FIELD BORING LOG

Project Name: TRINITY RIVER - WALLISVILLE, TEXAS		Project No. 93-3126
Location: TRINITY RIVER		Client: ARMY CORP OF ENGINEERS
Boring No.: 93-281	Date Started: 3-10-94	El. of River: + 2.993
Water Depth: 9.6'	Date Completed: 3-10-94	Easting: 3,353,737.56
Time Started: 12:00 PM	Northing: 744,141.62	Driller: PAT STEPHENS
Time Completed: 3:00 PM	Logger: D. CANADA	Depth to caving:
Rig: MOBIL B-61	Weather: SUNNY & WINDY 65° DEGREES	

DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLES	SOIL DESCRIPTION	SOIL CLASSIFICATION	BLOWS/6"	BLOWS/6"	BLOWS/6"	TORVANE	HAND PENETROMETER
0		L		NO RECOVERY - LINER, WANT HOLD SAMPLE - FELL OUT						
5										
	S1	P	X	MED. DENSE LT. TA. SA.	SP	12	14	16		
10										
15	S2	P	X	MED. DENSE LT. GR. TA. SA.	SP	16	21	25		
20										
	S3	P	X	V/ stiff MED. DENSE DK. GR. LT TA. SA. CL	CL ~~SC~~	8	12	12		
25										
	S4	P	X	V/ stiff MED. DENSE LT. GR. TA. SA. CL	CL ~~SC~~	6	12	14		
30										

FIELD BORING LOG

Boring No.: 93-281

DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLES	SOIL DESCRIPTION	SOIL CLASSIFICATION	BLOWS/6"	BLOWS/6"	BLOWS/6"	TORVANE	HAND PENETROMETER (TSF)
30										
				Medium Stiff	CL					
35	S5	P	X	~~LOOSE~~ LT.GR.TA SA. CL.	~~SC~~	3	4	5		
40										
	S6	P	X	LOOSE LT.GR.TA.SA w/ Rocks GRAVEL	SC	3	2	2		
45										
50	S7	P	X	LOOSE LT.TA.GR.SA w/ Rocks GRAVEL	SC	3	4	6		
55										
	S8	P	X	MED. DENSE LT.TA.GR SIL.CL W/FER	CL	6	9	18		
				Stiff	CH					
	S9	J	////	LT.TA.GR. ~~SIL~~ CL	~~CL~~					1.75
60					CL					
	S10	J	////	LT. TA GR. SA. CL.	~~SC~~					*
65										
				Hard	CL					
	S11	P	X	~~DENSE~~ LT GR. TA.SA.CL	~~SC~~	12	16	18		
70										

* no more sample for pocket penetrometer

FIELD BORING LOG

Boring No.: 93-281

DEPTH	SAMPLE NO.	SAMPLE TYPE	SAMPLES	SOIL DESCRIPTION	SOIL CLASSIFICATION	BLOWS/6"	BLOWS/6"	BLOWS/6"	TORVANE	HAND PENETROMETER (TSF)
70										
				Hard						
					CL					
75	S12	P	X	LT.GR.TA.SA.CL.	~~SC~~	25	50/5"			
				Hard	CL					
	S13	P	X	~~VERY DENSE~~ LT.GR. TA SA.CL	~~SC~~	12	26	37		
				WENT DOWN TWO FT. FOR SAMPLE						
80										
85										
90										
95										
100										
105										
110										

LOG OF SOIL BORING

Project Name: Trinity River Soil Borings
Project No. 93-312G
ring No.: 93-281
d Line Elevation: -6.61 feet (NGVD)
Completion Depth: 77.5 feet
Water Depth: 9.6 feet

Weather: Sunny and windy
Date: March 10, 1994
Technician: David Canada
Driller: Pat Stevens
Drilling Rig: Mobil B-61

ELEV. DEPTH, FEET	SOIL AND SAMPLER SYMBOLS	SOIL DESCRIPTION	BLOWS PER FOOT	% PASSING NO. 4 SIEVE	% PASSING NO. 10 SIEVE	% PASSING NO. 40 SIEVE	% PASSING NO. 100 SIEVE	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
0		No recovery							
-10 / 5									
-15 / 10		Medium dense tan and gray SAND	30	100	100	92	6	2	
-20 / 15		Very stiff to hard gray and tan SANDY CLAY w/ silt w/ sand pockets to 22.5'	46	100	100	99	92	69	
20			24	100	100	97	87	61	
-30 / 25									
-35 / 30		w/ calcareous nodules 28'-29.5' w/ sand seams below 28'	26	100	100	98	95	68	
-40 / 35		Loose tan and gray CLAYEY SAND w/ silt	9	100	100	100	69	44	
-45 / 40									
-50 / 45		Loose tan and gray SAND w/ silt and gravel	4	96	96	95	43	12	
-55 / 50			10	97	97	91	27	8	

STRENGTH, TSF: ● 0.7 ■ 1.4 ▲ 2.1 ✱ 2.8 3.5 4.2

MOISTURE CONTENT, %: PLASTIC LIMIT ⊢⊣ LIQUID LIMIT — 20 40 60 80 100 120

● = Direct Hand Penetrometer ■ = Torvane ▲ = Unconfined Compression ✱ = Shear Stress

Plate 13A

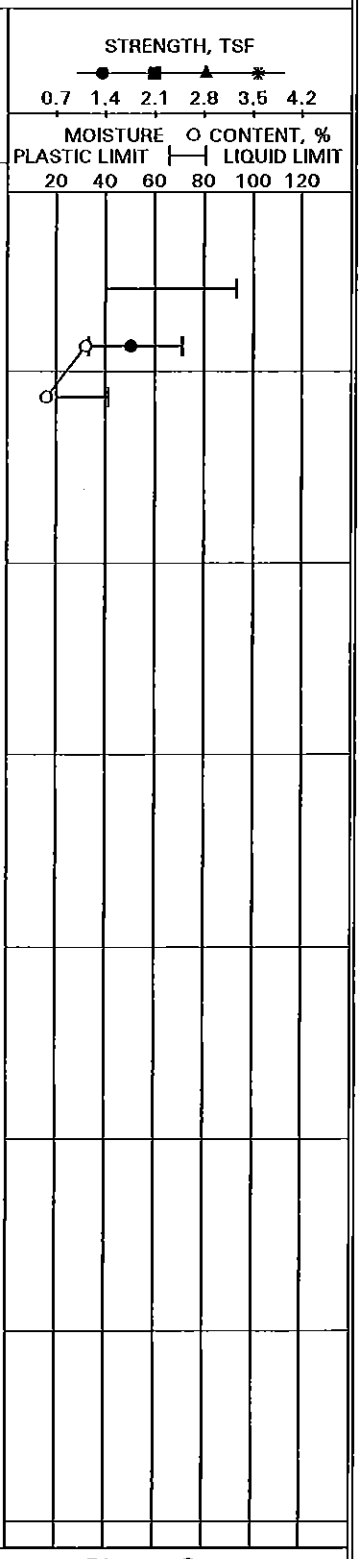
HVJ ASSOCIATES, INC.

