Appendix F-1
Geotechnical Investigation

REPORT

GEOTECHNICAL INVESTIGATION

PEYTON SLOUGH REMEDIAL DESIGN WITH GEOTECHNICAL RECOMMENDATIONS FOR TIDE GATE STRUCTURE

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1.1 PROJECT DESCRIPTION

The work described in this report is a part of the Peyton Slough Remedial Design Project located in Martinez, California as shown on Figure 1. The remedial design project includes the excavation of a new slough alignment, capping of the existing slough alignment, and construction of a tide gate structure along the new slough alignment where it crosses the existing levee.

1.2 PURPOSE, AUTHORIZATION, AND SCOPE OF WORK

This report summarizes the subsurface investigation completed by URS and provides our geotechnical recommendations for the design and construction of the proposed tide gate structure. The original scope of work was defined in Task 1.4 of our proposal to Rhodia Inc., dated December 3, 2001 and December 19, 2001. Partial authorization to start the field investigation was given on December 7, 2001 by Rhodia Inc. and authorization for the complete scope was given on December 21, 2001. A summary of the scope of work is provided below.

- Review existing geotechnical data developed in the vicinity of the project.
- Conduct a geotechnical investigation to characterize site soil conditions. This investigation would consist of four borings ranging from 50 to 70 feet deep. One boring was to be drilled at the mouth of Peyton Slough for cap design. One boring was to be excavated at each of two temporary trestle bridge locations, and a final boring was to be drilled in the existing levee at the proposed tide gate location.
- Conduct laboratory testing on selected samples from the borings to assist in evaluating soil characteristics and characterizing subsurface conditions.
- Perform engineering analyses and provide geotechnical recommendations in report. The analyses would include the following:

1. Design the foundation for the tide gate along the new slough alignment.
2. Determine settlement of the levee and tide gate after construction (The proposal assumed that the tide gate structure would be designed and constructed in a similar manner to the existing tide gate).
3. Determine stability of the levee for construction traffic.
4. Provide soil engineering properties for independent evaluation of existing tide gate design.
5. Provide geotechnical data for contractor use regarding the depth through Bay

Mud for temporary trestle bridge foundation design.

- Preparation of this geotechnical design report.

During the initial geotechnical investigations the scope was modified as follows:

- Perform additional investigations at the east end of the levee for evaluation of alternative tide gate locations.

- Make geotechnical recommendations for the recommended tide gate location.

1.3 REPORT ORGANIZATION

Methods of study are presented in Section 2.0. Site conditions found during the field investigation and laboratory testing are presented in Section 3.0. Analyses and geotechnical recommendations for the new tide gate structure are presented in Section 4.0. Section 5.0 serves as the closure section of this report. Appendix A contains logs of the test borings and test pit while Appendix B contains laboratory test results.

2.1 PREVIOUS INVESTIGATIONS

The following geotechnical investigations previously conducted at the site were reviewed:

Mark Group (1989). A site investigation report of the Sulphur Products Facility for Stauffer Chemical Company, Martinez, California. This report summarizes geological conditions at the site and specific geotechnical parameters for five ponds constructed at the site from previous investigations and reports.

Harza (1996a, 1996b, 1996c, 1997, 1998a, 1998b, 1999a, and 1999b). This series of reports and letters present explorations, laboratory testing, analyses, and recommendations for the design and construction of the existing tide gate structure and for raising the levee east of the tide gate.

2.2 FIELD STUDIES

Field studies were conducted in two phases:

- Phase 1 – The Phase 1 investigation, conducted in December 2001, was performed to (1) assess the engineering properties of soils at the proposed tide gate location along the conceptual new slough alignment, (2) provide information for engineering properties of soils where existing Peyton Slough enters the Carquinez Strait, (3) provide information for engineering properties of soils along existing Peyton Slough for geotechnical cap design.

- Phase 2 – The Phase 2 investigation, conducted in January 2002, was performed to assess foundation conditions at the east end of the existing levee as an alternative tide gate location.

2.2.1 Drilling

Six exploratory boreholes, URS-B1, URS-B2, URS-B3, URS-B4, URS-B5, and URS-B6 were drilled for this geotechnical study at the locations indicated on the Site and Exploration Location Plan, Figure 2. Boring URS-B1 was drilled into 100.75 feet Below Ground Surface (BGS) into bedrock. Boring URS-B2 was drilled to bedrock, to a total depth of 81 feet BGS, where the conceptual new slough alignment passed through the levee. Boring URS-B3 was drilled in the mouth of the existing slough over water from a barge. It was drilled to a depth of 52.5 feet below the mudline. Boring URS-B4 was also drilled from a barge further in the slough channel as indicated on Figure 2 to a depth of 61.5 feet below mudline. Borings URS-B5 and URS-B6 were drilled at the eastern end of the existing levee. Both were drilled into bedrock. URS-B5 was drilled to a total depth of 31.5 feet and URS-B6 was drilled to a total depth of 16.5 feet.

Borings URS-B1, URS-B2, URS-B5 & URS-B6 were drilled using a track-mounted CME 850 drilling rig and borings URS-B3 and URS-B4 were drilled using a barge

mounted D-25 skid rig both of which were owned and operated by PC Exploration, Inc. of Rocklin, California. Hollow stem auger drilling methods were used to advance borings URS-B1, URS-B2, URS-B5 & URS-B6 and mud-rotary methods were used to advance borings URS-B3 and URS-B4. A URS geologist, logged the soil cuttings and samples in the field and visually classified the soils in general accordance with the Unified Soil Classification System, as the drilling proceeded.

Samples of the subsurface materials were obtained at selected depths in the borings by pushing two types of samplers; standard 3-inch O.D. Shelby tubes and smaller 2.5 inch O.D. Shelby tubes. Some samples were also collected by driving a 2-inch I.D. Modified California sampler or a 2-inch O.D. standard split-spoon sampler as shown on the logs in Appendix A.

The samples were delivered to the URS geotechnical laboratory in Pleasant Hill, California, for further visual examination and testing. Logs of Borings were prepared based on the field logs, the visual examination in the laboratory, and the laboratory testing results, and are presented in Appendix A.

A detailed description of the procedures used to drill the borings and to obtain soil samples is given in Appendix A (Geotechnical Drilling and Sampling Program).

2.2.2 Test Pit

One test pit, URS-TP-1, was excavated just east of the levee as shown on Figure 2. The test pit was excavated using a John Deere 310D Backhoe. The excavated depth was approximately 13.2 feet to an elevation of approximately -5 feet NGVD 29. The test pit was excavated to determine the depth to bedrock as well as to assess degree of difficulty in excavating the rock to the depth of the base of the proposed tide gate. A log of test pit URS-TP-1 is presented in Appendix A.

A detailed description of the procedures used to excavate the test pit is given in Appendix A (Geotechnical Drilling and Sampling Program)

2.3 LABORATORY TESTING

Representative soil samples obtained from the exploratory borings were tested in our Pleasant Hill geotechnical laboratory in order to evaluate their engineering properties for use in the analyses. The following laboratory tests were performed on selected soil samples:

- Water content (ASTM D2216)
- Dry density (ASTM D2850)
- Unconfined compressive strength (ASTM D2166)
- Atterberg limits (ASTM D4318)
- Grain size and hydrometer analyses (ASTM D422)
- Consolidation Tests (ASTM D2435)
- Unconsolidated Undrained Triaxial Tests (ASTM D2850)

The results of the laboratory tests except the results of the consolidation tests are summarized in the logs of borings at the corresponding sample depths as shown in Appendix A and on Table B-1 in Appendix B. The results of the consolidation testing are summarized in Table B-2. Detailed laboratory test results are presented in Appendix B (Geotechnical Laboratory Test Results).

3.1 SITE DESCRIPTION

The Site is located between Waterfront Road and the Carquinez Strait and is comprised of an approximately 5,500 feet long segment of the north-flowing Slough (see Figure 1). The Slough continues south under Waterfront Road to McNabney Marsh. The Slough collects discharged treated wastewater from the Mt. View Sanitary District. The Site is surrounded by marsh lands on the east from the Carquinez Strait to Waterfront Road. The entire Slough has been dredged repeatedly in the past. Dredge spoils were placed along both banks of the Slough in linear piles of unknown thickness. Currently, portions of the piles rise to +5 feet NGVD-29, and some remain without vegetation. The unvegetated portions range in size and are located directly adjacent and parallel to the Slough. . The Slough bottom elevation resides at approximately –3.5 feet NGVD-29, and the slough embankments rise to +5 feet NGVD-29.

The Site has been subdivided into the "north slough" and the "south slough," which are separated by a tide gate and levee located approximately 2,400 feet south of the Carquinez Strait. The following describes the north slough and south slough.

The north slough is approximately 2,400 feet long, generally 30 to 40 feet wide and extends from Carquinez Strait to the tide gate. The tide fluctuates approximately 6 feet from mean high to mean low tide. At low tide, minimum water depth is approximately 2 feet and most of the north slough embankments have a vertical face approximately 3 to 5 feet high. The east and west embankment of the north slough are densely vegetated. The embankments become inundated due to their low elevation, and the water line extends up to approximately 20 feet into the vegetation. Several tributary sloughs intersect the eastern embankment of the Existing Slough. A large marsh occupies the area east of the north slough, which is which is virtually inaccessible by vehicle. Only a small portion is accessible by vehicle near the Rhodia polishing pond on the eastern side of the tide gate.

The south slough is approximately 3,100 feet long, and extends from the tide gate to Waterfront Rd. The south slough width averages approximately 50 feet, ranging from less than 10 feet wide at the southern end near the culvert under the railroad embankment to approximately 60 feet near the tide gate. Under the current tide gate function, the influence by tides in the south slough is minor. The water level varies by approximately ½ foot. A fresh-water seasonal marsh lies adjacent to the west bank of the south Slough to the south of the property fence line. Slightly higher, grassy areas adjacent to and on Zinc Hill to the east of the south Slough are grazed by cattle. The slopes of Zinc Hill lie within 150 feet of the east bank. An overgrown vehicle track exists along the base of Zinc Hill, on Shore Terminal's property.

The tide gate is located approximately 2,400 feet from Carquinez Strait. The approximately 60-foot-long, concrete tide gate, which was reconstructed in 1998, is configured to allow fresh water from the south side to flow through the gate during low tidal periods. The gate prevents the southerly flow of marine water to the south Slough.

The embankments in the immediate vicinity of the tide gate are up to 5 to 10 feet high and are protected with rip rap up to 2 to 3 feet in diameter. The existing levee extends generally eastward 900 feet from the tide gate to the base of Zinc Hill. The crest elevation of the existing levee ranges from 4 feet NVGD to 7 feet NVGD. The marsh on the south side of the levee has subsided to a level approximately 3.5 feet lower than the marsh on the north side of the levee.

3.2 GEOLOGICAL SETTING AND SEISMICITY

The Rhodia, Inc facility is located within the Coast Range Geomorphic Province. The Coast Ranges are characterized by north to northwest trending elongated mountain ranges and intervening valleys. The site lies on undifferentiated Cretaceous siltstones and shales that strike north to northwest and dip to the west or southwest respectively. Dibblee (1981) interpreted these marine sediments to form the eastern limb of the northwest-southeast trending Martinez (or Pacheco) syncline. This syncline is the eastern-most fold of a fold belt bounded on the east by the steeply dipping strike-slip, right-lateral Concord Fault and on the west by the Southhampton and Franklin thrust faults. These rocks are exposed to the east on Zinc Hill and to west on Rhodia's property. Measurements in outcrops on Zinc Hill indicate that the bedrock is striking approximately northwest and dipping 53° to 65° towards the southwest (Sims et al., 1968 and Dibblee, 1981). There are no outcrops exposed where the levee abuts against Zinc Hill.

Surficial deposits cover the majority of the site. These deposits include Quaternary Bay Muds and interbedded peats overlying older Bay Muds and isolated sand lenses. The Older Bay Mud overlies approximately 10 feet of alluvium, which overlie bedrock.

The closest known active fault to the project site is the Concord fault, which is a northwest-striking right-lateral strike-slip fault of the San Andreas system. It extends for 18 km along the eastern margin of Ygnacio Valley, from the northern slopes of Mount Diablo to Suisun Bay. The Concord fault is the closest mapped Holocene fault to the project site and is zoned under the Alquist-Priolo Special Studies Zone Act. The project site is located approximately one mile outside of the Special Studies Zone. The Maximum Credible Earthquake (MCE) for the Concord fault is Mw 6.9 (maximum magnitude).

3.3 SUBSURFACE CONDITIONS

Subsurface conditions were characterized using the Unified Soil Classification System (USCS) to provide a basis for geotechnical design parameters and recommendations presented in this report. Characterization criteria included: (1) conditions found in the drill holes and test pit; (2) conditions reported during previous field studies conducted in the area by others; (3) results of laboratory testing performed on selected samples obtained during exploratory drilling; and (4) our understanding of the geological setting of the site.

3.3.1 Subsurface Stratigraphy

The project site can be divided into three areas for the purpose of describing subsurface conditions; the areas north and south of boring 52 (approximately Station 40+50 of the existing alignment) as shown on Figure 3 and the area where the existing levee abuts Zinc Hill. Soil and rock profiles adjacent to the existing slough and along the existing levee shown on Figure 3 and Figure 4 were developed by adding the borings drilled by URS and Harza (1996a) to a profile reported in Mark Group (1989). The interpolated profiles are only approximations of the stratigraphy between boring locations. Only at the boring locations should the profiles be considered to be accurate to the extent implied on the boring logs.

Index properties for the soils described below are based on laboratory results on samples from URS-1, URS-2, URS-3, and URS-4 and are summarized with respect to depth below the ground surface on Figures 5 to Figure 12.

3.3.1.1 North Area

North of boring 52 (Figure 3), the site is characterized by a depositional interface between Peyton Slough and the Carquinez Strait where organic clays and silts are interbedded with sandy clays, silts, and lean to fat clay. One boring, URS-3 located at the mouth of Peyton Slough, was drilled by URS in the north area as shown on Figure 2. The subsurface conditions found at this location are very soft silty clay (Bay Mud) interbedded with silty to clayey sands. A 5-foot thick layer of organic silty clay with woody peat fragments was encountered 45 feet below mudline. Bedrock was not found in the boring. A previous investigation, encountered 115 feet of sediment over bedrock at boring 7 (Figure 3).

Results of laboratory tests of samples from URS-3 show that the Bay Mud near the surface has a total unit weight of 87 pcf with a moisture content of 107 percent and a dry unit weight of 42 pcf. Below the near surface clay, the total unit weight varies between 110 pcf and 119 pcf and the dry unit weight varies between 72 pcf and 90 pcf, except in the organic silty clay layer where the total unit weight is 97 pcf and the dry unit weight is 53 pcf. The moisture content varies between 31 and 53 percent with the exception of the organic silty clay layer, which has a moisture content of 84 percent. The liquid limit varies from 29 to 55 and the plasticity index varies from 7 to 37. The lower values are for the sandy clays and silts. The lower bound undrained shear strength increases with depth from 20 psf to 250 psf and the upper bound undrained shear strength increases from a range of 100 psf to 440 psf at a depth of 17.5 feet to approximately 700 psf at a depth of 50 feet.

Consolidation tests in URS-3 do not show a definitive trend and may be affected by the presence of abundant sea shells in some of the samples. For the three samples tested, the overconsolidation ratio (OCR) ranges between 1.9 to greater than 10. The compression ratio (CR) ranges from 0.13 to 0.28 apparently decreasing with depth. Similarly, the recompression ratio (RR) ranges from 0.015 to 0.028. The coefficient of consolidation

($c_{v\ (virgin)}$) ranges between 0.0096 ft^2/day to 0.0218 ft^2/day and the coefficient of consolidation ($c_{v\ (recompression)}$) ranges between 0.0173 ft^2/day to 0.891 ft^2/day.

3.3.1.2 South Area

South of boring 52 (Figure 3), the subsurface conditions are characterized by a layer of very soft organic silt and clay (young Bay Mud) interbedded with a layer of very soft organic clay and silt with peat. Underlying the young Bay Mud is a layer of interbedded soft to medium stiff, medium to high plasticity clays and silts (older Bay Mud). Underlying the older Bay Mud is a layer of alluvium that is made up of medium stiff to stiff lean clays and silty sands. Bedrock underlies the alluvium.

Borings drilled in the southern area by URS included URS-1, URS-2, URS-4, URS-5, and URS-6 as shown on Figure 2. Two of the borings, URS-1 and URS-4, were drilled along the general alignment of the existing slough at proposed temporary trestle bridge locations. Boring URS-1 was drilled approximately 1400 feet south of the tide gate and URS-4 was drilled approximately 350 feet north of the tide gate. A third proposed temporary trestle bridge location was not explored due to the proximity of Harza (1996) boring EB-5 to that location. URS-2, URS-5, and URS-6, were drilled 140 feet, 45 feet, and 5 feet east, respectively, of the fence at the east end of the levee

Based on the field investigation and laboratory testing conducted by URS and information from previous investigations, the young Bay Mud varies in thickness from 25 to 32 feet below the existing slough and is up to 38 feet thick below the existing levee. The older Bay Mud varies between 10 to 50 feet in thickness below the existing slough and is up to 22 feet thick below the existing levee. The alluvium overlying bedrock varies between 5 and 15 feet in thickness. Bedrock was encountered in URS-1 at 96 feet bgs and the depth to bedrock increased from 13 feet bgs at URS-6 to 77 feet bgs at URS-2. Based on past investigations (Figure 3), the bedrock surface below the slough rises from approximately 110 feet bgs near boring 52 to 30 feet bgs at boring 4 and then drops back down to 100 feet bgs at boring 3.

Young Bay Mud – Samples of young Bay Mud in URS-1, URS-2, and URS-4 had a total unit weight varying between 67.5 pcf and 80 pcf with a dry unit weight varying between 15 pcf and 31 pcf. The water content generally decreases from nearly 350 percent from the top of the layer to approximately 150 percent at the bottom of the layer. Correspondingly, the void ratio decreases from greater than 7 to approximately 4 from top to bottom. The liquid limit varies from 87 to 168 and the plasticity index varies from 47 to 74. The liquidity index, a measure of soil behavior during shearing, is above one. The lower limit undrained shear strength varies between approximately 100 psf and 150 psf, except at the bottom of the layer where lower-bound strengths are as low as 20 psf. The upper limit undrained shear strength generally varied between approximately 200 psf and 300 psf. The overconsolidation ratio (OCR) varied between 7.1 and 10.7 near the surface and decreased to between 2.1 and 2.7 near the bottom. The compression ratio (CR) varied from 0.27 to 0.31 near the surface and increased to between 0.33 to 0.56 with depth with the higher values occurring in peats. Similarly, the recompression ratio (RR) varied from 0.017 to 0.046 near the surface and generally increased to 0.031 to 0.087

with depth. The coefficient of consolidation ($c_{v\ (virgin)}$) varied between 0.0075 ft^2/day to 0.0153 ft^2/day and the coefficient of consolidation ($c_{v\ (recompression)}$) varied between 0.0032 ft^2/day to 0.115 ft^2/day.

Older Bay Mud – Samples of older Bay Mud from borings URS-1, URS-2, and URS-4 had a total unit weight varying between 90 pcf and 114 pcf with a dry unit weight varying between 49 pcf and 87 pcf. The water content generally decreases from nearly 86 percent from the top of the layer to approximately 35 percent at the bottom of the layer. Correspondingly, the void ratio decreases from approximately 2.5 to approximately 1.5 from top to bottom. One Atterberg test found the liquid limit was 49 and the plasticity index was 26. The lower limit undrained shear strength increases with depth from approximately 100 psf to 280 psf. The upper limit undrained shear strength increases with depth from 250 psf to 1200 psf. The overconsolidation ratio (OCR) varied between 1.7 and 1.8 for the two consolidation tests performed on Older Bay Mud. The compression ratio (CR) varied from 0.2 to 0.22 and the recompression ratio (RR) varied from 0.027 to 0.047. The coefficient of consolidation ($c_{v\ (virgin)}$) varied between 0.040 ft^2/day to 0.046 ft^2/day and the coefficient of consolidation ($c_{v\ (recompression)}$) varied between 0.0145 ft^2/day to 1.05 ft^2/day.

Alluvium – Samples of alluvium in URS-1, URS-2, and URS-4 have a total unit weight of approximately 126 pcf with a water content of about 24 percent and a dry unit weight of about 101 pcf. One Atterberg test found the liquid limit was 42 and the plasticity index was 22. The lower limit undrained shear strength is approximately 800 psf and the upper limit is approximately 1200 psf.

3.3.1.3 Levee Abutment at Zinc Hill

At the east end of the levee where it ties into Zinc Hill, URS-TP-1, encountered weathered shale and sandstone, which was able to be excavated to the final depth of the test pit with a John Deere 310D Backhoe. The bedrock surface sloped gradually downward from east to west along the length of the test pit below 4 to 7 feet of fill and clay. At the bottom of the test pit the rock had to be broken with the end of the bucket to be excavated. Bedding of the rock was not able to be observed in the test pit. It is anticipated that the bedding orientation and dip is similar to that described in Section 3.2. Fragments of the shale excavated from the test pit and exposed on the ground surface were observed to slake.

3.4 GROUNDWATER

Based on hydrogeologic studies performed as part of the Peyton Slough Remedial Design and reported in the Remedial Design Report (URS, 2002), groundwater is generally within a few inches of the ground surface on both sides of the levee. Groundwater was not measured in the borings drilled for this investigation. During the excavation of TP-1 approximately 1-inch of seepage accumulation on the bottom of the test pit was observed in one hour. The groundwater level is above the bottom of the proposed tide gate structure and dewatering will be required during construction.

4.1 GENERAL

It is our understanding that the new tide gate structure will be approximately 40 feet wide with sufficient length to pass through the levee and will have a central headwall configuration similar to the existing tide gate structure. The base of the structure will be at approximately elevation –7 feet NVGD and the top of the structure will be at elevation 7.5 feet NVGD.

Based on the results of our geotechnical studies and engineering analyses, it is our recommendation that the new tide gate structure be located at the east end of the levee at the base of Zinc Hill. This location is generally suitable for the construction of the proposed structure, with the understanding that there is seismic risk that includes relatively high levels of ground shaking that need to be accounted for in the design of the project.

4.2 GEOLOGIC HAZARDS

4.2.1 Fault Rupture

The site is located outside of the Alquist-Priolo Special Studies Zone for the closest known active fault as described in Section 3.2. Therefore, the hazard associated with surface fault rupture is low.

4.2.2 Ground Shaking

A design basis ground motion corresponding to the peak ground acceleration (pga) for the event with 10 percent chance of being exceeded in 50 years was selected in accordance with the procedure described in the Uniform Building Code (UBC, 1997). The United States Geological Survey National Seismic Hazard Mapping Survey (http://geohazards.cr.usgs.gov/eq/), provides the pga for the 10 percent in 50 year event on a grid with resolution to the nearest 0.1° latitude and longitude. The calculated weighted-average pga for the four nearest grid point locations to the levee, which is located at approximately 38.0307° latitude and 122.1111° longitude is 0.73g.

4.2.3 Liquefaction

Because of the classification of the material at the site, the probability of liquefaction at the site is low.

4.2.4 Landslide

There are no discernable landslide features on the west side of Zinc Hill. The landslide potential for Zinc Hill is considered to be low.

4.3 TIDE GATE FOUNDATION

Three alternative tide gate locations were considered in our analyses as follows:

Alternative 1 - 140 feet west of the east end of the levee

Alternative 2 - 40 feet west of the east end of the levee

Alternative 3 - The east end of the levee at the base of Zinc Hill

The foundation condition at Alternative 1 is soft Bay Mud varying in thickness from between 52 feet and 72 feet. At Alternative 2, the Bay Mud varies in thickness from 8 feet to 24 feet. Finally, the foundation condition at Alternative 3 is weathered sandstone and shale.

Mat and pile foundations for the tide gate structure were considered for Alternative 1 and Alternative 2. A mat on grade was considered for Alternative 3. The following assumptions were made in our evaluation.

- Construction of the tide gate structure at Alternative 1 or Alternative 2 will require widening of the levee from a 10 foot crest width to 15 feet to provide sufficient access to construct a tide gate structure similar to the existing structure. The height of the levee would be increased at the same time to a final crest elevation of 7.0 feet NVGD.

- Widening of the levee will be towards the south. It is our understanding that widening of the levee to the north will not be allowed due to permitting restrictions.

- Access for construction of the tide gate at the east end of the levee (Alternative 3) is available from the base of Zinc Hill either from Terminal Shores property or from a temporary access road along the new slough alignment.

4.3.1 Settlement Analyses

A tide gate structure constructed on a mat foundation similar to the existing tide gate at Alternative 1 or Alternative 2 will subside as soft, compressible sediments underlying the structure consolidate under additional loads placed on them. Consolidation of the underlying sediments will occur as a result of raising and widening the levee, which will occur prior to construction of the tide gate.

Additional levee fill was assumed to have a total unit weight of 125 pcf, which is similar to the materials placed during raising of the levee in 1999, (Harza, 1999a and 1999b.) Widening of the levee was assumed to be towards the south. Settlement calculations were based on one-dimensional primary consolidation theory.

For Alternative 1, primary consolidation of the underlying sediments was estimated to be approximately 60 inches at the center of the raised and widened levee and approximately 12 inches at the northern edge of the levee. Differential settlement from north to south is

exaggerated due to levee widening placing additional stress eccentrically towards the south rather than symmetrically on both sides of the levee. Differential settlement from east to west was estimated to be approximately 6 inches due to the steeply sloping bedrock surface below the unconsolidated sediments.

A similar estimate of settlement was made at Alternative 2 where the soft underlying soil is not as thick. At the center of the raised and widened levee it is estimated that approximately 14 inches of settlement will occur at the center of the structure and at the northern edge of the levee approximately 6 inches of settlement will occur. Differential settlement from east to west is estimated to be approximately 15 inches due to the steeply sloping bedrock surface below the unconsolidated sediments.

The calculated primary settlements stated above do not account for the following factors:

- Reduction of vertical stress on the subsurface soils that would occur when a portion of the levee is excavated for the tide gate structure.

- Preconsolidation of the subsurface soils resulting from raising of the levee prior to the start of construction of the Peyton Slough Remedial Project. It is our understanding that Contra Costa Mosquito and Vector Control District (CCMVCD) may raise the levee to elevation 7 feet NVGD sometime in 2002 prior to such construction.

Both factors will result in some reduction of total primary consolidation. The magnitude of the reduction would require modeling of consolidation in three dimensions and an understanding of the timing of the raising of the levee by CCMVCD in relation to construction of the tide gate.

Secondary consolidation during the life of the project was not calculated. However, substantial secondary consolidation should be anticipated based on the subsurface conditions present at the site.

4.3.2 Mat Foundation

4.3.2.1 Alternative 1 and Alternative 2

Based on the estimated ultimate and differential settlement during the life of the structure we do not recommend that a mat foundation be used for the tide gate structure at these locations.

4.3.2.2 Alternative 3

Based on foundation conditions at Alternative 3, we recommend a net allowable bearing capacity of 6,000 psf.

4.3.3 Pile Foundation

If Alternative 1 or Alternative 2 are selected, piles driven to bear directly on bedrock should be used to support the structure. Based on foundation conditions at Alternative 1 it is estimated that pile lengths for a 40 foot wide gate structure will vary from 60 feet to 80 feet in length from east to west. Pile lengths for Alternative 2 are estimated to vary from 10 to 25 feet. Harder driving through approximately 10 feet of stiffer clay overlying bedrock should be anticipated for Alternative 1. Approximately five feet of harder driving through stiffer clay overlying bedrock should be anticipated for Alternative 2. Pile design should consider "downdrag" forces due to the anticipated settlement discussed in 4.3.1.

4.3.4 Recommended Location For Tide Gate Structure

Based on our analyses, the tide gate structure can be placed on piles at Alternative 1 or Alternative 2 or it can be constructed on bedrock at Alternative 3. We recommend that the tide gate structure be founded on bedrock at the east end of the existing levee for the following reasons:

- Settlement of Bay Mud below a pile supported tide gate will require careful design of a cutoff to prevent seepage below the tide gate structure. A bedrock foundation surface alleviates this concern.

- Stability of the widened levee for Alternative 1 or Alternative 2 construction was not analyzed. However, based on the results discussed in Section 4.4, a widened levee stability may not be stable during construction.

- Construction costs should be reduced with the elimination of piles, elimination of widening of the levee, and potential simplification of the structure.

4.4 LEVEE STABILITY

Access for construction of the tide gate at Alternative 3 can occur either along the existing levee or from temporary access roads constructed south or north of the levee. The levee was analyzed to determine allowable surcharge loads during construction.

