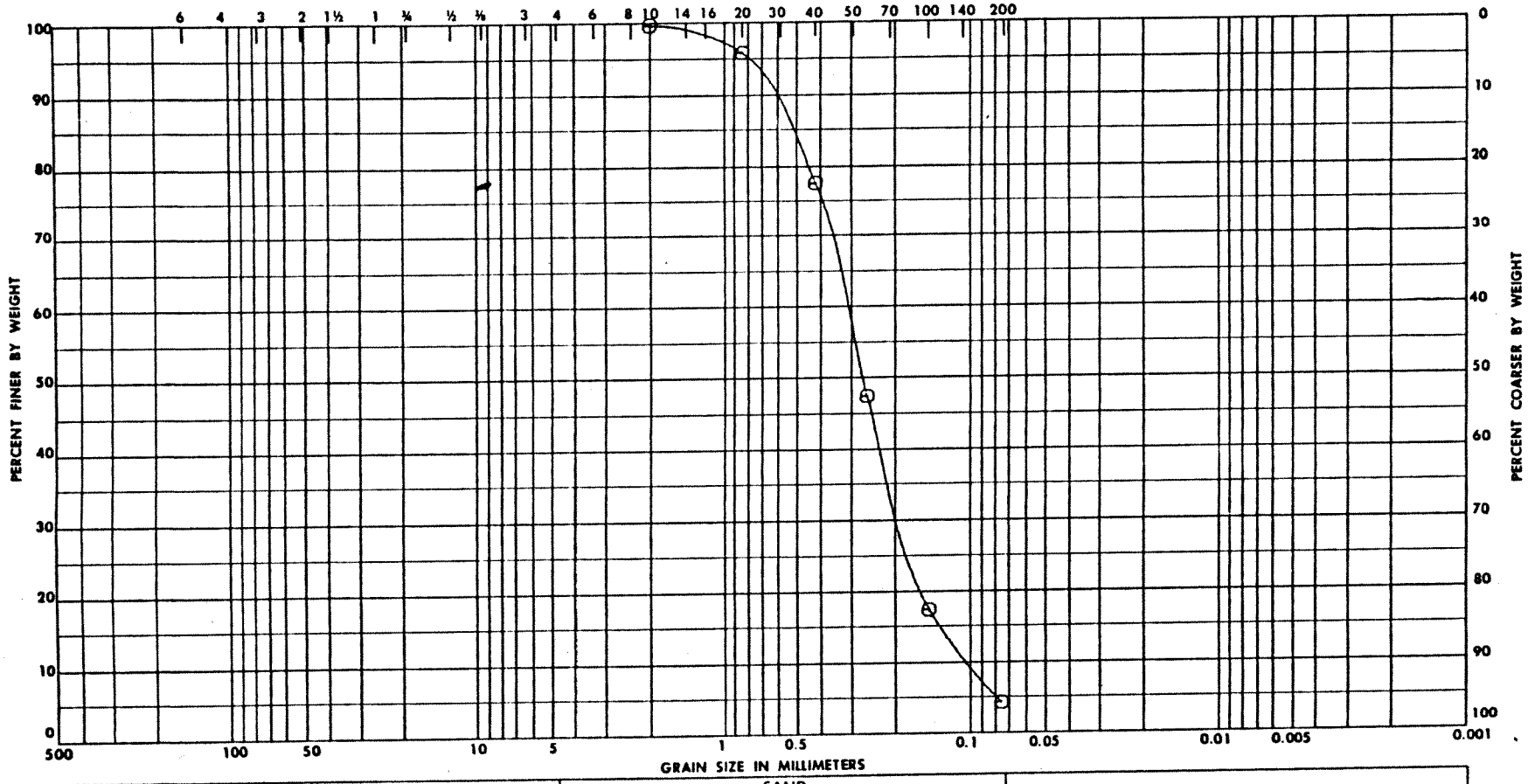
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	46.1-47.3'	POORLY GRADED SAND (SP)	18.9	NP	NP	NP
		LT.GRAY WITH A TRACE OF MICA				

Project SAVANNAH HARBOR.GA.
HARBOR WIDENING

Area LAB NO.97/402

Boring No. SH-73 SAMPLE NO. 2

Date 02/15/83

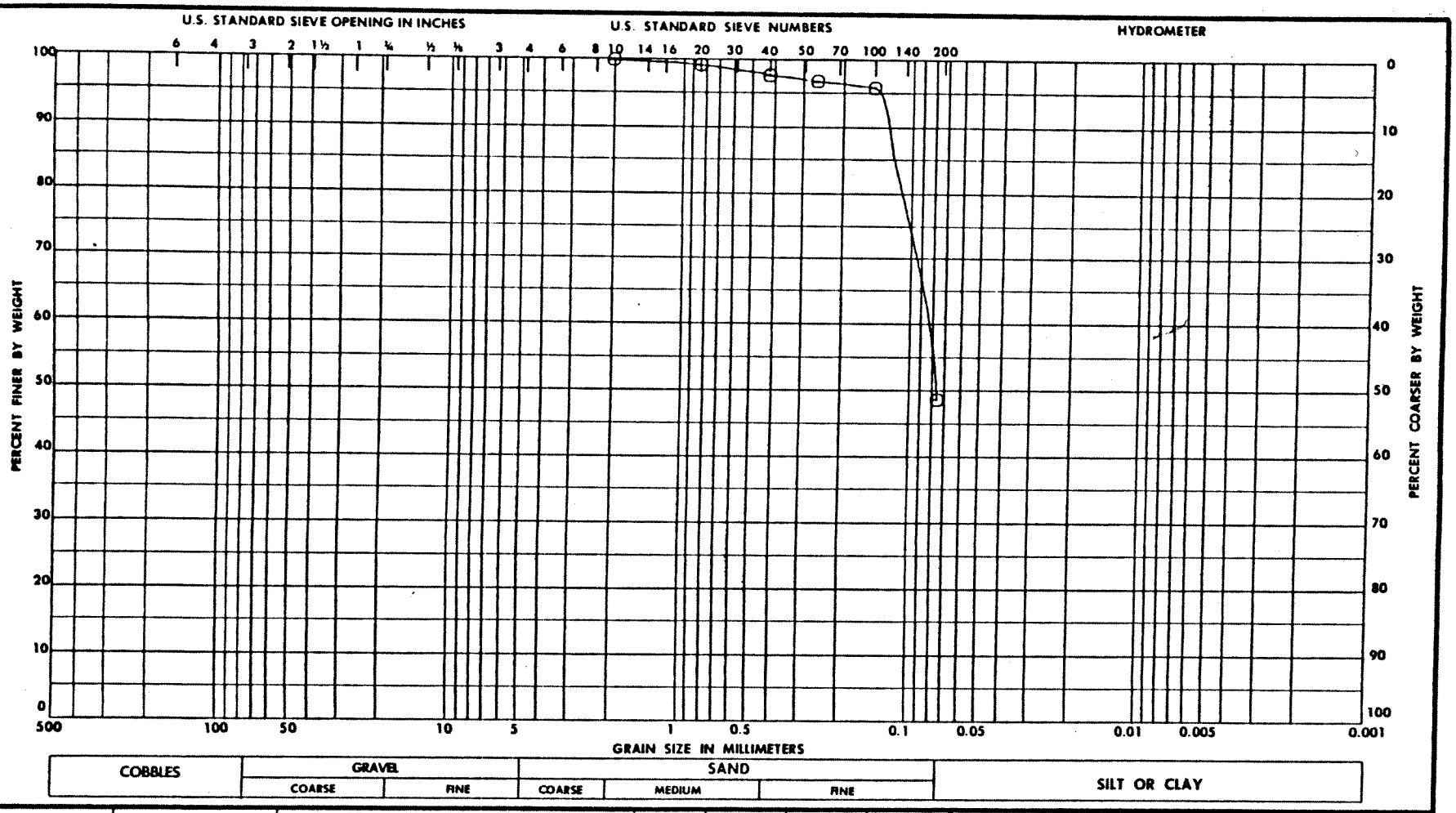
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
4	50.8-51.6'	CLAYEY SAND (SC)	26.0	42	22	20
		GRAYISH TAN AND GREEN WITH A				
		TRACE OF MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/404

Boring No. SH-73 SAMPLE NO. 4

Date 02/15/83

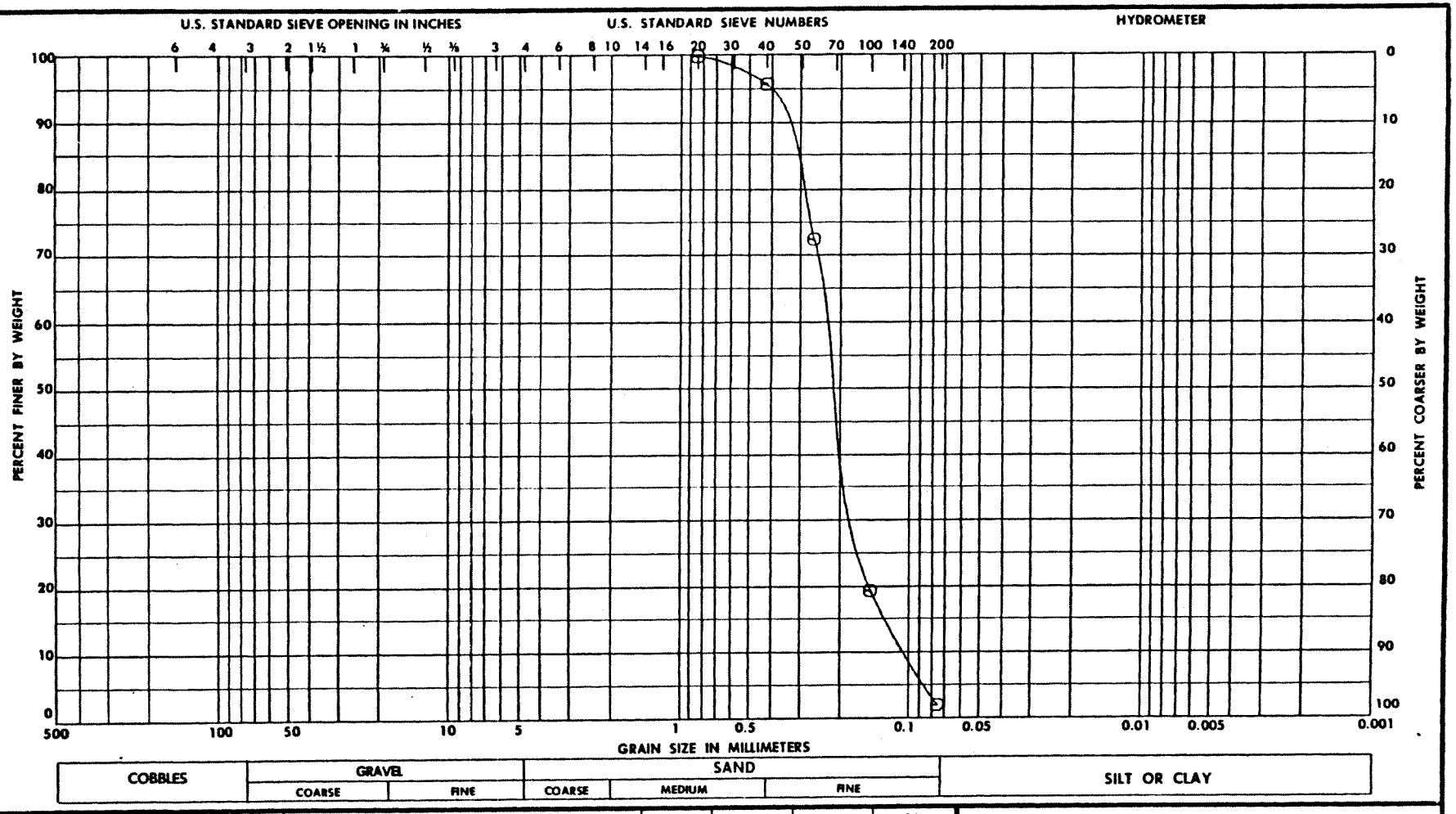
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	33.7-36.7'	POORLY GRADED SAND (SP)	24.6	NP	NP	NP
		TANNISH GRAY WITH A TRACE OF				
		MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/406

Boring No. SH-74 SAMPLE NO. 2

Date 02/15/83

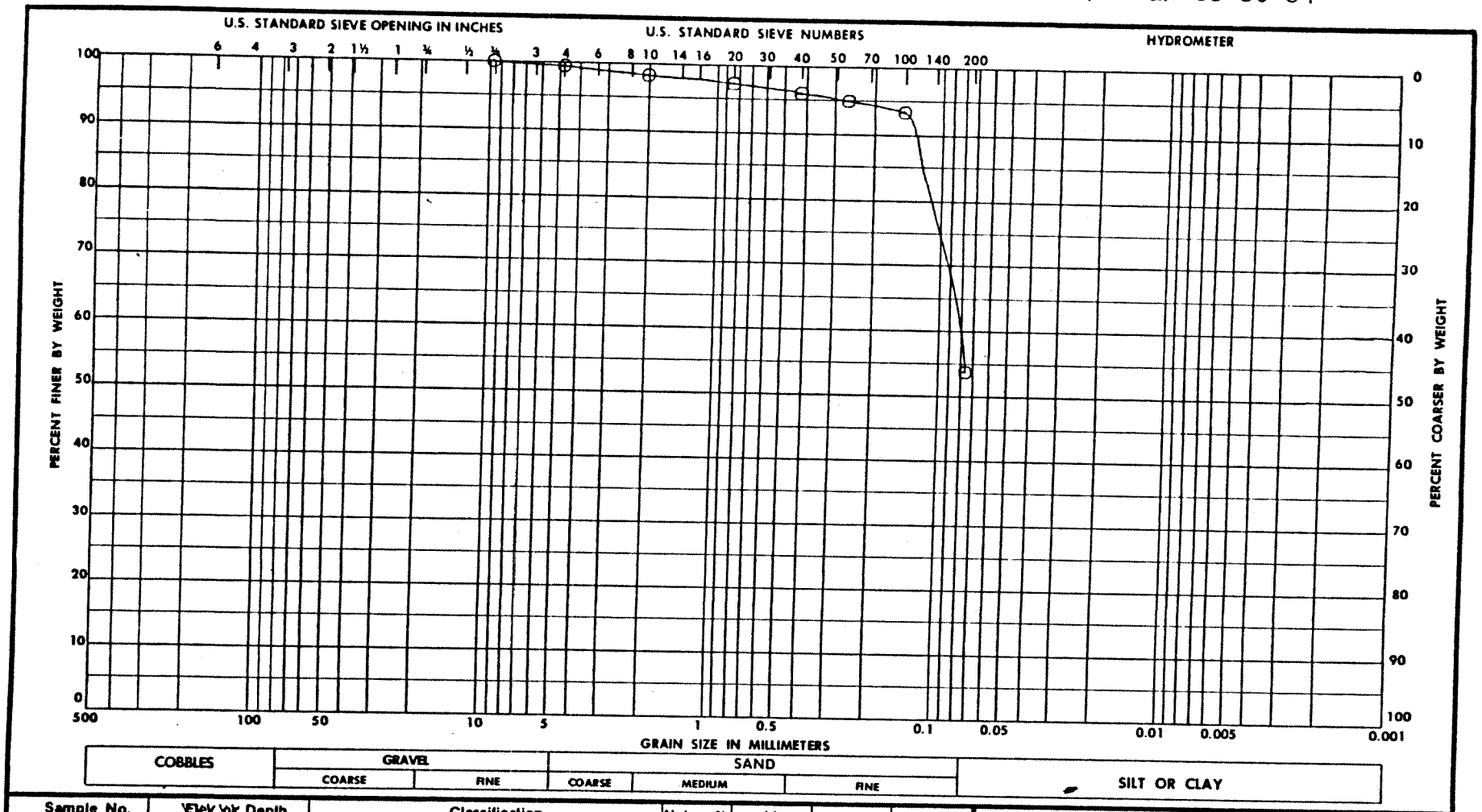
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	53.2-54.4'	LEAN CLAY (CL)	25.2	38	24	14
		GREENISH GRAY (SANDY) WITH A				
		TRACE OF WEATHERED SILT STONE				
		AND MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/414

Boring No. SH-75 SAMPLE NO. 7

Date 02/15/83

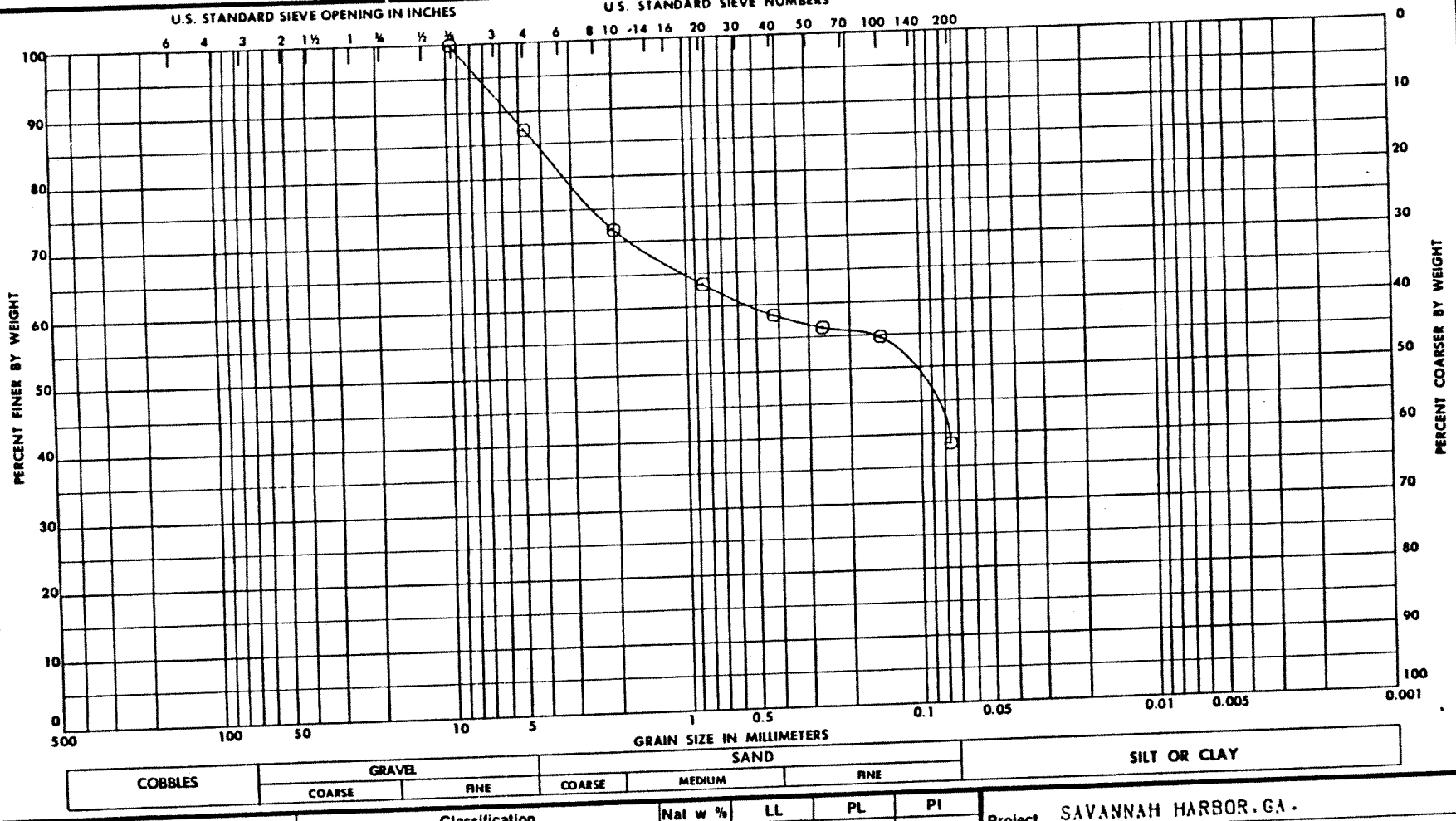
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
8	54.4-54.6'	SILTY SAND.HIGH LL (SM-H) GREENISH GRAY WITH A LITTLE GRAVEL AND A TRACE OF MICA AND WOOD	51.5	104	45	59

Project SAVANNAH HARBOR.GA.
HARBOR WIDENING
Area LAB NO.97/415
Boring No. SH-75 SAMPLE NO. 8
Date 02/15/83

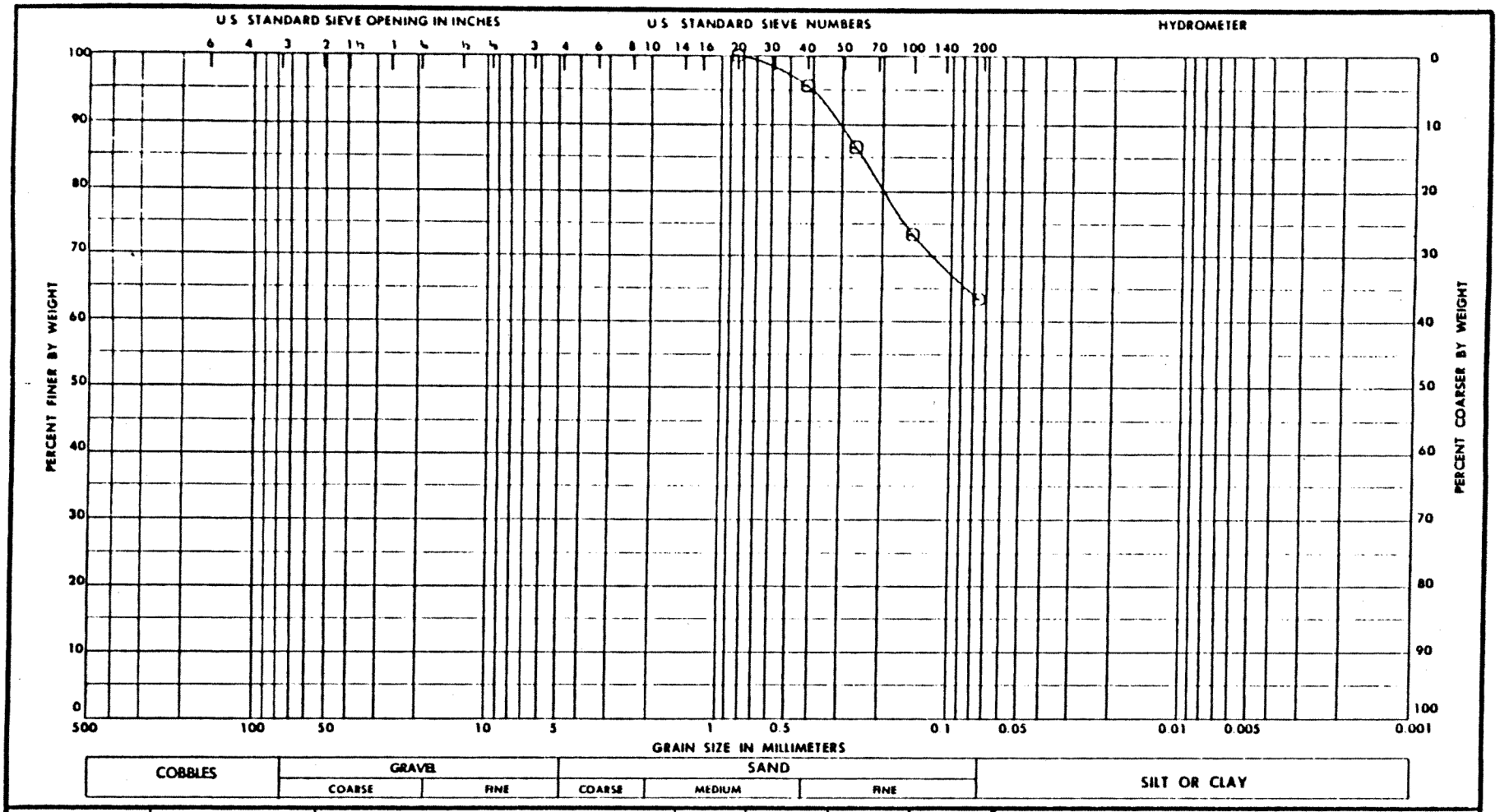
GRADATION CURVES

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 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	36.8-40.0'	FAT CLAY (CH) GRAY AND BROWN (SANDY) WITH A TRACE OF MICA	74.8	108	37	71

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/417

Boring No. SH-76 SAMPLE NO. 1

Date 02/15/83

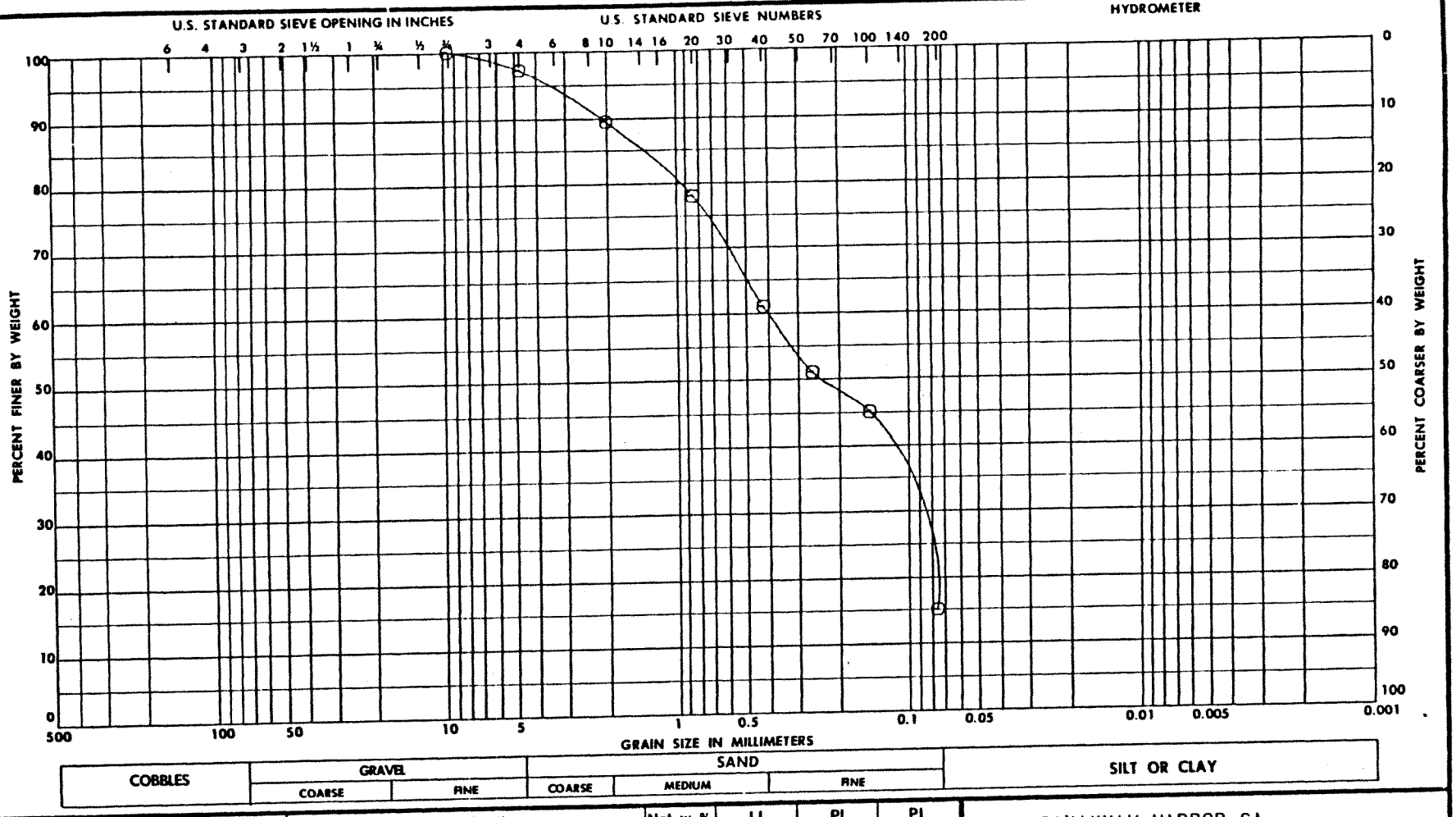
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
5	53.5-55.0'	SILTY SAND, HIGH LL (SM-H)	34.1	61	32	29
		GREENISH BROWN AND GRAY WITH				
		A TRACE OF GRAVEL AND MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/421

Boring No. SH-76 SAMPLE NO. 5

Date 02/15/83

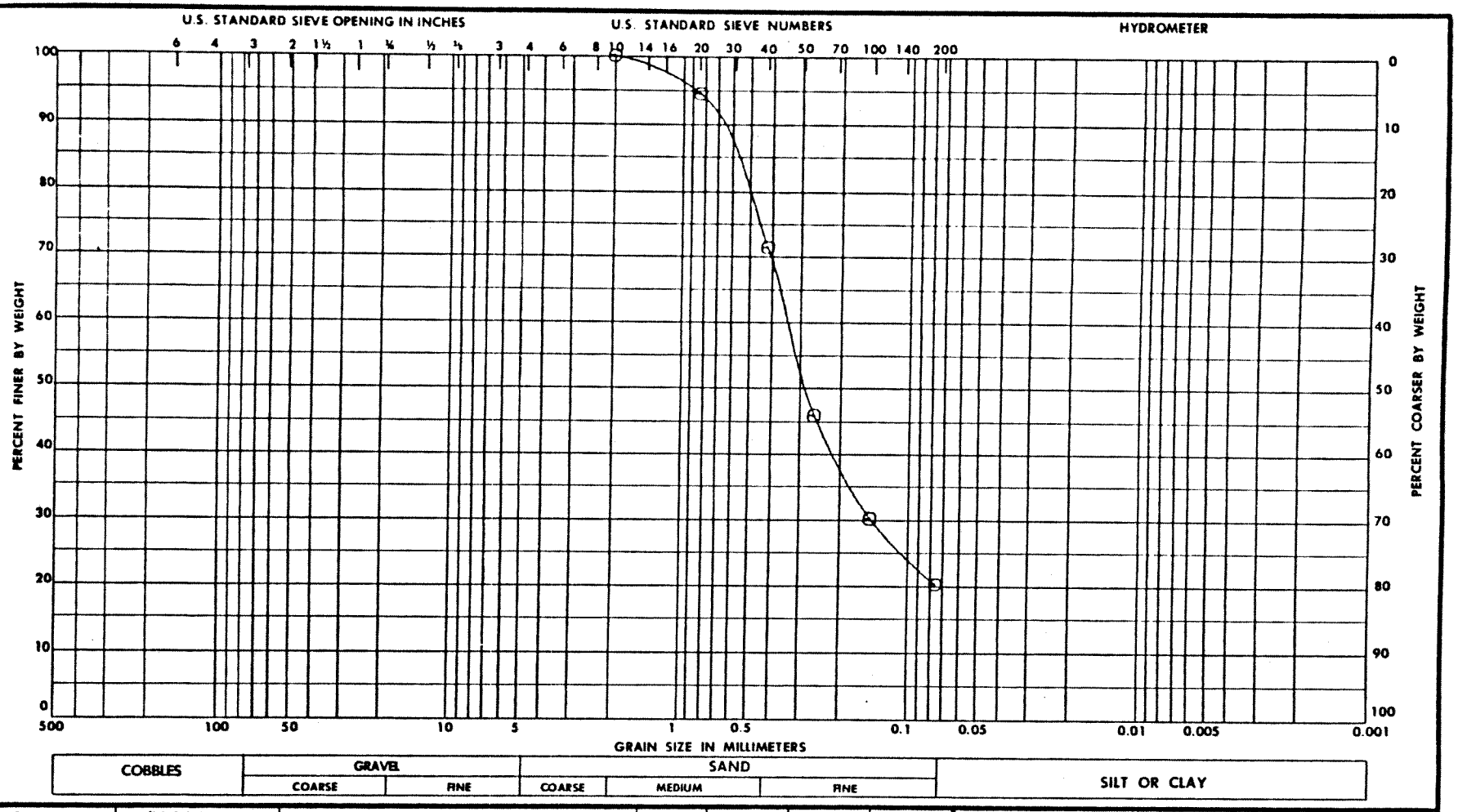
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	29.5-31.0'	CLAYEY SAND (SC)	30.7	44	19	25
		GRAY WITH A TRACE OF MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/425

Boring No. SH-77 SAMPLE NO. 2

Date 02/15/83

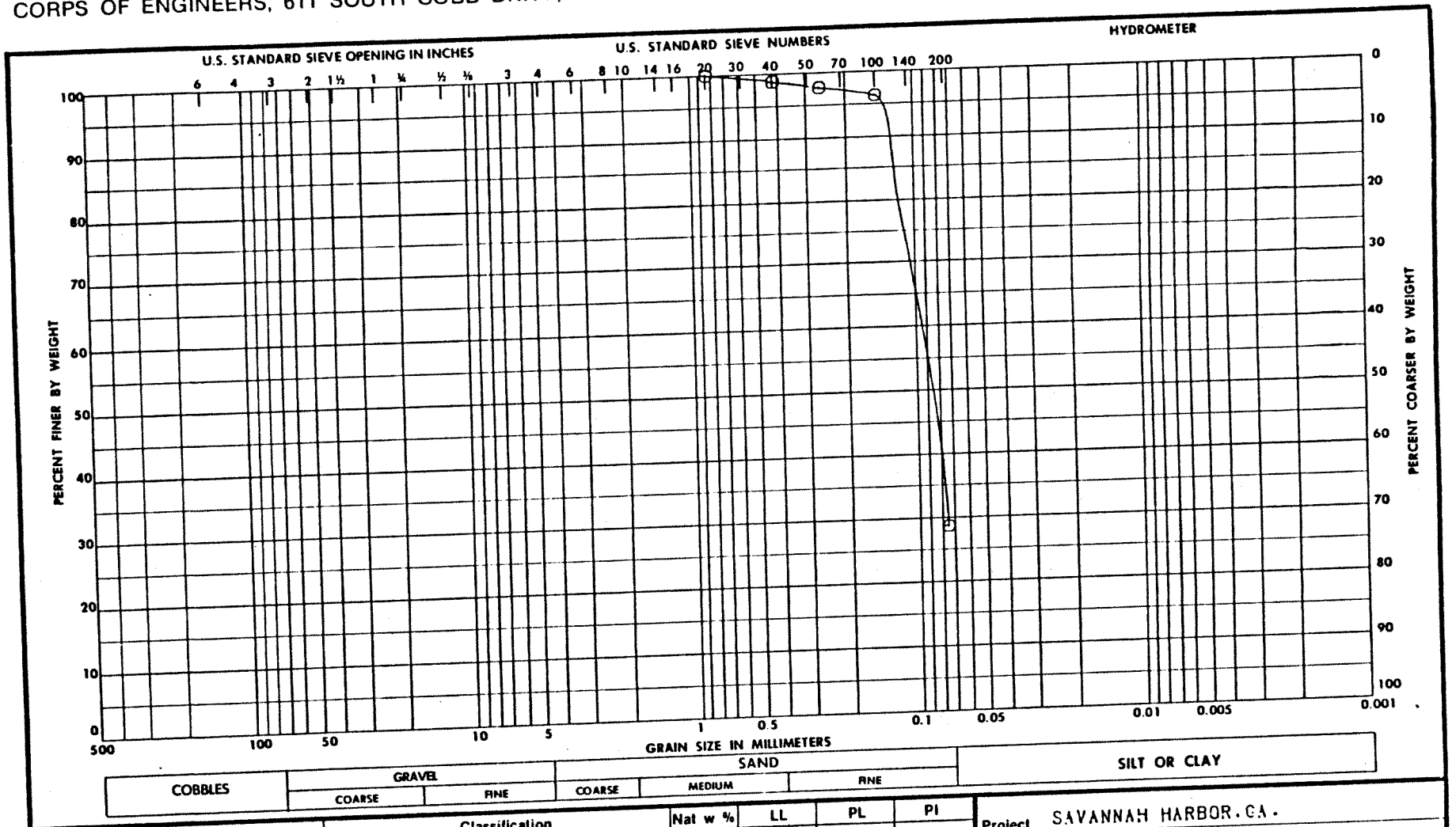
GRADATION CURVES

ENG FORM 1 MAY 63 2087

W.O. No. 3504

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

Req. No. EN-GS-83-54



Sample No.	~~Elev.or~~ Depth	Classification	Nat w %	LL	PL	PI
6	39.5-41.0'	SILTY SAND.HIGH LL (SM-H) GREENISH GRAY WITH A TRACE OF MICA	32.8	54	30	24

Project SAVANNAH HARBOR.GA.
HARBOR WIDENING

Area LAB NO.97/429

Boring No. SH-77 SAMPLE NO. 6

Date 02/15/83

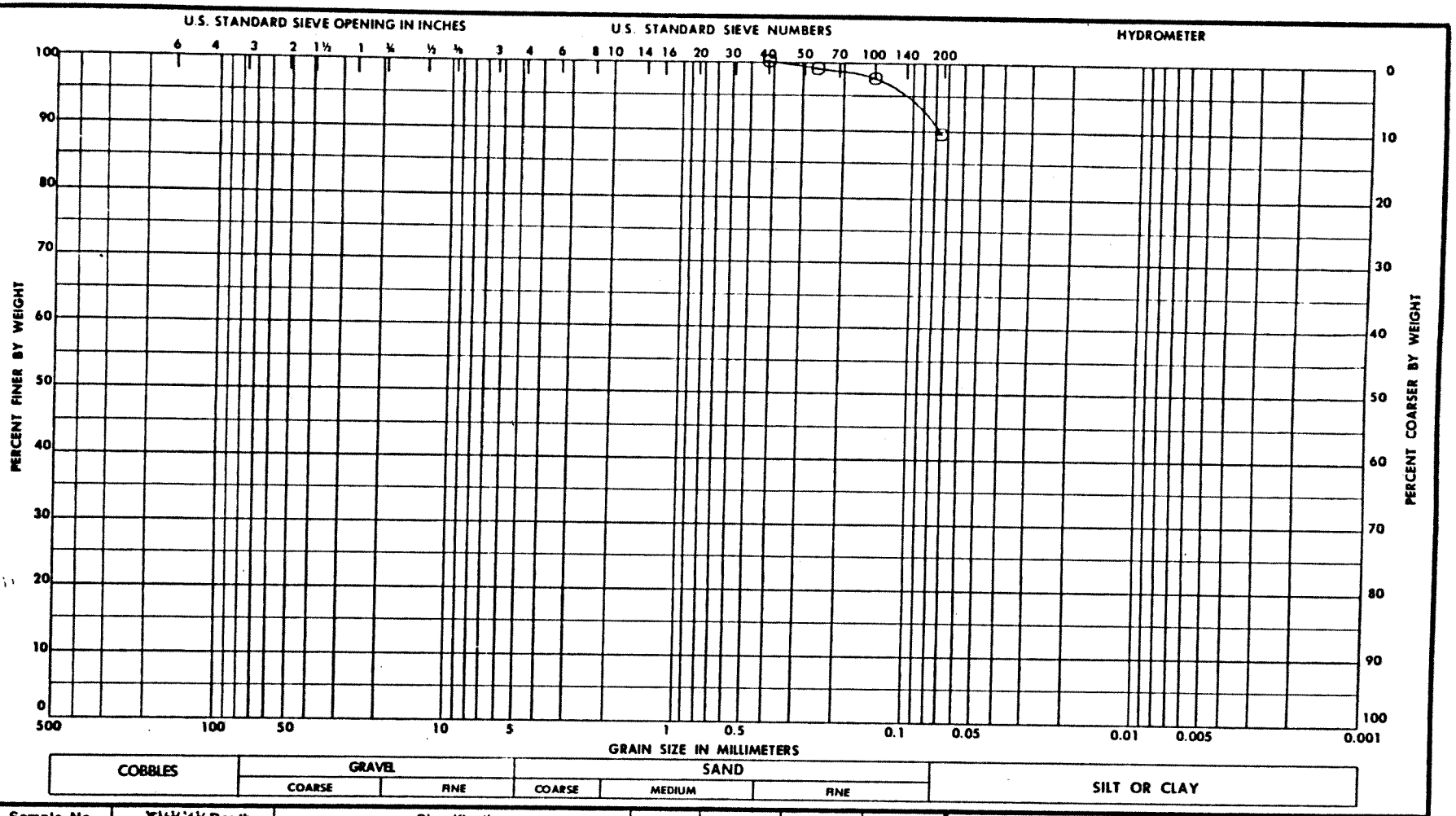
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev.~~ Depth	Classification	Nat w %	LL	PL	PI
3	45.2-46.7'	FAT CLAY (CH)	135.4	190	59	131
		BROWNISH GREEN WITH A TRACE				
		OF FINE SHELL				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING
Area LAB NO. 97/438
Boring No. SH-79 SAMPLE NO. 3
Date 02/15/83

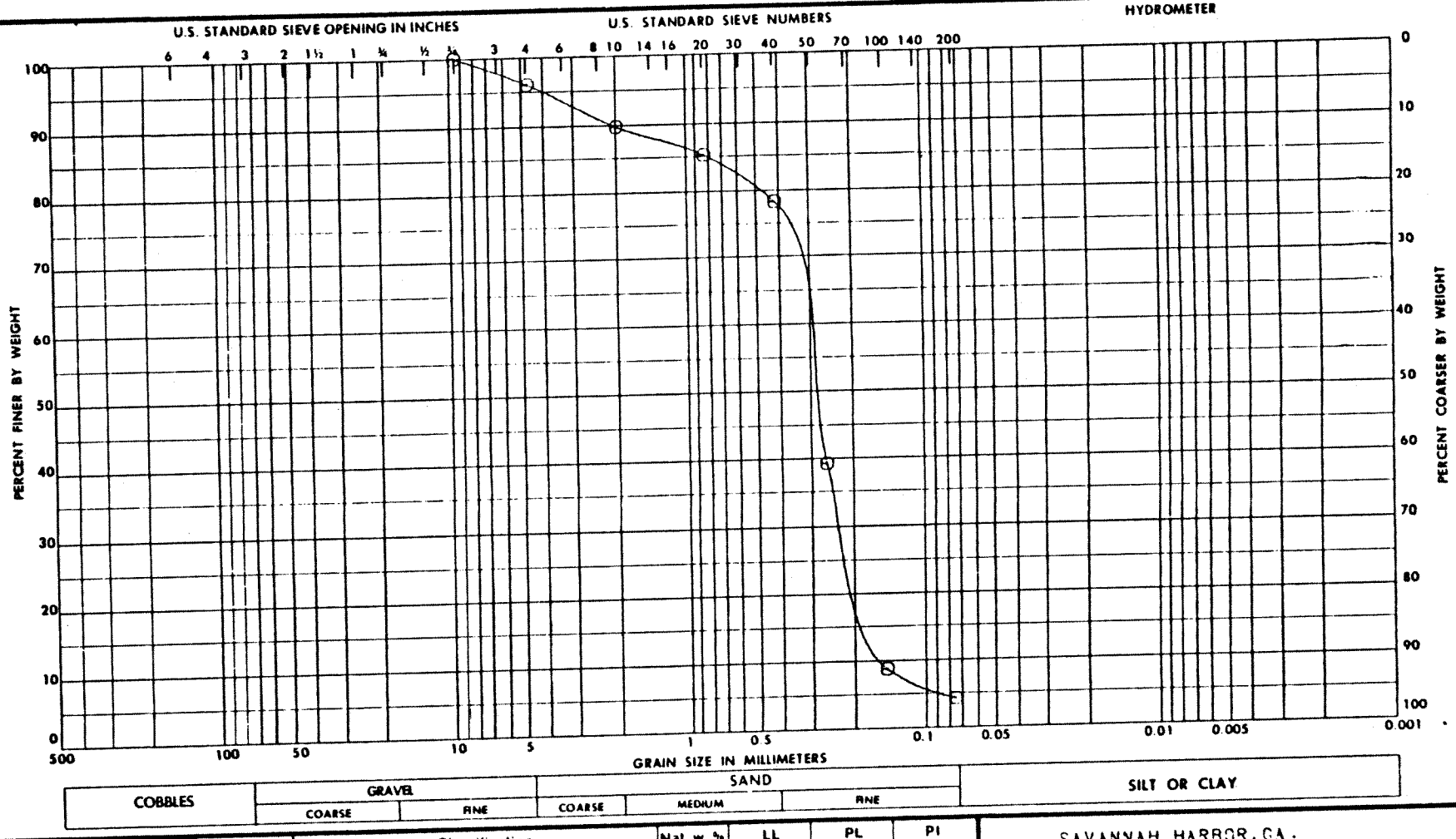
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	47.9-49.4'	POORLY GRADED SAND (SP) GRAY WITH A TRACE OF SHELL AND MICA	19.4	NP	NP	NP

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING
Area LAB NO. 97/443
Boring No. SH-80 SAMPLE NO. 4
Date 02/15/83

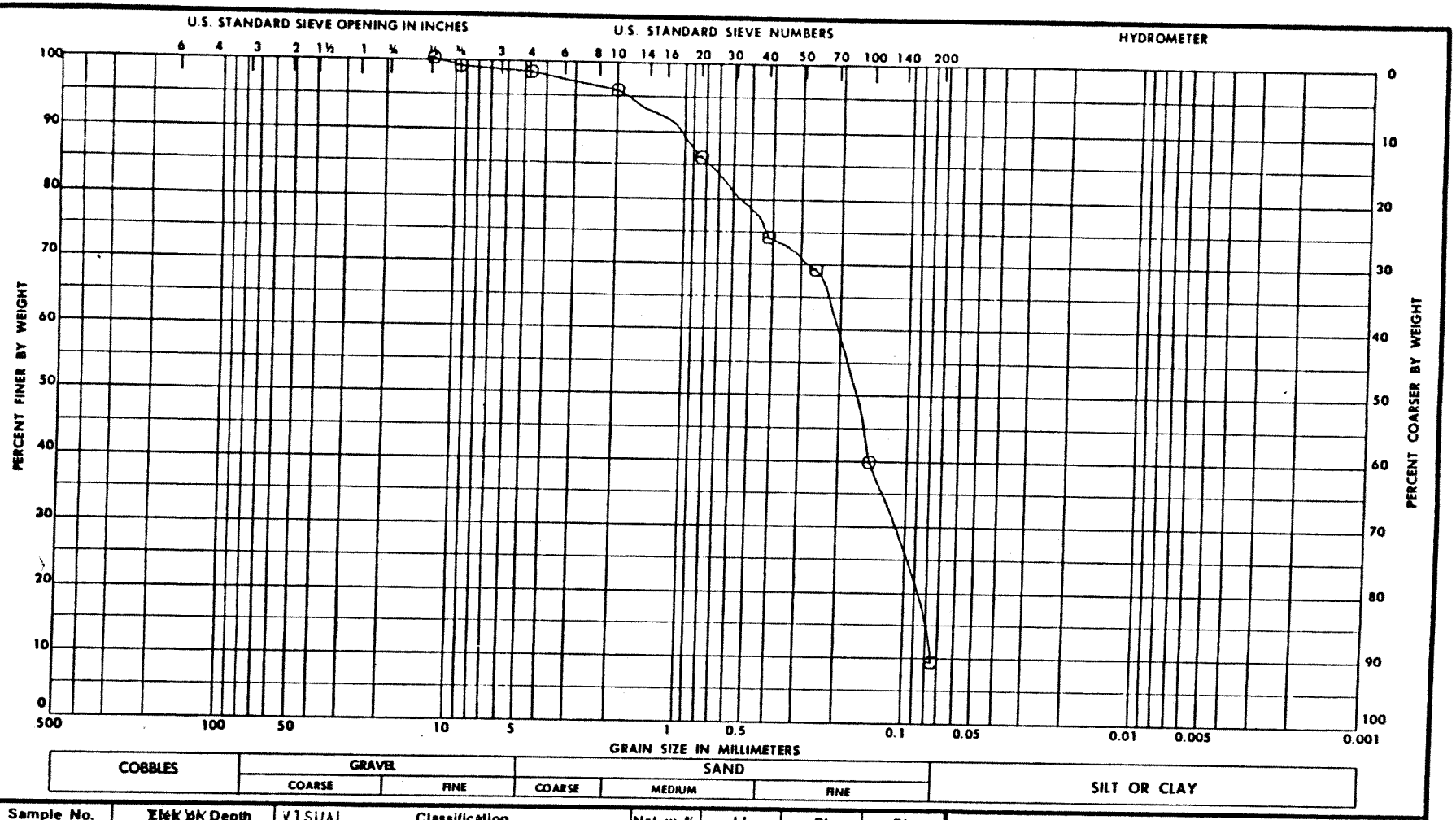
GRADATION CURVES

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. 3504

Req. No. EN-GS-83-54



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	44.0-45.5'	POORLY GRADED SILTY SAND	26.5	NP	NP	NP
		(SP-SM)				
		GRAY WITH A TRACE OF GRAVEL				
		SHELL AND MICA				

Project SAVANNAH HARBOR, GA.
HARBOR WIDENING

Area LAB NO. 97/447

Boring No. SH-81 SAMPLE NO. 3

Date 02/15/83

GRADATION CURVES

ENG FORM 1 MAY 63 2087

GENERAL TEST REPORT U.S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC CORPS OF ENGINEERS MARIETTA, GEORGIA	DISTRICT/OFFICE Savannah CONTRACT NO. --
PROJECT Savannah Harbor Widening	DATE REPORTED 22 November 1983 WORK ORDER NO. 3778
TYPE SAMPLE Jar Samples of Disturbed Soils	REQN. NO. EN-CS-84-03
~~SOURCE~~ Hole No.: SH-82 thru SH-101	BASE UNIT COST --
FOR USE AS Investigation	DATE SAMPLE RECEIVED 19 Sept - 17 Nov 1983
TESTED FOR Lab Classification and Field Moisture	LAB NO. 97/449----598

☐ MEETS SPECIFICATIONS N/A ☐ FAILS SPECIFICATIONS (See below)

Lab No.	Hole No.	Sample No.	Depth (ft.)	Moisture Content (%)
97/				
451	SH-82	4	34.8-36.3	11.8*
452	SH-82	5	37.8-39.3	8.2
458	SH-83	2	20.3-21.8	39.0*
460	SH-83	4	26.3-27.8	24.2*
463	SH-83	7	39.8-41.3	69.9*
464	SH-83	8	44.3-45.8	72.9
466	SH-84	2	29.0-30.5	18.0*
467	SH-84	3	30.5-32.0	17.9*
470	SH-84	6	38.0-39.5	56.2
471	SH-84	7	39.5-41.0	52.0*
472	SH-84	8	41.0-42.5	50.5
474	SH-84	10	47.1-48.6	74.2*
477	SH-85	2	23.0-24.5	18.6*
481	SH-85	6	32.0-33.5	25.7*
482	SH-85	7	39.5-41.0	51.7*
484	SH-85	9	44.0-45.5	44.3
485	SH-85	10	45.5-47.0	63.6*
487	SH-85	12	48.5-50.0	69.8
492	SH-86	5	43.5-45.0	21.7*

REMARKS

*See lab classification data on ENG Form 2087.

REPORTED BY ☐ PHONE ☐ WIRE	TESTED BY JK, HDS	CHECKED BY ES
DATE _____	SAMPLED BY District	

ED FORM 158 Previous editions of this form are obsolete

GENERAL TEST REPORT (Continued)

(SOILS)

PROJECT Savannah Habror Widening

LAB NO. 97/449---598

WORK ORDER NO. 3778

DATE 22 Nov 1983

REQ. NO. EN-GS-84-03

Lab No. 97/	Hole No.	Sample No.	Depth (ft)	Moisture Content (%)
497	SH-87	3	25.0-26.5	22.6*
503	SH-87	9	48.5-50.0	40.7*
509	SH-88	6	45.7-47.2	98.4*
510	SH-88	7	48.7-50.2	47.9
511	SH-89	1	34.1-36.5	147.8*
513	SH-89	3	38.5-40.0	37.8*
515	SH-89	5	44.5-46.0	78.2*
516	SH-89	6	49.0-50.5	83.9
517	SH-90	1	40.7-40.9	158.5
518	SH-90	2	40.9-42.4	46.1*
520	SH-90	4	45.5-47.0	64.9*
521	SH-90	5	48.5-50.0	46.1
522	SH-91	1	9.2-10.2	100.4
524	SH-91	3	19.0-20.5	25.5*
526	SH-91	5	29.5-31.0	62.5*
528	SH-91	7	34.0-35.5	31.3*
529	SH-91	8	38.5-40.0	42.5
531	SH-92	1	35.5-36.8	139.5*
535	SH-92	5	48.5-49.0	47.8*
536	SH-92	6	49.0-50.5	49.5
537	SH-93	1	11.1-12.6	149.4
538	SH-93	2	13.0-14.5	133.9*
540	SH-93	4	19.6-21.1	31.8*
541	SH-93	5	21.0-22.5	54.4
542	SH-93	6	24.0-25.5	93.3*
544	SH-93	8	34.5-36.0	42.5*
549	SH-94	1	41.2-42.7	137.0*
550	SH-94	2	44.0-45.5	39.3*
551	SH-94	3	48.5-50.0	39.3
552	SH-95	1	18.1-19.6	38.5
553	SH-95	2	21.0-22.0	39.7
554	SH-95	3	27.0-28.5	40.0*
555	SH-95	4	28.5-30.0	52.8*
605	SH-95	9	45.0-46.5	30.2*

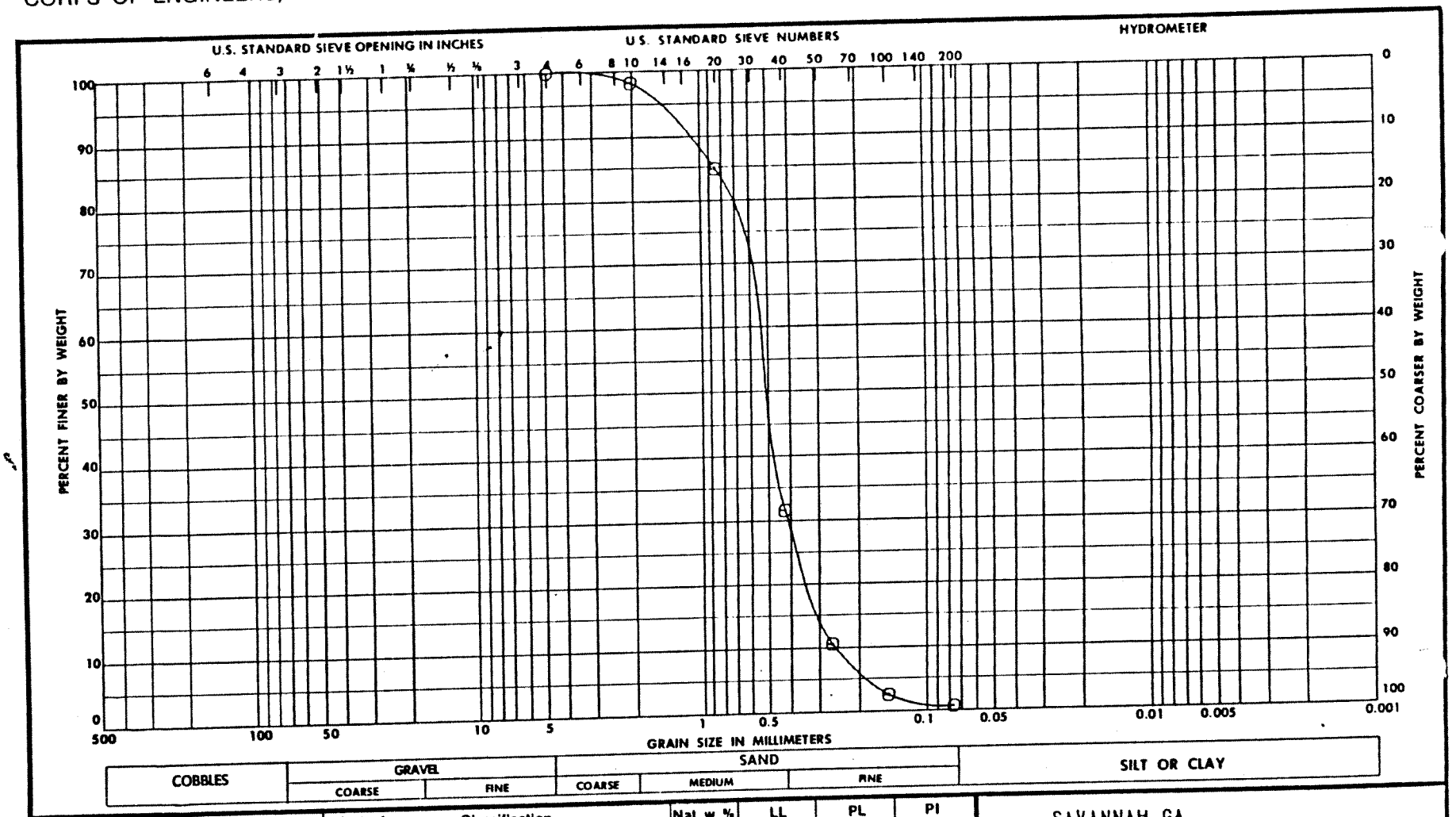
*See lab classification data on ENG Form 2087.

