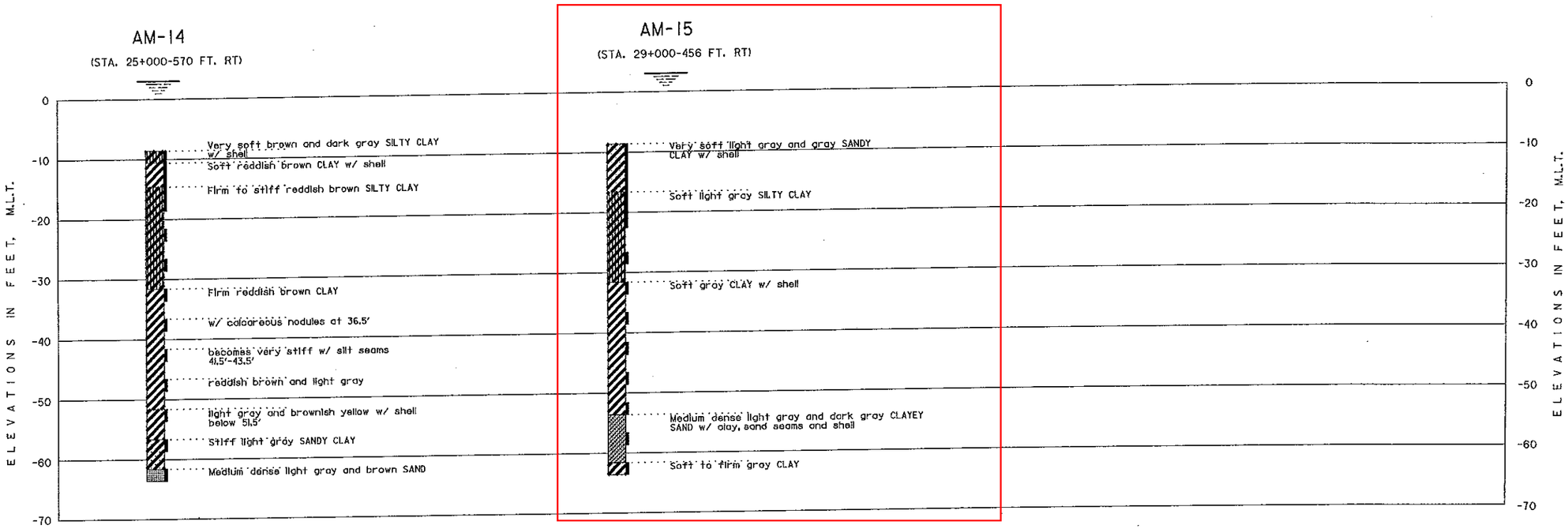


## SOIL SYMBOLS

Soil Types

Clay, Silt, Sand

Modifiers

Clayey, Silty, Sandy

## SAMPLER TYPES

Thin Walled Shelby Tube

Split Spoon Sample with Blow Counts per Six Inches

## SOIL GRAIN SIZE

| Classification | Particle Size | Particle Size or Sieve No. (U.S. Standard) |
|---|---|---|
| Clay | < 0.002 mm | < 0.002 mm |
| Silt | 0.002 - 0.075 mm | 0.002 mm - #200 sieve |
| Sand | 0.075 - 4.75 mm | #200 sieve - #4 sieve |

## DENSITY OF COHESIONLESS SOILS

| Descriptive Term | Penetration Resistance "N" Blows/Foot |
|---|---|
| Very Loose | 0 - 4 |
| Loose | 4 - 10 |
| Medium Dense | 10 - 30 |
| Dense | 30 - 50 |
| Very Dense | > 50 |

## DENSITY OF COHESIVE SOILS

| Consistency | Undrained Shear Strength (tsf) |
|---|---|
| Very Soft | 0 - 0.125 |
| Soft | 0.125 - 0.25 |
| Firm | 0.25 - 0.5 |
| Stiff | 0.5 - 1.0 |
| Very Stiff | 1.0 - 2.0 |
| Hard | > 2.0 |

## TERMS DESCRIBING SOIL STRUCTURE

| | |
|---|---|
| *Calcareous* | Having appreciable quantities of calcium carbonate |
| *Ferrous* | Having appreciable quantities of iron |
| *Fissured* | Breaks along definite planes of fracture with little resistance to fracturing |
| *Inclusion* | Small pockets of different soils, such as small lenses of sand scattered through a mass of clay |
| *Laminated* | Soil sample composed of alternating partings of different soil type |
| *Layer* | Inclusion greater than 3 inches thick extending through the sample |
| *Nodule* | A small mass of irregular shape |
| *Parting* | Inclusion less than 1/4 inch thick extending through the sample |
| *Seam* | Inclusion 1/4 inch to 3 inches thick extending through the sample |

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US Army Corps of Engineers
Galveston District

| Rev. | Date | By | Description |
|---|---|---|---|

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Designed by: RTA
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Date: MAY 2004
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Submitted by: MARK E. MAZOCH, P.E. Architect - Engineer
Approval Recommended: Chief, Engineering Branch
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HOUSTON, TEXAS

U.S. ARMY ENGINEER DISTRICT, GALVESTON
CORPS OF ENGINEERS
GALVESTON, TEXAS

PREPARED UNDER THE DIRECTION OF
LEONARD D. WATERWORTH, Col., C.E.,
DISTRICT ENGINEER

HOUSTON-GALVESTON NAVIGATION CHANNELS, TEXAS
(45-FOOT PROJECT)
UPPER BAY AND BARGE LANES
PIPELINE DREDGING

LOGS OF BORINGS
STA. 25+000 TO STA. 29+000

Drawing No.:
F-5
Sheet 50 of 55
File No. HSC 401-497

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