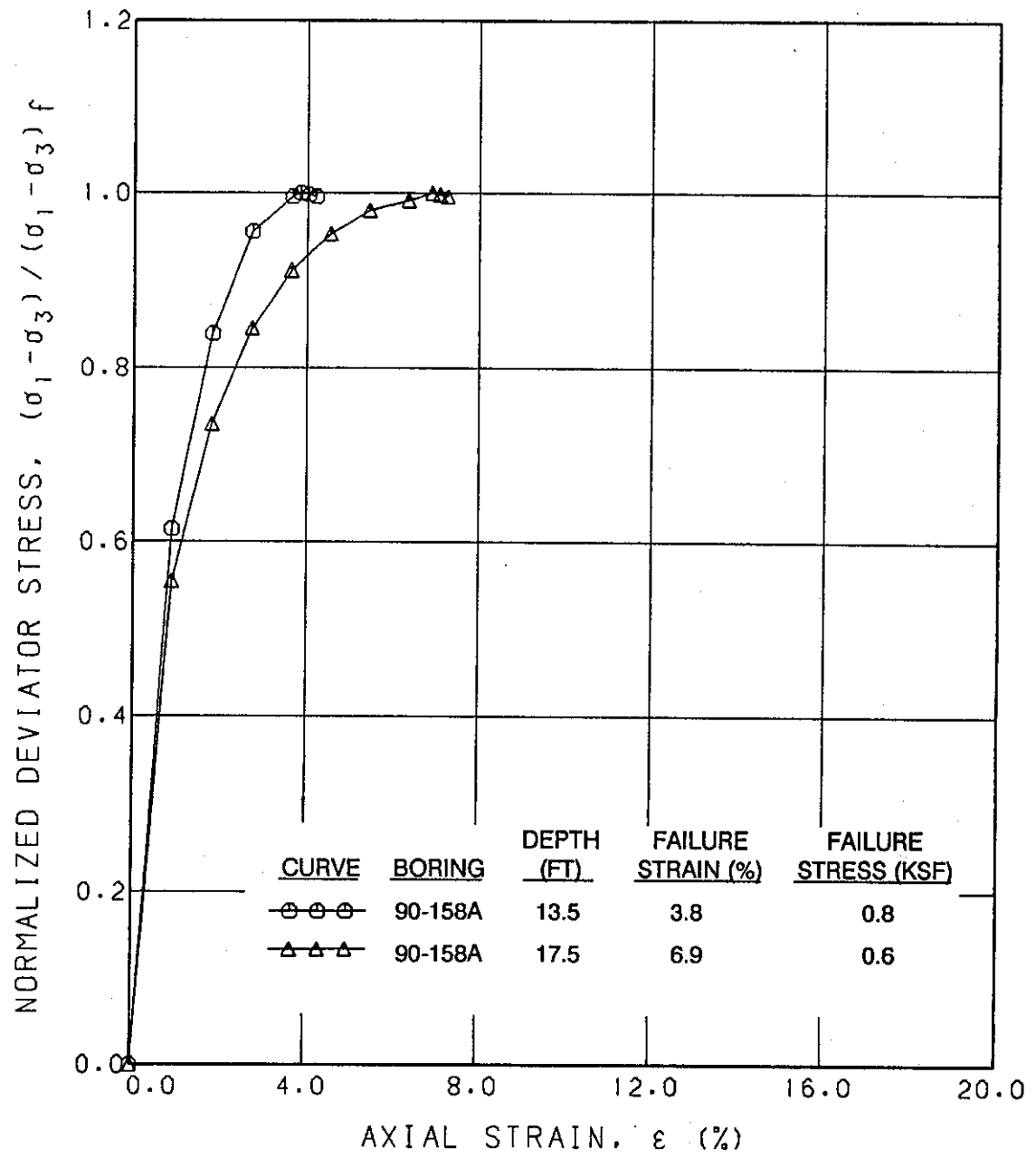


SUMMARY OF TEST RESULTS
Galveston District, Corps of Engineers
Delivery Order No. 0014
Diversion Dam - Disposal Area
Mouth of Colorado River, Texas