SAD Form 158A
1 Feb 79

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

W.O. No. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	28.8-30.3'	POORLY GRADED SAND (SP)		NP	NP	NP
		GRAY				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/449
Boring No. SH-82 SAMPLE NO. 2
Date 11/17/83

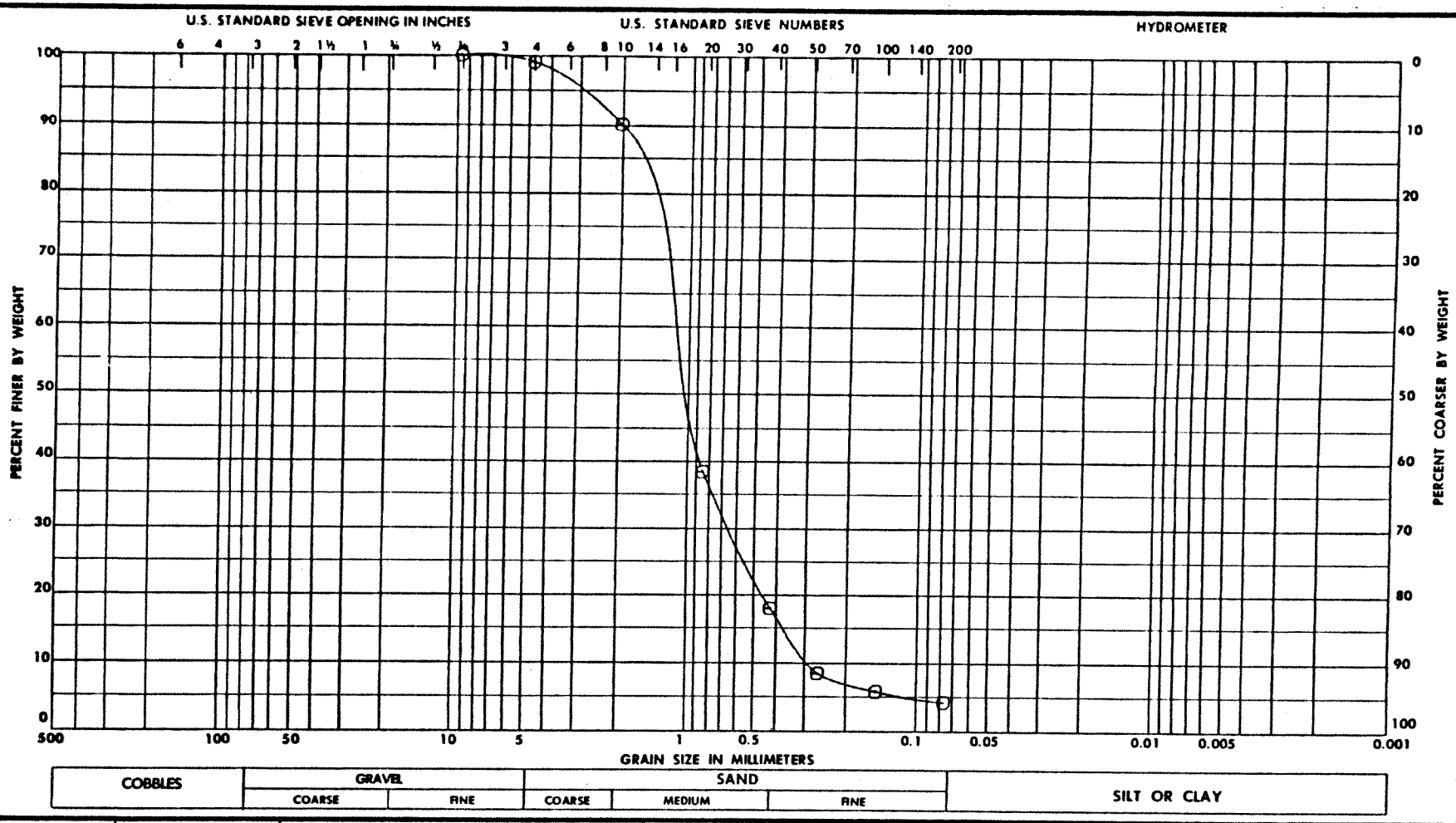
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	34.8-36.3'	POORLY GRADED SAND (SP)	11.8	NP	NP	NP
		TAN WITH A TRACE OF GRAVEL				

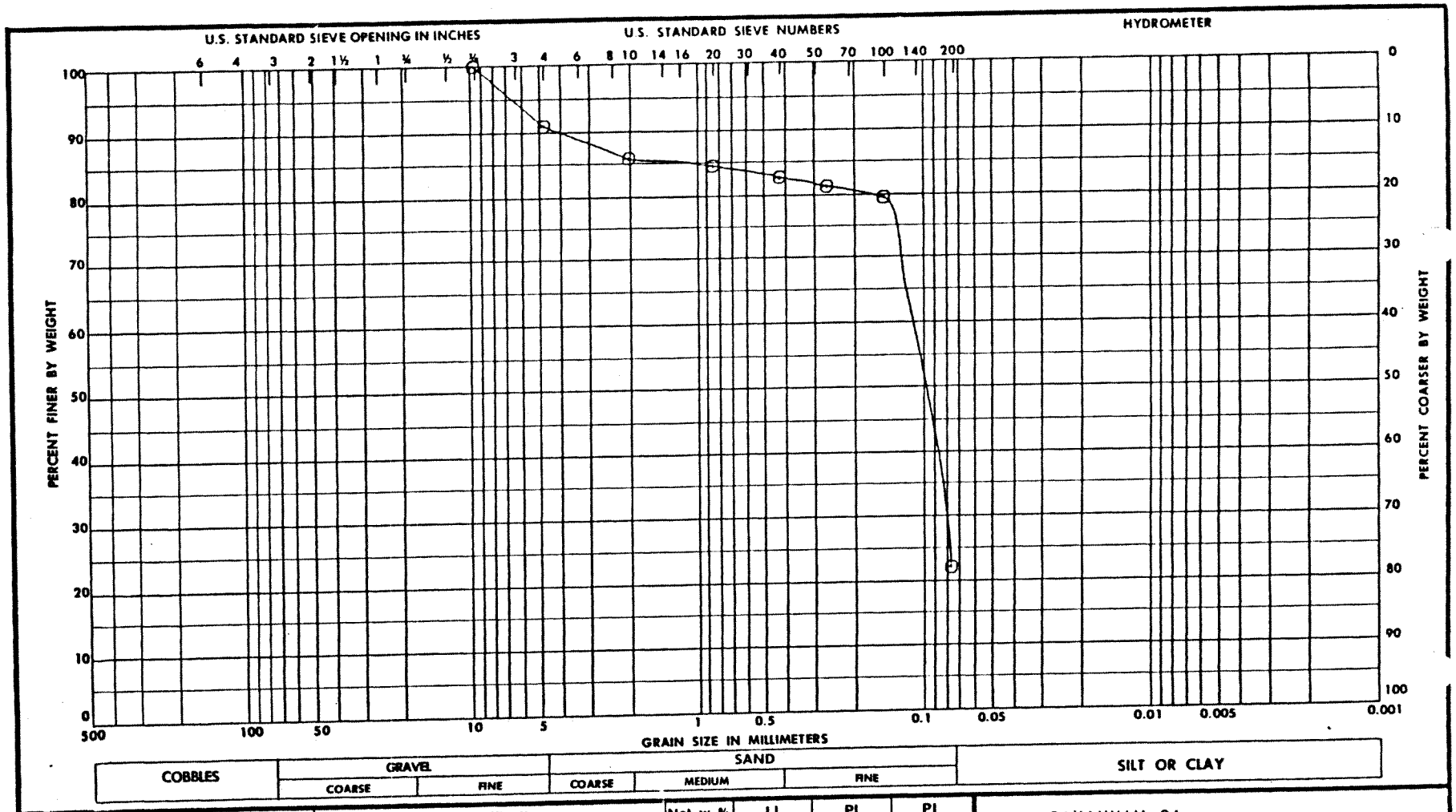
Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/451
Boring No. SH-82 SAMPLE NO. 4
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
8	46.8-47.9'	SILTY SAND (SM)				
		GREENISH GRAY WITH A TRACE OF				
		GRAVEL				

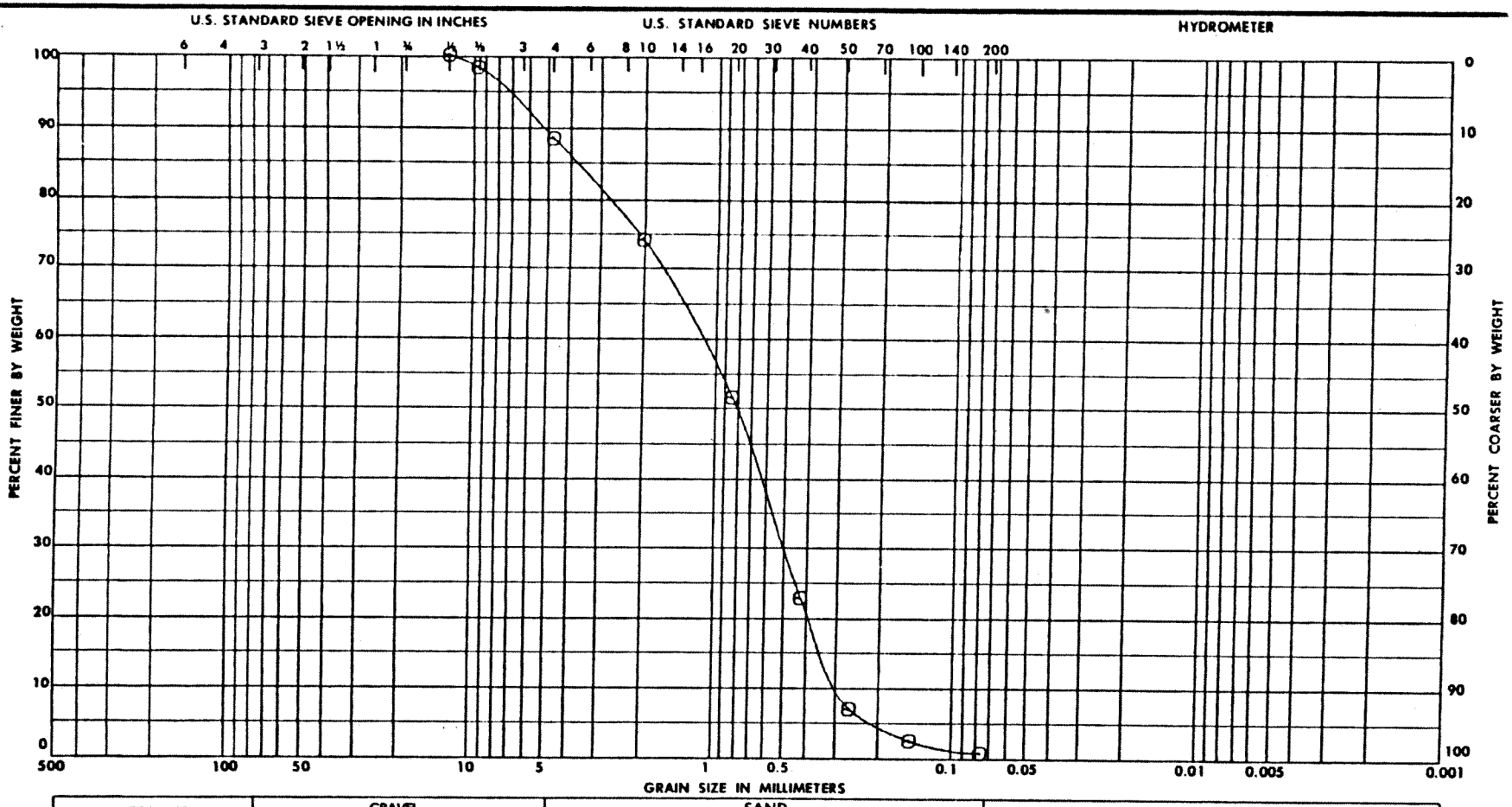
Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/455
Boring No. SH-82 SAMPLE NO. 8
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	17.3-18.8'	POORLY GRADED SAND (SP)		NP	NP	NP
		LT.TAN WITH A LITTLE GRAVEL				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/457
Boring No. SH-83 SAMPLE NO. 1
Date 11/17/83

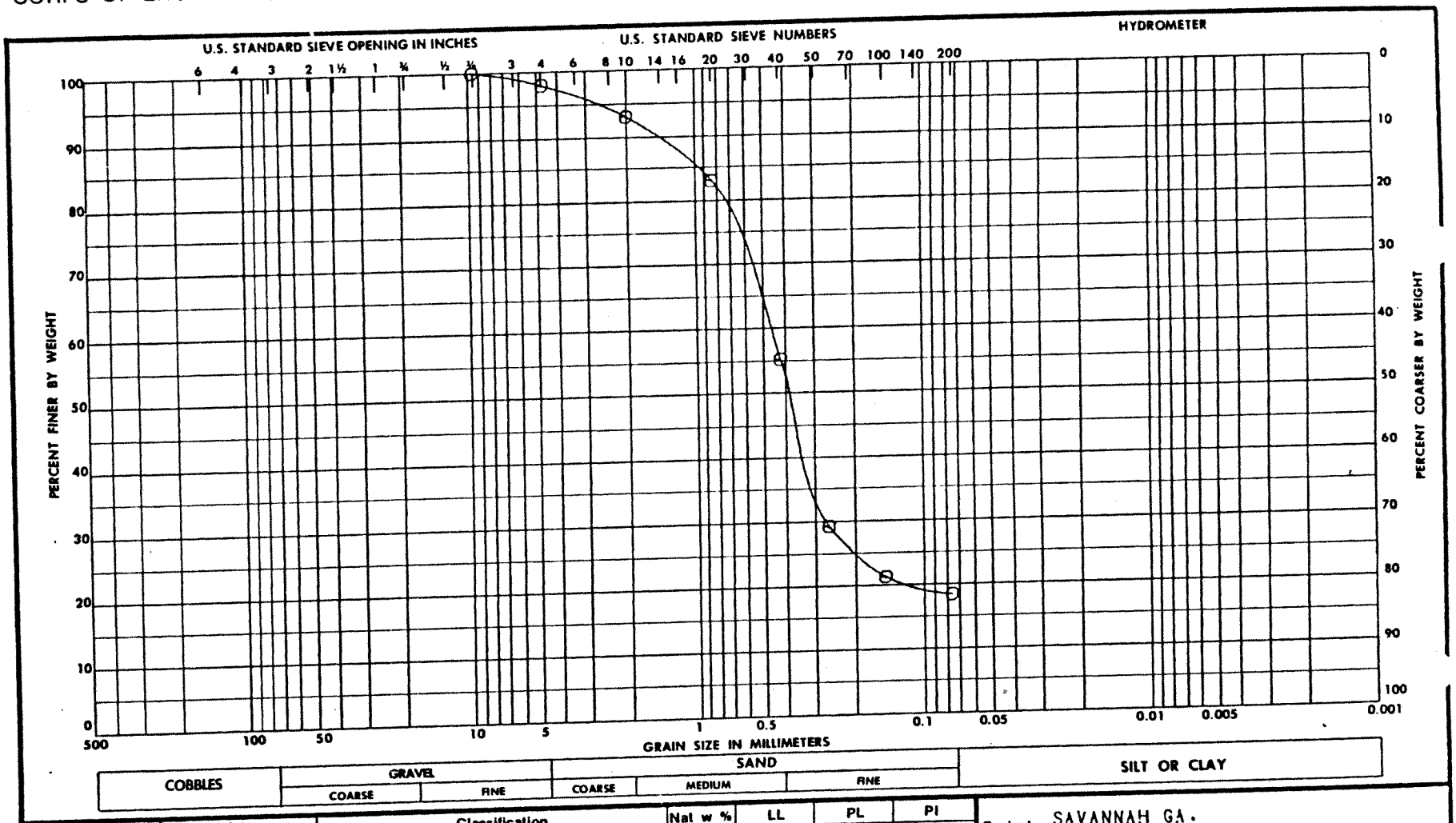
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
2	20.3-21.8'	CLAYEY SAND.HIGH LL (SC-H) BROWN WITH A TRACE OF GRAVEL	39.0	55	21	34

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/458
Boring No. SH-83 SAMPLE NO. 2
Date 11/17/83

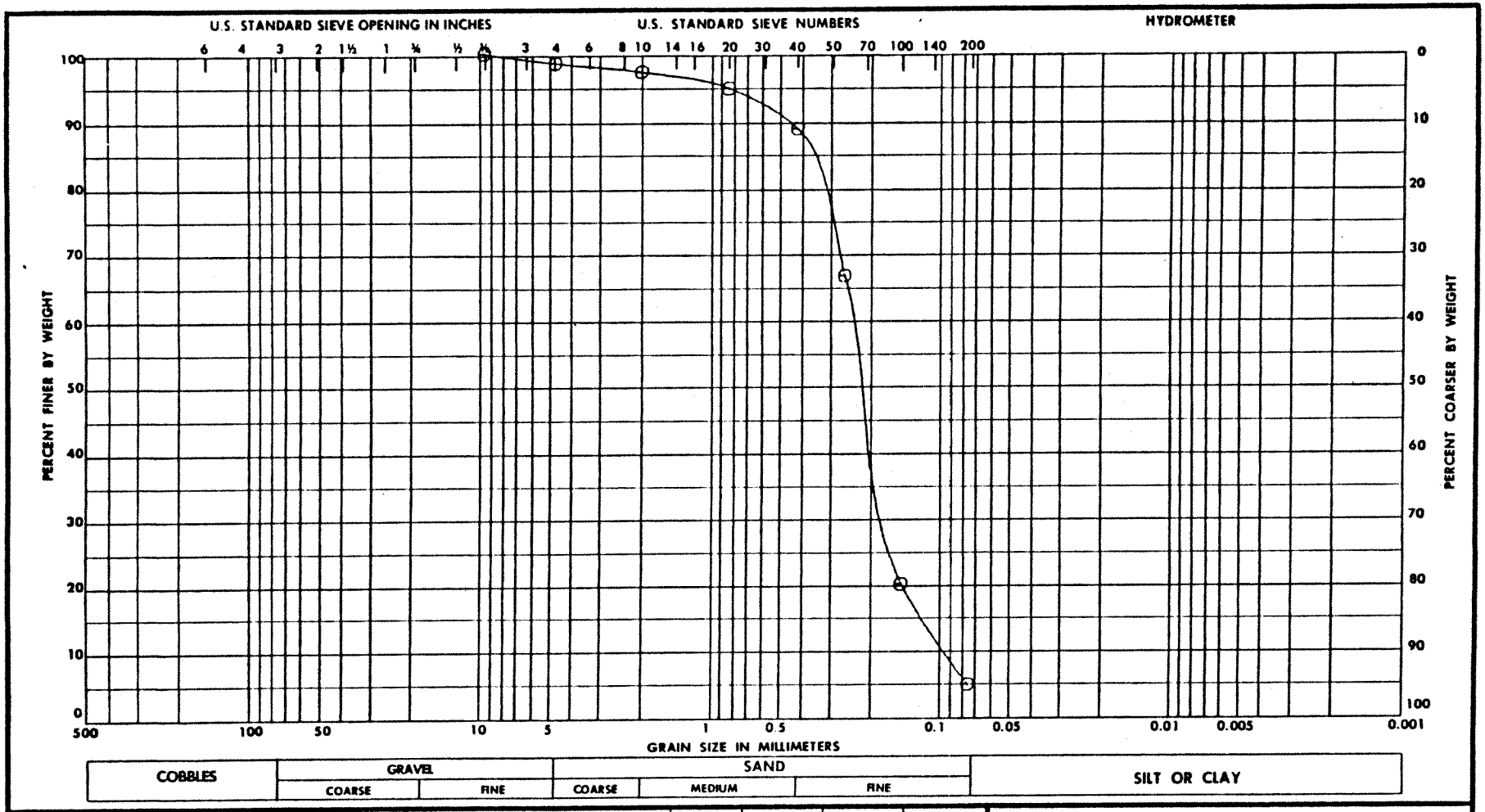
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	26.3-27.8'	POORLY GRADED SAND (SP)	24.2	NP	NP	NP
		LT. TAN				
		SAMPLE CONTAIN METAL FRAGMENTS				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/460

Boring No. SH-83 SAMPLE NO. 4

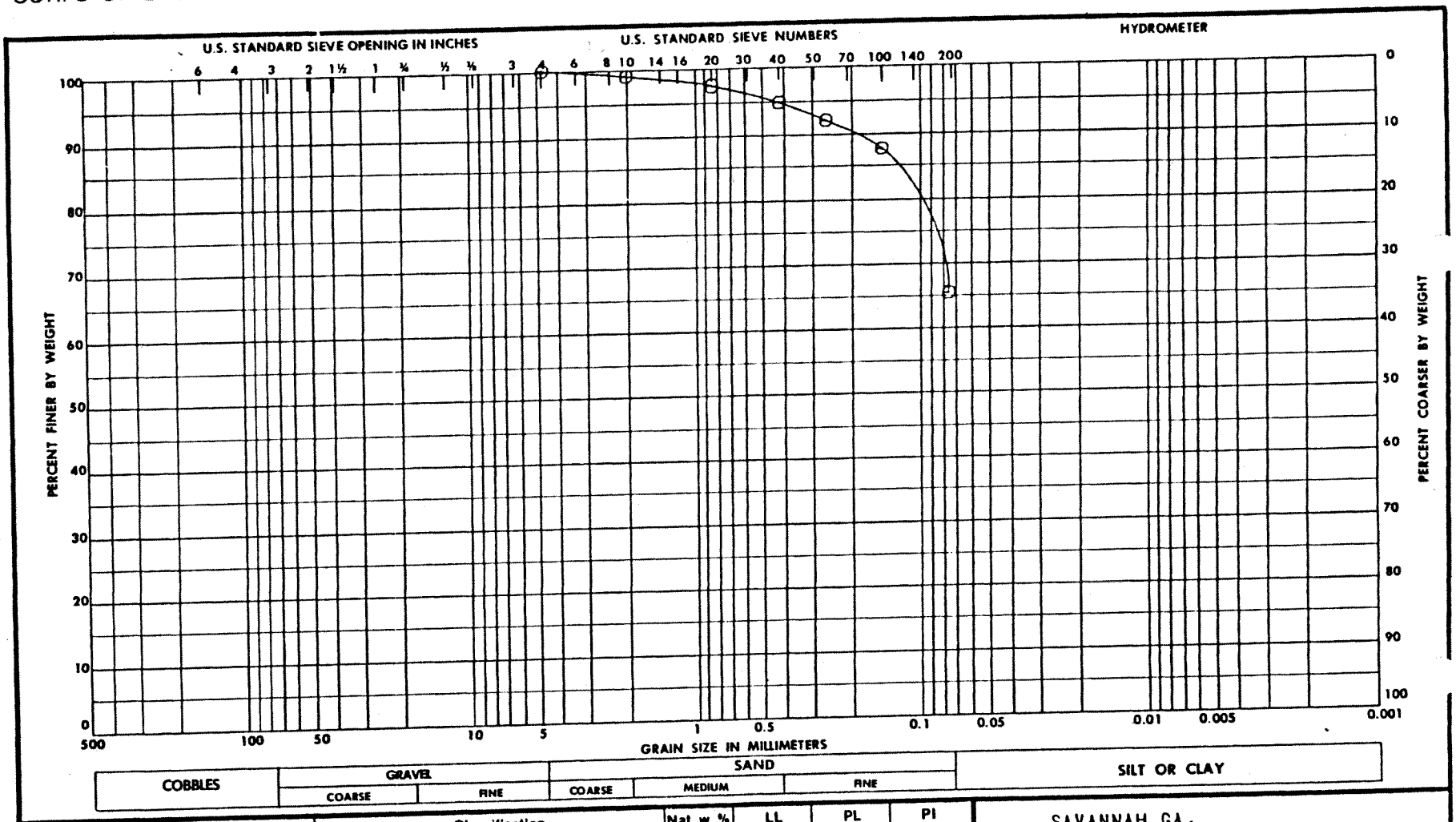
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	39.8-41.3'	FAT CLAY (CH)	69.9	105	34	71
		GREENISH GRAY WITH SOME SAND				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/463
Boring No. SH-83 SAMPLE NO. 7
Date 11/17/83

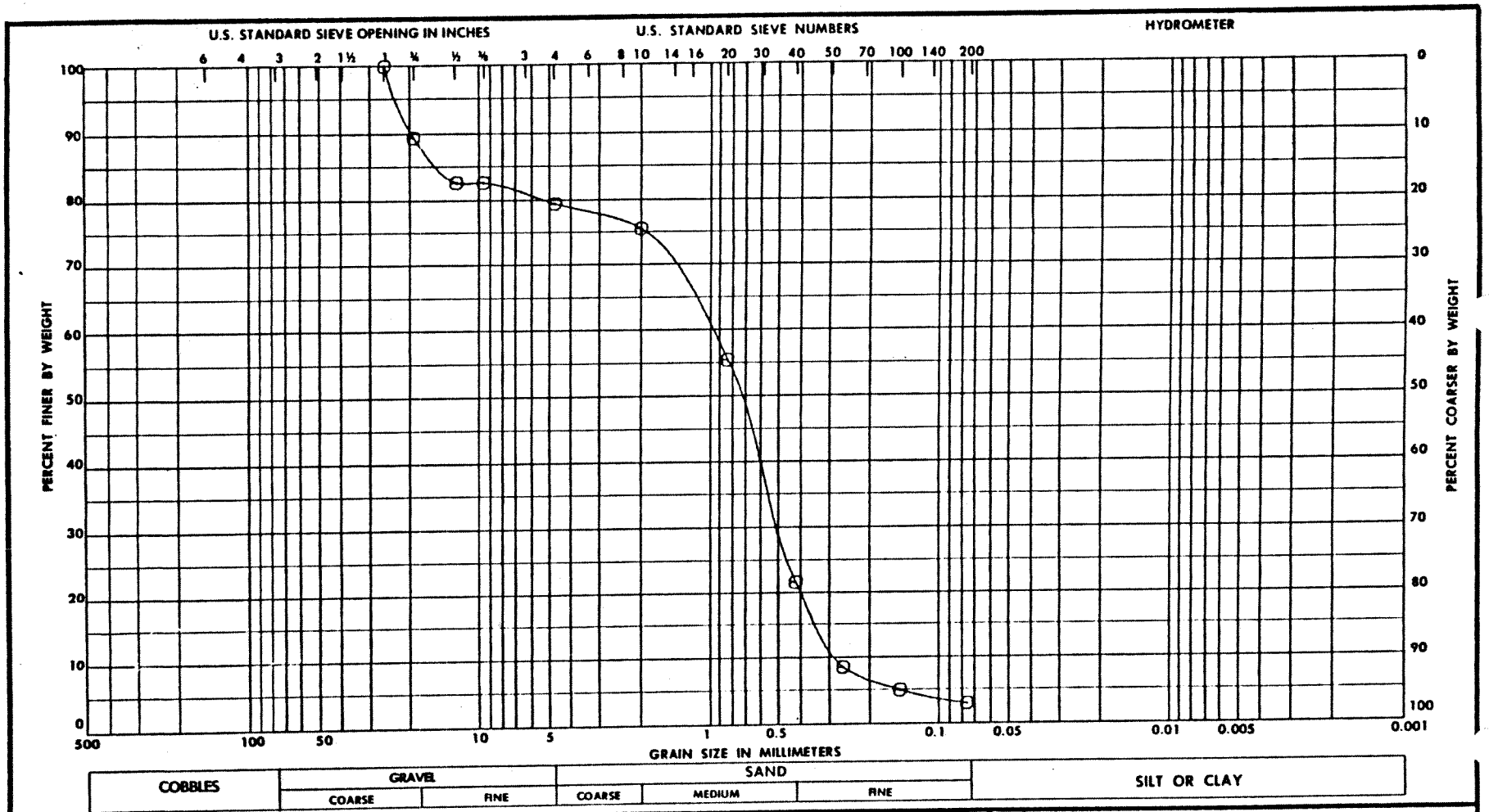
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	29.0-30.5'	POORLY GRADED SAND (SP) BROWN WITH SOME GRAVEL	18.0	NP	NP	NP

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/466

Boring No. SH-84 SAMPLE NO. 2

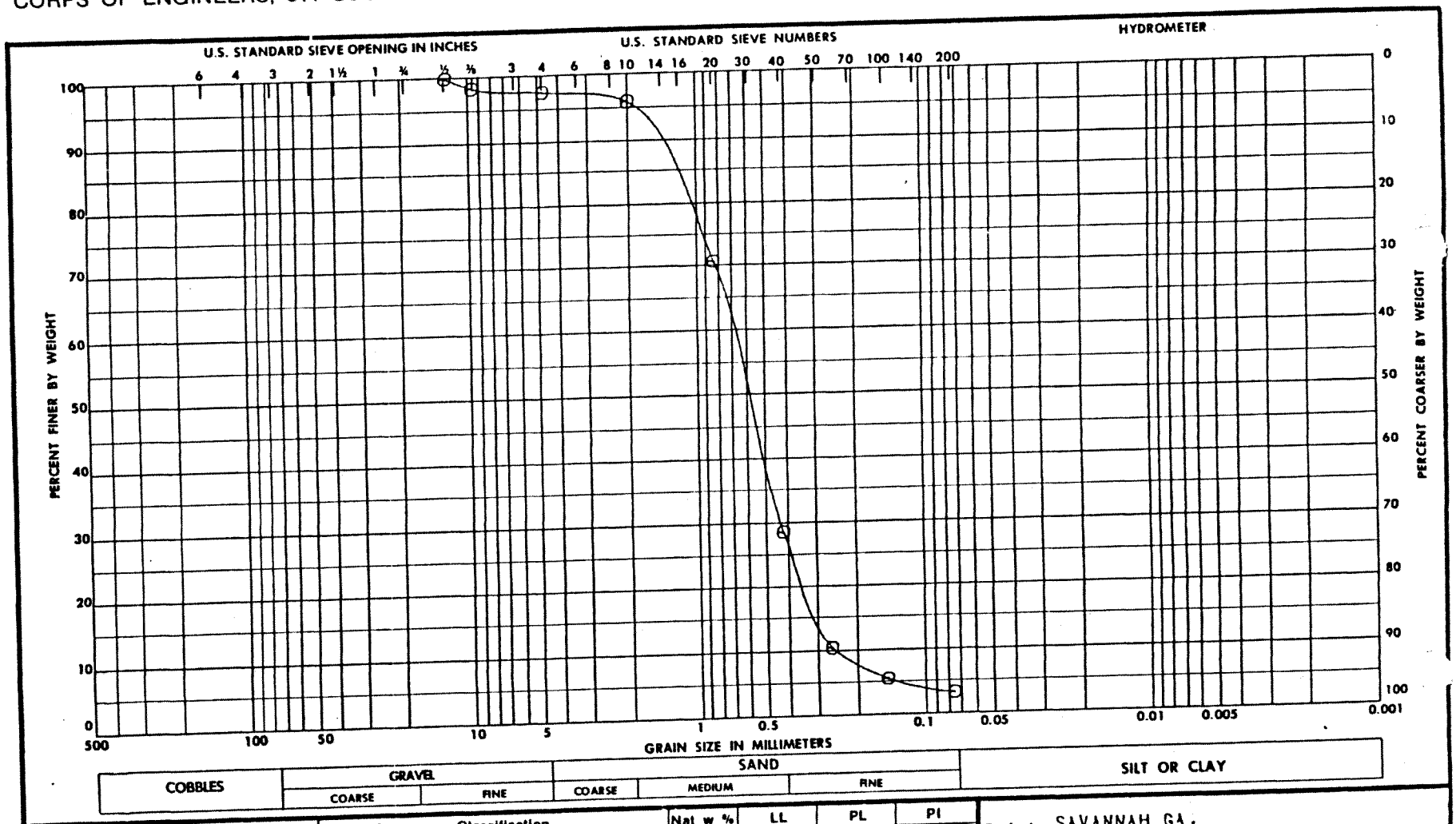
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	30.5-32.0'	POORLY GRADED SAND (SP) TAN WITH A TRACE OF GRAVEL	17.9	NP	NP	NP

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/467
Boring No. SH-84 SAMPLE NO. 3
Date 11/17/83

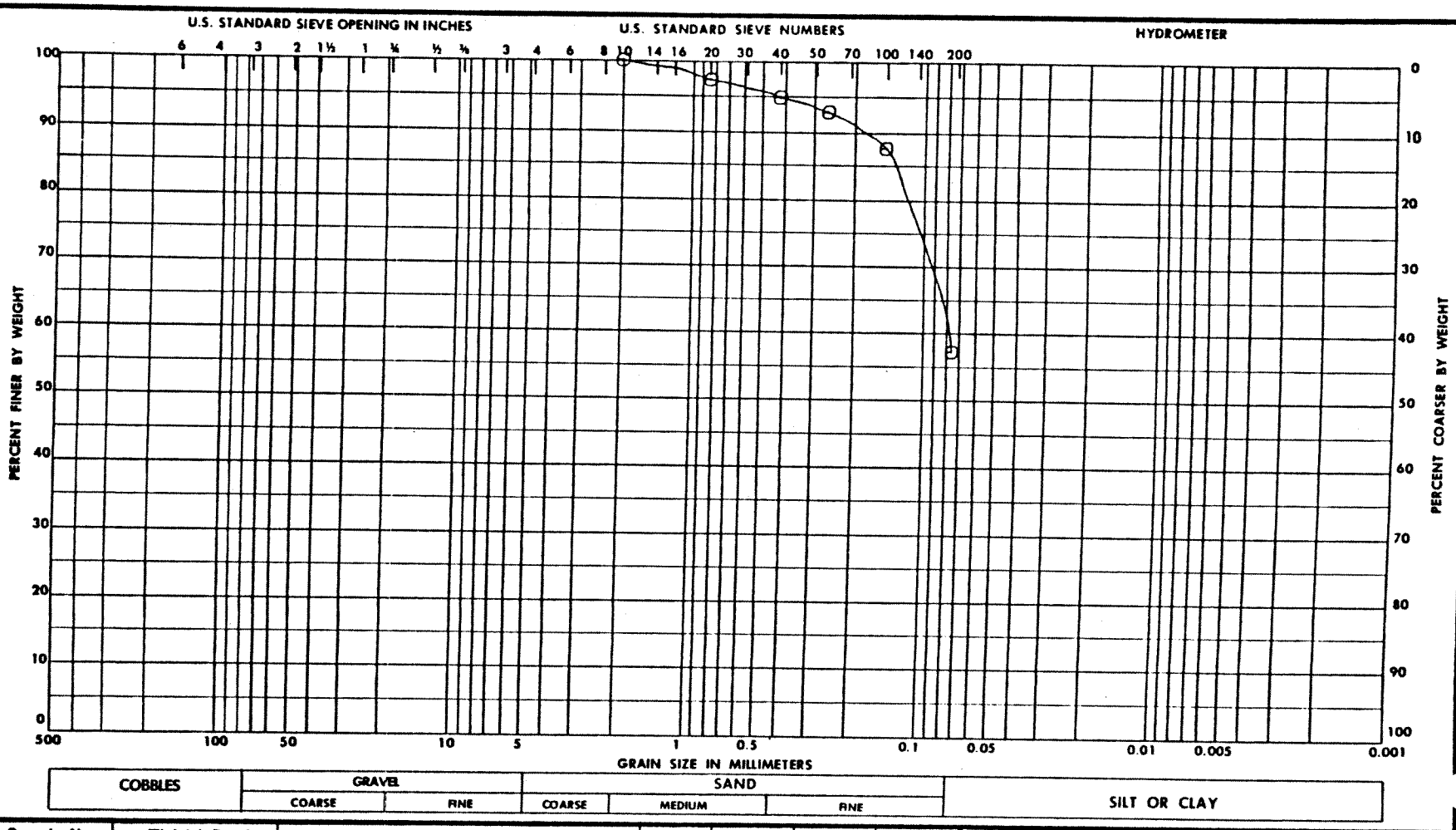
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	39.5-41.0'	INORGANIC SILT.HIGH LL (MH)	52.0	74	35	39
		GREENISH GRAY.SANDY				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/471

Boring No. SH-84 SAMPLE NO. 7

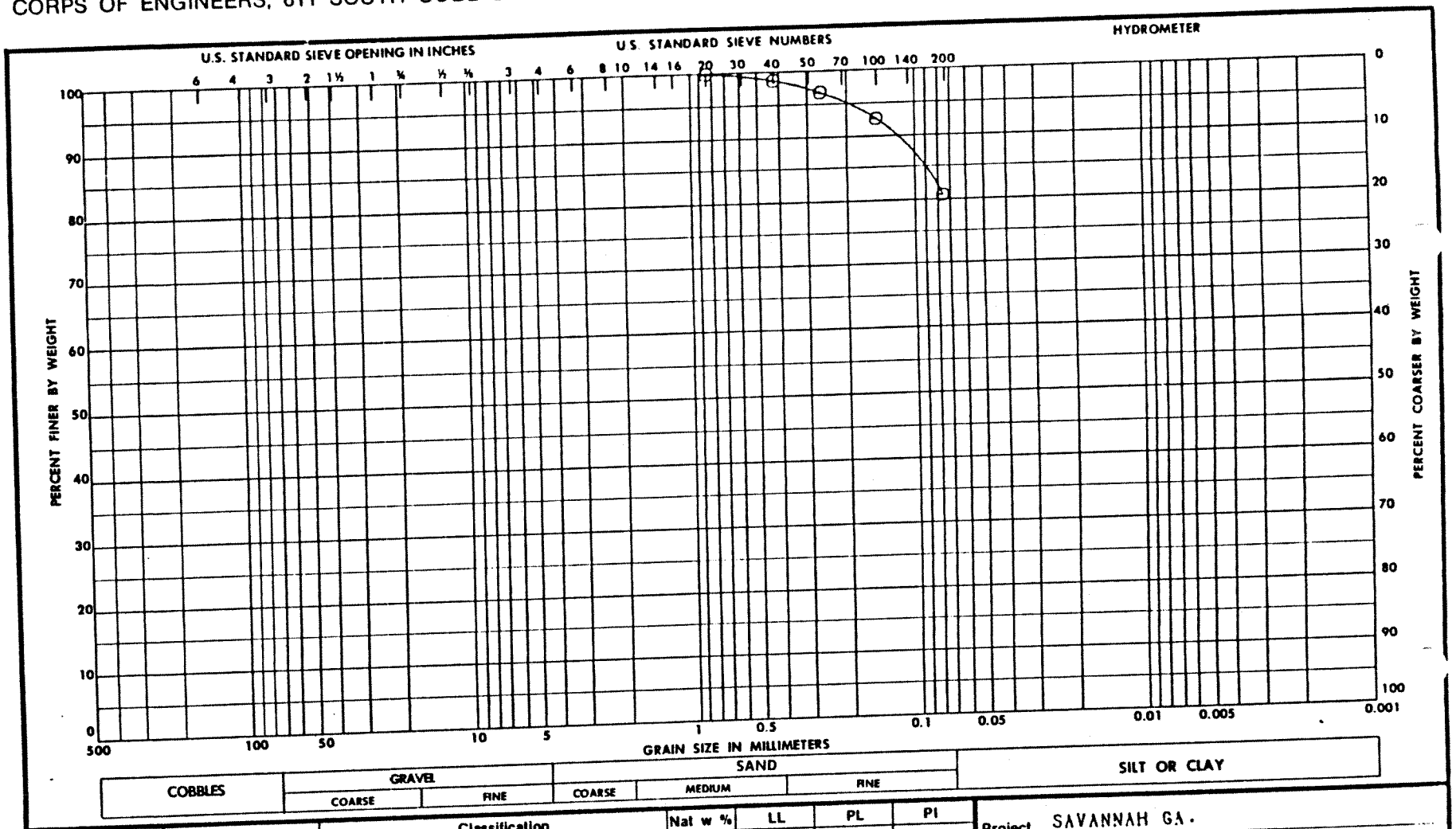
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
10	47.1-48.6'	FAT CLAY (CH)	74.2	113	39	74
		GREENISH GRAY WITH A LITTLE				
		SAND				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/474
Boring No. SH-84 SAMPLE NO. 10
Date 11/17/83

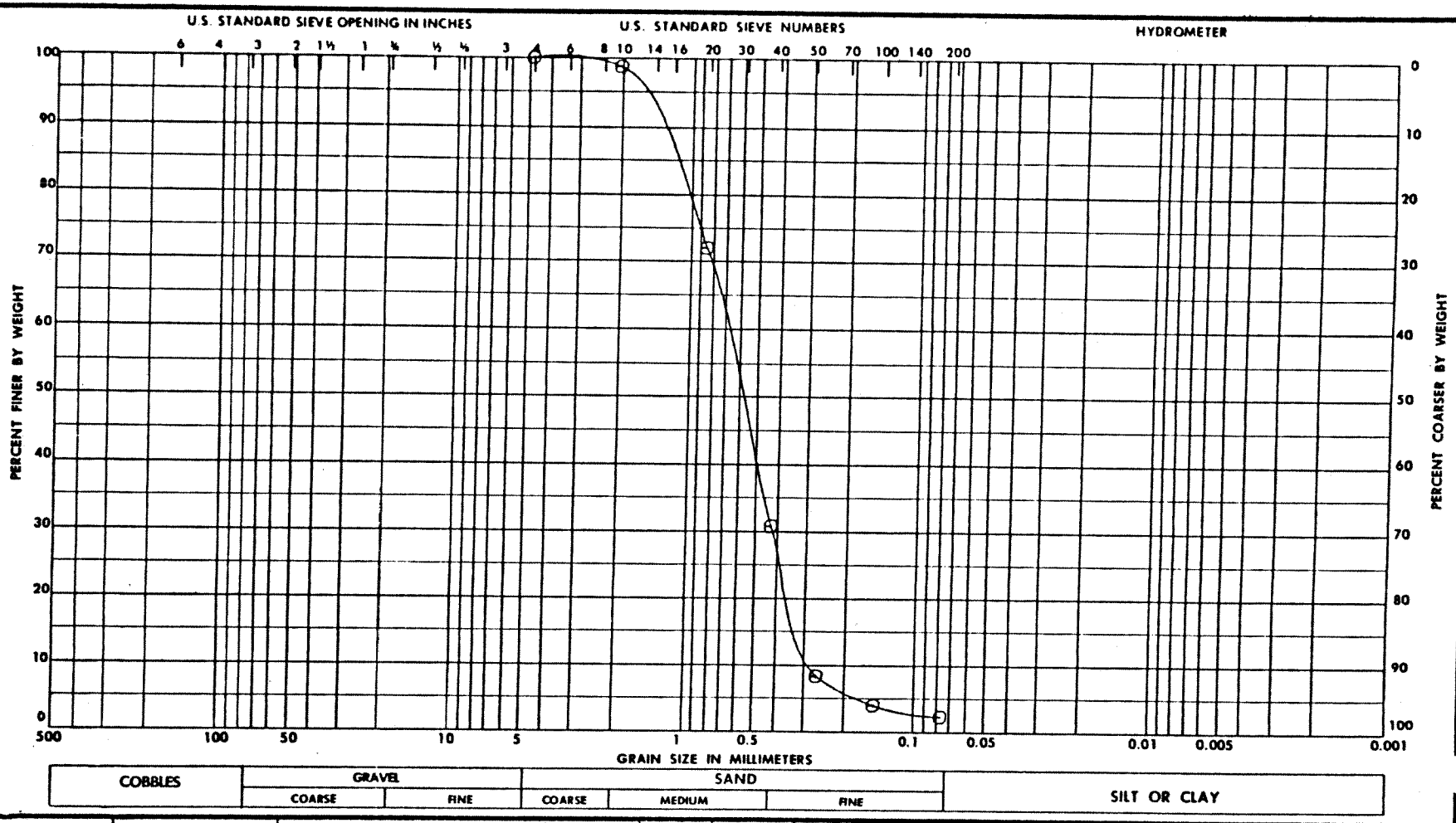
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	23.0-24.5'	POORLY GRADED SAND (SP)	18.6	NP	NP	NP
		TAN				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/477

Boring No. SH-85 SAMPLE NO. 2

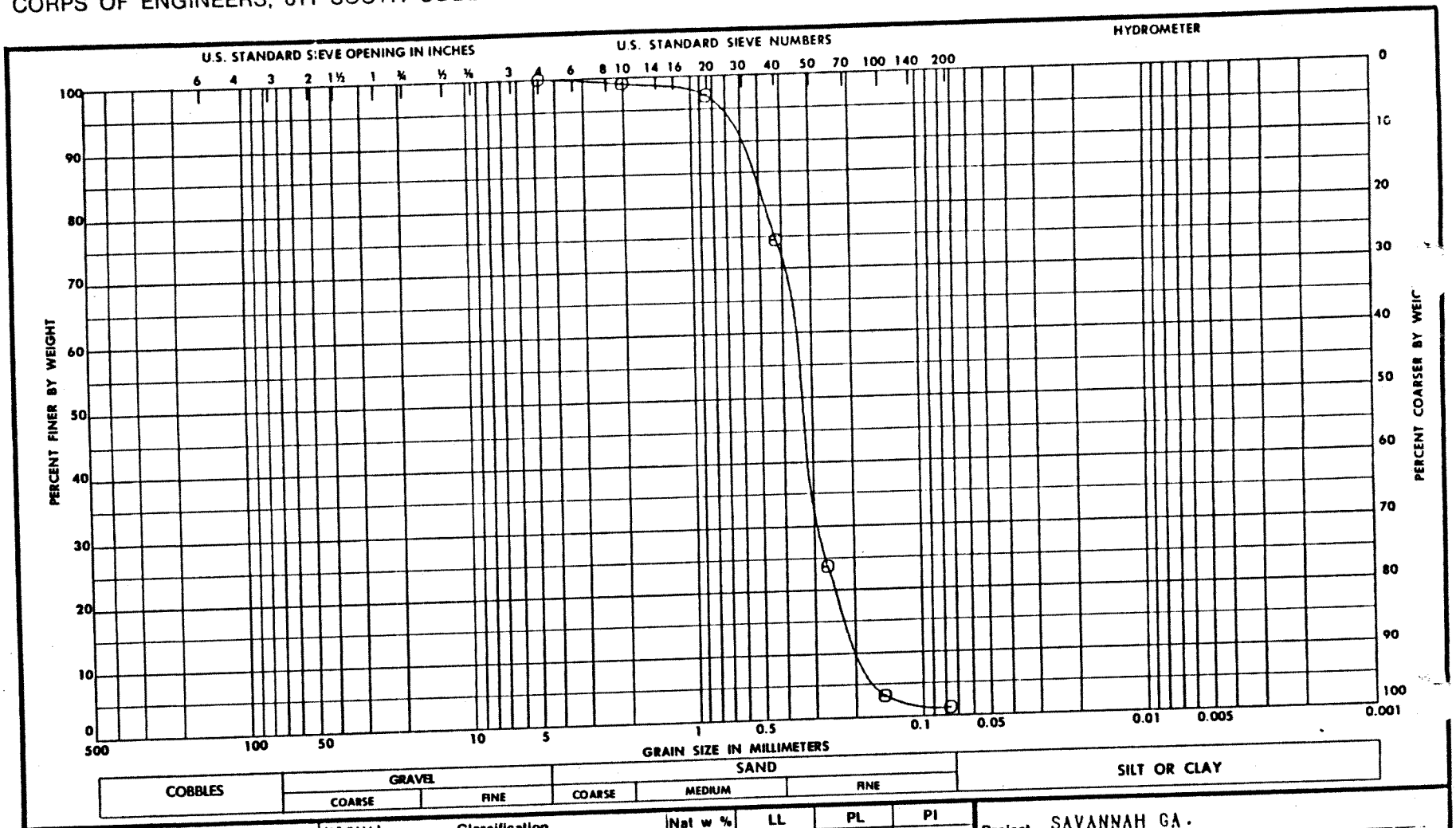
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	32.0-33.5'	POORLY GRADED SAND (SP)	25.7	NP	NP	NP
		LT. GRAY				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/481
Boring No. SH-85 SAMPLE NO. 6
Date 11/17/83

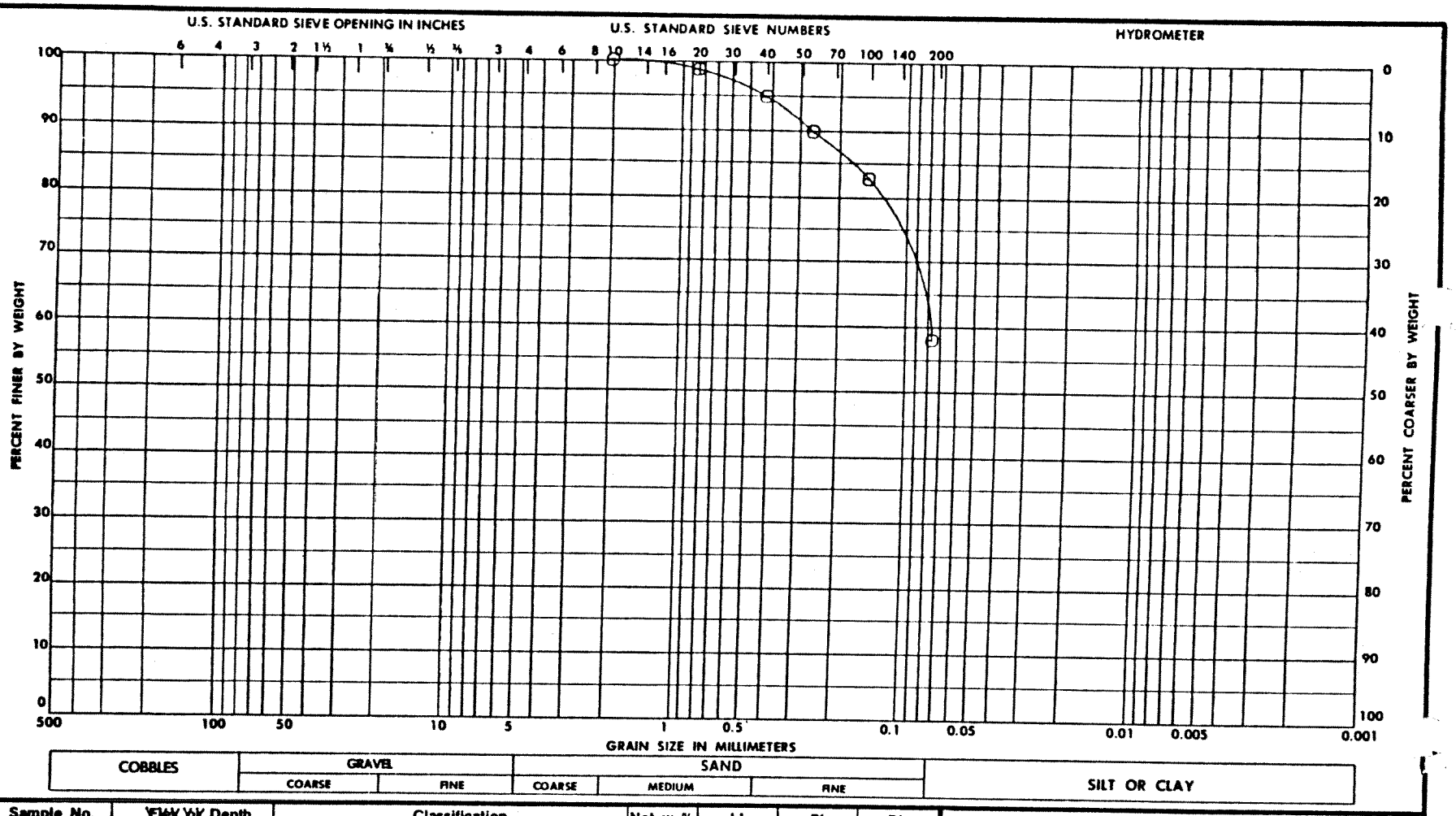
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	39.5-41.0'	FAT CLAY (CH)	51.7	99	31	68
		GREENISH GRAY. SANDY				

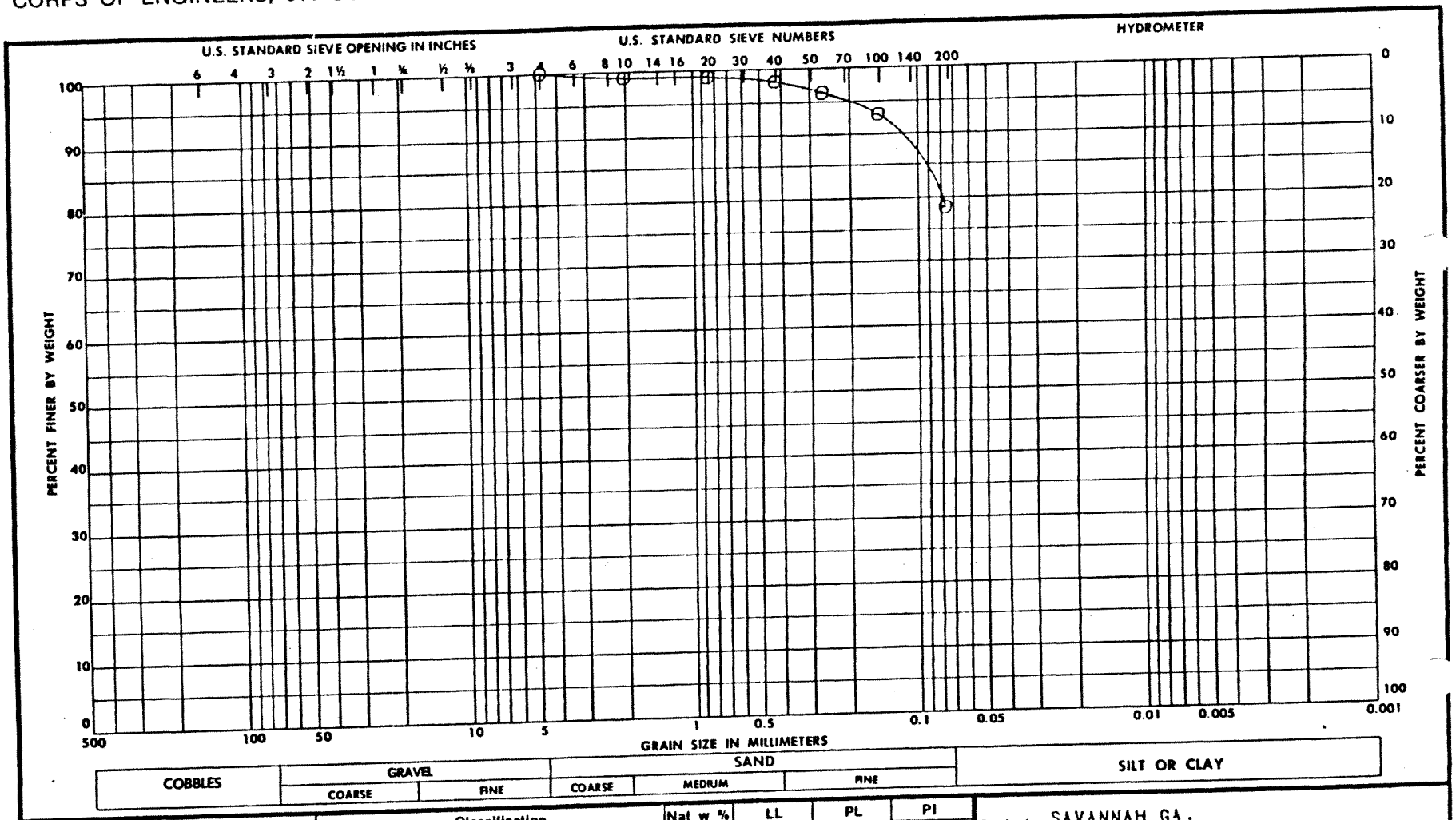
Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/482
Boring No. SH-85 SAMPLE NO. 7
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~XXXX~~ Depth	Classification	Nat w %	LL	PL	PI
10	45.5-47.0'	FAT CLAY (CH)	63.6	97	34	63
		GREENISH GRAY WITH SOME SAND				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/485
Boring No. SH-85 SAMPLE NO. 10
Date 11/17/83

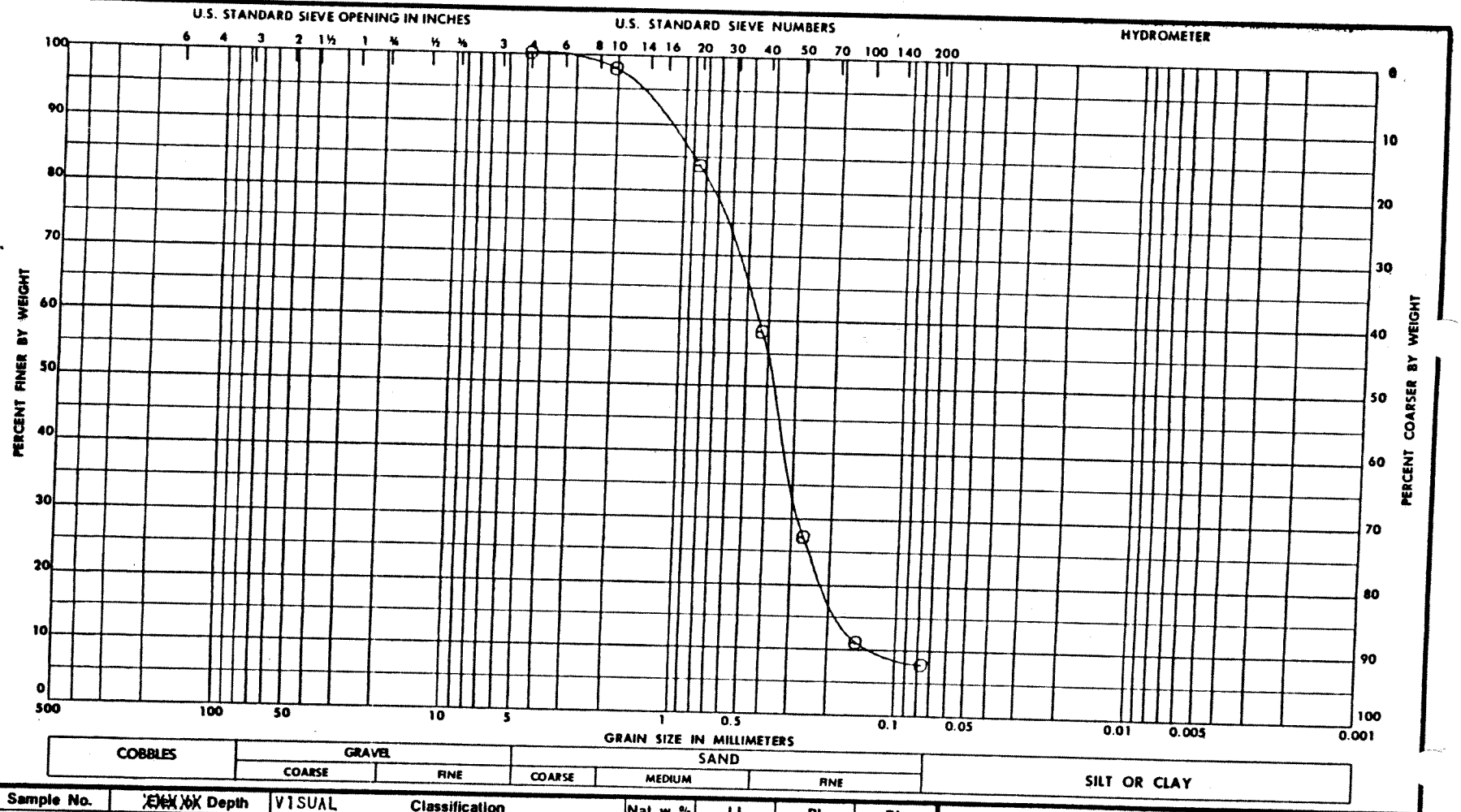
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	36.1-37.5'	POORLY GRADED SILTY SAND		NP	NP	NP
		(SP-SM)				
		GRAY				

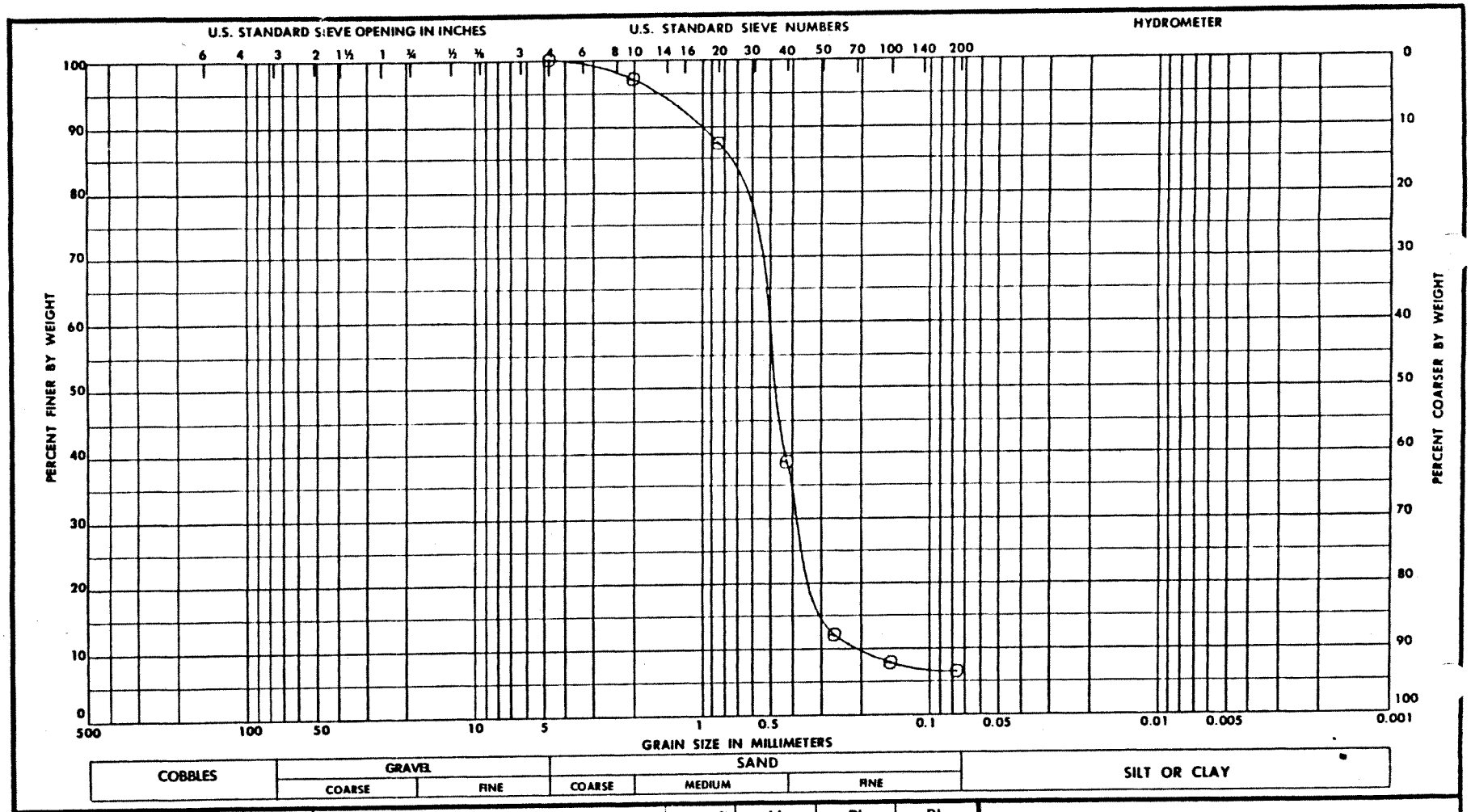
Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/489
Boring No. SH-86 SAMPLE NO. 2
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	40.5-42.0'	POORLY GRADED SILTY SAND		NP	NP	NP
		(SP-SM)				
		TAN				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/490
Boring No. SH-86 SAMPLE NO. 3
Date 11/17/83

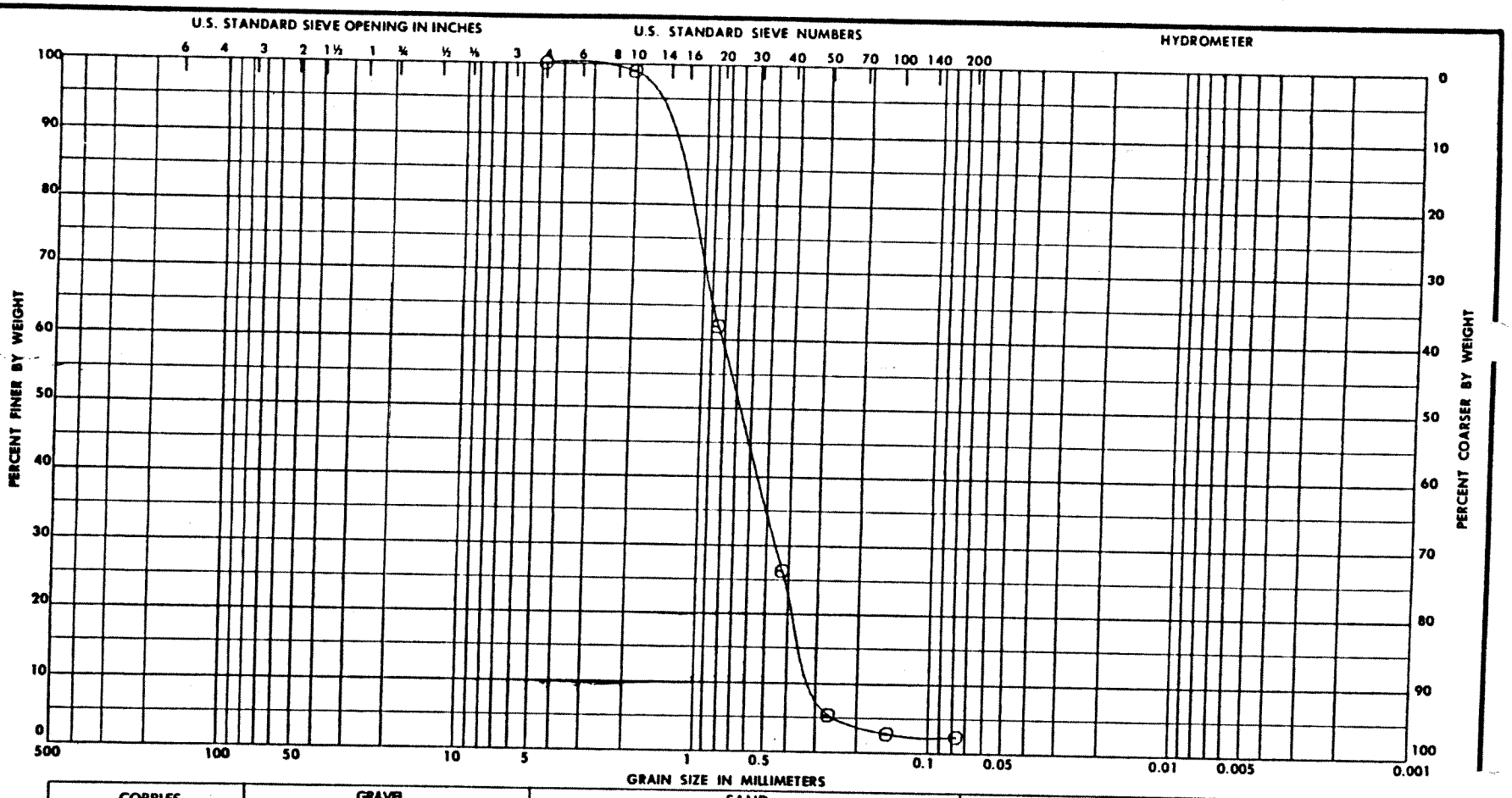
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	43.5-45.0'	POORLY GRADED SAND (SP)	21.7	NP	NP	NP
		TANNISH GRAY				

Project SAVANNAH GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/492

Boring No. SH-86 SAMPLE NO. 5

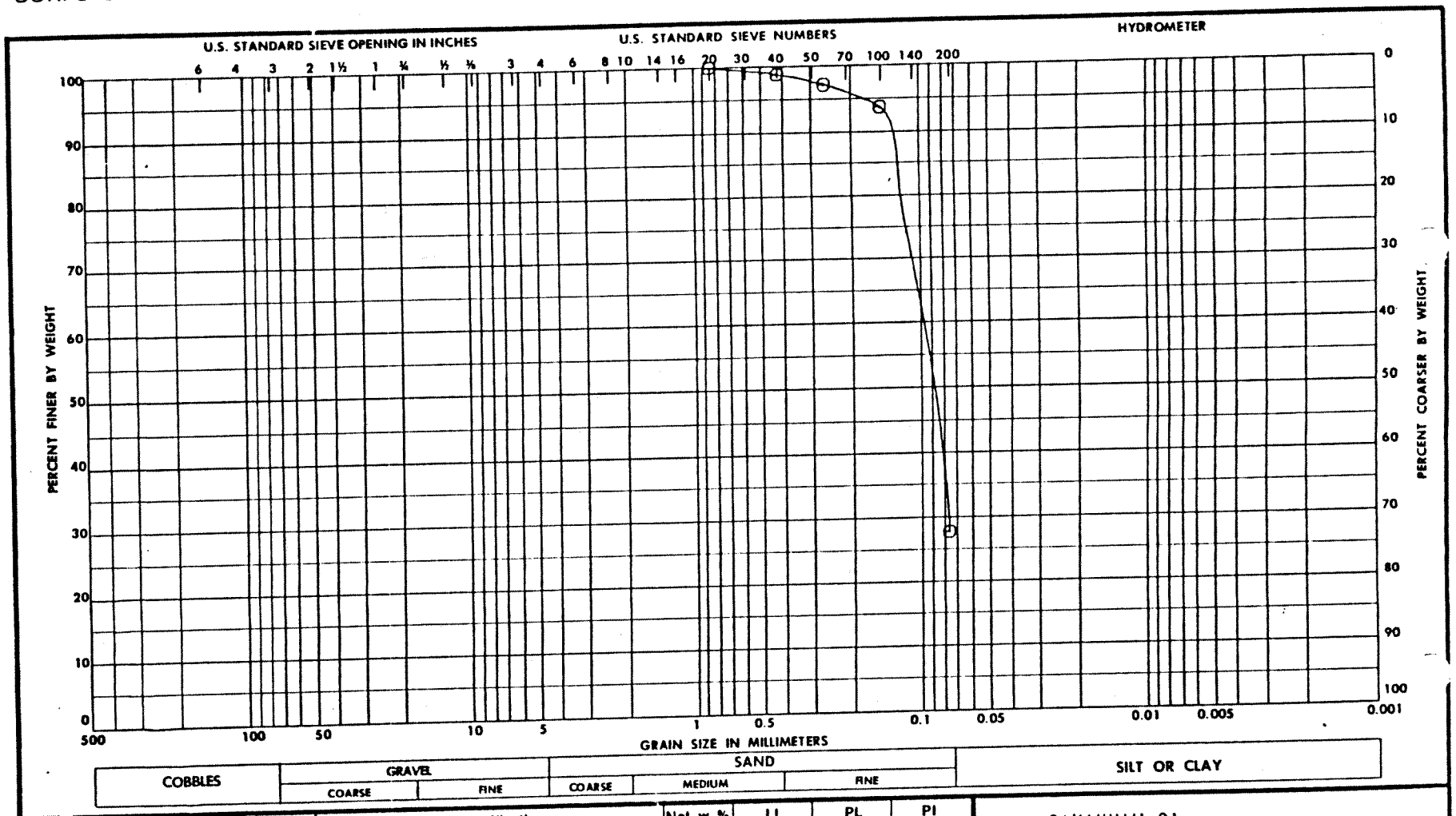
Date 11/17/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	46.5-48.0'	SILTY SAND (SM) GREENISH GRAY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/493
Boring No. SH-86 SAMPLE NO. 6
Date 11/21/83