LOG OF SOIL BORING

Project Name: Trinity River Soil Borings
Project No. 93-312G
ring No.: 93-281
ud Line Elevation: -6.61 feet (NGVD)
Completion Depth: 77.5 feet
Water Depth: 9.6 feet

Weather: Sunny and windy
Date: March 10, 1994
Technician: David Canada
Driller: Pat Stevens
Drilling Rig: Mobil B-61

ELEV. DEPTH, FEET	SOIL AND SAMPLER SYMBOLS	SOIL DESCRIPTION	BLOWS PER FOOT	% PASSING NO. 4 SIEVE	% PASSING NO. 10 SIEVE	% PASSING NO. 40 SIEVE	% PASSING NO. 100 SIEVE	% PASSING NO. 200 SIEVE	DRY DENSITY PCF
-60 / 55		Stiff to very stiff reddish brown and gray CLAY w/ ferrous nodules and slickensides w/ calcareous nodules to 57.5' w/ sand pockets below 58'	27	100	100	99	98	98	
-65 / 60		Gray and tan SILTY CLAY w/ sand partings		100	100	100	99	98	
-70 / 65				100	100	98	96	77	
-75 / 70		Hard gray and tan SANDY CLAY w/ silt and sand partings	34	100	100	98	67	55	
75		Very dense gray and tan CLAYEY SAND w/ silt w/ ferrous nodules to 75.5' w/ sand partings below 75.5'	50/5"	100	100	99	97	45	
-85 / 80			63	100	100	100	97	46	
-90 / 85									
-95 / 90									
-100 / 95									
-105 / 100									
105									

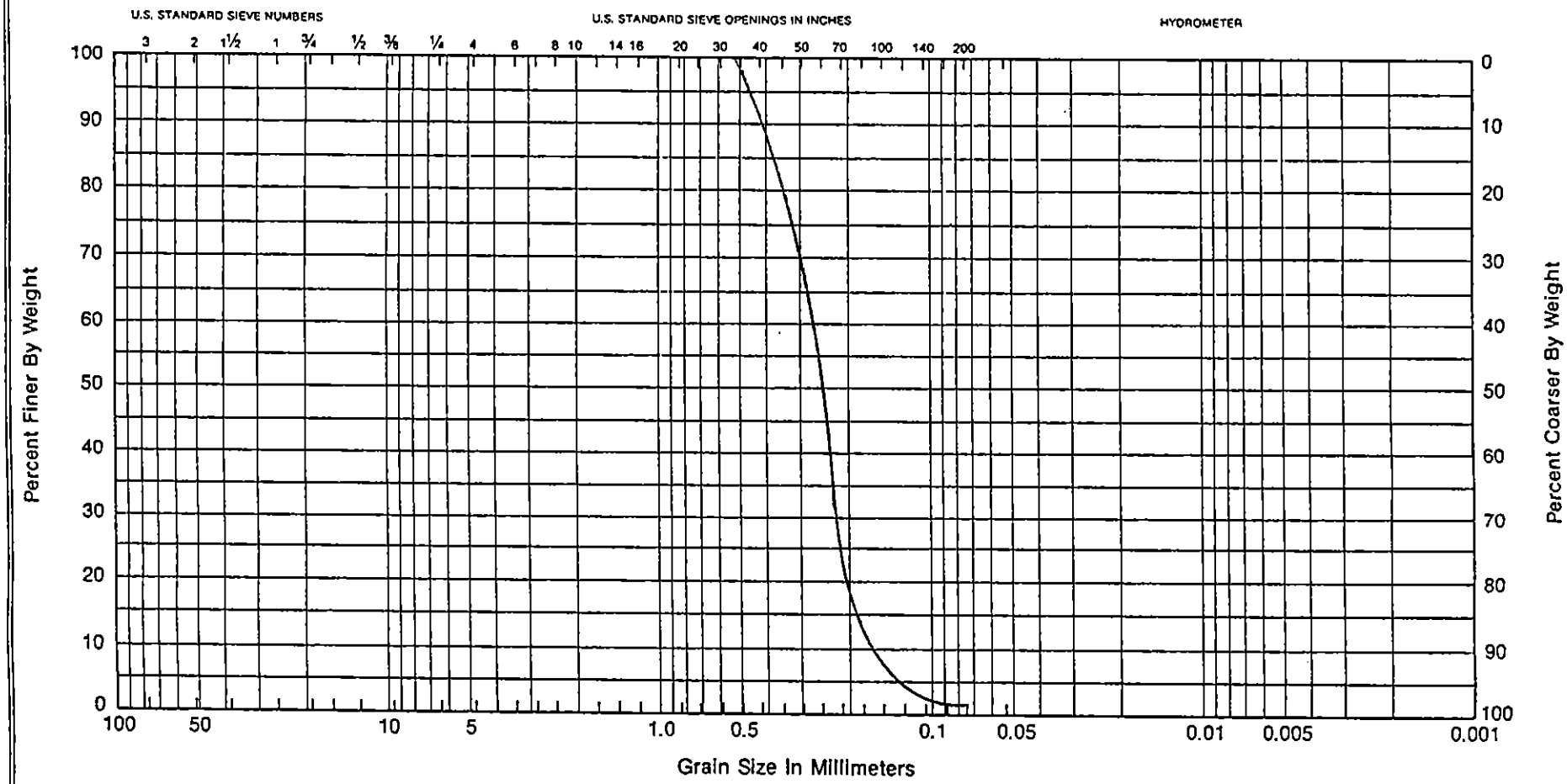


● = Direct Hand Penetrometer ■ = Torvane ▲ = Unconfined Compression ✱ = Shear Stress

Plate 13B

HVJ ASSOCIATES, INC.

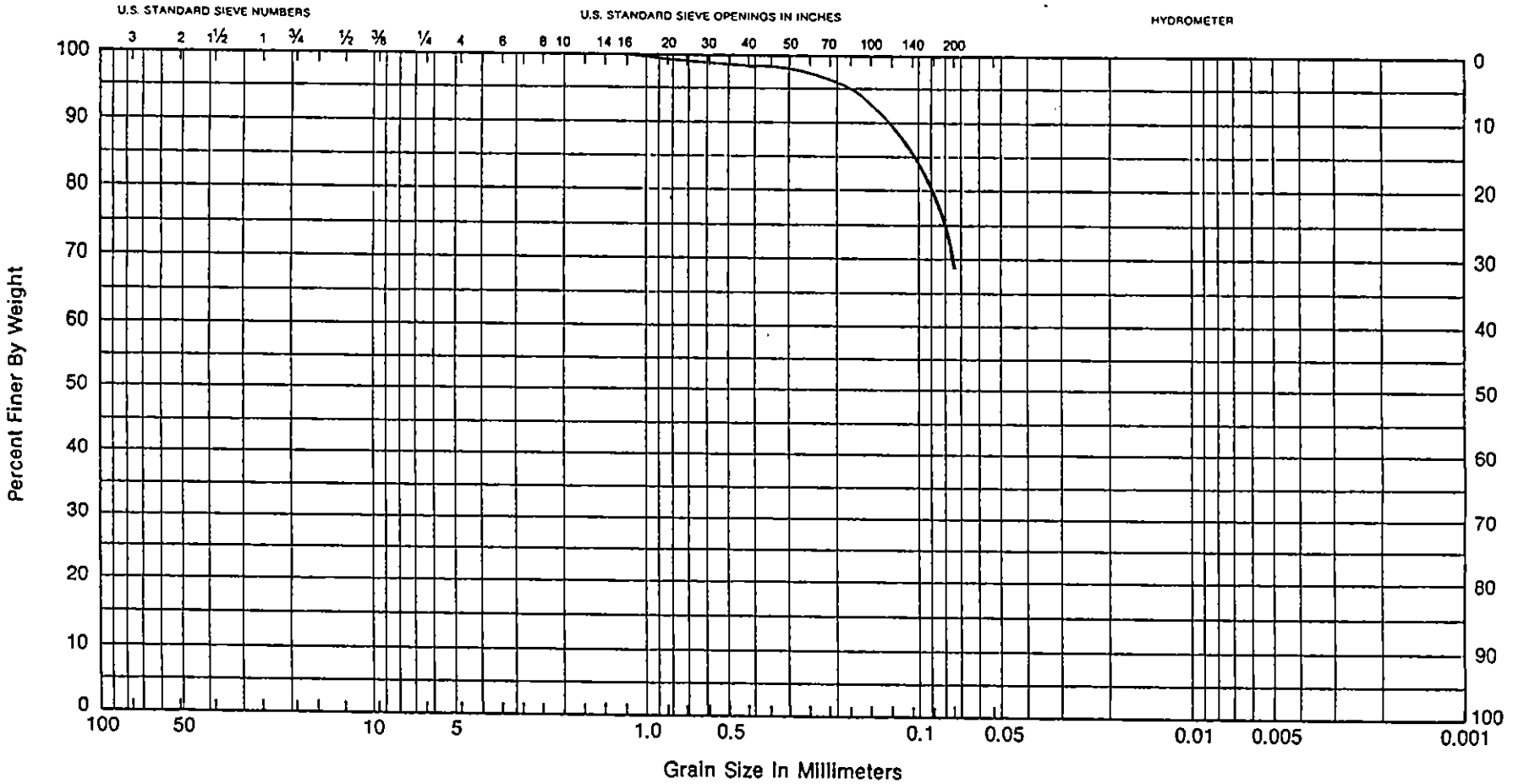
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S1, 7' - 8.5'
HVJ 93-312G
TAN AND GRAY SAND
WITH CLAY CLUMPS