Boring Number	Sample Number	Sample Depth (ft)	Visual Classification	USCS	MC (%)	UDW (pcf)	LL	PL	PI	Gradation, % Passing Sieve No. 4 10 40 200				UNC Su (ksf)	TV Su (ksf)
90-158A	1Q	0-2	Very stiff red & dark brown CLAY w/ sa sms & pkts, calc	CH	16										
90-158A	2J	2-4	Light brown LAMINATED CLAY sms & SILT partings	CL											
90-158A	3J	4.5-6	Brown SANDY CLAY w/ si partings	CL											
90-158A	4J	6-7.5	Soft brown CLAY w/ org matter & a sa sm on one end	CL											
90-158A	5J	7.5-8	Brown SILTY fine SAND w/ cl pkts & sh frags	SM											
90-158A	6J	8.5-10	Soft brown CLAY w/ sa sm & organics	CH											
90-158A	7Q	10-11.5	Soft olive gray & brown CLAY	CH	56										0.4
90-158A	8J	11.5-12	Soft brown CLAY w/ sh frags on one end, g sa w/ sh frags,	CH											
90-158A	9Q	12-13.5	Soft brown CLAY w/ fsa pkts & sh frags	CH	60	68	56			100	99	83		0.4	0.3
90-158A	10J	13.5-14	Very soft brown SANDY CLAY w/ cl sm & sh frags	CL											
90-158A	11Q	14-15.5	Soft brown CLAY w/ sh frags, si & sa pkts	CL	61										0.4
90-158A	12J	15.5-16	Very soft brown CLAY w/ vert sa sm, si partgs, sh frags	CL											
90-158A	13Q	16-17.5	Soft olive gray & brown CLAY w/ num si pkts & sh frags	CL	29	96	33			98	99	98	55	0.3	0.3
90-158A	14J	17.5-18	Soft gray SANDY CLAY w/ sh frags & cl pkts	CL											
90-158A	15Q	18-19.5	Dark gray CLAYEY SAND w/ sh frags & sa pkts	SC	32					100	99	43			0.4
90-158A	16J	19.5-20	Olive gray CLAYEY SAND w/ sh frags	SC											
90-158A	17J	23.5-25	Brown SILTY fine SAND w/ free water	SM								100	19		
90-158A	18J	28.5-30	Tan SILTY fine SAND w/ cl pkts, calc nods, free water	SC						99	99	98	34		
90-158A	19J	33.5-35	Tan SILTY fine SAND w/ cl pkts, free water	SC											



STRESS-STRAIN CURVES
UNCONFINED COMPRESSION TEST
BORING 158A



1. SOILS HAVE BEEN CLASSIFIED BY ANALOGY WITH MILITARY STANDARD SOILS. FUNCTIONAL SOIL CLASSIFICATION SYSTEM FOR ROADS, AIRFIELDS, EMBANKMENTS AND FOUNDATIONS.* CONSISTENCY OF SOILS SUCH AS SOFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION, POCKET PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.
2. FIGURES TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SURFACE. (MC-UW(L)-ILL-PL-3), (G.L.S.)
3. BORINGS 89-75 THRU 89-82, 89-70 THRU 89-75 89-78, 79-59, 79-43 THRU 77-345, AND 79-39 THRU 79-97, WERE DRILLED USING WET ROTARY DRILLING TECHNIQUES. UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER THE SLASH. WHEN COHESIVE MATERIALS WERE ENCOUNTERED, WHERE CONCRETE-LIKE MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTS.
4. BORINGS 89-63, 89-66, 89-68, 89-69, 89-76, AND 89-77 WERE DRILLED USING DRY MECHANICAL DRILLING AND BORING 89-87 WAS DRILLED USING WET ROTARY TECHNIQUES TO OBTAIN DISTURBED SAMPLES.
5. WATER TABLE LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORING. IN BORINGS WHERE WET ROTARY DRILLING TECHNIQUES AND DRILLING AND WERE USED TO DRILL THE HOLES, THE LEVEL OF DRILLING FLUIDS IN THE BORE TABLE. ADDITIONALLY, WATER TABLES IN THE FIELD ARE LIKELY TO FLUCTUATE DEPENDING ON TIME AND WEATHER CONDITIONS. THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED AND WATER TABLES ENCOUNTERED IN THE FIELD.