South of the existing levee the ground elevation of the marsh is approximately 0 feet N.G.V.D. A borrow pit having a bottom elevation of approximately –4 N.V.G.D. is located approximately 25 feet south of the toe of the levee. North of the levee, the ground elevation is approximately +3.5 feet N.V.G.D. Groundwater is present at the ground surface at the toe of the levee on both the upstream and downstream sides. The analyses assume that the levee has been raised to a final elevation of 7 feet N.V.G.D. 29 and that both the upstream and downstream sides are sloped at 3H:1V.

Levee fill materials were assumed to have similar properties to the existing fill materials. A total unit weight of 125 pcf was used based on results of testing of the upper lift of the levee after it was raised in 1999 (Harza, 1999). An undrained shear strength of 800 psf

was assumed for the levee material based on results of direct shear testing for material from the borrow pit compacted to 87 percent (ASTM D1557) reported in Harza (1996c).

The total unit weight used in the analysis for young Bay Mud with peat on which the levee is founded was 70 pcf, corresponding to the average unit weight of samples from the upper 20 feet of Boring URS-2. An undrained shear strength of 100 psf at the surface, which linearly increases with depth at a rate of 5 psf/foot was selected, corresponding to results from undrained shear strength testing in the upper 20 feet of the young Bay Mud with peat.

Slope stability analyses were performed using UTEXAS3 (Wright, 1992), a microcomputer program that uses the limit equilibrium method of slices. The results indicate that the raised levee has a factor of safety against sliding equal to 1.2 at the end of construction without considering surcharge loading due to construction activity. Construction surcharges equivalent to 150 psf on the levee reduce the factor of safety to 1.1. The factor of safety against sliding will increase with time as the underlying soft Bay Mud consolidates.

Based on this analysis it is not recommended that the levee be used for heavy construction traffic without modifications that might include resloping the side south of the levee, removal of a portion of the levee to reduce soil loads, and filling of the borrow pit. Prior to such modifications, stability analyses should be performed using the modified geometry and the anticipated surcharge loads due to construction equipment and traffic.

4.5 DESIGN EARTH PRESSURES AND RESISTANCE

The magnitude of lateral pressure exerted against an object by soil depends on several factors. They include the effective weight of soil, the nature of the soil (friction angle and cohesion), the depth of the soil, the slope of the surface of the soil, the direction of movement (soil moves toward the object, or object moves toward the soil), the amount of movement and any additional loads imposed on the soil behind the structure. For design purposes the "earth pressure coefficient" or "equivalent fluid pressure" is usually provided for determining the lateral earth pressure.

4.5.1.1 Static Lateral Earth Pressures

Soils acting against the walls of the tide gate structure will be a combination of levee fill and Bay Mud on the west side and compacted levee fill on the east side. Where cohesive materials are acting against structures at rest lateral earth pressure conditions should be used. We recommend that the lateral earth pressure be computed as an equivalent fluid weighing 81 pcf above groundwater and 41 pcf below groundwater. This pressure is based on horizontal backfill and no back-face wall batter and does not in include groundwater pressure acting against the wall.

Additional lateral earth pressure generated during construction activities as surface live loads should be used in design of the tide gate structure walls. The surface live loads were based on a Caterpillar CP-433C roller operating 2 feet or more from the wall. The induced lateral pressure distribution can be linear approximated as an inverted trapezoid as a function of depth as having an uniform pressure of 350 psf minus an equivalent fluid weight of 25 pcf.

The pressures shown above are based on the assumptions that backfill soils will be compacted to 85 percent of maximum dry density as determined by the ASTM D-1557 test method and that compaction of soil within two feet of the wall will be performed by hand-operated or other lightweight equipment to reduce potential "locked-in" lateral pressures caused by compaction with heavy grading equipment.

If other loading conditions are to be considered in the vicinity of the walls, URS should be contacted to provide additional recommendations.

4.5.1.2 Dynamic (Seismic) Lateral Earth Pressures

For cast-in-place reinforced concrete (CIPRC) walls in non-yielding, below grade structures, potential seismic loading should be considered. Wood (1973) developed the dynamic thrust, ΔPe_n, acting on smooth rigid non-yielding walls as:

$$\Delta Pe_n = k_h \gamma H^2$$

where k_h is horizontal ground acceleration divided by gravitational acceleration and H is the height of wall below the ground surface. For lateral earth pressure calculations, the horizontal acceleration acting against the retaining wall was reduced from 0.73g by 25 percent to 0.55 g.

The pressure diagram for this dynamic component can be approximated as an inverted trapezoid with stress decreasing with depth and the resultant acting at the distance 0.53 times the structure height above the base of the structure. The magnitude of the resultant is:

$$\Delta Pe_n = 58.4\ H^2$$

This dynamic component should be added to the at-rest static pressure for seismic loading conditions.

For cast-in-place reinforced concrete (CIPRC) walls that yield, potential seismic loading should be considered. Seed and Whitman (1970) developed the dynamic thrust, ΔPe_y, acting on yielding walls as:

$$\Delta Pe_y \sim (3/8)\ k_h\ \gamma\ H^2$$

where k_h is horizontal ground acceleration divided by gravitational acceleration and H is the height of wall. For lateral earth pressure calculations, the horizontal acceleration acting against the retaining wall was reduced from 0.73g by 25 percent to 0.55 g.

The pressure diagram for this dynamic component can be approximated as an inverted trapezoid with stress decreasing with depth and the resultant acting at the distance 0.6 times the structure height above the base of the structure. The magnitude of the resultant is:

$$\Delta Pe_y \sim 25.8\ H^2$$

This dynamic component should be added to the at-rest static pressure for the seismic loading conditions.

4.5.2 Lateral Resistance

An ultimate friction angle of 35 degrees is recommended for sliding resistance at the interface between the structure and the rock foundation. Development of sliding resistance is dependent upon the foundation bearing directly on undisturbed bedrock that has been properly cleaned and prepared.

4.6 DESIGN FLOOR SLAB

The concrete slab for the tide gate should be placed directly on bedrock that has been properly cleaned and prepared. Weathered shale exposed in the excavation will slake with exposure to repeated wetting and drying cycles. It is recommended that the foundation surface be blown with high pressure air prior to concrete placement to remove slaked bedrock.

4.7 DRAINAGE

Positive drainage should be established by sloping surfaces away from the structure, both during and after construction.

4.8 EARTHWORK

Based on the proposed structure plan and the existing grade, we anticipate that up to 14 feet of excavation is required for tide gate structure construction. The maximum excavation is located at the crest of the levee just downstream of centerline of the levee. The fill is anticipated primarily in the excavated areas.

Based on the boring information, it is anticipated that excavation of the on-site soil and bedrock can be accomplished with conventional earth moving equipment. The existing on-site levee material and Bay Mud material excavated from the new slough alignment should generally be suitable for reuse as backfill with proper moisture conditioning. Soil and bedrock materials excavated from Zinc Hill are not suitable for backfill behind the tide gate structure walls.

4.8.1 Site Preparation

It is recommended that prior to the start of earthwork operations, the existing ground surface be initially prepared for grading by removing all vegetation, debris, other organic

material, and non-complying fill (if present). Voids created by the removal of such material should be properly backfilled and compacted.

Excavation for the tide gate structure should be checked for loose, soft, deleterious or otherwise objectionable materials by the geotechnical engineer or his technical representative. Any disturbed, loose, soft, deleterious or otherwise objectionable materials encountered beneath foundation grade should be removed and replaced with mass concrete.

4.8.2 Open-cut Excavation

The slope selected for cut and fill slopes depends on many factors including: soil type, soil moisture content, acceptable factors of safety for static and seismic conditions, design life, ease of construction, susceptibility to erosion, and final landscaping treatment. *The slopes provided in this report are for design purposes only – the contractor should rely upon his own methods to determine and maintain safe and stable slopes during construction subject to his particular construction procedures and those subsurface conditions more fully exposed during construction.* Unless otherwise specified, slope recommendations provided in this report assume horizontal ground surfaces at the head and toe of the slope and do not include the effects of surcharge loadings (e.g., excavation spoil piles, or heavy equipment). *All excavations should comply, as a minimum, with the Occupational Safety and Health Administration's (OSHA) construction standards for excavations*. All excavations should be observed by qualified personnel.

We recommend the slope for temporary open-cut excavation into bedrock for tide gate construction not exceed 1:1 (horizontal to vertical). Permanent excavation slopes that will be exposed on Zinc Hill should not exceed 2:1 (horizontal to vertical).

Open cut excavation to the west of the proposed tide gate structure location is not recommended if the excavation exposes Bay Mud in the side of the cut slope. Our analyses indicates such an excavation is not stable if the levee fill on top of the bay mud cracks perpendicular to the dam axis.

Permanent excavation slopes for the new slough alignments upstream and downstream of the tide gate structure should not exceed 2:1 (horizontal to vertical). This recommendation is based on the condition that there are no construction live loads imposed along the side slopes of the new slough and does not consider seismic forces.

4.8.3 Support of Excavations

Internally braced temporary support for excavation may be required on the west side of the tide gate structure depending on its final location. Considerations for the design of such temporary support should include maintaining the integrity of the existing levee to seepage after construction. We recommend that such temporary shoring consist of internally braced sheetpile driven to bedrock. Sheetpile driven adjacent to the west wall of the structure can be used as the outer formwork for wall construction. Sheetpile driven

through the levee and underlying Bay Mud should provide protection against the formation of a seepage path through the levee due to deformation of soft Bay Mud aginst the sheetpiles and an increased seepage path length across the levee formed by the sheetpile corrugations.

Lateral earth pressures previously described and lateral pressures equal to one-half of construction surcharges due to equipment, traffic, or other loads should be used in the design for the internally braced shoring. The Contractor should be responsible for designing the temporary support system. URS should review the design of the excavation support system.

4.8.4 Seepage Controls

Seepage potential along or under the structure is anticipated to be low due to small head differences from upstream to downstream, length of the seepage path along the structure, and low permeability of levee fill and Bay Mud on the west side of the structure and levee fill against the east side of the structure.

Cutoff walls should be constructed at the downstream and upstream end of the structure to prevent seepage below the structure and to provide protection against undercutting of the structure.

4.8.5 Levee Fill

Levee fill should be clean Bay Mud free from debris, vegetation, roots, other deleterious material, and excess moisture.

We anticipate that on-site material dredged from the new slough alignment is suitable for reuse as levee fill after it has been appropriately moisture conditioned.

4.8.6 Compaction

Levee fill placed against the tide gate structure should be compacted to a minimum compaction of 85 as determined by ASTM D 1557.

We recommend that earth materials be placed and compacted as near to the optimum moisture content (as described by ASTM D 1557) as feasible. This practice generally facilitates achievement of minimum compacted densities. Fill materials should be placed in 8-inch loose lifts. In confined areas, lift thickness should be reduced, not exceeding 6-inch loose lifts. Adjacent concrete work should be allowed to obtain designed 28-day strength prior to backfilling. Large compaction equipment should not be allowed within 5 feet of any concrete work.

5.1 LIMITATIONS

This geotechnical study has been conducted in accordance with the standard of care commonly used as state-of-practice in the profession. No other warranties are either expressed or implied. The foundation recommendations presented in this report are developed exclusively for the proposed tide gate structure described in this report and are not valid for other locations and construction in the project vicinity. The recommendations made in this report are based on the assumption that the subsurface soil and groundwater conditions do not deviate appreciably from those disclosed in the exploratory borings. If any variations or undesirable conditions are encountered during construction, we should be notified so that additional recommendations can be made.

We should be informed of any changes that are made in the assumptions mentioned in this report so that additional recommendations may be given, if necessary. We recommend that URS has the opportunity to review those portions of the project plans and specifications that are affected by the recommendations made in this report to verify that the intent of our recommendations are properly incorporated into the construction documents. We also recommend that a geotechnical engineer be retained to observe the foundation excavation, earthwork, and the foundation construction to recognize differing site conditions.



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Philip J. Meymand, PhD, PE.

URS Senior Project Engineer

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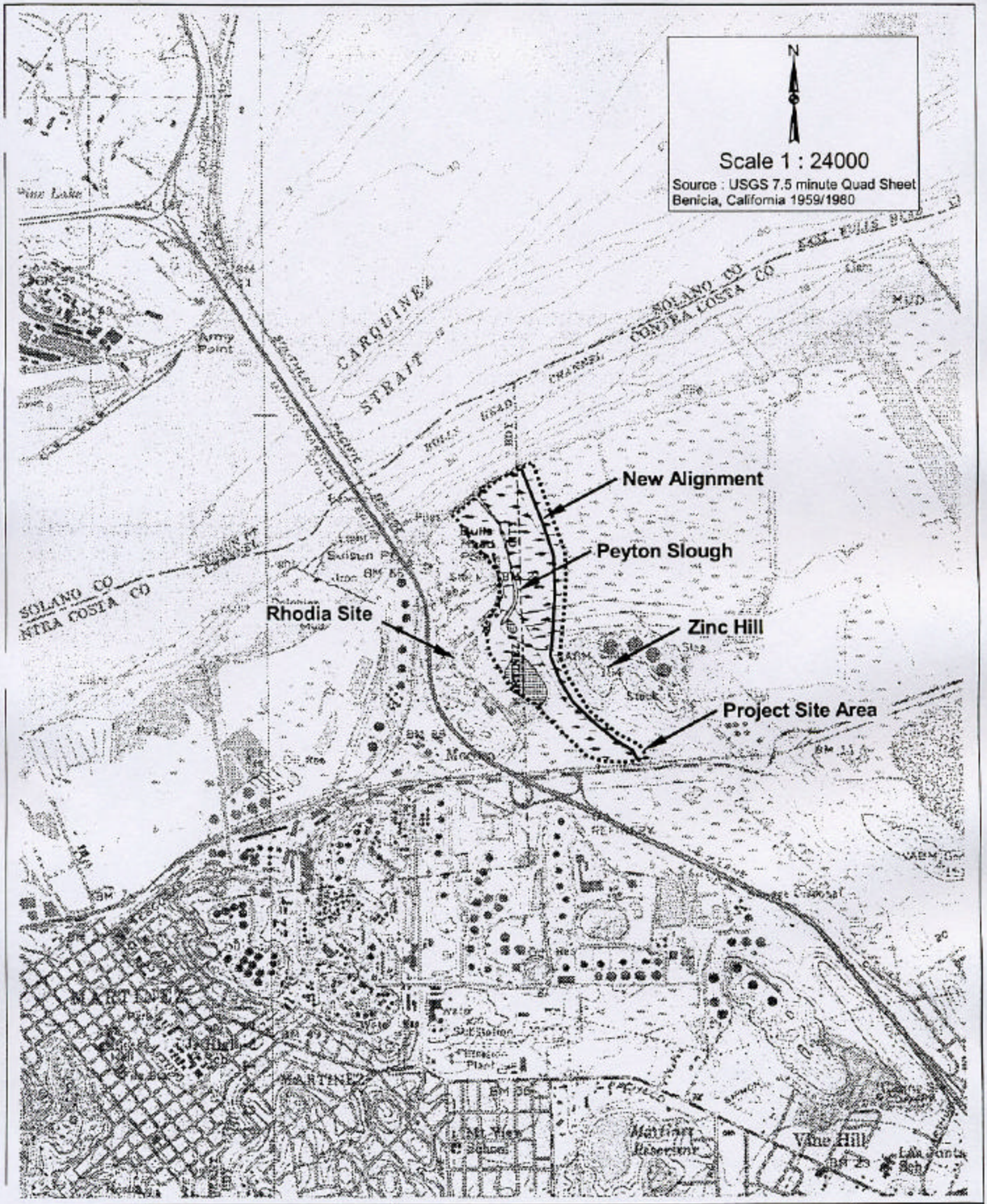
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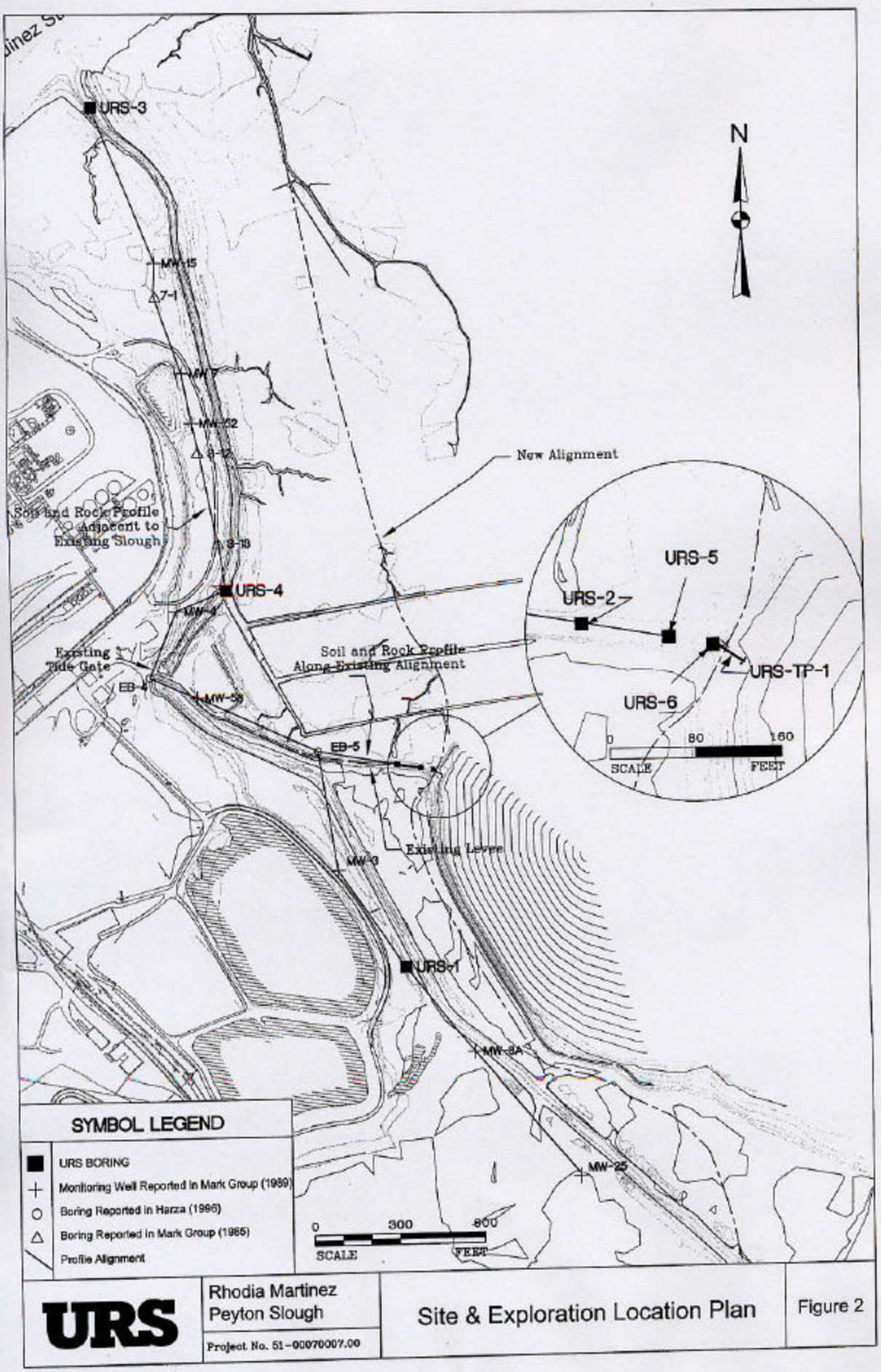
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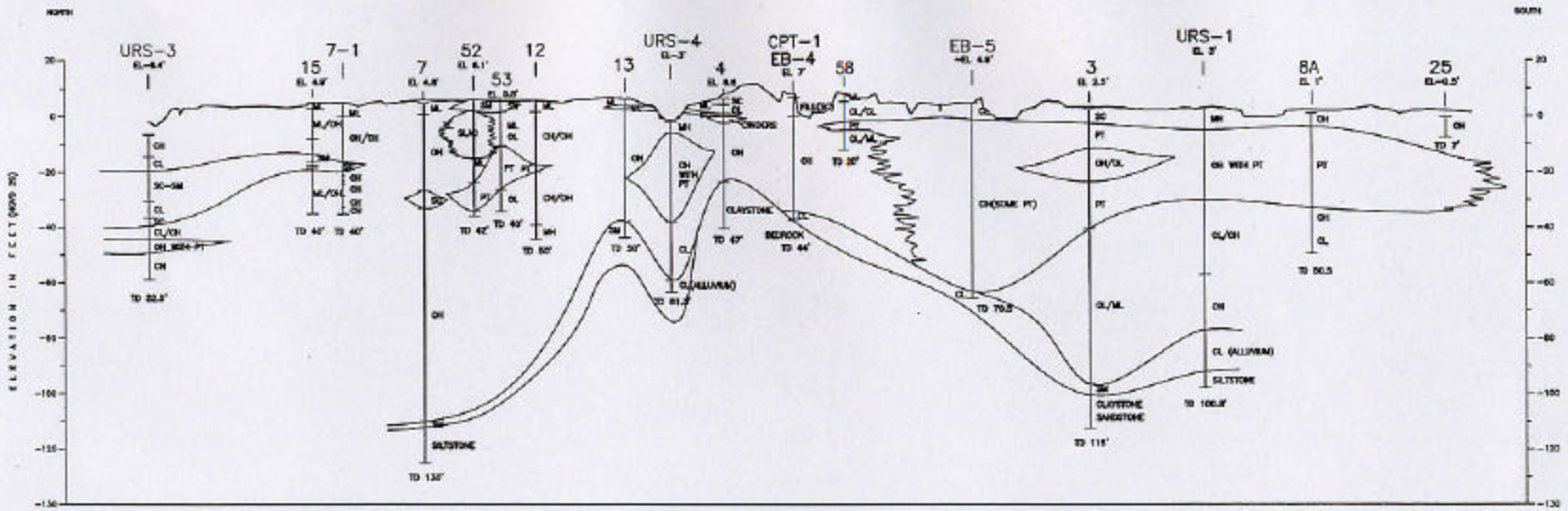
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URS	Rhodia Martinez Peyton Slough Project No. 51-00070007.00	VICINITY MAP	Figure 1

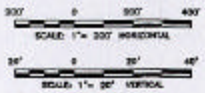
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URS-3
N
MW-15
7-1
MW-7
MW-32
8-12
New Alignment
Soil and Rock Profile Adjacent to Existing Slough
9-18
URS-4
MW-4
Existing Tide Gate
EB-4
MW-33
Soil and Rock Profile Along Existing Alignment
EB-5
URS-5
URS-2
URS-TP-1
URS-6
0
80
160
SCALE
FEET
Existing Levee
MW-3
URS-1
MW-3A
MW-25
0
300
600
SCALE
FEET
SYMBOL LEGEND
URS BORING
Monitoring Well Reported in Mark Group (1989)
Boring Reported in Harza (1986)
Boring Reported in Mark Group (1985)
Profile Alignment
URS
Rhodia Martinez
Peyton Slough
Project No. 51-00070007.00
Site & Exploration Location Plan
Figure 2

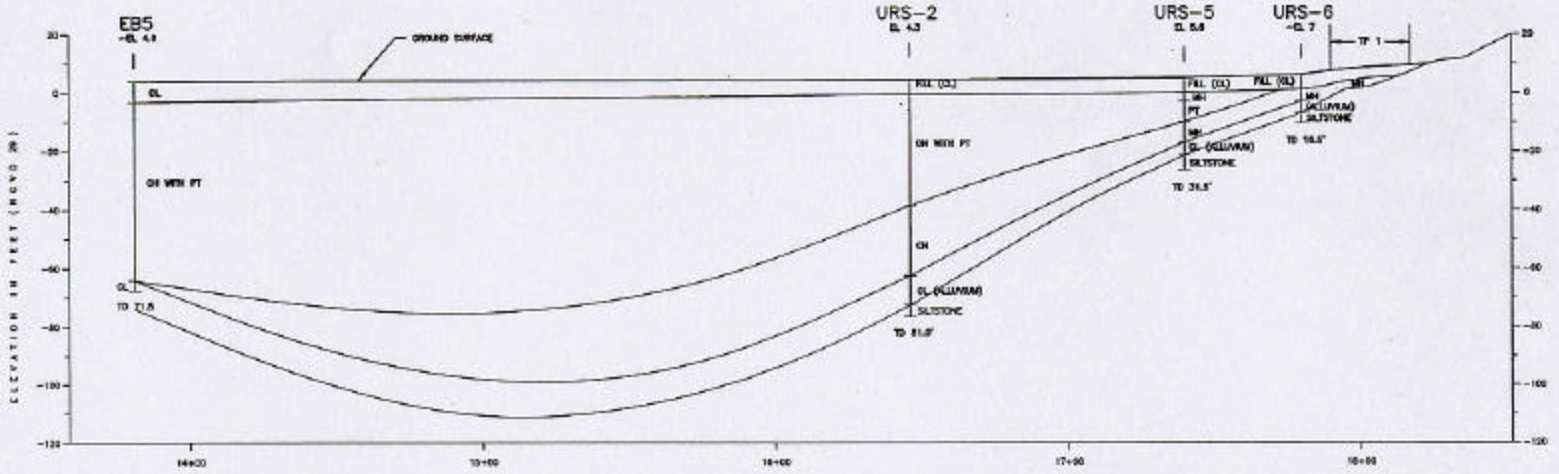


NOTES:

1. AFTER FIGURE 4-12, MARK GROUP (1989). REVISED TO INCLUDE BORING URS-1, URS-3, URS-4, EB-4, AND EB-5.
2. LOCATIONS OF BORINGS URS-1, URS-3, URS-4, EB-4, AND EB-5 ARE APPROXIMATE.
3. THE LINES DESIGNATING THE INTERFACE BETWEEN SUBSURFACE MATERIALS ON THIS GEOLOGIC SECTION ARE DETERMINED BY INTERPOLATION AND ARE THEREORE APPROXIMATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE SHARP OR GRADUAL. ONLY AT BORING LOCATIONS SHOULD PROFILES BE CONSIDERED TO BE REASONABLY ACCURATE AND THEN ONLY TO THE DEGREE IMPLIED BY THE ON THE BORING LOGS. REFER TO UNIFIED SOIL CLASSIFICATION SYSTEM FOR SOIL DESIGNATION EXPLANATION.
4. URS HAS INTERPRETED ALLUVIUM IN BORINGS NOT ORIGINALLY LOGGED BY OTHERS AS HAVING ALLUVIUM (BORINGS 3, 7, 13, EB-4, AND EB-5).
5. LOGS OF EB-4 AND EB-5 ARE FROM HARZA (1995a).