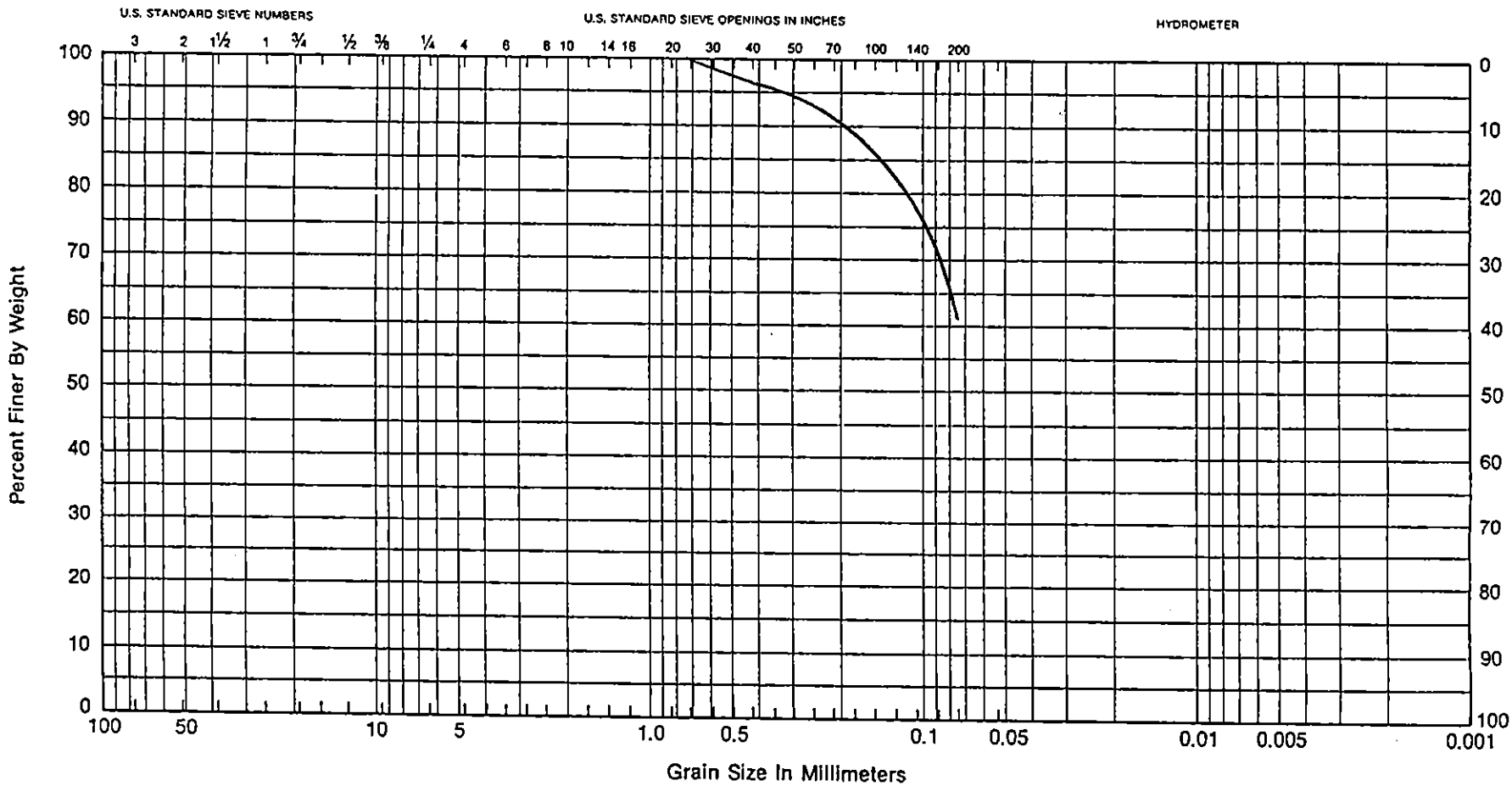
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S2, 14' - 15.5'
HVJ 93-312G
GRAY AND TAN SANDY CLAY
WITH SILT AND SHELL

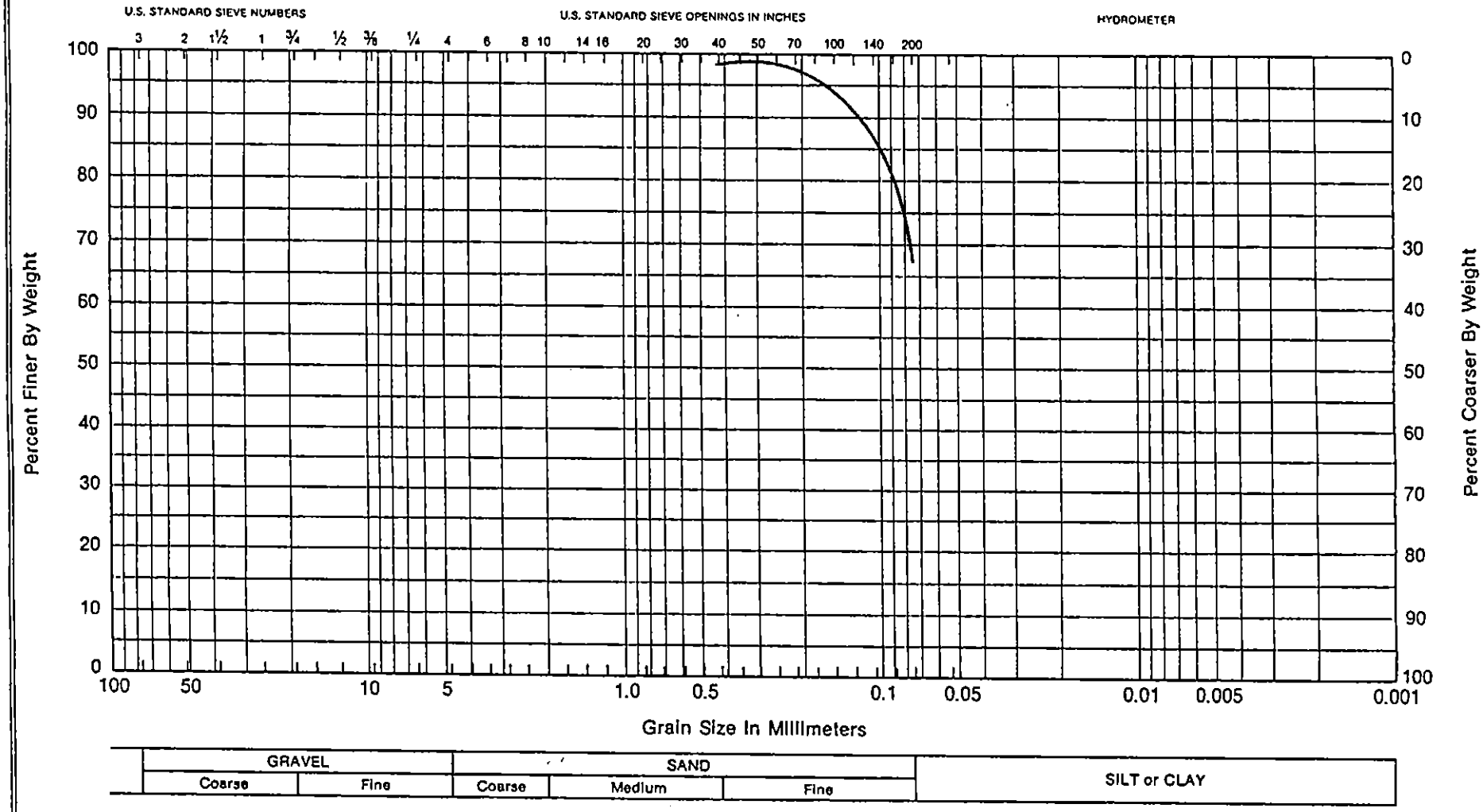
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