VISUAL CLASSIFICATIONS

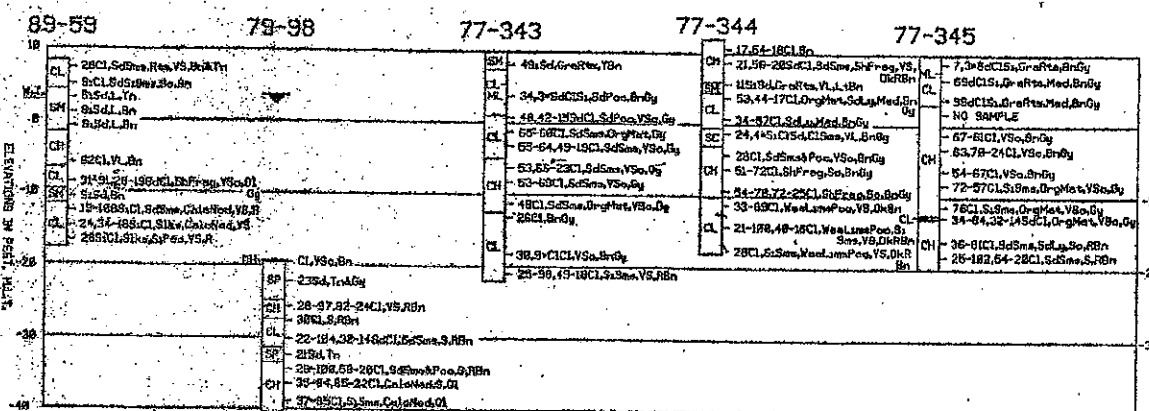
Am Brownish	Ql Grey
Ar Clayey	Ors Orange
Cdu Calcareous	Part Partinged
S Dense	Part Petrified
Dec Decayed	Poa Pockmarked
Dep Deposition	R Reddish
Dk Dark	Rte Rusty
Fer Ferrous	S Silty
Frag Fragmented	Sd Silty
G Granular	Sh Shelly
Gra Gassy	Sl Silty
Gr Grayish	Skw Silkened
L Loose	Smk Smeary
Lm Lumpy	So Soft
Lign Lignite	Tn Tanish
Lt Light	V Very
Lv Lustrous	Wg Waxy
Md Mottled	Wd Weathered
Mod Moderate	Y Yellowish

LOGS OF BORINGS
DISPOSAL AREA NO. 3

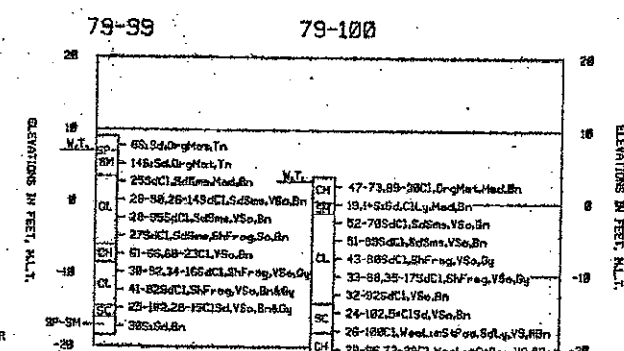
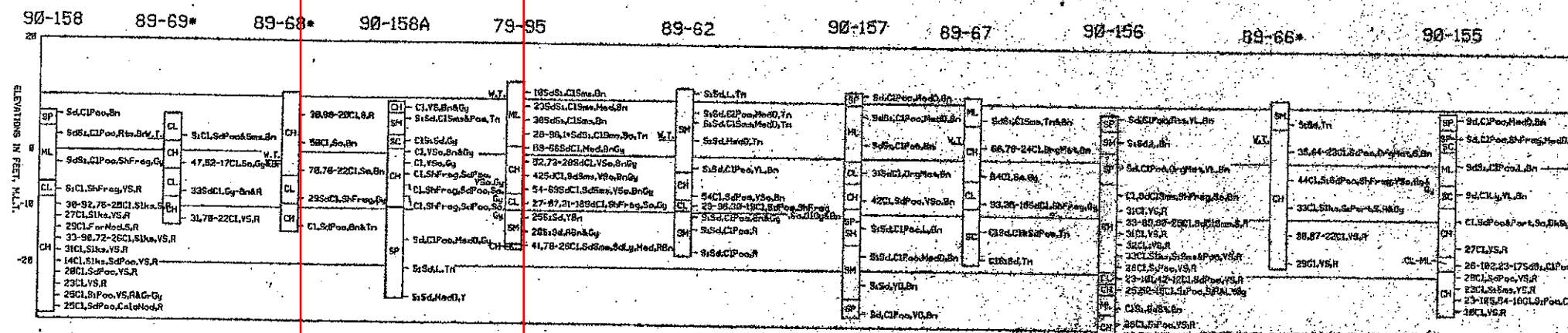
NOTE : • INDICATES ALGER BOBINO