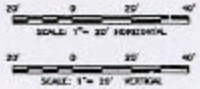


URS	Project No. 51-00070007.00 RHODIA MARTINEZ PEYTON SLOUGH	SOIL AND ROCK PROFILE ADJACENT TO EXISTING SLOUGH	FIGURE 3



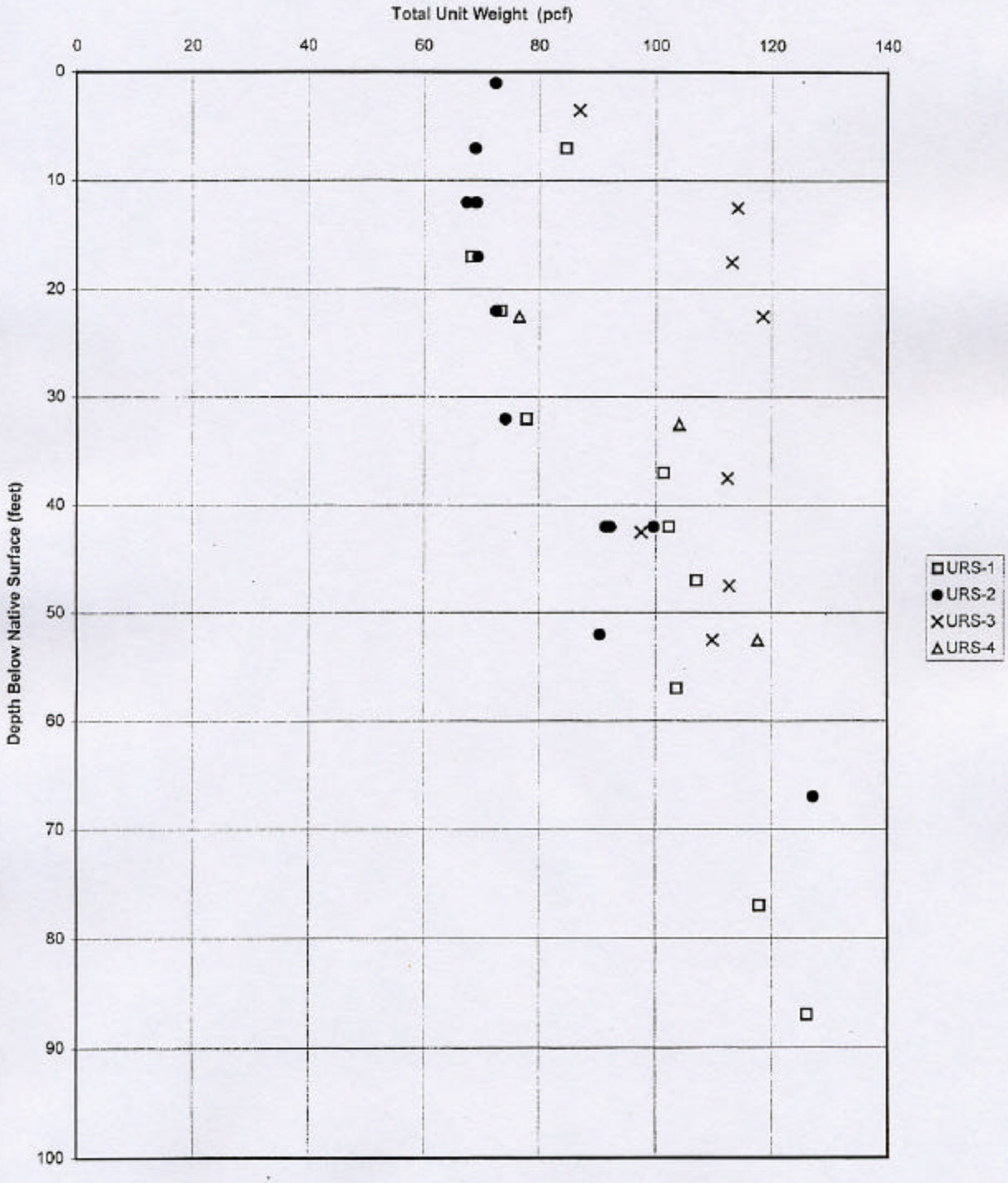
NOTES:

1. LEVEE STATIONING IS FROM GREENWELL AND ASSOCIATES, 1999.
2. BORING AND TEST PIT HORIZONTAL LOCATIONS ARE APPROXIMATE.
3. BORING ELEVATION FOR EB-5, AND URS-6 ARE APPROXIMATE.
4. THE LINES DESIGNATING THE INTERFACE BETWEEN SUBSURFACE MATERIALS ON THIS GEOLOGIC SECTION ARE DETERMINED BY INTERPOLATION AND ARE THEREFORE APPROXIMATIONS. THE TRANSITION BETWEEN MATERIALS MAY BE SHARP OR GRADUAL. ONLY AT BORING LOCATIONS SHOULD PROFILES BE CONSIDERED TO BE REASONABLY ACCURATE AND THEN ONLY TO THE DEGREE IMPLIED ON THE BORING LOGS. REFER TO UNIFIED SOIL CLASSIFICATION SYSTEM FOR SOIL DESIGNATION EXPLANATION.
5. URS HAS INTERPRETED ALLUVIUM IN BORINGS NOT ORIGINALLY LOGGED BY OTHERS AS HAVING ALLUVIUM (BORING EB-5).



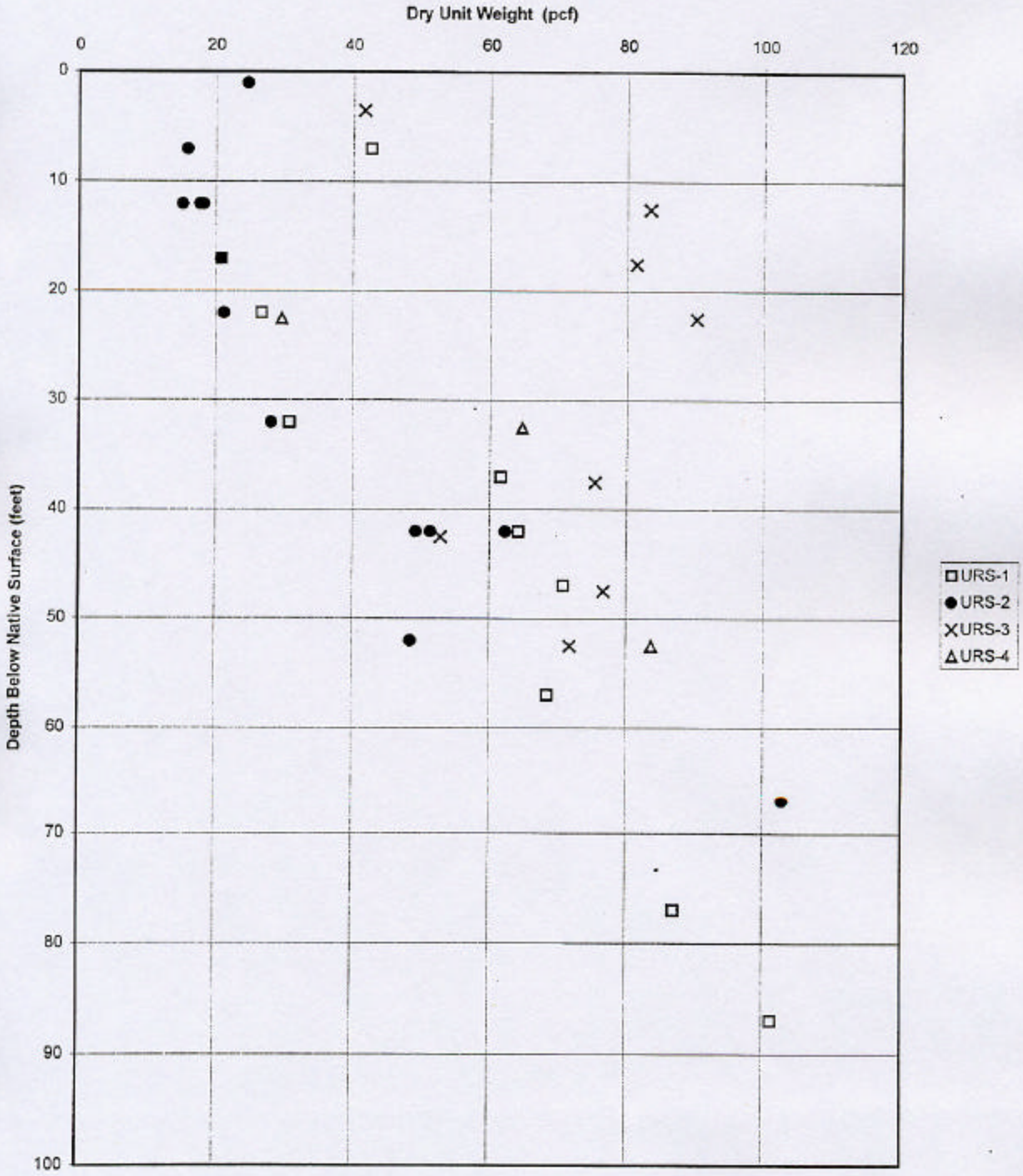
URS	Project No. 51-00070007.00 RHODIA MARTINEZ PEYTON SLOUGH	SOIL AND ROCK PROFILE ALONG LEVEE	FIGURE 4

Peyton Slough
Figure 5
Total Unit Weight Vs. Depth (Boring URS-1 to URS-4)



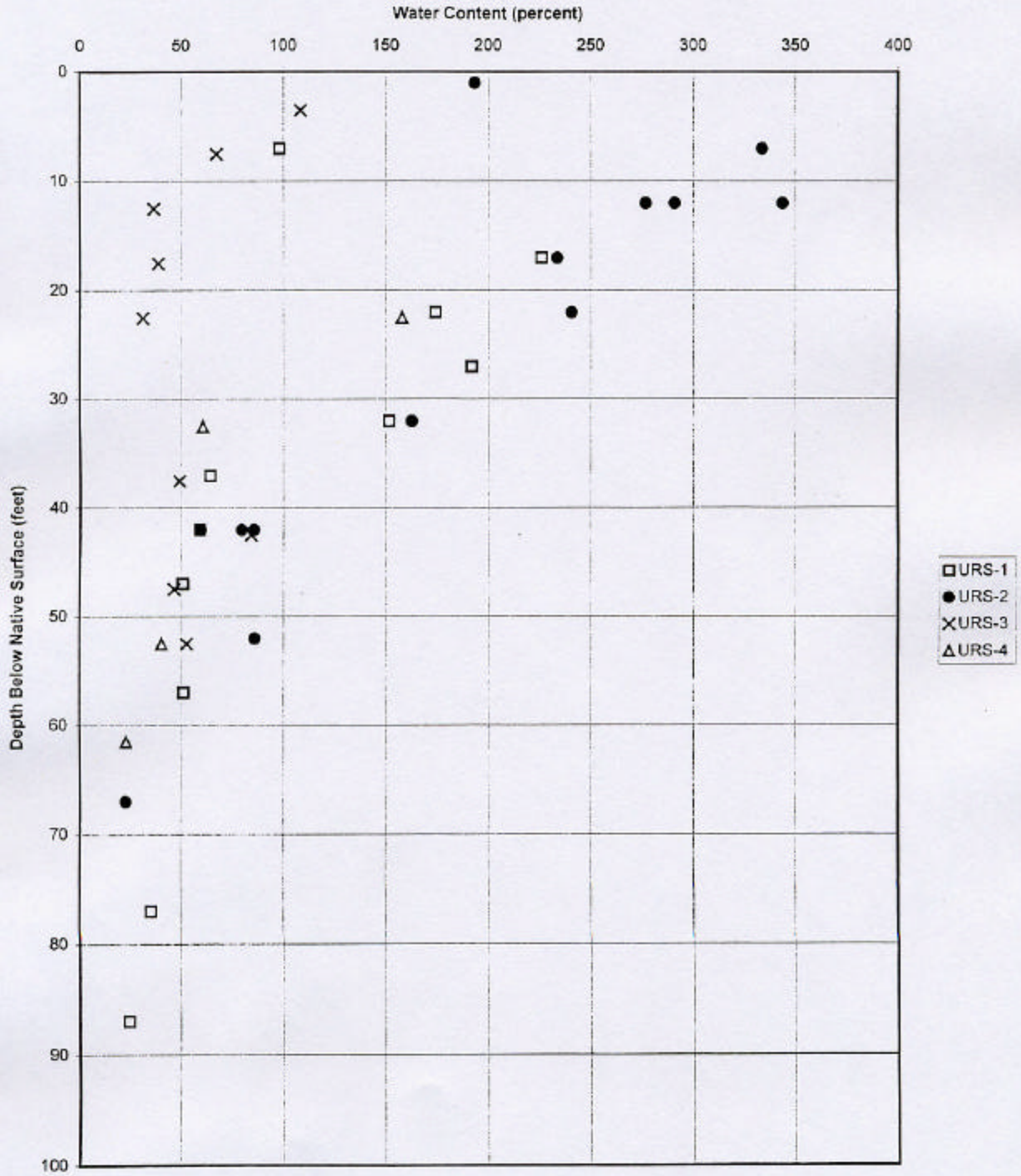
lab result summary.xls

Peyton Slough
Figure 6
Dry Unit Weight Vs. Depth (Boring URS-1 to URS-4)

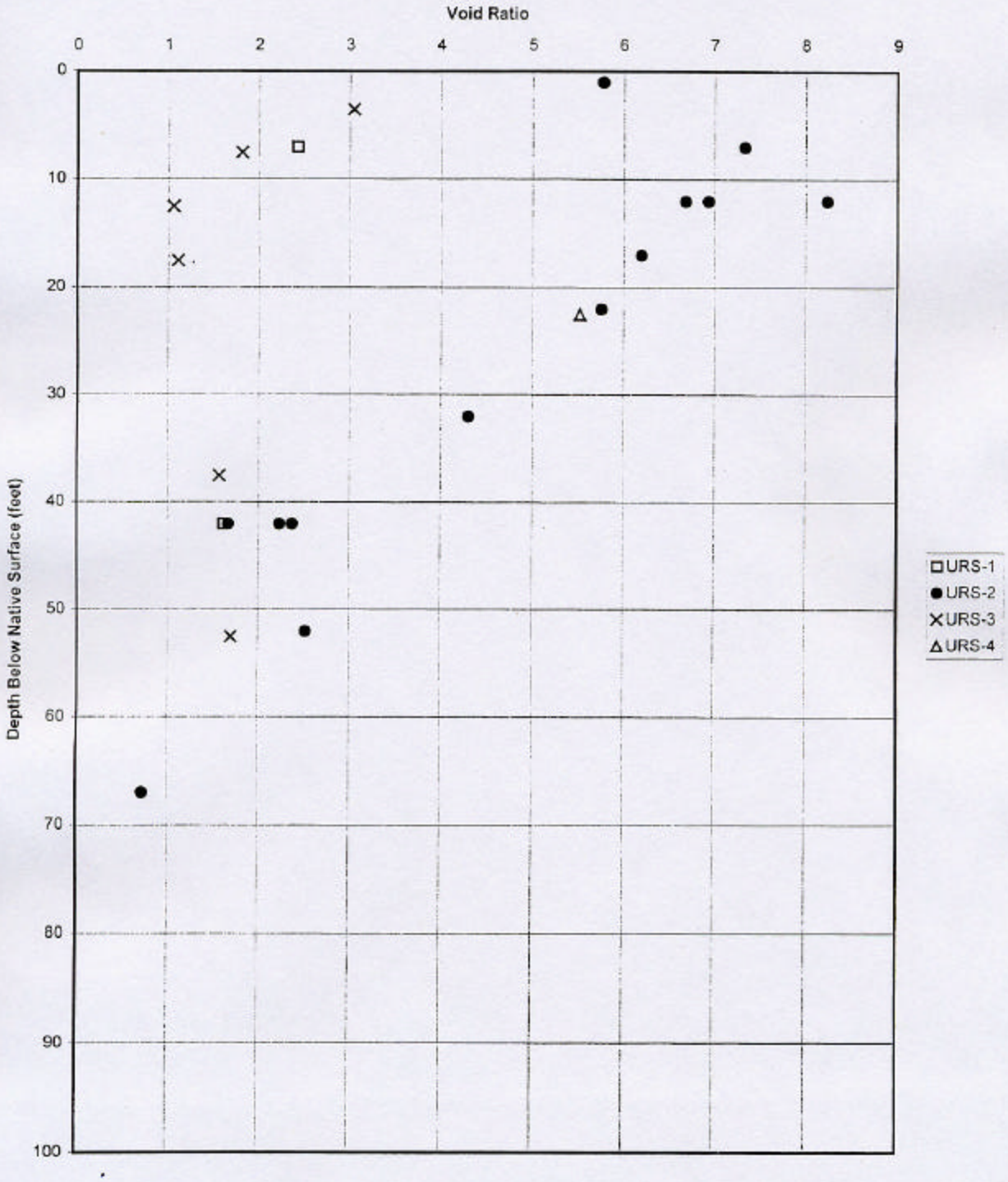


lab result summary.xls

Peyton Slough
Figure 7
Water Content Vs. Depth (Boring URS-1 to URS-4)

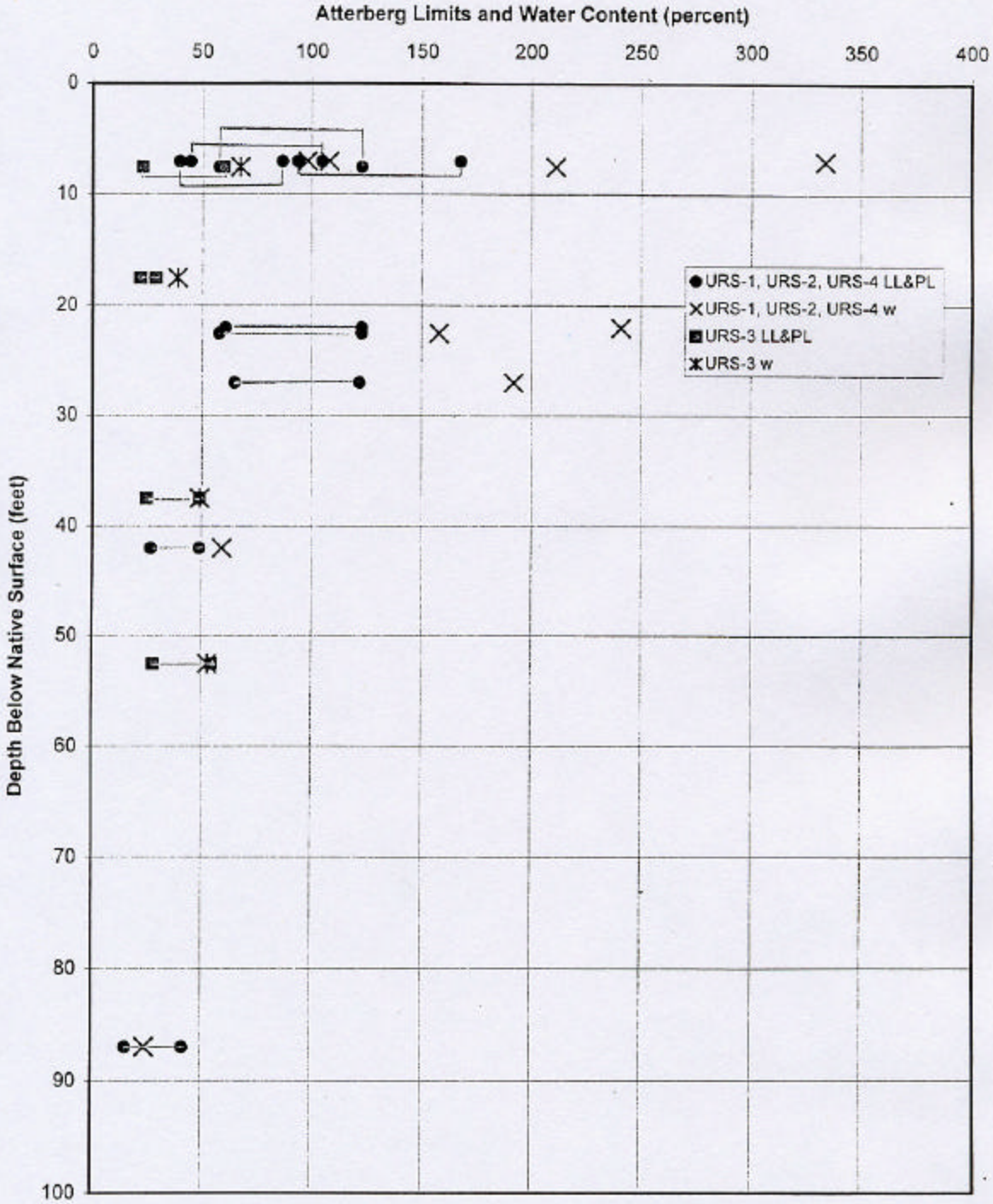


Peyton Slough
Figure 8
Void Ratio Vs. Depth (Boring URS-1 to URS-4)



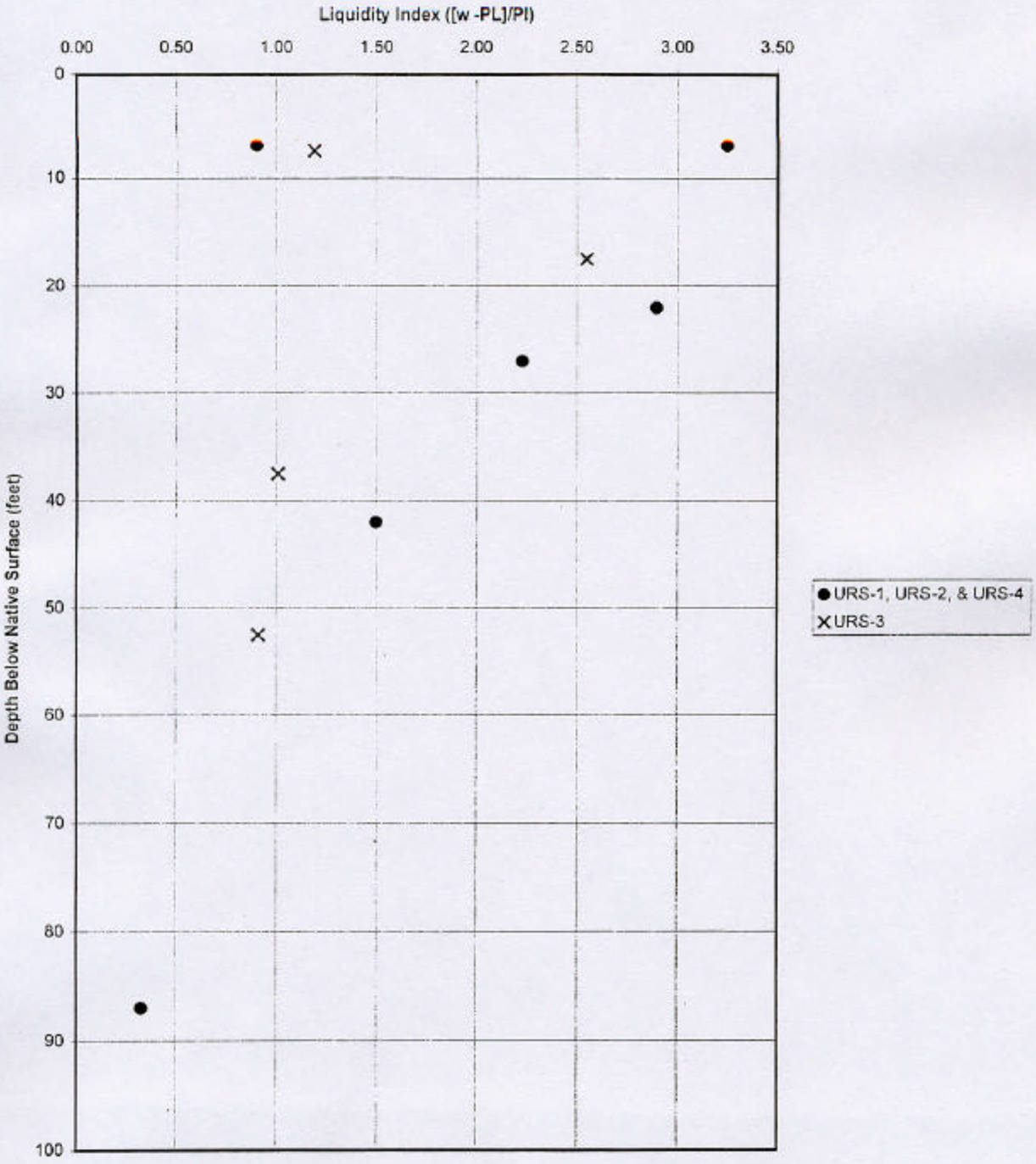
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Peyton Slough
Figure 9
Atterberg Limits Vs. Depth (Boring URS-1 to URS-4)

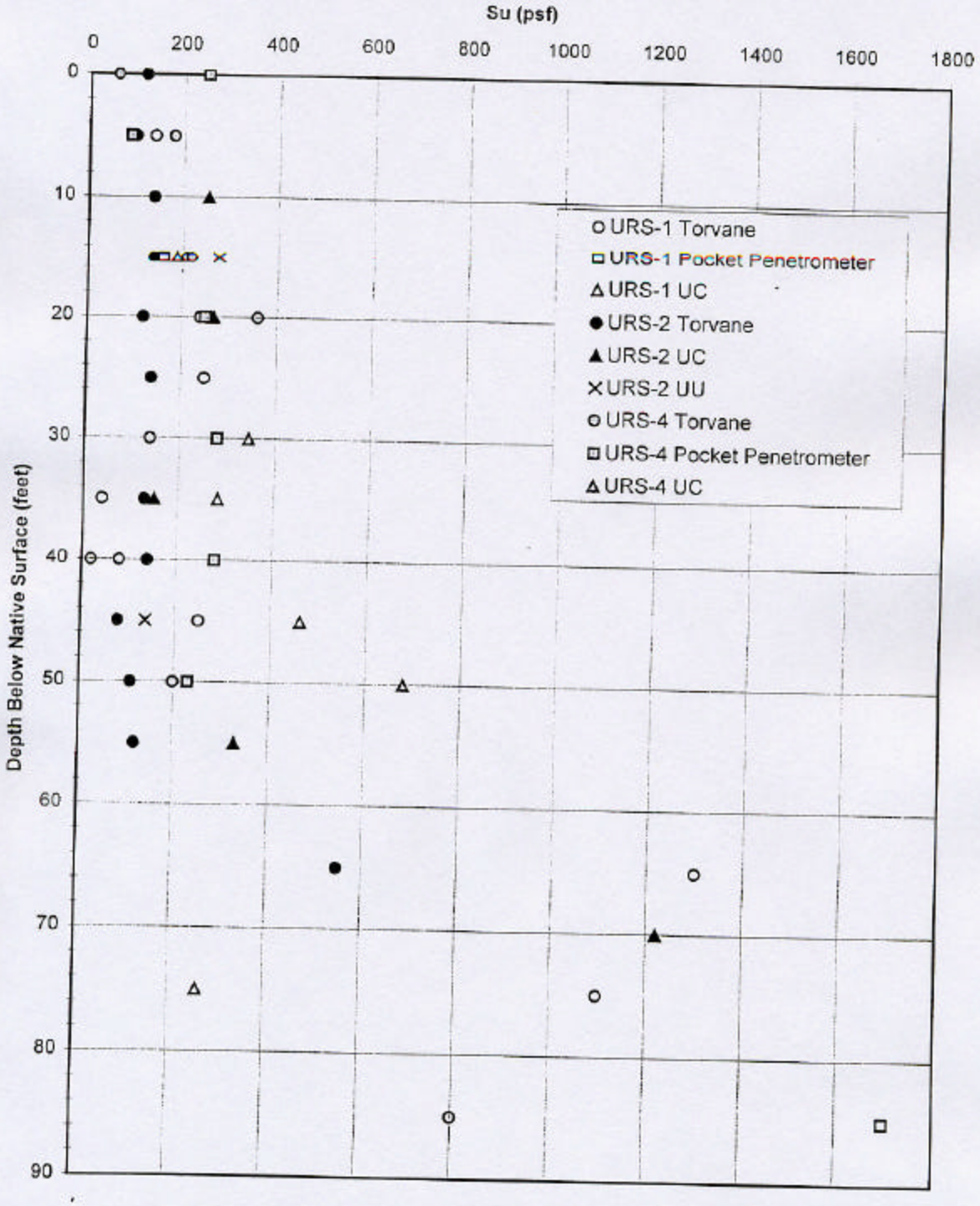


lab result summary.xls

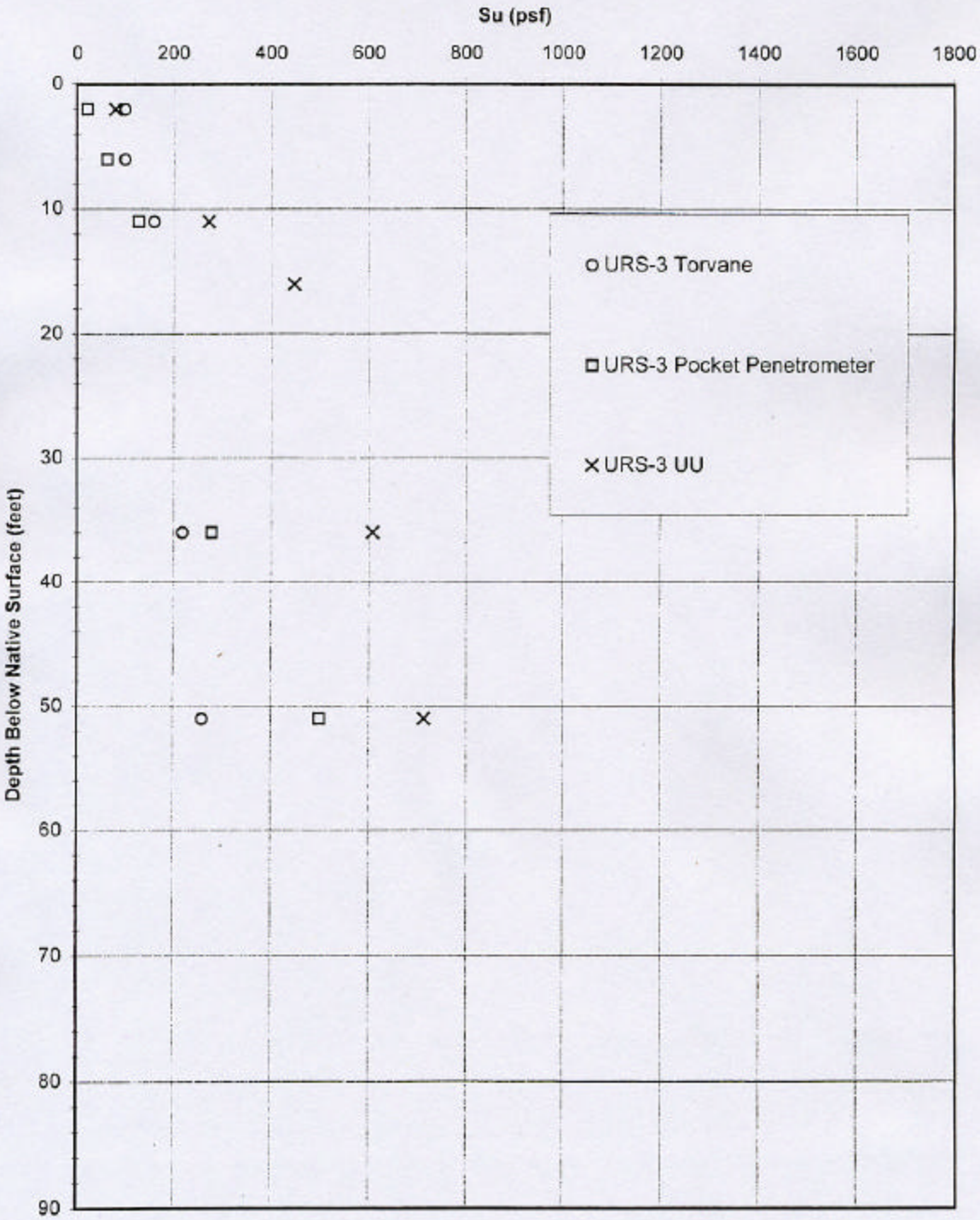
Peyton Slough
Figure 10
Liquidity Index Vs. Depth (Boring URS-1 to URS-4)



Peyton Slough
Figure 11
Undrained Shear Strength v Depth (Borings URS-1, URS-2, and URS-4)



Peyton Slough
Figure 12
Undrained Shear Strength v Depth (Boring URS-3)



A.1 FIELD EXPLORATION

Six exploratory borings were drilled for this study to depths of 16.5 to 100.75 feet to explore the subsurface conditions at the project site. Borings URS-B1, URS-B2, URS-B3 and URS-B4 were drilled between December 20, 2001 and December 27, 2001 and borings URS-B5 and URS-B6 were drilled between January 29, 2002 and January 30, 2002 under the supervision of an URS geologist. Borings URS-B1, URS-B2, URS-B5 and URS-B6 were drilled using a track-mounted CME 850 drilling rig and borings URS-B3 and URS-B4 were drilled using a barge mounted D-25 skid rig both of which were owned and operated by PC Exploration, Inc. of Rocklin, California.