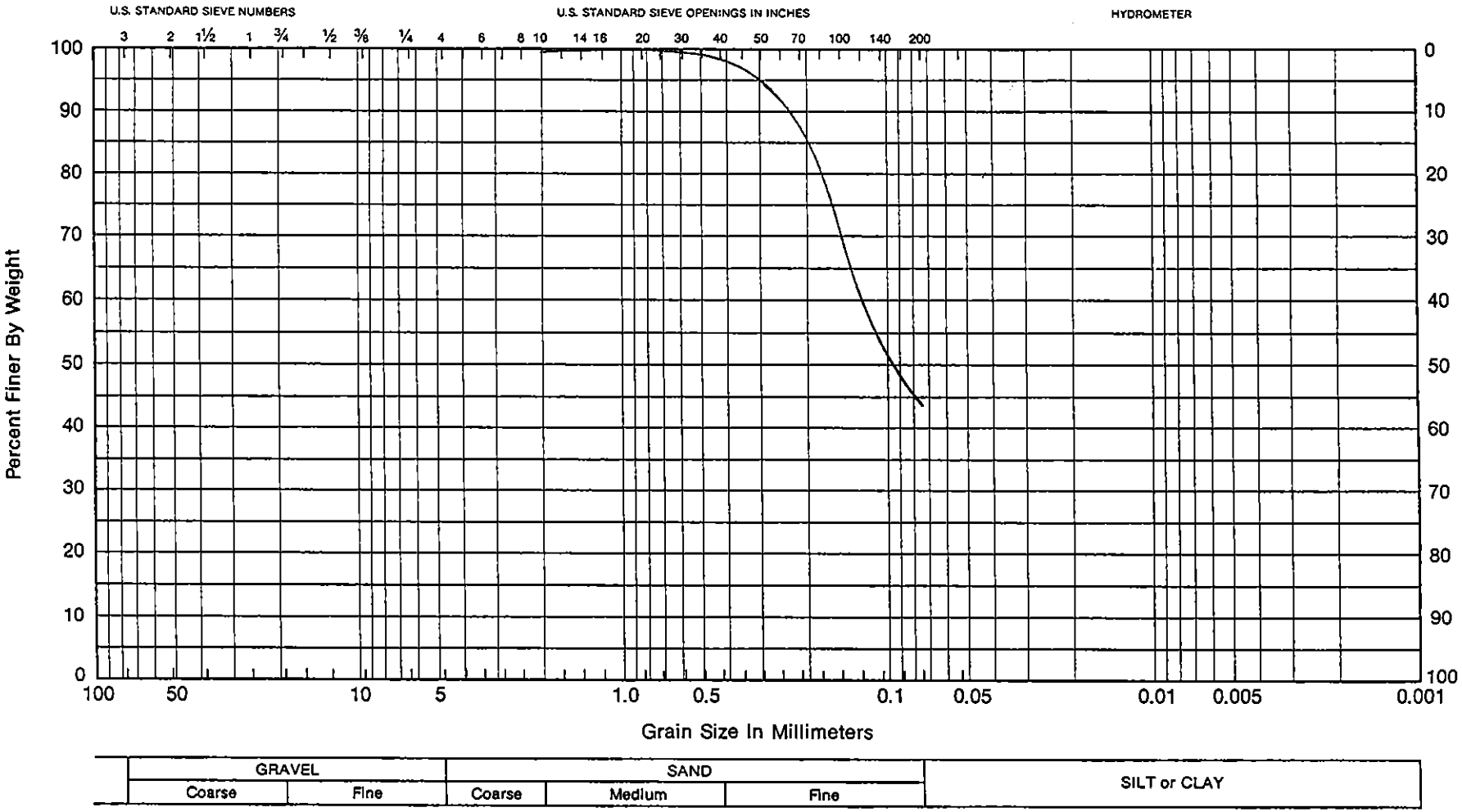
DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S3, 21' - 22.5'
HVJ 93-312G
GRAY AND TAN SANDY CLAY
WITH SILT AND SAND POCKETS

GRAIN SIZE CURVES



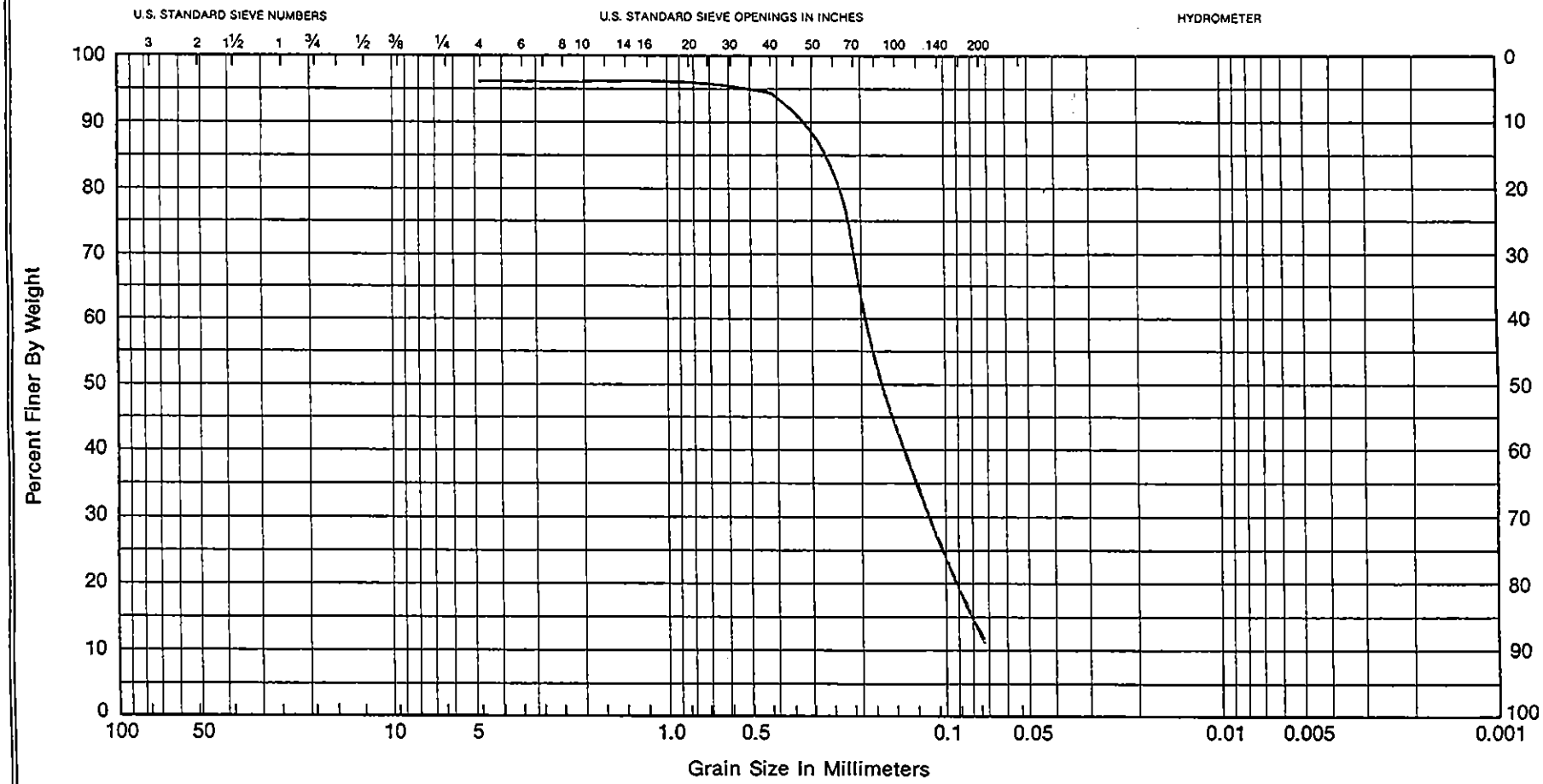
DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S4, 28' - 29.5'
HVJ 93-312G
TAN AND GRAY SANDY CLAY WITH
SILT AND CALCAREOUS NODULES