LABORATORY CLASSIFICATION

SP POORLY-GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
SM SILTY SANDS, SAND-SILT MIXTURES.
CL INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
CL INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
ML INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.
SC CLAYEY SANDS, SAND-SILT MIXTURES.
PT-PEAT AND OTHER HIGHLY ORGANIC SOILS.

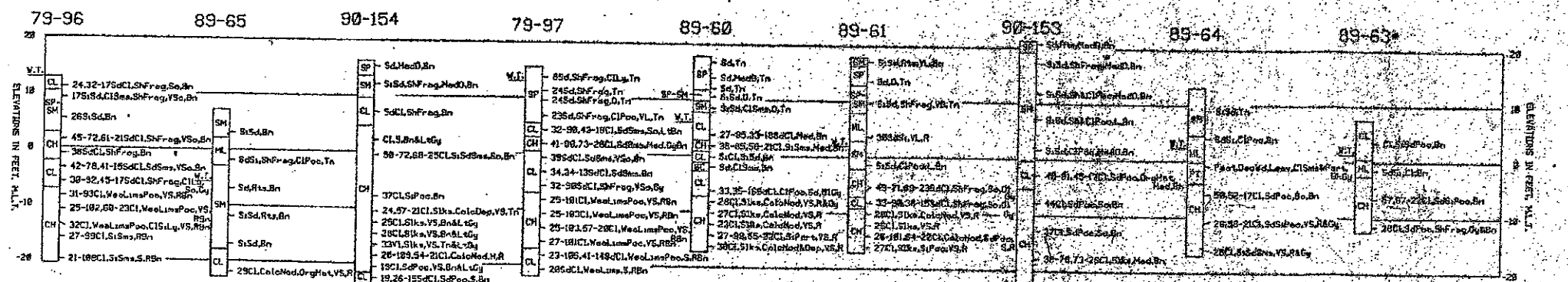


DIVERSION DAM
LOGS OF BORINGS



DIVERSION CHANNEL
LOGS OF BORINGS

NOTE: APPROXIMATE MAXIMUM DEPTH OF PREVIOUS DREDGING IS TO EL. -20.0 M.L.T.



CONNECTING CHANNEL
LOGS OF BORINGS

[illegible]



1. SOILS HAVE BEEN CLASSIFIED IN ACCORDANCE WITH MILITARY STANDARD GSO 1. CORRESPONDING SOIL CLASSIFICATION SYSTEMS FOR ROADS, AIRFIELDS, EMBANKMENTS, AND FOUNDATIONS. A CONSISTENCY OF SOILS SUCH AS SIFT, MEDIUM, HARD, LOOSE, DENSE, ETC., ARE RELATIVE TERMS BASED ON ESTIMATED UNDISTURBED SHEAR STRENGTH OF THE MATERIAL AS DETERMINED BY VISUAL CLASSIFICATION, POINT PENETROMETER TESTS AND PENETRATION RESISTANCE DURING SAMPLING.
2. FIGURES TO THE RIGHT OF BORING LOGS ARE WATER CONTENTS IN PERCENT OF THE DRY WEIGHT, DRY DENSITY, LIQUID LIMIT, PLASTIC LIMIT, AND BAR LINEAR SHRINKAGE. (MC=UW%LL, PL, LI, LS, S)
3. BORINGS 89-59 THRU 89-62, 89-70 THRU 89-75 89-76, 79-59, 79-63 THRU 79-74, AND 79-85 THRU 79-87, WERE DRILLED USING WET ROTARY DRILLING EQUIPMENT AND UNDISTURBED SAMPLES WERE RECOVERED WITH A 3-INCH DIAMETER TEST SAMPLER. WHEN COHESIVE MATERIALS WERE ENCOUNTERED, WHERE CONCRETE-LIKE MATERIALS WERE ENCOUNTERED, DISTURBED SAMPLES WERE TAKEN WITH A SPLIT SPOON SAMPLER DURING PERFORMANCE OF STANDARD PENETRATION TESTS.
4. BORINGS 89-63, 89-66, 89-68, 89-69, 89-76, AND 89-77 WERE DRILLED USING MECHANICAL AUGER AND BORING 89-87 WAS DRILLED USING WET ROTARY TECHNIQUES TO OBTAIN UNDISTURBED SAMPLES.
5. WATER TABLES LEVELS SHOWN ON BORING LOGS WERE DETERMINED AFTER DRILLING BORINGS BY MEASURING THE TOP OF FLUID LEVELS IN THE BORMOS IN BORINGS WHERE WET ROTARY DRILLING TECHNIQUES AND DRILLING AND WERE USED TO DRILL THE LOGS. THE LEVEL OF DRILLING FLUIDS IN THE BORE TABLE. ADDITIONALLY, WATER TABLES IN THE FIELD ARE LIKELY TO FLUCTUATE DEPENDING ON TOP AND WATER CONTENTS THEREFORE, SOME VARIATION SHOULD BE ANTICIPATED BETWEEN WATER TABLES INDICATED BY WATER TABLES ENCOUNTERED IN THE FIELD.