One test pit was excavated to a depth of 13.2 feet BGS using a John Deere 310D Backhoe owned and operated by PC Exploration, Inc.

A.2 SOIL SAMPLING

Sampling Method

Soil samples were obtained at selected depths in the borings by advancing the sampler into the soils at the bottom of the borehole. The following type of sampling equipment was used:

- Standard 3-inch OD Shelby tubes and Small 2.5-inch OD Shelby tubes. The shelby tubes were attached to a drill rod and lowered through the augers to the bottom of the boring and then pushed 28 inches. The samples were left to sit in the hole for two minutes to allow the clay to swell and stick in the sampler.

- Modified California Sampler - 2-inch I.D., 2-½-inch O.D., split-barrel sampler equipped with four thin brass tube liners, three 4 inches long and one 6 inches long.

  The sampler was threaded to fit a cutting shoe on one end and a check-valve connection at the other end. After the borehole was drilled to the specified depth, the sampler was lowered down through the auger stem to the bottom, seated, and then driven into the soil with a 140-pound hammer falling 30 inches for each blow. The hammer was controlled by an autohammer system. The number of hammer blows required to advance the sampler each of the three successive 6-inch increments was counted in the field. The number of blows required to advance the sampler the last 12 inches was recorded as the penetration resistance (blows-per-foot).

After drilling and sampling, the boreholes were backfilled with lean cement grout and cuttings. Excess drill cuttings were drummed and labeled non-hazardous, cinder contaminated material and left in the Chemite building on site.

Sample Handling

Soil recovered from the Modified California sampler was retained in the thin brass liners; when the sampler was brought to the surface, the liners were taken from the sample barrel and sealed at both ends with plastic caps and vinyl tape. Shelby tubes collected in the borings were handled in the same manner.

A.3 LOGS OF BORINGS AND TEST PITS

The soil samples and cuttings were examined and classified in the field as the drilling proceeded. The samples were later taken to our geotechnical laboratory in Pleasant Hill, California, for further examination and testing. Preliminary visual soil classifications were made in accordance with the Unified Soil Classification System and verified by further inspection of the samples in the laboratory and by testing. Logs of borings were prepared from the field logs and laboratory test data.

The logs of borings show the soil classifications (according to the Unified Soil Classification System) of subsurface strata encountered, locations where soil samples were obtained, type of sampler used, sampling resistance, and the results of several of the laboratory tests.

The exploratory test pit was excavated using a John Deere 310D Backhoe. A URS geologist supervised the excavation and soil description efforts. During excavation, the exposed soil was examined and classified. Soil classifications were made in the field in accordance with the Unified soil Classification System. A log of the test pit was prepared and is presented in the Log of Test Pit, Figure A12.

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Key to Log of Boring

Sheet 1 of 1

Elevation feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	Sampling Resistance, blows / foot	SAMPLES: Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9	10	11	12

COLUMN DESCRIPTIONS

1 **Elevation:** Elevation in feet referenced to mean sea level (MSL) or site datum.

2 **Depth:** Depth in feet below the ground surface.

3 **Sample Type:** Type of soil sample collected at depth interval shown; sampler symbols are explained below.

4 **Sample Number:** Sample identification number.

5 **Sampling Resistance:** Number of blows to advance driven sampler 12 inches beyond first 6-inch interval, or distance noted, using a 140-lb hammer with a 30-inch drop; down-pressure for tube.

6 **Recovery:** Percentage of driven or pushed sample length recovered; "NA" indicates data not recorded.

7 **Graphic Log:** Graphic depiction of subsurface material encountered; typical symbols are explained below.

8 **Material Description:** Description of material encountered; may include color, moisture, grain size, and density/consistency.

9 **Water Content:** Water content of soil sample measured in laboratory, expressed as percentage of dry weight of specimen.

10 **Dry Unit Weight:** Dry density of soil sample measured in laboratory, expressed in pounds per cubic feet (pcf).

11 **Unconfined Compressive Strength:** Unconfined compressive strength of soil sample measured in laboratory, expressed in psf.

12 **Remarks and Other Tests:** Comments and observations regarding drilling or sampling made by driller or field personnel. Other field and laboratory test results, using the following abbreviations:

Gs	Specific gravity
LL	Liquid limit (Atterberg Limits test)
PI	Plasticity index (Atterberg Limits test)
PP	Pocket penetrometer field consistency test
SA	Sieve analysis, % < #200 sieve
UU	Unconsolidated undrained triaxial compression test
TV	Tor Vane field consistency test

TYPICAL MATERIAL GRAPHIC SYMBOLS

- SAND (SP/SW)
- LEAN CLAY (CL)
- FAT CLAY (CH)
- GRAVEL (GP/GW)
- CLAYEY SAND (SC)
- SILTY CLAY (CL)
- ORGANIC CLAY (OH)
- PEAT (PT)
- SILTY CLAYEY SAND (SC-SM)
- CLAYEY SILT (MH)
- ORGANIC SILT (OH)
- SILTSTONE

TYPICAL SAMPLER GRAPHIC SYMBOLS

- Modified California (2.5-inch OD)
- Standard Penetration Test (SPT) split spoon
- Standard Shelby tube (3-inch OD)
- Small Shelby tube (2.5-inch OD)
- California (3-inch OD)
- Rock core barrel

OTHER GRAPHIC SYMBOLS

- First water encountered at time of drilling and sampling (ATD)
- Static water level measured in boring at specified time after drilling
- Change in material properties within a lithologic stratum
- Inferred contact between strata or gradational change in lithology

GENERAL NOTES

1. Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive; actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2. Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

Report Ge..._81_OAK_KEY_PSF; File: RHODMAR.GPJ; 3/12/2002 urskey

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-1

Sheet 1 of 4

Date(s) Drilled	12/12/01 and 12/13/01	Logged By	J. Benton / L. Perez	Checked By	M. Schmoll
Drilling Method	Hollow-Stem Auger	Drill Bit Size/Type	4-1/4-inch ID, 8-inch OD auger bit	Total Depth of Borehole	100.8 feet
Drill Rig Type	Track-Mounted CME 850	Drilling Contractor	PC Exploration (Steve Levy)	Surface Elevation	3.00 feet (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Shelby tube, Modified California	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Neat cement	Location	Southernmost boring near fence on Rhodia property		

Elevation feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
0	0						CLAYEY SILT (MH) [Bay Mud] Very soft, moist, dark gray, high plasticity, with fine sand				Start at 1130 on 12/12/01. Pressure gauge not working properly; unable to record down pressure readings.
-0	5		1-1	Push	100			98	43		LL=105, PI=60 SA: 83%<#200 sieve TV=0.07 tsf
-5							ORGANIC CLAYEY SILT (OH) [Bay Mud] Very soft, wet, dark brown, high plasticity, abundant peat, strong organic odor				
	10		1-2	Push	100						No recovery in first push; full recovery in second attempt. TV=0.07 tsf
-10											
	15		1-3	Push	100			226	21		TV=0.105 tsf
-15							Becomes soft, dark gray to dark brown				
	20		1-4	Push	100			175	27	540	No down pressure on bit last 6 in. TV=0.18 tsf
-20											
	25		1-5	Push	60			192			Gs=2.37 LL=122, PI=57 TV=0.125 tsf
-25											
	30		1-6	Push	100		Becomes very soft				

URS

Report: GEL_1081_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-01

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-1

Sheet 2 of 4

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	SAMPLES Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	30						ORGANIC CLAYEY SILT (OH), very soft, wet, dark gray to dark brown, high plasticity, strong organic odor [Bay Mud] (continued)				
			1-6	Push	100			152	31		TV=0.07 tsf
-30							SILTY CLAY (CL/CH) [Bay Mud] Very soft, wet, dark bluish gray, medium to high plasticity, with peat (less than above)				
	35		1-7	Push	100			70	62	570	TV=0.02 tsf
-35											
	40		1-8	Push	100			59	64		LL=49, PI=22 TV=0.01 tsf
-40											
	45		1-9	Push	100			51	71		TV=0125 tsf
-45											
	50										
-50											
	55		1-10	Push	100			51	69		
-55											
	60						SILTY CLAY (CH) [Bay Mud] Medium stiff, wet, dark bluish gray, high plasticity, with fine sand				
-60											
	65		1-11	Push	100						End drilling for 12/12/01 at 1930. Resume at 0815 on 12/13/01.

Report: GEO_10B1_OAK File: RHODIMAR.GPJ 3/12/2002 URS.01

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-1

Sheet 3 of 4

Elevation feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	65						SILTY CLAY (CH), medium stiff, wet, dark bluish gray, high plasticity, with fine sand [Bay Mud] (continued)				
			1-11	Push	100						TV=0.65 tsf
-65											
	70										
-70											
	75										
			1-12	Push	100			36	87	520	
											TV=0.55 tsf
-75											
	80										
-80							SILTY CLAY (CL) [Alluvium] Stiff, moist, olive, medium plasticity, with fine sand				
	85										
			1-13	Push	100			25	101		LL=42, PI=26 SA: 87%<#200 sieve TV=0.40 tsf PP=1.5-2 tsf Pull up rods because augers sinking; much water coming from hole while pulling rods.
-85											
	90										
-90											
	95						SANDY SILTSTONE [Panoche Formation] Dark olive to olive gray, weathered				Driller notes harder drilling.
-95											
	100		1-14	95/9"							

Report: GEo_.tB1_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-01

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-1

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
			1-14	95/9"			SANDY SILTSTONE [Panoche Formation] (continued)				
							Bottom of boring at 100.8 feet				End drilling at 1300.
-100	105										
-105	110										
-110	115										
-115	120										
-120	125										
-125	130										
-130	135										

Report: GEO_1681_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS.01

URS

Project: Rhodia, Inc. Project Location: Martinez, California Project Number: 51-00070007.00	Log of Boring URS-2 Sheet 1 of 3

Date(s) Drilled	12/18/01	Logged By	J. Benton	Checked By	M. Schmoll
Drilling Method	Hollow-Stem Auger	Drill Bit Size/Type	4-1/4-inch ID, 8-inch-OD auger bit	Total Depth of Borehole	81.0 feet
Drill Rig Type	Track-Mounted CME 850	Drilling Contractor	PC Exploration (Steve Levy)	Surface Elevation	4.20 feet (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Shelby tube, Modified California	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Neat cement	Location	On the levee		

Elevation feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	0						SILTY CLAY (CL) [Fill] Medium stiff, moist, mottled light, medium, and dark brown, low plasticity, trace sand and fine gravel, trace orange iron oxide staining				Start at 0800.
			2-1	Push	50						TV=0.7 tsf
0	5		2-2	Push	100		ORGANIC CLAYEY SILT (OH) [Bay Mud] Very soft, moist, dark gray, high plasticity, abundant peat	194	25	510	TV=0.12 tsf
-5	10		2-3	Push	100		Becomes dark brown; increasing peat content	334	16		Gs=2.12 LL=168, PI=74 TV=0.10 tsf
-10	15		2-4	Push	100			344 277 291	15 18 18		UU=277 psf TV=0.14 tsf
-15	20		2-5	Push	100		Decreasing peat content	234	21	530	TV=0.14 tsf
-20	25		2-6	Push	100		Becomes dark brown to dark gray	241	21		LL=123, PI=62 TV=0.12 tsf
-25	30		2-7	Push	100		Becomes dark gray				

Report: s /81_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS 02

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-2

Sheet 2 of 3

Elevation feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	30						ORGANIC CLAYEY SILT (OH), very soft, moist, dark gray, high plasticity, abundant peat [Bay Mud] (continued)				
			2-7	Push	100						TV=0.14 tsf
-30	35		2-8	Push	100			163	28	300	TV=0.14 tsf
-35	40		2-9	Push	100		Becomes dark bluish gray				TV=0.13 tsf
-40	45		2-10	Push	100		FAT CLAY (CH) [Bay Mud] Very soft, moist, dark bluish gray, high plasticity	80 86 60	51 49 62		Rod drops 3 ft instead of pushing. UU=139 psf TV=0.14 tsf
-45	50		2-11	Push	100						TV=0.08 tsf
-50	55		2-12	Push	100		With peat layers	86	49	660	TV=0.11 tsf
-55	60		2-13	Push	100						TV=0.12 tsf
-60	65										

Report GEO_1061_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-02

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-2

Sheet 3 of 3

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	65						FAT CLAY (CH), very soft, moist, dark bluish gray, high plasticity, with peat layers [Bay Mud] (continued)				
							SILTY CLAY (CL) [Alluvium] Soft, moist, dark olive gray, low plasticity, with sandstone nodules				
-65	70		2-14	Push	100			23	103	2440	TV=0.55 tsf
-70	75										
							SILTSTONE [Panoche Formation] Dark olive to olive gray, weathered				Driller notes harder drilling.
-75	80		2-15	58							
							Bottom of boring at 81.0 feet				End drilling at 1540.
-80	85										
-85	90										
-90	95										
-95	100										

Report: G:_...\081_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-02

URS

Project: Rhodia, Inc. Project Location: Martinez, California Project Number: 51-00070007.00	**Log of Boring URS-3** Sheet 1 of 2

Date(s) Drilled	12/20/01	Logged By	J. Benton	Checked By	M. Schmoll
Drilling Method	Mud Rotary	Drill Bit Size/Type	3-1/2-inch-OD Scotty	Total Depth of Borehole	52.5 feet
Drill Rig Type	D-25 Skid Rig (on barge)	Drilling Contractor	PC Exploration (Steve Levy)	Surface Elevation	-6.38 feet at mudline (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Standard Shelby tube, small Shelby tube (2.5-inch-dia.), SPT	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Borehole collapse	Location	At mouth of slough (drilling from barge in approx. 7-1/2 feet of water; water surface elevation = 1.12 feet relative to NGVD 29)		

Elevation, feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	0						SILTY CLAY (CH) [Bay Mud] Very soft, wet, bluish gray, high plasticity				Start at 1130. Mudline=0 ft on log.
			3-1	Push	100			109	42		UU=79 psf TV=0.05 tsf PP=0.022 tsf
-10											
	5						With shell fragments				
			3-2	Push	90			68			GS=2.67 LL=60, PI=37 TV=0.05 tsf PP=0.0625 tsf
-15							SILTY CLAY (CL) [Bay Mud] Very soft, wet, dark bluish gray, low plasticity				
	10										
			3-3	Push	100			37	83		UU=273 psf TV=0.08 tsf PP=0.28 tsf
-20							SILTY CLAYEY SAND (SC-SM) [Bay Mud] Wet, bluish gray, with shell fragments				
	15										
			3-4	Push	100			39	81		Gs=2.68 LL=29, PI=7 SA: 41%<#200 sieve UU=448 psf
-25											
	20										
			3-5	Push	100			31	90		
-30											
	25						SANDY SILTY CLAY (CL) [Bay Mud] Very soft, wet, bluish gray, with shell fragments				
			3-6	2	100						SA: 72%<#200 sieve
-35											
	30										

Report: G...31_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-03

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-3

Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES Type	Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	30						CLAYEY SAND (SC) [Bay Mud] Wet, bluish gray, with shell fragments				
			3-7	Push	100						
-40							SILTY CLAY (CL/CH) [Bay Mud] Very soft, wet, bluish gray, medium to high plasticity, with fine sand				
	35										LL=49, PI=24 SA: 85%<#200 sieve
			3-8	Push	100			49	75		UU=609 psf TV=0.11 tsf PP=0.28 tsf
-45							ORGANIC SILTY CLAY (OH) [Bay Mud] Very soft, wet, medium brown, high plasticity, with woody peat fragments				
	40										
			3-9	Push	50			85	53		TV=0.13 tsf PP=0.5 tsf
-50							SILTY CLAY (CH) [Bay Mud] Very soft, wet, bluish gray, high plasticity, trace fine sand				
	45										Could not test; bottom of sample appears to have been sucked out.
			3-10	Push	90			47	77		
-55											
	50						Trace to no fine sand				
			3-11	Push	100			53	72		LL=55, PI=27 UU=714 psf TV=0.12 tsf PP=0.28 tsf
							Bottom of boring at 52.5 feet				
-60											
	55										
-65											
	60										
-70											
	65										

Report: GEO_10B1_OAK File: RHODMAR.GPJ 3/12/2002 URS-03

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-4

Sheet 1 of 2

Date(s) Drilled	12/26/01 and 12/27/01	Logged By	J. Benton	Checked By	M. Schmoll
Drilling Method	Mud Rotary	Drill Bit Size/Type	3-1/2-inch-OD Scotty	Total Depth of Borehole	61.5 feet
Drill Rig Type	D-25 Skid Rig (on barge)	Drilling Contractor	PC Exploration (Steve Levy)	Surface Elevation	-3.54 feet at mudline (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Standard Shelby tube, small Shelby tube, Modified California	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Borehole collapse	Location	Slough intersection (drilling from barge in approx. 3-1/4 feet of water; water surface elevation = -0.29 feet relative to NGVD 29)		

Elevation, feet	Depth, feet	Sample Type	Sample Number	Sampling Resistance, blows / foot	Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	0						CLAYEY SILT (MH) [Bay Mud] Very soft, wet, bluish gray to black, high plasticity, with fine sand				Start at 1130. Mudline=0 ft on log.
-5			4-1	Push	100			108			LL=87, PI=47 SA: 88%<#200 sieve TV=0.08 tsf PP=0.09 tsf
	5						ORGANIC CLAYEY SILT (OH) [Bay Mud] Very soft, wet, bluish gray to medium brown, high plasticity, abundant peat, strong organic odor				Three attempts to get recovery in tube.
-10			4-2	Push	100			272	25		Gs=2.57 LL=123, PI=65 TV=0.09 tsf PP=0.09 tsf
	10										
-15			4-3	Push	0						No recovery in three attempts.
	15										
-20			4-4	Push	100			132	35	380	TV=0.11 tsf PP=0.16 tsf
	20										
-25			4-5	Push	100			158	30		LL=123, PI=66 TV=0.12 tsf PP=0.25 tsf
	25										End drilling for 12/26/01 due to low tidal condition (rods are bending). Resume drilling on 12/27/01.
-30											
	30										

Report: 0B1_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-04

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-4

Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	30						ORGANIC CLAYEY SILT (OH), very soft, wet, bluish gray to medium brown, high plasticity, abundant peat, strong organic odor [Bay Mud] (continued)				
-35			4-6	Push	100		Decreasing peat content	61	65	690	TV=0.07 tsf PP=0.28 tsf
	35										
-40							SANDY SILTY CLAY (CL) [Bay Mud] Very soft, moist, bluish gray to medium brown, low plasticity				
	40										
-45			4-7	Push	70						TV=0.04 tsf PP=0.28 tsf
	45										
-50											
	50										
-55			4-8	Push	100			41	84	1360	TV=0.10 tsf PP=0.23 tsf
	55										
-60							SILTY CLAY (CL) [Alluvium] Hard, moist, olive gray, low plasticity				
	60		4-9	50	0			23			No recovery with Shelby; resample with Mod Cal and recover only soil on outside of sampler (baggie).
-65							Bottom of boring at 61.5 feet				
	65										

Report: GEO_1081_OAK; File: RHODMAR.GPJ; 3/12/2002 URS.04

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-5

Date(s) Drilled	1/29/02	Logged By	J. Benton	Checked By	M. Schmoll
Drilling Method	Hollow-Stem Auger	Drill Bit Size/Type	4-1/4-inch ID, 8-inch-OD auger bit	Total Depth of Borehole	31.5 feet
Drill Rig Type	Track-Mounted CME 850	Drilling Contractor	PC Exploration (Bob Gansberg)	Surface Elevation	5.60 feet (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Shelby tube, Modified California	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Neat cement	Location	East end of levee, 82 feet east of URS-2, 45 feet from barbed wire fence		

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
5	0						SILTY CLAY (CL) [Fill] Dry, light tan				Start at 1022.
0	5		5-1	Push	70		CLAYEY SILT (MH) [Bay Mud] Soft, moist, bluish gray, high plasticity, some iron oxide staining				TV=0.55 tsf PP=0.5 tsf
-5	10			Push	100		PEAT (PT) [Bay Mud] Soft, moist, dark brown, highly organic, with clayey silt				No sample retained. TV=0.08 tsf PP=0.16 tsf
-10	15			Push	0		CLAYEY SILT (MH) [Bay Mud] Very soft, moist, bluish gray, high plasticity				Push Shelby tube twice from 15-17.5 ft; no recovery in either attempt.
-15	20		5-2	Push	100						TV=0.12 tsf PP=0.16 tsf
-20	25		5-3	Push	100		SILTY CLAY (CL) [Alluvium] Soft, moist, olive gray, low plasticity				Contact based on drillers' observation of increased difficulty in pushing sampler.
	30						SILTSTONE [Panoche Formation] Olive, highly weathered, moist				

Report: GEO_1081_OAK; File: RHODIMAR.GPJ; 3/12/2002 URS-05

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-5

Sheet 2 of 2

Elevation feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
-25	30		5-4	80/11"			SILTSTONE [Panoche Formation] Light olive to light tan, moderately weathered, moist, some calcite veins, orange iron oxide staining				Push Shelby at 30 ft; refusal after 2 inches.
							Bottom of boring at 31.5 feet				End drilling at 1143.
-30	35										
-35	40										
-40	45										
-45	50										
-50	55										
-55	60										
	65										

Report: GEO_10B1_OAK; File: RHODIMAR.GPJ; 3/12/2002; URS-05

URS

Project: Rhodia, Inc.
Project Location: Martinez, California
Project Number: 51-00070007.00

Log of Boring URS-6

Sheet 1 of 1

Date(s) Drilled	1/29/02	Logged By	J. Benton	Checked By	M. Schmoll
Drilling Method	Hollow-Stem Auger	Drill Bit Size/Type	4-1/4-inch ID, 8-inch-OD auger bit	Total Depth of Borehole	16.5 feet
Drill Rig Type	Track-Mounted CME 850	Drilling Contractor	PC Exploration (Bob Gansberg)	Surface Elevation	approx. 7 feet (relative to NGVD 29)
Groundwater Level and Date Measured	Not measured	Sampling Method(s)	Shelby tube, Modified California	Hammer Data	140 lbs, 30-inch drop
Borehole Backfill	Neat cement	Location	East end of levee, 5 feet from barbed wire fence		

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	Sampling Resistance, blows / foot	SAMPLES Recovery, %	Graphic Log	MATERIAL DESCRIPTION	Water Content, %	Dry Unit Weight, pcf	Unconfined Compressive Strength, psf	REMARKS AND OTHER TESTS
	0						SILTY CLAY (CL) [Fill] Dry, light tan				
-5	5						CLAYEY SILT (MH) [Bay Mud] Soft, moist, bluish gray, high plasticity, some iron oxide staining				
0			6-1	Push	25						TV=0.18 tsf PP=0.27 tsf
	10						SANDY SILTY CLAY (CL) [Alluvium] Soft, moist, olive, low plasticity, occasional iron oxide staining				
-5			6-2	Push	100						TV=0.55 tsf PP=0.75 tsf
	15						SILTSTONE [Panoche Formation] Light tan to olive, moderately weathered, moist				Driller notes firmer at 13 ft.
			6-3	72	NA						Sampler stuck in rock; drill out sampler.
-10							Bottom of boring at 16.5 feet				End drilling at 1415.
	20										
-15											
	25										
-20											
	30										

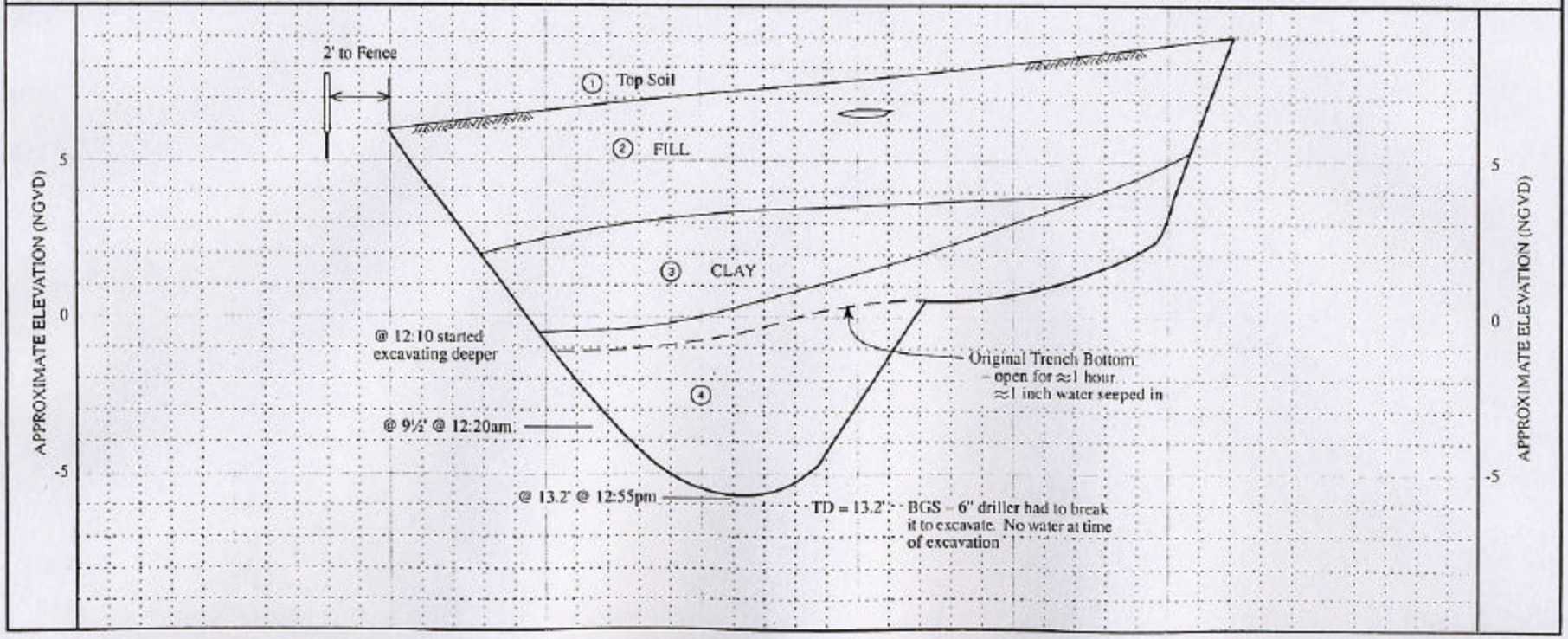
URS

Report G... .B1_OAK; File: RHODMAR.GPJ; 3/12/2002 URS-08

Excavated by: PC Bob Gransbery	Geologist/Engineer: J. Benton	URS LOG OF TEST PIT NO. TP-1	Project: Rhodia, Inc.	
Equipment Used: 310D John Deere	Date: 01/30/02		Project No.: 51-00070007.00	Pit Location: East End of Levy

DESCRIPTION	PHYSICAL CONDITION	ATTITUDES	SAMPLES
① Low plasticity CLAY (CL) – moist, light brown, low plasticity silty clay: (topsoil)			
② Low plasticity CLAY (CL) – stiff moist, dark brown, low plasticity silty CLAY; (fill)	Highly weathered	Not possible	
③ Fat CLAY (CH) – very stiff, moist, dark brown, high plasticity CLAY; (Alluvium)			
④ Interbedded Fine SANDSTONE-CLAYSTONE – light green to tan with orange iron staining, very fine grained, highly weathered, becoming less weathered ≈11' to trace silt at 15'	Less weathered		

Scale: 1" = 5' Horizontal 1" = 5' GRAPHIC REPRESENTATION Elevation: ~3' Pit Trend: 115°



APPENDIX B LABORATORY TEST RESULTS

A geotechnical testing program was performed in the laboratory to measure the index and engineering properties of representative soil samples obtained from the exploratory borings. The testing was performed by URS Laboratory in Pleasant Hill, California.