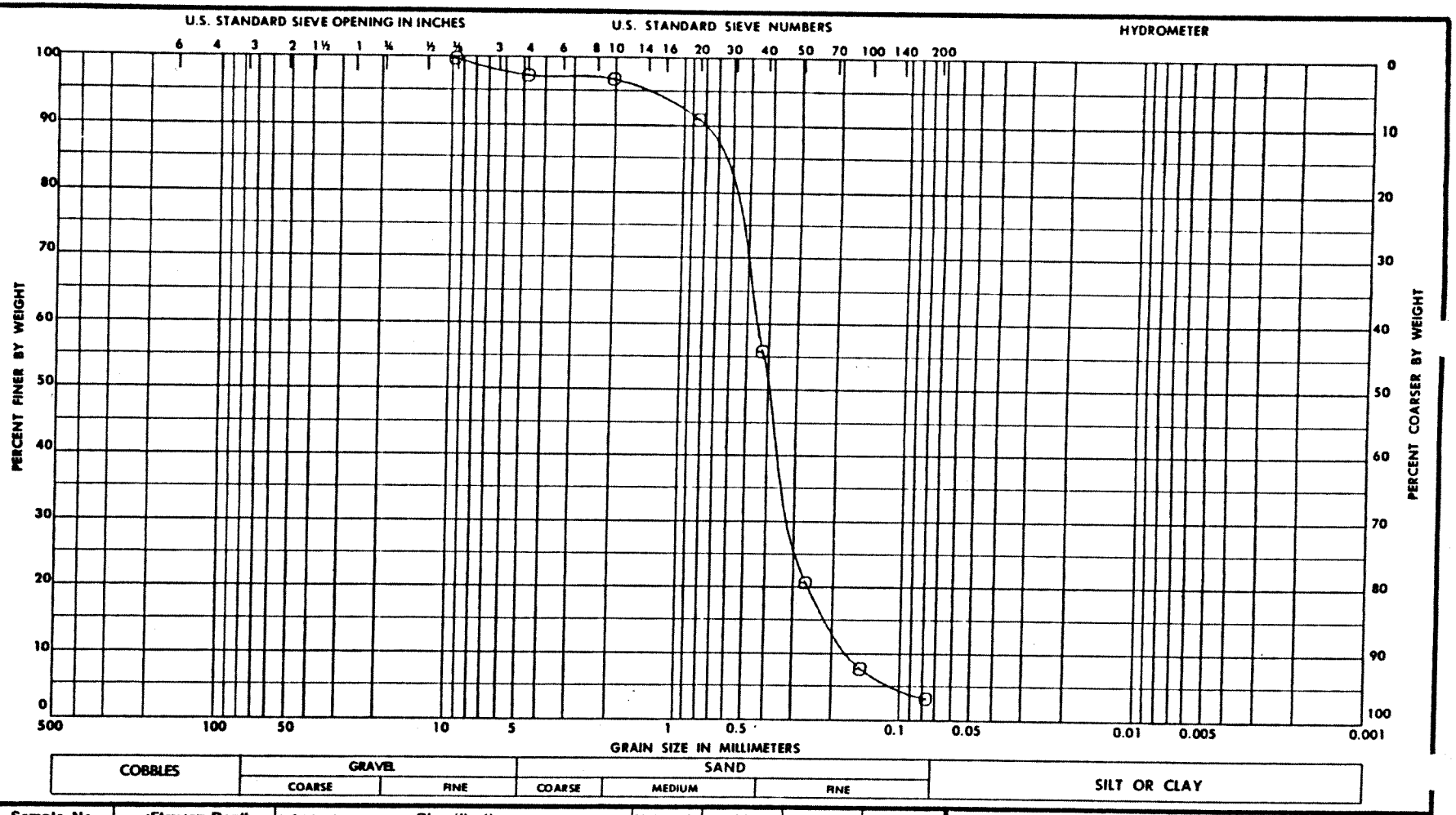
GRADATION CURVES

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. 3778

Req. No. FN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	25.0-26.5'	POORLY GRADED SAND (SP) TAN WITH A TRACE OF GRAVEL	22.6	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/497

Boring No. SH-87 SAMPLE NO. 3

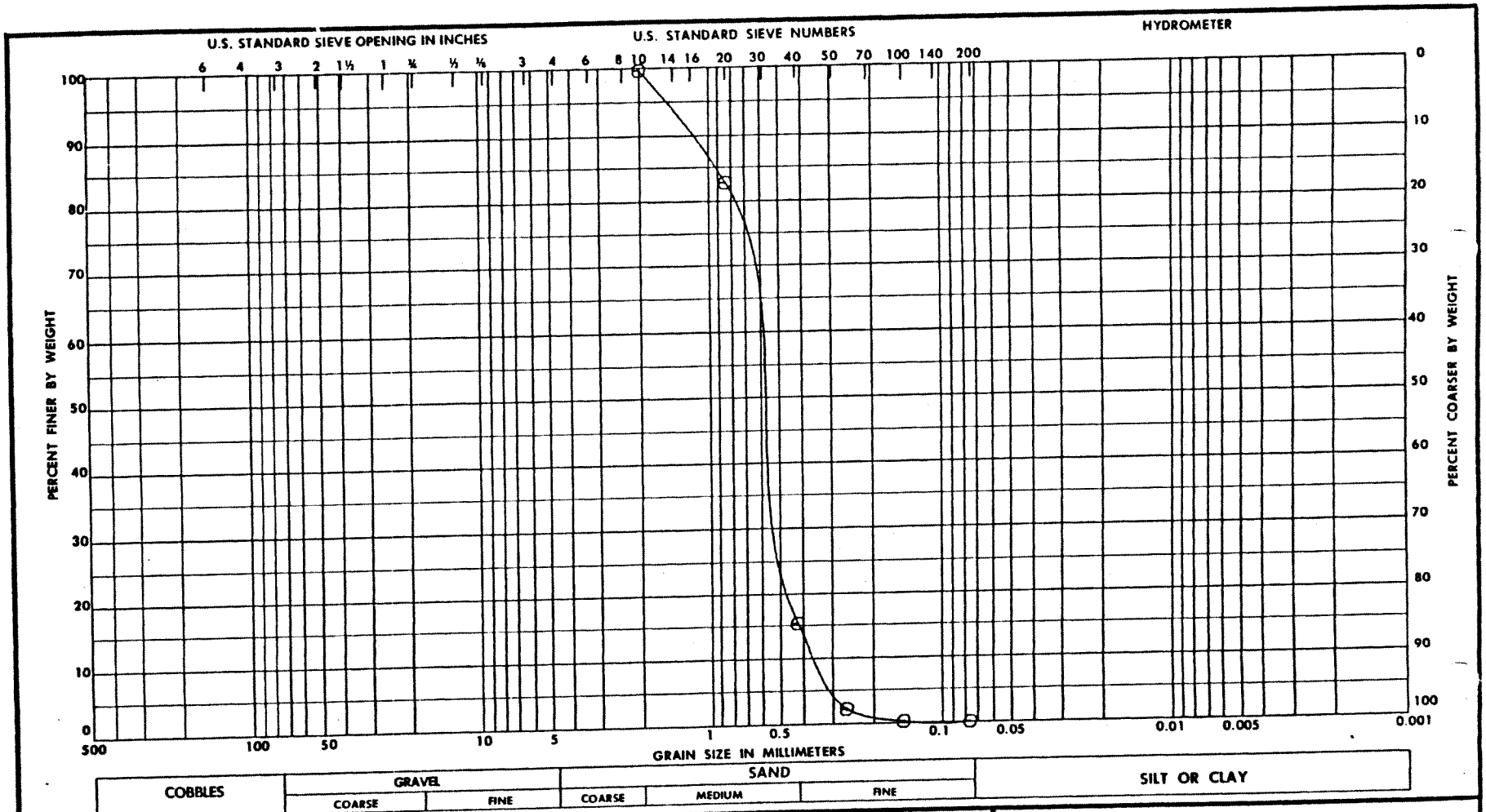
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
7	39.5-41.0'	POORLY GRADED SAND (SP) TAN		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/501

Boring No. SH-87 SAMPLE NO. 7

Date 11/21/83

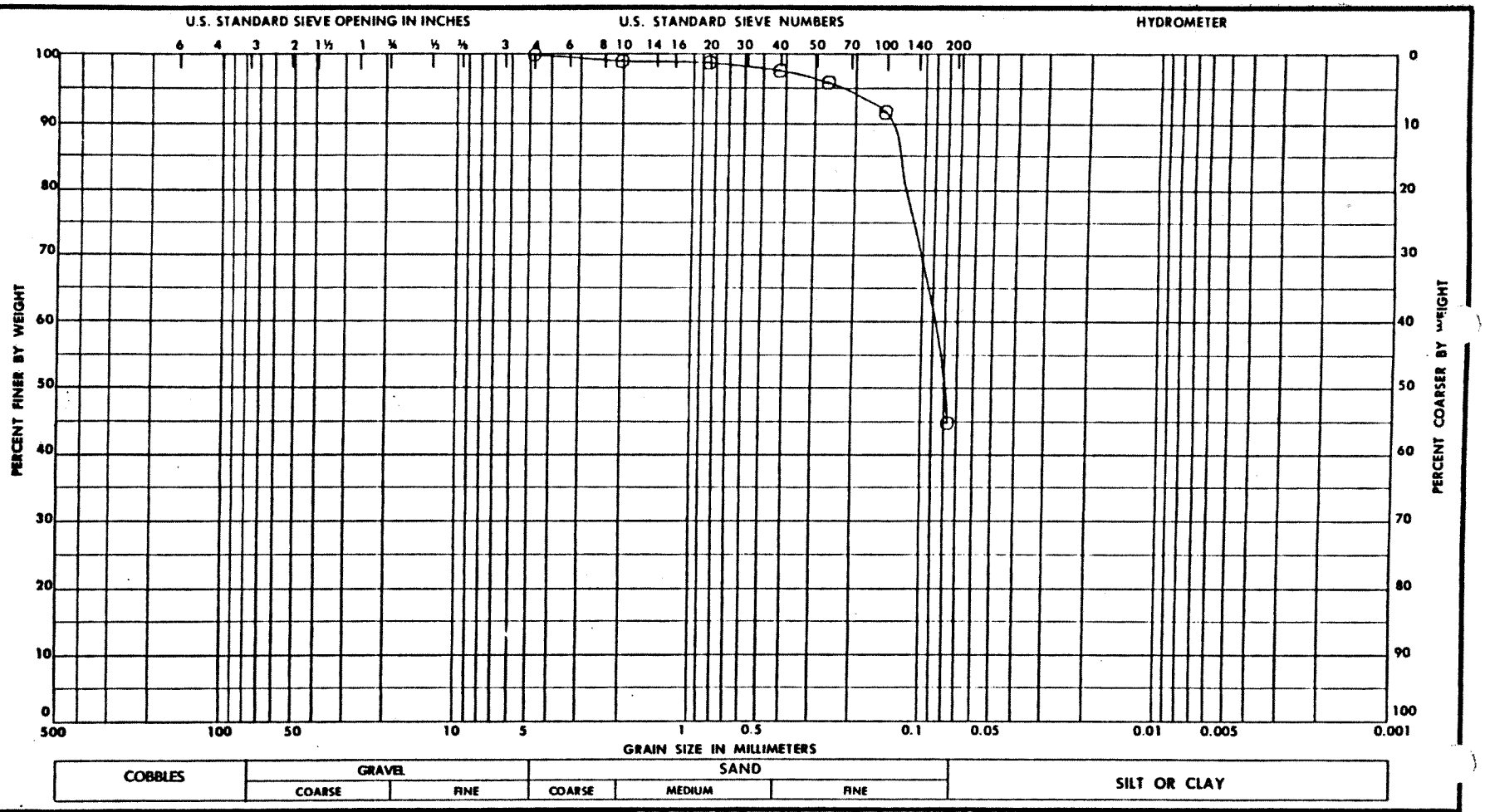
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
9	48.5-50.0'	CLAYEY SAND, HIGH LL (SC-H)	40.7	65	26	39
		GREENISH GRAY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/503

Boring No. SH-87 SAMPLE NO. 9

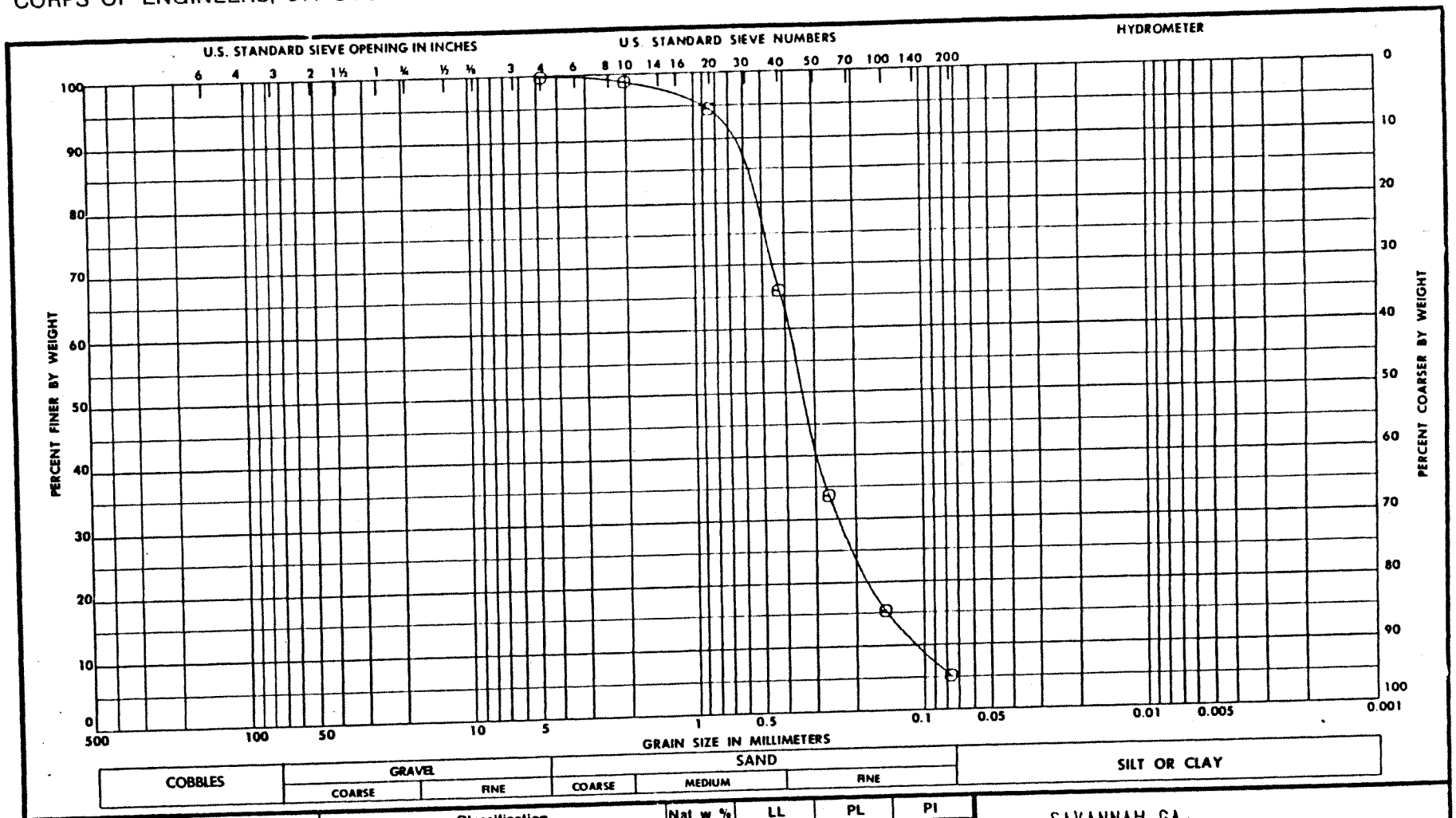
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	29.2-30.7'	POORLY GRADED SILTY SAND (SP-SM) GREENISH GRAY		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/505
Boring No. SH-88 SAMPLE NO. 2
Date 11/21/83

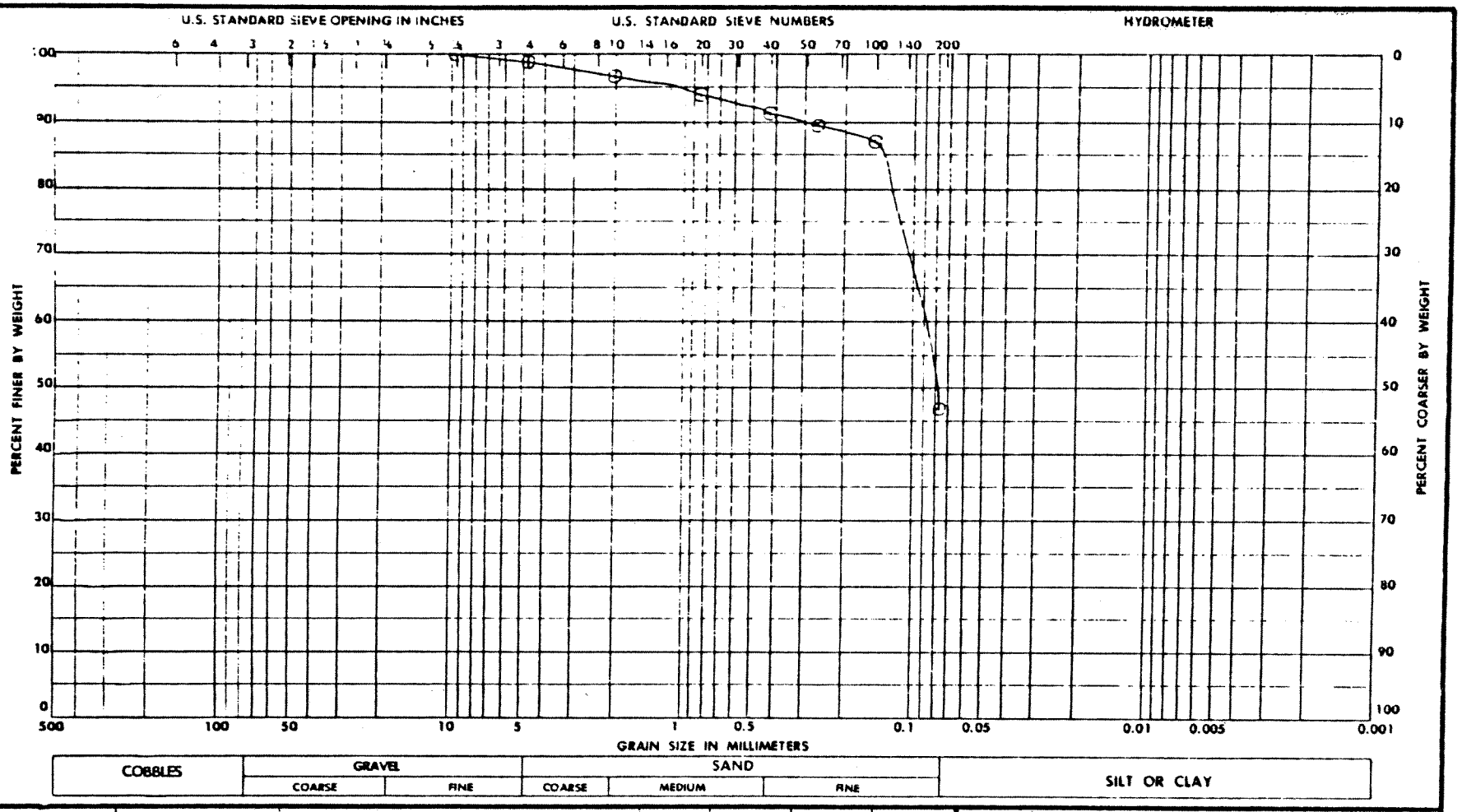
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
6	45.7-47.2	CLAYEY SAND.HIGH LL (SC-H)	98.4	71	30	41
		GREENISH GRAY WITH A TRACE OF				
		GRAVEL				

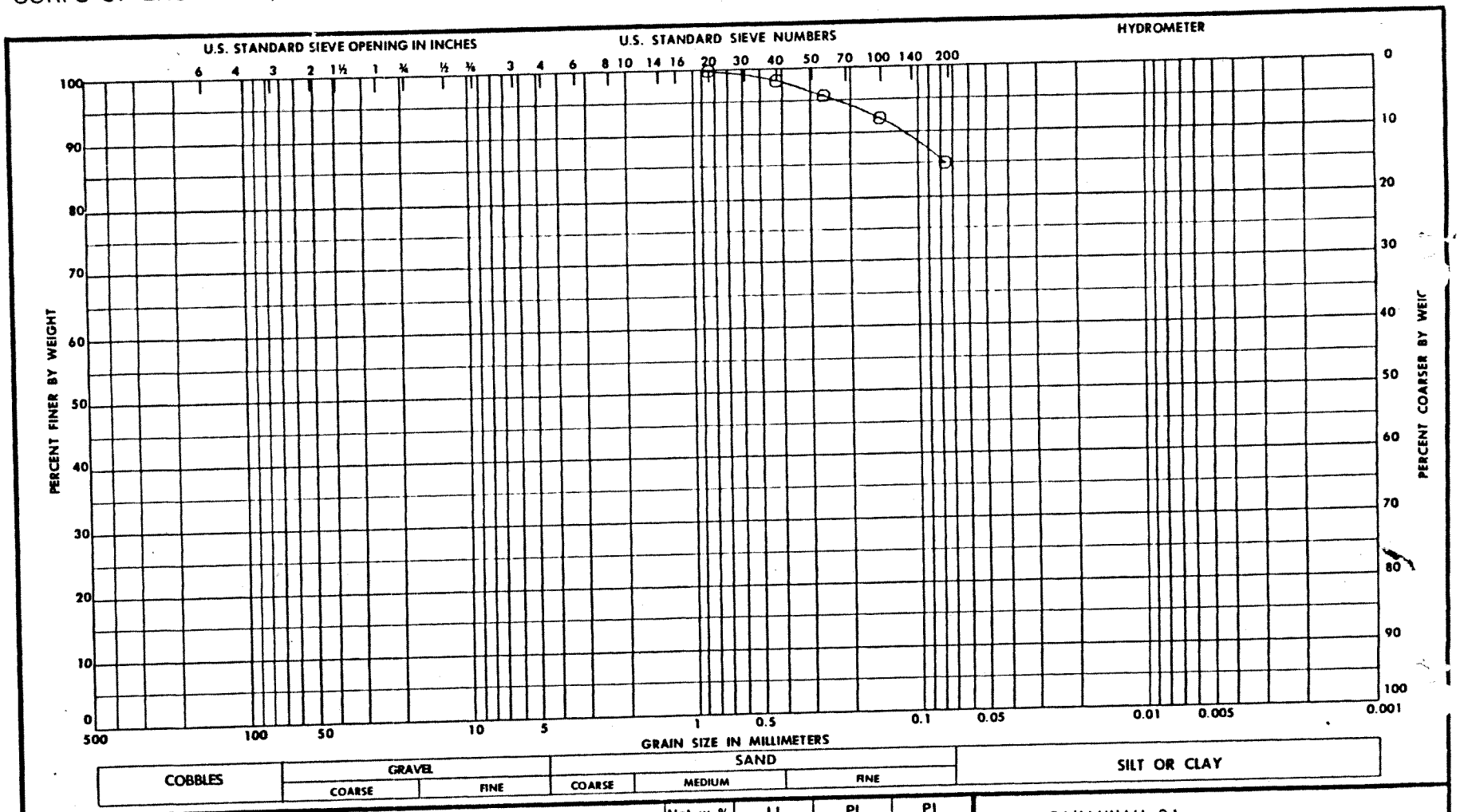
Project SAVANNAH.GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/509
Boring No. SH-88 SAMPLE NO. 6
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	34.1-36.5'	FAT CLAY (CH)	147.8	147	43	104
		GRAY WITH A LITTLE SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/511
Boring No. SH-89 SAMPLE NO. 1
Date 11/21/83

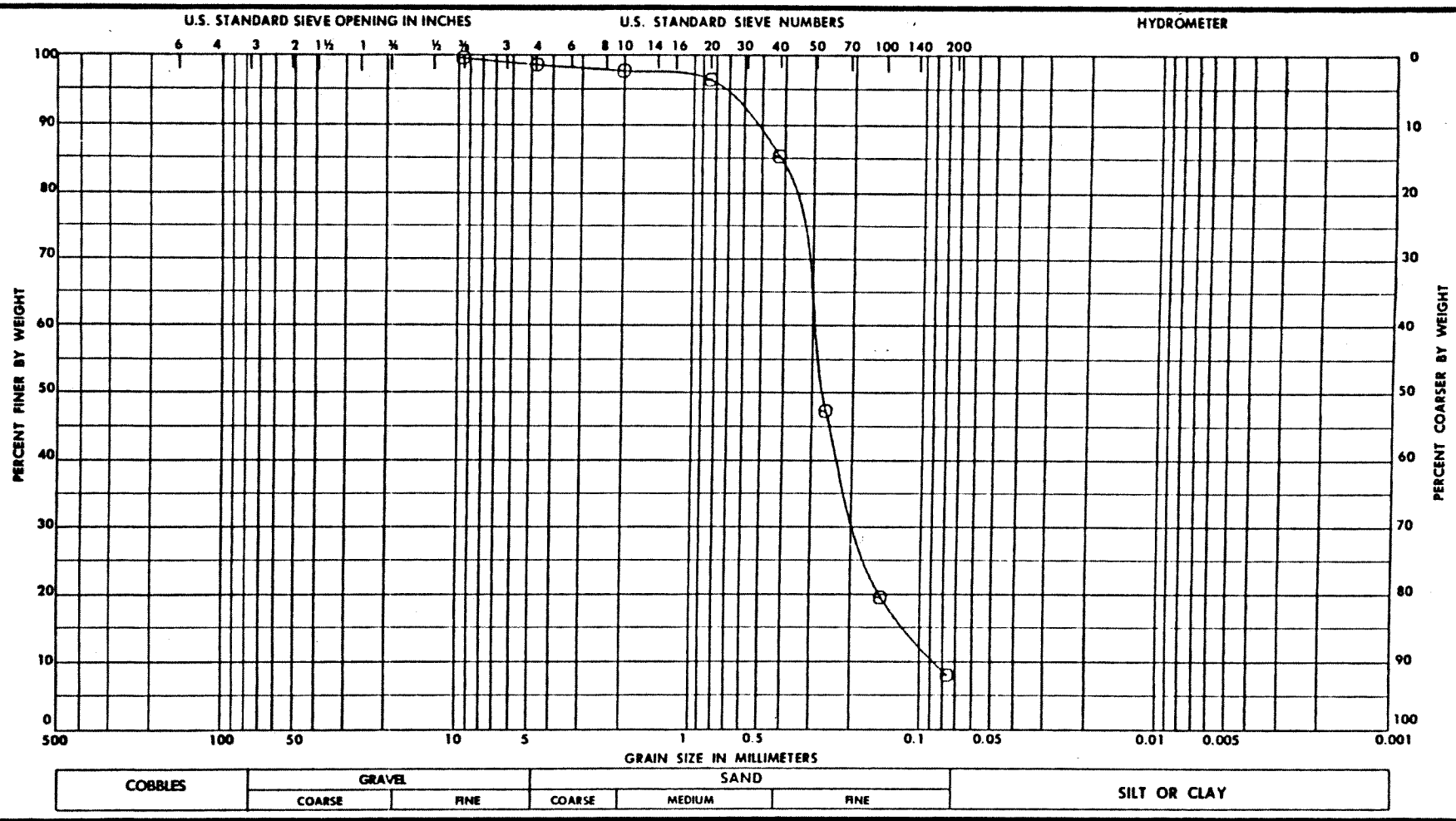
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	38.5-40.0'	POORLY GRADED SILTY SAND (SP-SM) TAN WITH A TRACE OF GRAVEL	37.8	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/513

Boring No. SH-89 SAMPLE NO. 3

Date 11/21/83

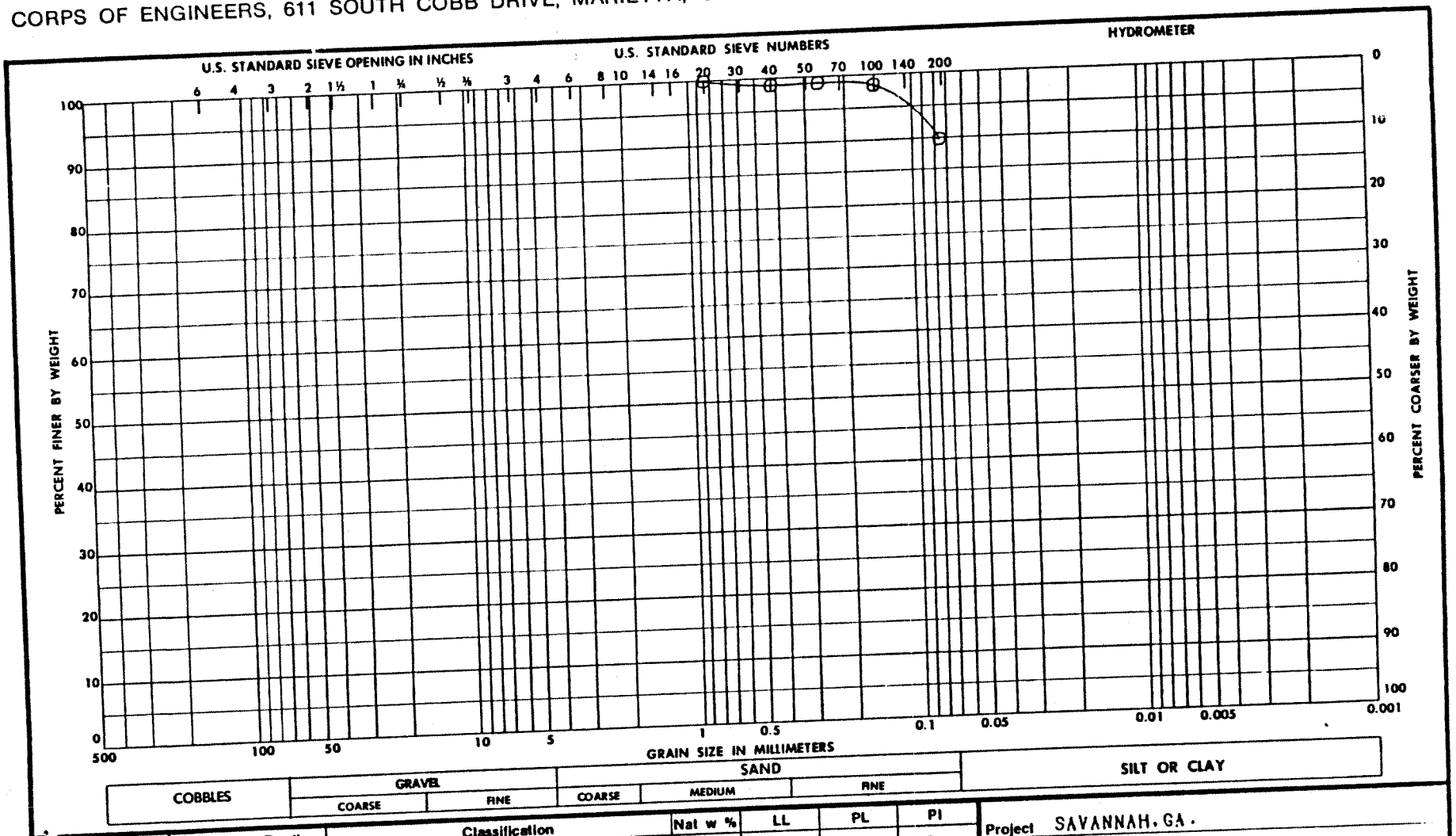
GRADATION CURVES

ENG FORM 1 MAY 63 2087

W.O. No. 3778

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

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
5	44.5-46.0'	FAT CLAY (CH) GREENISH BROWN WITH A LITTLE SAND	78.2	123	45	78

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/515

Boring No. SH-89 SAMPLE NO. 5

Date 11/21/83

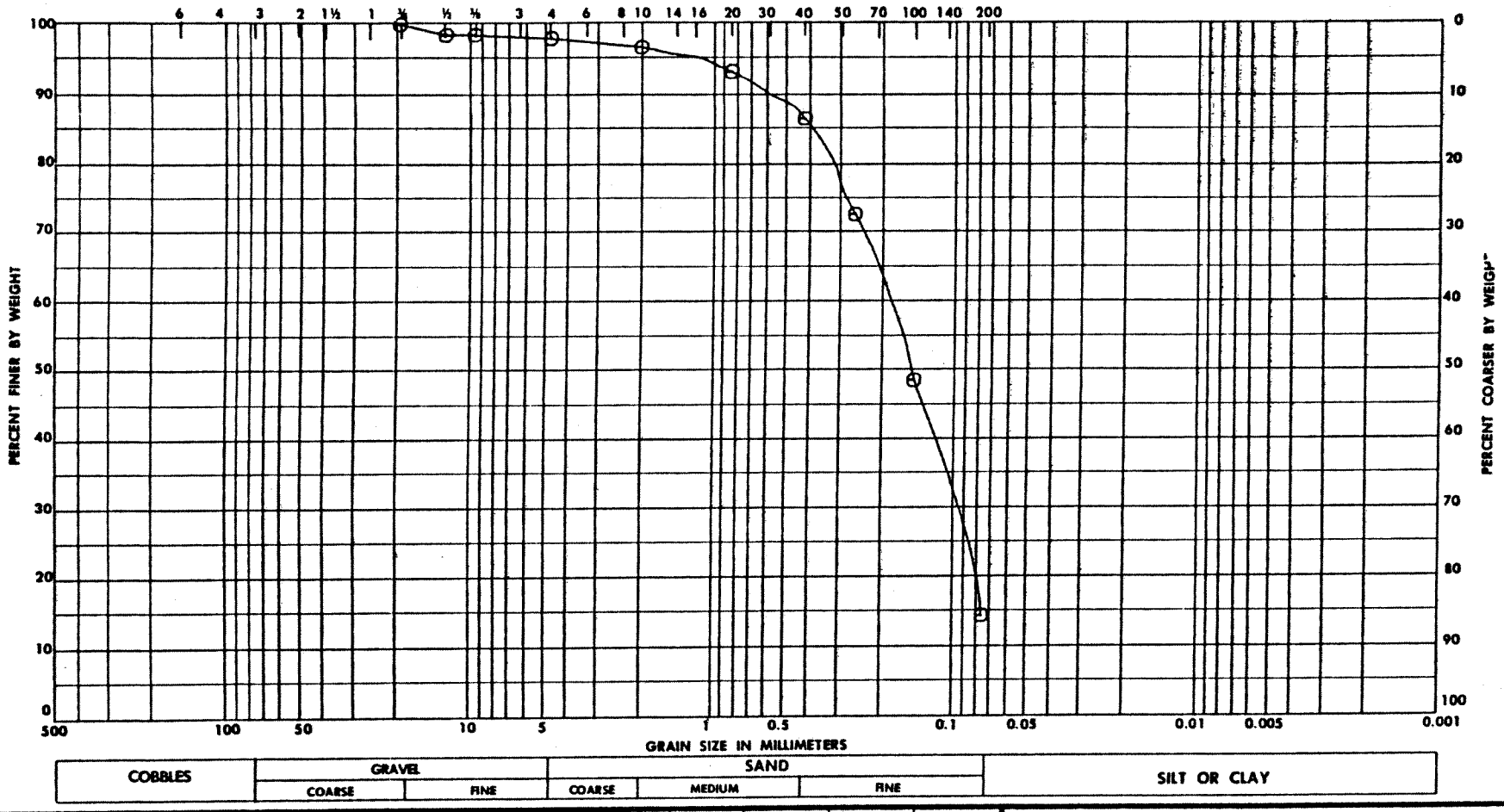
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	40.9-42.4'	SILTY SAND (SM) GRAY WITH A TRACE OF WOOD FRAGMENTS	46.1	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/518

Boring No. SH-90 SAMPLE NO. 2

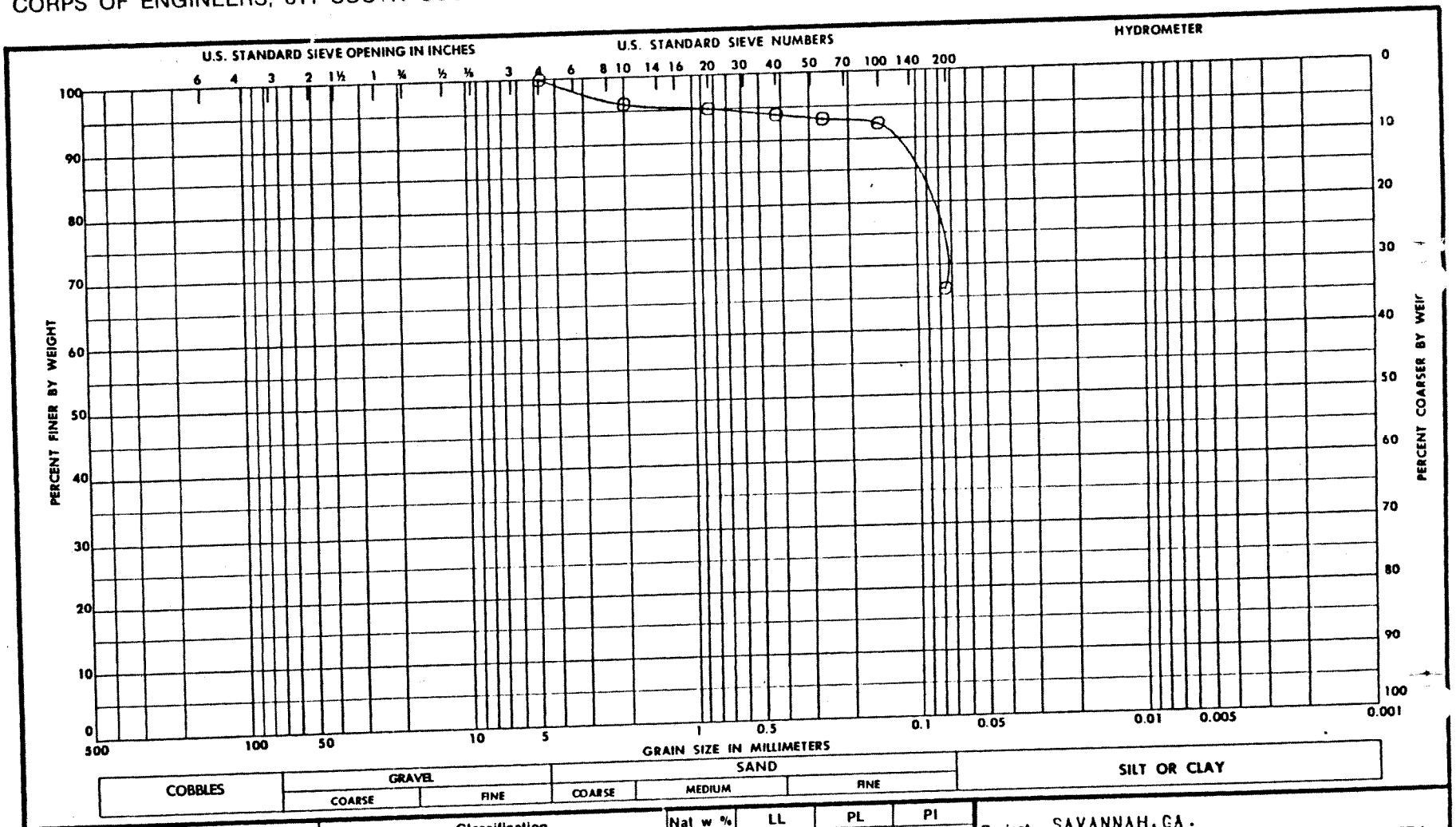
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
4	45.5-47.0'	FAT CLAY (CH) GREENISH GRAY WITH SOME SAND	64.9	109	39	70

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/520
Boring No. SH-90 SAMPLE NO. 4
Date 11/21/83

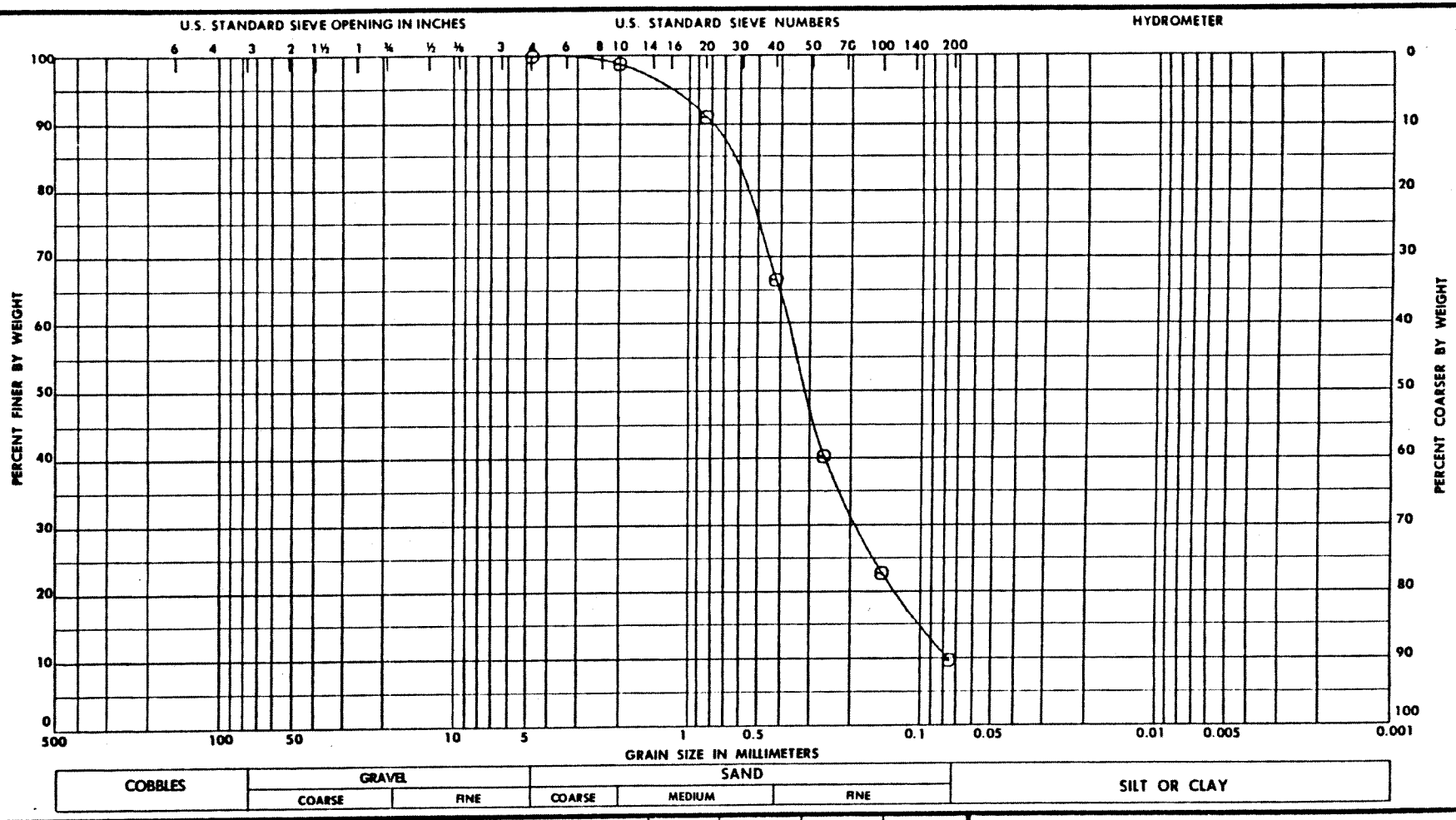
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	19.0-20.5'	POORLY GRADED SILTY SAND (SP-SM) TAN AND GRAY	25.5	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/524

Boring No. SH-91 SAMPLE NO. 3

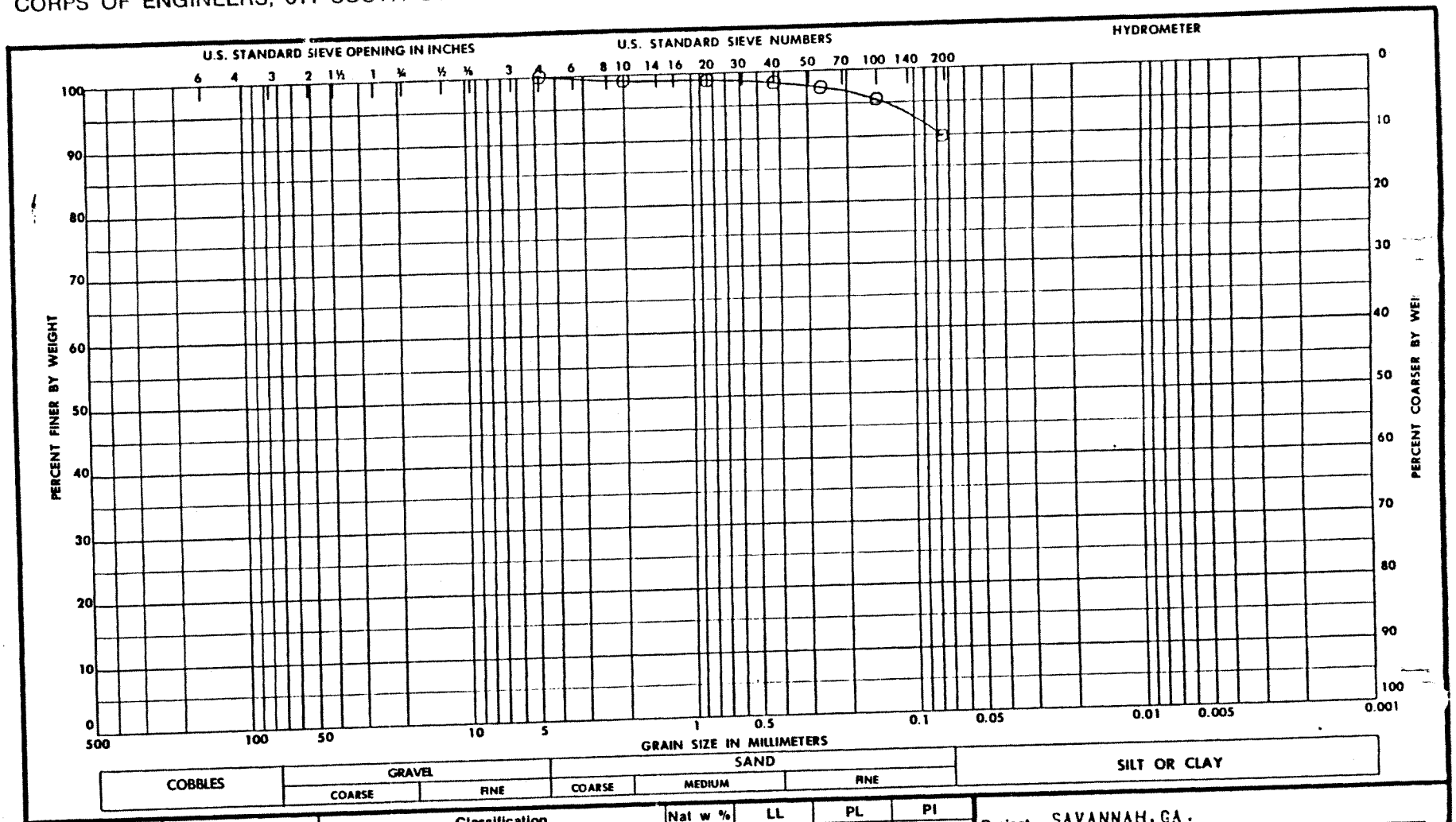
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
5	29.5-31.0'	FAT CLAY (CH) GRAY WITH A LITTLE SAND	62.5	59	25	34

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/526
Boring No. SH-91 SAMPLE NO. 5
Date 11/21/83

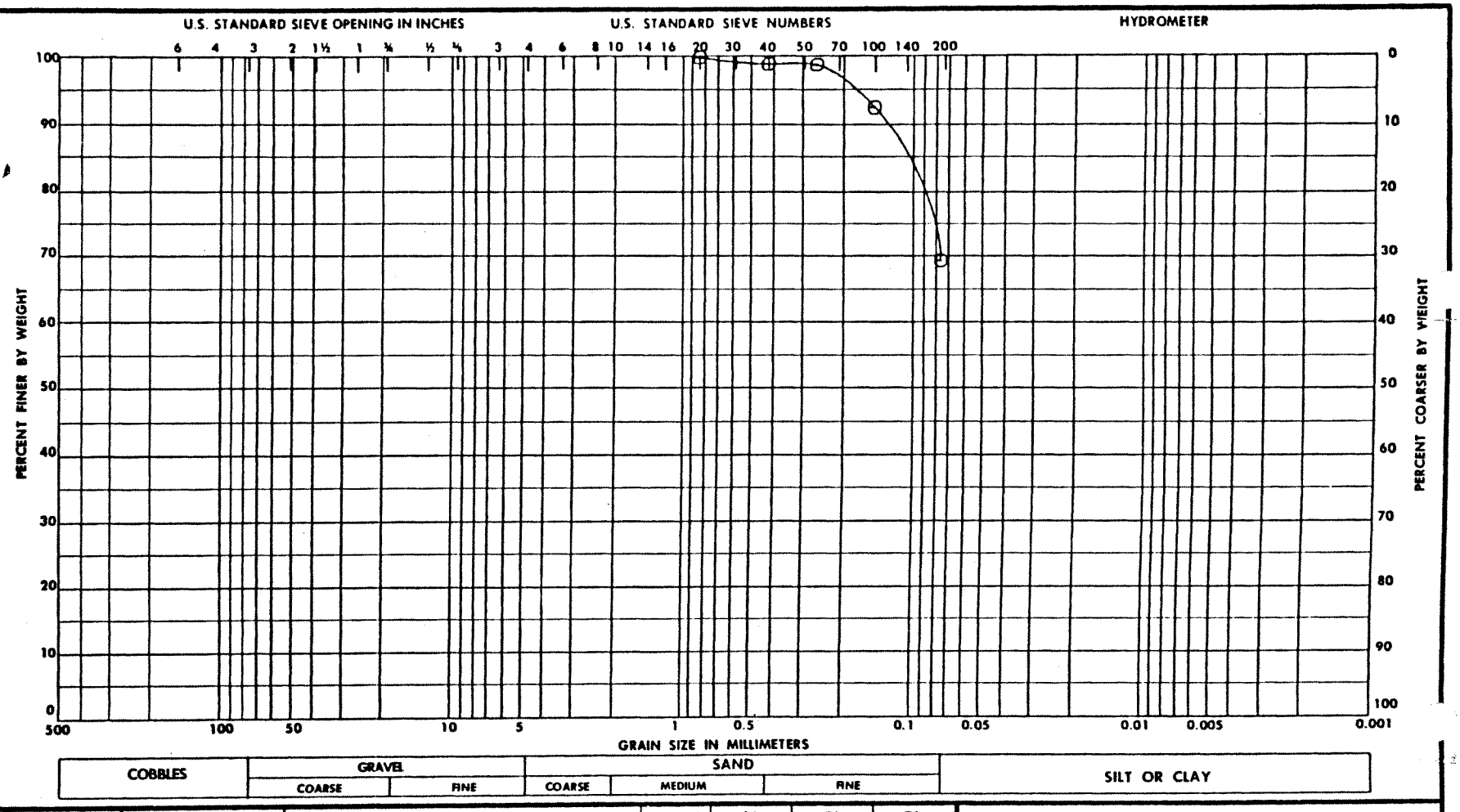
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	34.0-35.5'	LEAN CLAY (CL)	31.3	39	18	21
		GRAY WITH SOME SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/528

Boring No. SH-91 SAMPLE NO. 7

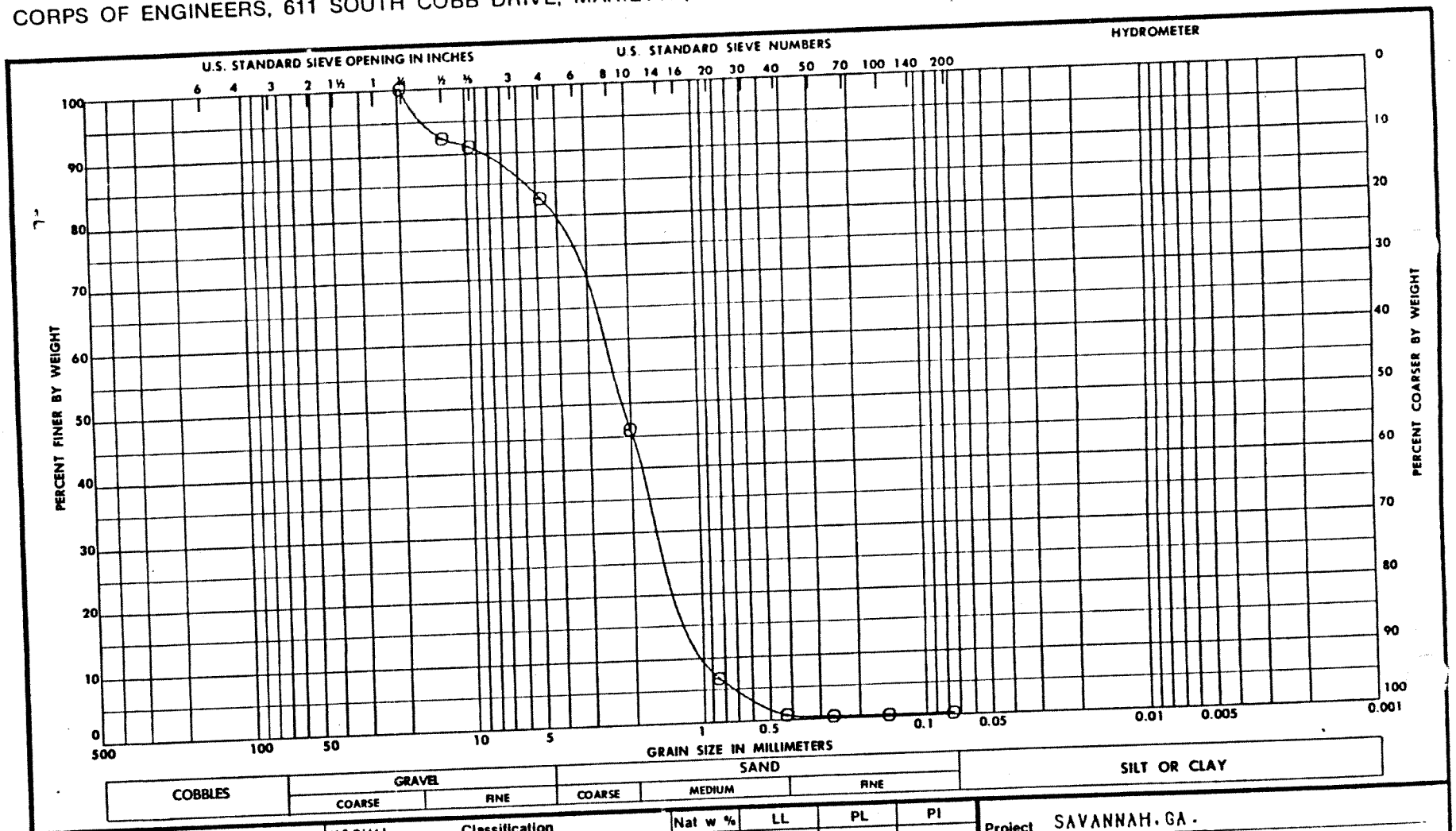
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
9	44.5-46.0'	VISUAL WELL-GRADED SAND (SW) TAN WITH A LITTLE GRAVEL		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/530
Boring No. SH-91 SAMPLE NO. 9
Date 11/21/83

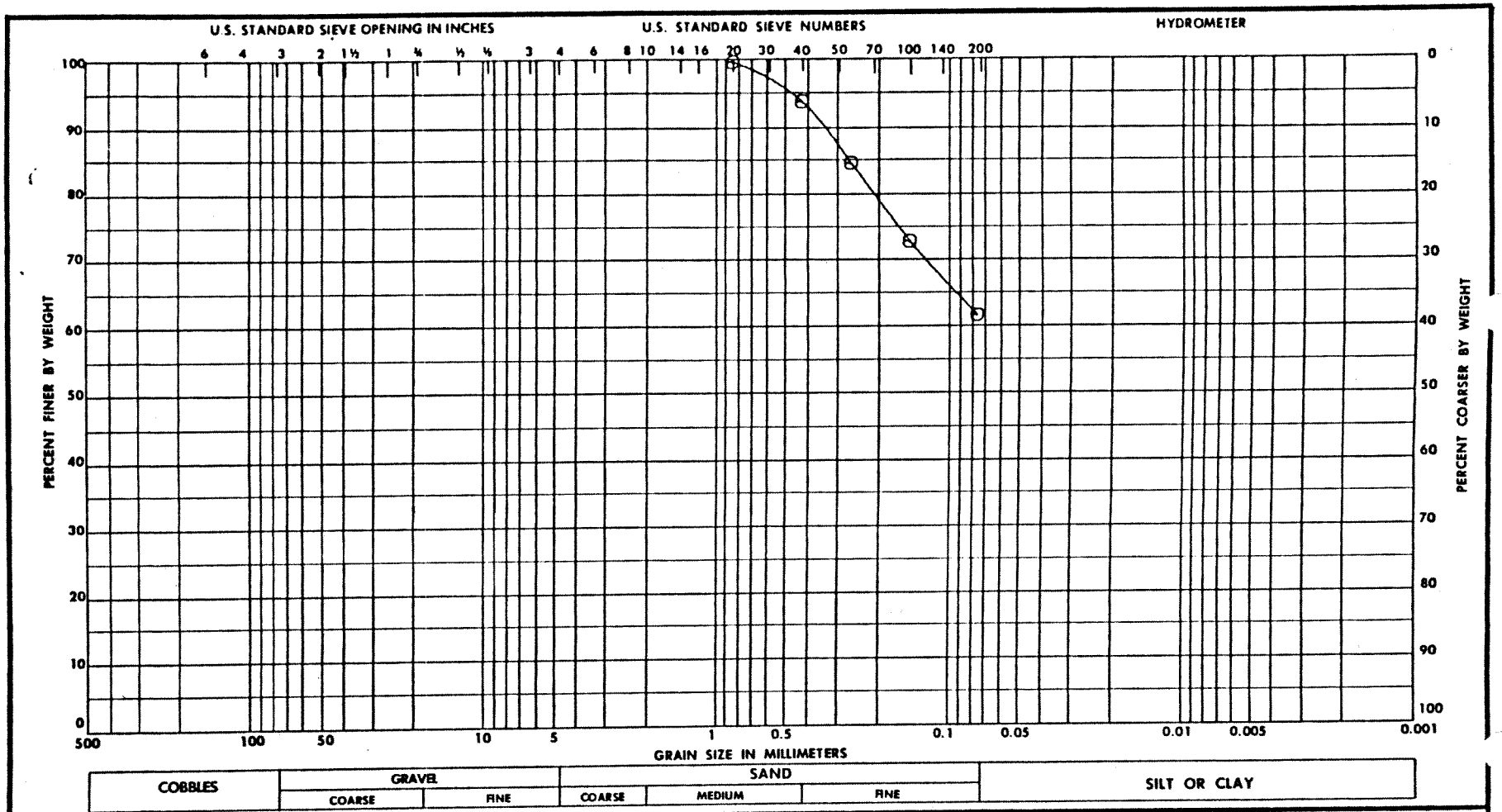
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	35.5-36.8'	FAT CLAY (CH)	139.5	125	38	87
		GRAY, SANDY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/531

Boring No. SH-92 SAMPLE NO. 1

Date 11/21/83

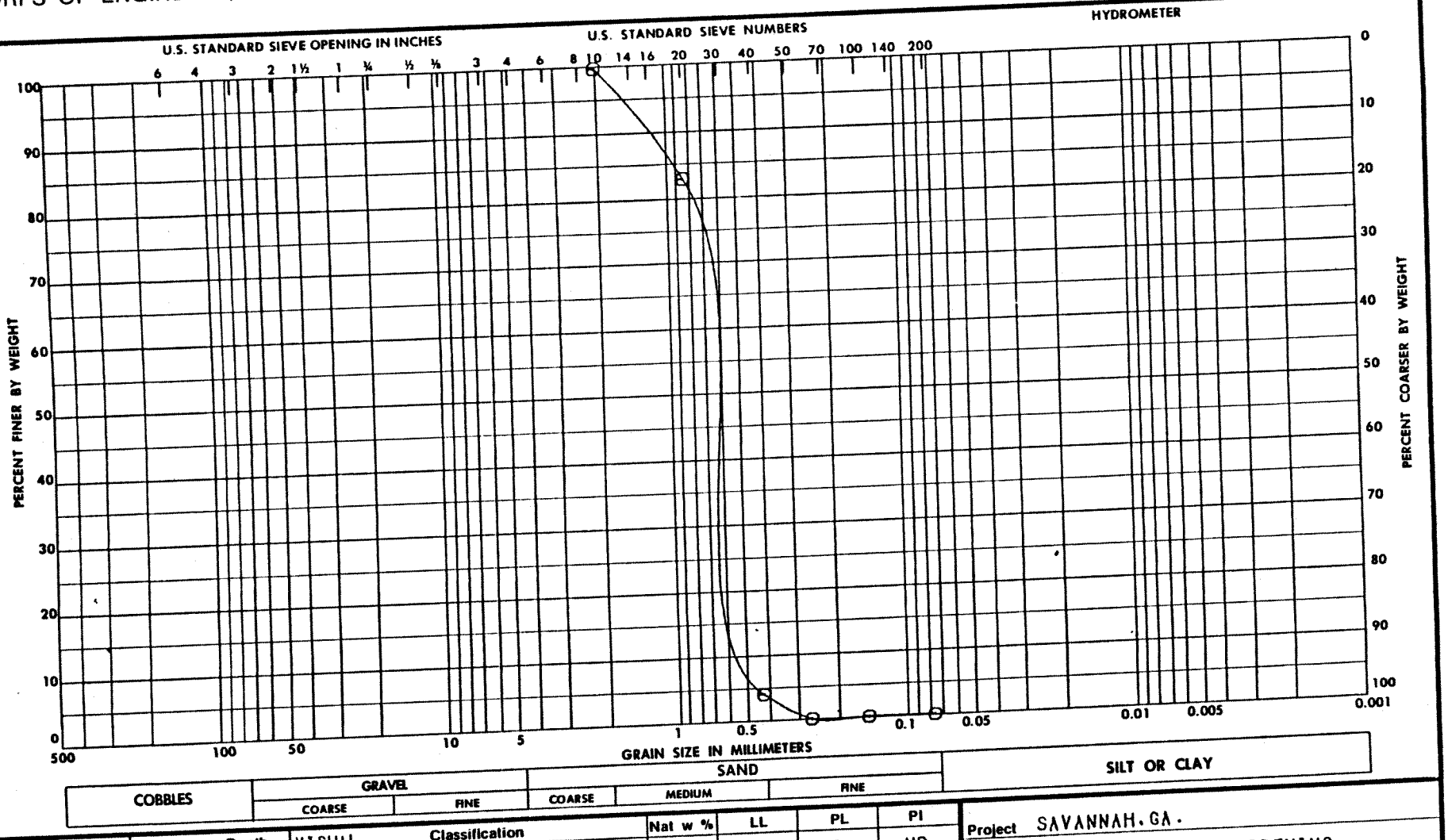
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Visual Classification	Nat w %	LL	PL	PI
3	38.5-40.0'	POORLY GRADED SAND (SP) LT.TAN		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/533

Boring No. SH-92 SAMPLE NO. 3

Date 11/21/83

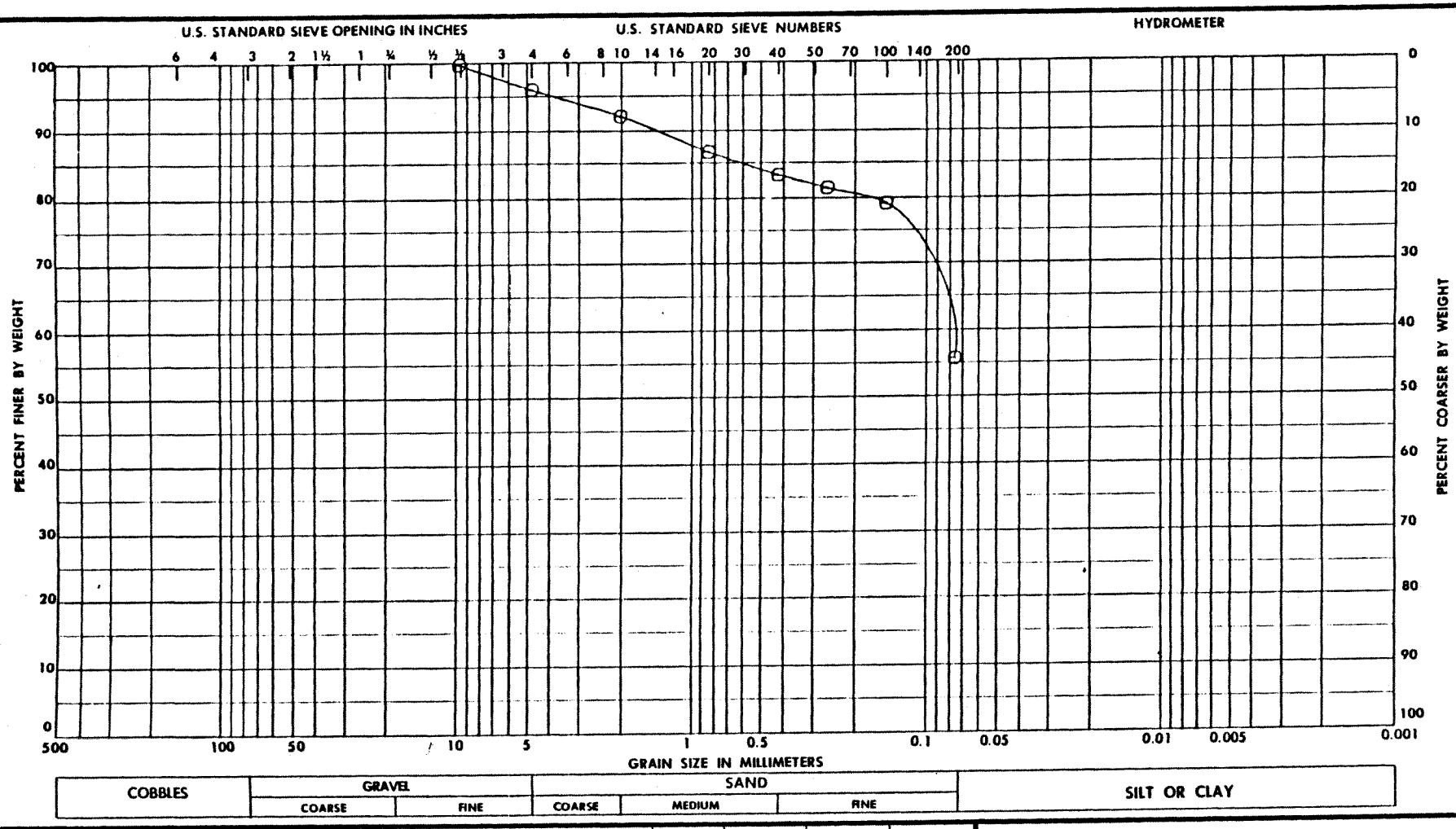
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
5	48.5-49.0'	FAT CLAY (CH) GREENISH GRAY, SANDY WITH A TRACE OF GRAVEL	47.8	103	29	74