GRAIN SIZE CURVES



DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S5, 35' - 36.5'
HVJ 93-312G
TAN AND GRAY CLAYEY SAND
WITH SILT AND SAND SEAMS

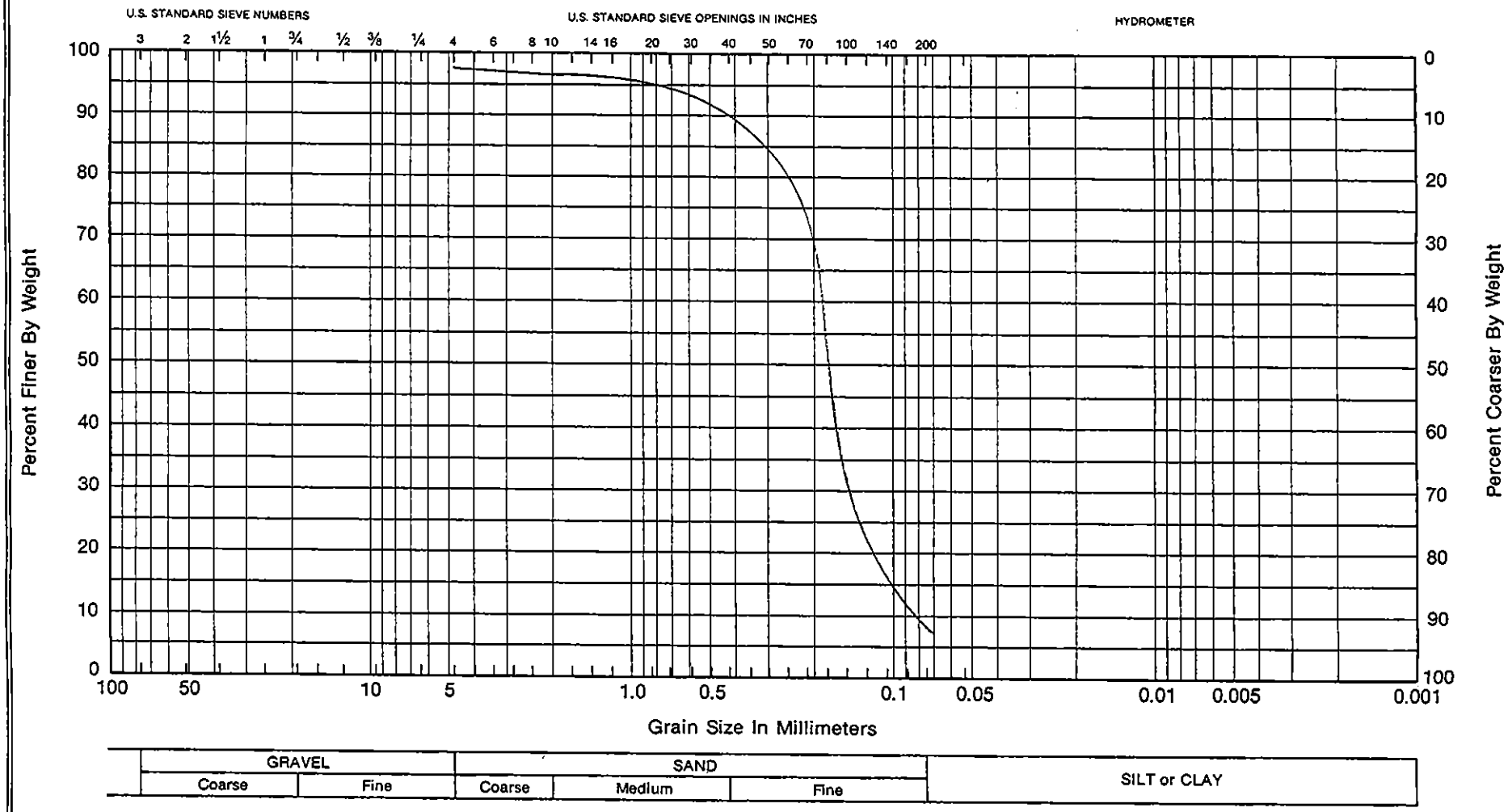
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