The following laboratory tests were performed on selected soil samples:

- Water content (ASTM D2216)
- Dry density (ASTM D2850)
- Unconfined compressive strength (ASTM D2166)
- Atterberg limits (ASTM D4318)
- Grain size and hydrometer analyses (ASTM D422)
- Consolidation tests (ASTM D2435)
- Unconsolidated Undrained Triaxial Tests (ASTM D2850)

A summary of the laboratory test results is given in Tables B-1 and B-2. The test result sheets are attached generally in order by boring and test number.

Consolidation Tests

Table B-2 presents the results of the consolidation tests. For each test, the table summarizes the moisture content, unit weight, in-situ effective stress, maximum past pressure, overconsolidation ratio (OCR), the compression ratio (CR), recompression ratio (RR), coefficient of consolidation during virgin compression ($c_{v(virgin)}$) and coefficient of consolidation during recompression ($c_{v(rec)}$).

The in-situ effective stress was calculated by assuming a unit weight based on laboratory tests. The maximum past pressure was estimated using the Casagrande construction and the end-of-primary consolidation curve. The overconsolidation ratio (OCR) was computed by dividing the maximum past pressure by the in-situ effective stress. The compressibility parameters, CR and RR, were obtained from the end-of-primary consolidation curve. The compression ratio (CR) and recompression ratio represent the vertical strain per log cycle of stress during virgin compression and recompression, respectively. Using the square root of time method, the vertical coefficient of consolidation (c_v) was calculated for virgin compression ($c_{v(virgin)}$) and for recompression ($c_{v(rec)}$).

APPENDIX B LABORATORY TEST RESULTS

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- Unconsolidated Undrained Triaxial Tests (ASTM D2850)

RHODIA MARTINEZ
PEYTON SLOUGH

TABLE B-1 - SUMMARY OF LABORATORY RESULTS

	sample	fill	depth below			γ moist	γ dry	ω	Gs		Lab Calculation		Atterberg Limits				Gradation				UU	UC	UC	strain at
specimen	type	thickness	surface		Lab Classification	(pcf)	(pcf)	(%)	Calculated	Lab Assumed	e	S	LL	PL	PI	LI	gravel	sand	fines	USCS	c (psf)	2xc(psf)	c (psf)	failure (%)
1-1	Shelby	0	4.5	7	Gray brown organic silty clay to clayey silt	84.7	42.7	98.4		2.35	2.43	96.0	105	45	60	0.90			83	MH				
1-3	Shelby	0	14.5	17	Dark brown silty clay with organics	68.3	20.9	226.3																
1-4	Shelby	0	19.5	22	Gray brown clayey peat/peaty clay	73.4	26.7	174.5																
1-4*					Brownish gray organic clay (Bay Mud)	78.7	31.1	153.3														537	269	6.1
1-5	Shelby	0	24.5	27	Dark brown clayey organics/organic clay			192.2	237				122	65	57	2.23								
1-6	Shelby	0	29.5	32	Gray silty clay with peat	77.9	30.9	151.8																
1-7	Shelby	0	34.5	37	Gray silty clay with organics	101.4	61.6	64.5																
1-7*					Gray silty clay (Bay Mud) with organics	100.9	61.0	66.4														567	284	10.0
1-8	Shelby	0	39.5	42	Gray silty clay with traces of organics	102.3	64.2	59.4		2.43	1.62	98.0	49	27	22	1.50								
1-9	Shelby	0	44.5	47	Gray silty clay	107	70.8	51.1																
1-9*					Gray silty clay/clayey silt	107.0	70.6	51.6														926	463	10.0
1-10	Shelby	0	54.5	57	Gray silty clay	103.6	68.5	51.3																
1-12	Shelby	0	74.5	77	Brownish gray silty clay with sand	118	87.1	35.5																
1-12*					Gray silty clay with fine sand	111.8	80.5	38.8														521	261	7.5
1-13	Shelby	0	84.5	87	Olive gray sandy silty clay	126.2	101.3	24.6					42	16	26	0.33			87	CL				
2-2	Shelby	5	4.5	6	Dark greyish brown peaty clay	72.5	24.7	193.6		2.68	5.78	89.9										506	253	9.0
2-3	Shelby	5	9.5	12	Dark Brown Organic Clay	89.0	15.9	334	2.124		7.34	96.5	168	94	74	3.25								
2-4A	Shelby	5	14.5	17	Brown Peat	67.5	15.2	344		2.25	8.24	93.9												7.0
2-4B	Shelby	5	14.5	17	Brown Peat	69.0	18.3	277		2.25	6.69	93.3									277			8.0
2-4C	Shelby	5	14.5	17	Brown Peat	69.2	17.7	291		2.25	6.94	94.5												12.0
2-5	Shelby	5	19.5	22	Dark Brown Clayey Peat	69.4	20.8	234		2.40	6.20	90.4										525	263	6.0
2-6	Shelby	5	24.5	27	Dark Brown Organic Clay (OH)	72.6	21.3	241		2.30	5.76	96.3	123	61	62	2.9								
2-8	Shelby	5	34.5	37	Gray Brown Highly Organic Clay	74.2	28.2	163		2.40	4.31	90.7										301	151	8.0
2-10A	Shelby	5	44.5	47	Dark Gray Brown Organic Clay	92.3	51.4	80		2.67	2.24	94.9												15.0
2-10B	Shelby	5	44.5	47	Dark Gray Brown Organic Clay	91.5	49.3	86		2.67	2.38	85.6									139			20.1
2-10C	Shelby	5	44.5	47	Dark Gray Brown Organic Clay	99.7	62.3	60		2.67	1.67	95.9												20.1
2-12	Shelby	5	54.5	57	Gray Clay with Black Carbon Nodules	90.5	48.6	86		2.75	2.53	93.7										659	329	7.0
2-14	Shelby	5	69.5	72	Gray silty clay w/ sandstone nodules	127.3	102.9	23		2.85	0.73	92.6										2441	1221	3.5
3-1	Shelby	0	0	3.5	Dark gray silty clay (bay mud)	87.0	41.7	109		2.70	3.04	96.4									79			18.0
3-2	Shelby	0	5	7.5	Gray silty clay with shell fragments			68	2566		1.82	99.2	60	23	37	1.19								
3-3	Shelby	0	10	12.5	Dark gray silty clay (bay mud)	114.1	83.4	37		2.75	1.06	95.7									273			20.0
3-4	Shelby	0	15	17.5	Dark gray silty clayey sand	113.1	81.4	39	2682		1.11	96.6	29	22	7	2.55	0	59	41	SC-SM	446			11.0
3-5	Shelby	0	20	22.5	Gray silty clayey sand	118.5	90.2	31.4																
3-6	SPT	0	25	28.5	Gray sandy silty clay												0	28	72					
3-8	2-1/2" Shelby	0	35	37.5	Dark gray silty clay (bay mud)	112.4	75.4	49.2		3.10	1.57	97.3	49	25	24	1.01	0	15	85	CL	609			9.1
3-9	2-1/2" Shelby	0	40	42.5	Brownish gray silty clay with organics	97.5	62.9	54.5																
3-10	2-1/2" Shelby	0	45	47.5	Brownish gray silty clay with fine sand	112.7	76.7	46.9																
3-11	2-1/2" Shelby	0	50	52.5	Dark gray silty clay (bay mud)	109.8	71.8	52.9		3.10	1.70	96.8	56	28	27	0.91					714			7.1
4-1			4.5	7	Gray clayey silt to clayey organic silt			108.2					87	40	47	1.44			68					
4-2		0	0	7.5	Gray organic silt/organic clay	36.6	24.6	211.5	2565				123	58	65	2.34								
4-4*			15	17.5	Brownish gray organic clay (Bay Mud)	81.7	35.3	131.5														377	189	9.5
4-5	Shelby	0	20	22.5	Gray brown clayey peat/peaty clay	76.6	29.7	158.1		2.57	5.52	98.2	123	58	66									
4-6	2-1/2" Shelby	0	30	32.5	Gray silty clay with organics	104	64.7	60.7																
4-6*					Gray silty clay (Bay Mud) with organics	100.7	59.9															692	346	
4-8	2-1/2" Shelby	0	50	52.5	Gray sandy silty clay	117.7	83.7	40.6																
4-8*					Brownish gray silty clay/clayey silt	114.0	79.9															1361	681	
4-9	Mod. Cal.	0	60	61.5	Gray silty clay (bag sample)			23.0																

NOTES

For sample 3-4, the LL, PL, and PI are 28.4, 21.6, and 6.8, respectively. The LL was rounded to 29 to maintain internal consistency between rounded values of LL and PI.

* Indicates UC testing performed in Febeuary, after initial laboratory request had been processed. Unit weight and water content may be different from initial result.

Rhodia Martinez Peyton Slough

Table B-2: Summary of Consolidation Test Results

Boring	Depth (ft)	Soil Type	Soil Description	Moisture Content (%)	Total Density (pcf)	Dry Density (pcf)	In-Situ Effective Stress (psf)	Maximum Past Pressure (psf)	OCR	CR	RR	cv(virgin) (ft2/day)	cv(rec) (ft2/day)
URS-1	4.5-7	OH	Gr brn org silt/ clay	98.4	84.8	42.7	130	922	7.1	0.31	0.046	0.0126	0.0266
	9.5-12	OH	Dk brn clay org to org clay	247	74.1	21.4	210	758	3.6	0.55	0.087	0.0088	0.0467
	24.5-27	OH	Gr brn clay org to org clay	192.2	76.8	26.3	390	820	2.1	0.47	0.062	0.0134	0.1146
	39.5-42	CL	Gr si clay w tr org	59.4	102.4	64.3	790	1,415	1.8	0.22	0.047	0.0396	0.0145
URS-2	9.5-12	OH	Dk brn org clay	333.7	68.9	15.9	175	649	3.7	0.56	0.042	0.0075	0.0246
	24.5-27	OH	Dk brn org clay	240.9	72.5	21.3	300	666	2.2	0.5	0.043	0.0107	0.0283
URS-3	0-2.5	CH	Gr org clay	116.9	86	39.6	30	214	7.1	0.28	0.028	0.0096	0.0173
	5-7.5	CH	Gr sa si clay/sa cl silt w shells	67.6	99	59.1	150	283	1.9	0.19	0.018	0.0208	0.8913
	10-12.5	CH	Gr fi sa si clay/ cl fi sa silt w shells	31	120.9	92.3	350	9,835	>10	0.13	0.015	0.0218	0.0199
URS-4	0-2.5	OH	Gr si org clay	108.2	89.8	43.2	35	376	10.7	0.27	0.017	0.0143	2.7180
	5-7.5	OH	Gr org silt/ org clay	211.5	76.5	24.6	145	649	4.5	0.52	0.057	0.0112	0.0084
	15-17.5	OH	Br gr org clay	101.4	89	44.2	301	820	2.7	0.33	0.031	0.0153	0.0032
	40-42.5	CL	Gr clayey si/si clay w tr org	50.0	105.6	70.4	1,050	1,834	1.7	0.20	0.027	0.0458	1.0480

Notes: OCR = overconsolidation ratio
CR = compression ratio
RR = recompression ratio
SR = swelling ratio
cv(virgin) = coefficient of consolidation during virgin compression
cv(rec) = coefficient of consolidation during recompression

URS

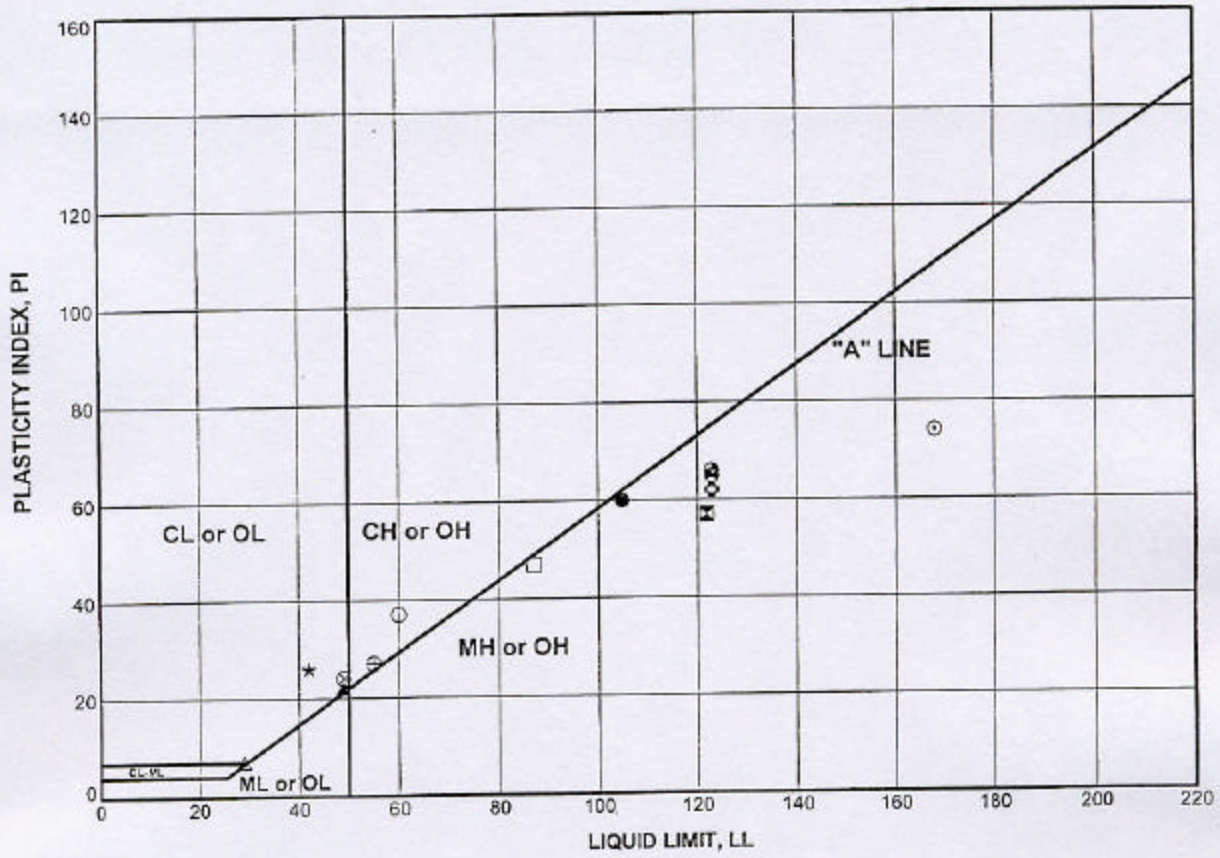
Moisture Content, Wet & Dry Unit Weight

Project Name: Rhodia Peyton Slough

Project Number: 51-00070007.00

Location: Martinez, CA

Boring/Sample Depth, ft.		Wet Unit Weight, pcf	Dry Unit Weight, pcf	Moisture Content, %	Sample Description
1-3	14.5-17	68.3	20.9	226.29	Dark brown silty clay with organics
1-4	19.5-22	73.4	26.7	174.51	Gray brown clayey peat/peaty clay
1-6	29.5-32	77.9	30.9	151.81	Gray silty clay with peat
1-7	34.5-37	101.4	61.6	64.51	Gray silty clay with organics
1-9	44.5-47	107.0	70.8	51.12	Gray silty clay
1-10	54.5-57	103.6	68.5	51.29	Gray silty clay
1-12	74.5-77	118.0	87.1	35.47	Brownish gray silty clay with sand
1-13	84.5-87	126.2	101.3	24.62	Olive gray sandy silty clay
3-5	20-22.5	118.5	90.2	31.43	Gray silty clayey sand
3-9	40-42.5	97.5	52.9	84.47	Brownish gray silty clay with organics
3-10	45-47.5	112.7	76.7	46.85	Brownish gray silty clay with fine sand
4-5	20-22.5	76.6	29.7	158.13	Gray brown clayey peat/peaty clay
4-6	30-32.5	104.0	64.7	60.67	Gray silty clay with organics
4-8	50-52.5	117.7	83.7	40.63	Gray sandy silty clay
4-9	60-61.5	NA	NA	22.97	Gray silty clay (bag sample)



Boring Number	Sample Number	Depth (feet)	Test Symbol	Water Content (%)	LL	PL	PI	Classification
URS-1	1-1	4.5-7	●	98	105	45	60	Clayey Silt with Sand (MH)
URS-1	1-5	24.5-27	⊠	192	122	65	57	Organic Clayey Silt (OH)
URS-1	1-8	39.5-42	▲	59	49	27	22	Silty Clay (CL/CH)
URS-1	1-13	84.5-87	★	25	42	16	26	Silty Clay (CL)
URS-2	2-3	9.5-12	⊙	334	168	94	74	Organic Clayey Silt (OH)
URS-2	2-6	24.5-27	✪	241	123	61	62	Organic Clayey Silt (OH)
URS-3	3-2	5-6.5	○	68	60	23	37	Silty Clay (CH)
URS-3	3-4	15-17.5	△	39	29	22	7	Silty Clayey Sand (SC-SM)
URS-3	3-8	35-37.5	⊗	49	49	25	24	Silty Clay with Sand (CL/CH)
URS-3	3-11	50-52.5	⊕	53	55	28	27	Silty Clay (CH)
URS-4	4-1	0-2.5	□	108	87	40	47	Clayey Silt (MH)
URS-4	4-2	5-7.5	⊖	272	123	58	65	Organic Clayey Silt (OH)
URS-4	4-5	20-22.5	◒	158	123	57	66	Organic Clayey Silt (OH)

Rhodia, Inc.
Martinez, California
51-00070007.00

PLASTICITY CHART

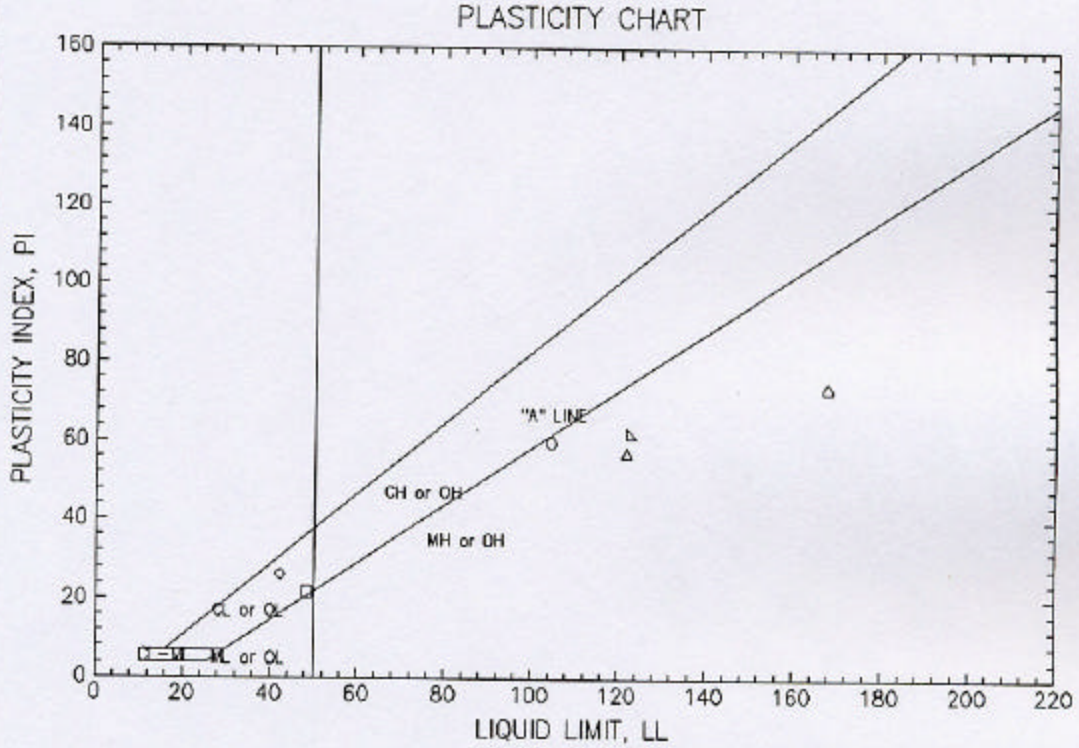
Figure 1

URS

Report: ATTERBERG_PLOT_HIGH_14PTS; File: RHODIMAR.GPJ; 2/21/2002 - URS.DT

URS

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Location : Martinez, CA
Date : Wed Feb 06 2002



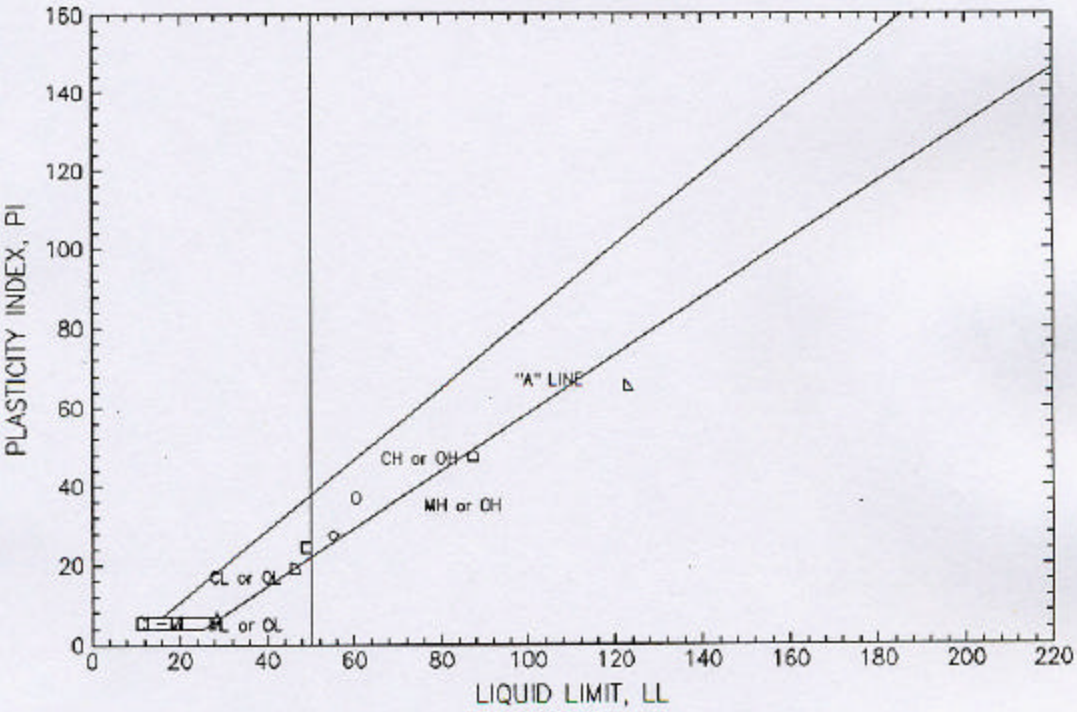
Symbol	Boring No.	Sample No.	Liquid Limit	Plastic Limit	Plasticity Index
○	1	1	104.53	44.72	59.81
△	1	5	121.91	64.60	57.31
□	1	8	48.55	26.74	21.81
◇	1	13	42.21	15.97	26.24
▷	2	3	167.81	94.03	73.78
◸	2	6	122.86	60.69	62.17

Figure 1

URS

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Location : Martinez, CA
Date : Wed Feb 06 2002

PLASTICITY CHART



Symbol	Boring No.	Sample No.	Liquid Limit	Plastic Limit	Plasticity Index
○	3	2	60.42	23.44	36.97
△	3	4	28.40	21.57	6.83
□	3	8	49.05	24.80	24.25
◇	3	11	55.28	27.87	27.41
▷	4	1	87.41	39.68	47.73
▽	4	2	123.28	57.58	65.69
▷	4	7	46.49	27.36	19.13

Figure 2

ASTM D2166
Unconfined Compressive Strength

URS

Project Name: **Rhodia Peyton Slough**

Project Number: 51-0007007.00

Location: **Martinez, CA**

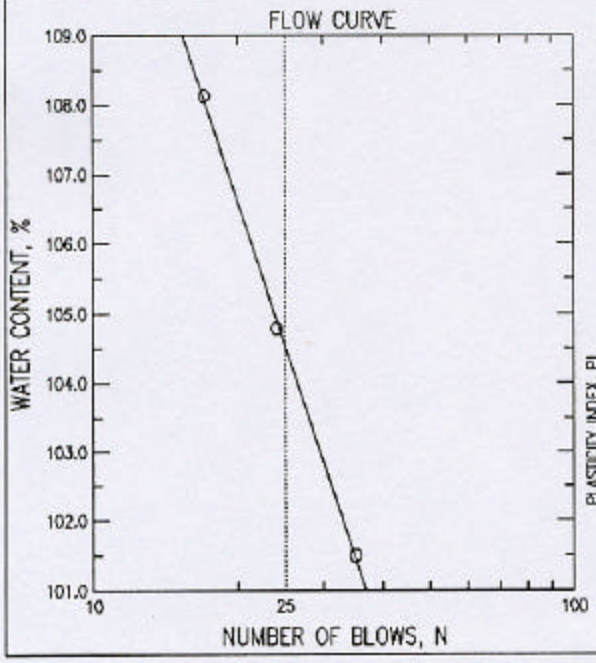
Boring/ Sample Number	Moisture Content %	Wet Density pcf	Dry Density pcf	Unconfined Compressive Strength, psf	Strain at Failure	Sample Description
1-4 @ 19.5-22.0	153.34	78.66	31.05	537	6.1%	Brownish gray organic clay (Bay Mud)
1-7 @ 34.5-37.0	65.36	100.91	61.02	567	10.0%	Gray silty clay (Bay Mud) with organics
1-9 @ 44.5-47.0	51.63	107.05	70.60	926	10.0%	Gray silty clay / clayey silt
1-12 @ 74.5-77.0	38.88	111.83	80.52	521	7.5%	Gray silty clay with fine sand
4-4 @ 15.0-17.5	131.53	81.70	35.29	377	9.5%	Brownish gray organic clay (Bay Mud)
4-6 @ 30.0-32.5	68.14	100.66	59.87	692	5.2%	Gray silty clay (Bay Mud) with organics
4-8 @ 50.0-52.5	42.75	114.06	79.90	1361	7.3%	Brownish gray silty clay / clayey silt

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	1
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	1
SAMPLE DESCRIPTION		DATE	FILENAME
Gray Brown organic silty Clay to clayey Silt		Wed Jan 23 2002	1-01

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	44	34	91		
WT. WET SOIL + TARE	24.44	24.41	23.88		
WT. DRY SOIL + TARE	17.65	17.41	17.23		
WT. WATER	6.79	7	6.65		
TARE WT.	10.96	10.73	11.08		
WT. DRY SOIL	6.69	6.68	6.15		
WATER CONTENT, W_N (%)	101.49	104.79	108.13		
NUMBER OF BLOWS, N	35	24	17		
ONE-POINT LIQUID LIMIT, LL	105.71	104.27	103.20		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	7				
WT. WET SOIL + TARE	28.05				
WT. DRY SOIL + TARE	24.03				
WT. WATER	4.02				
TARE WT.	15.04				
WT. DRY SOIL	8.99				
WATER CONTENT (%)	44.72				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	98.4
LIQUID LIMIT, LL	104.5
PLASTIC LIMIT, PL	44.7
PLASTICITY INDEX, PI	59.8
LIQUIDITY INDEX, LI*	0.90

*LI = (W - PL)/PI

PLASTICITY CHART

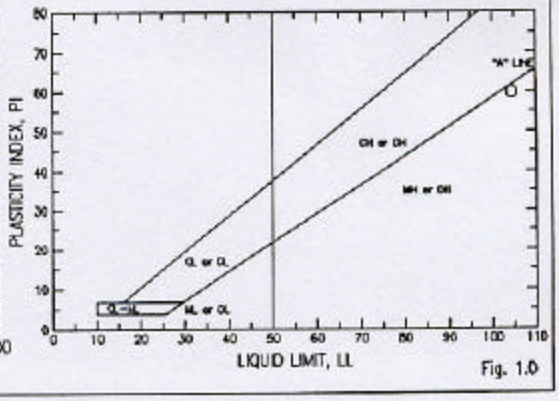


Fig. 1.0

URS

Wed Jan 23 11:51:44 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 1
Location : Martinez, CA
Soil Description : Gray Brown organic silty Clay to clayey Silt
Remarks : Depth: 4.5-7.0 feet