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/535

Boring No. SH-92 SAMPLE NO. 5

Date 11/21/83

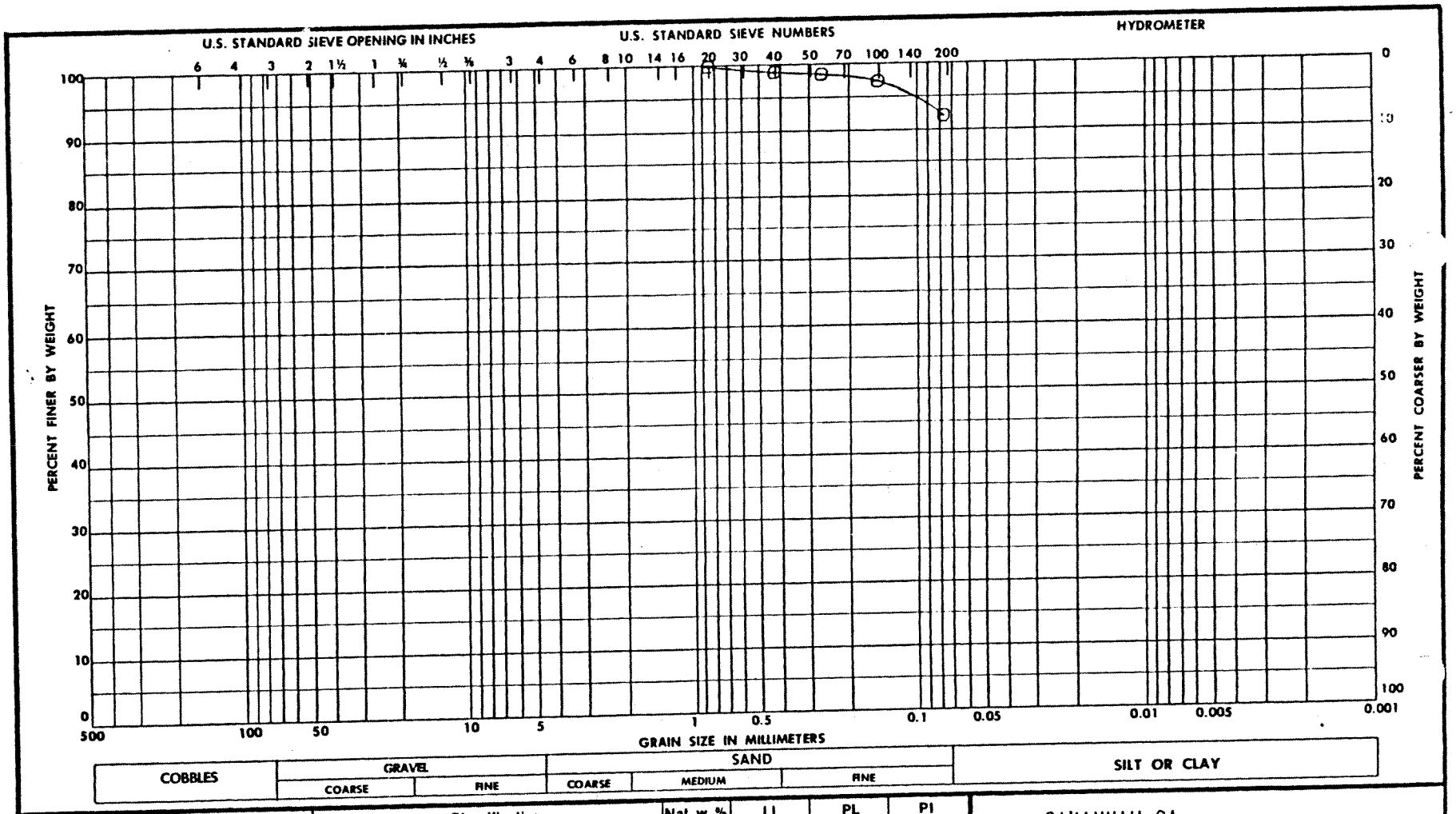
GRADATION CURVES

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. 5778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	13.0-14.5'	FAT CLAY (CH) GRAY WITH A TRACE OF SAND	133.9	138	41	97

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/538

Boring No. SH-93 SAMPLE NO. 2

Date 11/21/83

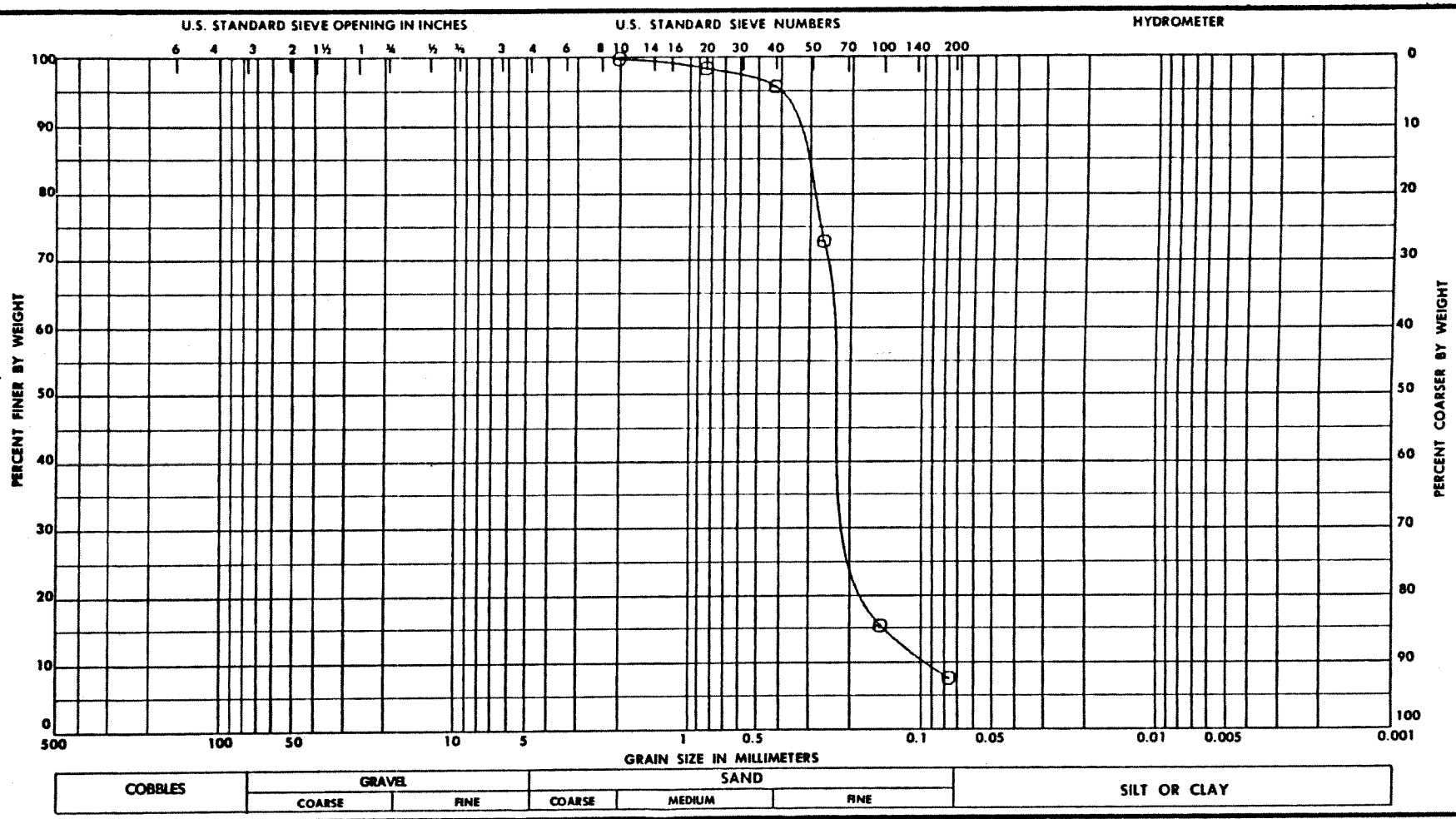
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	19.6-21.1'	POORLY GRADED SILTY SAND (SP-SM) GRAY	31.8	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/540

Boring No. SH-93 SAMPLE NO. 4

Date 11/21/83

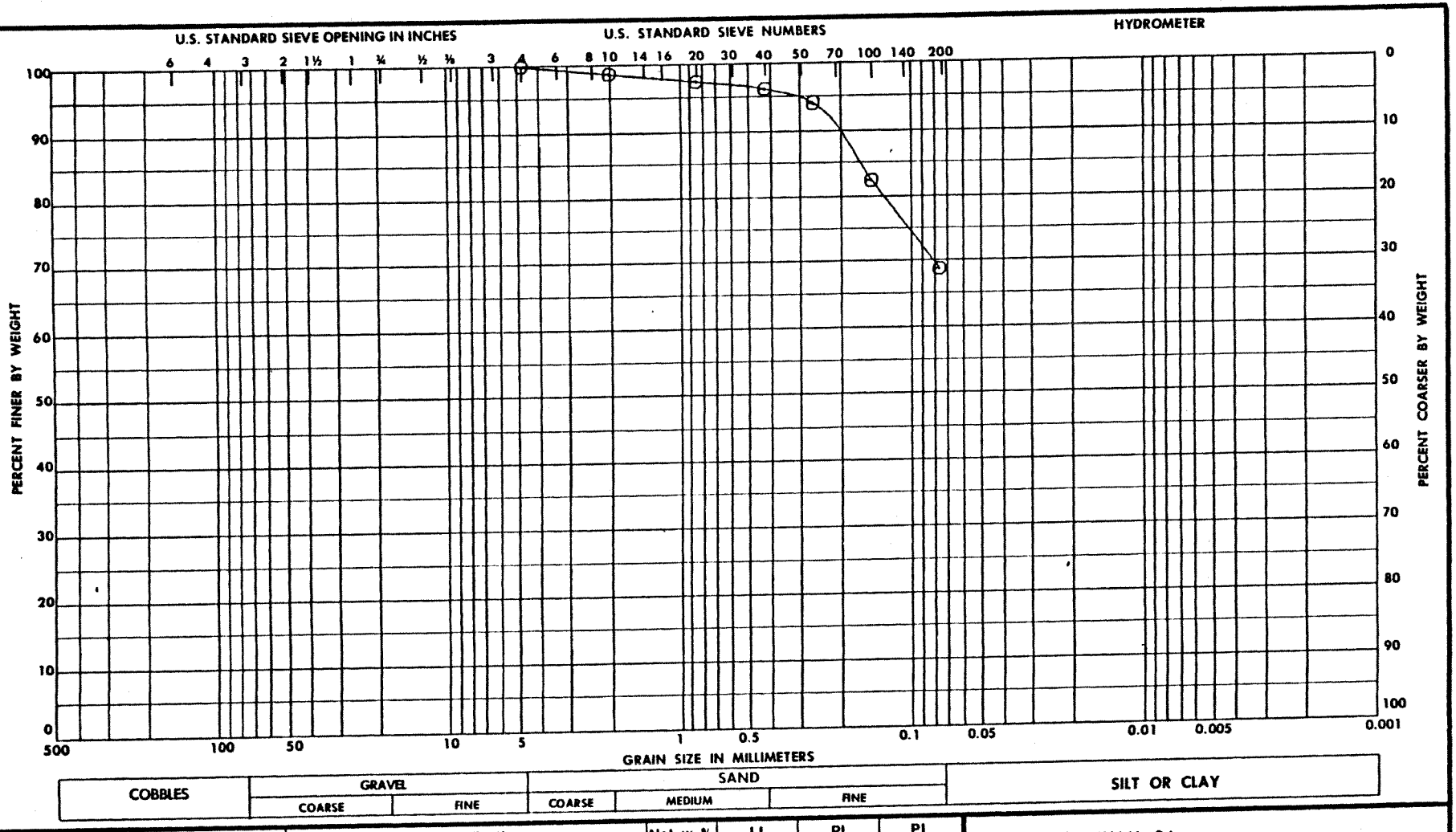
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
6	24.0-25.5'	FAT CLAY (CH)	93.3	81	30	51
		GRAY WITH SOME SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/542

Boring No. SH-93 SAMPLE NO. 6

Date 11/21/83

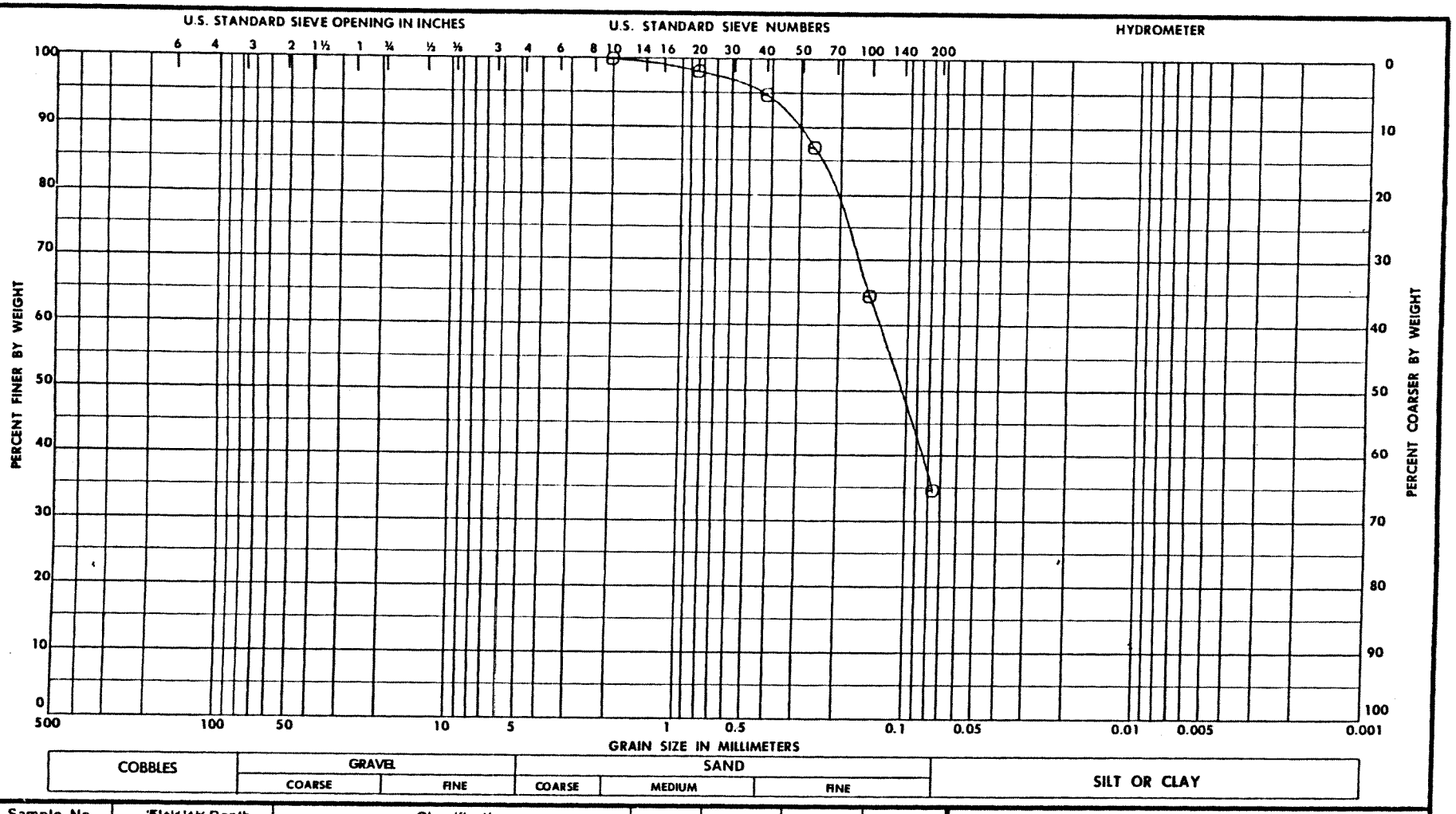
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
8	34.5-36.0'	SILTY SAND (SM)	42.5	37	30	7
		GRAY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/544
Boring No. SH-93 SAMPLE NO. 8
Date 11/21/83

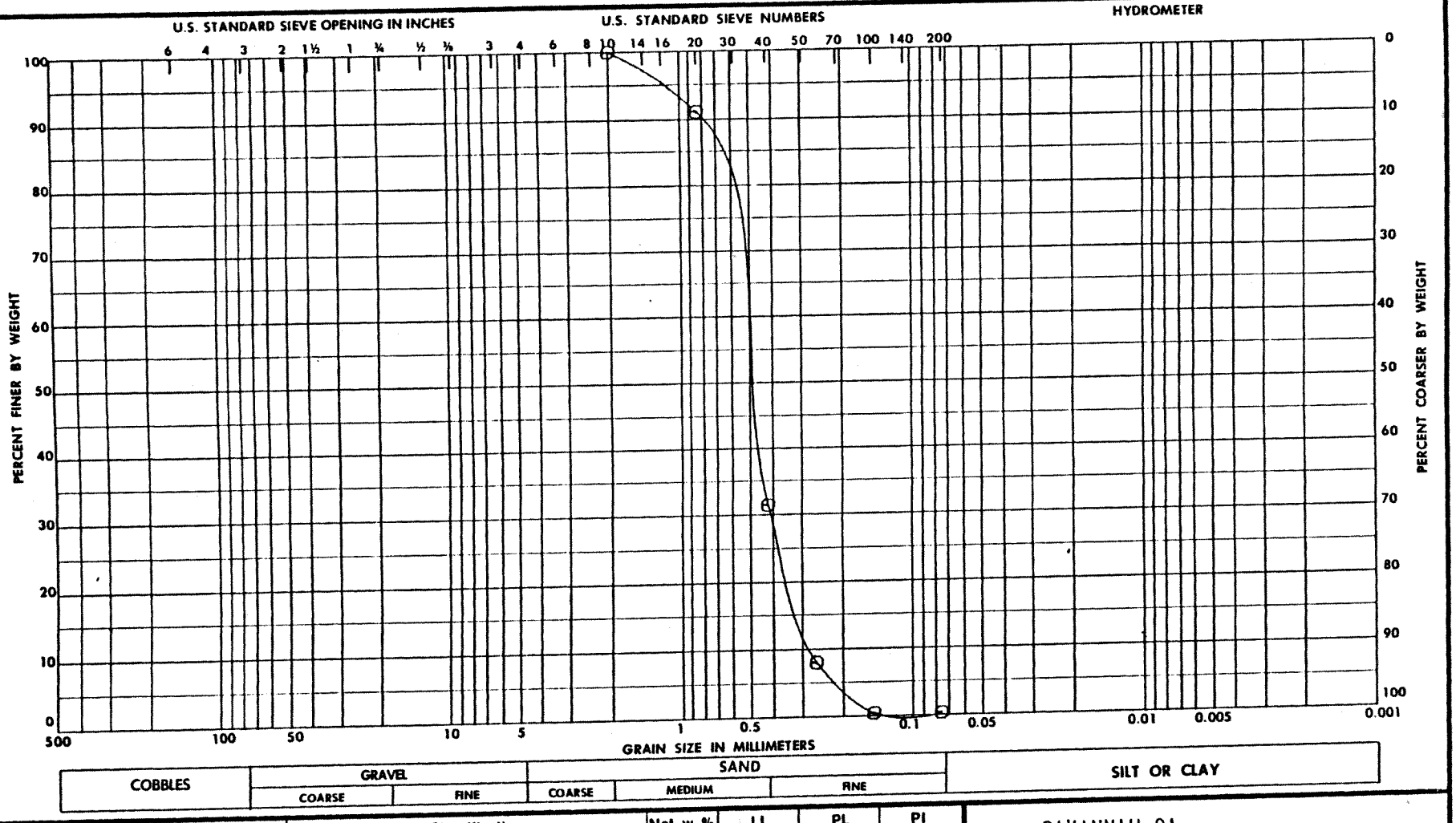
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
10	39.0-40.5'	POORLY GRADED SAND (SP)		NP	NP	NP
		TAN				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/546

Boring No. SH-93 SAMPLE NO. 10

Date 11/21/83

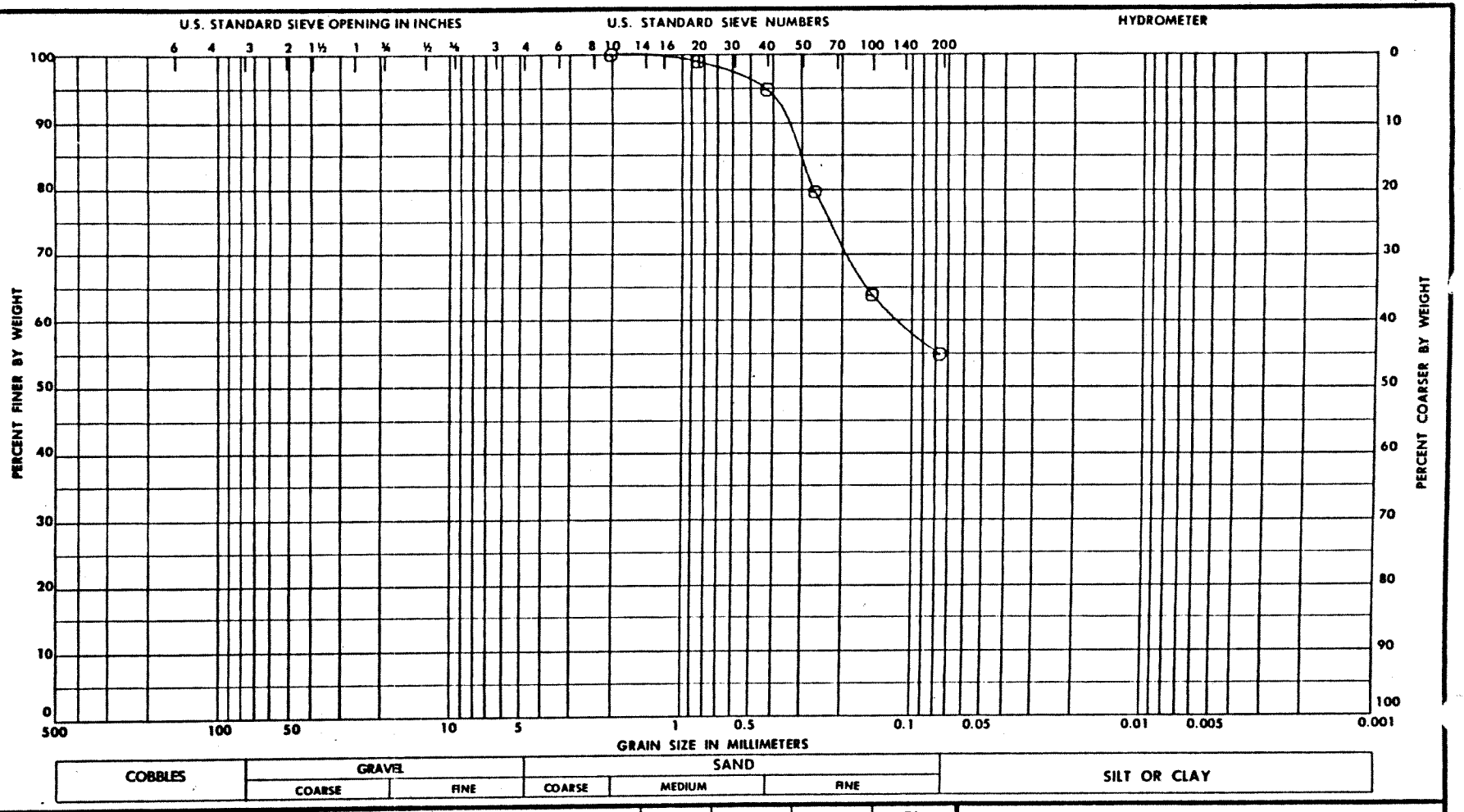
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	41.2-42.7'	FAT CLAY (CH)	137.0	116	34	82
		GRAY, SANDY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/549
Boring No. SH-94 SAMPLE NO. 1
Date 11/21/83

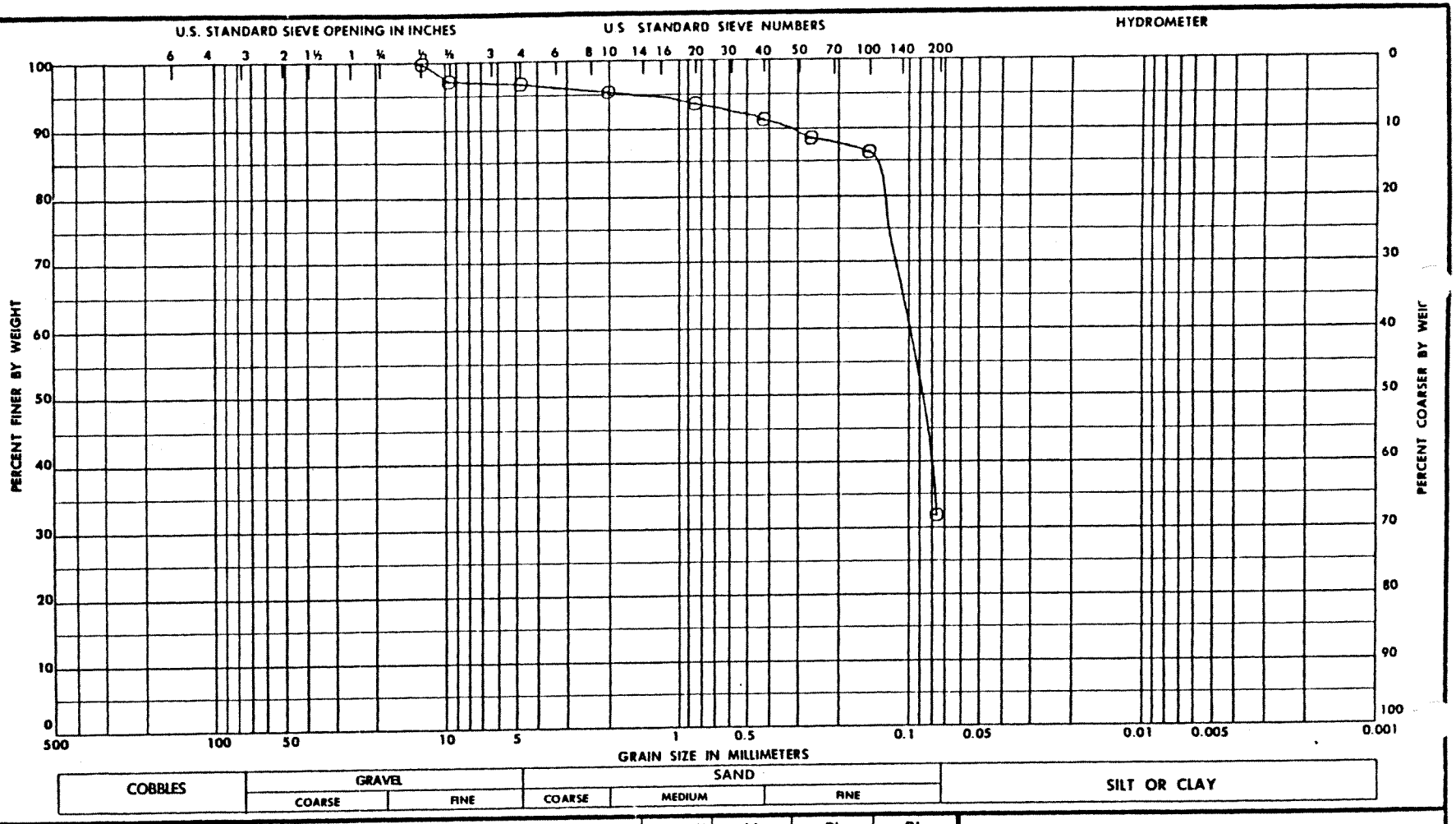
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	44.0-45.5	CLAYEY SAND.HIGH LL (SC-H)	39.3	59	27	32
		GREENISH GRAY WITH A TRACE OF				
		GRAVEL				

Project SAVANNAH.GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/550

Boring No. SH-94 SAMPLE NO. 2

Date 11/21/83

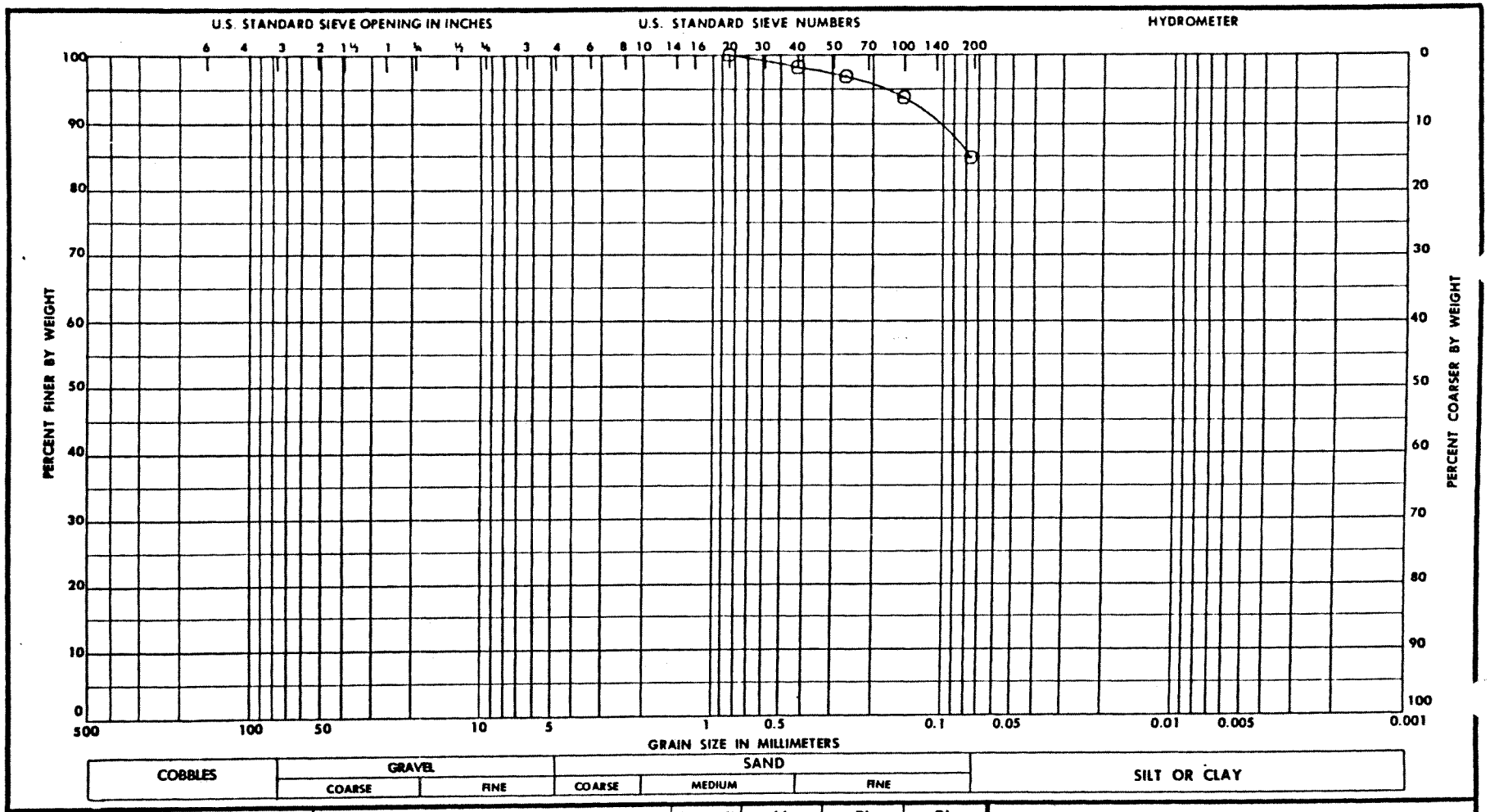
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	27.0-28.5'	LEAN CLAY (CL)	40.0	48	27	21
		GRAY WITH A LITTLE SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/554

Boring No. SH-95 SAMPLE NO. 3

Date 11/21/83

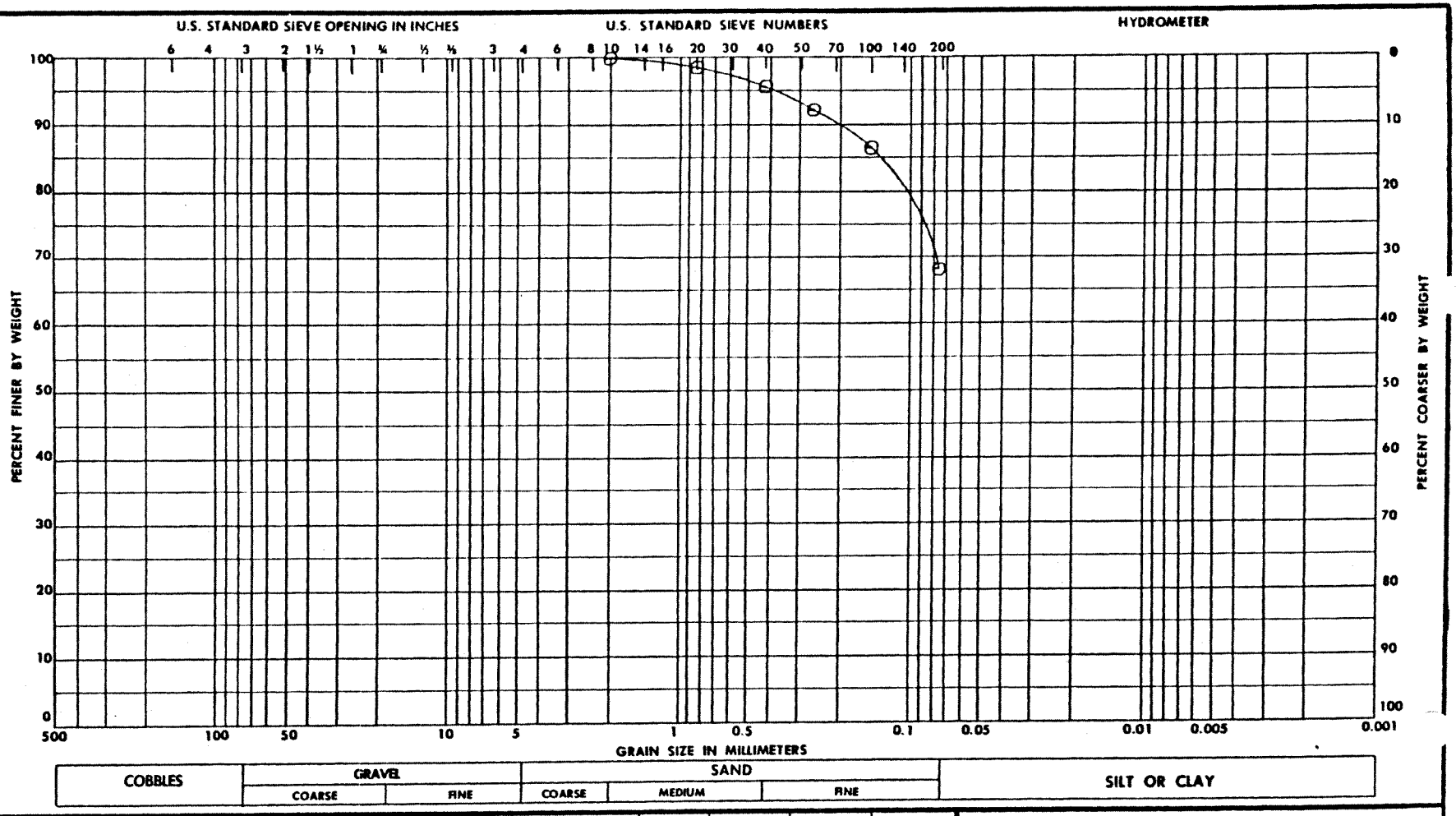
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
4	28.5-30.0'	INORGANIC SILT.HIGH LL (MH)	52.8	57	38	19
		GRAY WITH SOME SAND				

Project SAVANNAH.GA.
SAVANNAH HARBOR WIDENING

Area LAB NO.97/555

Boring No. SH-95 SAMPLE NO. 4

Date 11/21/83

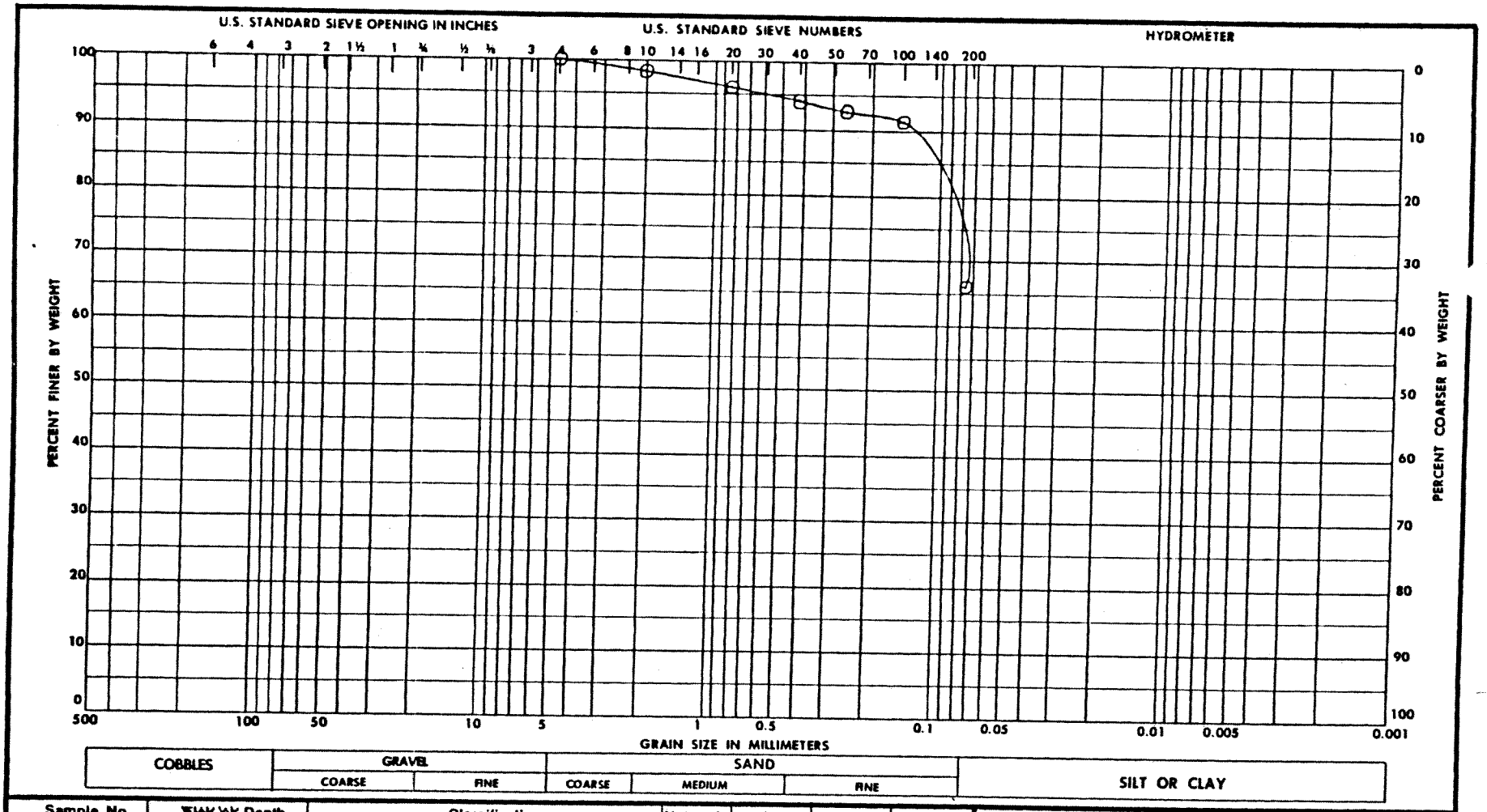
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
9	45.0-46.5'	FAT CLAY (CH)	30.2	60	29	31
		GREENISH GRAY WITH SOME SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/605

Boring No. SH-95 SAMPLE NO. 9

Date 11/21/83

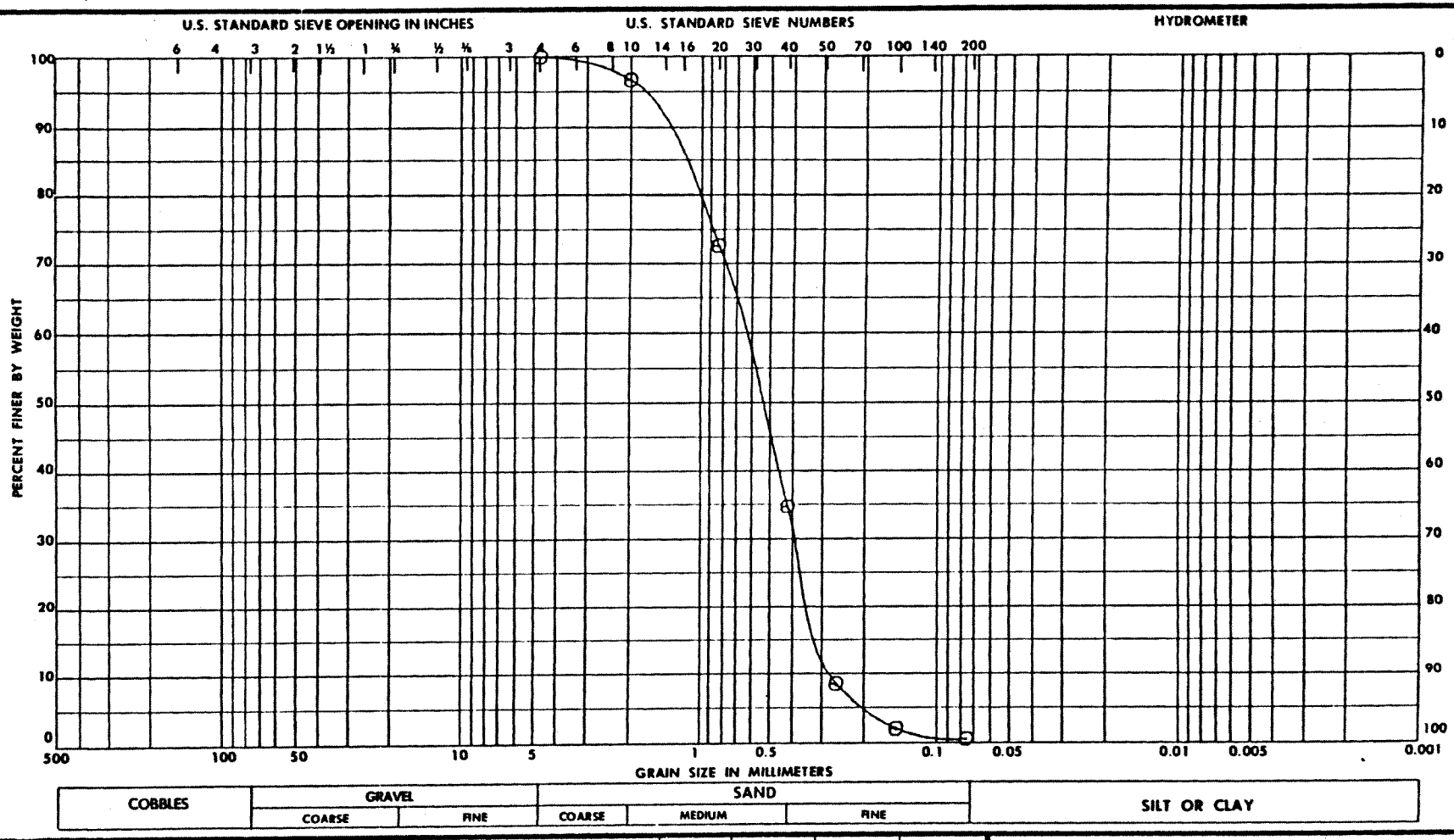
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~[illegible]~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	33.8-35.3'	POORLY GRADED SAND (SP)		NP	NP	NP
		TAN				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/557
Boring No. SH-96 SAMPLE NO. 1
Date 11/21/83

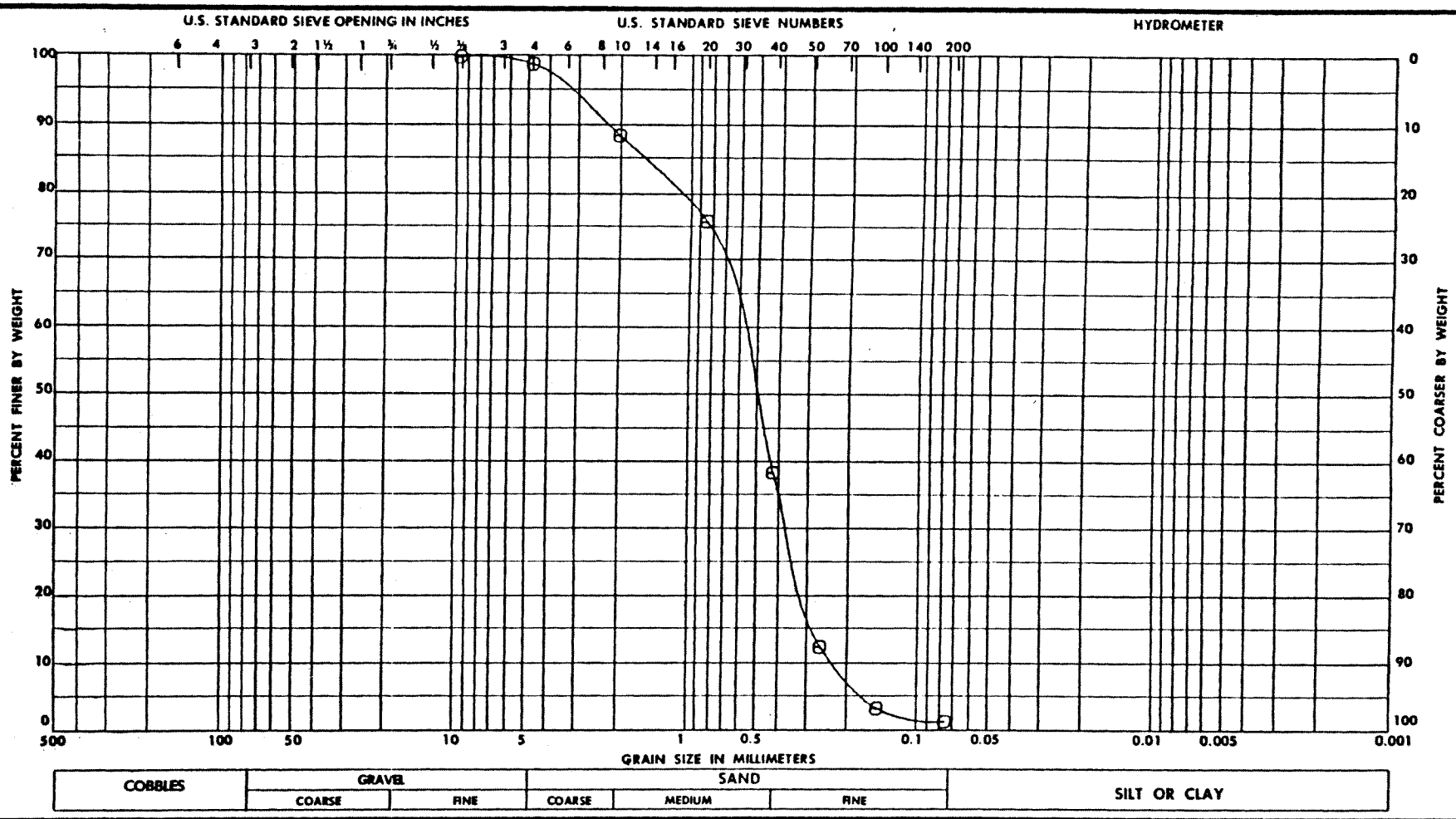
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	49.0-50.4'	POORLY GRADED SAND (SP)		NP	NP	NP
		TAN WITH A TRACE OF GRAVEL				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/560
Boring No. SH-96 SAMPLE NO. 4
Date 11/21/83

GRADATION CURVES

ENG FORM 1 MAY 63 2087

GENERAL TEST REPORT (Continued)

(SOILS)

PROJECT Savannah Harbor Widening

WORK ORDER NO. 3778

REQ. NO. EN-GS-84-03

LAB NO. 97/449---598

DATE 22 Nov 1983

Lab No. 97/	Hole No.	Sample No.	Depth (ft)	Moisture Content (%)
562	SH-97	2	42.2-43.7	26.8*
563	SH-97	3	44.0-45.5	44.7*
564	SH-97	4	48.5-50.0	29.6*
566	SH-98	2	18.8-20.3	22.7*
568	SH-98	4	29.5-31.0	19.2*
574	SH-99	2	42.0-43.5	30.5
575	SH-99	3	45.0-46.5	44.6*
576	SH-99	4	49.5-51.0	90.6
580	SH-100	4	20.5-22.0	53.8*
582	SH-100	6	28.0-29.5	92.6
583	SH-100	7	34.0-35.5	120.5*
584	SH-100	8	39.5-41.0	97.4
585	SH-100	9	42.5-44.0	76.1
589	SH-101	1	15.4-16.9	72.1
591	SH-101	3	18.5-20.0	112.9*
593	SH-101	5	24.5-26.0	48.5*
594	SH-101	6	26.0-27.5	112.8
595	SH-101	7	30.9-32.4	15.9*

*See lab classification data on ENG Form 2087.

SAD Form 158A
1 Feb 79

GENERAL TEST REPORT

U.S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

DISTRICT/OFFICE Savannah	
CONTRACT NO. --	
PROJECT Savannah Harbor Widening	**DATE REPORTED** 10 April 1984
	WORK ORDER NO. 3778
TYPE SAMPLE Jar Samples of Disturbed Soils	**REQN. NO.** EN-GS-84-03 (CH. 1)
~~**SOURCE**~~ Hole No. SH-99A	**BASE UNIT COST** --
FOR USE AS Investigation	**DATE SAMPLE RECEIVED** 1 Sept - 30 Dec 1983
TESTED FOR Lab Classification and Field Moisture	**LAB NO.** 97/611

☐ **MEETS SPECIFICATIONS** N/A ☐ **FAILS SPECIFICATIONS (See below)**

Lab No.	Hole No.	Sample No.	Depth (ft)	Moisture Content (%)
97/611	SH-99A	1	39.6-41.1	87.4

REMARKS:

REPORTED BY ☐ PHONE ☐ WIRE	**TESTED BY** NM, CL, JL	**CHECKED BY** ES
DATE	**SAMPLED BY** District	

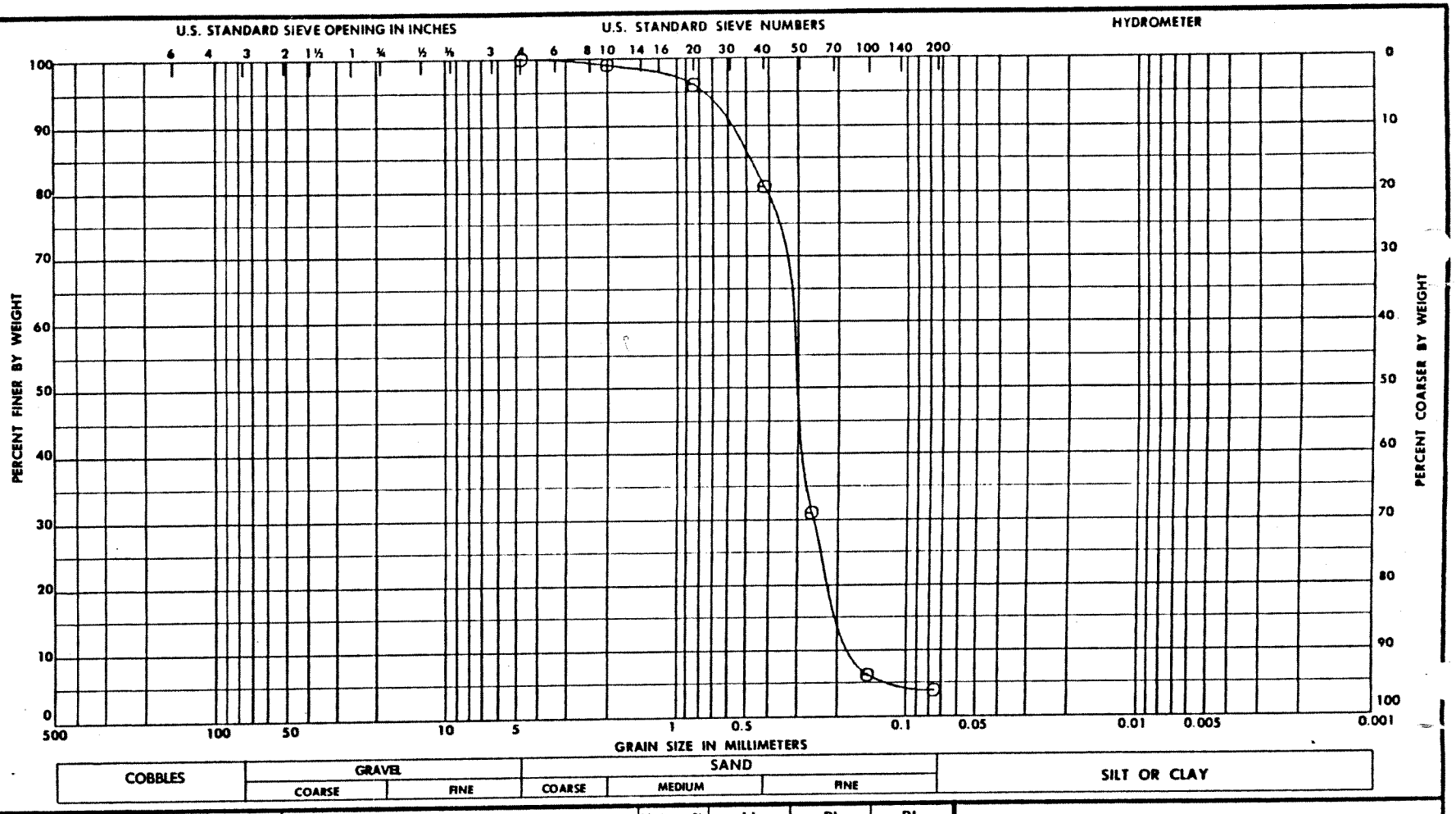
ENG FORM 158
1 Jan 79

Previous editions of this form are obsolete

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

W.O. No. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	40.7-42.2'	POORLY GRADED SAND (SP)		NP	NP	NP
		TAN				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/561
Boring No. SH-97 SAMPLE NO. 1
Date 11/21/83

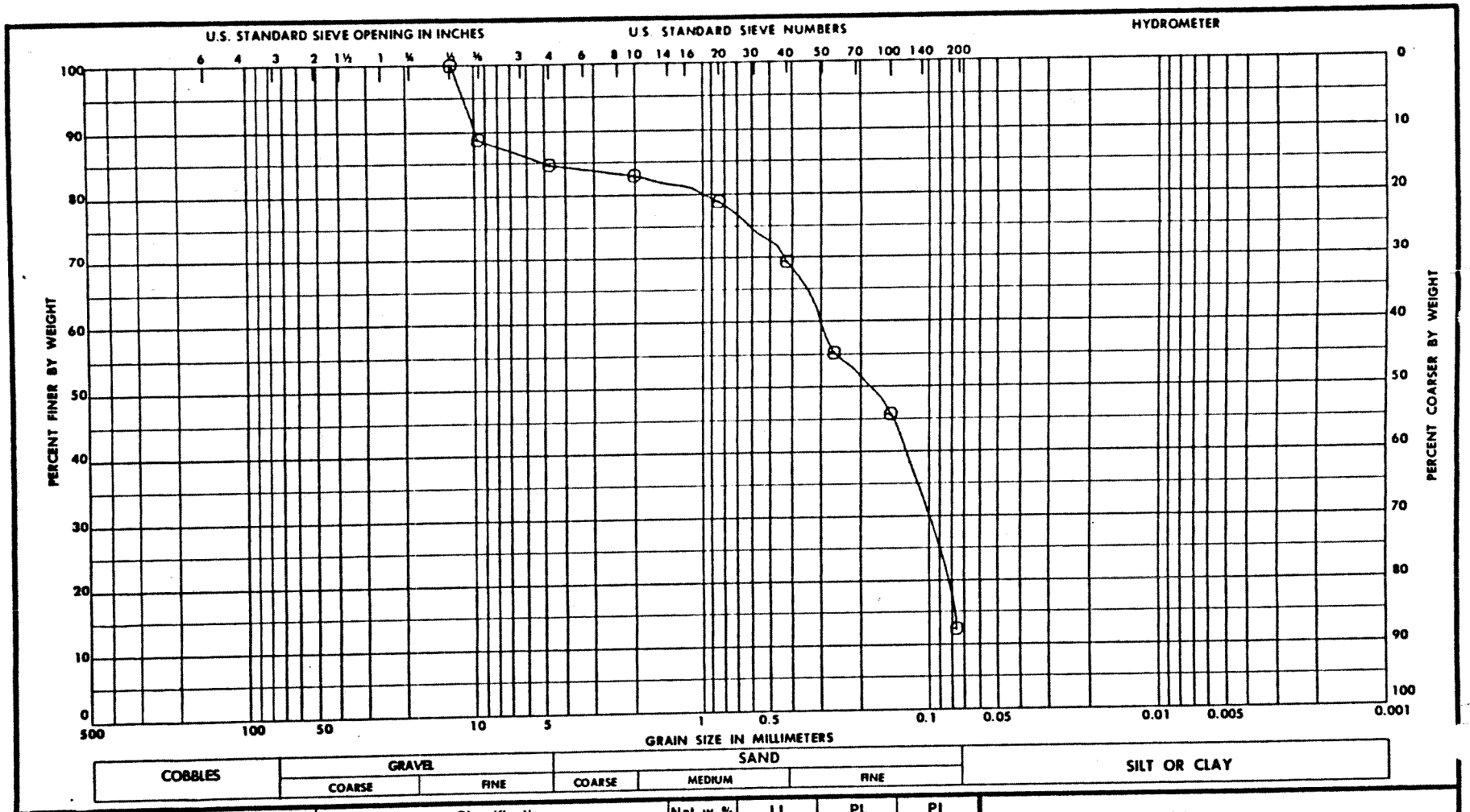
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	42.2-43.7'	SILTY SAND (SM) GRAY WITH A LITTLE GRAVEL	26.8	40	29	11

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/562
Boring No. SH-97 SAMPLE NO. 2
Date 11/21/83

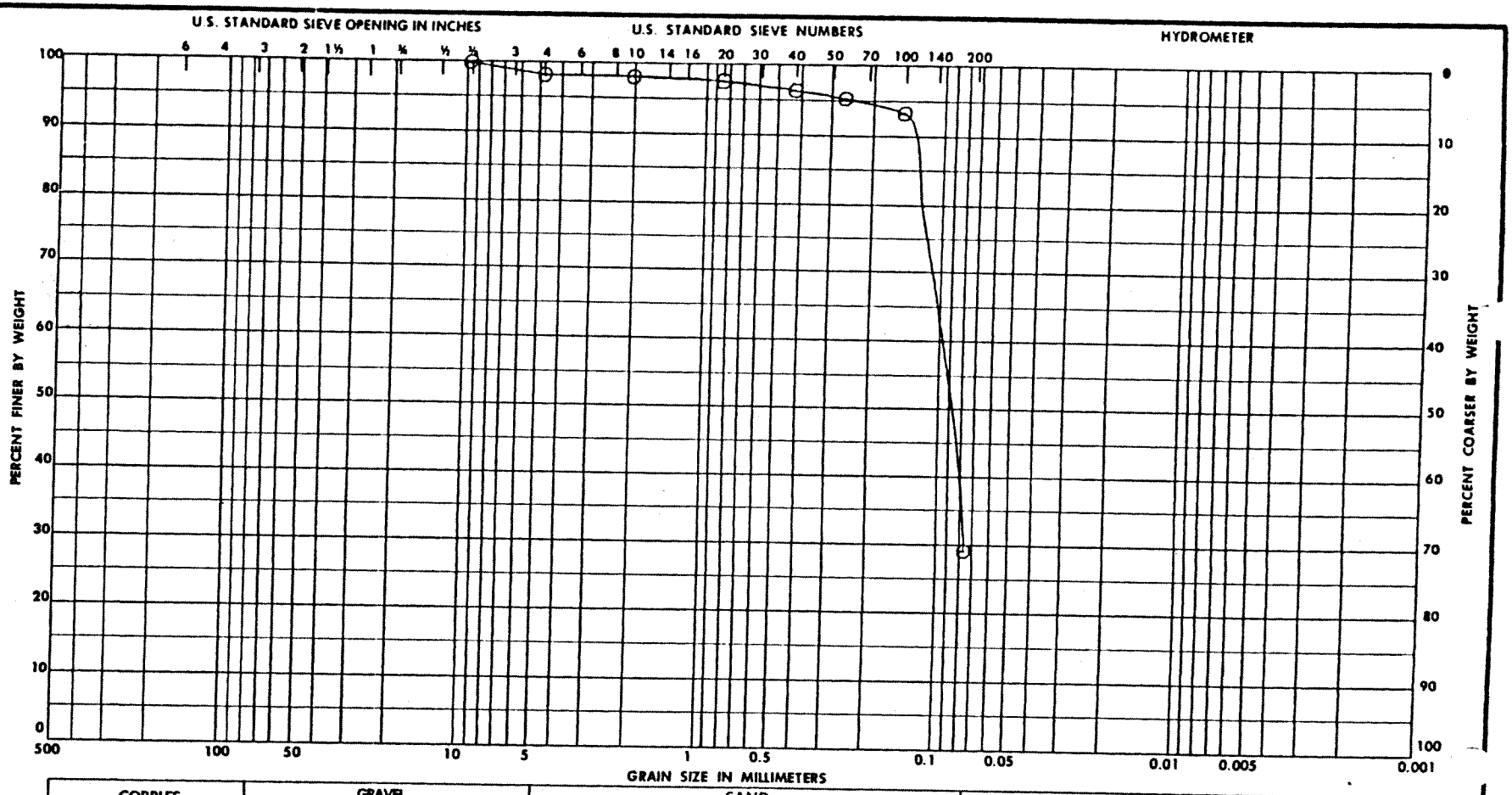
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
3	44.0-45.5'	CLAYEY SAND, HIGH LL (SC-H)	44.7	66	28	38
		GREENISH GRAY WITH A TRACE OF				
		GRAVEL				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/563

Boring No. SH-97 SAMPLE NO. 3

Date 11/21/83

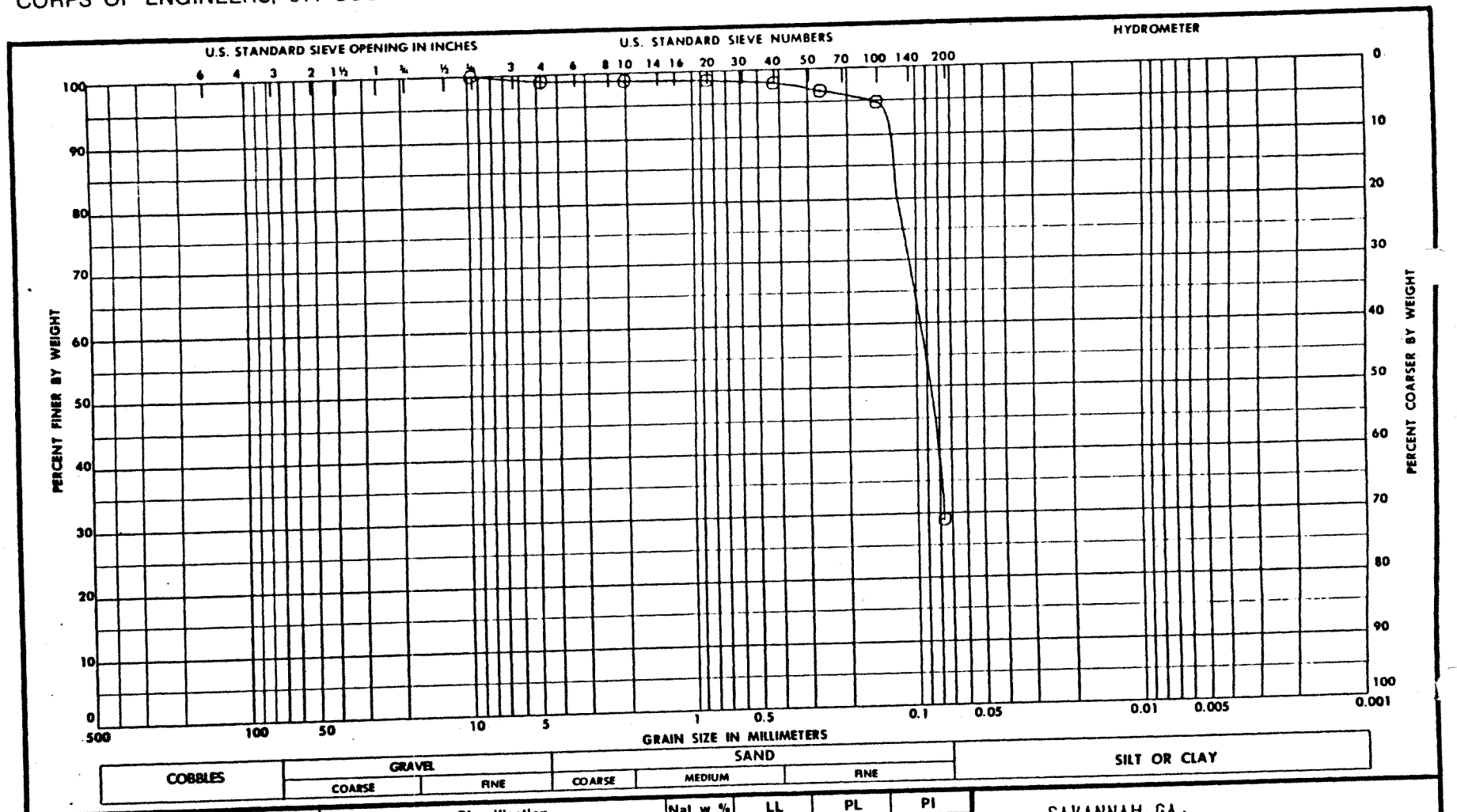
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev. or~~ Depth	Classification	Nat w %	LL	PL	PI
4	48.5-50.0'	CLAYEY SAND.HIGH LL (SC-H) GREENISH GRAY WITH A TRACE OF GRAVEL	29.6	51	28	23