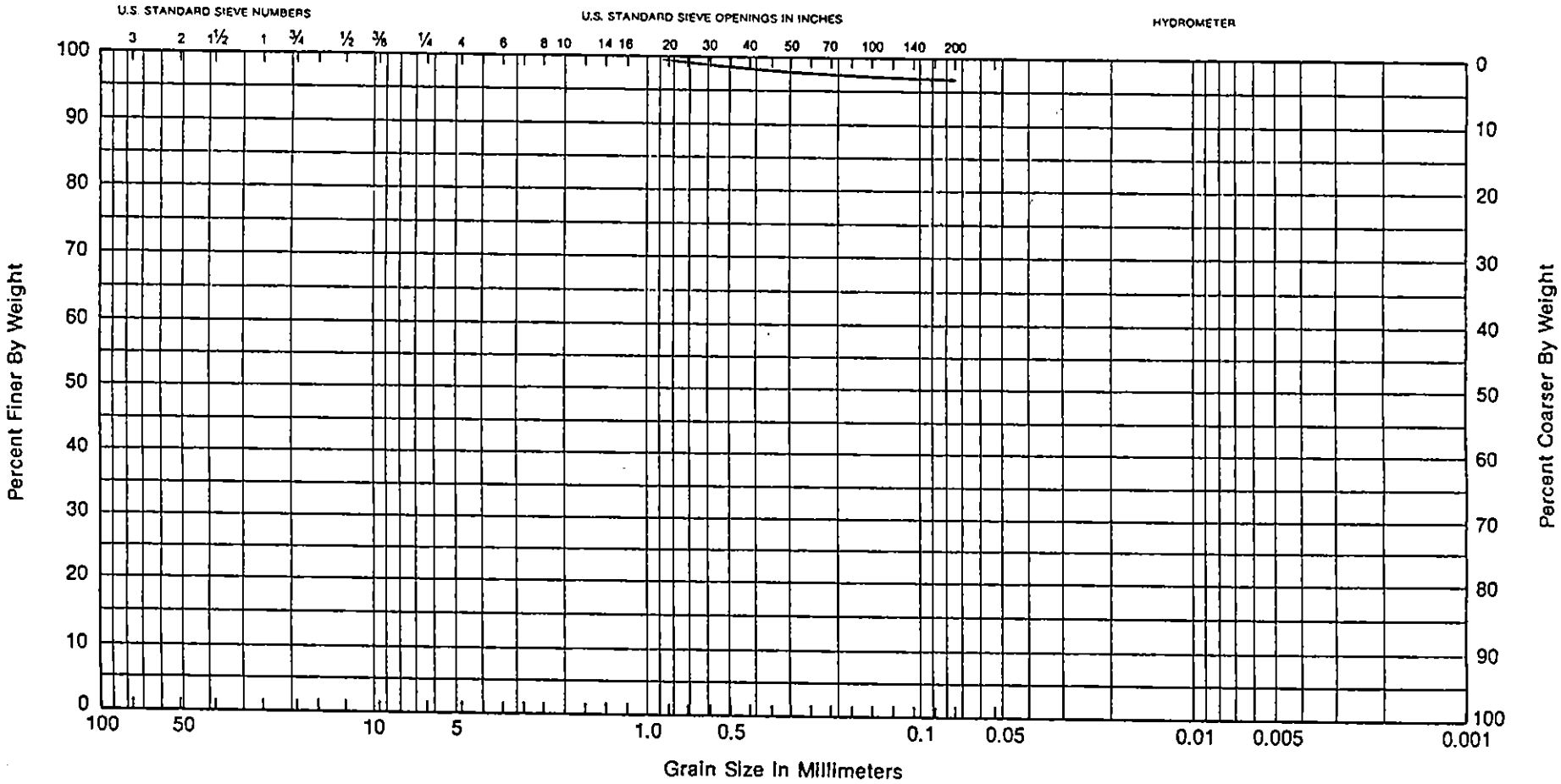
DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S6, 42' - 43.5'
HVJ 93-312G
TAN AND GRAY SAND WITH
SILT, CLAY AND GRAVEL

GRAIN SIZE CURVES



DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S7, 49' - 50.5'
HVJ 93-312G
TAN AND GRAY SILTY SAND
WITH GRAVEL

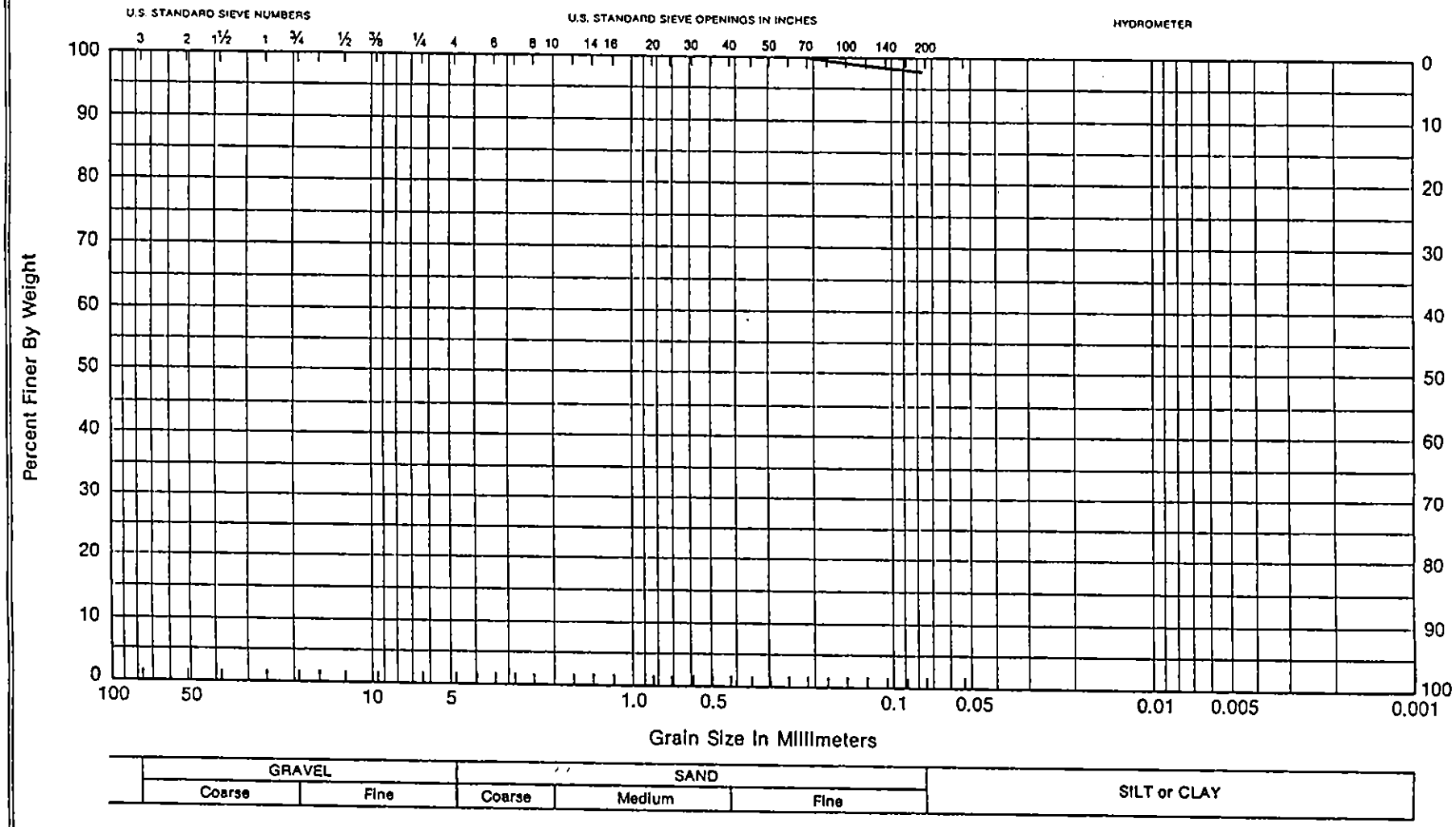
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