VISUAL CLASSIFICATIONS

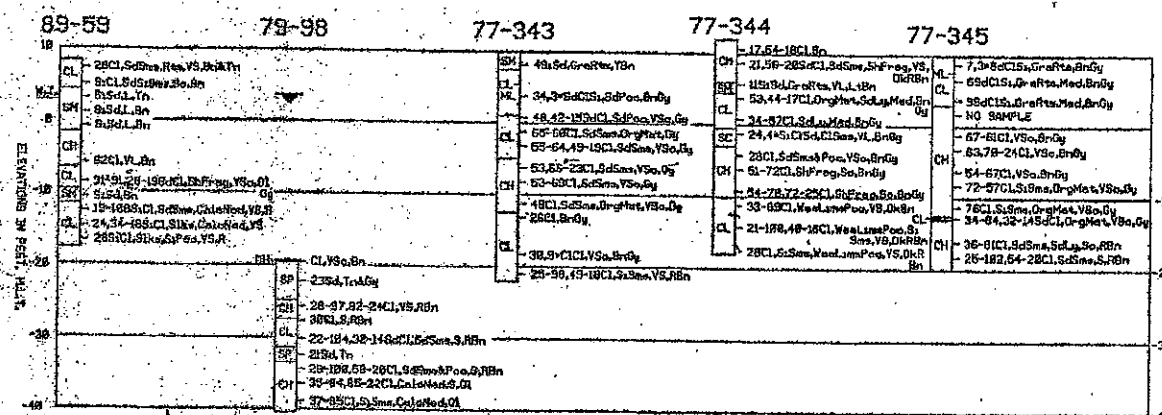
Am Brownish	Ql Grey
At Clayey	Qra Grayscale
Cdu Calcareous	Part Partingless
D Dense	Part Petriform
Dec Decayed	Poa Pockmarked
Dep Depositional	R Reddish
Dk Dark	Rte Rusty
Fer Ferrous	S Silty
Frag Fragmental	Sd Silty
G Granular	Sh Shelly
Gra Grassy	Sl Silty
Gr Grayish	Skw Silkened
L Loose	Smk Smeary
Lm Laminar	So Soft
Lix Lixivious	Tn Tarnish
Lt Light	V Very
Lx Lustrous	Wg Waxy
M Mottled	Wd Woven
Med Medium	Wd Weathered
Mod Moderate	Y Yellowish