Project SAVANNAH.GA.
SAVANNAH HARBOR WIDENING
Area LAB NO.97/564
Boring No. SH-97 SAMPLE NO. 4
Date 11/21/83

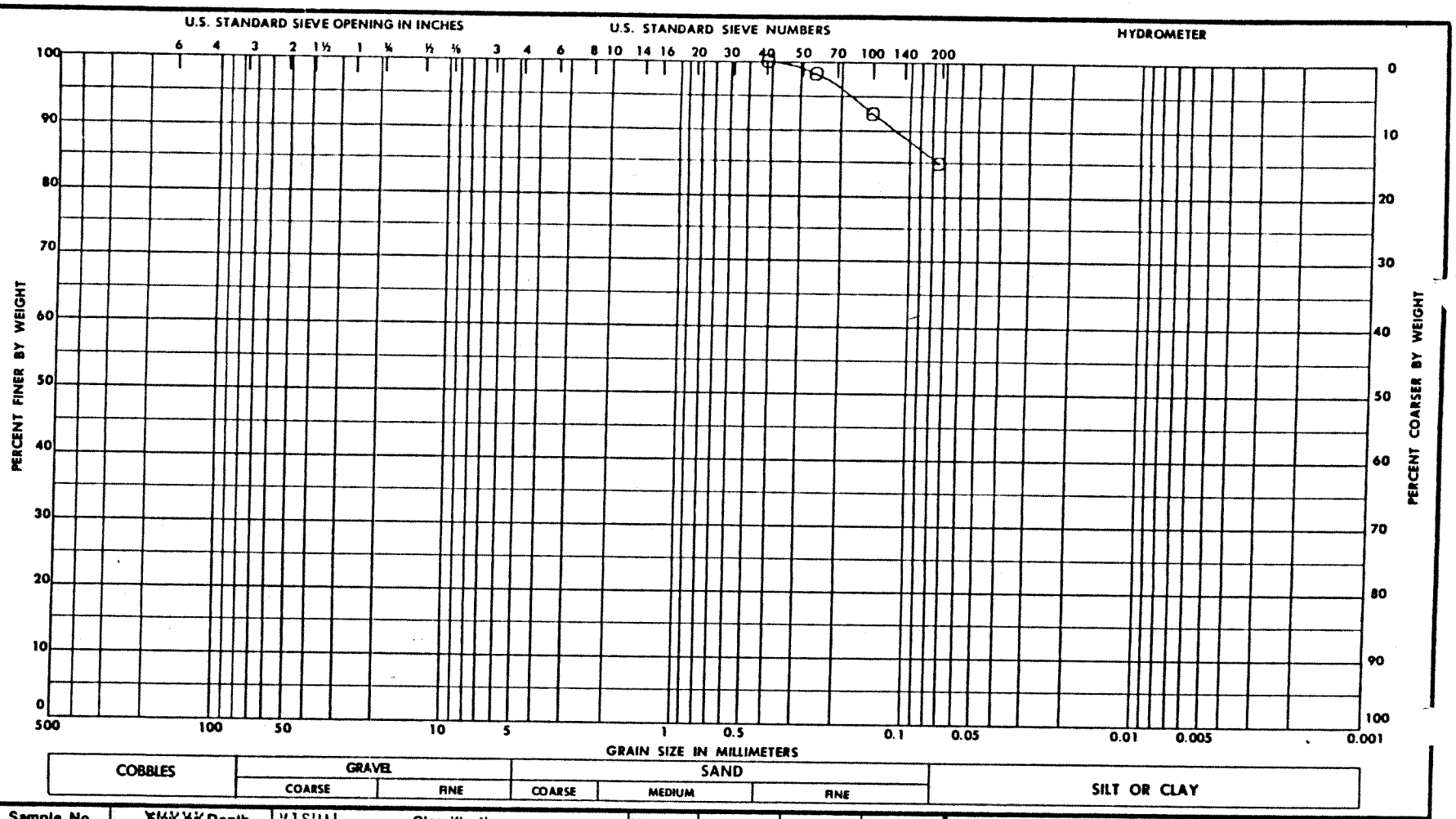
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	28.2-34.2'	GRAY INORGANIC SILT HIGH LL	156.1	--	--	--
		(MH) WITH A LITTLE SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/606

Boring No. SH-97A SAMPLE NO. 1

Date 04/02/84

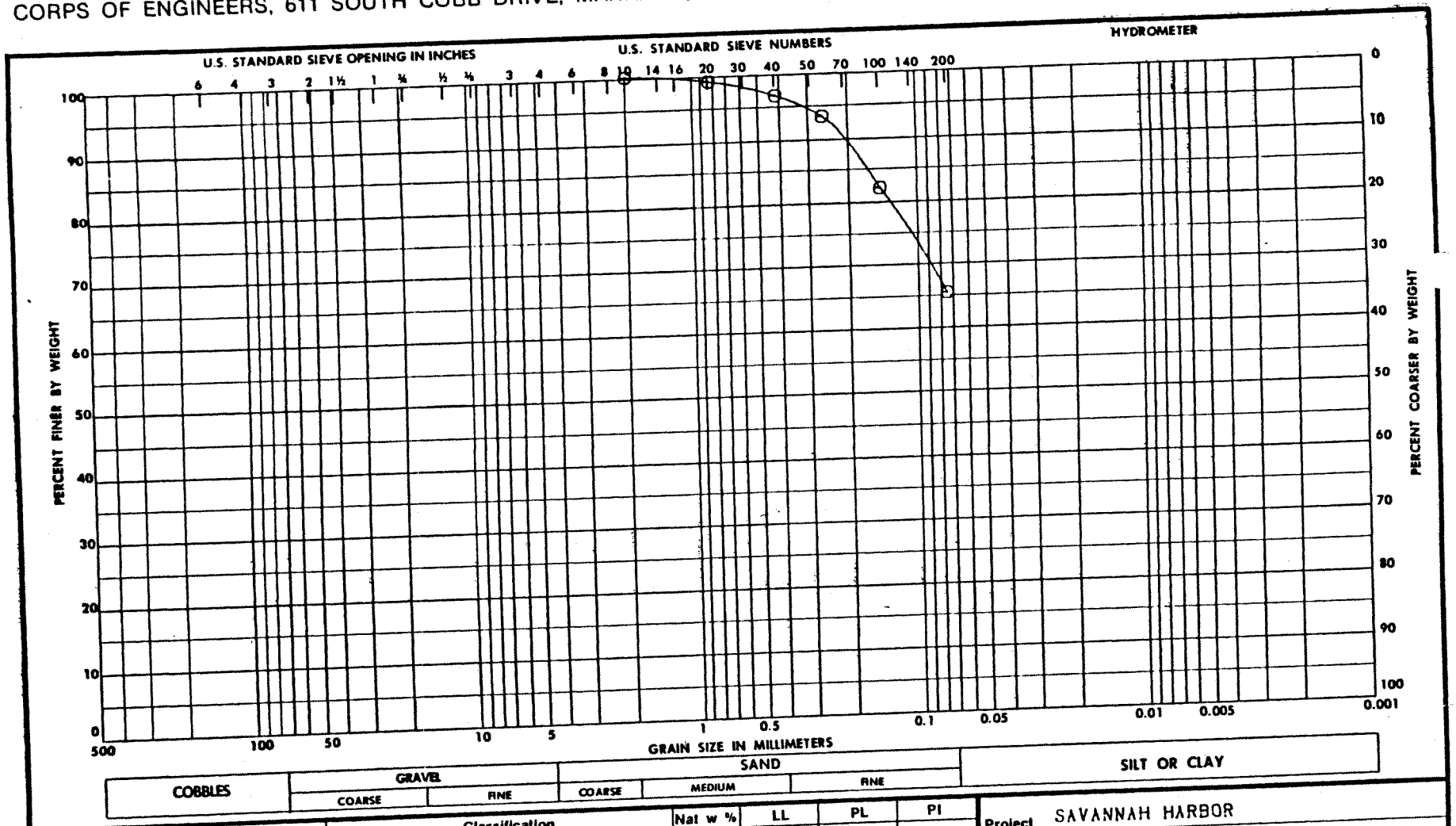
GRADATION CURVES

ENG FORM 1 MAY 63 2087

W.O. No. 3778

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	34.2-35.7'	INORGANIC SILT, HIGH LL (MH)	93.9	84	41	43
		GRAY, CLAYEY WITH SOME SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO. 97/607
Boring No. SH-97A SAMPLE NO. 2
Date 04/02/84

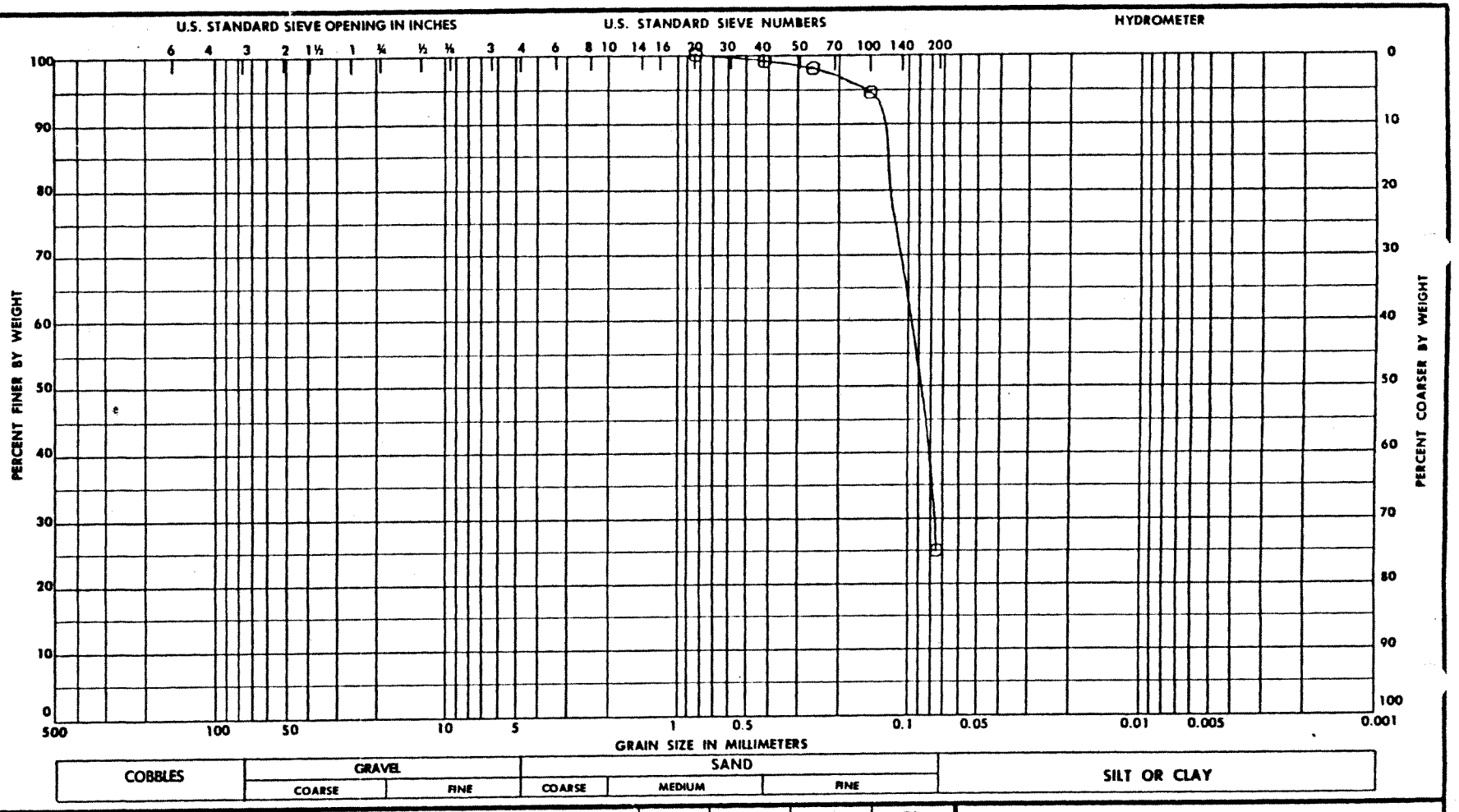
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
5	42.8-43.5'	SILTY SAND (SM)	39.3	47	33	14
		GRAY, CLAYEY				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/610
Boring No. SH-97A SAMPLE NO. 5
Date 04/02/84

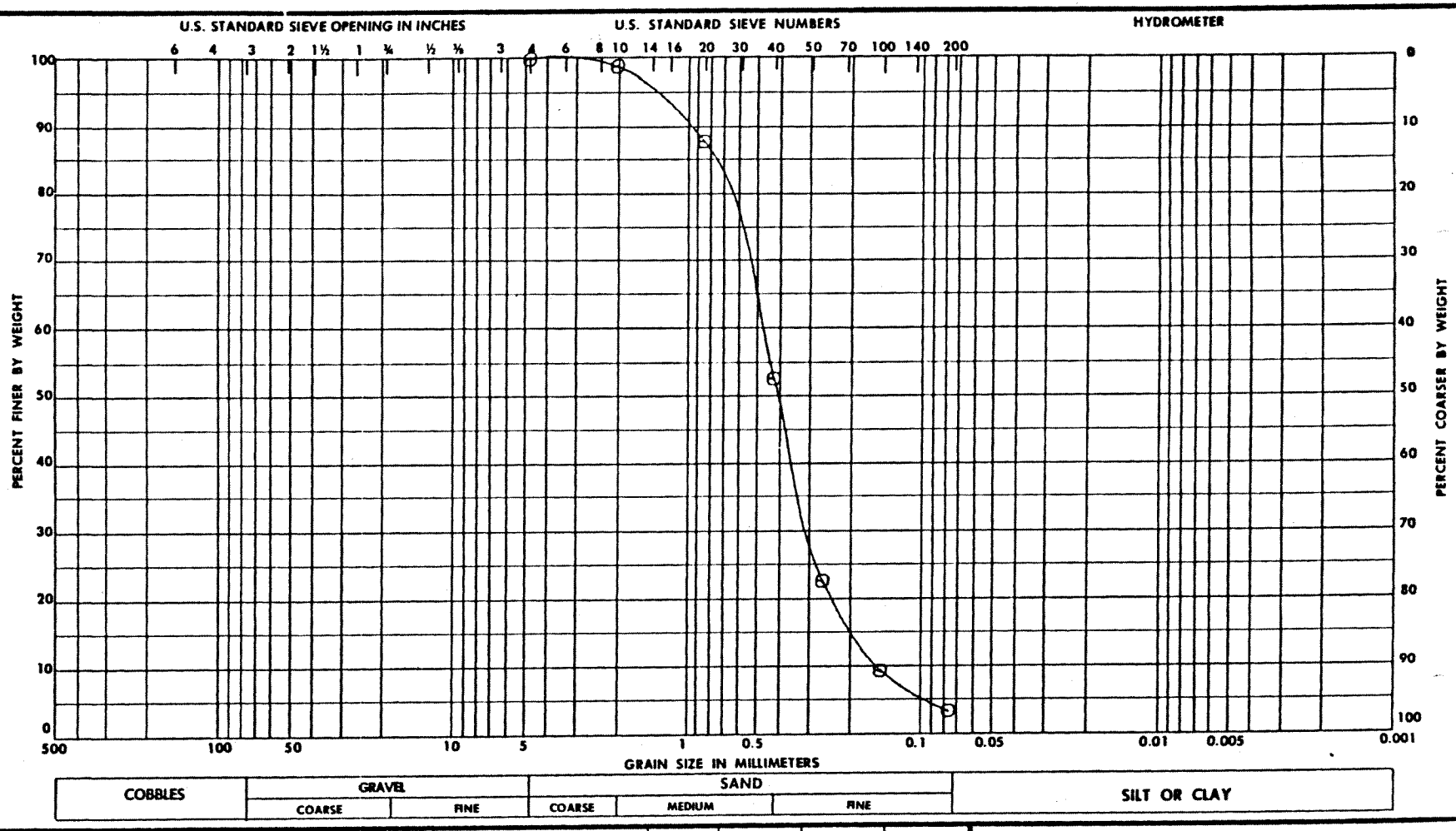
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	18.8-20.3'	POORLY GRADED SAND (SP)	22.7	NP	NP	NP
		GRAY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/566

Boring No. SH-98 SAMPLE NO. 2

Date 11/21/83

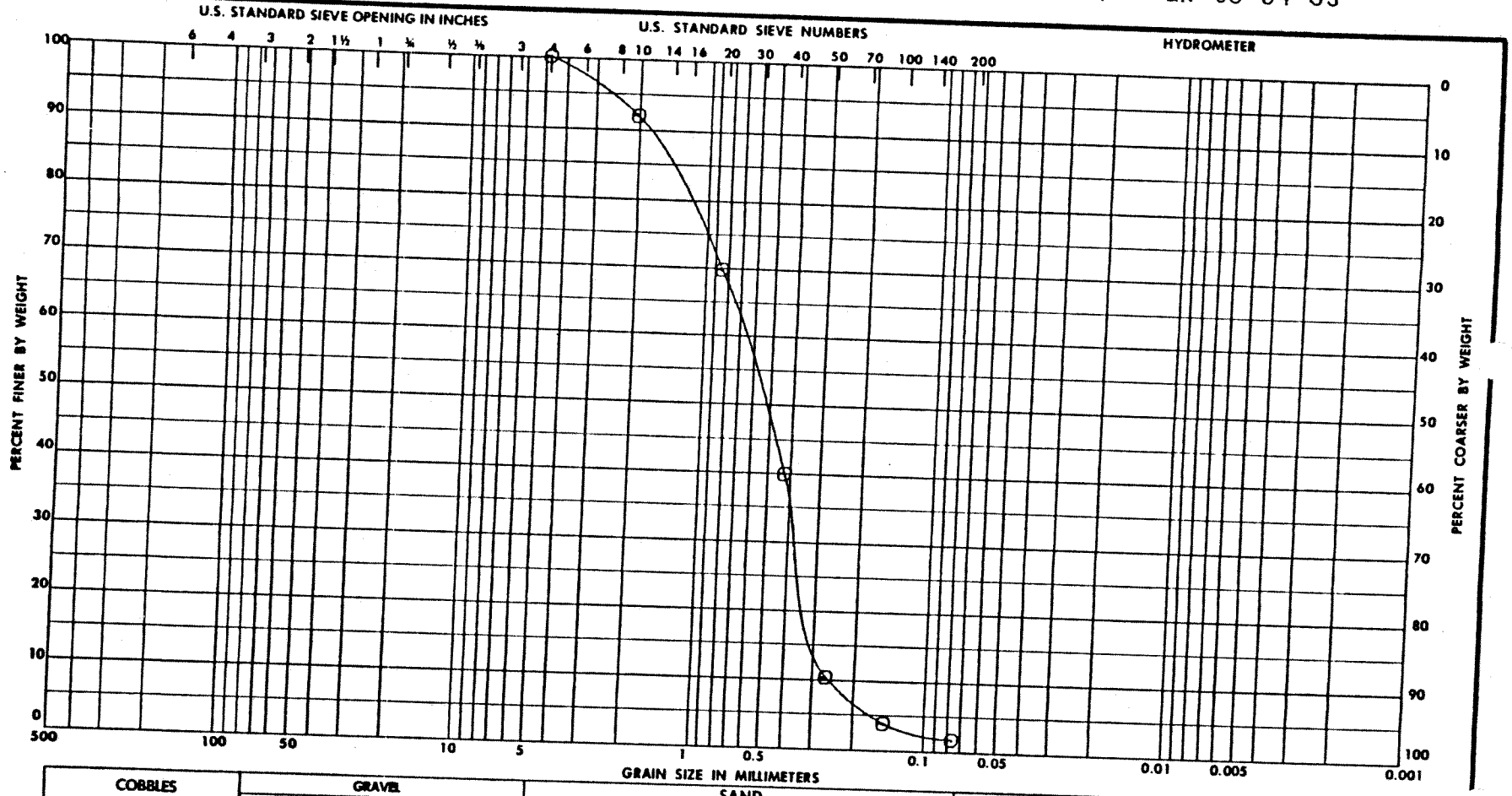
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~XXXXX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	29.5-31.0'	POORLY GRADED SAND (SP) TAN	19.2	NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/568

Boring No. SH-98 SAMPLE NO. 4

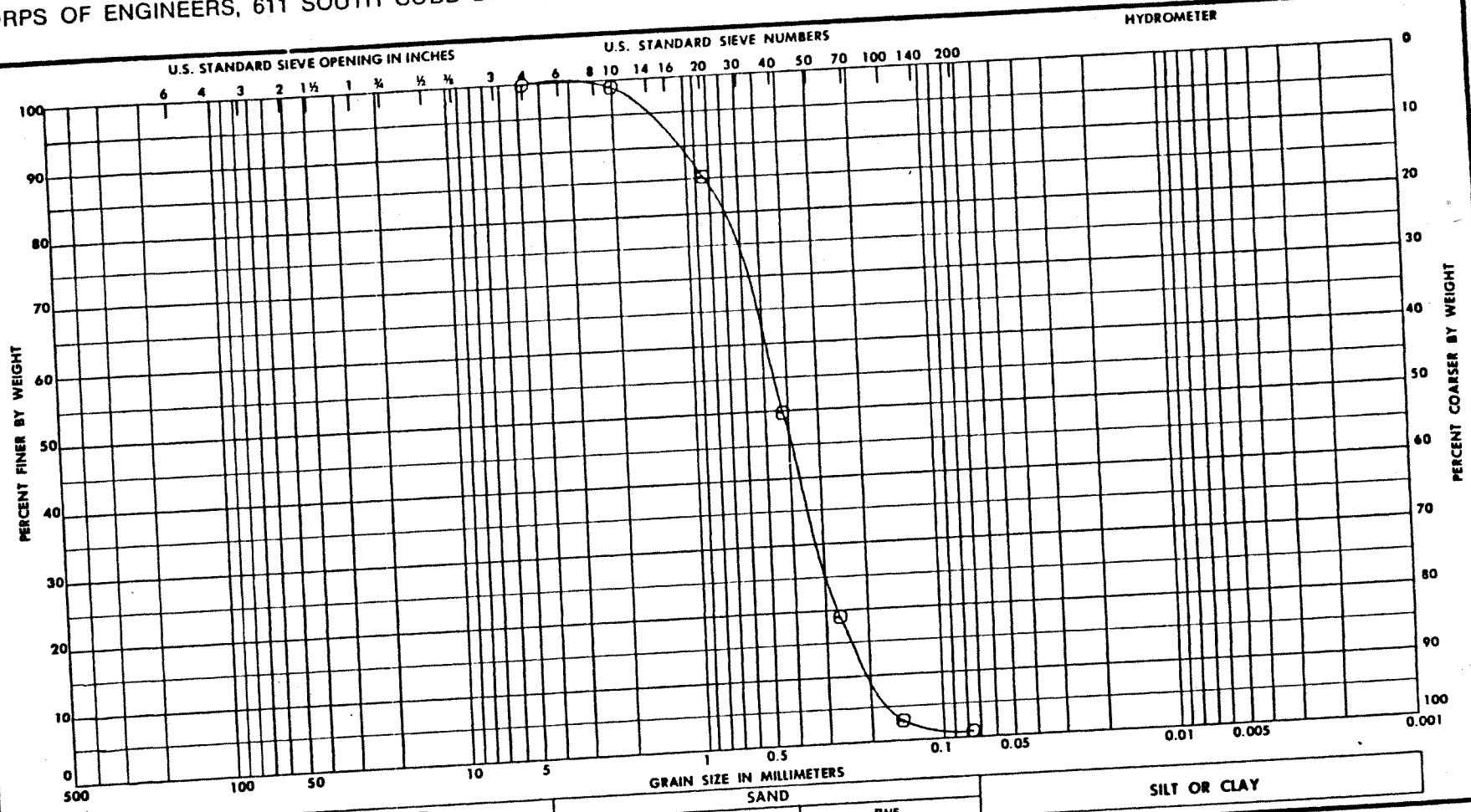
Date 11/21/83

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

Req. No. EN-GS-84-03



Sample No.	~~Elev XX~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
8	49.0-50.5'	POORLY GRADED SAND (SP) TAN		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/572
Boring No. SH-98 SAMPLE NO. 8
Date 11/21/83

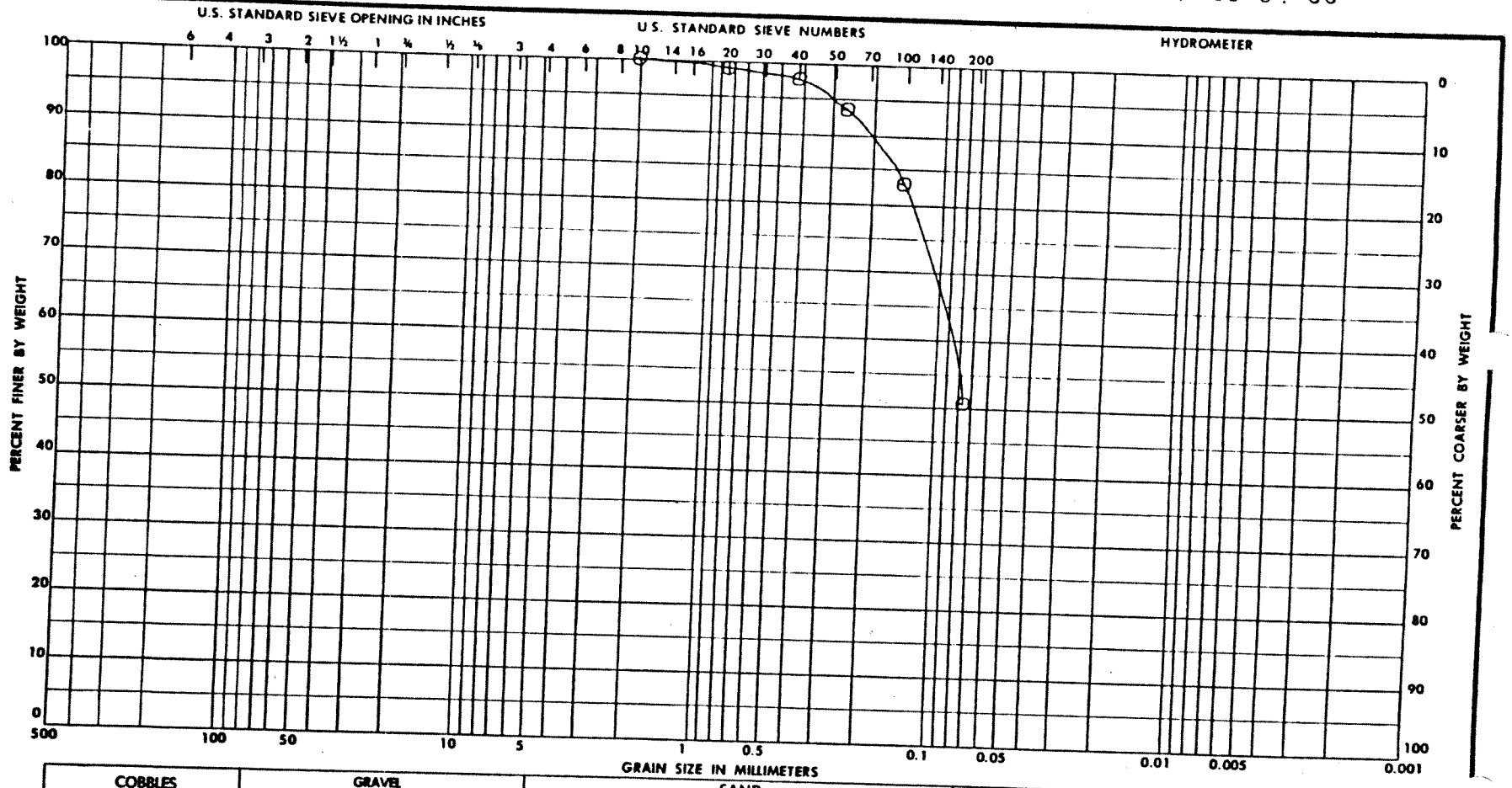
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	45.0-46.5'	FAT CLAY (CH) GRAY, SANDY	44.6	66	26	40

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/575

Boring No. SH-99 SAMPLE NO. 3

Date 11/21/83

GRADATION CURVES

ENG FORM 1 MAY 63 2087

GENERAL TEST REPORT

U.S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

DISTRICT/OFFICE	Savannah
CONTRACT NO.	--
DATE REPORTED	10 April 1984
WORK ORDER NO.	3778
REQN. NO.	EN-GS-84-03 (CH. 1)
BASE UNIT COST	--
DATE SAMPLE RECEIVED	1 Sept - 30 Dec 1983
LAB NO.	97/611

PROJECT: Savannah Harbor Widening

TYPE SAMPLE: Jar Samples of Disturbed Soils

SOURCE: Hole No. SH-99A

FOR USE AS: Investigation

TESTED FOR: Lab Classification and Field Moisture

☐ MEETS SPECIFICATIONS N/A ☐ FAILS SPECIFICATIONS (See below)

Lab No.	Hole No.	Sample No.	Depth (ft)	Moisture Content (%)
97/611	SH-99A	1	39.6-41.1	87.4

REMARKS:

REPORTED BY ☐ PHONE ☐ WIRE

DATE

TESTED BY: NM, CL, JL

CHECKED BY: ES

SAMPLED BY: District

SHEET 1 of 1

AD FORM 158
1 JUL 79

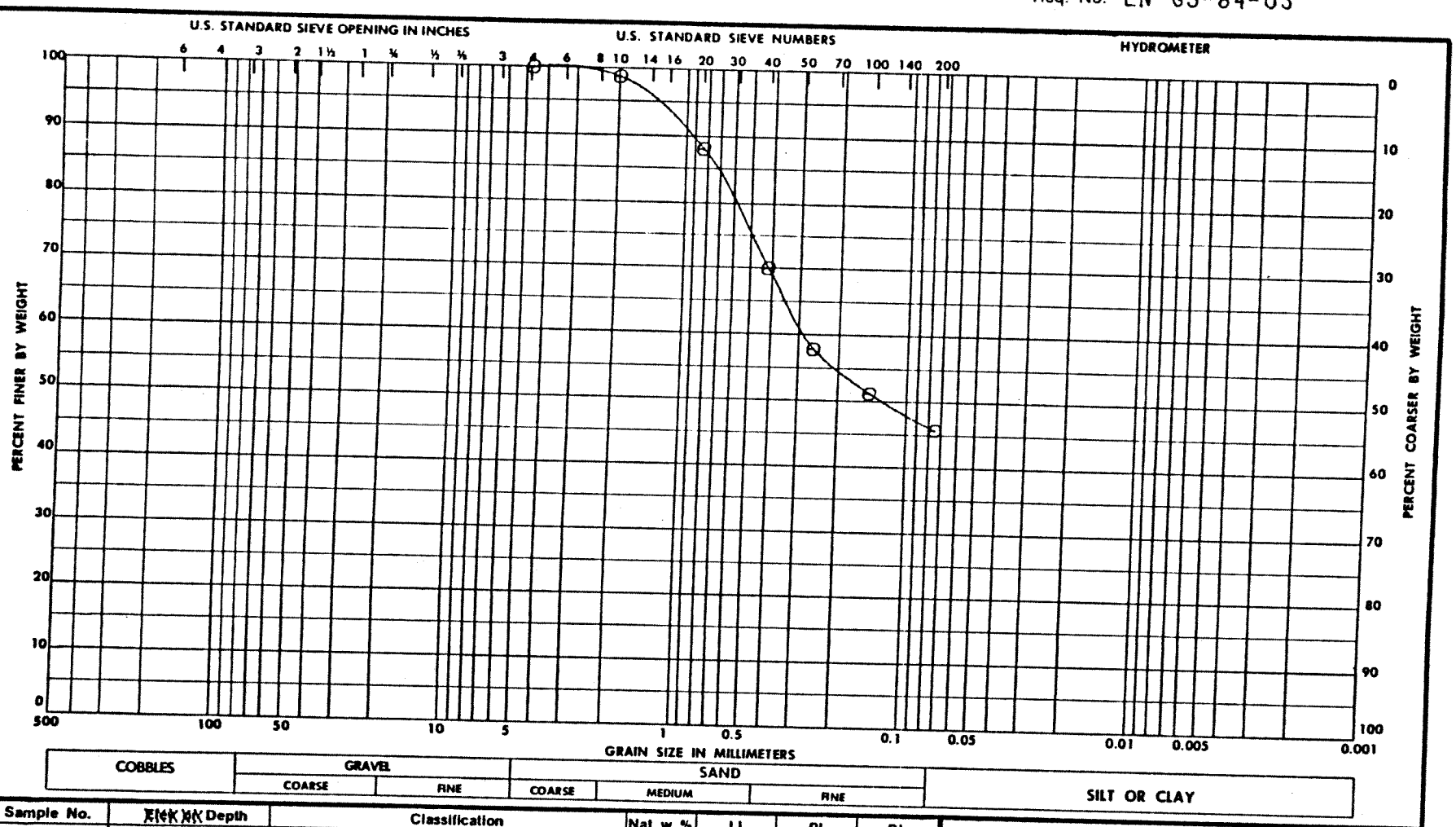
Previous editions of this form are obsolete

4

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

W.O. No. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
3	43.0-44.0'	CLAYEY SAND, HIGH LL (SC-H)	100.0	138	49	89
		GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/613

Boring No. SH-99A SAMPLE NO. 3

Date 04/03/84

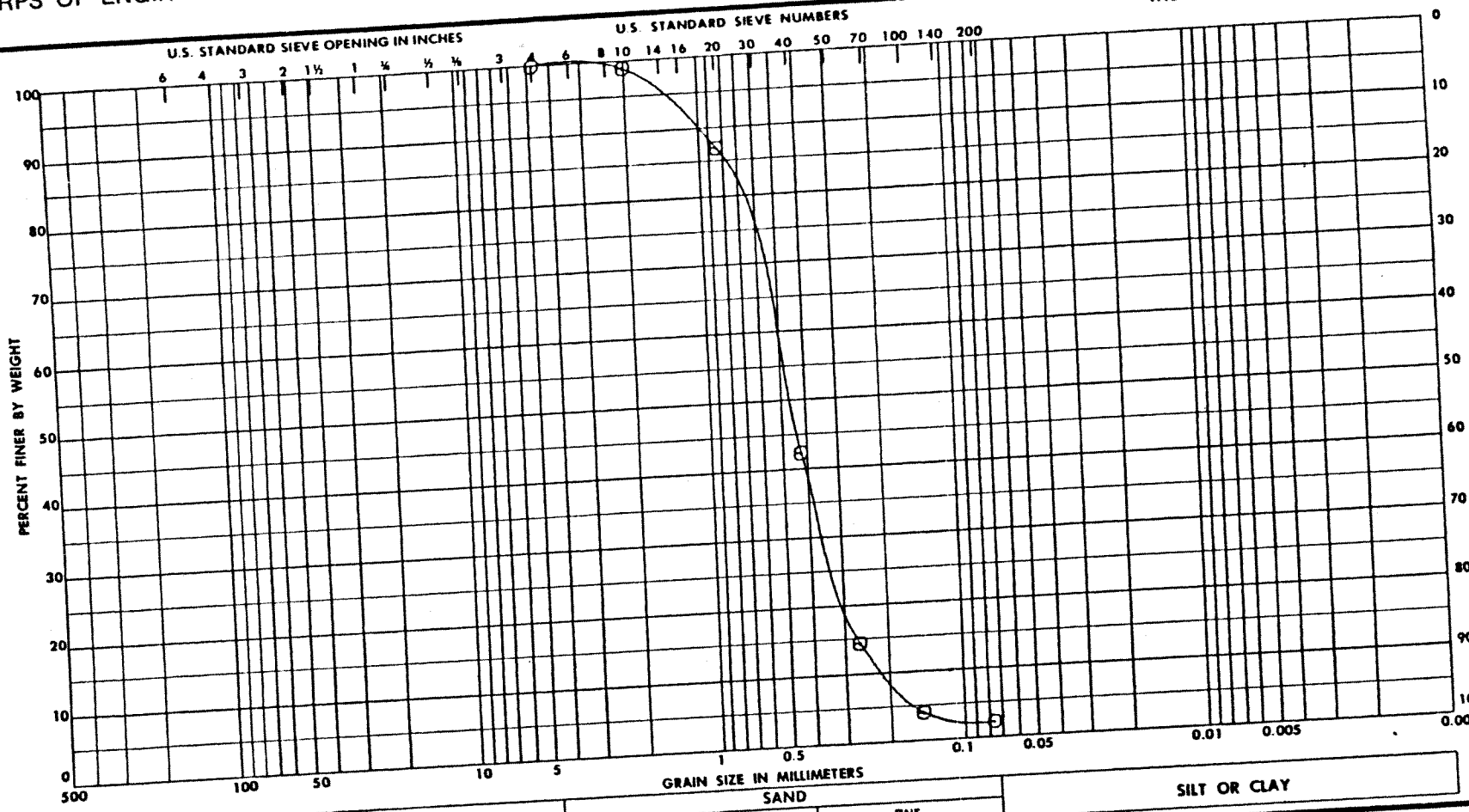
GRADATION CURVES

ENG FORM 1 MAY 63 2087

W.O. No. 3778

Req. No. EN-GS-84-03

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



Sample No.	~~Elev or~~ Depth	Visual Classification	Nat w %	LL	PL	PI
2	15.9-17.4'	POORLY GRADED SAND (SP) GRAY		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/578

Boring No. SH-100 SAMPLE NO. 2

Date 11/21/83

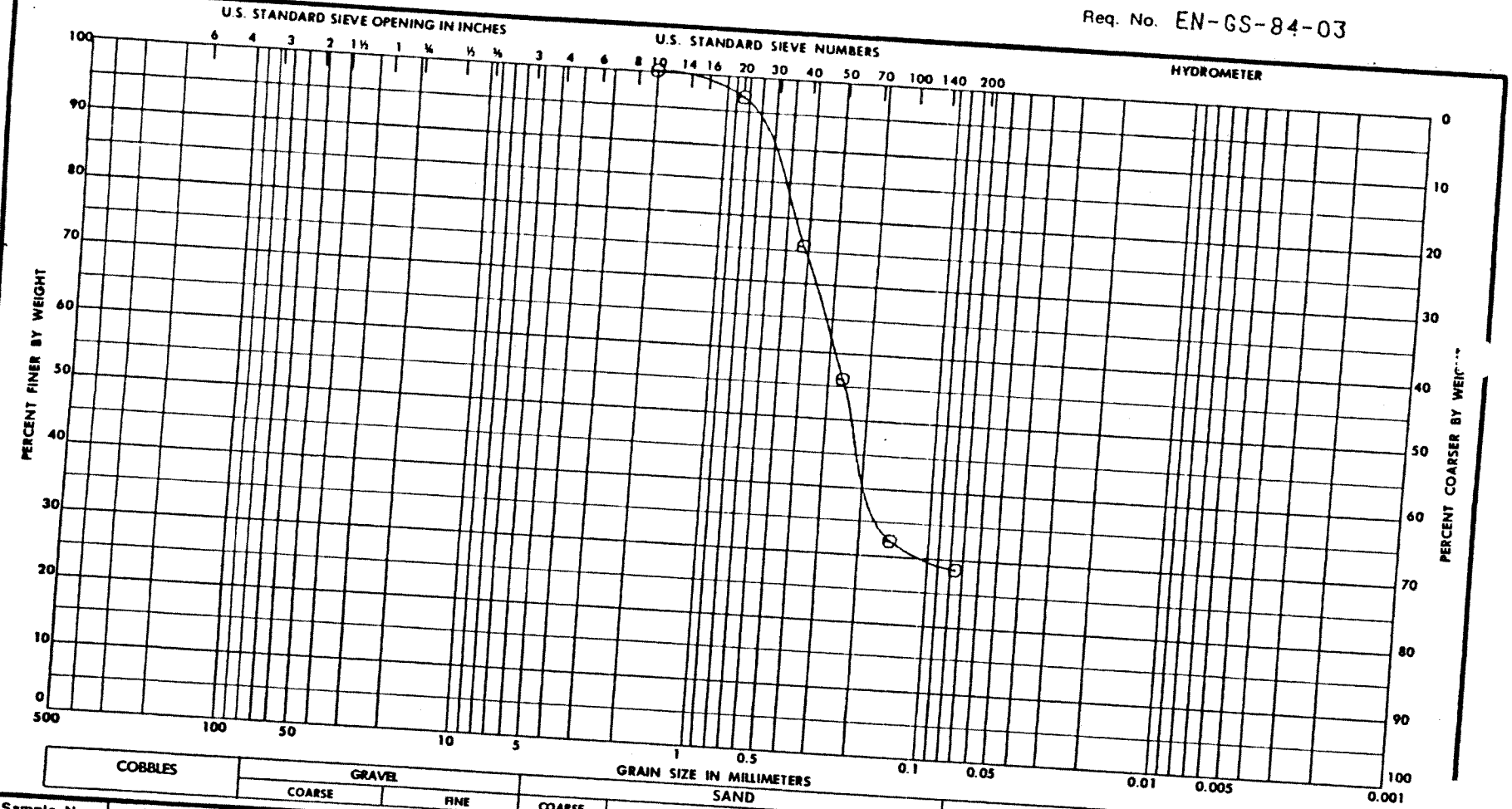
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
4	20.5-22.0'	CLAYEY SAND, HIGH LL (SC-H) GRAY	53.8	57	22	35

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/580
Boring No. SH-100 SAMPLE NO. 4
Date 11/21/83

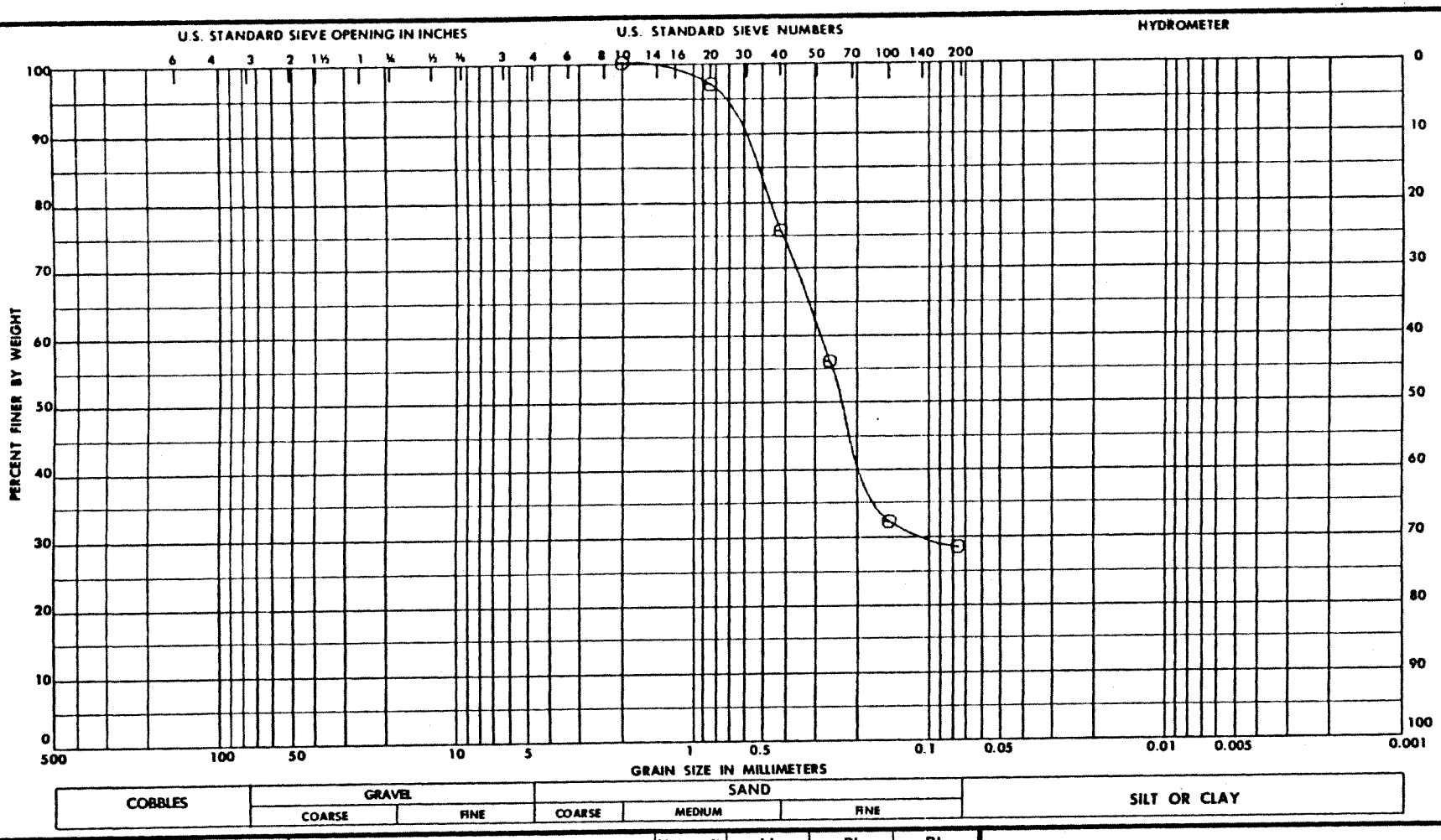
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
4	20.5-22.0'	CLAYEY SAND, HIGH LL (SC-H)	53.8	57	22	35
		GRAY				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/580

Boring No. SH-100 SAMPLE NO. 4

Date 11/21/83

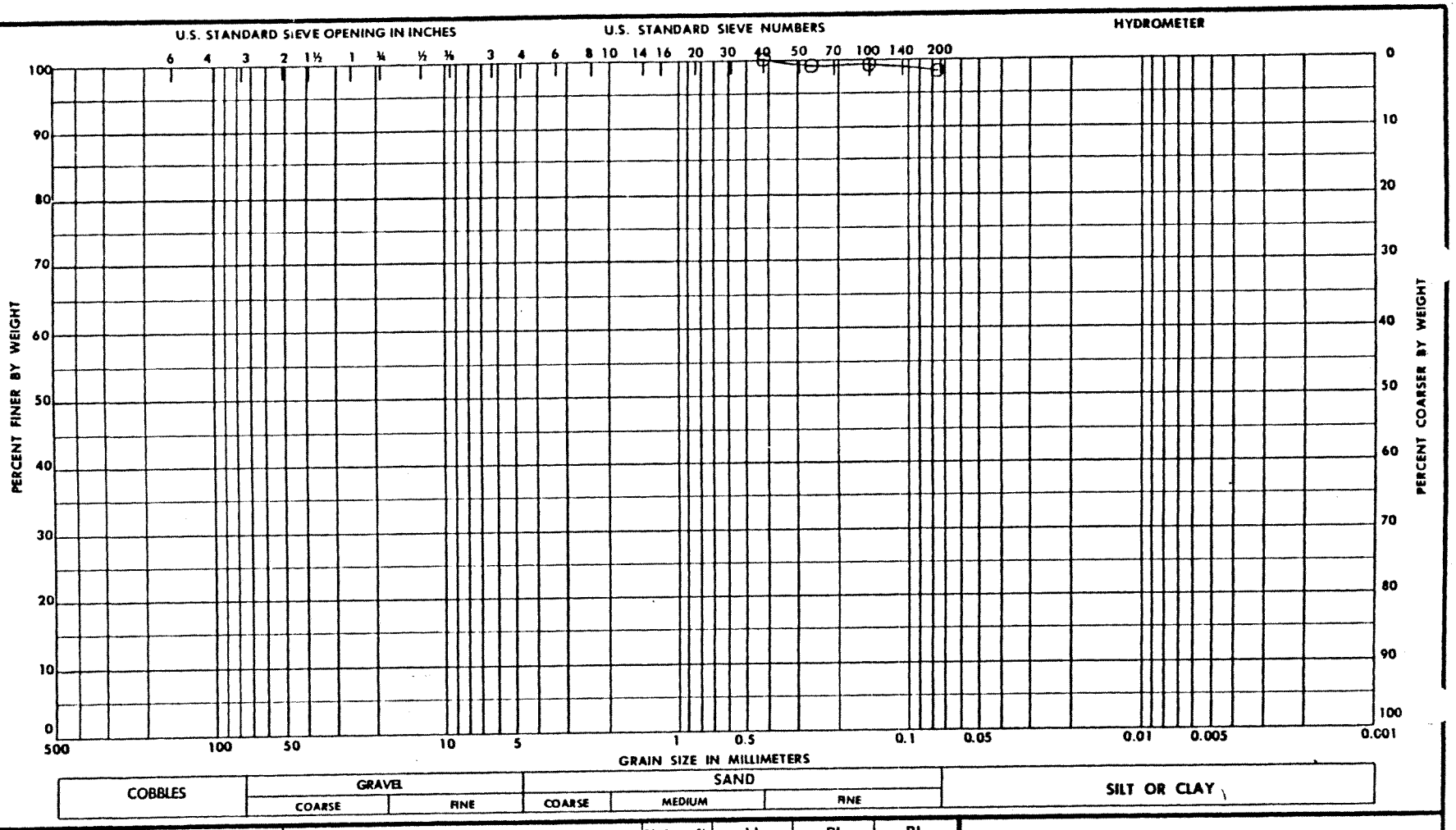
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
7	34.0-35.5'	FAT CLAY (CH)	120.5	144	41	103
		GRAY WITH A TRACE OF SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/583
Boring No. SH-100 SAMPLE NO. 7
Date 11/21/83

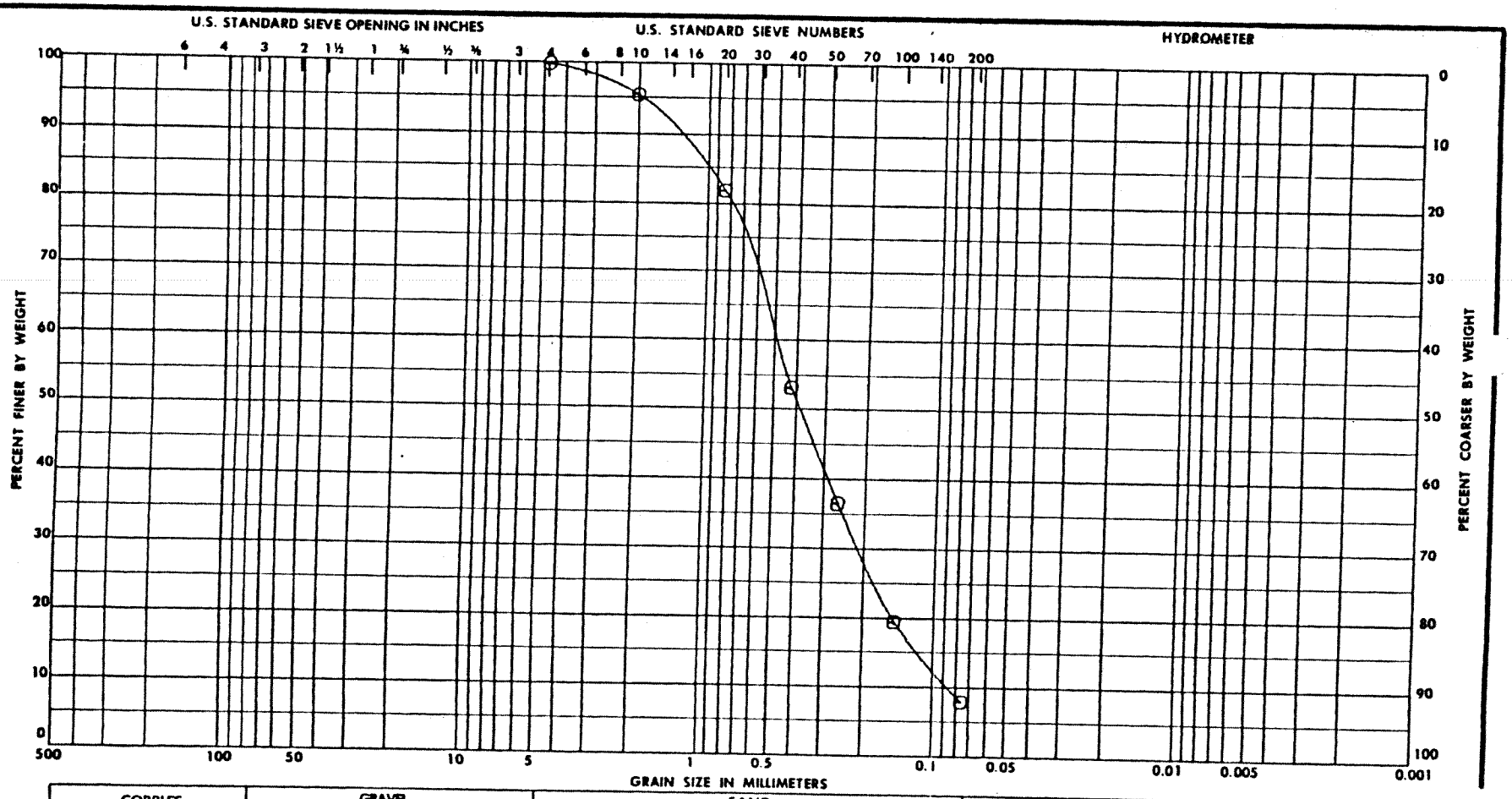
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
10	44.0-45.5'	POORLY GRADED SILTY SAND (SP-SM) GRAY		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/586

Boring No. SH-100 SAMPLE NO. 10

Date 11/21/83

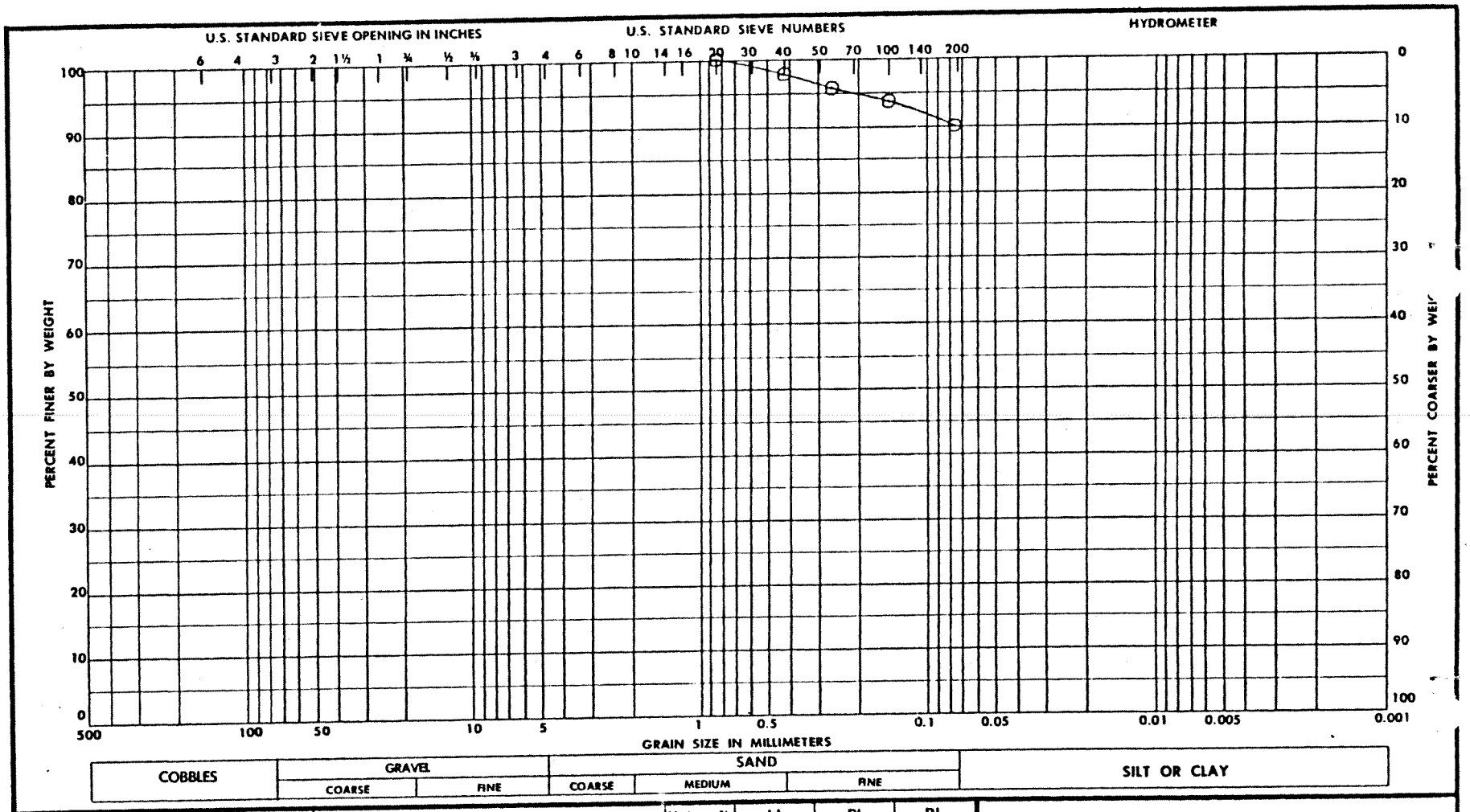
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	Classification	Nat w %	LL	PL	PI
3	18.5-20.0'	FAT CLAY (CH)	112.9	142	38	104
		GRAY WITH A LITTLE SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/591

Boring No. SH-101 SAMPLE NO. 3

Date 11/21/83

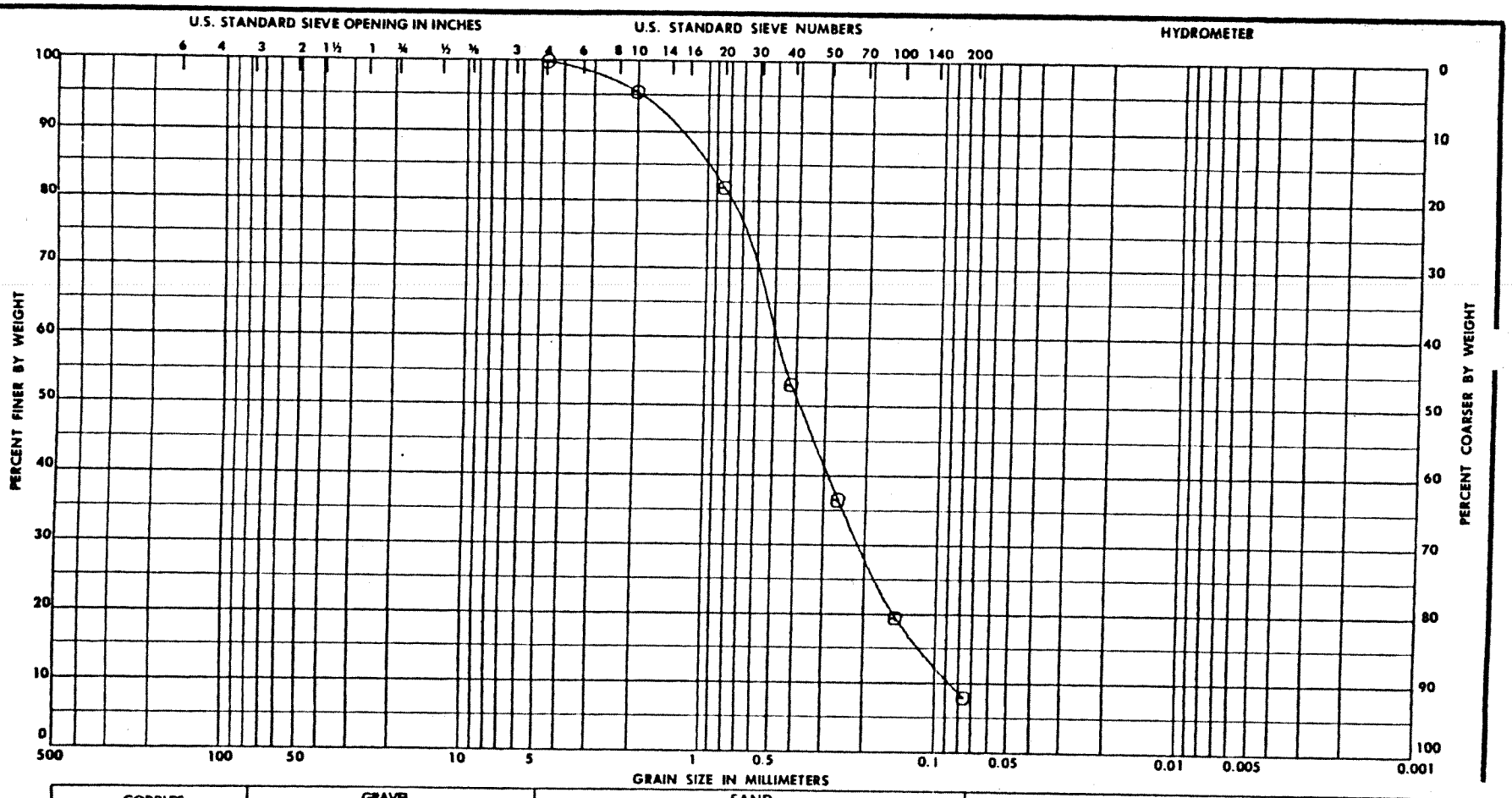
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



find last save page screen on disk

Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
10	44.0-45.5'	POORLY GRADED SILTY SAND (SP-SM) GRAY		NP	NP	NP

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING

Area LAB NO. 97/586

Boring No. SH-100 SAMPLE NO. 10

Date 11/21/83

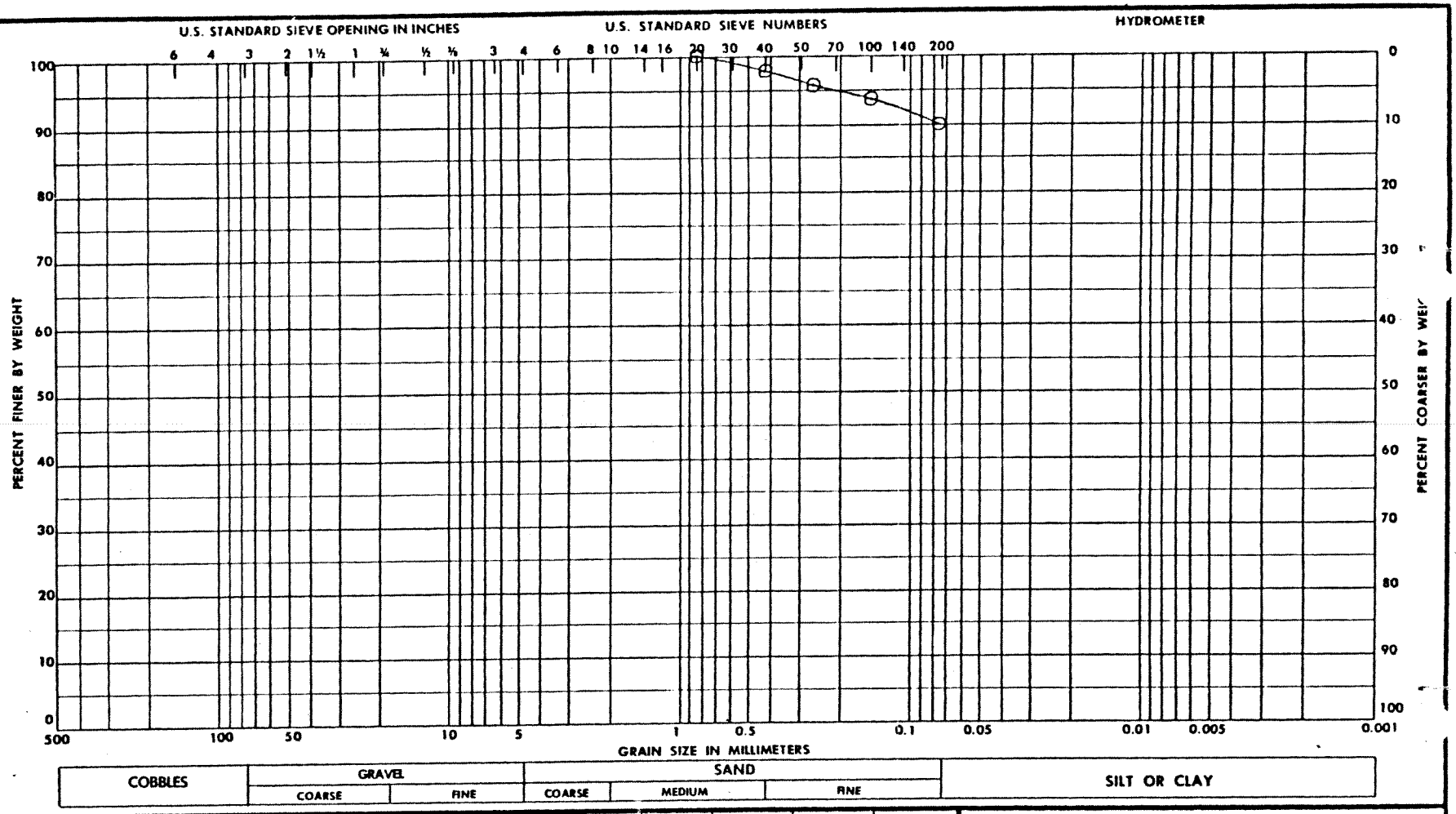
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	18.5-20.0'	FAT CLAY (CH)	112.9	142	38	104
		GRAY WITH A LITTLE SAND				