Depth : 4.5-7.0 ft
Test Date : 01/23/02
Test Method : ASTM 1140/4318

Filename : 1-01
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (lb)	Cumulative Weight Retained (lb)	Percent Finer (%)
#200	0.003	0.07	28.05	28.05	83

Total Dry Weight of Sample = 161.95

D85 : N/A
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : MH
ASTM Group Name : elastic silt with sand
AASHTO Group Symbol : A-7-5(66)
AASHTO Group Name : Clayey Soils

URS

Wed Jan 23 11:51:44 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 1
Location : Martinez, CA
Soil Description : Gray Brown organic silty Clay to clayey Silt
Remarks : Depth: 4.5-7.0 feet

Depth : 4.5-7.0 ft
Test Date : 01/23/02
Test Method : ASTM 1140/4318

Filename : 1-01
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 1-01	92.83	234.72	164.36	98.36

Average Moisture Content = 98.36

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 7	15.04	28.05	24.03	44.72

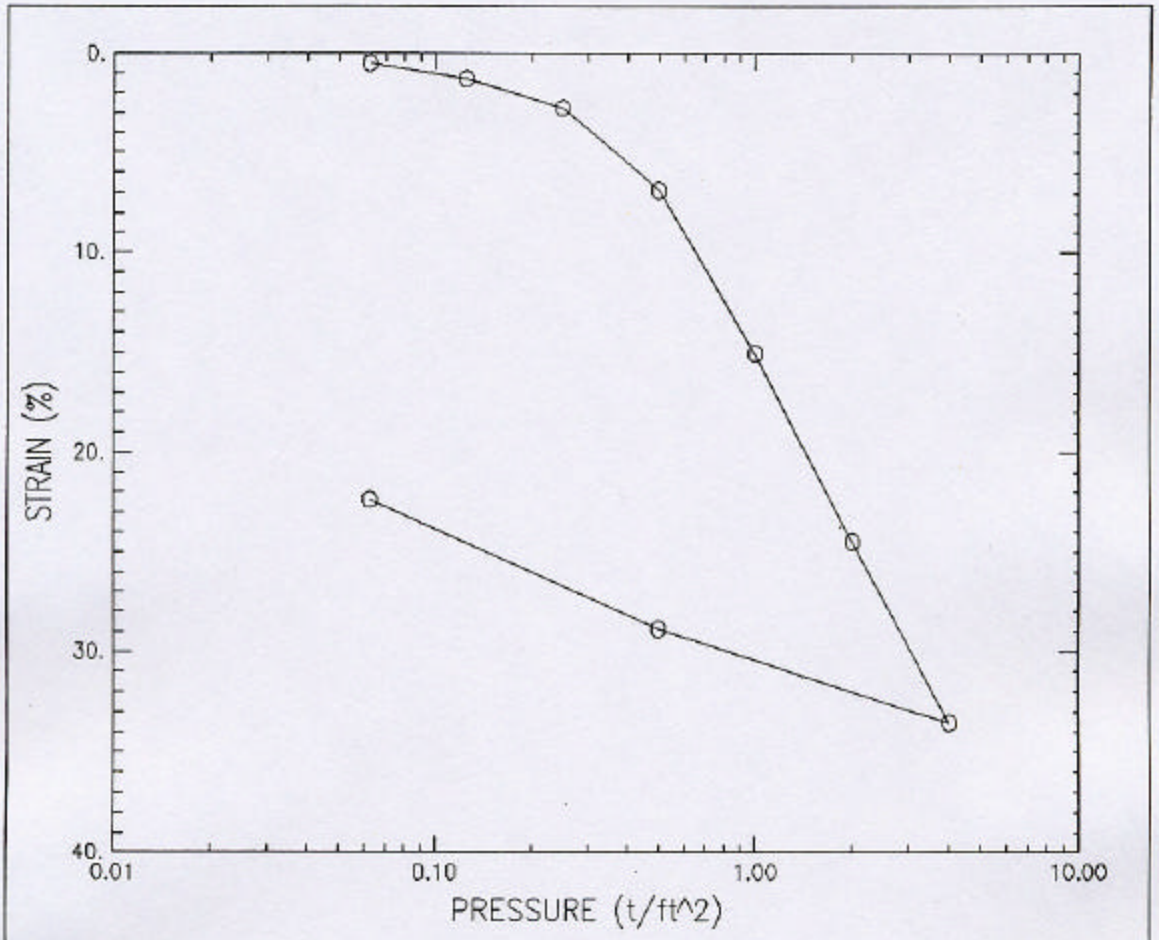
Plastic Limit = 44.72

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 44	10.96	24.44	17.65	35	101.49
2) 34	10.73	24.41	17.41	24	104.79
3) 91	11.08	23.88	17.23	17	108.13

Liquid Limit = 104.53
Plastic Index = 59.81

URS



		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)	WATER CONTENT (%)	98.361	70.856
PRECONSOL. PRESSURE (t/ft^2)	DRY DENSITY (lb/ft^3)	42.726	55.047
COMPRESSION INDEX	SATURATION (%)	94.982	100.001
TYPE SPECIMEN	VOID RATIO	2.434	1.665
DIA. (in) 2.428 HT. (in) 0.952	BACK PRESSURE (t/ft^2)		

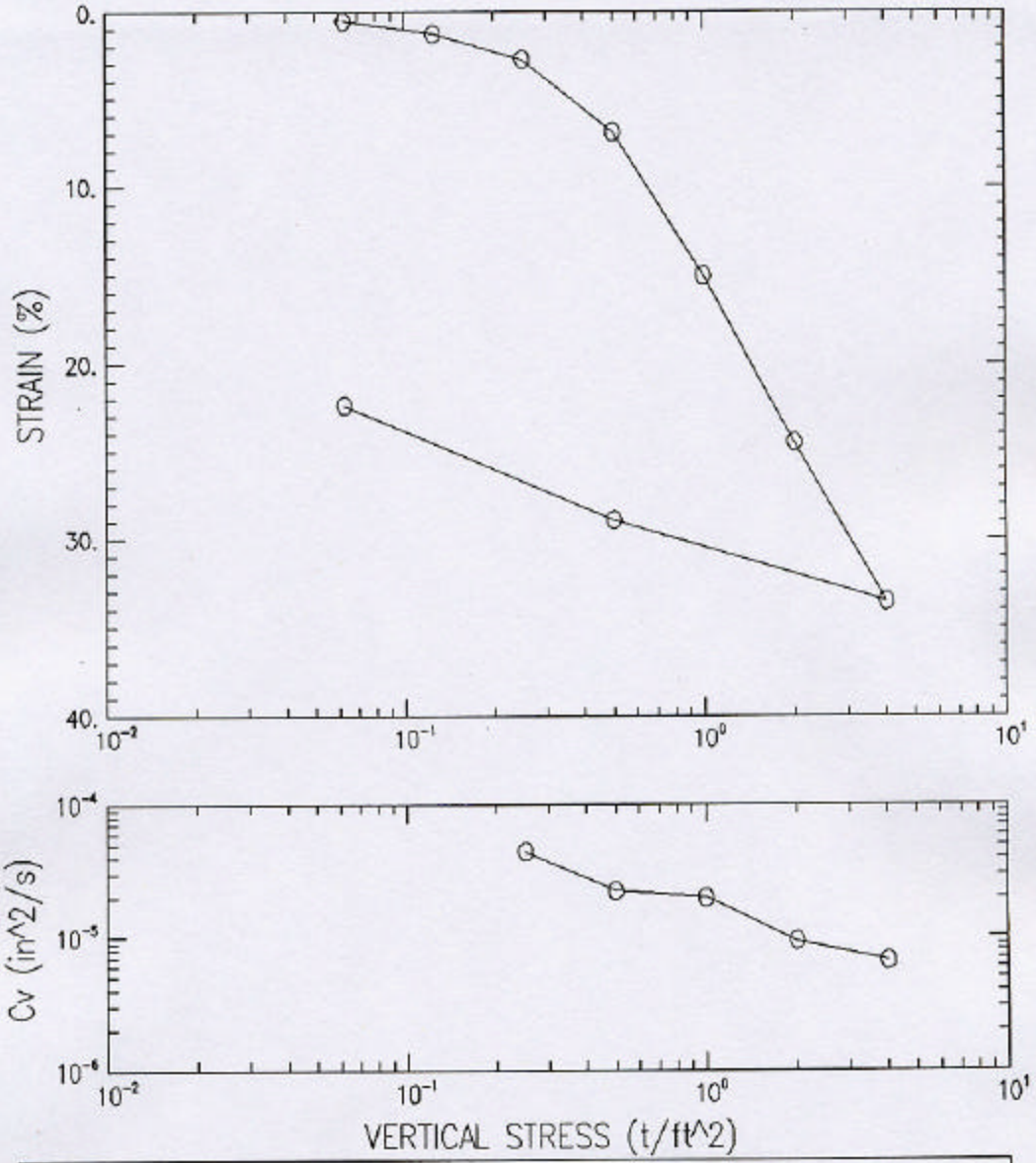
CLASSIFICATION Gray Brown organic silt / organic clay

LL 104.5	PL 44.7	PI 59.8	PROJECT Rhodia Peyton Slough
GS 2.350	D_{10}		Data File: RHO-1-1.CON
REMARKS			BORING NO. 1 SAMPLE NO. 1
			DEPTH 4.5-7.0 ft DATE 1/18/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 1
Test Date : 1/18/02 Test No : 1-1 Depth : 4.5-7.0 ft
Description : Gray Brown organic silt / organic clay

URS

Mon Feb 04 13:20:57 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-1
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 4.5-7.0 ft
Checked by : S. Capps
Soil Description : Gray Brown organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.06	0.005	2.416	0.51	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.13	0.012	2.390	1.27	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
3)	0.25	0.026	2.339	2.76	16.1	0.0	4.43E-005	0.00E+000	0.00E+000
4)	0.50	0.066	2.197	6.90	30.2	0.0	2.23E-005	0.00E+000	0.00E+000
5)	1.00	0.143	1.918	15.03	29.9	0.0	1.97E-005	0.00E+000	0.00E+000
6)	2.00	0.233	1.593	24.49	51.2	0.0	9.35E-006	0.00E+000	0.00E+000
7)	4.00	0.319	1.282	33.53	56.4	0.0	6.64E-006	0.00E+000	0.00E+000
8)	0.50	0.275	1.441	28.90	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.06	0.213	1.666	22.37	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

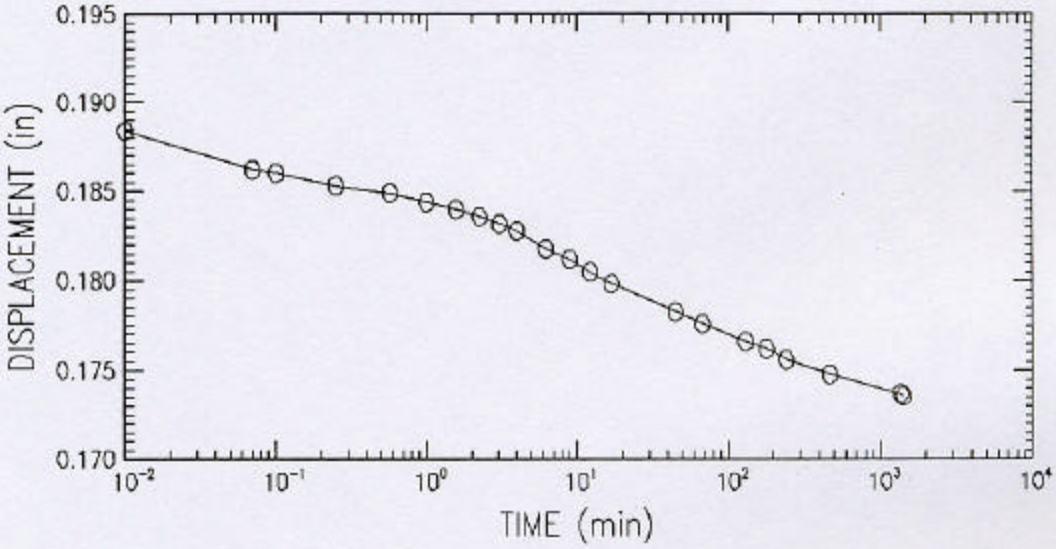
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-1
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 4.5-7.0 ft
Checked by : S. Capps
Soil Description : Gray Brown organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

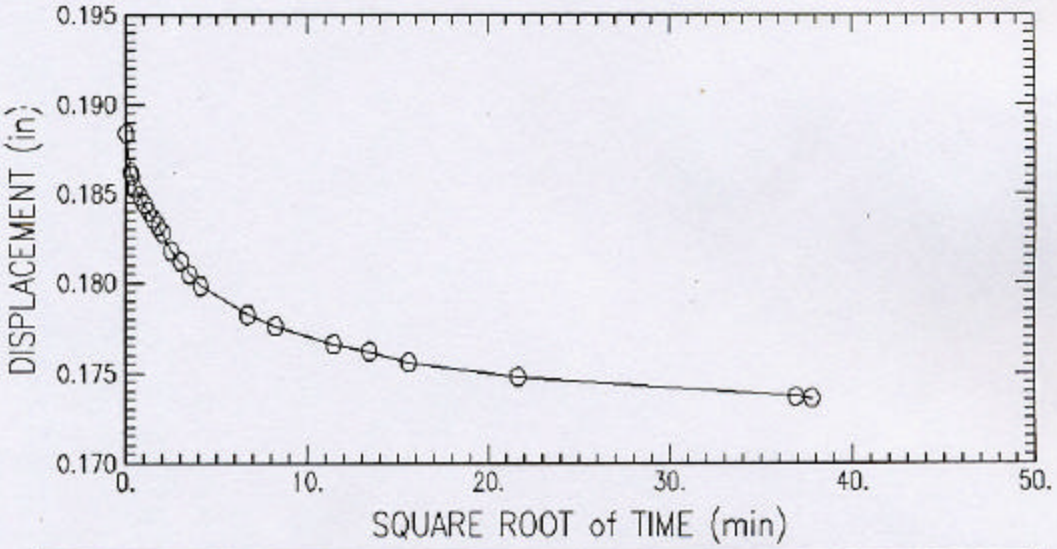
Liquid Limit : 104.53 Plastic Limit : 44.72 Plasticity Index : 59.81
Specific Gravity : 2.35 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 2.433 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	234.72	287.30	273.71	273.71
WT CONTAINER + DRY SOIL (gm)	164.36	238.70	238.70	238.70
WT CONTAINER (gm)	92.83	189.29	189.29	189.29
WT DRY SOIL (gm)	71.53	49.41	49.41	49.41
WATER CONTENT (%)	98.36	98.36	70.86	70.86
VOID RATIO	------	2.43	1.67	------
DEGREE OF SATURATION (%)	------	94.98	100.00	------
DRY DENSITY (lb/ft^3)	------	42.73	55.05	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 1
Test Date : 1/18/02 Test No : 1-1 Depth : 4.5-7.0 ft
Description : Gray Brown organic silt / organic clay

URS

Mon Feb 04 14:11:24 2002

CONSOLIDATION TEST DATA

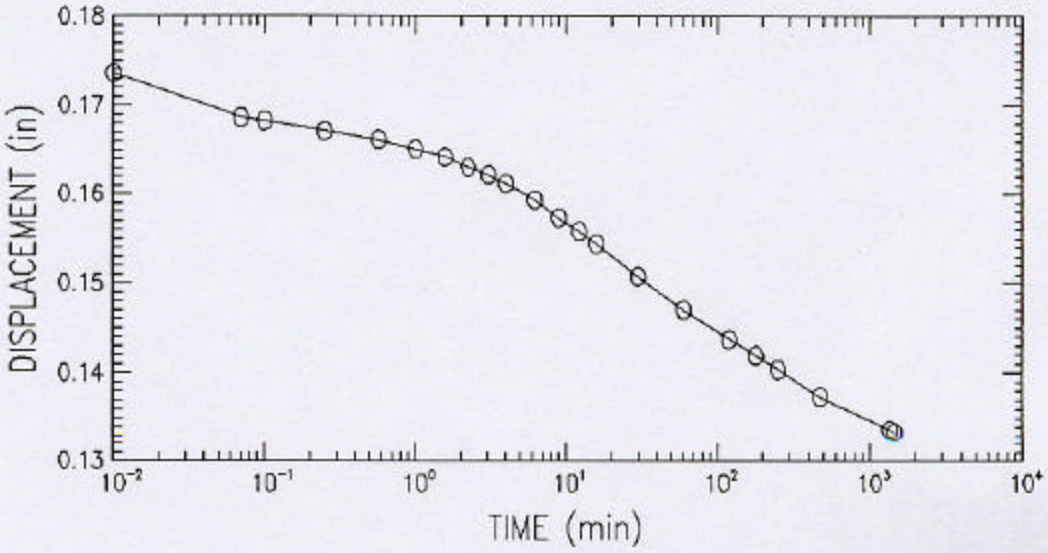
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-1
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 4.5-7.0 ft
Checked by : S. Capps
Soil Description : Gray Brown organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

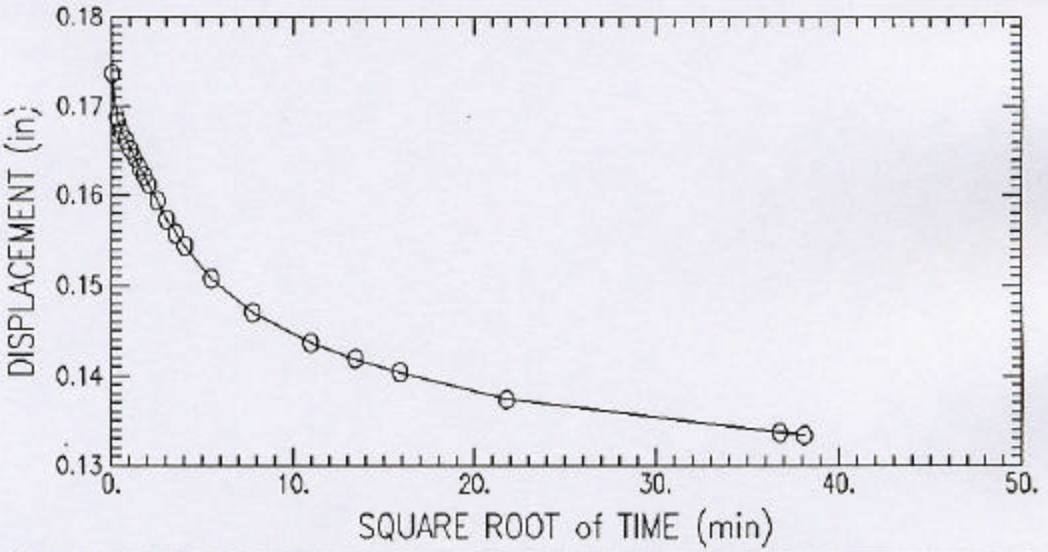
Load Increment : 3/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.405	0.00
2)			0.07	0.26	0.0022	2.397	0.23
3)			0.10	0.32	0.0024	2.397	0.25
4)			0.25	0.50	0.0031	2.394	0.33
5)			0.57	0.75	0.0035	2.393	0.37
6)			1.00	1.00	0.0040	2.391	0.42
7)			1.57	1.25	0.0044	2.389	0.46
8)			2.25	1.50	0.0048	2.388	0.50
9)			3.07	1.75	0.0052	2.386	0.55
10)			4.00	2.00	0.0056	2.385	0.59
11)			6.25	2.50	0.0066	2.381	0.69
12)			9.00	3.00	0.0072	2.379	0.76
13)			12.25	3.50	0.0079	2.377	0.83
14)			17.00	4.12	0.0086	2.374	0.90
15)			45.00	6.71	0.0102	2.369	1.07
16)			68.00	8.25	0.0108	2.366	1.14
17)			131.00	11.45	0.0118	2.363	1.24
18)			180.00	13.42	0.0122	2.361	1.28
19)			243.00	15.59	0.0128	2.359	1.35
20)			469.00	21.66	0.0136	2.356	1.43
21)			1364.00	36.93	0.0147	2.352	1.54
22)			1429.00	37.80	0.0148	2.352	1.56

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 1
Test Date : 1/18/02 Test No : 1-1 Depth : 4.5-7.0 ft
Description : Gray Brown organic silt / organic clay

URS

Mon Feb 04 14:11:52 2002

CONSOLIDATION TEST DATA

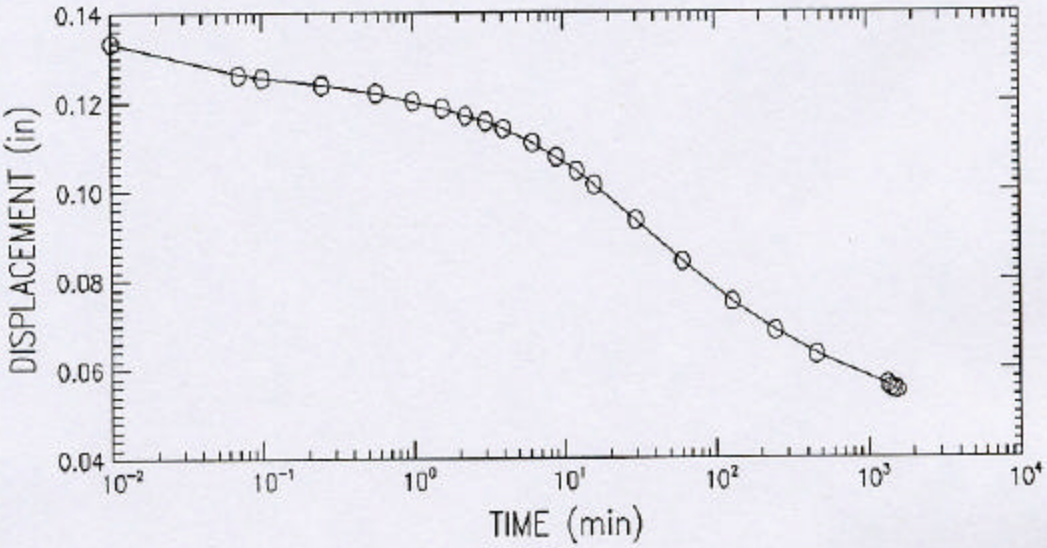
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-1
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 4.5-7.0 ft
Checked by : S. Capps
Soil Description : Gray Brown organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

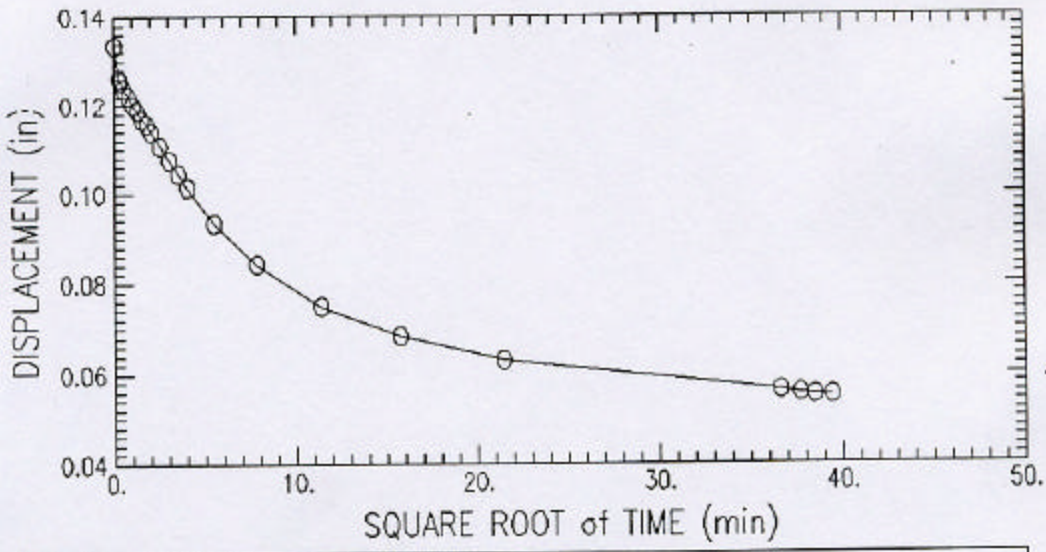
Load Increment : 4/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.380	0.00
2)			0.07	0.26	0.0049	2.362	0.51
3)			0.10	0.32	0.0053	2.360	0.56
4)			0.25	0.50	0.0064	2.357	0.67
5)			0.57	0.75	0.0074	2.353	0.78
6)			1.00	1.00	0.0085	2.349	0.89
7)			1.57	1.25	0.0093	2.346	0.98
8)			2.25	1.50	0.0105	2.342	1.10
9)			3.07	1.75	0.0114	2.338	1.20
10)			4.00	2.00	0.0124	2.335	1.30
11)			6.25	2.50	0.0143	2.328	1.50
12)			9.00	3.00	0.0163	2.321	1.71
13)			12.25	3.50	0.0178	2.315	1.87
14)			16.00	4.00	0.0192	2.310	2.02
15)			30.00	5.48	0.0229	2.297	2.40
16)			60.00	7.75	0.0266	2.284	2.80
17)			120.00	10.95	0.0299	2.272	3.14
18)			180.00	13.42	0.0317	2.265	3.33
19)			252.00	15.87	0.0332	2.260	3.49
20)			475.00	21.79	0.0362	2.249	3.80
21)			1355.00	36.81	0.0399	2.236	4.19
22)			1455.00	38.14	0.0402	2.235	4.22

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 1
Test Date : 1/18/02 Test No : 1-1 Depth : 4.5-7.0 ft
Description : Gray Brown organic silt / organic clay

URS

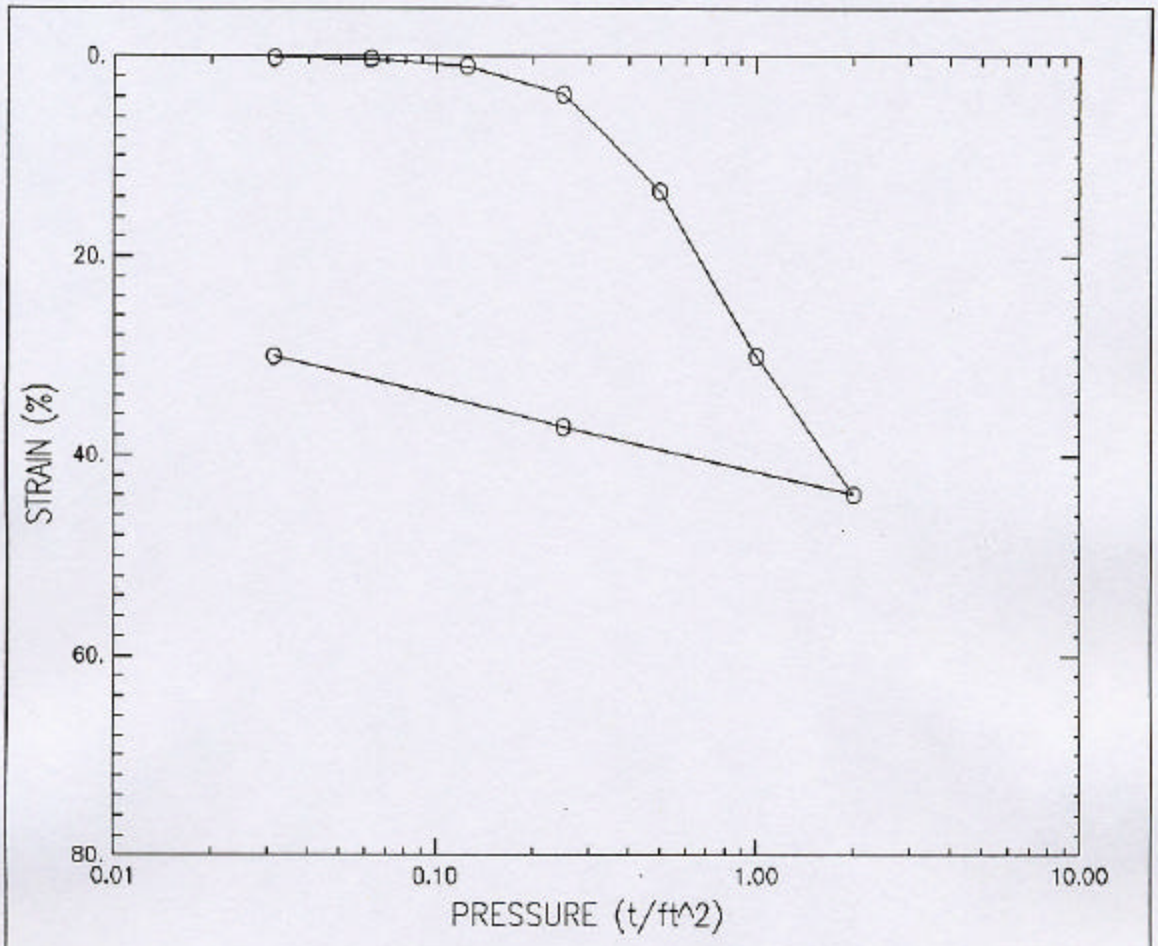
CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-1
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 4.5-7.0 ft
Checked by : S. Capps
Soil Description : Gray Brown organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