LABORATORY CLASSIFICATION

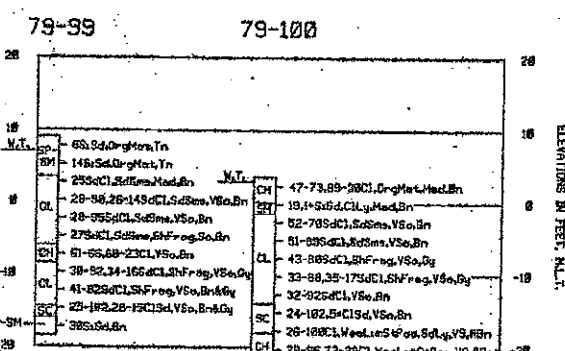
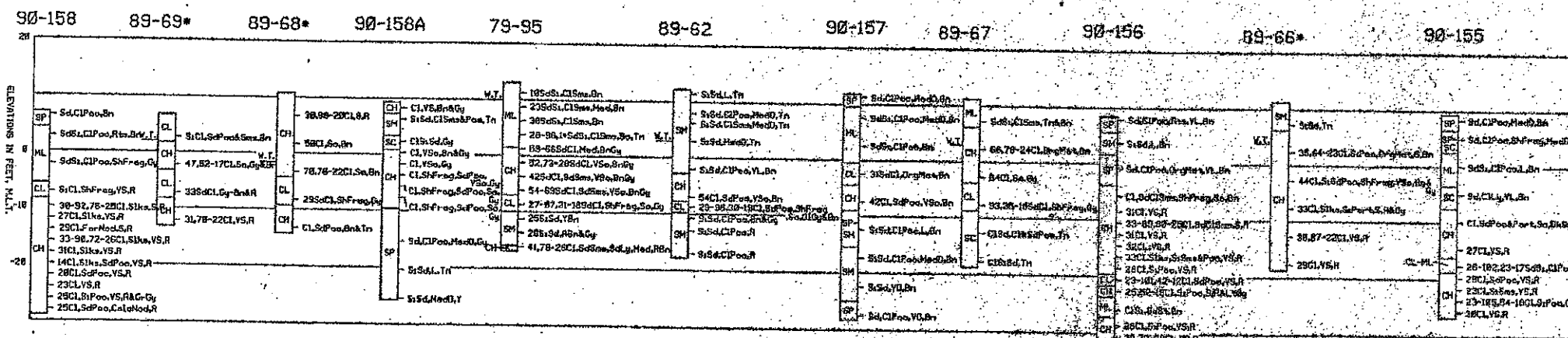
SP POORLY-GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES.
SM SILTY SANDS, SAND-SILT MIXTURES.
CL INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS.
ML INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, LEAN CLAYS.
OL INORGANIC SILTS AND VERY FINE SANDS, WITH SLIGHT PLASTICITY.
SC CLAYEY SANDS, SAND-SILT MIXTURES.
PT PEAT AND OTHER HIGHLY ORGANIC SOILS.

LOGS OF BORINGS
DISPOSAL AREA NO. 3

NOTE: • INDICATES ALGERE BOMBING

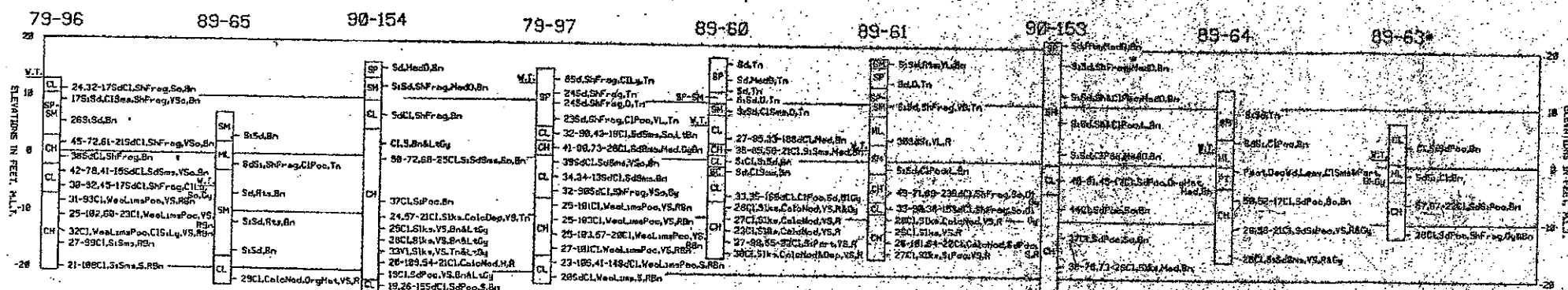


DIVERSION DAM
LOGS OF BORINGS



DIVERSION CHANNEL
LOGS OF BORINGS

NOTE: APPROXIMATE MAXIMUM DEPTH OF PREVIOUS DREDGING IS TO EL. -21.0 M.L.T.



CONNECTING CHANNEL
LOGS OF BORINGS

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