Project SAVANNAH, GA.
SAVANNAH HARBOR WIDENING
Area LAB NO. 97/591
Boring No. SH-101 SAMPLE NO. 3
Date 11/21/83

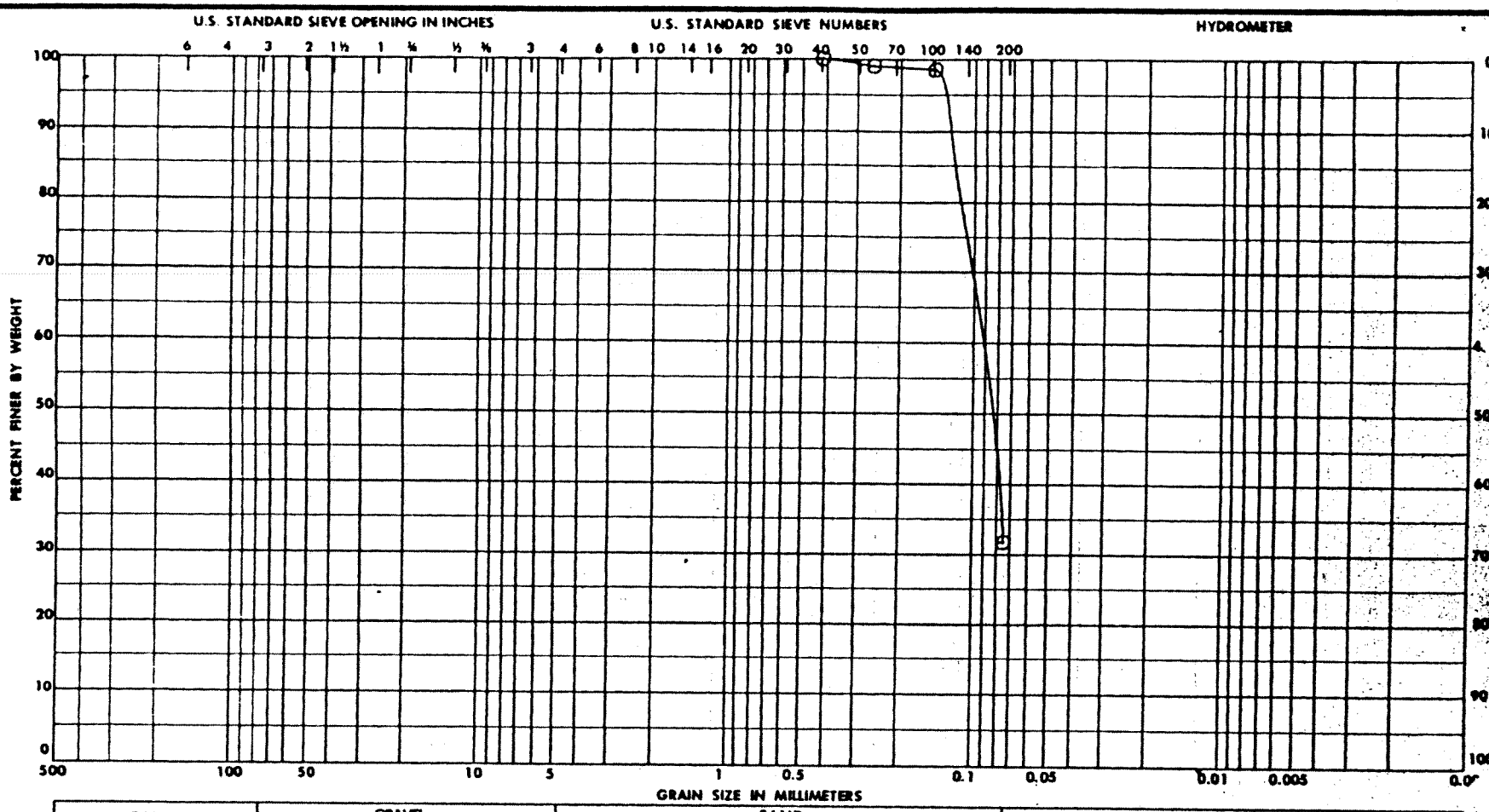
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Depth	Classification	Nat w %	LL	PL	PI
11	49.0-50.2'	SILTY SAND, HIGH LL (SM-H)	--	60	41	19
		GRAY				

Project: SAVANNAH HARBOR
HARBOR WIDENING

Area: LAB NO. 97/638

Boring No. SH-103 SAMPLE NO. 11

Date: 04/06/84

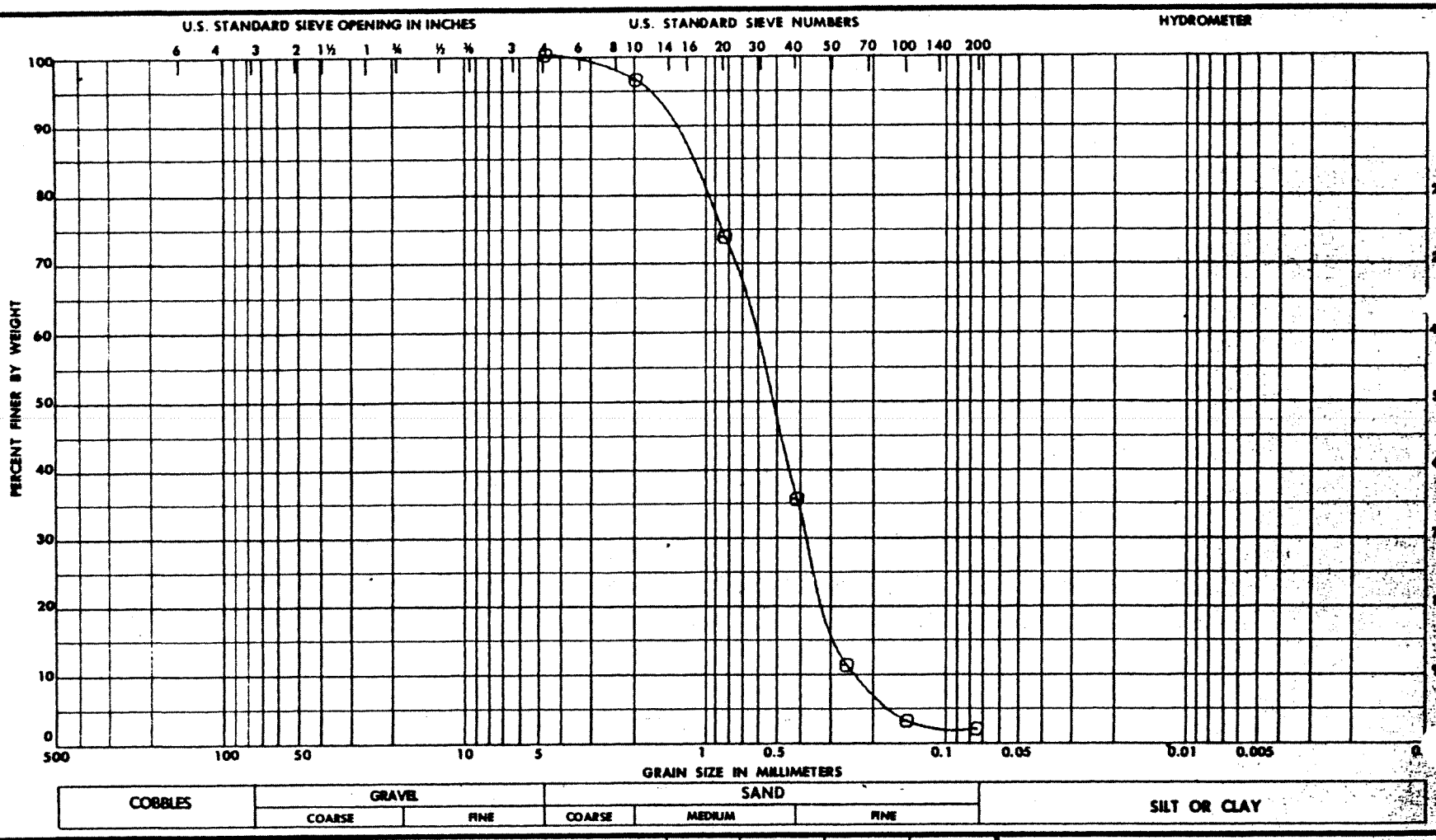
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	16.5-18.0'	POORLY GRADED SAND (SP)	22.7	NP	NP	NP
		GRAY AND TAN				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/642

Boring No. SH-104 SAMPLE NO. 4

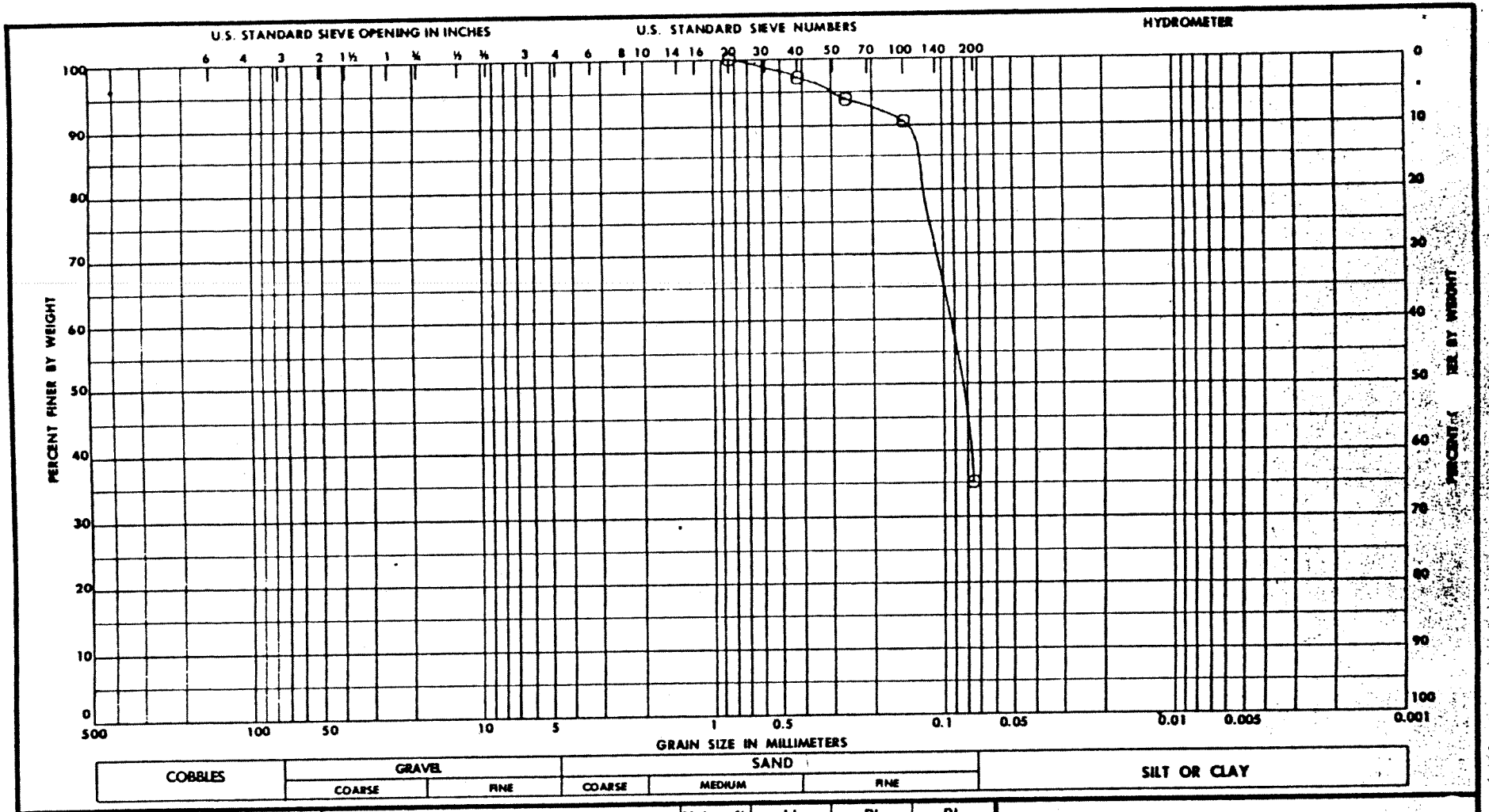
Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA 30060

Req. No. EN-GS-84-03



Sample No.	~~Elev.~~ Depth	Classification	Nat w %	LL	PL	PI
3	42.4-43.1'	SILTY SAND.HIGH LL (SM-H)	43.9	63	32	31
		GRAY.CLAYEY				

Project: SAVANNAH HARBOR
HARBOR WIDENING

Area: LAB NO.97/687

Boring No. SH-109 SAMPLE NO. 3

Date: 04/06/84

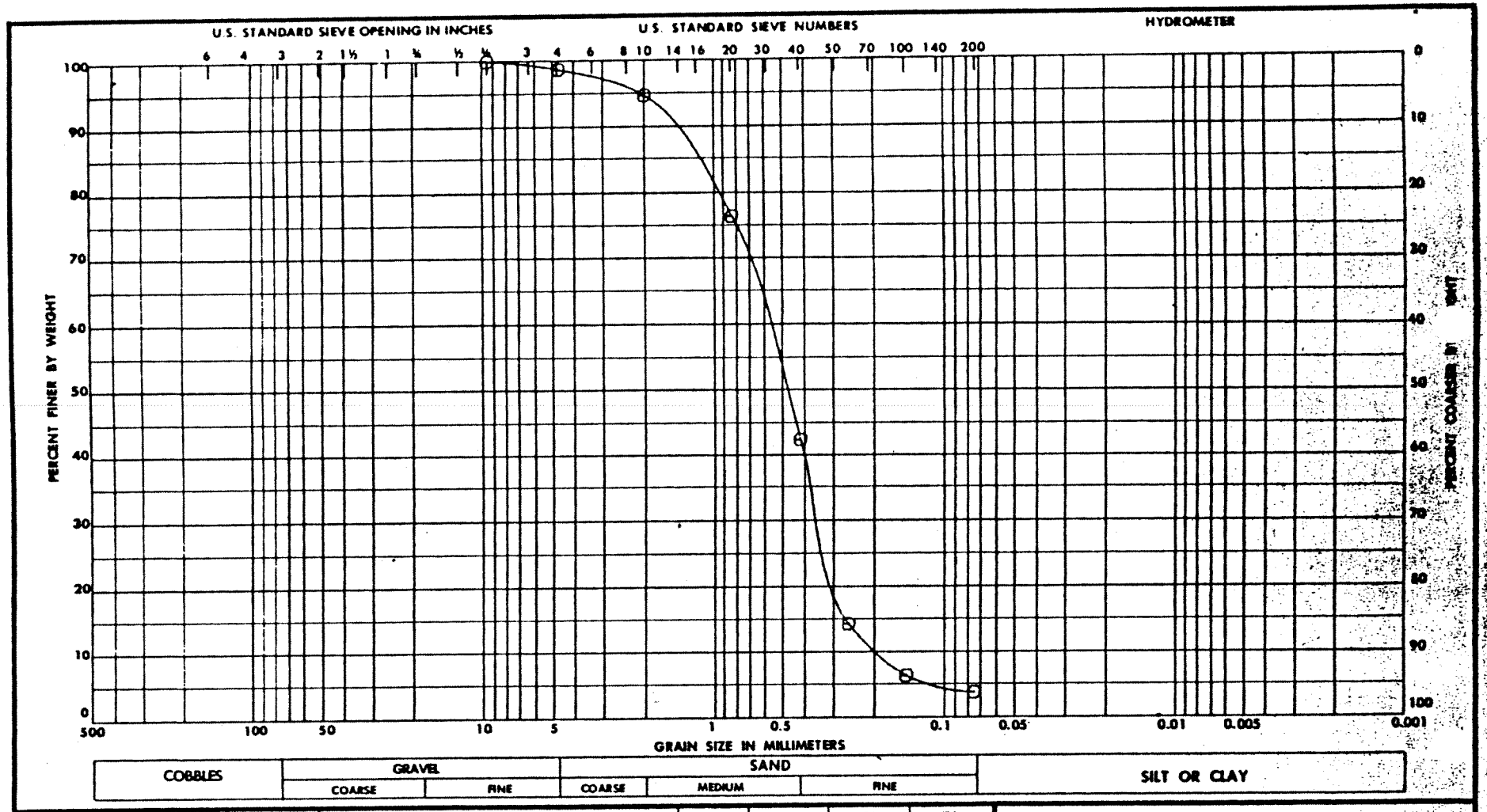
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	36.5-38.0'	POORLY GRADED SAND (SP)	30.5	NP	NP	NP
		TAN.WITH A TRACE OF GRAVEL				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/690

Boring No. SH-110 SAMPLE NO. 2

Date 04/06/84

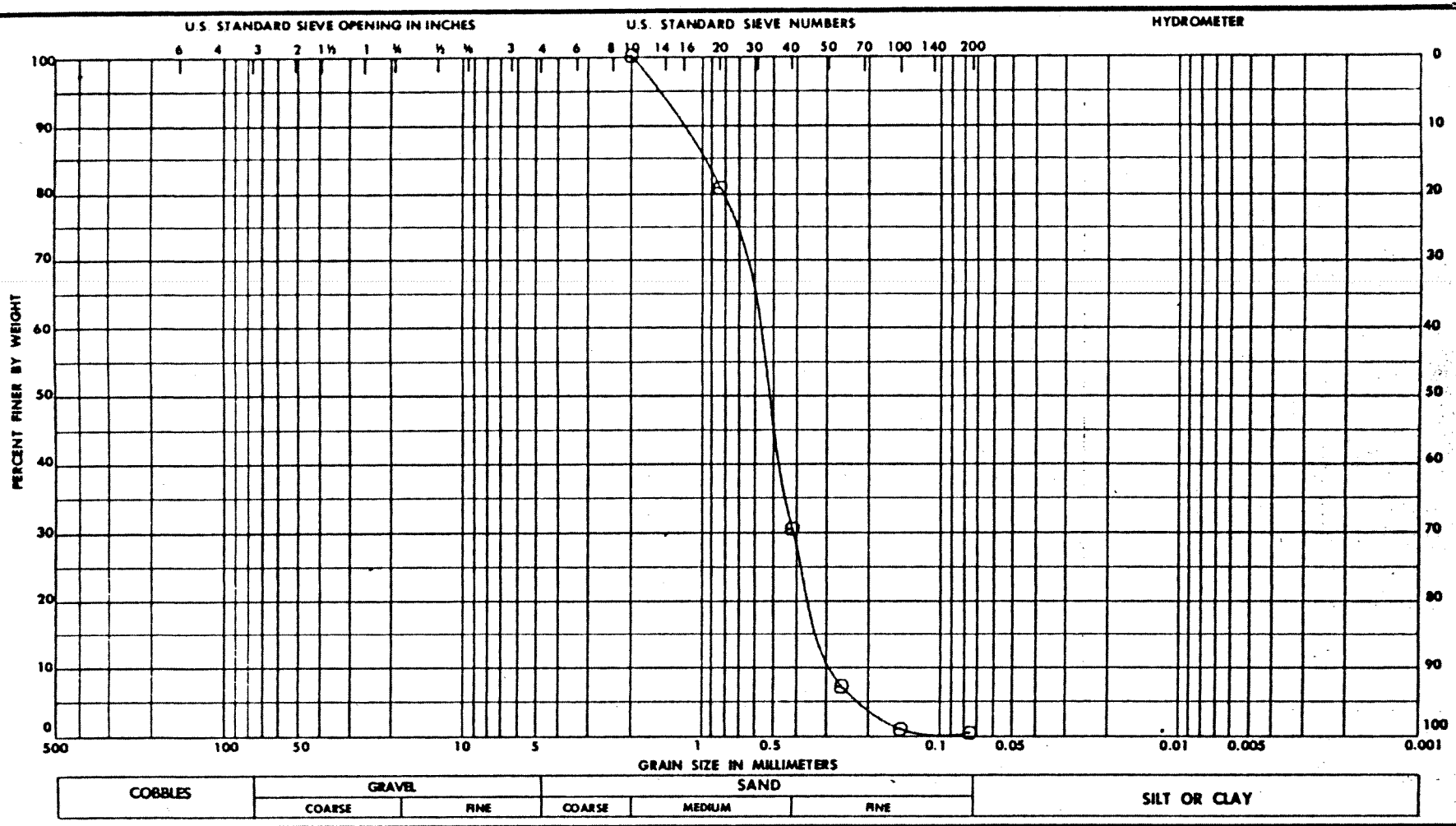
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	45.5-47.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/692

Boring No. SH-110 SAMPLE NO. 4

Date 04/06/84

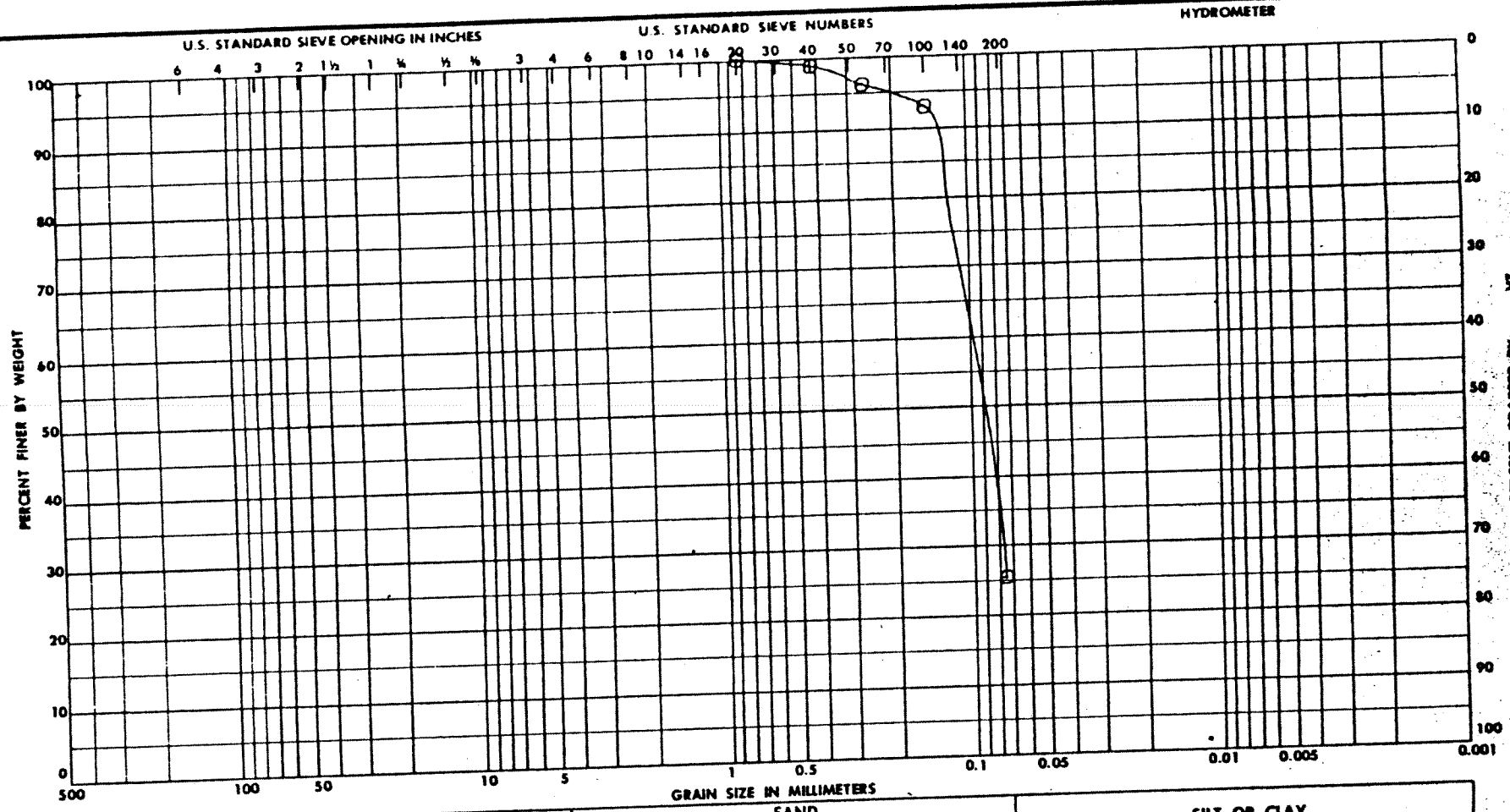
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
2	42.5-44.0'	SILTY SAND (SM)	35.4	47	33	14
		GRAY				

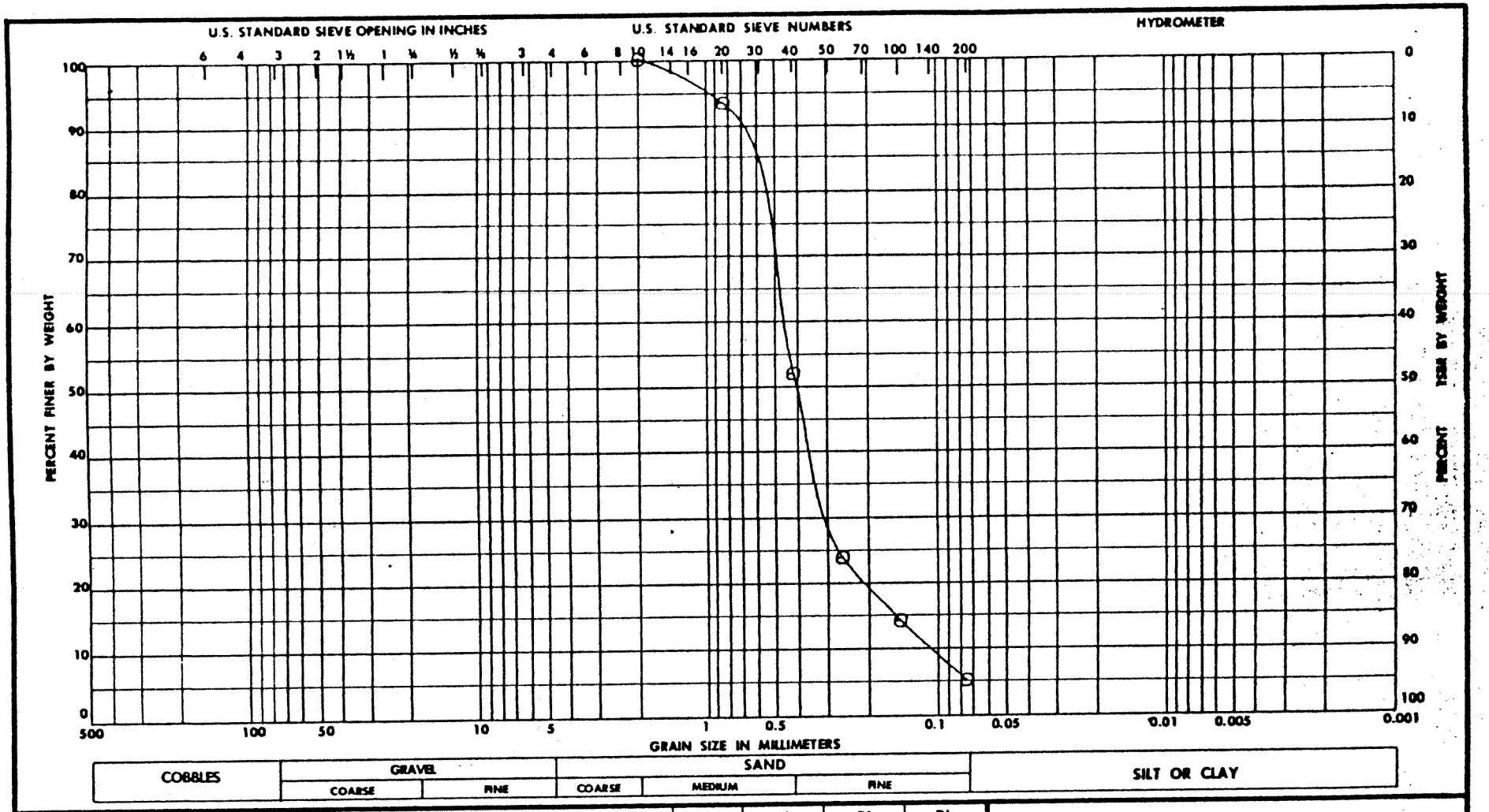
Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/696
Boring No. SH-111 SAMPLE NO. 2
Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

Req. No. EN-GS-84-03



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	22.2-24.0'	POORLY GRADED SAND (SP)	21.4	NP	NP	NP
		BROWN				

Project SAVANNAH HARBOR
HARBOR-WIDENING

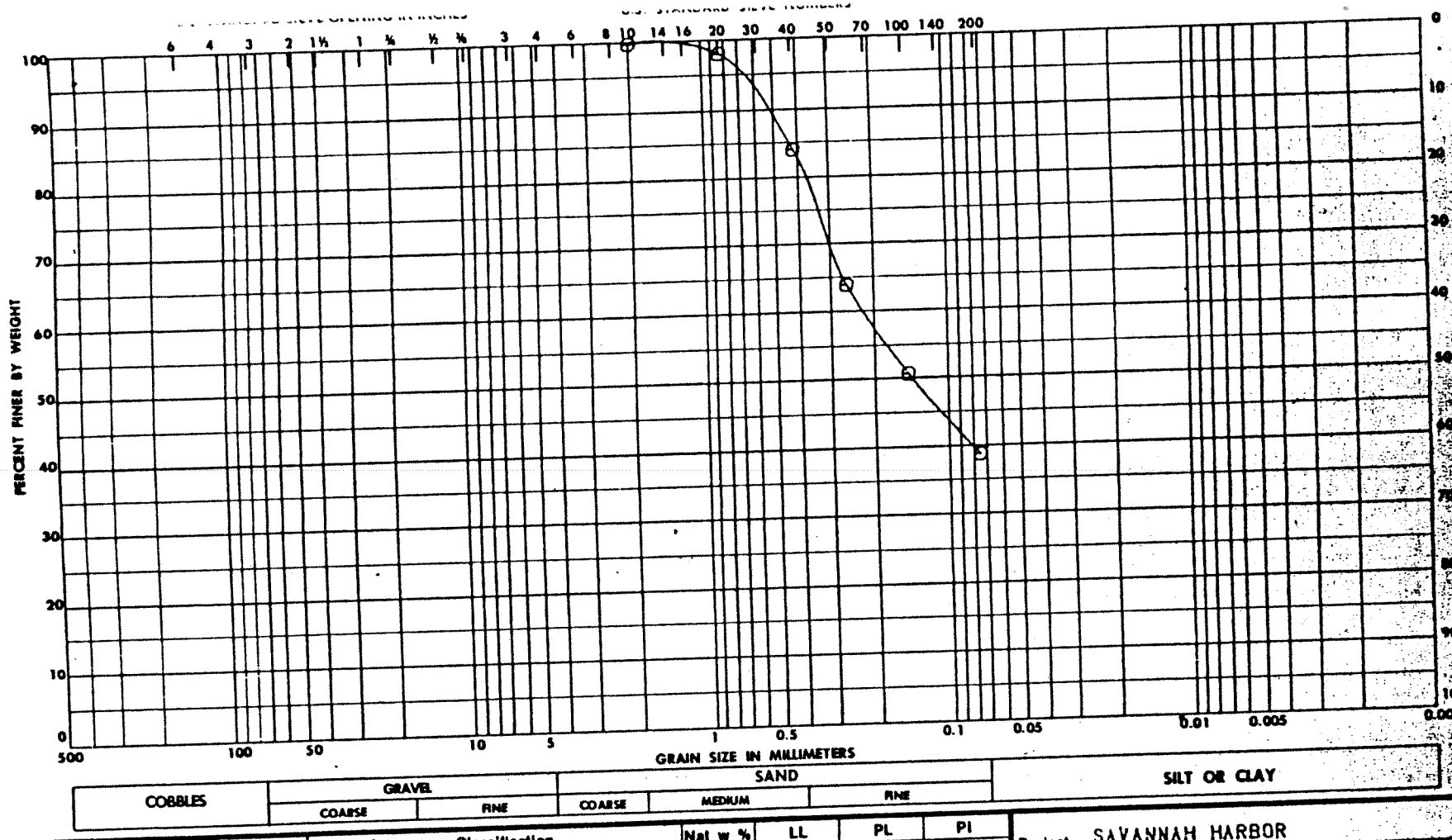
Area LAB NO.97/699

Boring No. SH-112 SAMPLE NO. 2

Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	31.5-33.0'	SILTY SAND (SM)	34.0	--	--	--
		GRAY				

Project: SAVANNAH HARBOR
HARBOR WIDENING

Area: LAB NO. 97/701

Boring No. SH-112 SAMPLE NO. 4

Date: 04/06/84

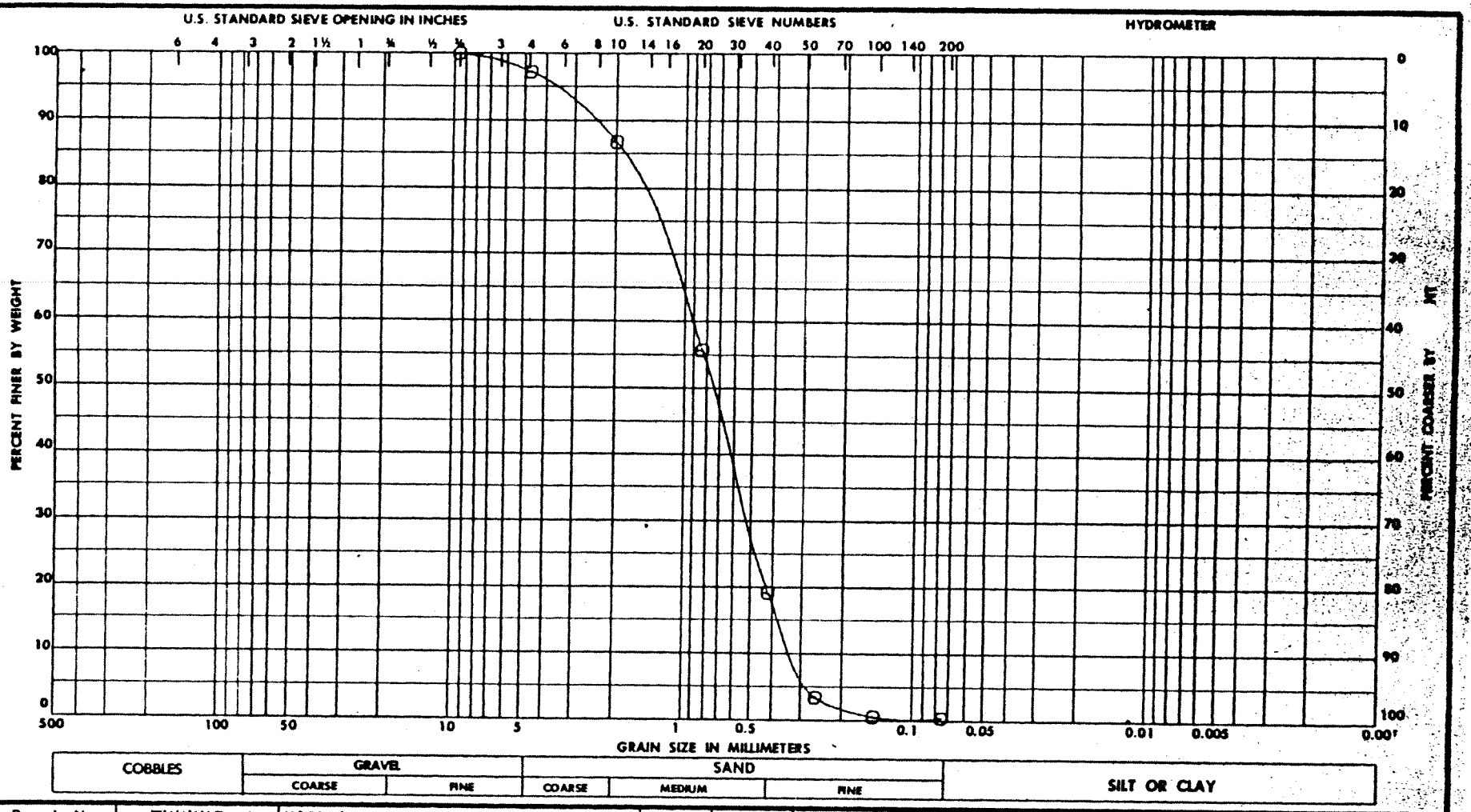
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
7	43.5-45.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN WITH A TRACE OF GRAVEL				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/704

Boring No. SH-112 SAMPLE NO. 7

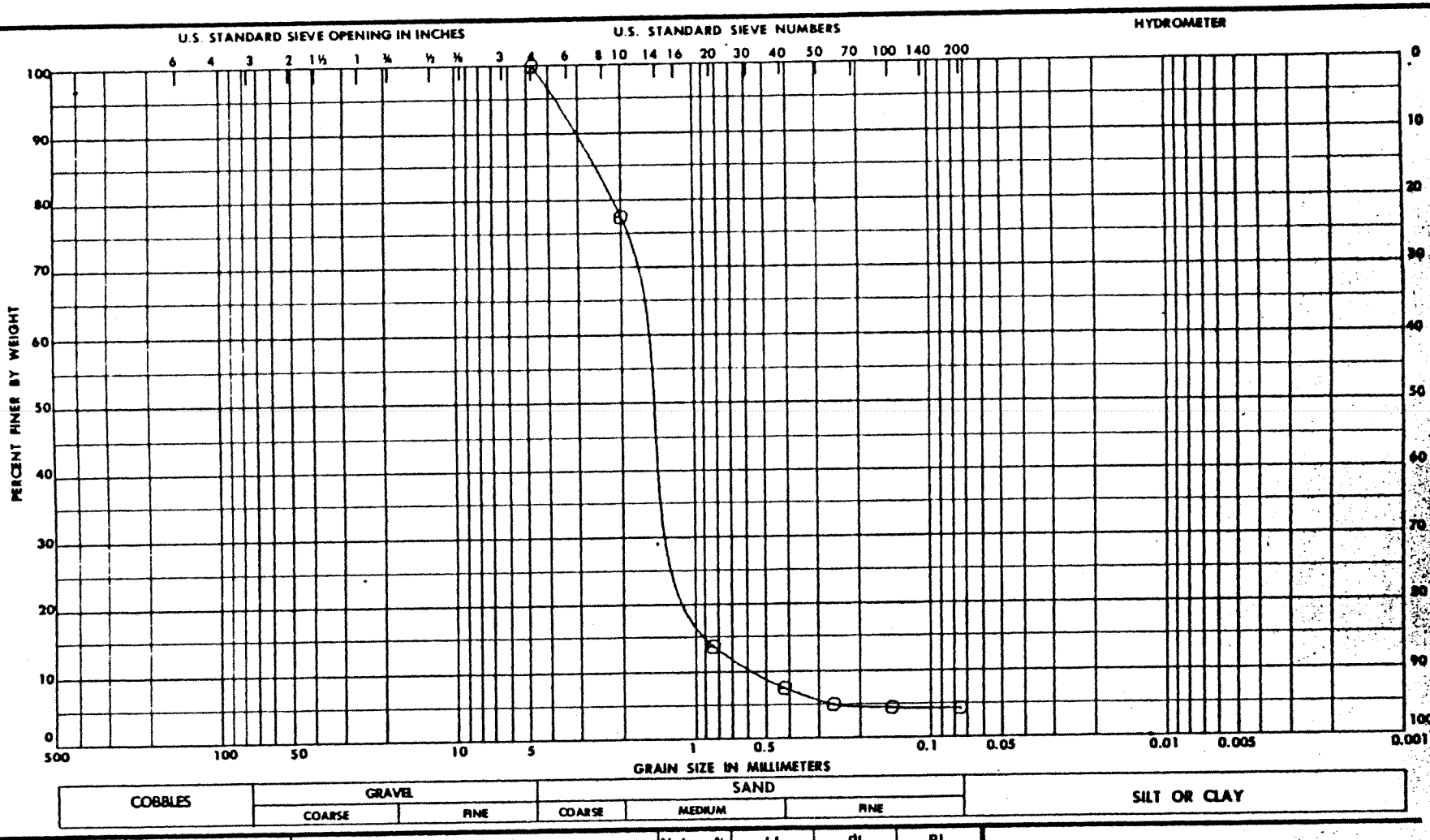
Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	39.6-41.1'	POORLY GRADED SAND (SP)	20.7	NP	NP	NP
		BROWN				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/707
Boring No. SH-113 SAMPLE NO. 2
Date 04/06/84

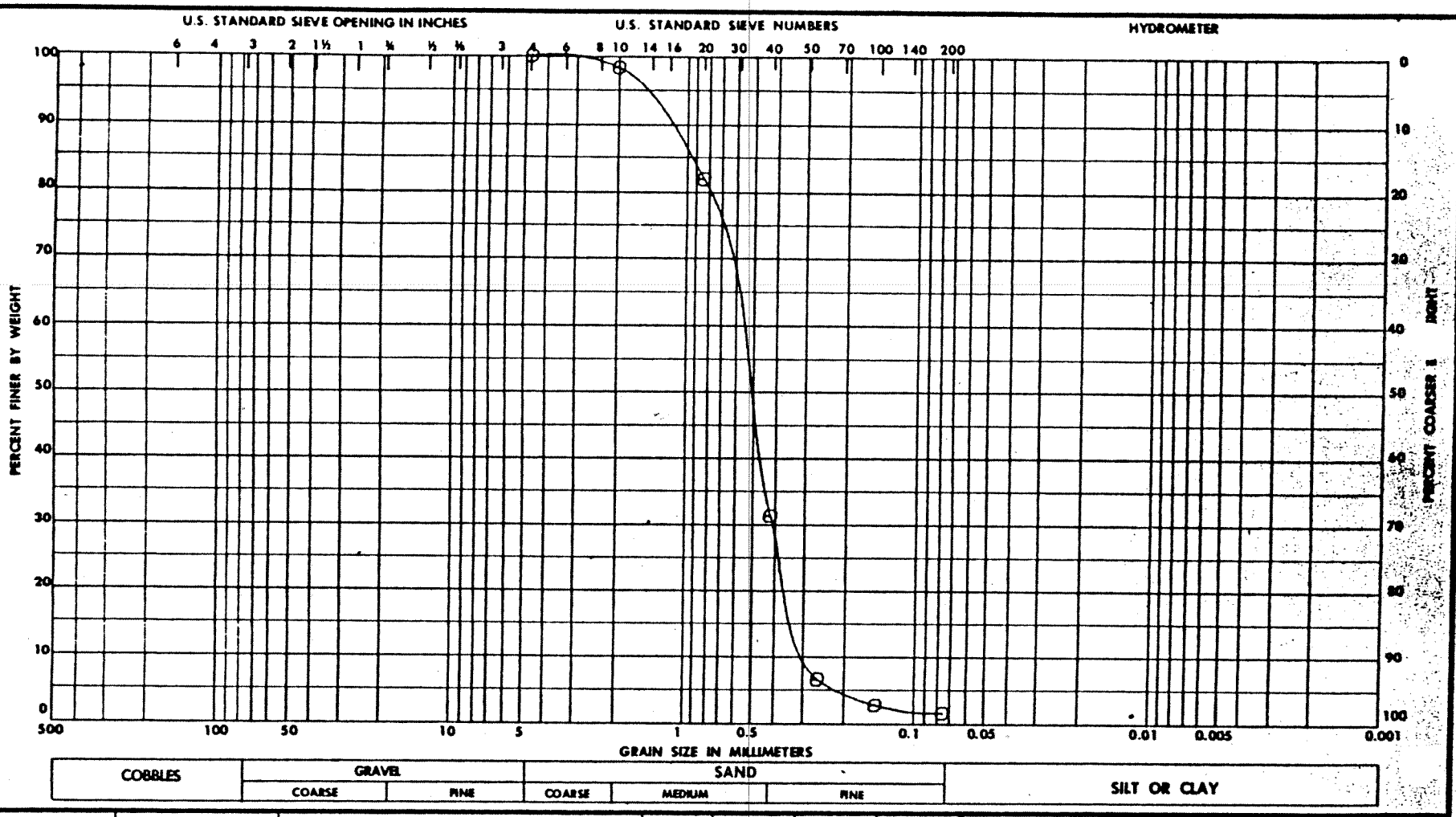
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev.~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	44.0-45.5'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/709
Boring No. SH-113 SAMPLE NO. 4
Date 04/06/84

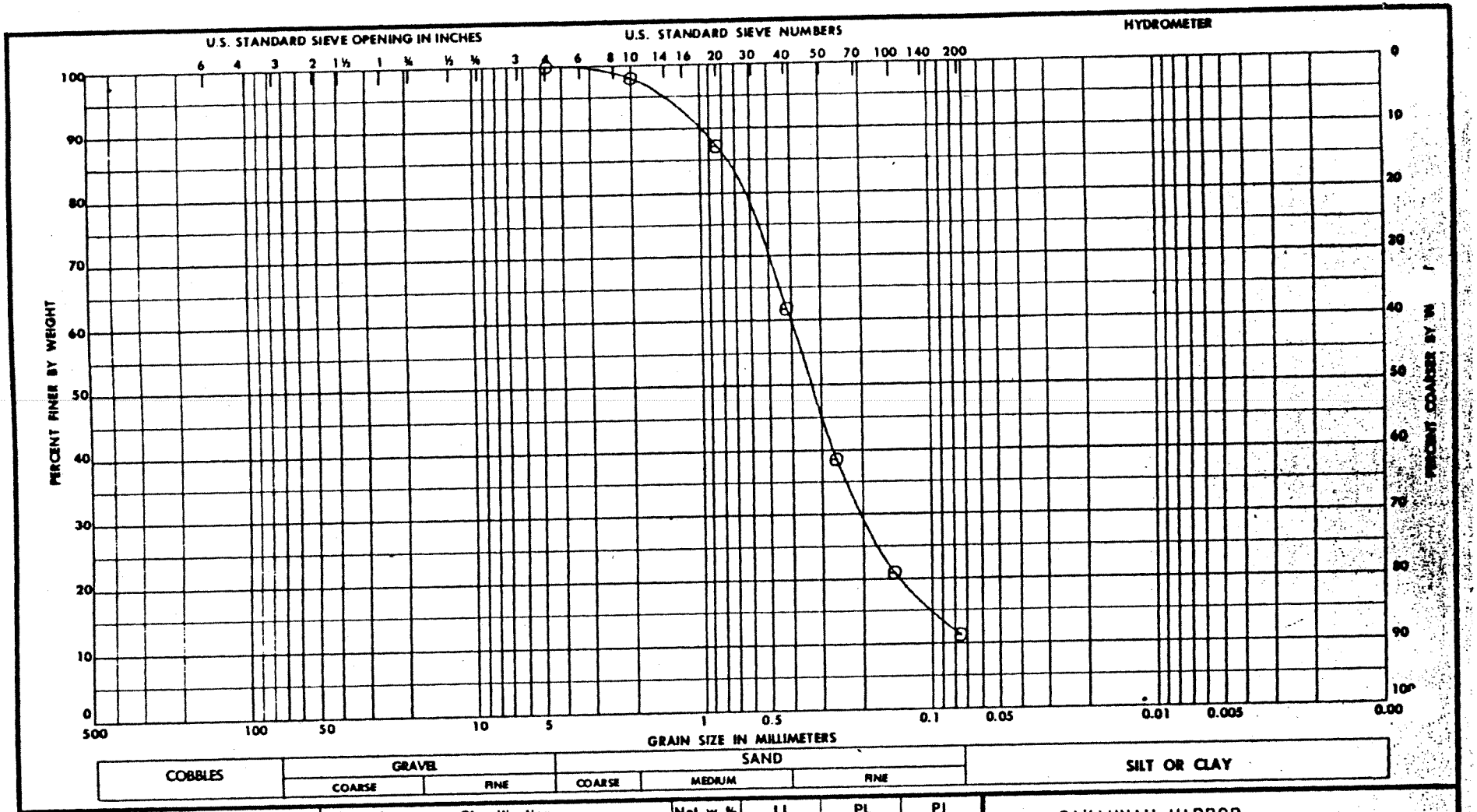
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	45.0-45.7'	POORLY GRADED SILTY SAND	24.9	NP	NP	NP
		(SP-SM)				
		GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/712

Boring No. SH-114 SAMPLE NO. 2

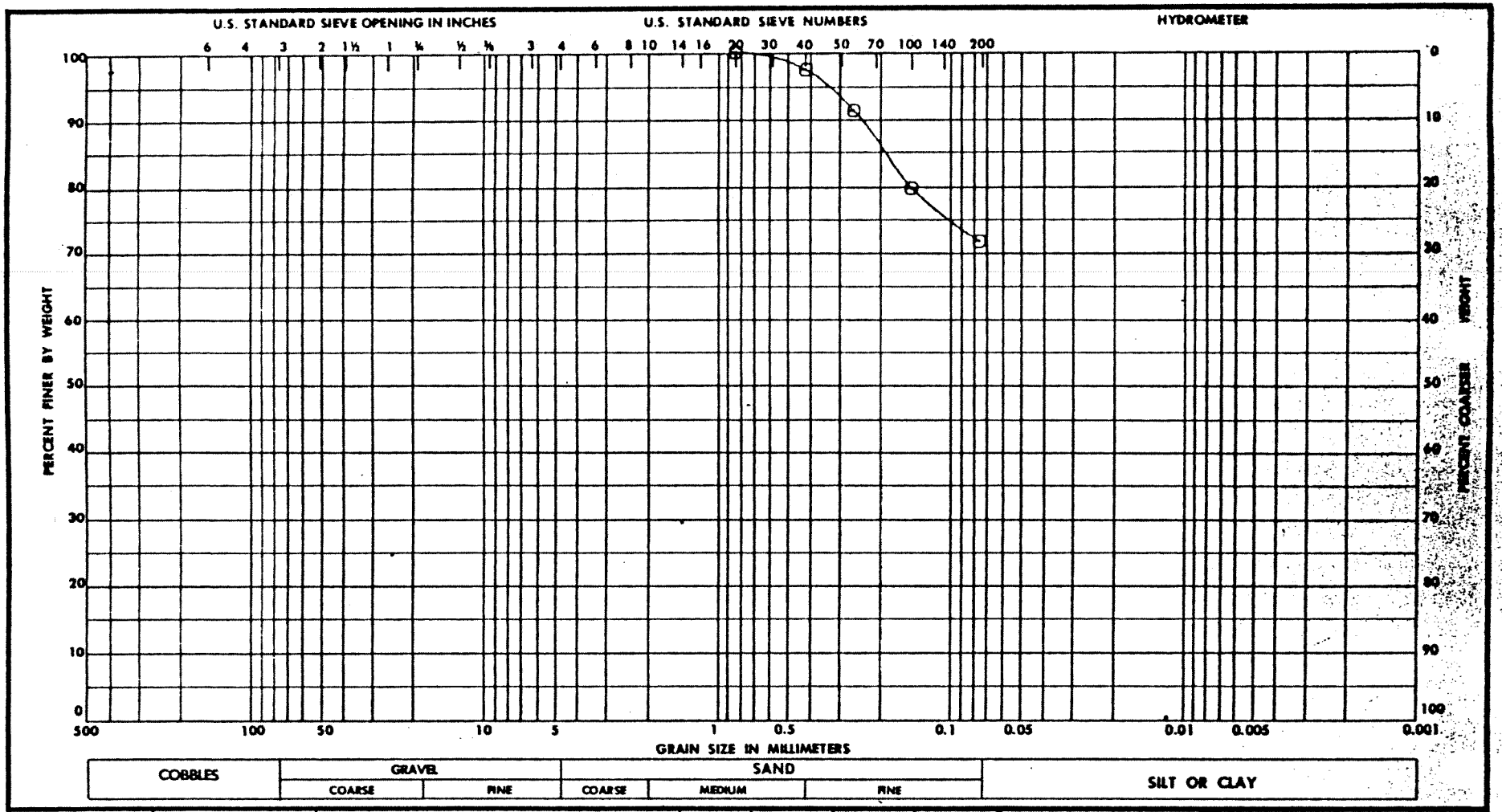
Date 04/06/84

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

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	45.7-46.7'	INORGANIC SILT,HIGH LL (MH)	128.3	131	51	80
		GRAY,CLAYEY WITH SOME SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING

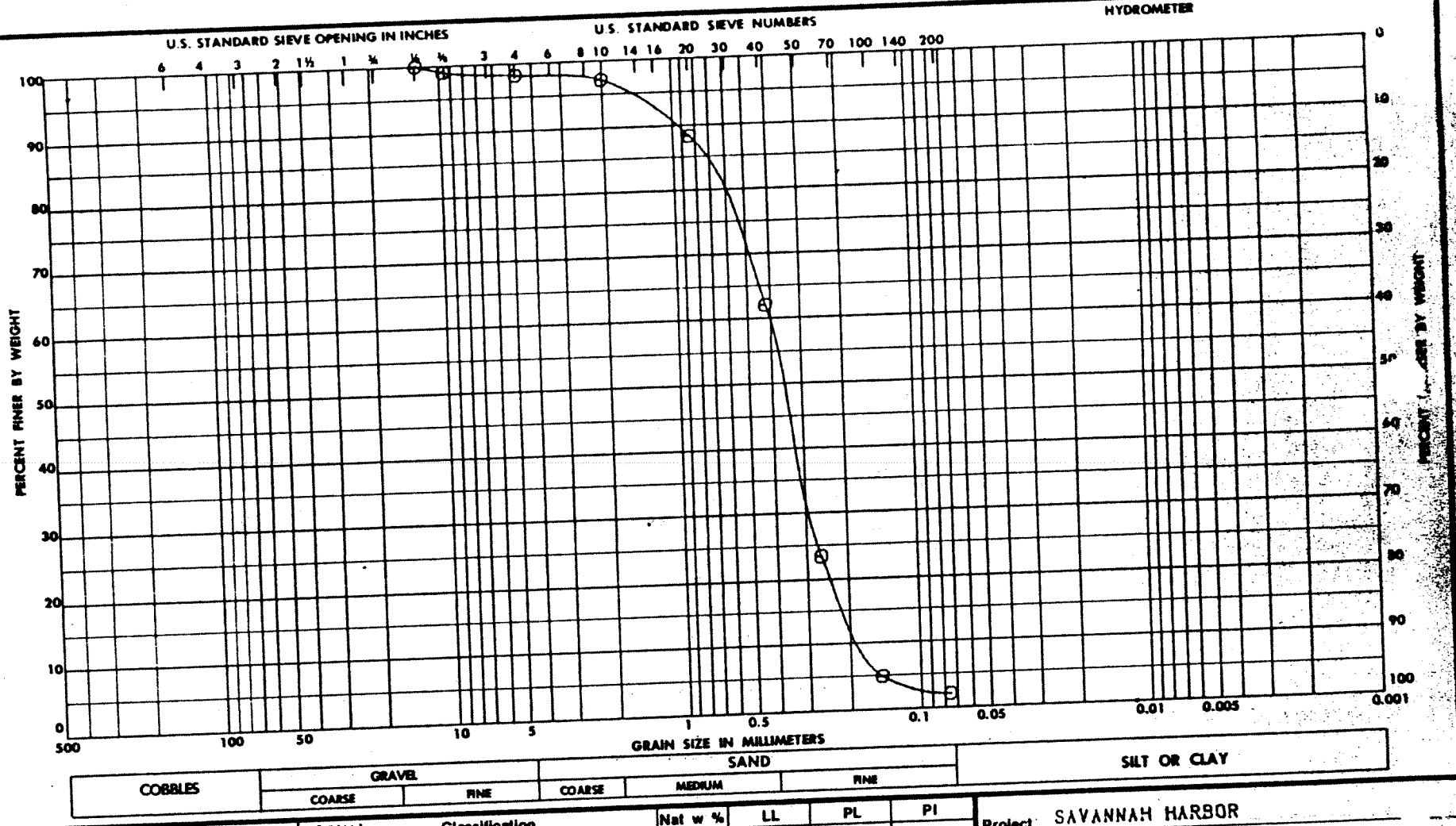
Area LAB NO.97/713

Boring No. SH-114 SAMPLE NO. 3

Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

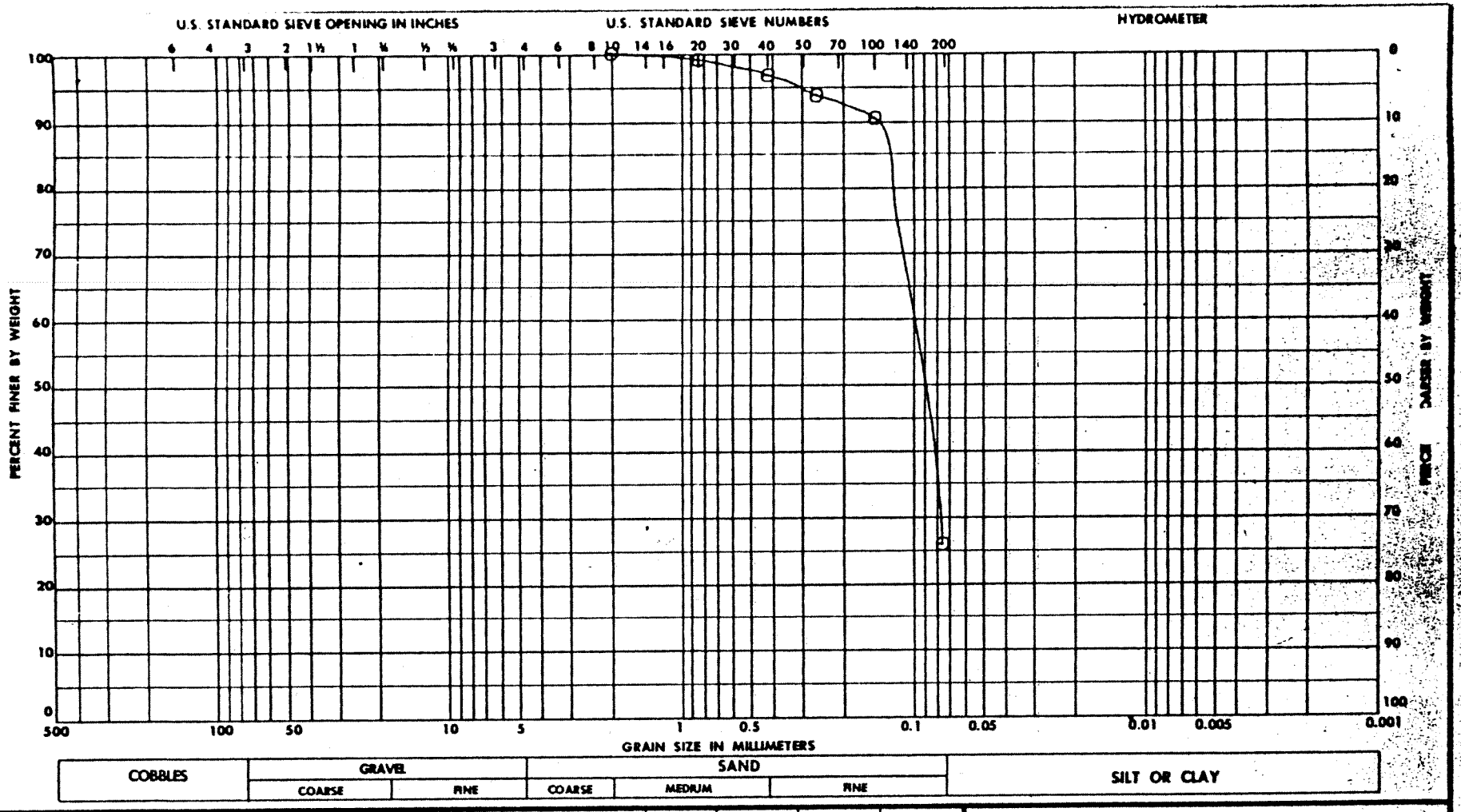


Sample No.	~~Elev~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	36.7-38.2'	POORLY GRADED SAND (SP) GRAY WITH A TRACE OF GRAVEL	20.5	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/717
Boring No. SH-115 SAMPLE NO. 1
Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
3	40.0-42.5'	SILTY SAND (SM)	--	48	34	14
		GRAY, CLAYEY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/719

Boring No. SH-115 SAMPLE NO. 3

Date 04/06/84

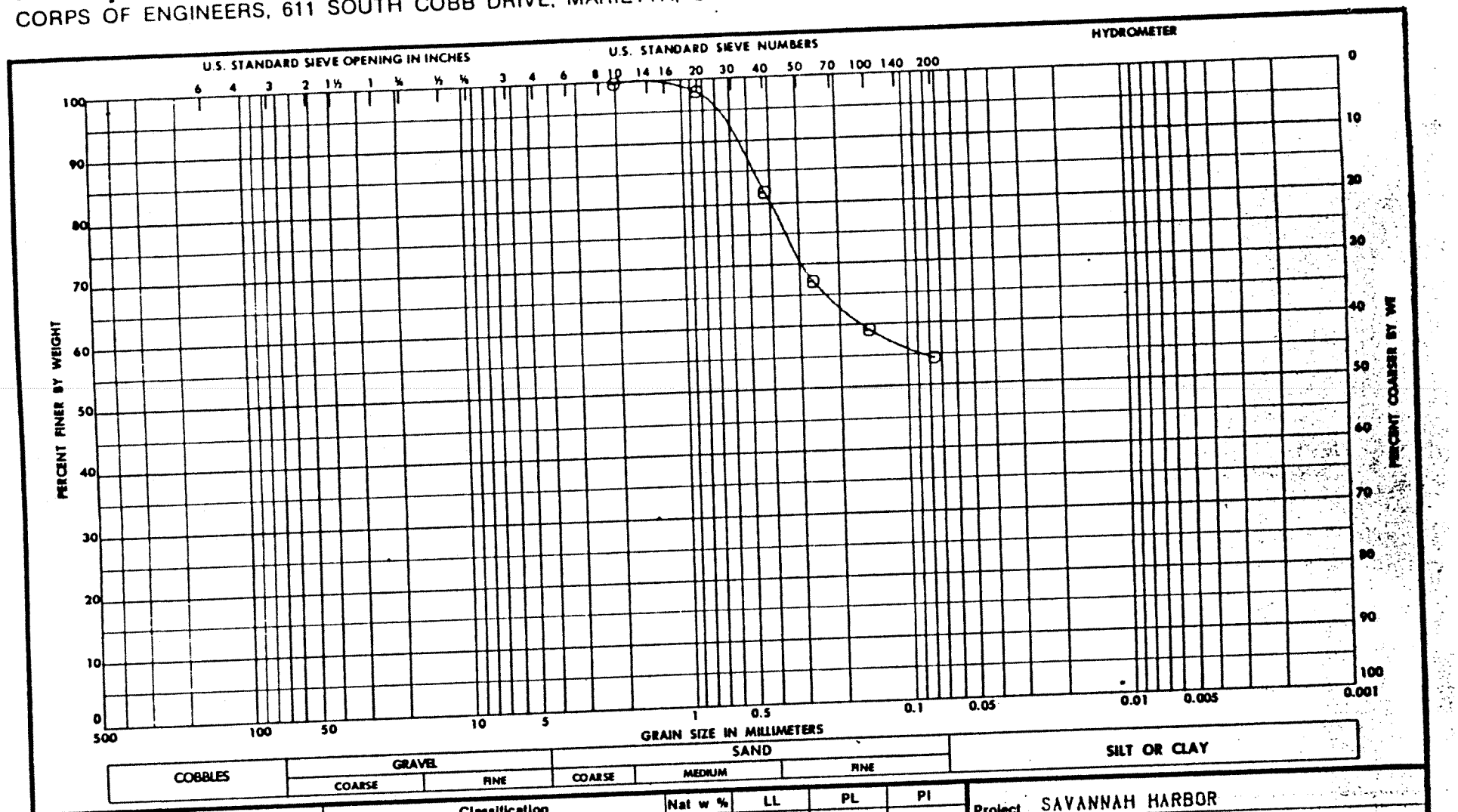
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
2	17.7-18.7'	INORGANIC SILT, HIGH LL (MH) GRAY AND BROWN, CLAYEY, SANDY	100.7	115	54	61