Load Increment : 5/9
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.288	0.00
2)			0.07	0.26	0.0073	2.262	0.77
3)			0.10	0.32	0.0080	2.259	0.84
4)			0.25	0.50	0.0096	2.253	1.01
5)			0.57	0.75	0.0114	2.247	1.20
6)			1.00	1.00	0.0132	2.240	1.39
7)			1.57	1.25	0.0147	2.235	1.54
8)			2.25	1.50	0.0164	2.229	1.72
9)			3.07	1.75	0.0176	2.224	1.85
10)			4.00	2.00	0.0193	2.218	2.03
11)			6.25	2.50	0.0225	2.207	2.36
12)			9.00	3.00	0.0258	2.195	2.71
13)			12.25	3.50	0.0288	2.184	3.03
14)			16.00	4.00	0.0320	2.173	3.36
15)			30.00	5.48	0.0399	2.144	4.19
16)			61.00	7.81	0.0491	2.111	5.16
17)			129.00	11.36	0.0584	2.077	6.14
18)			247.00	15.72	0.0649	2.054	6.82
19)			460.00	21.45	0.0702	2.034	7.38
20)			1343.00	36.65	0.0770	2.010	8.09
21)			1422.00	37.71	0.0777	2.008	8.17
22)			1482.00	38.50	0.0781	2.006	8.21
23)			1555.00	39.43	0.0782	2.006	8.22

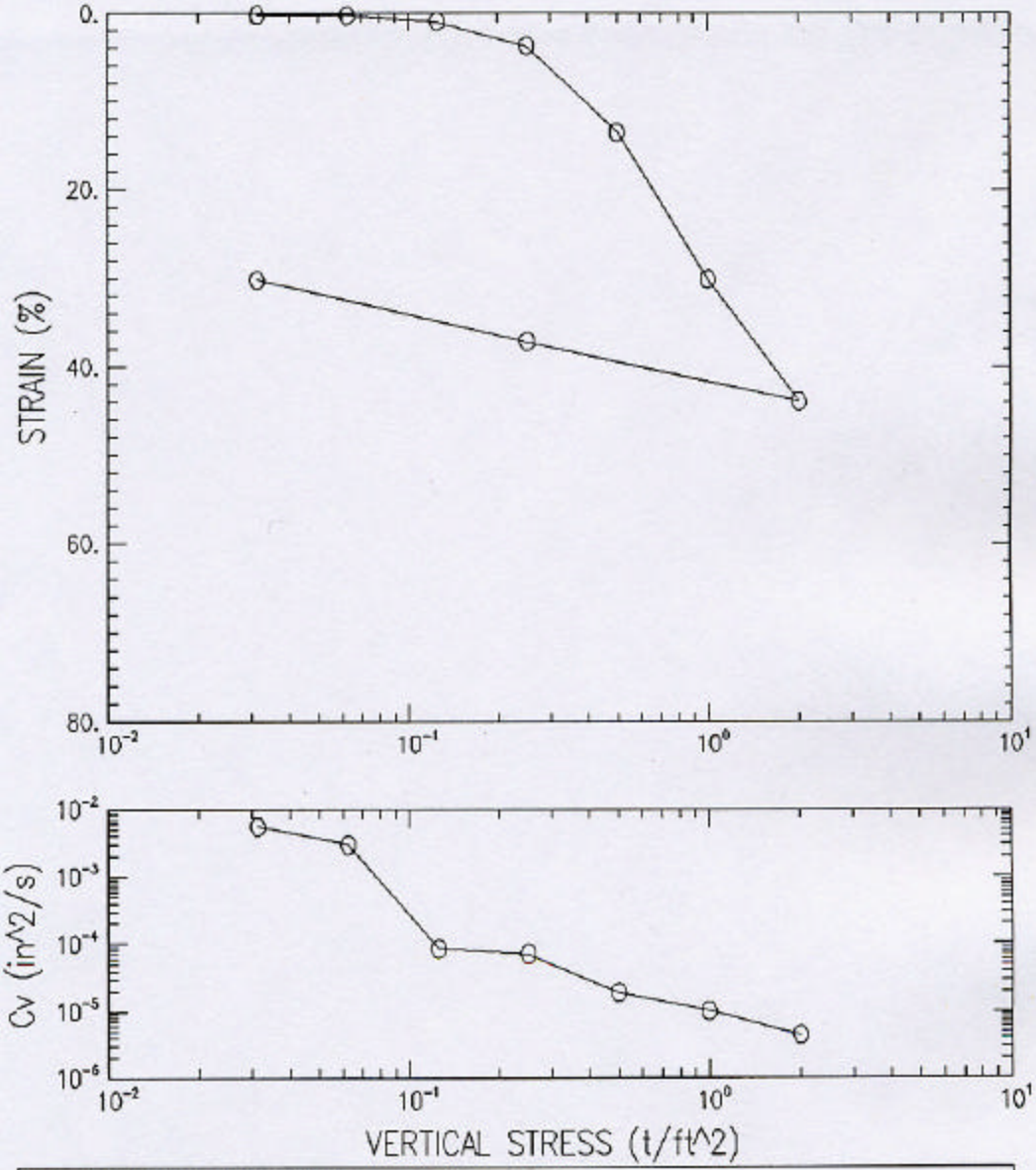
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			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	246.951	165.081
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	21.345	30.558
COMPRESSION INDEX		SATURATION (%)	97.509	100.002
TYPE SPECIMEN		VOID RATIO	6.458	4.209
DIA. (in) 2.429	HT. (in) 0.948	BACK PRESSURE (t/ft^2)		
CLASSIFICATION Dark Brown clayey organic to organic clay				
LL 0.0	PL 0.0 PI 0.0	PROJECT Rhodia Peyton Slough		
GS 2.550	D_{10}	Data File: RHO-1-2.CON		
REMARKS		BORING NO. 1	SAMPLE NO. 2	
		DEPTH 9.5-12 ft	DATE 1/21/02	
		Woodward Clyde Consultants CONSOLIDATION TEST REPORT		

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 2
Test Date : 1/21/02 Test No : 1-2 Depth : 9.5-12 ft
Description : Dark Brown clayey organic to organic clay

URS

Wed Feb 06 16:42:21 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough
Location : Martinez, CA
Project No. : 5100070007
Test No. : 1-2
Boring No. : 1
Test Date : 1/21/02
Tested by : C. Wason
Sample No. : 2
Sample Type : Shelby
Depth : 9.5-12 ft
Checked by : S. Capps
Soil Description : Dark Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.03	0.002	6.442	0.21	0.1	0.0	5.57E-003	0.00E+000	0.00E+000
2)	0.06	0.003	6.438	0.27	0.2	0.0	2.98E-003	0.00E+000	0.00E+000
3)	0.13	0.009	6.386	0.97	8.6	0.0	8.48E-005	0.00E+000	0.00E+000
4)	0.25	0.036	6.178	3.76	10.0	0.0	7.06E-005	0.00E+000	0.00E+000
5)	0.50	0.127	5.457	13.43	32.1	0.0	1.92E-005	0.00E+000	0.00E+000
6)	1.00	0.285	4.217	30.05	44.5	0.0	1.01E-005	0.00E+000	0.00E+000
7)	2.00	0.416	3.186	43.88	67.1	0.0	4.36E-006	0.00E+000	0.00E+000
8)	0.25	0.352	3.688	37.14	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.03	0.286	4.209	30.16	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

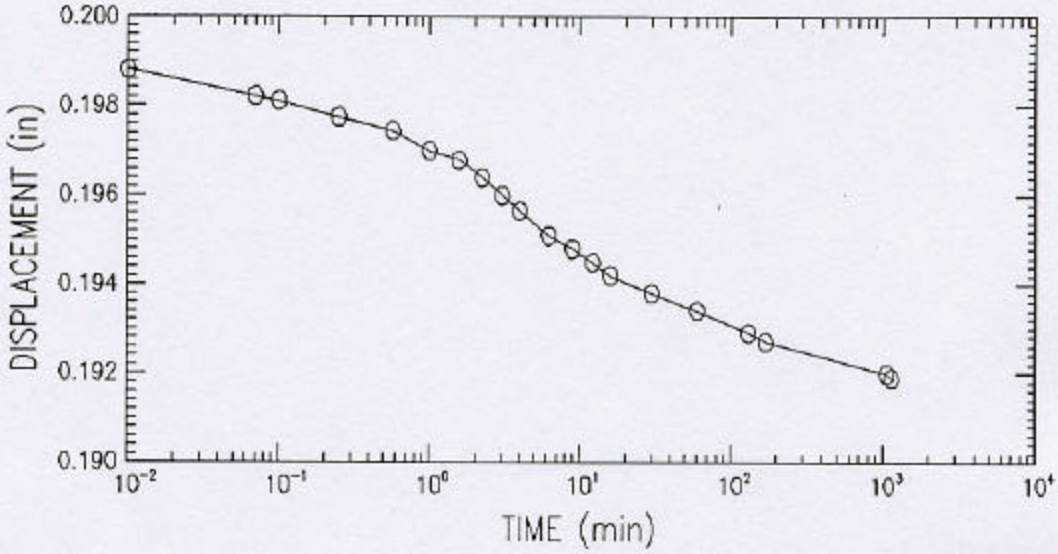
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-2
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 9.5-12 ft
Checked by : S. Capps
Soil Description : Dark Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

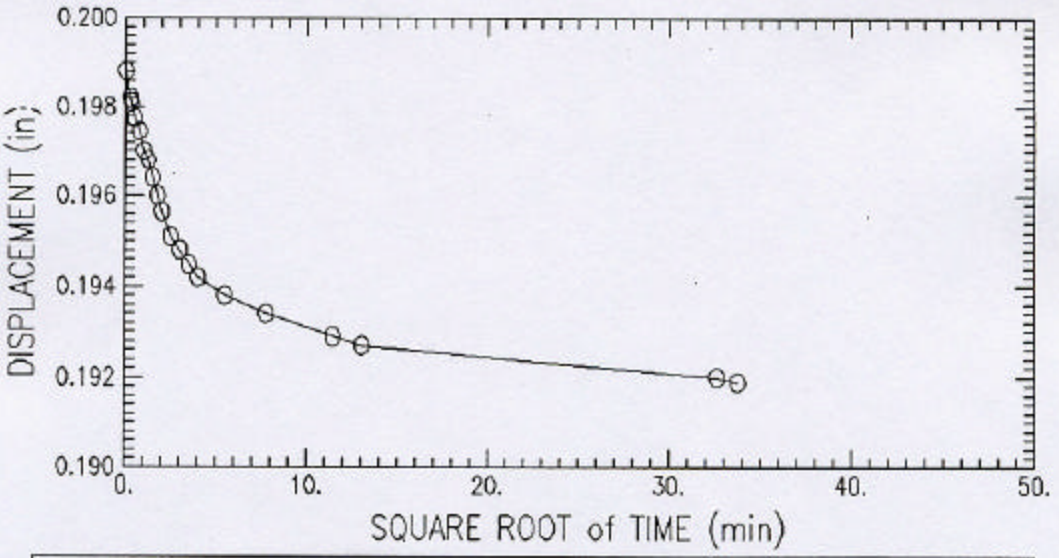
Liquid Limit : 0 Plastic Limit : 0 Plasticity Index : 0
Specific Gravity : 2.55 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 6.457 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	222.91	274.97	254.83	254.83
WT CONTAINER + DRY SOIL (gm)	137.02	214.22	214.22	214.22
WT CONTAINER (gm)	102.24	189.62	189.62	189.62
WT DRY SOIL (gm)	34.78	24.60	24.60	24.60
WATER CONTENT (%)	246.95	246.95	165.08	165.08
VOID RATIO	------	6.46	4.21	------
DEGREE OF SATURATION (%)	------	97.51	100.00	------
DRY DENSITY (lb/ft^3)	------	21.34	30.56	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 2
Test Date : 1/21/02 Test No : 1-2 Depth : 9.5-12 ft
Description : Dark Brown clayey organic to organic clay

URS

Wed Feb 06 16:49:35 2002

CONSOLIDATION TEST DATA

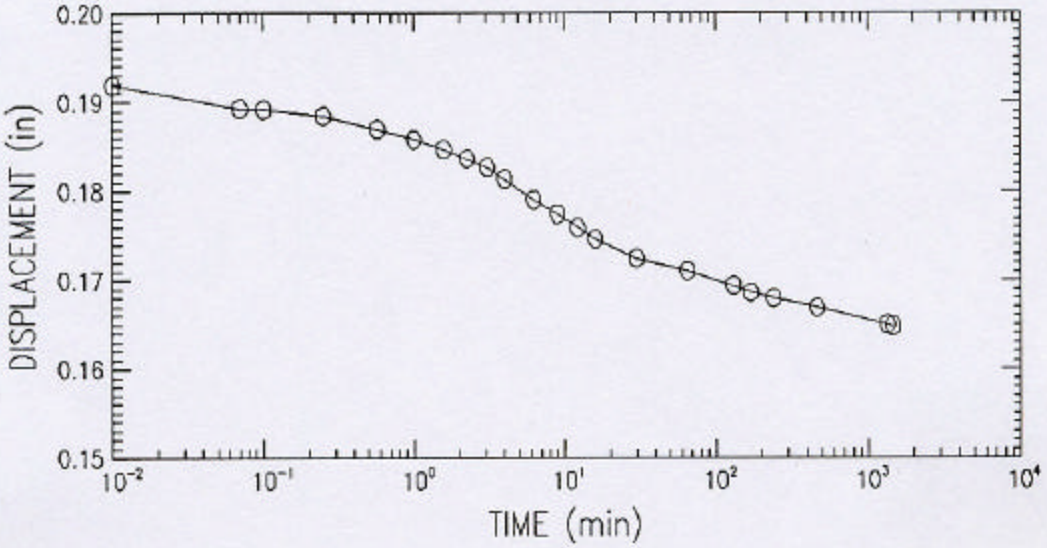
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-2
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 9.5-12 ft
Checked by : S. Capps
Soil Description : Dark Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

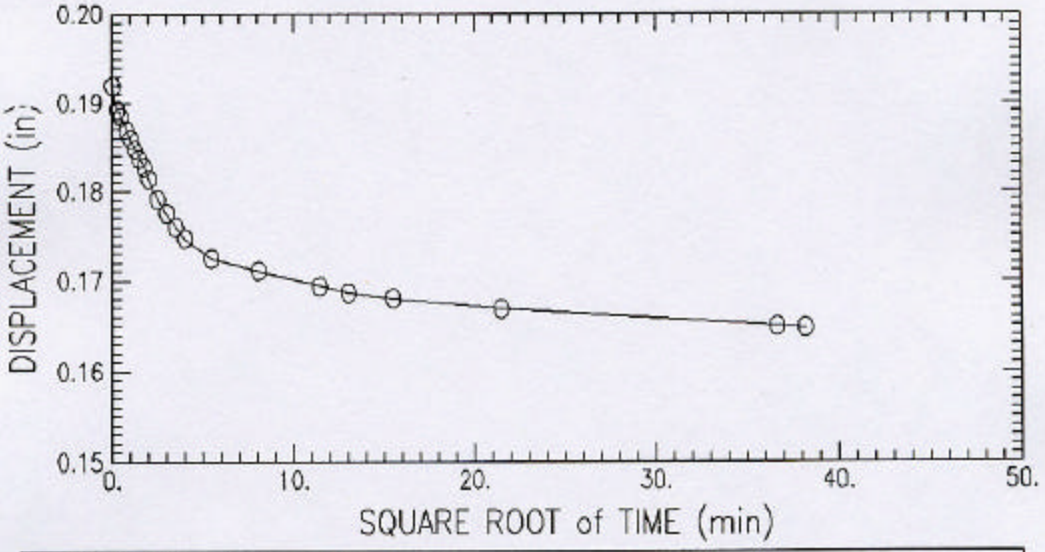
Load Increment : 3/9
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	6.452	0.00
2)			0.07	0.26	0.0006	6.448	0.06
3)			0.10	0.32	0.0007	6.447	0.07
4)			0.25	0.50	0.0010	6.444	0.11
5)			0.57	0.75	0.0014	6.442	0.14
6)			1.00	1.00	0.0018	6.438	0.19
7)			1.57	1.25	0.0020	6.437	0.21
8)			2.25	1.50	0.0024	6.433	0.25
9)			3.07	1.75	0.0028	6.430	0.30
10)			4.00	2.00	0.0032	6.427	0.33
11)			6.25	2.50	0.0037	6.423	0.39
12)			9.00	3.00	0.0040	6.421	0.42
13)			12.25	3.50	0.0043	6.418	0.45
14)			16.00	4.00	0.0046	6.416	0.49
15)			30.00	5.48	0.0050	6.413	0.53
16)			60.00	7.75	0.0054	6.410	0.57
17)			131.00	11.45	0.0059	6.406	0.62
18)			170.00	13.04	0.0061	6.404	0.64
19)			1065.00	32.63	0.0068	6.399	0.72
20)			1142.00	33.79	0.0069	6.398	0.73

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 2
Test Date : 1/21/02 Test No : 1-2 Depth : 9.5-12 ft
Description : Dark Brown clayey organic to organic clay

URS

Wed Feb 06 16:49:53 2002

CONSOLIDATION TEST DATA

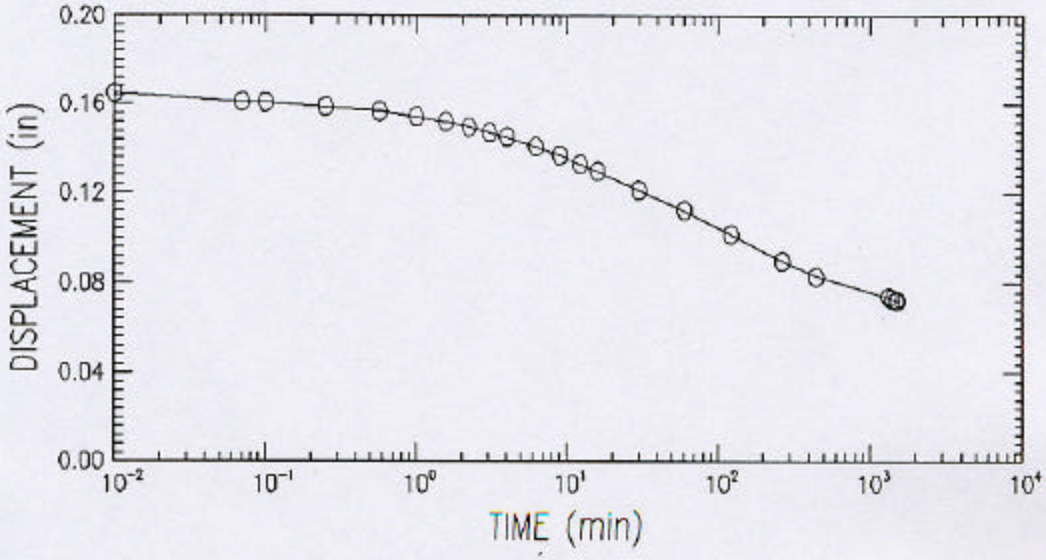
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-2
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 9.5-12 ft
Checked by : S. Capps
Soil Description : Dark Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

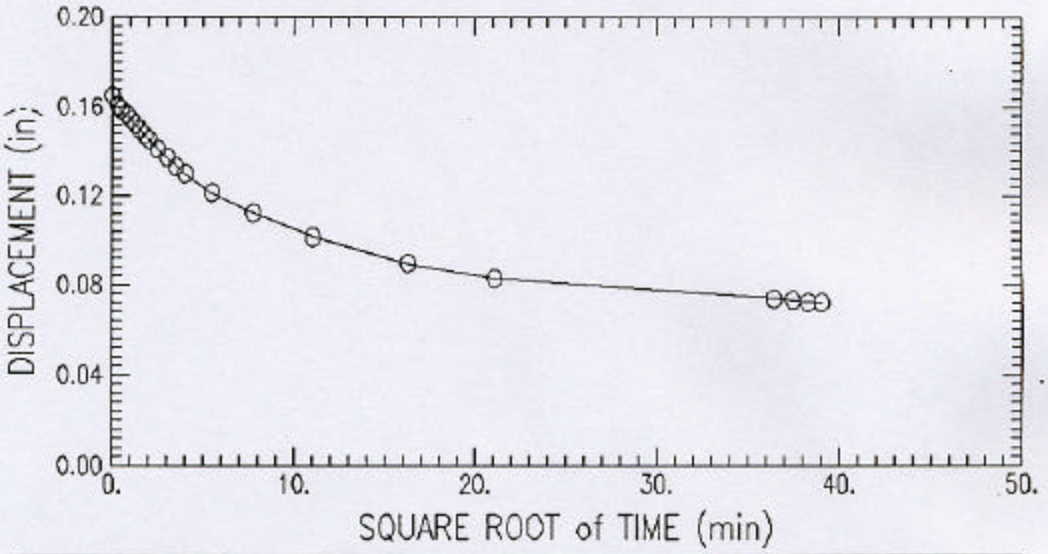
Load Increment : 4/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	6.403	0.00
2)			0.07	0.26	0.0026	6.382	0.27
3)			0.10	0.32	0.0027	6.381	0.28
4)			0.25	0.50	0.0034	6.376	0.36
5)			0.57	0.75	0.0049	6.364	0.52
6)			1.00	1.00	0.0060	6.355	0.63
7)			1.57	1.25	0.0071	6.346	0.75
8)			2.25	1.50	0.0082	6.338	0.87
9)			3.07	1.75	0.0091	6.331	0.97
10)			4.00	2.00	0.0105	6.320	1.11
11)			6.25	2.50	0.0128	6.302	1.35
12)			9.00	3.00	0.0144	6.289	1.52
13)			12.25	3.50	0.0159	6.278	1.68
14)			16.00	4.00	0.0172	6.267	1.82
15)			30.00	5.48	0.0194	6.250	2.05
16)			65.00	8.06	0.0208	6.239	2.20
17)			131.00	11.45	0.0225	6.226	2.37
18)			170.00	13.04	0.0232	6.220	2.45
19)			240.00	15.49	0.0239	6.215	2.52
20)			463.00	21.52	0.0250	6.206	2.64
21)			1343.00	36.65	0.0269	6.191	2.84
22)			1458.00	38.18	0.0271	6.189	2.86

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 2
Test Date : 1/21/02 Test No : 1-2 Depth : 9.5-12 ft
Description : Dark Brown clayey organic to organic clay

URS

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-2
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 9.5-12 ft
Checked by : S. Capps
Soil Description : Dark Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

Load Increment : 5/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	6.244	0.00
2)			0.07	0.26	0.0039	6.213	0.41
3)			0.10	0.32	0.0041	6.211	0.43
4)			0.25	0.50	0.0060	6.196	0.63
5)			0.57	0.75	0.0079	6.182	0.83
6)			1.00	1.00	0.0104	6.162	1.10
7)			1.57	1.25	0.0126	6.145	1.33
8)			2.25	1.50	0.0148	6.127	1.56
9)			3.07	1.75	0.0174	6.107	1.84
10)			4.00	2.00	0.0194	6.091	2.05
11)			6.25	2.50	0.0238	6.056	2.51
12)			9.00	3.00	0.0276	6.027	2.91
13)			12.25	3.50	0.0317	5.994	3.35
14)			16.00	4.00	0.0350	5.968	3.69
15)			30.00	5.48	0.0435	5.901	4.59
16)			60.00	7.75	0.0525	5.831	5.54
17)			122.00	11.05	0.0631	5.747	6.66
18)			265.00	16.28	0.0750	5.653	7.92
19)			445.00	21.10	0.0817	5.601	8.62
20)			1330.00	36.47	0.0909	5.528	9.59
21)			1405.00	37.48	0.0917	5.522	9.68
22)			1467.00	38.30	0.0925	5.516	9.76
23)			1525.00	39.05	0.0926	5.515	9.77

URS

Project Name: Rhodia Peyton Slough

Project Number: 51-00070007.00

Location: Martinez, CA

Date: 01/25/02

Test Method: ASTM D854

Sample Number: 1 - 5 Depth, ft. 24.5 - 27.0

Bottle Number: 3

Description: Dark brown clayey peat / peaty clay

Determination Number	pycnometer + soil + water gms	pycnometer + water gms	temperature F	Specific Gravity
1	706.1	667.69	74.0	2.371
2	706.4	668.02	68.0	2.370
3	706.7	668.29	63.0	2.374
			Average	2.372

Oven dried soil + tare, gms	346.22
tare, gms	279.92
Oven dried soil	66.3

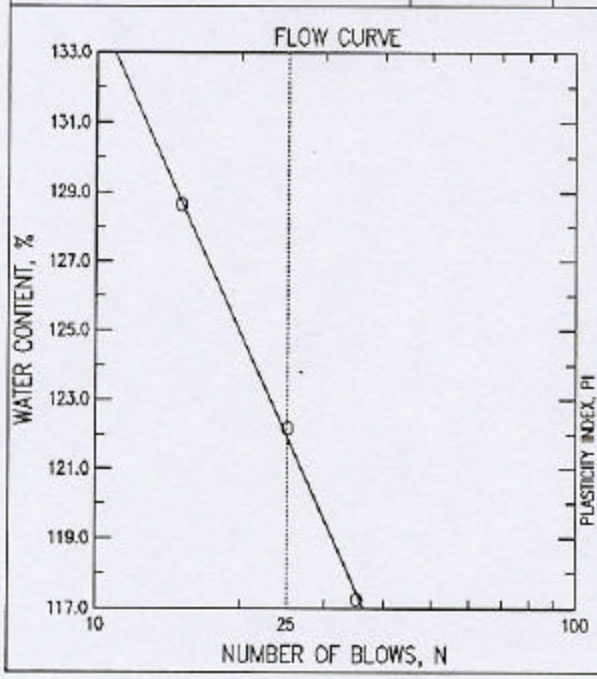
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ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	1
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	5
SAMPLE DESCRIPTION		DATE	FILENAME
Dark Brown clayey Organics/organic Clay		Wed Jan 23 2002	1-05

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	144	32	9		
WT. WET SOIL + TARE	24.04	24.19	24.24		
WT. DRY SOIL + TARE	17.04	16.97	17.1		
WT. WATER	7	7.22	7.14		
TARE WT.	11.07	11.06	11.55		
WT. DRY SOIL	5.97	5.91	5.55		
WATER CONTENT, W_N (%)	117.25	122.17	128.65		
NUMBER OF BLOWS, N	35	25	15		
ONE-POINT LIQUID LIMIT, LL	122.13	122.17	120.94		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	14				
WT. WET SOIL + TARE	27.58				
WT. DRY SOIL + TARE	22.69				
WT. WATER	4.89				
TARE WT.	15.12				
WT. DRY SOIL	7.57				
WATER CONTENT (%)	64.60				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	192.2
LIQUID LIMIT, LL	121.9
PLASTIC LIMIT, PL	64.6
PLASTICITY INDEX, PI	57.3
LIQUIDITY INDEX, LI*	2.23

*LI = (W - PL)/PI

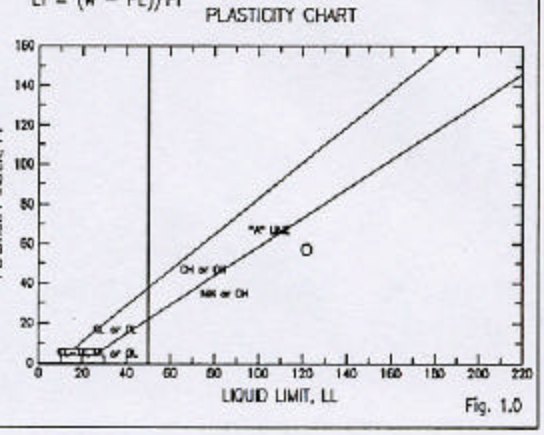


Fig. 1.0

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Wed Jan 23 09:17:44 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 5
Location : Martinez, CA
Soil Description : Dark Brown clayey Organics/organic Clay
Remarks :

Depth : 24.5-27.0 ft
Test Date : 01/22/02
Test Method : ASTM D4318

Filename : 1-05
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 1-05	106.74	223.23	146.61	192.17

Average Moisture Content = 192.17

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 14	15.12	27.58	22.69	64.60

Plastic Limit = 64.60

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 144	11.07	24.04	17.04	35	117.25
2) 32	11.06	24.19	16.97	25	122.17
3) 9	11.55	24.24	17.10	15	128.65