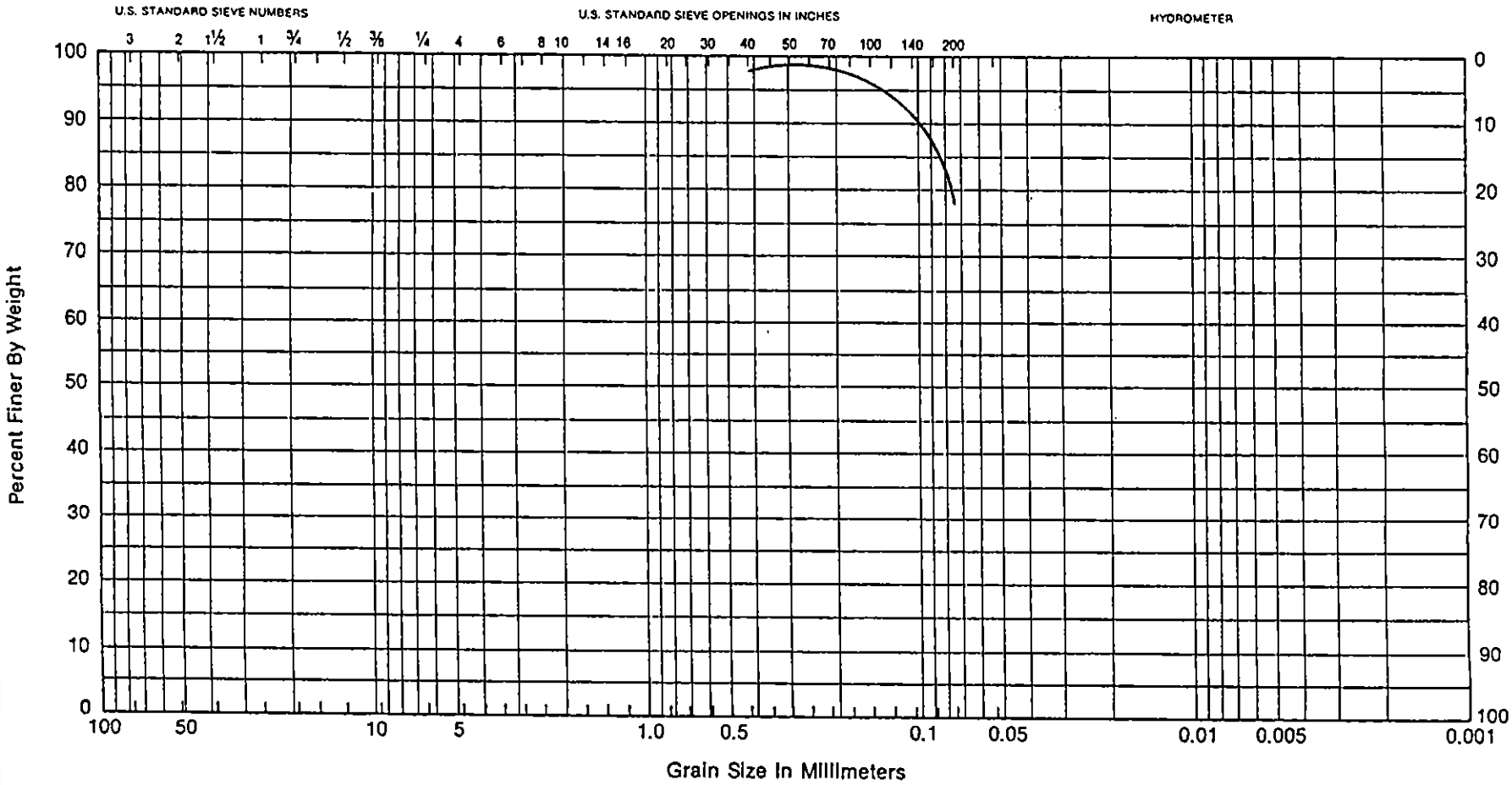
DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S8, 56' - 57.5'
HVJ 93-312G
REDDISH BROWN AND GRAY CLAY
WITH FERROUS NODULES AND
CALCEROUS NODULES

GRAIN SIZE CURVES



DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S9, 58' - 60'
HVJ 93-312G
REDDISH BROWN CLAY WITH
FERROUS NODULES AND SAND POCKETS

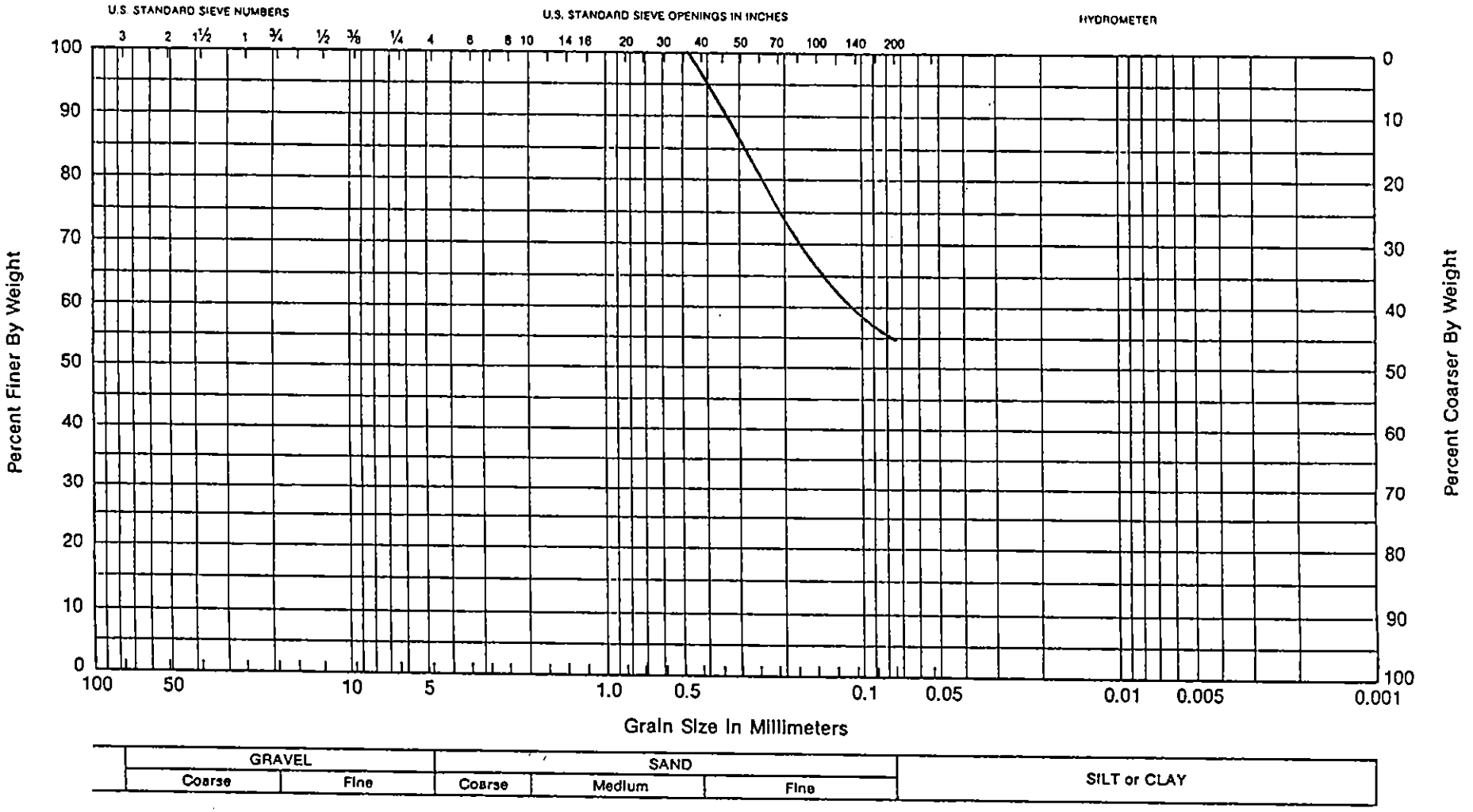
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