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/722

Boring No. SH-116 SAMPLE NO. 2

Date 04/06/84

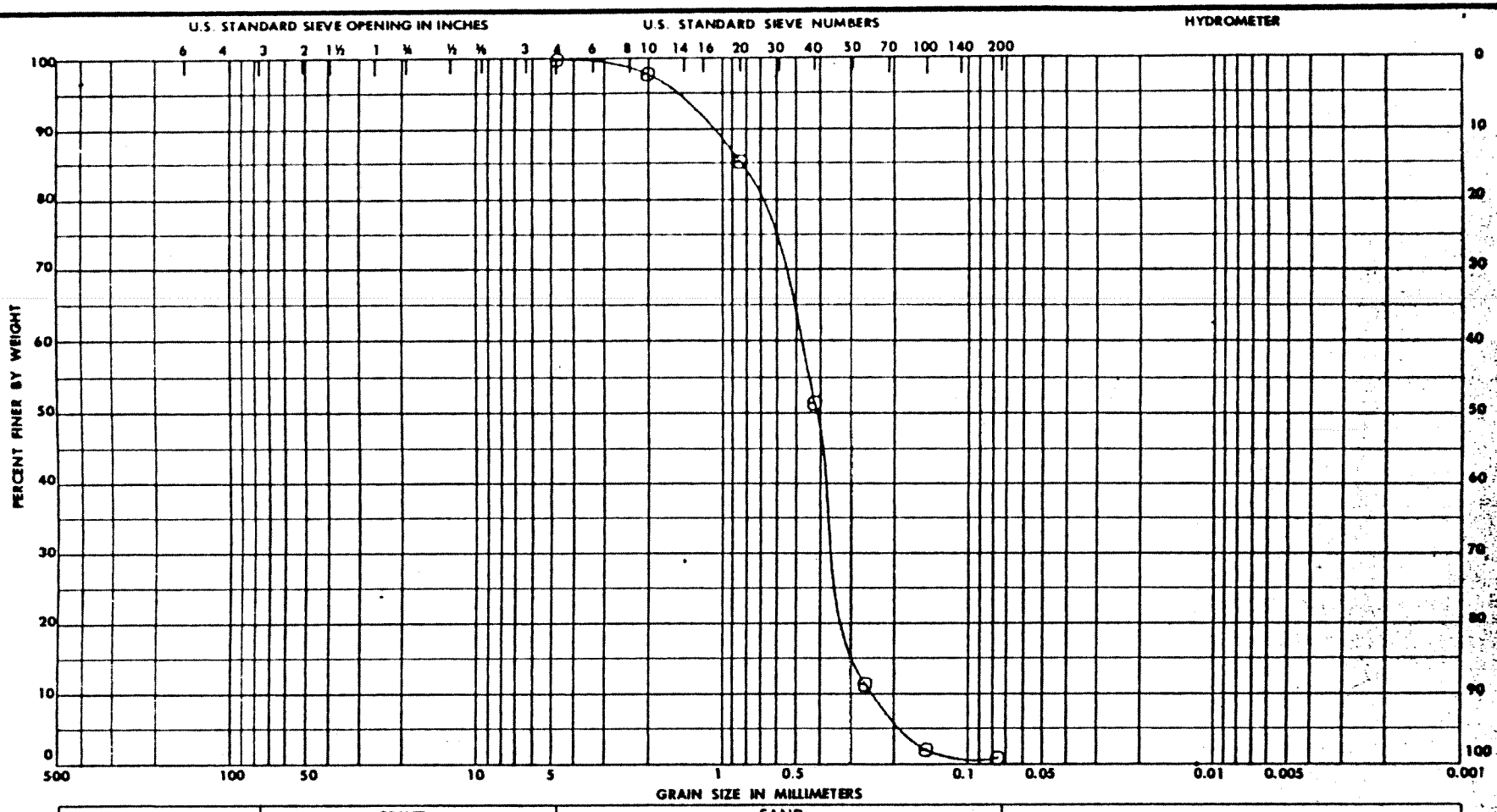
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	23.5-25.0'	POORLY GRADED SAND (SP)	23.1	NP	NP	NP
		ORANGE AND GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/724

Boring No. SH-116 SAMPLE NO. 4

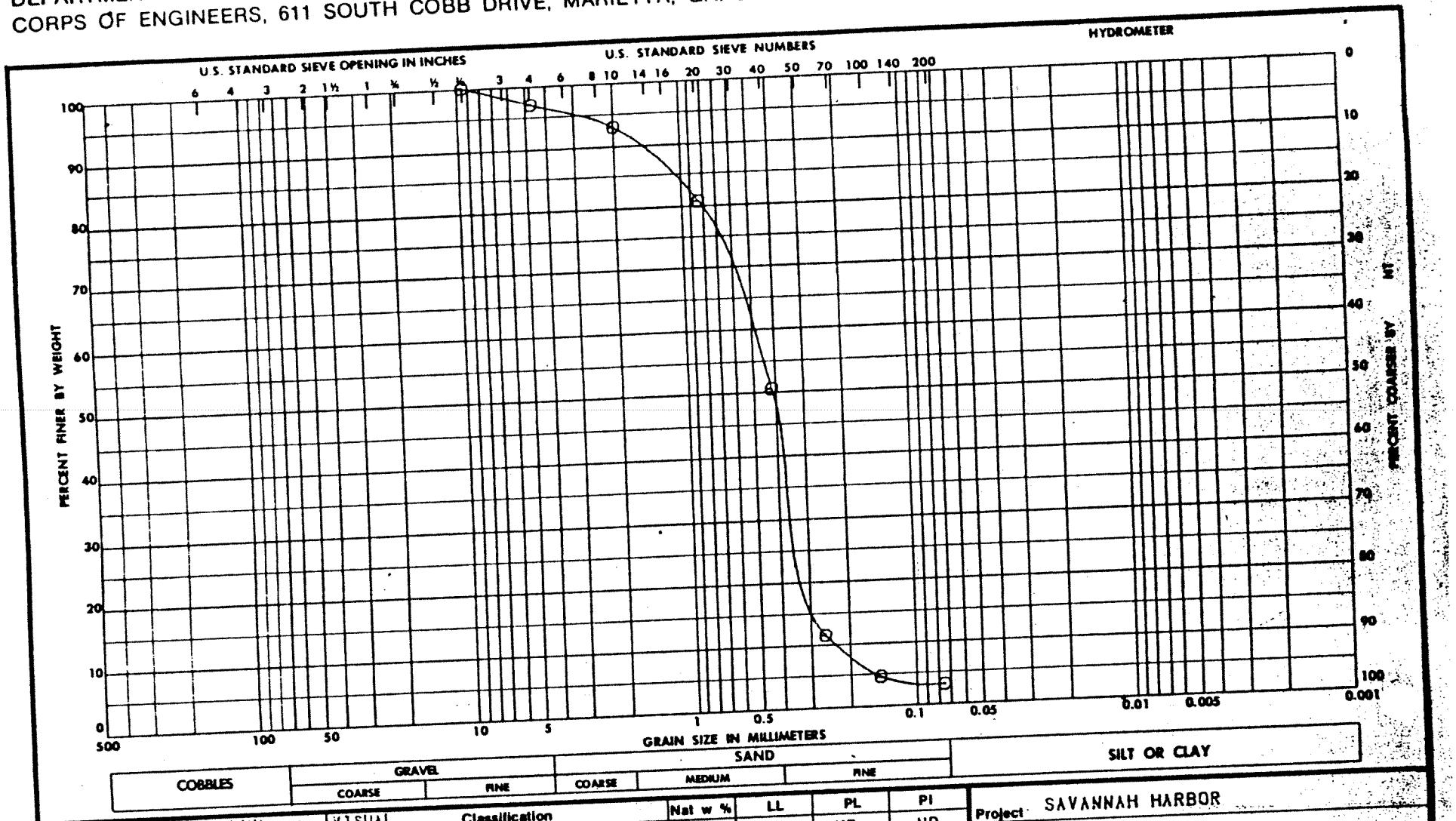
Date 04/06/84

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

Req. No. EN-GS-84-03



Sample No.	~~Elev &~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	26.5-28.0'	POORLY GRADED SAND (SP) TAN WITH A TRACE OF GRAVEL	--	NP	NP	NP

Project: SAVANNAH HARBOR HARBOR-WIDENING

Area: LAB NO.97/726

Boring No. SH-116 SAMPLE NO. 6

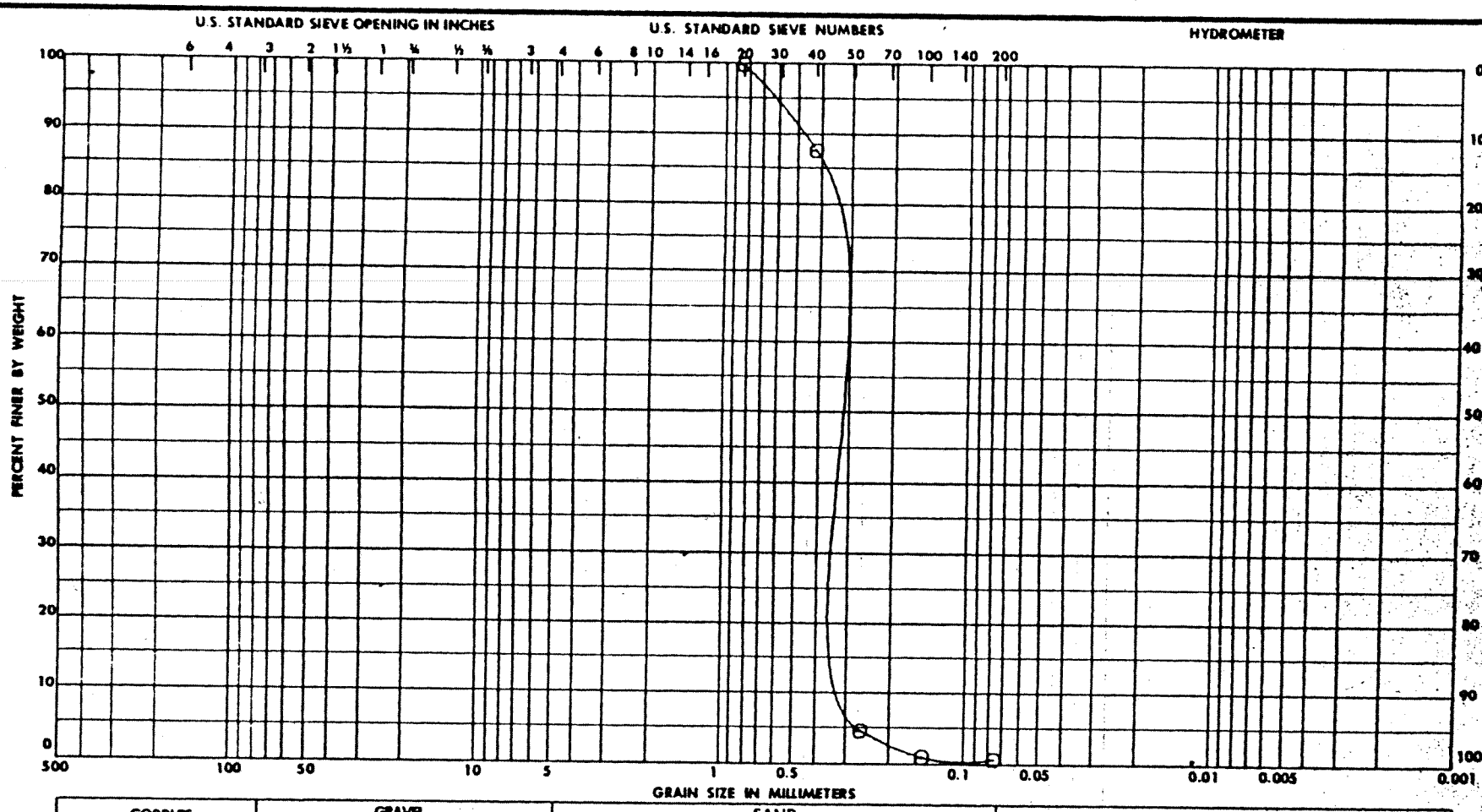
Date: 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
7	32.5-34.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		ORANGE AND GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/727

Boring No. SH-116 SAMPLE NO. 7

Date 04/06/84

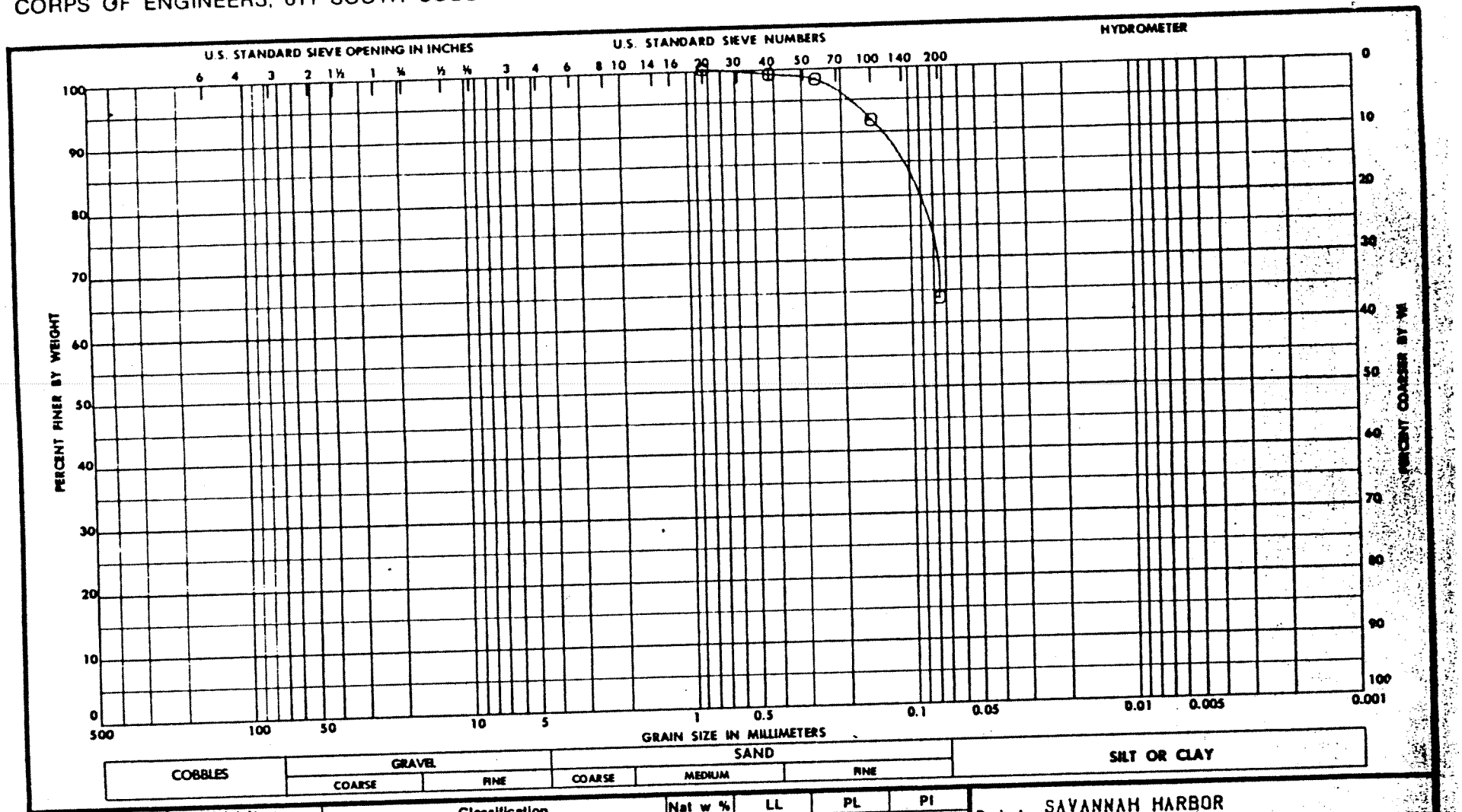
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev.~~ Depth	Classification	Nat w %	LL	PL	PI
9	38.5-40.0'	INORGANIC SILT, HIGH LL (MH)	51.2	76	49	27
		GRAY, CLAYEY, SANDY				

Project SAVANNAH HARBOR
HARBOR-WIDENING

Area LAB NO. 97/729

Boring No. SH-116 SAMPLE NO. 9

Date 04/06/84

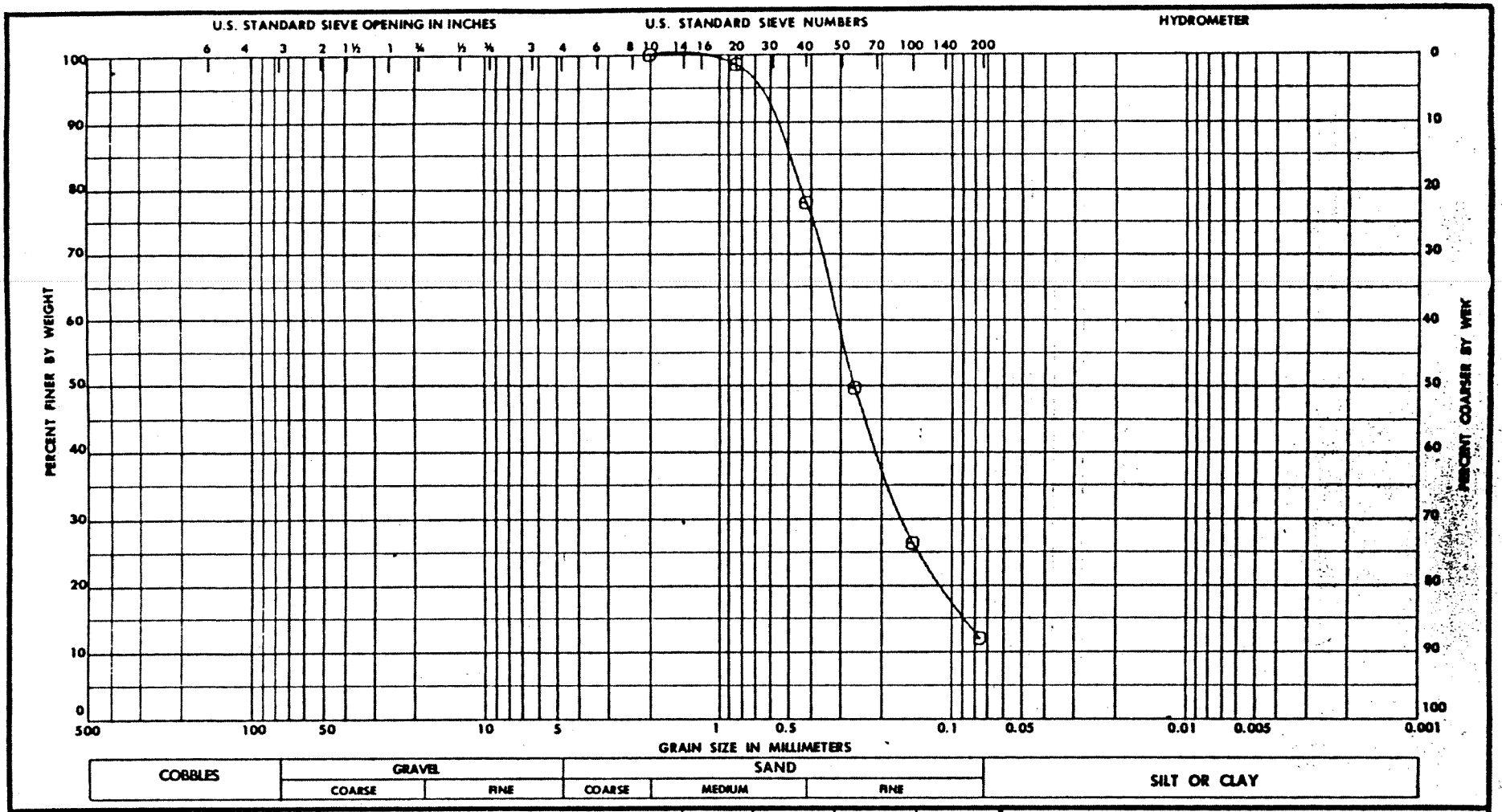
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	37.9-39.4'	SILTY SAND (SM)	14.7	NP	NP	NP
		BROWN				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO. 97/733
Boring No. SH-117 SAMPLE NO. 2
Date 04/06/84

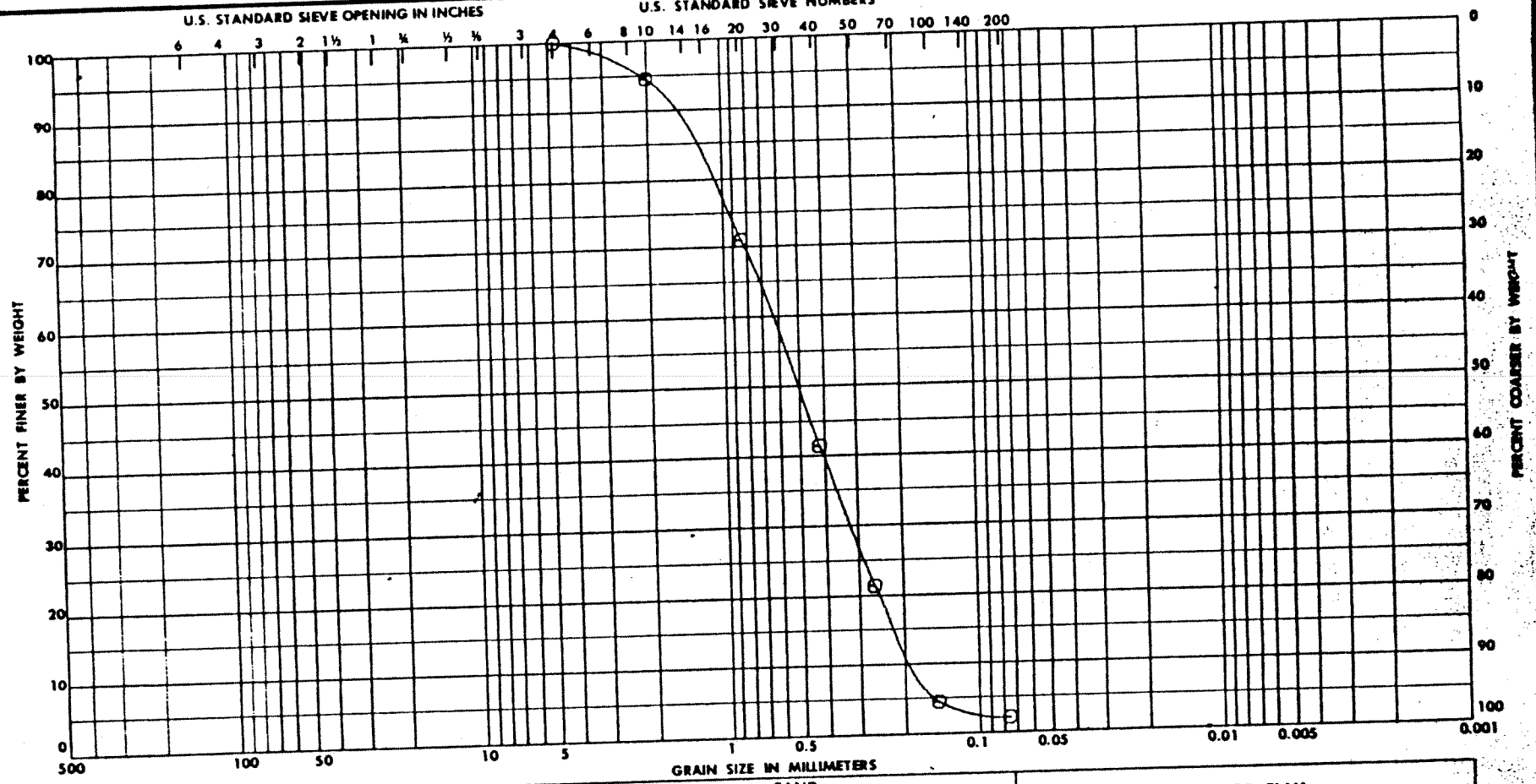
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
1	15.0-16.5'	POORLY GRADED SAND (SP)	23.4	NP	NP	NP
		TAN AND GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/735

Boring No. SH-118 SAMPLE NO. 1

Date 04/06/84

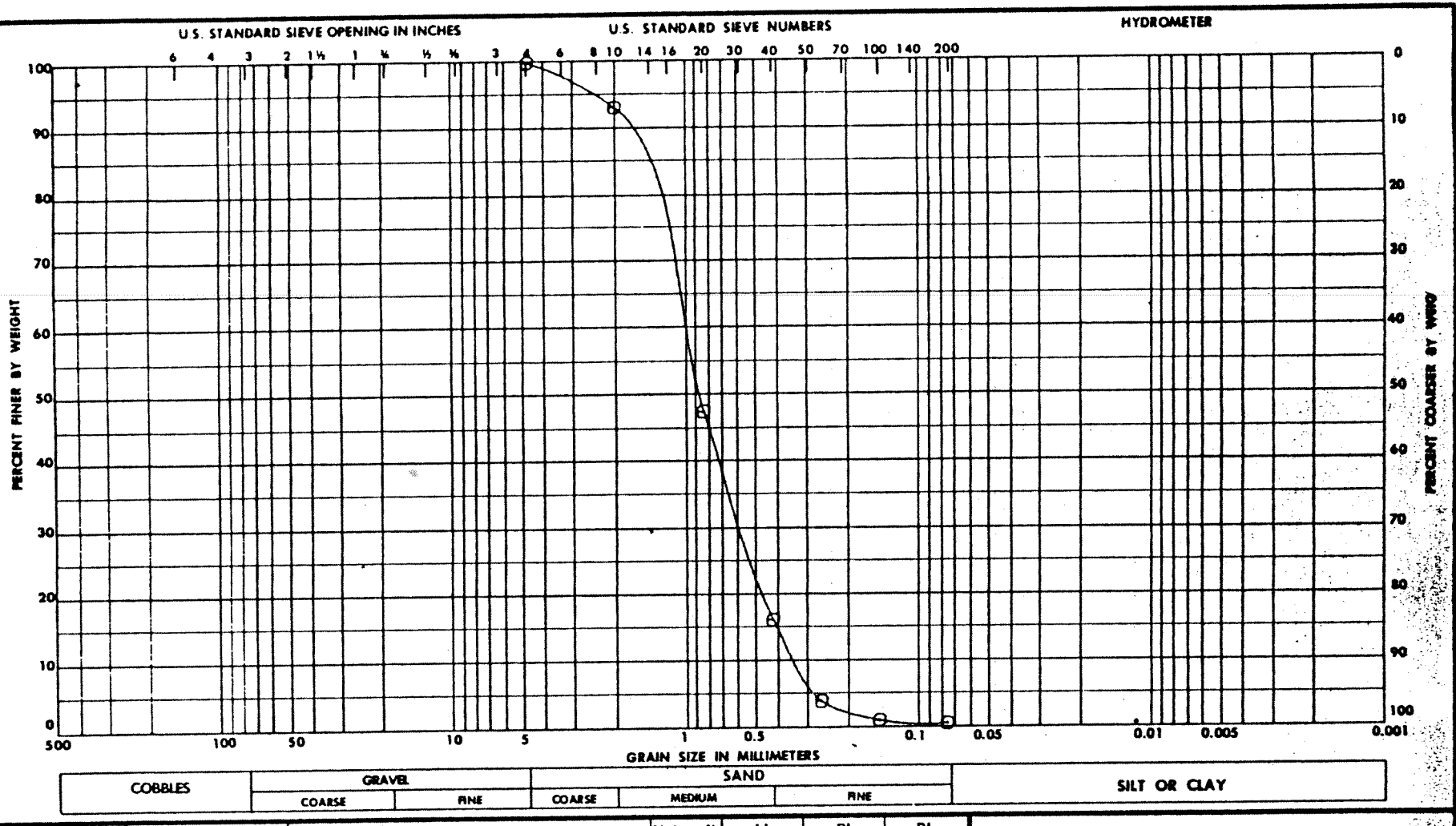
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	40.5-42.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/740

Boring No. SH-118 SAMPLE NO. 6

Date 04/06/84

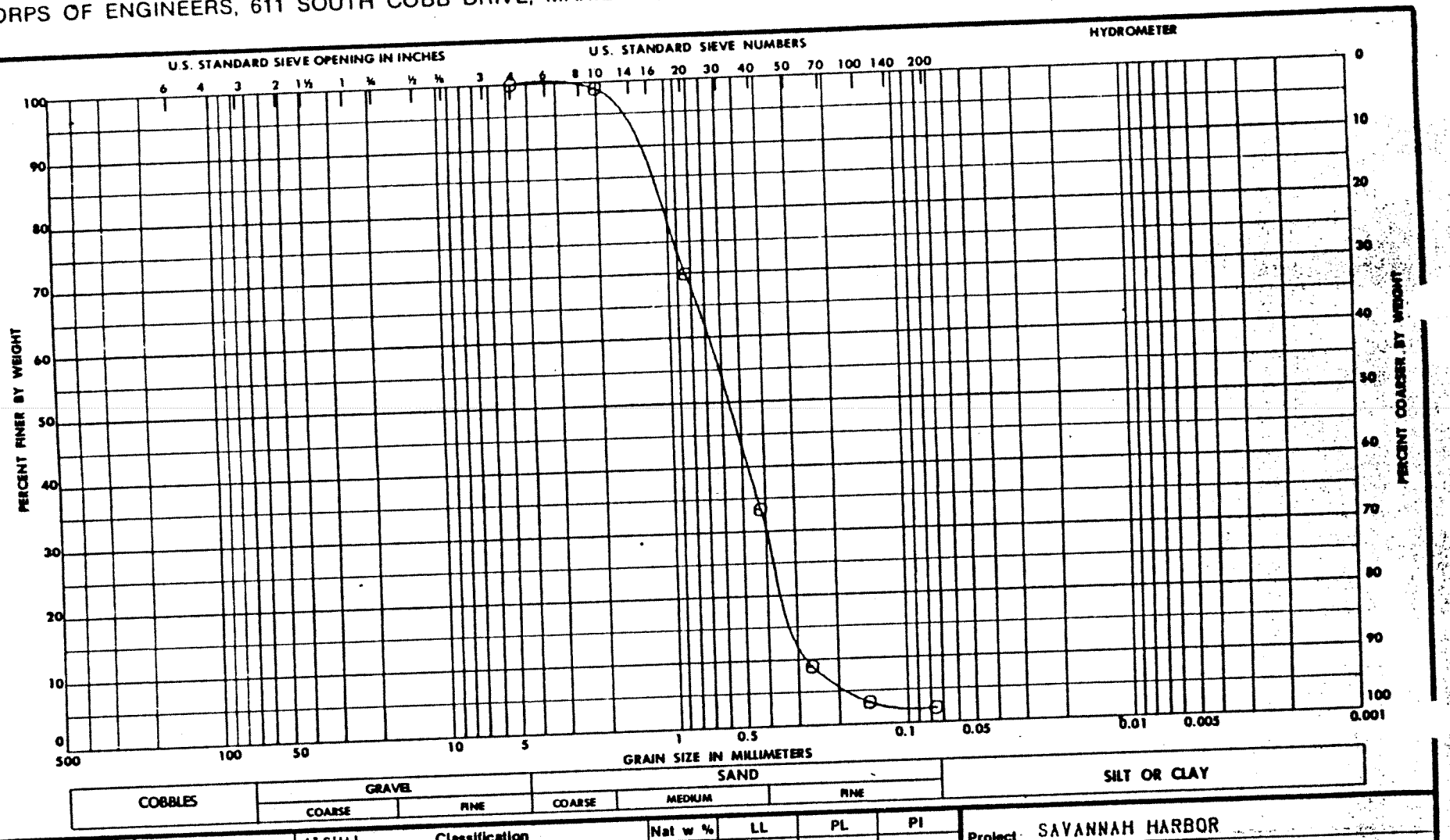
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
3	21.0-22.5'	POORLY GRADED SAND (SP)	21.3	NP	NP	NP
		BROWN				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO.97/745
Boring No. SH-119 SAMPLE NO. 3
Date 04/06/84

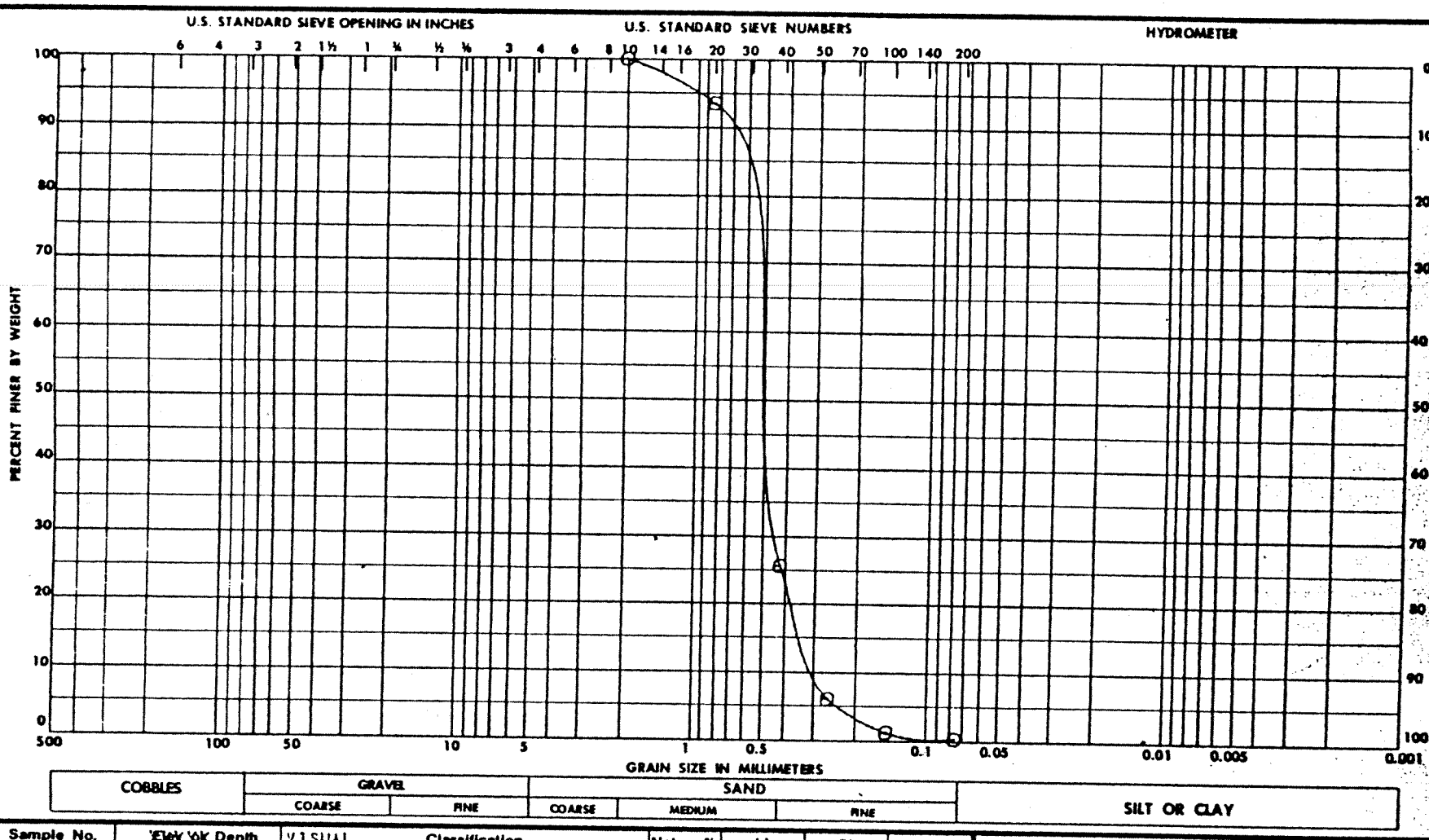
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev. or Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	34.5-36.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN				

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO. 97/748
Boring No. SH-119 SAMPLE NO. 6
Date 04/06/84

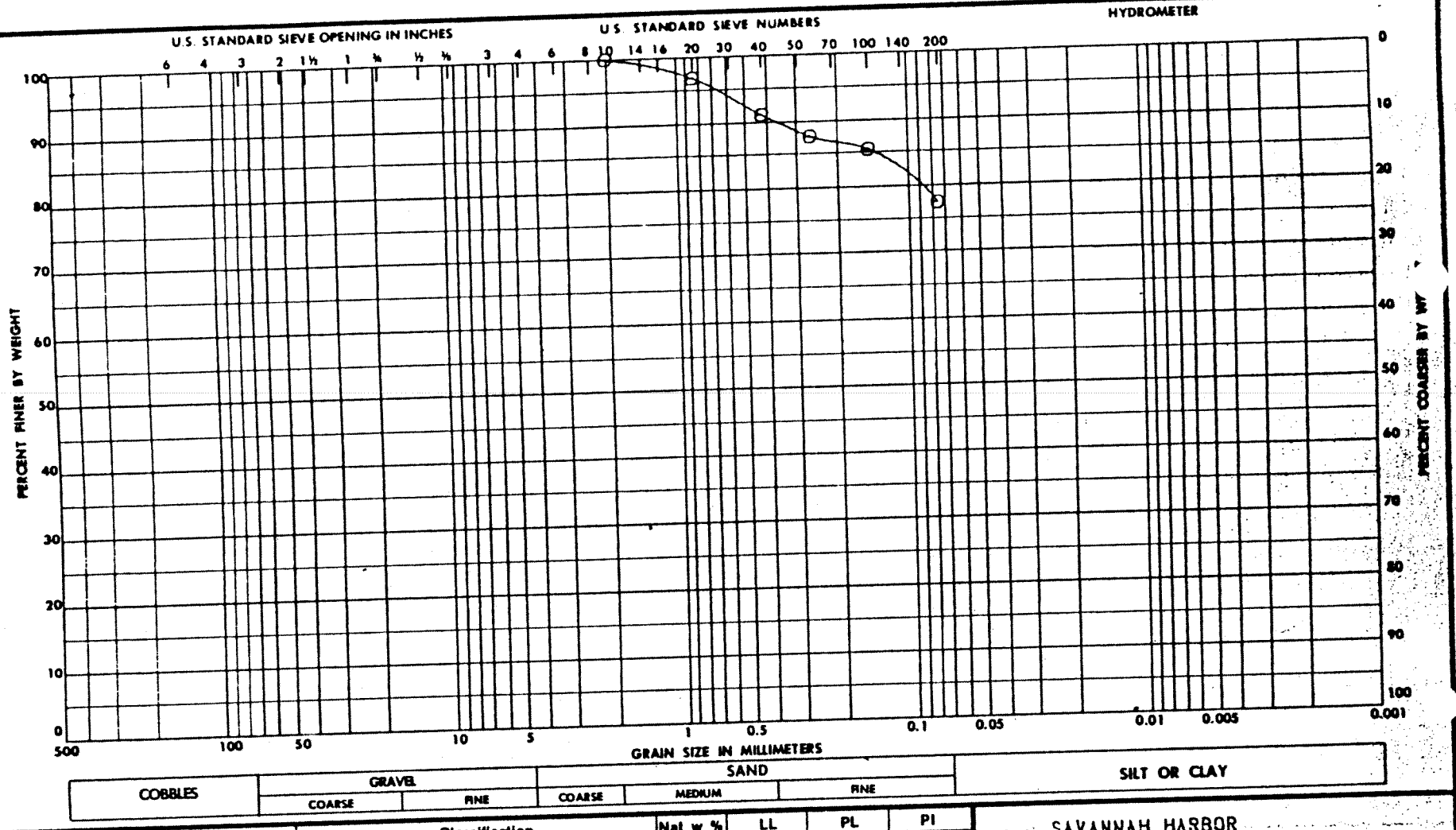
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev.~~ Depth	Classification	Nat w %	LL	PL	PI
8	43.5-45.0'	INORGANIC SILT, HIGH LL (MH) GRAY, CLAYEY WITH SOME SAND	43.5	81	51	30

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/750

Boring No. SH-119 SAMPLE NO. 8

Date 04/06/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

GENERAL TEST REPORT

U.S. ARMY ENGINEER DIVISION LABORATORY, SOUTH ATLANTIC
CORPS OF ENGINEERS
MARIETTA, GEORGIA

DISTRICT/OFFICE Savannah	
CONTRACT NO. --	
PROJECT Savannah Harbor Widening Study	**DATE REPORTED** 21 November 1984
	WORK ORDER NO. 4246
TYPE SAMPLE 3½" diameter cores, dense, fine grained silty sand	**REQN. NO.** SASEN-GC-85-14
SOURCE Savannah Harbor	**BASE UNIT COST** --
FOR USE AS Investigational	**DATE SAMPLE RECEIVED** 24 August 1984
TESTED FOR Unconfined Compressive strength	**LAB NO.** 97/821-822

☐ **MEETS SPECIFICATIONS** n/a ☐ **FAILS SPECIFICATIONS (See below)**

LAB NO.	HOLE NO.	SAMPLE NO.	DEPTH, FEET	UNCONFINED COMPRESSIVE STRENGTH, psi
97/821	SH-120	1	47.7 to 48.5	125
97/822	SH-120	2	48.9 to 50.1	130

REMARKS:

Samples were tested in a wet condition as received.

REPORTED BY ☐ PHONE ☐ WIRE	**TESTED BY** HLM	**CHECKED BY** DRH
DATE n/a	**SAMPLED BY** T. Zielouka	

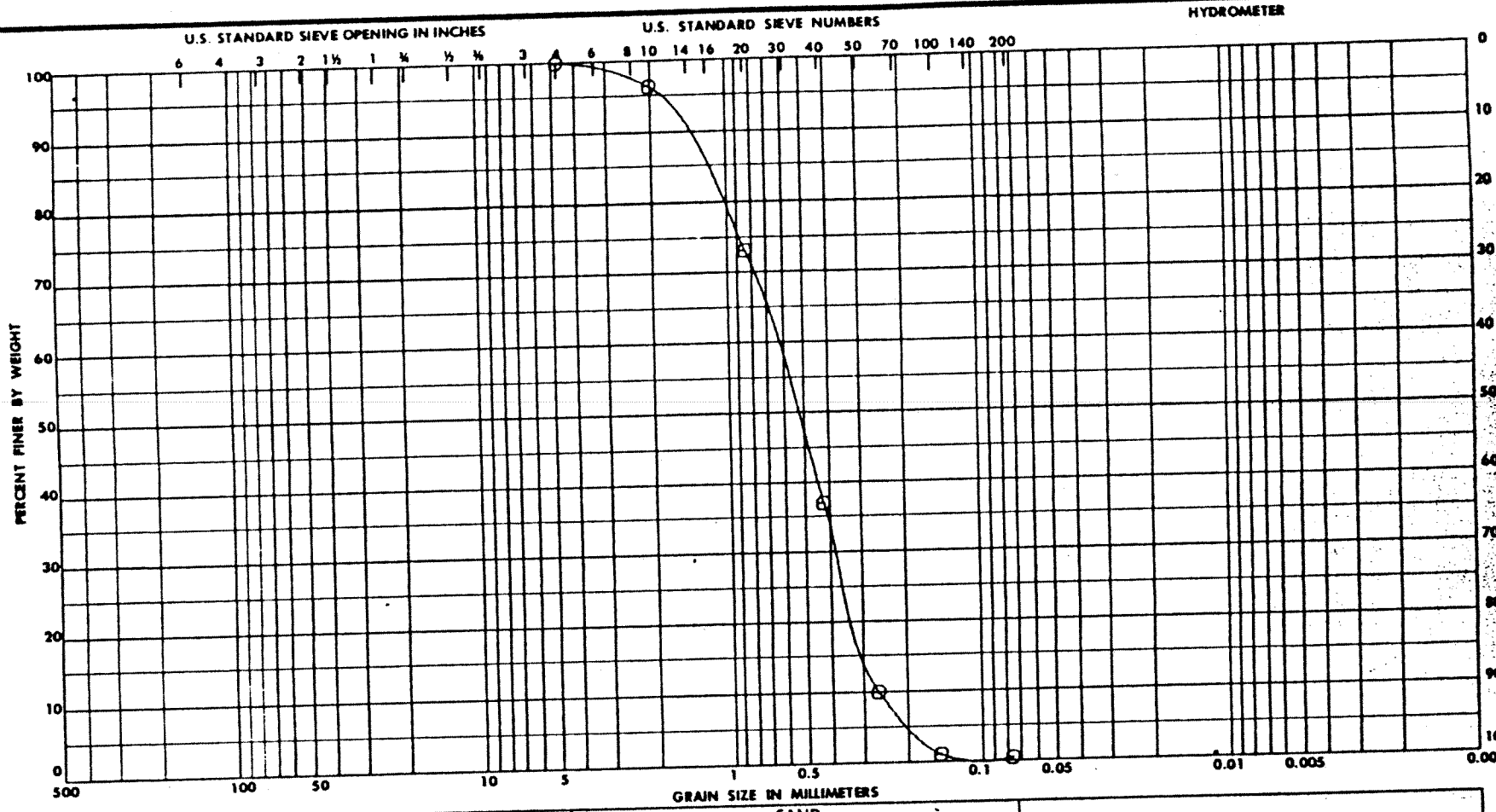
SAD FORM 158
1 Feb 79

Previous editions of this form are obsolete

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

W.O. No. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	14.0-18.1'	POORLY GRADED SAND (SP) BROWN	19.6	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/753

Boring No. SH-120 SAMPLE NO. 2

Date 04/06/84

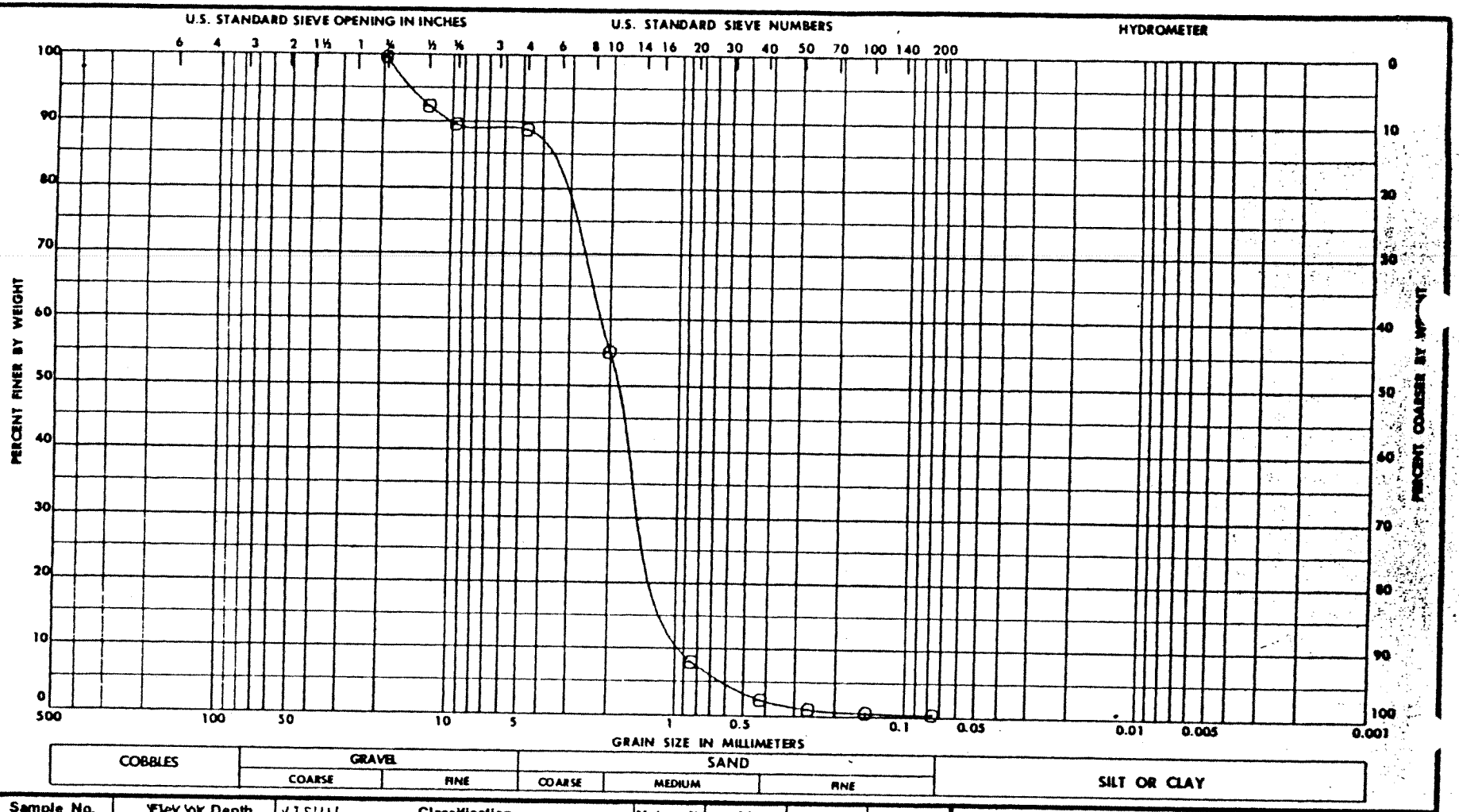
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	30.0-31.0'	POORLY GRADED SAND (SP) TAN WITH A LITTLE GRAVEL	--	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97-756

Boring No. SH-120 SAMPLE NO. 5

Date 04/06/84

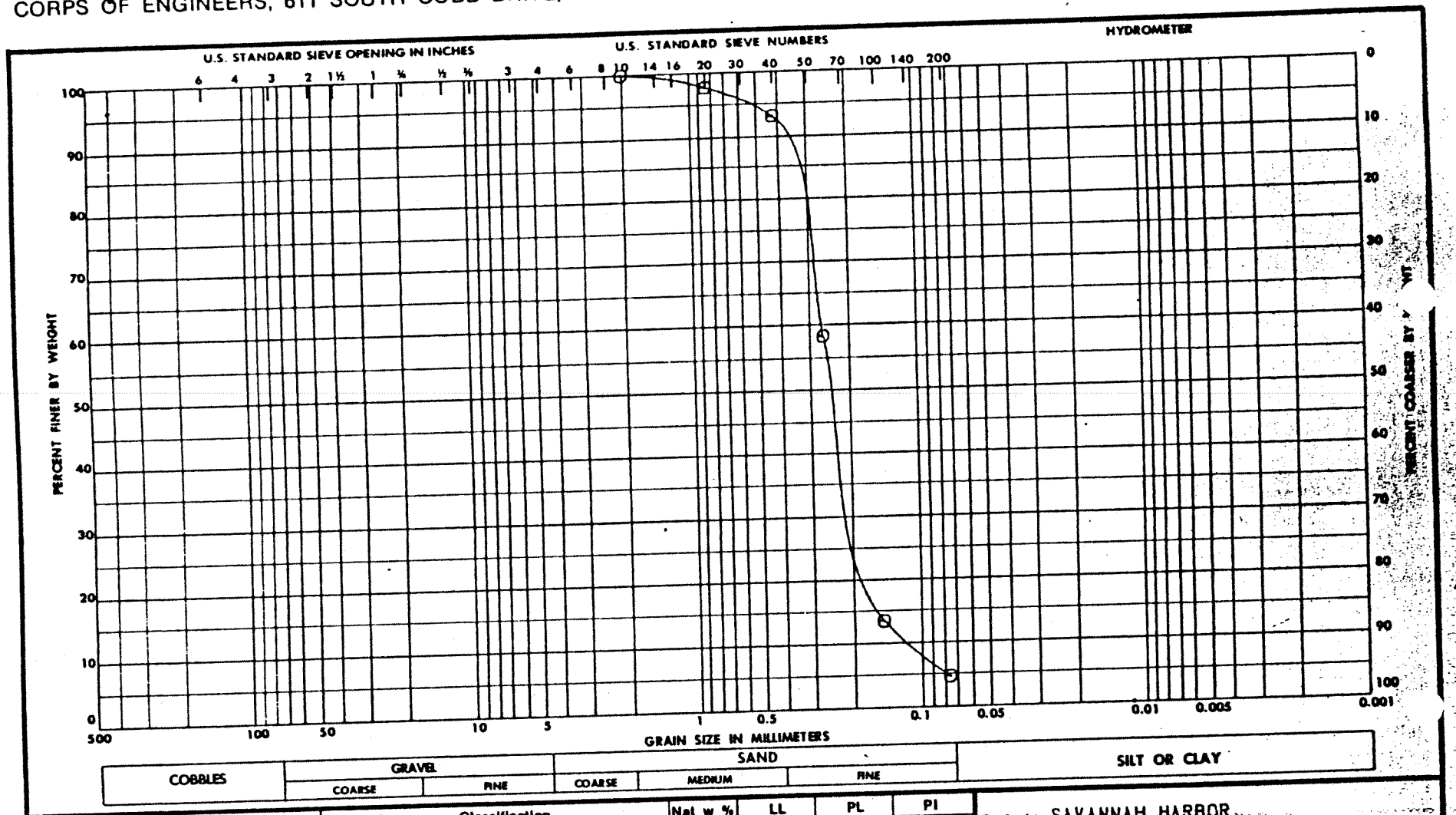
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	20.0-23.0'	POORLY GRADED SAND (SP) GRAY AND TAN	25.5	NP	NP	NP

Project SAVANNAH HARBOR HARBOR WIDENING

Area LAB NO.97/761

Boring No. SH-121 SAMPLE NO. 2

Date 04/06/84

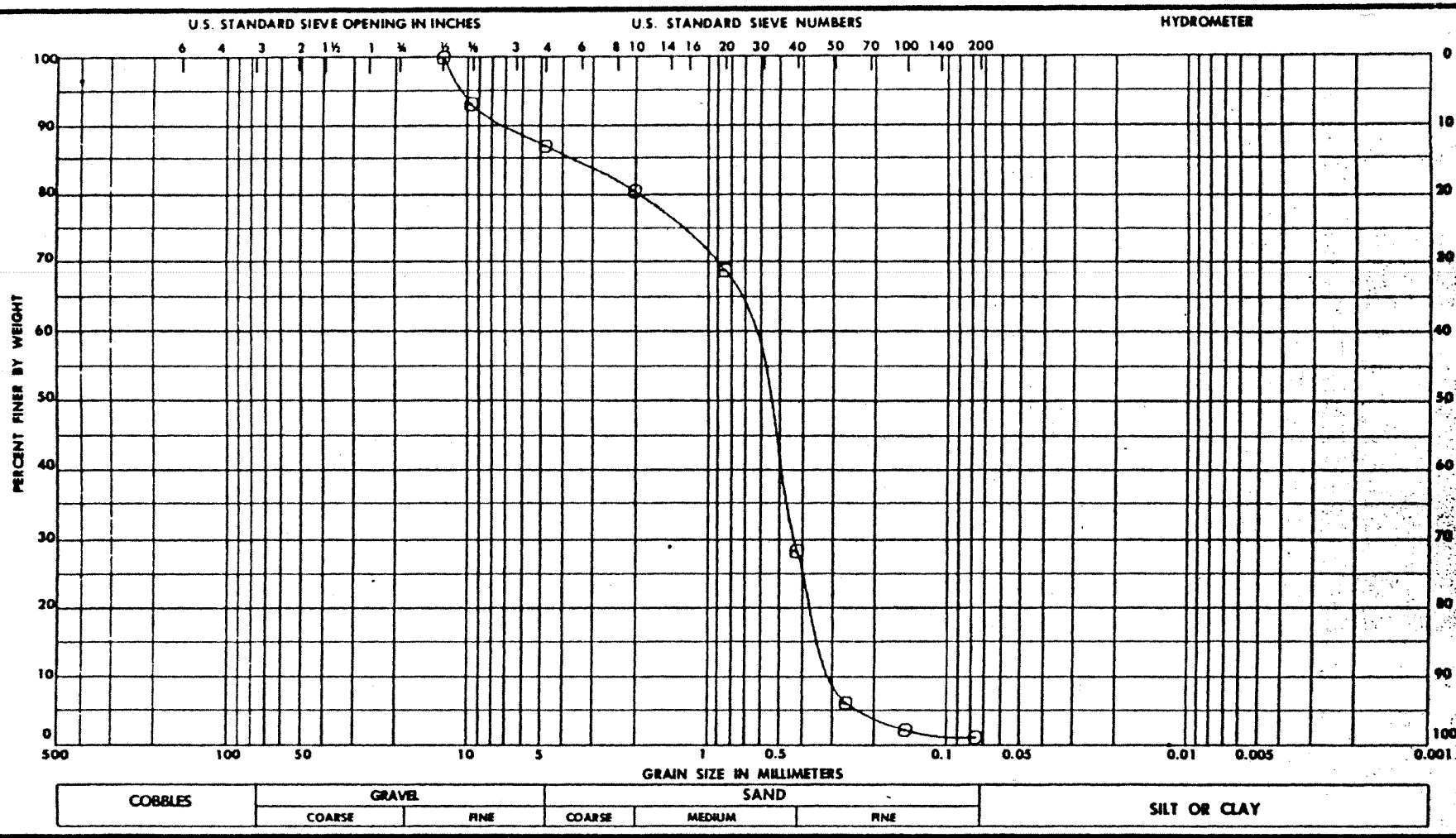
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
4	33.5-36.0'	POORLY GRADED SAND (SP)	--	NP	NP	NP
		TAN AND GRAY WITH A LITTLE				
		GRAVEL				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/763

Boring No. SH-121 SAMPLE NO. 4

Date 04/09/84

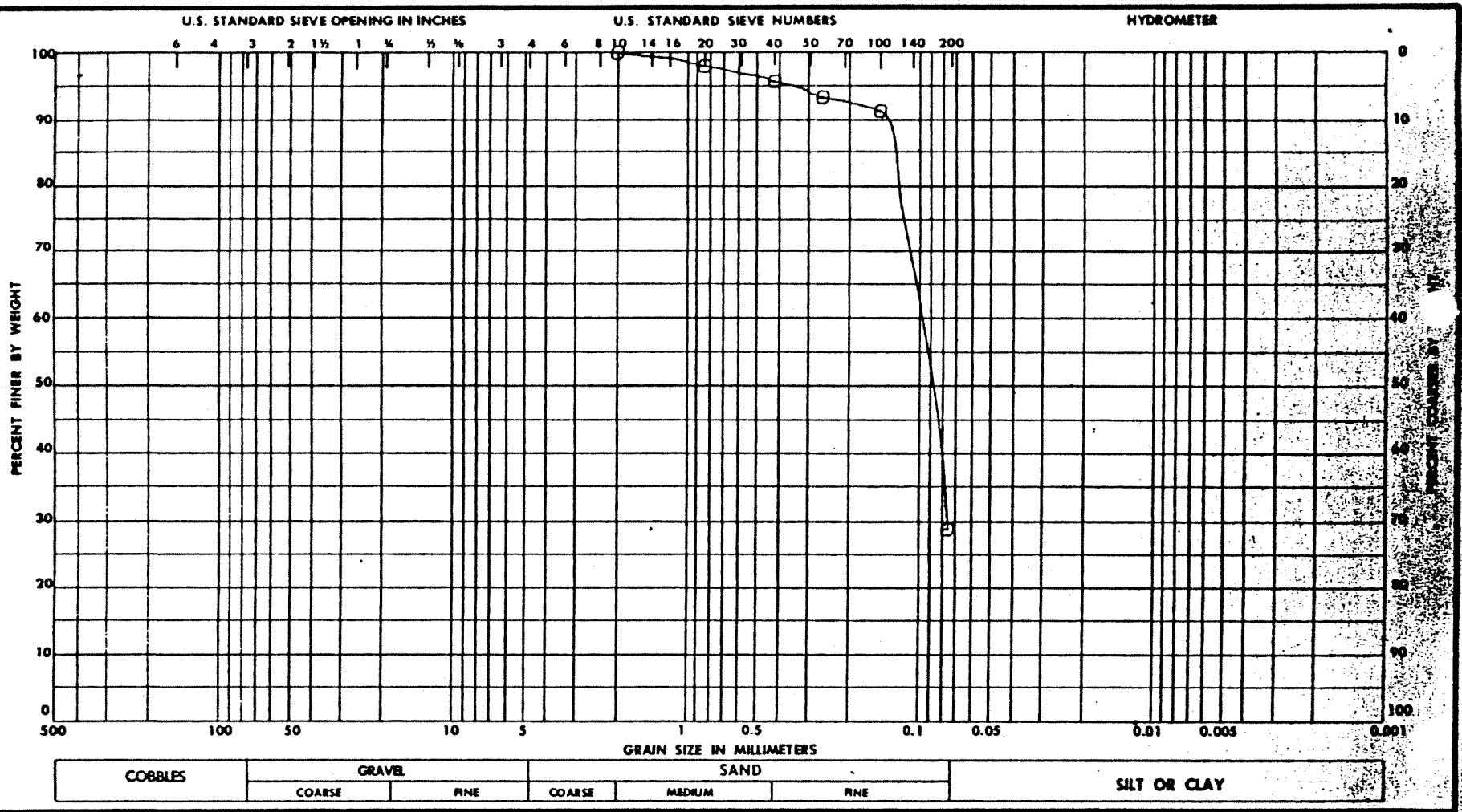
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
5	40.5-41.0'	SILTY SAND, HIGH LL (SM-H)	28.5	55	32	23
		GRAY, CLAYEY				

Project: SAVANNAH HARBOR
HARBOR WIDENING

Area: LAB NO. 97/764

Boring No. SH-121 SAMPLE NO. 5

Date: 04/09/84

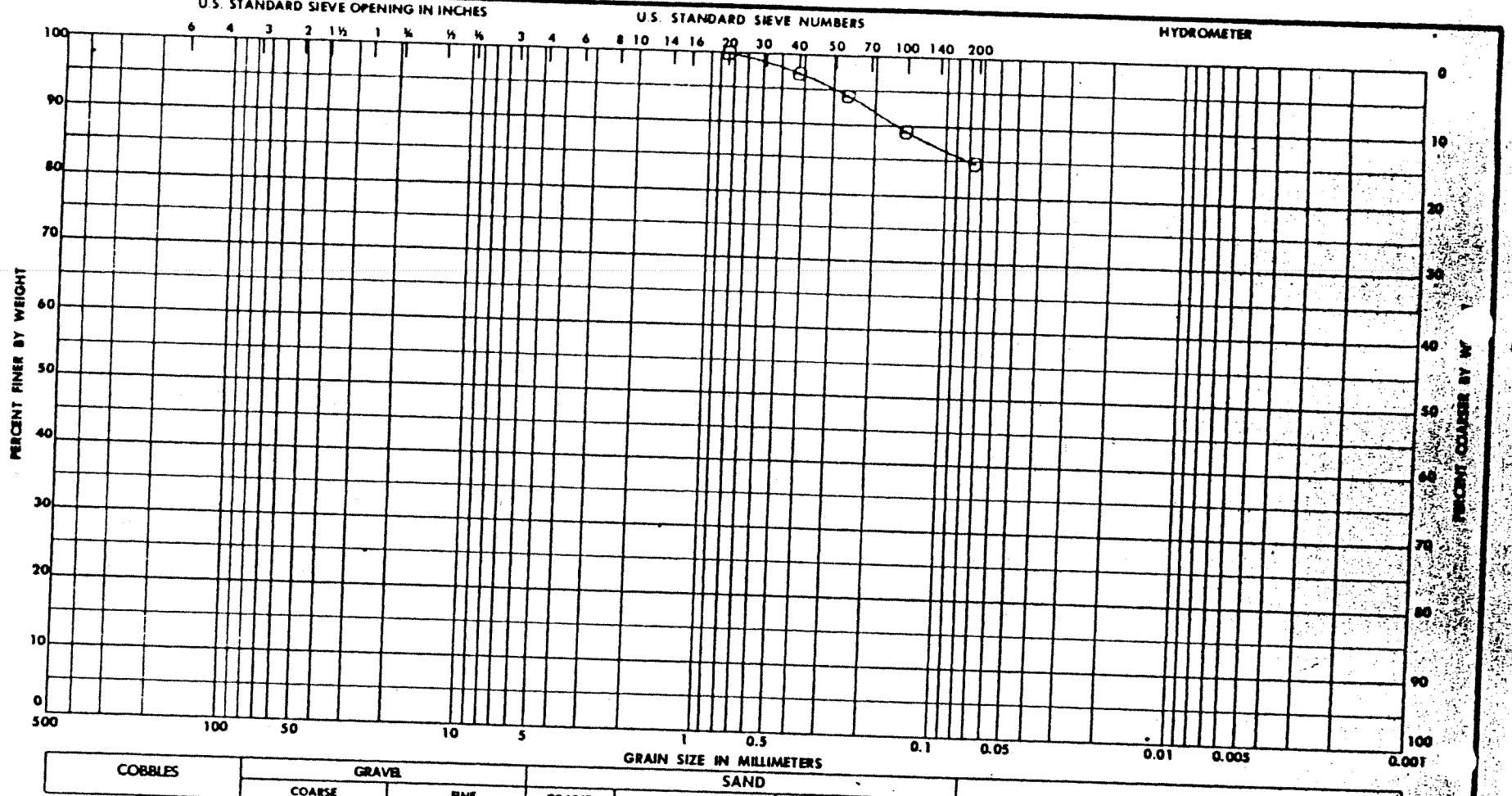
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
1	0.0-1.5'	LEAN CLAY (CL) BROWN. WITH A LITTLE SAND	11.9	37	18	19

Project SAVANNAH HARBOR
HARBOR WIDENING

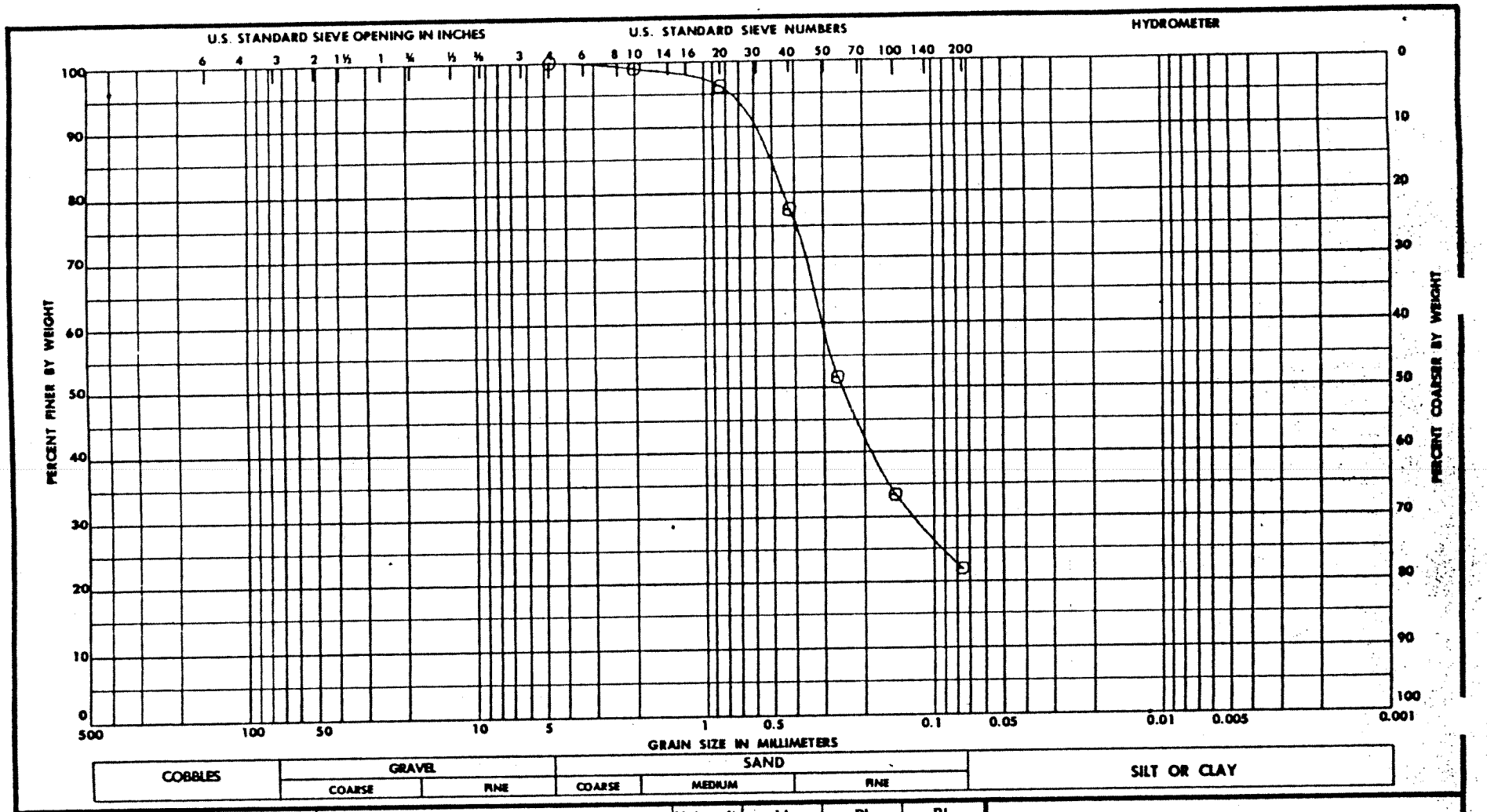
Area LAB NO. 97/767

Boring No. SH-122 SAMPLE NO. 1

Date 04/09/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
4	9.0-10.5'	CLAYEY SAND, HIGH LL (SC-H)	28.5	56	25	31
		BROWNISH GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/770

Boring No. SH-122 SAMPLE NO. 4

Date 04/09/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

DEPARTMENT OF THE ARMY, SOUTH ATLANTIC DIVISION LABORATORY

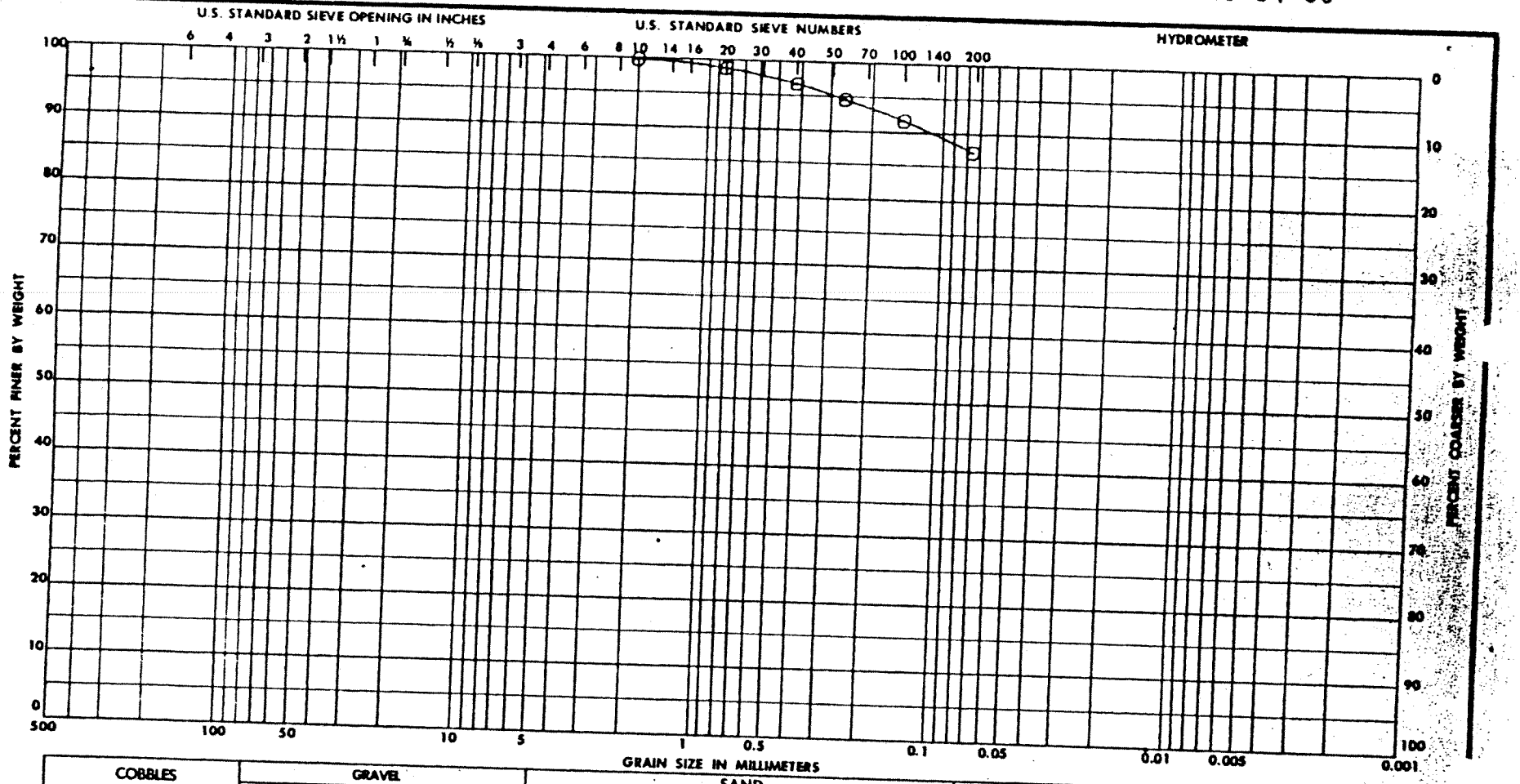
W.O. No. 3778

EN-GS-84-03

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

W.O. No. 3778

Req. No. EN-GS-84-03



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
6	15.0-19.0'	INORGANIC SILT, HIGH LL (MH) BROWNISH GRAY, CLAYEY WITH A LITTLE SAND	79.9	93	44	49

Project SAVANNAH HARBOR
HARBOR WIDENING
Area LAB NO. 97/772
Boring No. SH-122 SAMPLE NO. 6
Date 04/09/84

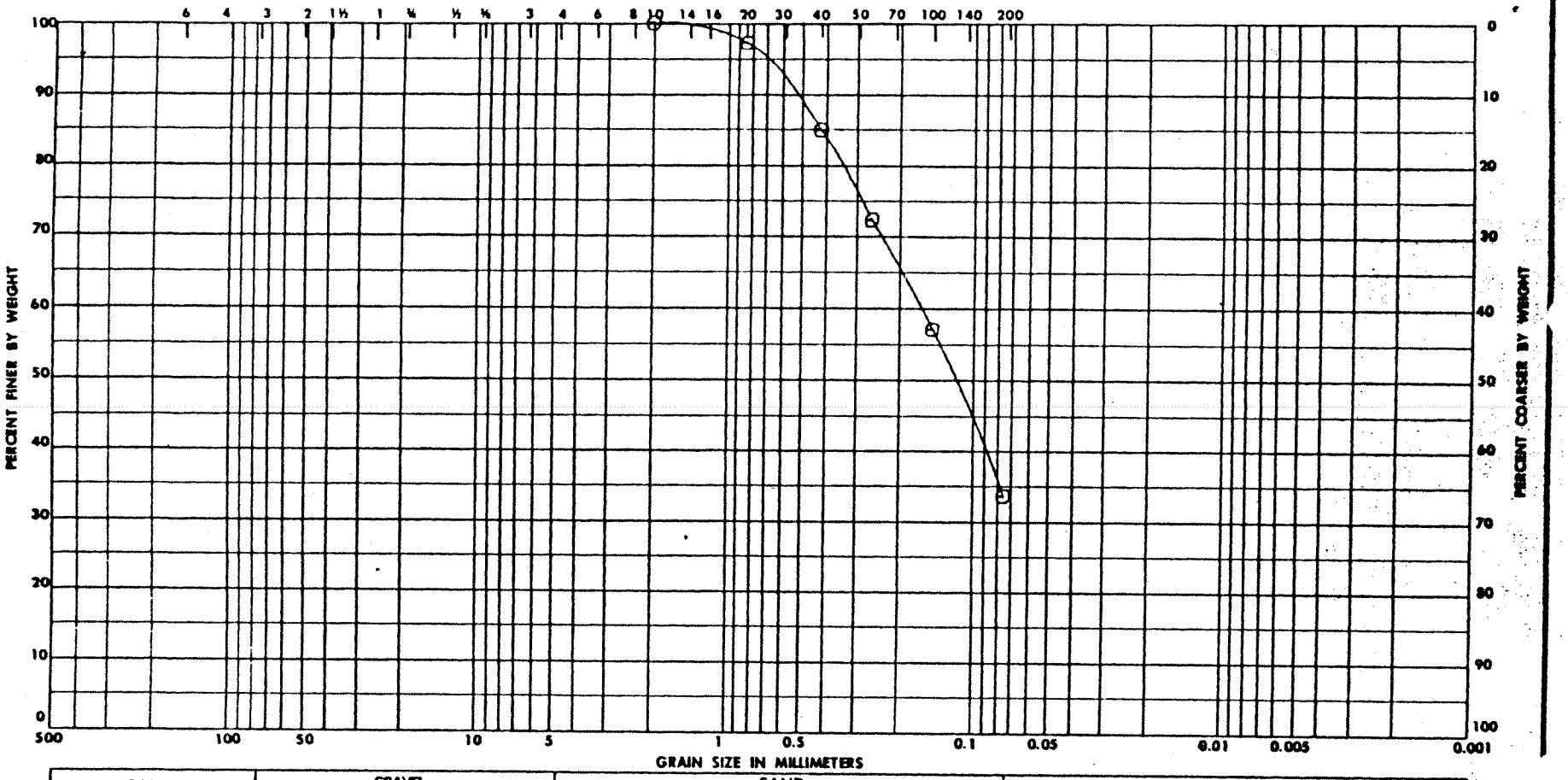
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
8	25.0-26.5'	SILTY SAND, HIGH LL (SM-H)	46.2	58	31	27
		BROWN AND GRAY, CLAYEY				

Project SAVANNAH HARBOR
HARBOR-WIDENING

Area LAB NO. 97/774

Boring No. SH-122 SAMPLE NO. 8

Date 04/09/84

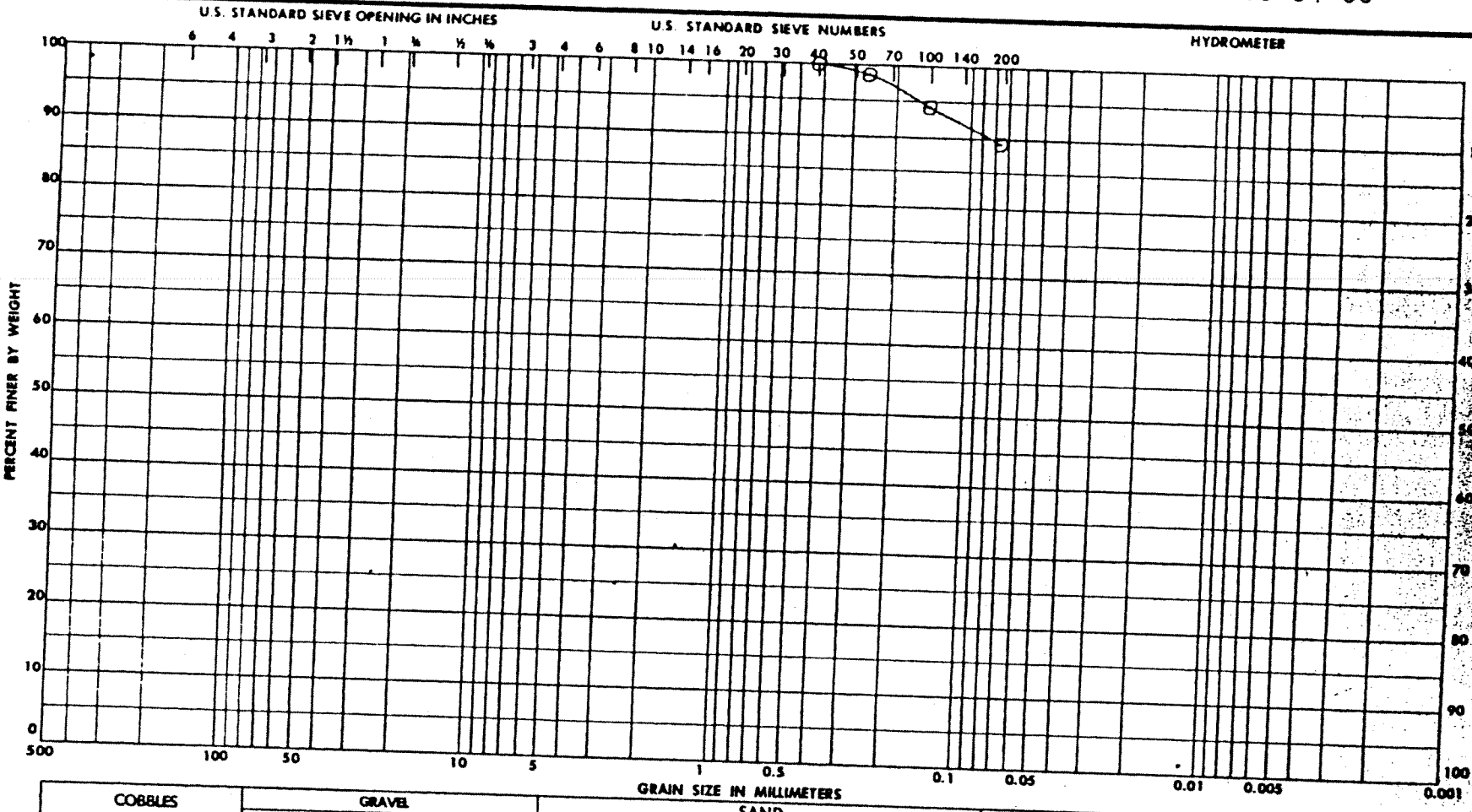
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
9	29.5-31.0'	FAT CLAY (CH)	99.3	130	44	86
		GRAY AND BROWN WITH A LITTLE				
		SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/775

Boring No. SH-122 SAMPLE NO. 9

Date 04/09/84

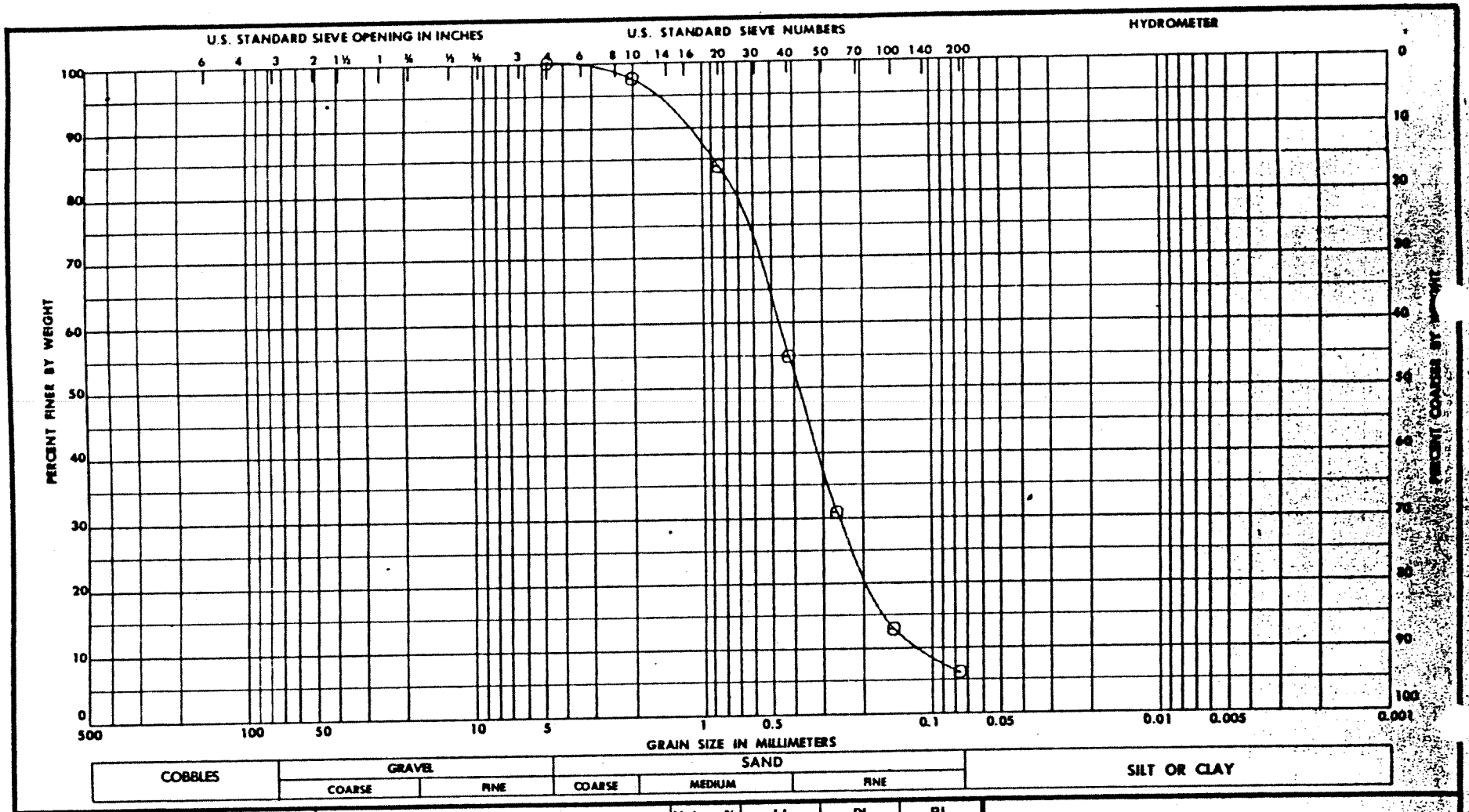
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
11	40.0-41.5'	POORLY GRADED SILTY SAND	19.2	NP	NP	NP
		(SP-SM)				
		BROWN				

Project SAVANNAH HARBOR
HARBOR-WIDENING
Area LAB NO.97/777
Boring No. SH-122 SAMPLE NO. 11
Date 04/09/84

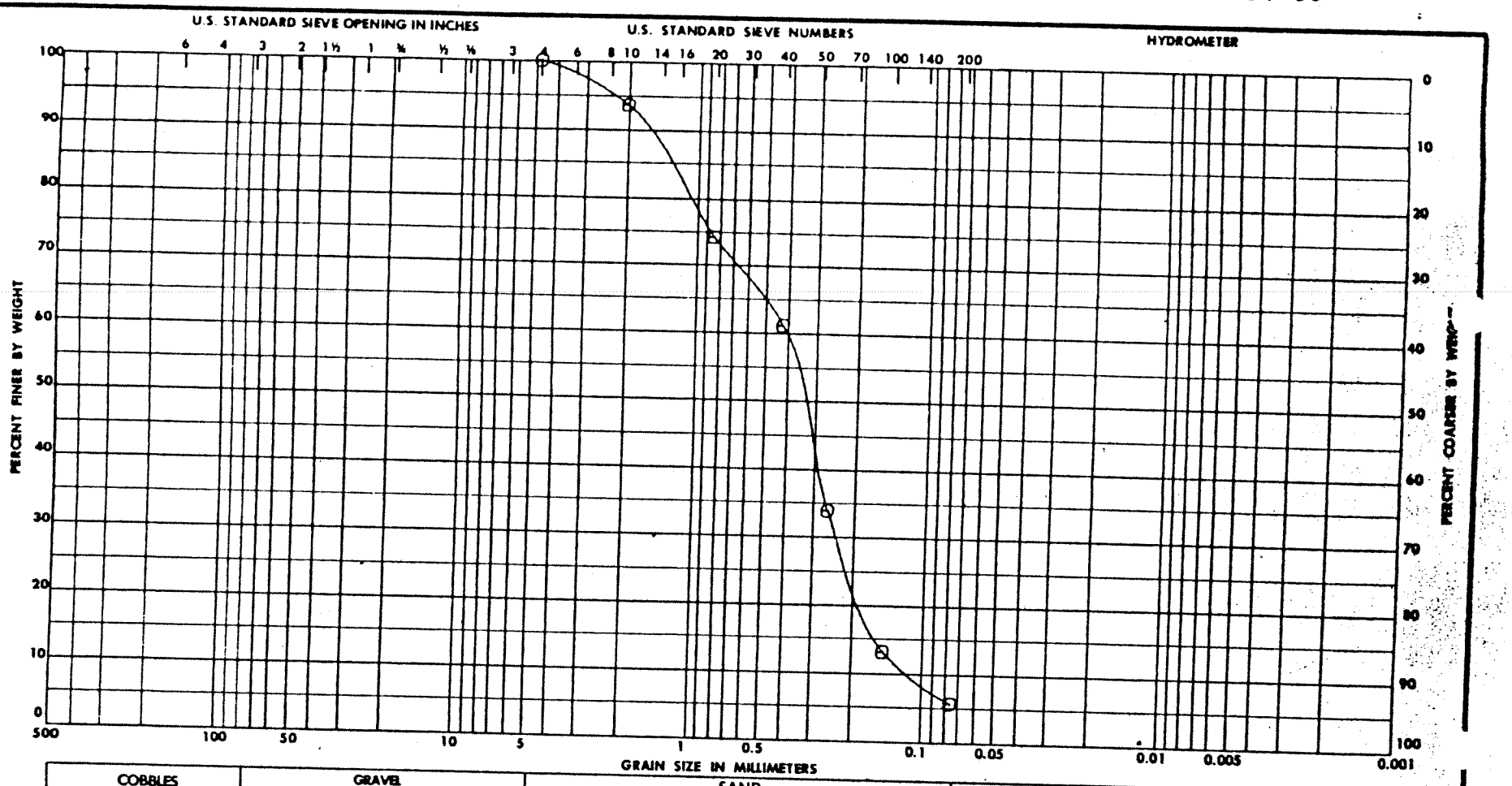
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
13	49.0-50.5'	POORLY GRADED SILTY SAND	17.1	NP	NP	NP
		(SP-SM)				
		BROWN				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/779

Boring No. SH-122 SAMPLE NO. 13

Date 04/09/84

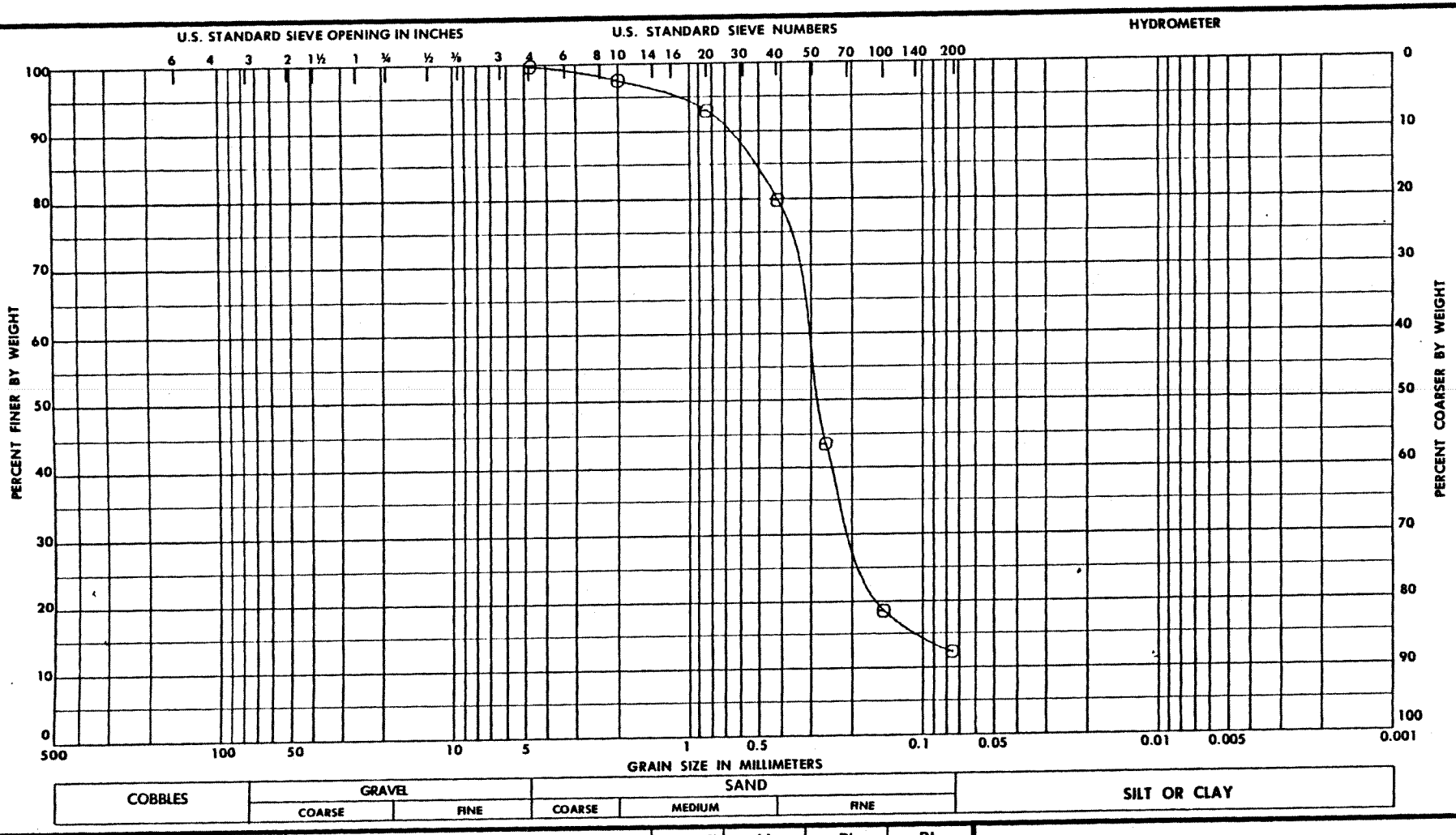
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
2	3.0-4.5'	SILTY SAND (SM)	19.0	NP	NP	NP
		DARK BROWN				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/784

Boring No. SH-123 SAMPLE NO. 2

Date 04/09/84

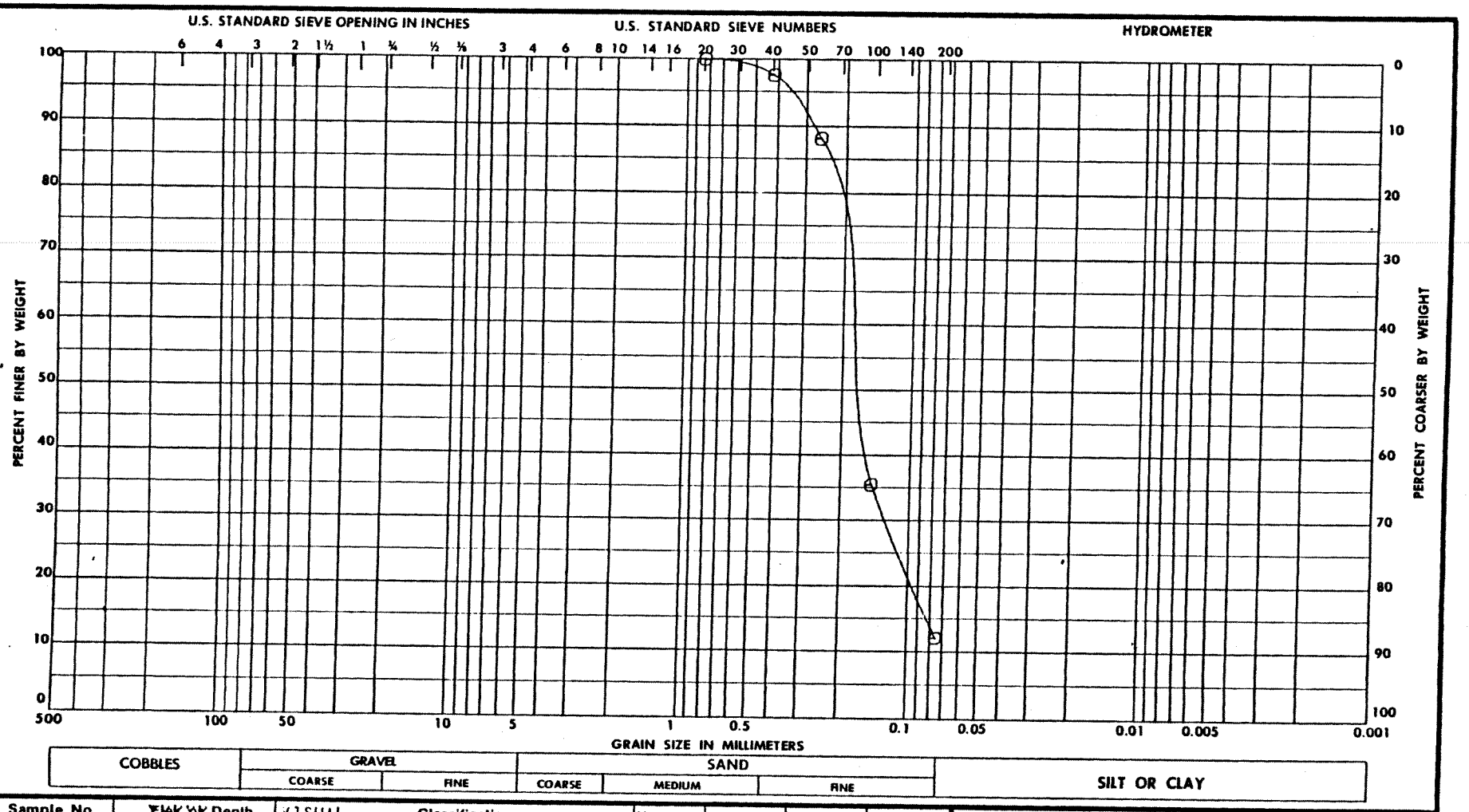
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	9.0-10.5'	SILTY SAND (SM)	32.5	NP	NP	NP
		GRAY				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/787

Boring No. SH-123 SAMPLE NO. 5

Date 04/09/84

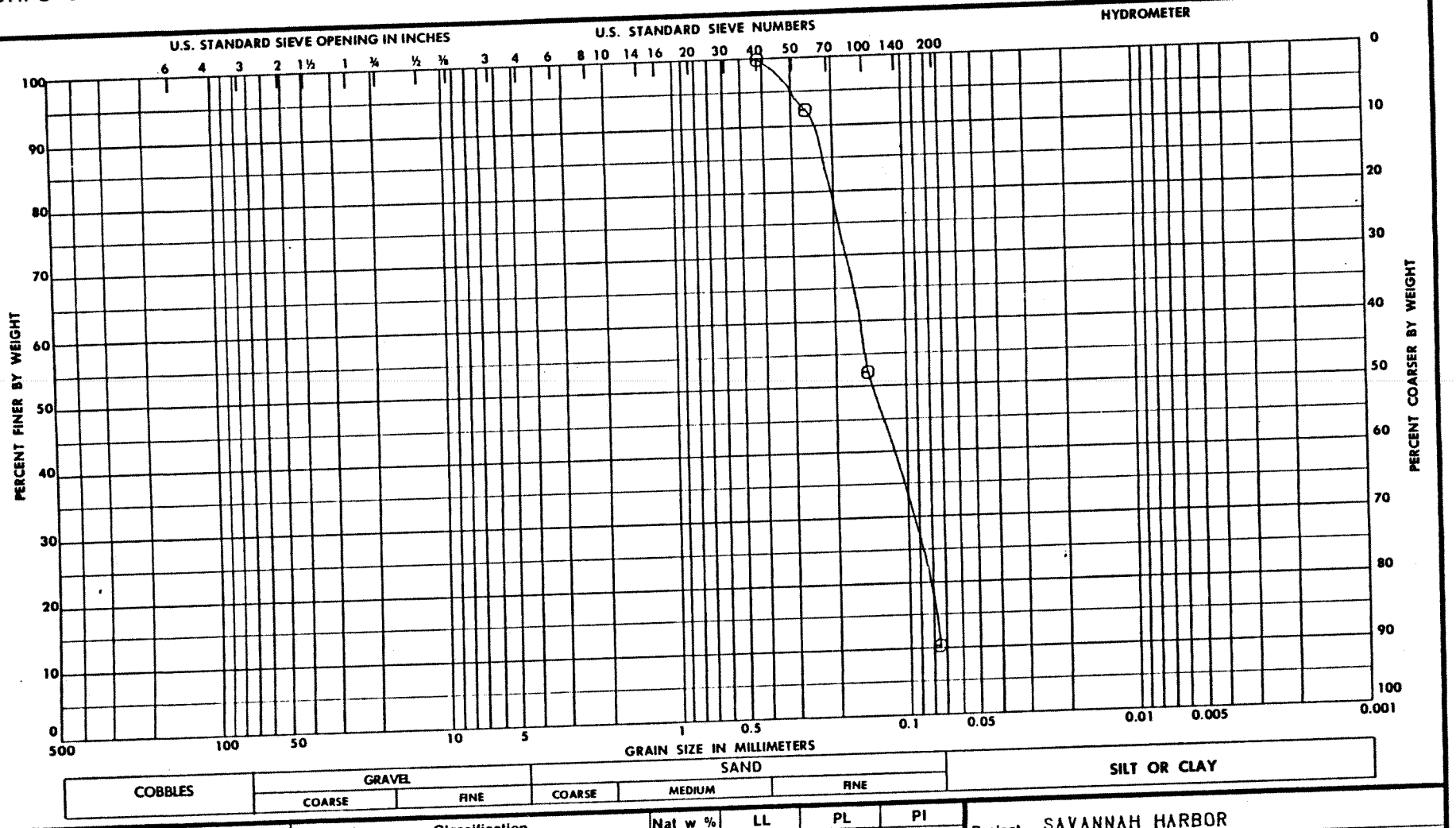
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
6	13.5-15.0'	POORLY GRADED SILTY SAND (SP-SM) TAN AND GRAY	24.9	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/788

Boring No. SH-123 SAMPLE NO. 6

Date 04/09/84

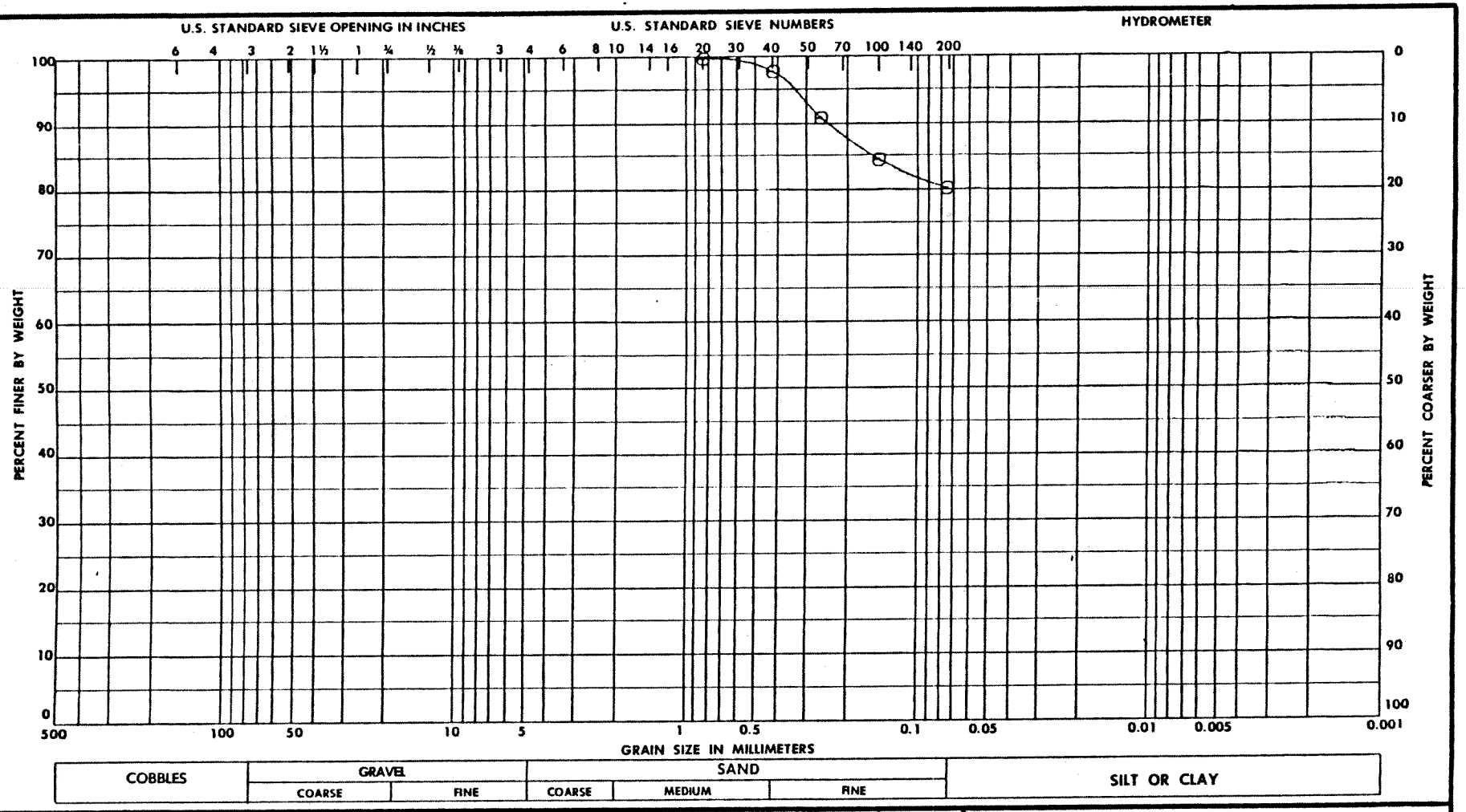
GRADATION CURVES

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. 3778

Req. No. FN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
8	21.0-22.5'	INORGANIC SILT, HIGH LL (MH) GRAY, CLAYEY WITH A LITTLE SAND	97.4	124	60	64

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/790

Boring No. SH-123 SAMPLE NO. 8

Date 04/09/84

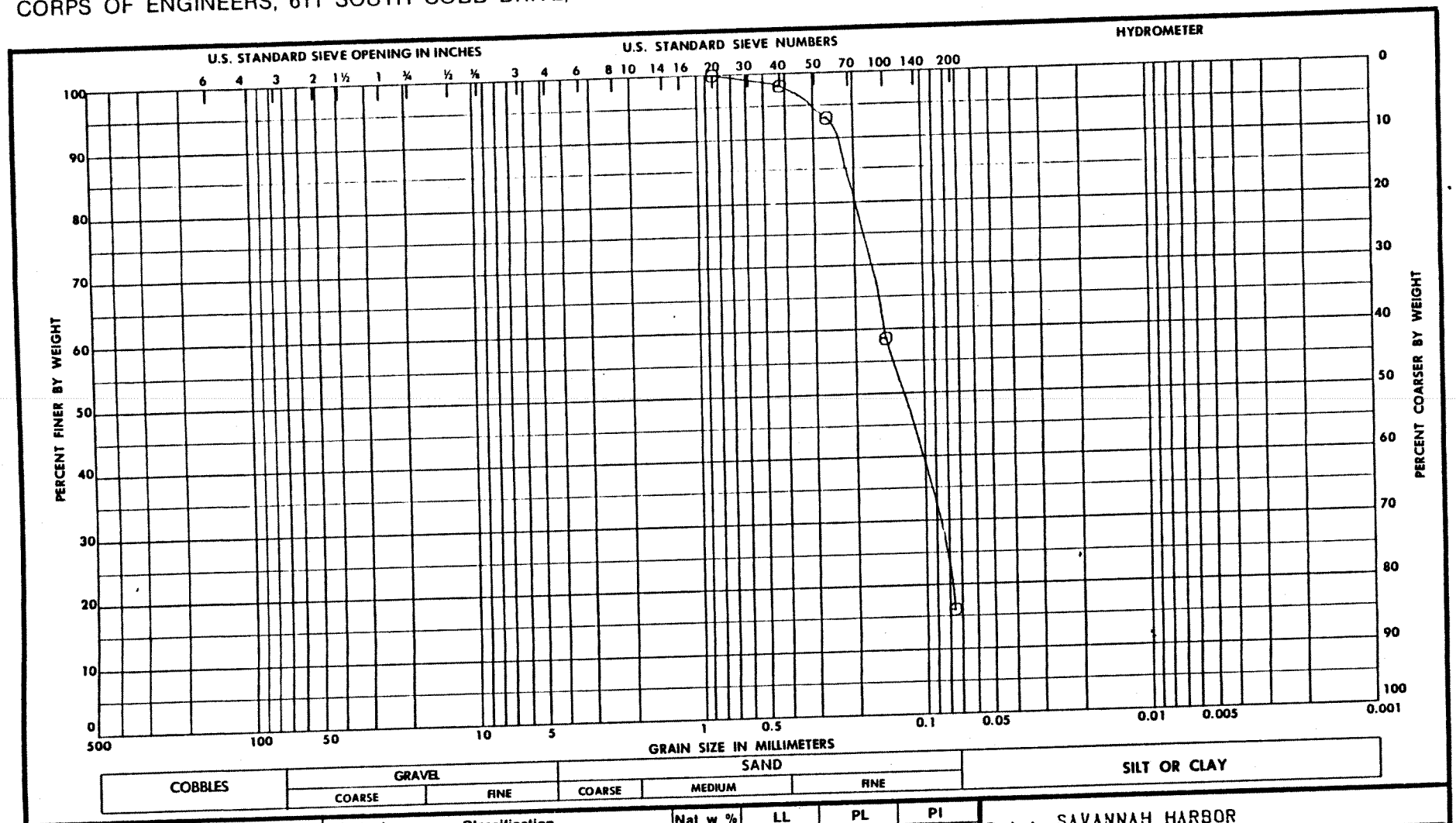
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev.~~ Depth	VISUAL Classification	Nat w %	LL	PL	PI
11	34.5-36.0'	SILTY SAND (SM) BROWN	40.1	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/793

Boring No. SH-123 SAMPLE NO. 11

Date 04/09/84

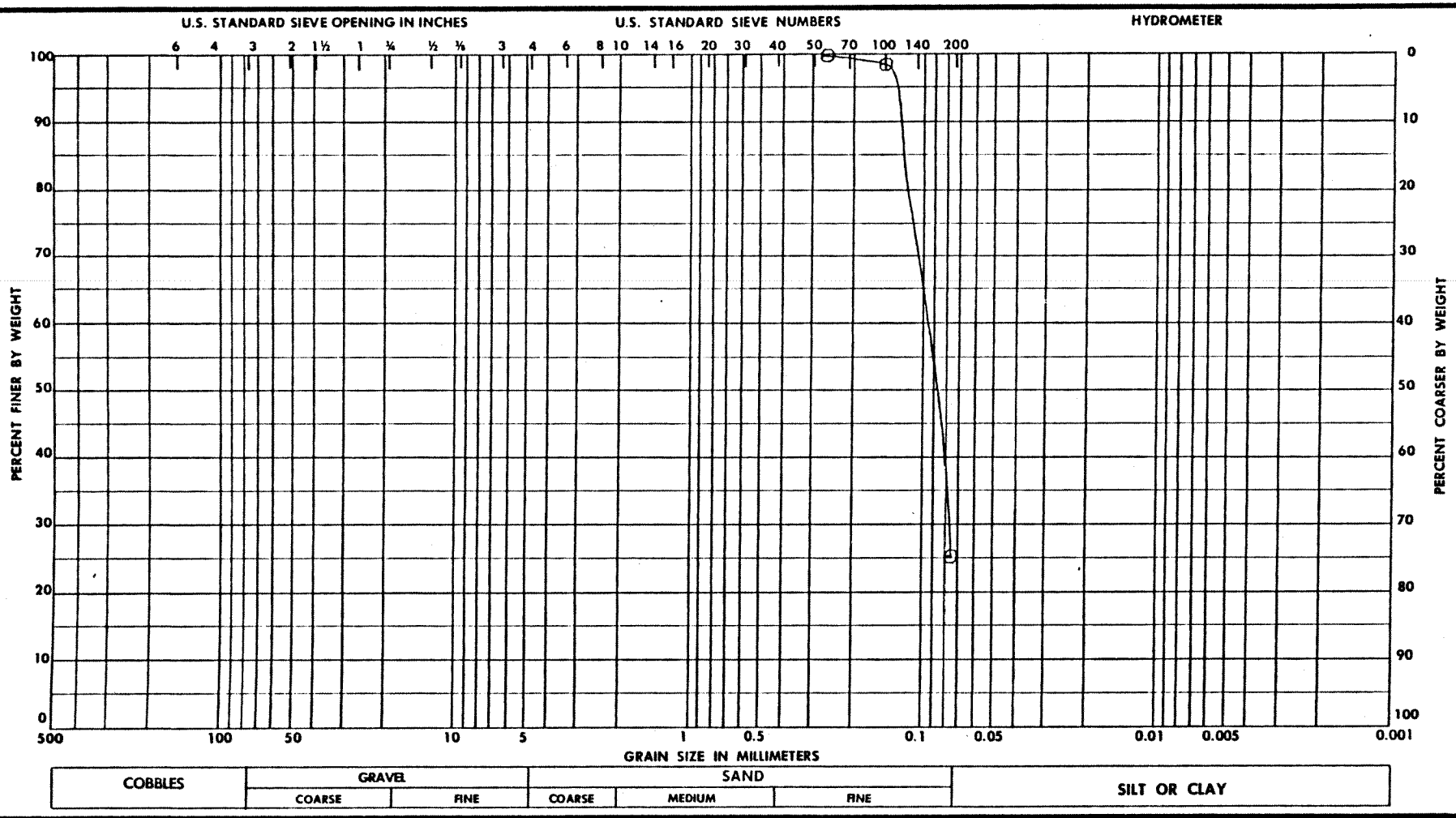
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
13	43.5-45.0'	SILTY SAND (SM)	28.9	NP	NP	NP
		GRAY WITH A LITTLE SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/795

Boring No. SH-123 SAMPLE NO. 13

Date 04/09/84

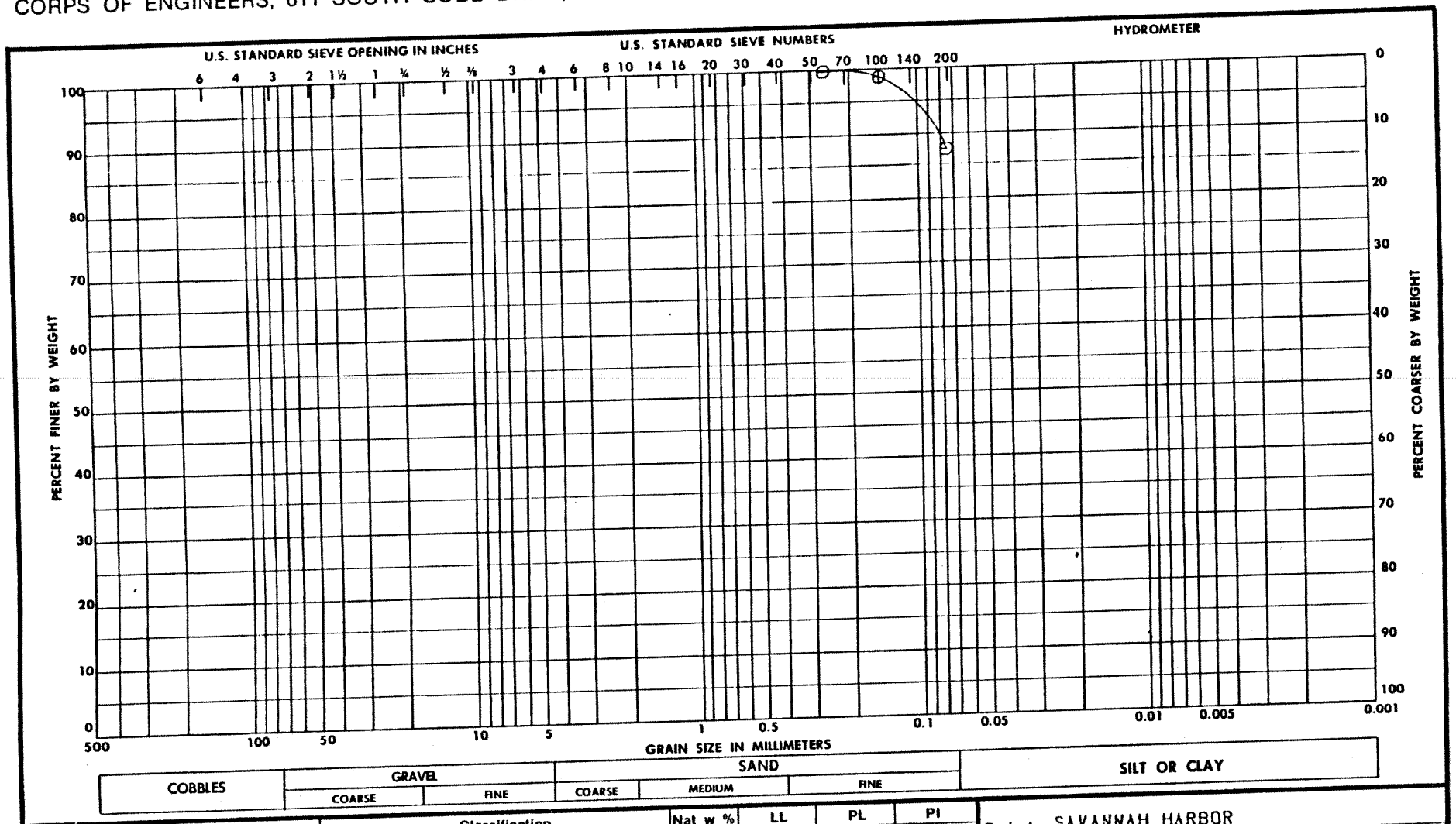
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
17	61.5-63.0'	INORGANIC SILT, HIGH LL (MH) GRAY, CLAYEY WITH A LITTLE SAND	60.1	107	58	49

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/799

Boring No. SH-123 SAMPLE NO. 17

Date 04/09/84

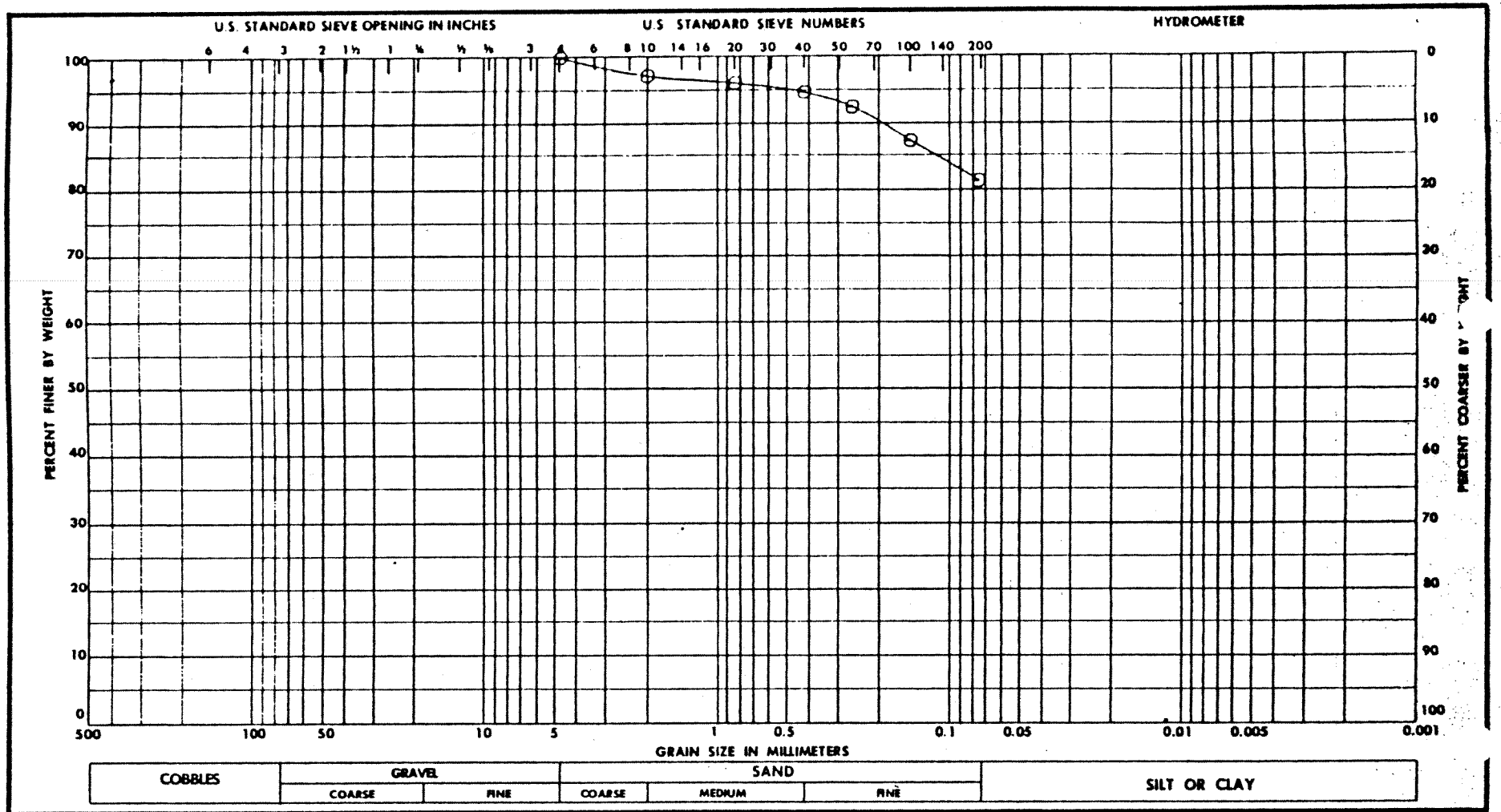
GRADATION CURVES

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. 3778

Req No. EN-GS-84-03



Sample No.	Elev or Depth	Classification	Nat w %	LL	PL	PI
3	4.5-6.0	INORGANIC SILT, HIGH LL (MH) GRAY, CLAYEY WITH A LITTLE SAND AND A TRACE OF ROOTS	102.9	128	56	72

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/802

Boring No. SH-124 SAMPLE NO. 3

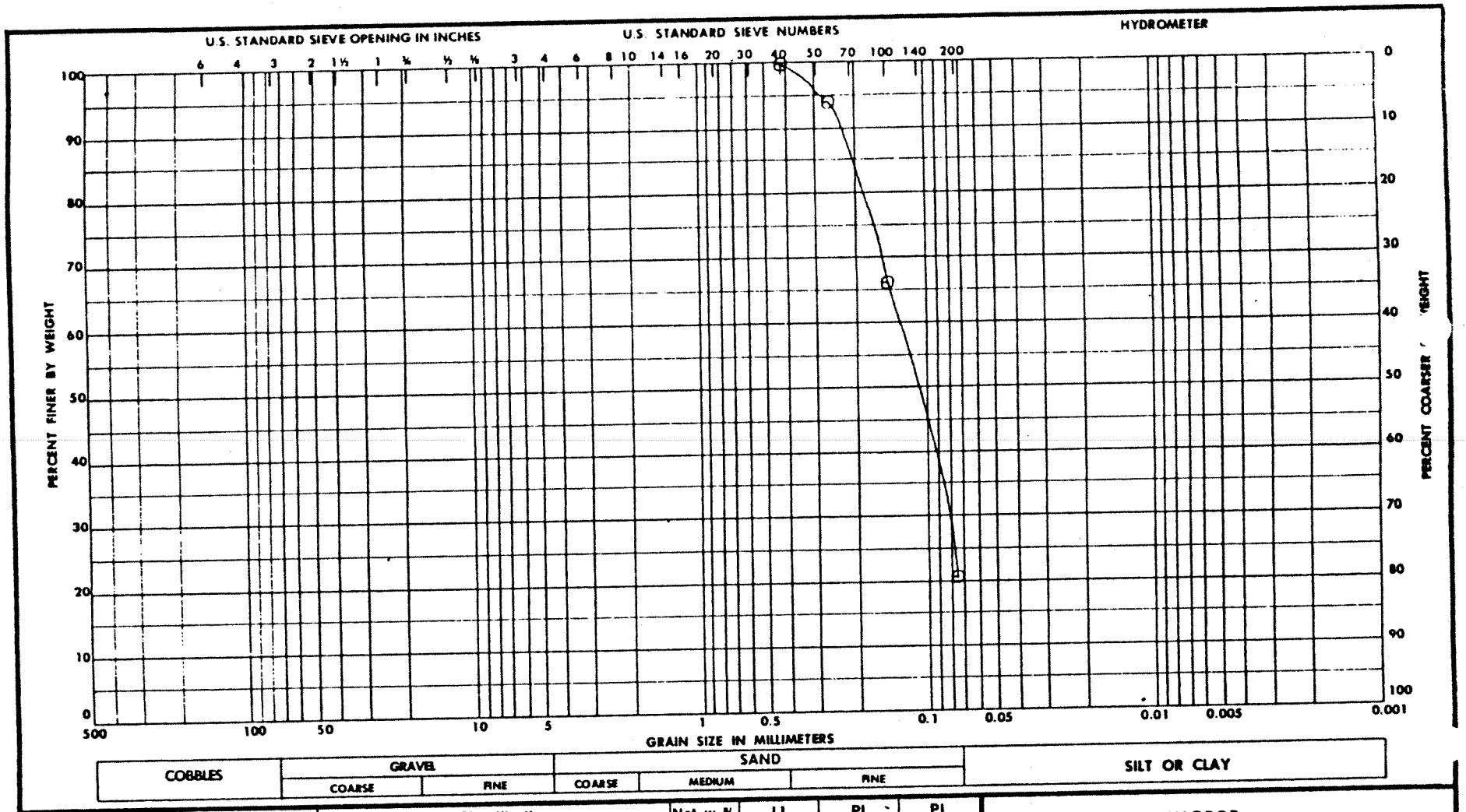
Date 04/09/84

GRADATION CURVES

ENG FORM 1 MAY 63 2087

CORPS OF ENGINEERS, 611 SOUTH COBB DRIVE, MARIETTA, GA. 30060

Req No. EN-GS-84-03



Sample No.	Elev or Depth	VISUAL Classification	Nat w %	LL	PL	PI
5	10.5-12.0'	SILTY SAND (SM) GRAY	32.6	NP	NP	NP

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO.97/804

Boring No. SH-124 SAMPLE NO. 5

Date 04/09/84

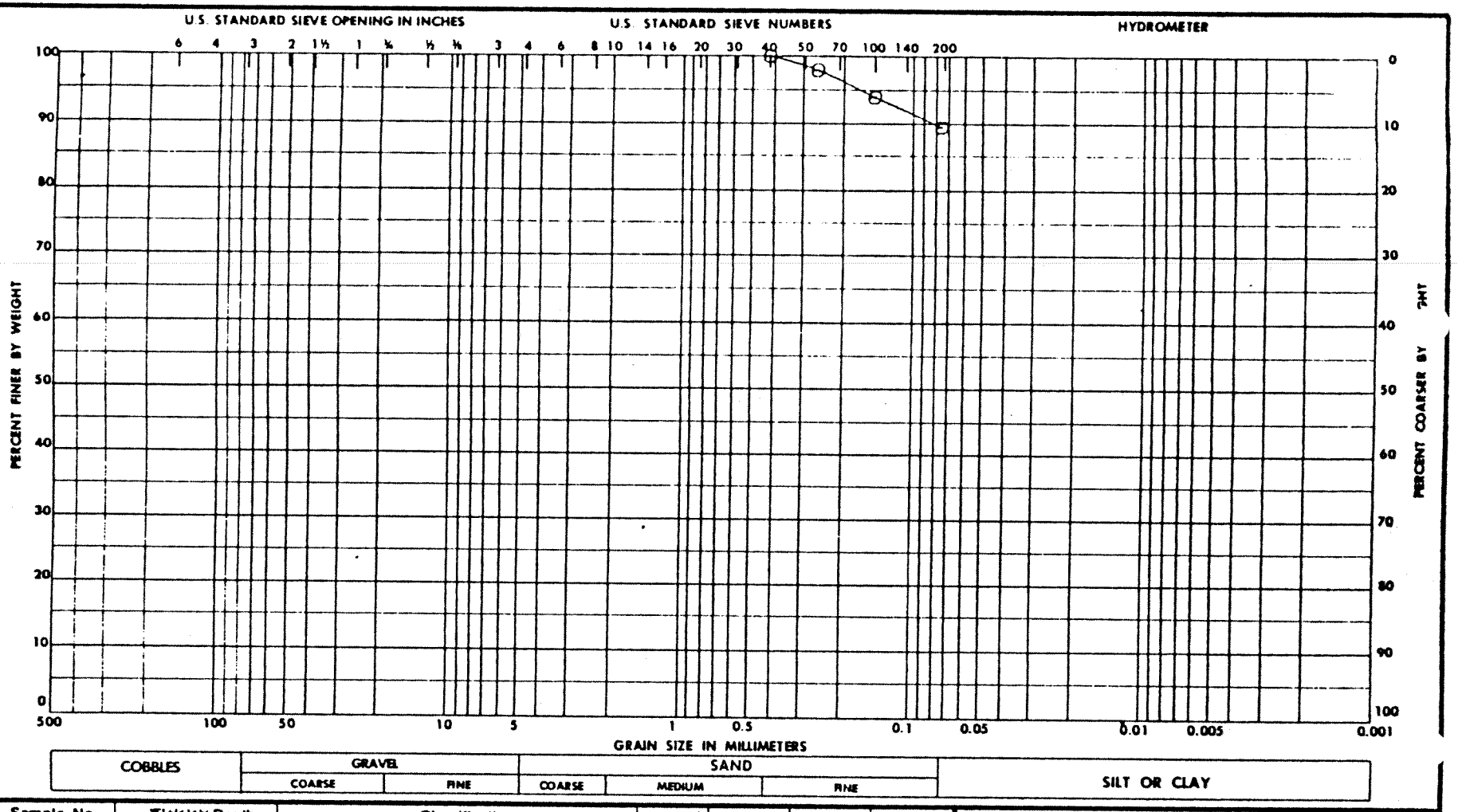
GRADATION CURVES

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. 3778

Req. No. EN-GS-84-03



Sample No.	~~Elev or~~ Depth	Classification	Nat w %	LL	PL	PI
7	19.5-21.0'	INORGANIC SILT, HIGH LL (MH)	126.7	151	66	85
		GRAY AND BROWN, CLAYEY WITH A				
		LITTLE SAND				

Project SAVANNAH HARBOR
HARBOR WIDENING

Area LAB NO. 97/806

Boring No. SH-124 SAMPLE NO. 7

Date 04/09/84

GRADATION CURVES

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