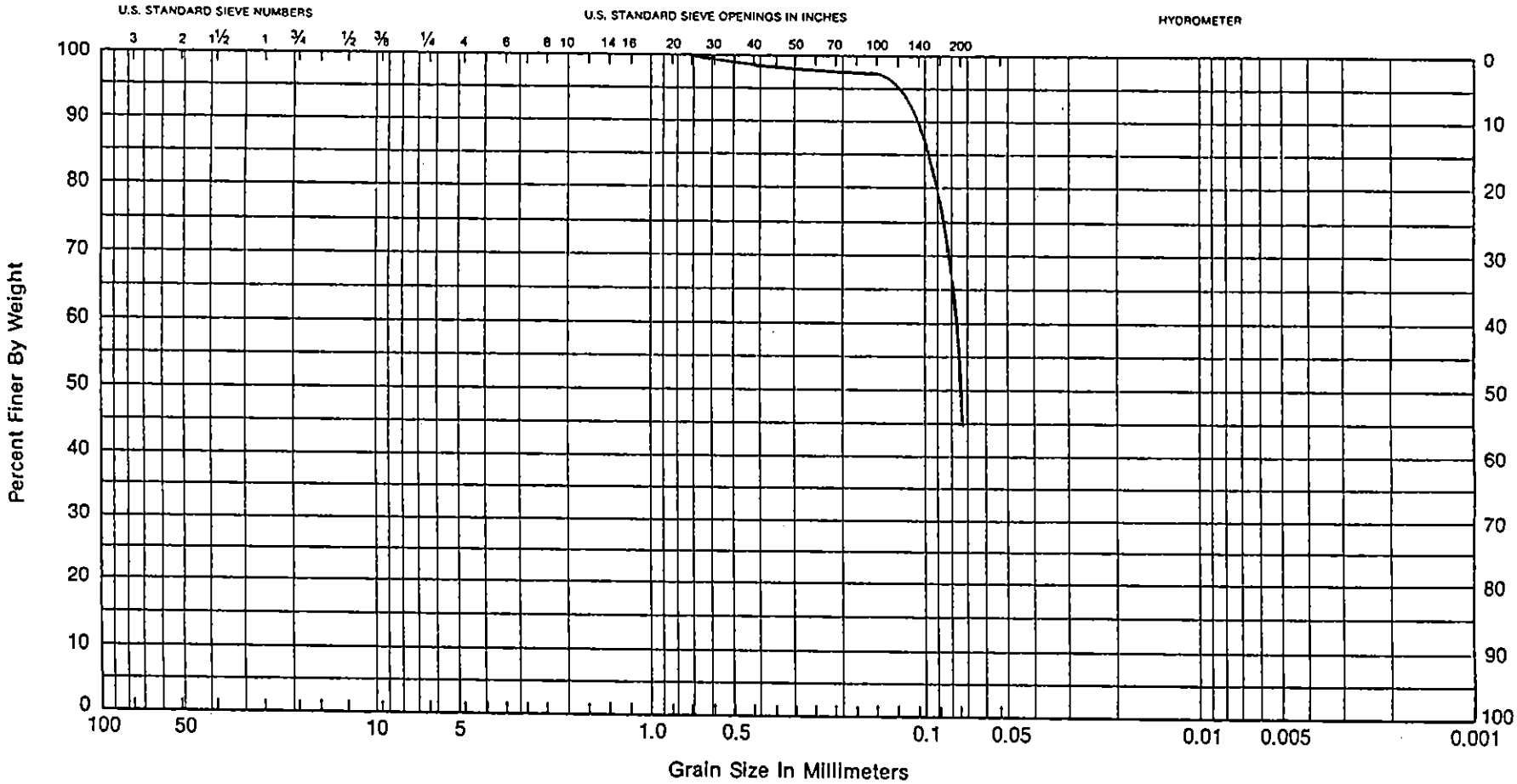
DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S10, 60' - 62'
HVJ 93-312G
GRAY AND TAN SILTY CLAY
WITH SAND AND SAND PARTINGS

GRAIN SIZE CURVES



DACW 94-64-R-0011
WALLISVILLE RESERVOIR
93-281, S11, 67' - 68.5'
HVJ 93-312G
GRAY AND TAN SANDY CLAY
WITH SILT AND SAND PARTINGS

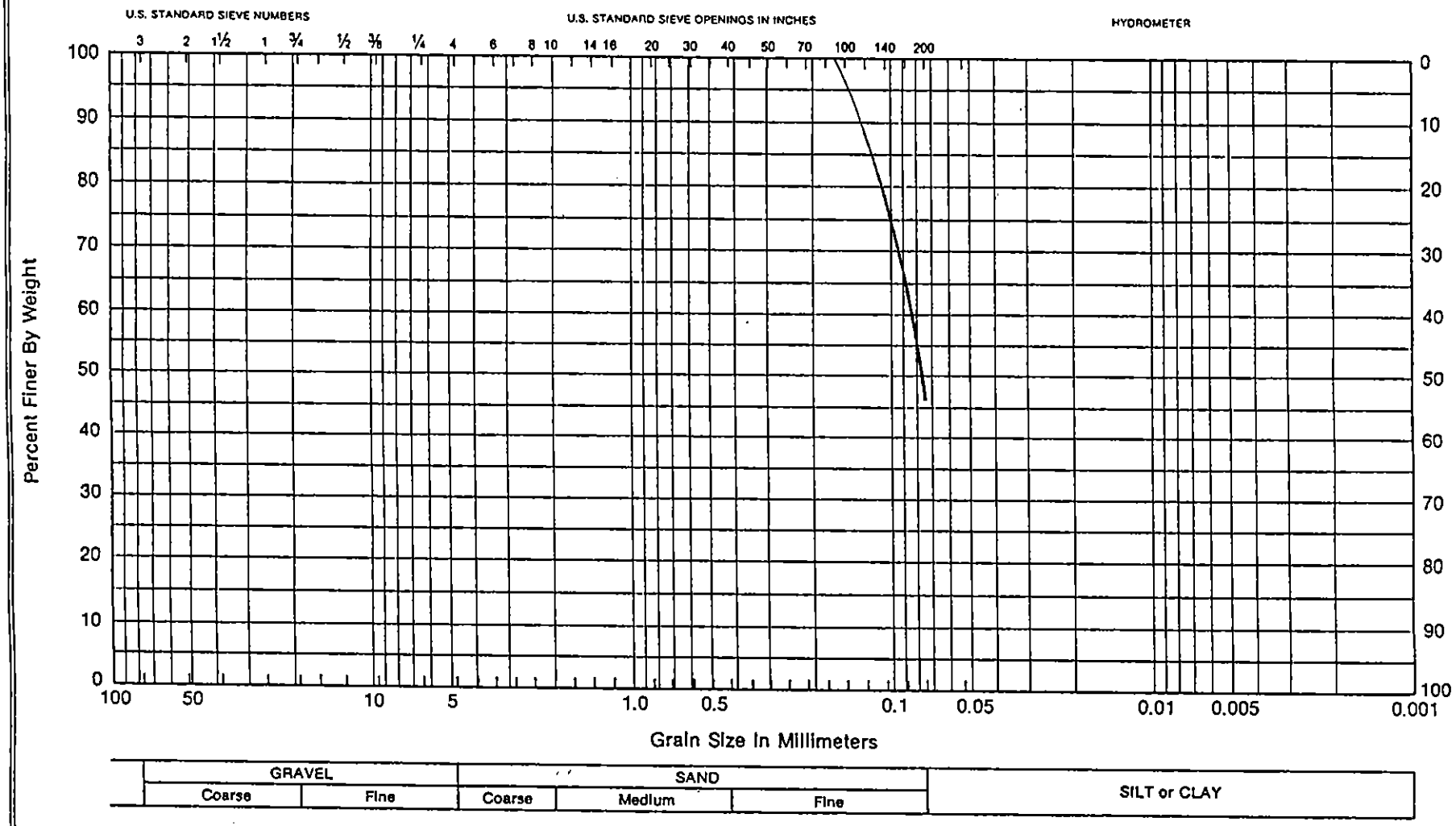
GRAIN SIZE CURVES



GRAVEL		SAND			SILT or CLAY
Coarse	Fine	Coarse	Medium	Fine	

DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S12, 74' - 75.5'
HVJ 93-312G
GRAY AND TAN CLAYEY SAND WITH SILT AND FERROUS NODULES

GRAIN SIZE CURVES



DACW 64-94-R-0011
WALLISVILLE RESERVOIR
93-281, S13, 75.5' - 77'
HVJ 93-312G
GRAY AND TAN CLAYEY SAND WITH
SILT AND SAND PARTINGS