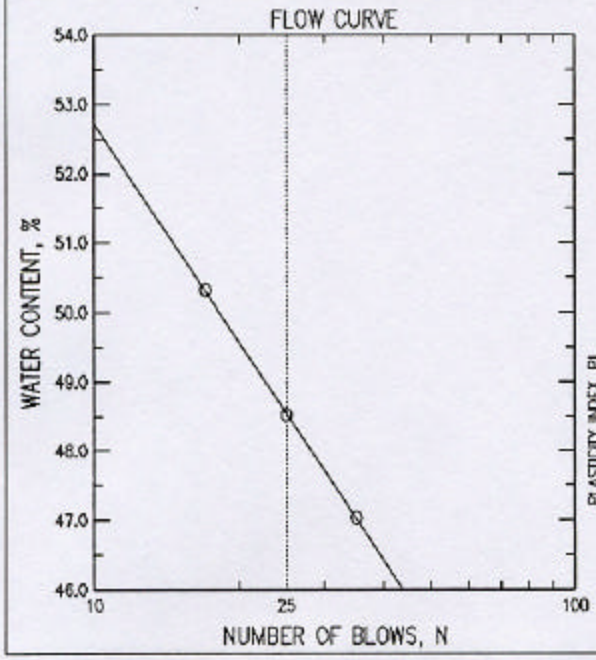
Liquid Limit = 121.91
Plastic Index = 57.31

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ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Rebel	1
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	8
SAMPLE DESCRIPTION		DATE	FILENAME
Gray silty Clay w/ trace organics		Thu Jan 24 2002	1-08

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	121	106	2		
WT. WET SOIL + TARE	23.71	26.22	25.83		
WT. DRY SOIL + TARE	19.67	21.47	21.08		
WT. WATER	4.04	4.75	4.75		
TARE WT.	11.08	11.68	11.64		
WT. DRY SOIL	8.59	9.79	9.44		
WATER CONTENT, W_N (%)	47.03	48.52	50.32		
NUMBER OF BLOWS, N	35	25	17		
ONE-POINT LIQUID LIMIT, LL	48.99	48.52	48.02		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	19				
WT. WET SOIL + TARE	28.46				
WT. DRY SOIL + TARE	25.81				
WT. WATER	2.65				
TARE WT.	15.9				
WT. DRY SOIL	9.91				
WATER CONTENT (%)	26.74				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	59.5
LIQUID LIMIT, LL	48.5
PLASTIC LIMIT, PL	26.7
PLASTICITY INDEX, PI	21.8
LIQUIDITY INDEX, LI*	1.50

*LI = (W - PL)/PI

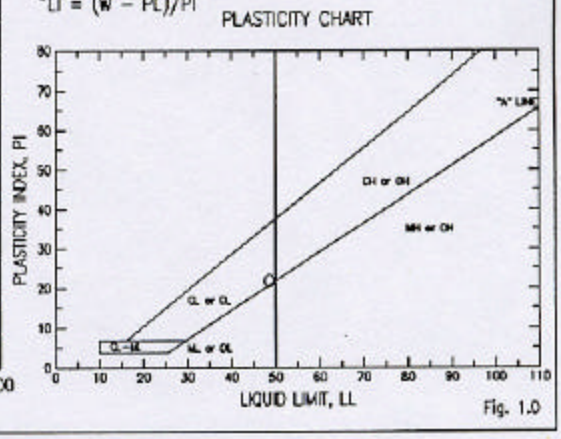


Fig. 1.0

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Thu Jan 24 09:32:12 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 8
Location : Martinez, CA
Soil Description : Gray silty Clay w/ trace organics
Remarks :

Depth : 39.5-42.0 ft
Test Date : 01/23/02
Test Method : ASTM D4318

Filename : 1-08
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1)	1-08	95.55	307.34	228.34	59.49

Average Moisture Content = 59.49

Plastic Limit

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1)	19	15.90	28.46	25.81	26.74

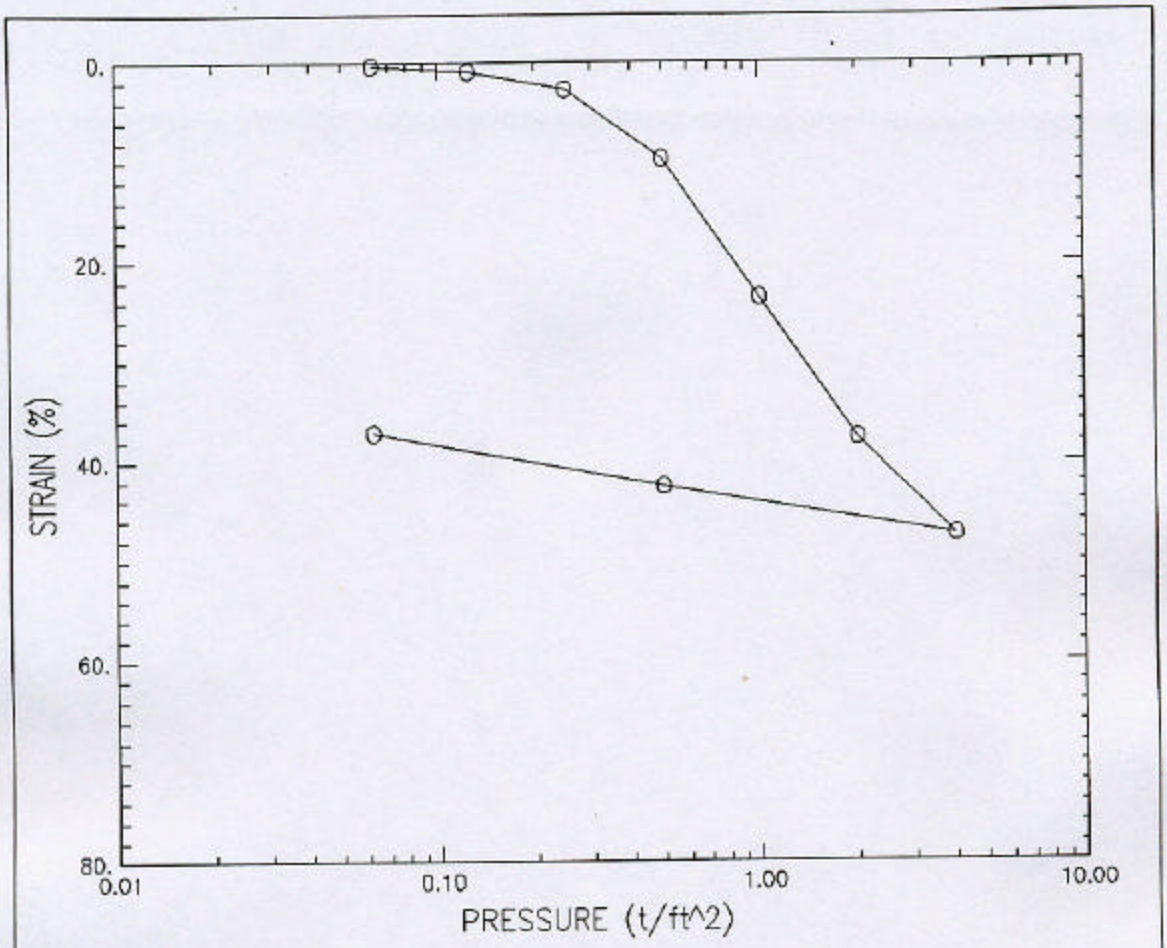
Plastic Limit = 26.74

Liquid Limit

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1)	121	11.08	23.71	19.67	35	47.03
2)	108	11.68	26.22	21.47	25	48.52
3)	2	11.64	25.83	21.08	17	50.32

Liquid Limit = 48.55
Plastic Index = 21.81

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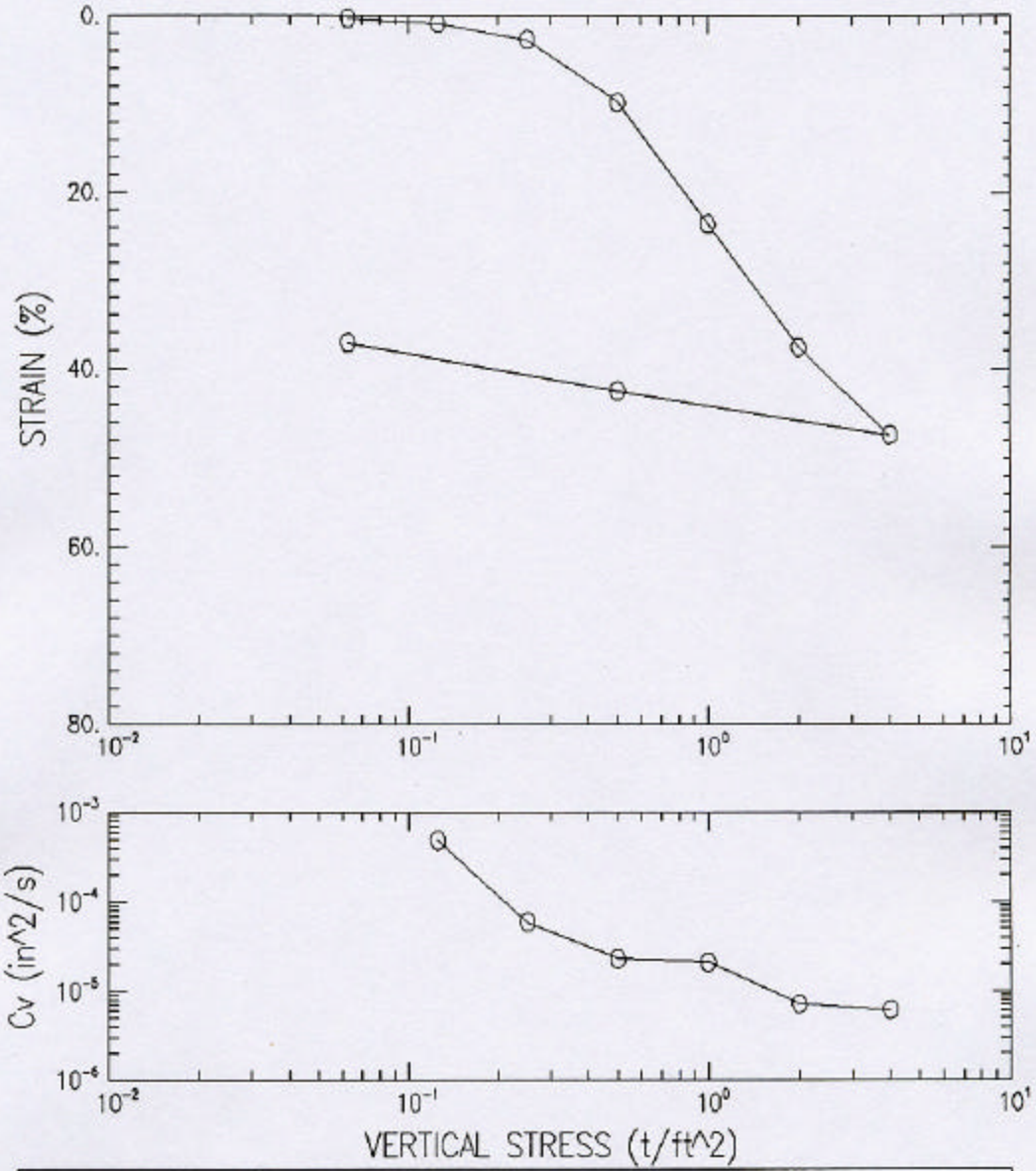


		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	192.167	107.700
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	26.189	41.658
COMPRESSION INDEX		SATURATION (%)	97.936	100.000
TYPE SPECIMEN		VOID RATIO	4.654	2.555
DIA. (in) 2.427	HT. (in) 0.943	BACK PRESSURE (t/ft^2)		
CLASSIFICATION Gray Brown clayey organic to organic clay				
LL 121.9	PL 64.6	PI 57.3	PROJECT Rhodia Peyton Slough	
GS 2.372	D_{10}		Data File: RHO-1-5.CON	
REMARKS			BORING NO. 1	SAMPLE NO. 5
			DEPTH 24.5-27 ft	DATE 1/18/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

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CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 5
Test Date : 1/18/02 Test No : 1-5 Depth : 24.5-27 ft
Description : Gray Brown clayey organic to organic clay

URS

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-5
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 5 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Gray Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.427 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.06	0.003	4.637	0.31	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.13	0.008	4.604	0.88	1.5	0.0	4.91E-004	0.00E+000	0.00E+000
3)	0.25	0.026	4.500	2.72	11.9	0.0	5.93E-005	0.00E+000	0.00E+000
4)	0.50	0.092	4.104	9.73	27.5	0.0	2.34E-005	0.00E+000	0.00E+000
5)	1.00	0.222	3.322	23.56	23.7	0.0	2.14E-005	0.00E+000	0.00E+000
6)	2.00	0.355	2.528	37.60	48.8	0.0	7.22E-006	0.00E+000	0.00E+000
7)	4.00	0.447	1.975	47.38	39.2	0.0	6.16E-006	0.00E+000	0.00E+000
8)	0.50	0.401	2.252	42.48	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.06	0.350	2.555	37.13	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

Wed Feb 06 16:15:00 2002

CONSOLIDATION TEST DATA

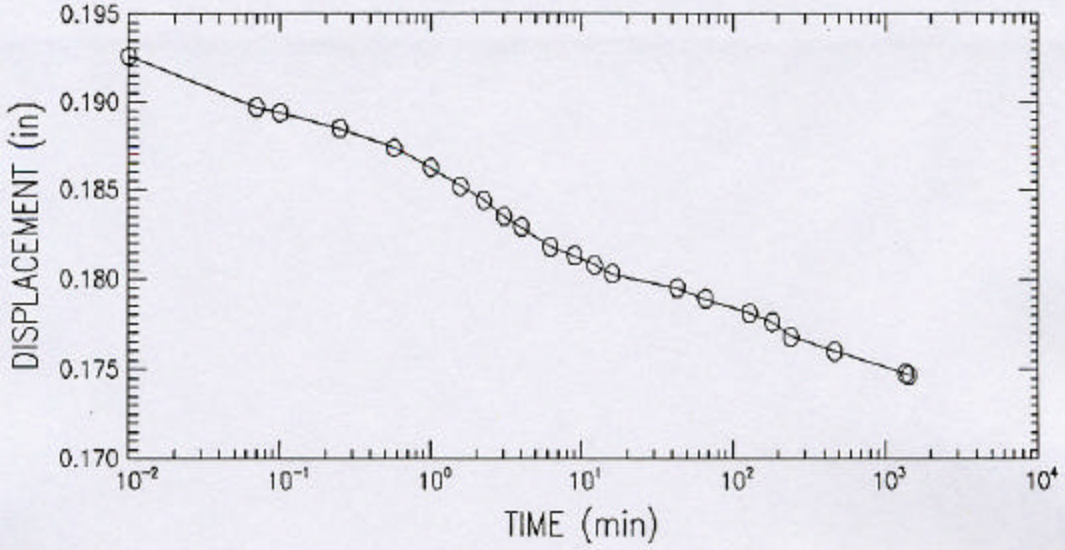
Project : Rhodia Peyton Slough | Location : Martinez, CA | Project No. : 5100070007
Test No. : 1-5
Boring No. : 1 | Test Date : 1/18/02 | Tested by : C. Wason
Sample No. : 5 | Sample Type : Shelby | Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Gray Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.427 inches in diameter

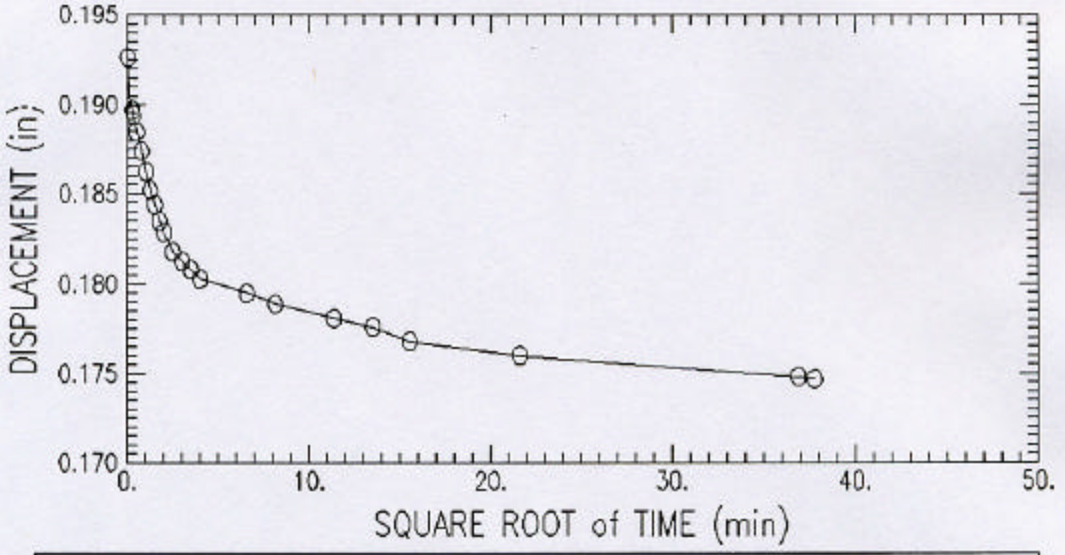
Liquid Limit : 121.91 | Plastic Limit : 64.6 | Plasticity Index : 57.31
Specific Gravity : 2.37 | Initial Height : 0.94 | Sample Diameter : 2.43 (in)
Initial Void Ratio : 4.653 | Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	223.23	273.82	248.48	248.48
WT CONTAINER + DRY SOIL (gm)	146.61	216.17	216.17	216.17
WT CONTAINER (gm)	106.74	186.17	186.17	186.17
WT DRY SOIL (gm)	39.87	30.00	30.00	30.00
WATER CONTENT (%)	192.17	192.17	107.70	107.70
VOID RATIO	------	4.65	2.55	------
DEGREE OF SATURATION (%)	------	97.94	100.00	------
DRY DENSITY (lb/ft^3)	------	26.19	41.66	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 5
Test Date : 1/18/02 Test No : 1-5 Depth : 24.5-27 ft
Description : Gray Brown clayey organic to organic clay

URS

Wed Feb 06 16:23:52 2002

CONSOLIDATION TEST DATA

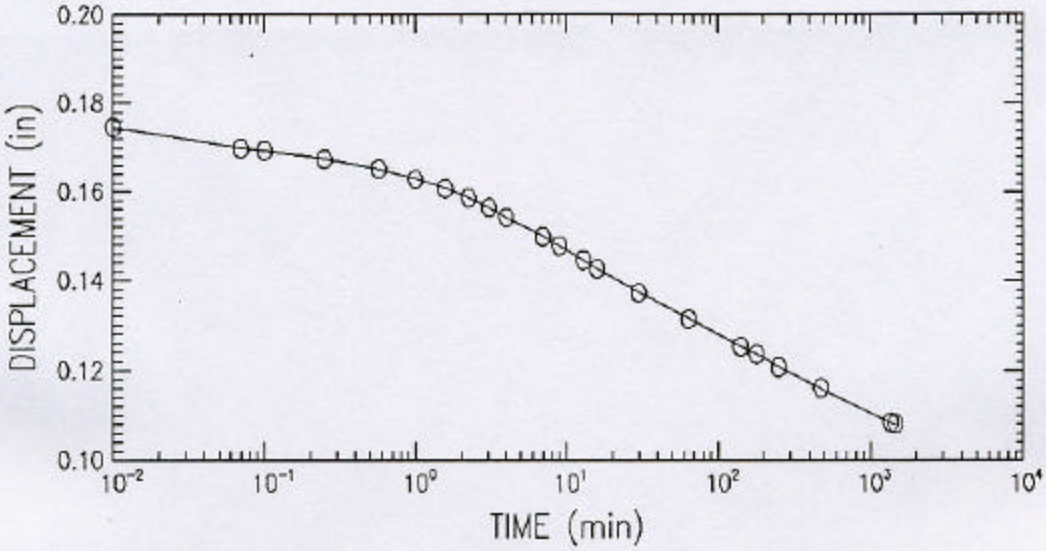
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-5
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 5 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Gray Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.427 inches in diameter

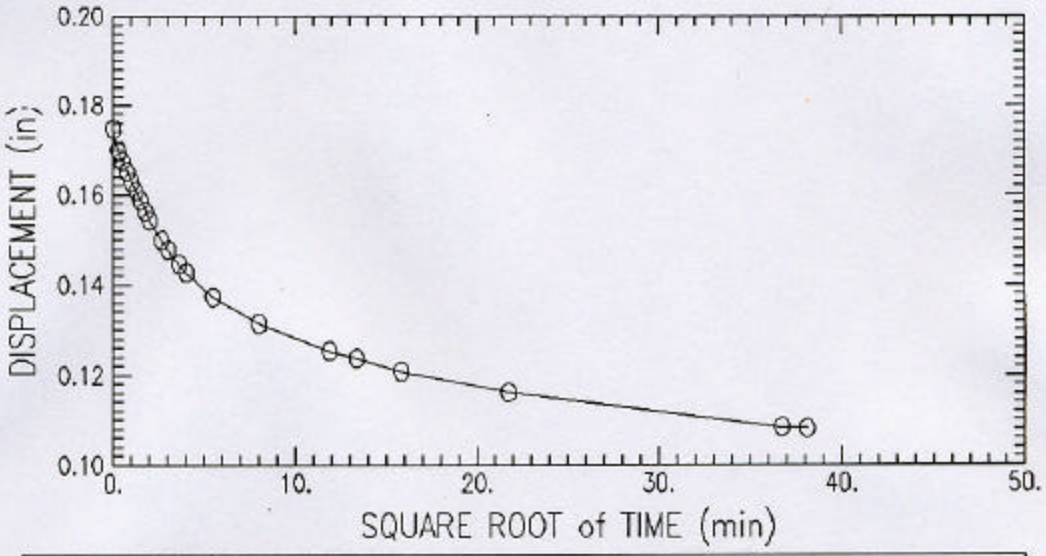
Load Increment : 3/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	4.620	0.00
2)			0.07	0.26	0.0029	4.603	0.31
3)			0.10	0.32	0.0032	4.601	0.34
4)			0.25	0.50	0.0041	4.595	0.43
5)			0.57	0.75	0.0052	4.589	0.55
6)			1.00	1.00	0.0063	4.582	0.67
7)			1.57	1.25	0.0074	4.576	0.78
8)			2.25	1.50	0.0082	4.571	0.87
9)			3.07	1.75	0.0091	4.566	0.96
10)			4.00	2.00	0.0097	4.562	1.03
11)			6.25	2.50	0.0108	4.555	1.14
12)			9.00	3.00	0.0113	4.552	1.20
13)			12.25	3.50	0.0118	4.549	1.25
14)			16.00	4.00	0.0123	4.546	1.30
15)			43.00	6.56	0.0131	4.542	1.39
16)			66.00	8.12	0.0137	4.538	1.45
17)			129.00	11.36	0.0145	4.533	1.54
18)			182.00	13.49	0.0150	4.530	1.59
19)			241.00	15.52	0.0158	4.525	1.67
20)			467.00	21.61	0.0166	4.521	1.76
21)			1362.00	36.91	0.0178	4.513	1.89
22)			1429.00	37.80	0.0179	4.513	1.90

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 5
Test Date : 1/18/02 Test No : 1-5 Depth : 24.5-27 ft
Description : Gray Brown clayey organic to organic clay

URS

Wed Feb 06 16:24:17 2002

CONSOLIDATION TEST DATA

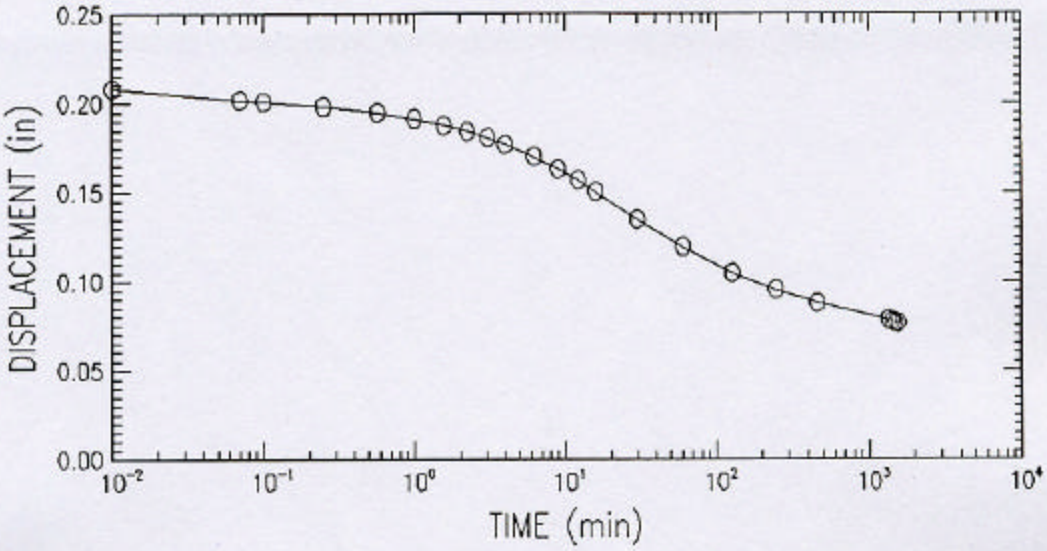
Project : Rhodia Peyton Slough
Location : Martinez, CA
Project No. : 5100070007
Test No. : 1-5
Boring No. : 1
Test Date : 1/18/02
Tested by : C. Wason
Sample No. : 5
Sample Type : Shelby
Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Gray Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.427 inches in diameter

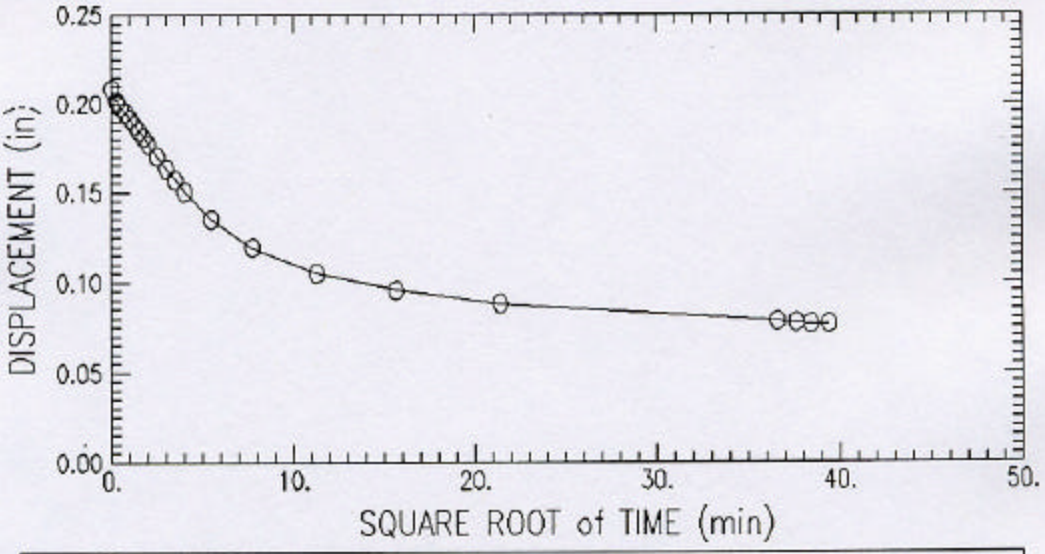
Load Increment : 4/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	4.546	0.00
2)			0.07	0.26	0.0048	4.517	0.51
3)			0.10	0.32	0.0053	4.514	0.56
4)			0.25	0.50	0.0072	4.503	0.76
5)			0.57	0.75	0.0095	4.489	1.01
6)			1.00	1.00	0.0118	4.475	1.25
7)			1.57	1.25	0.0139	4.462	1.47
8)			2.25	1.50	0.0160	4.450	1.70
9)			3.07	1.75	0.0183	4.436	1.94
10)			4.00	2.00	0.0205	4.423	2.17
11)			7.00	2.65	0.0248	4.397	2.63
12)			9.00	3.00	0.0269	4.385	2.85
13)			13.00	3.61	0.0301	4.365	3.20
14)			16.00	4.00	0.0320	4.354	3.39
15)			30.00	5.48	0.0374	4.322	3.96
16)			64.00	8.00	0.0433	4.286	4.59
17)			141.00	11.87	0.0494	4.250	5.24
18)			179.00	13.38	0.0510	4.240	5.41
19)			250.00	15.81	0.0539	4.223	5.71
20)			473.00	21.75	0.0586	4.195	6.21
21)			1352.00	36.77	0.0663	4.148	7.03
22)			1455.00	38.14	0.0666	4.147	7.06

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 5
Test Date : 1/18/02 Test No : 1-5 Depth : 24.5-27 ft
Description : Gray Brown clayey organic to organic clay

URS

Wed Feb 06 16:24:37 2002

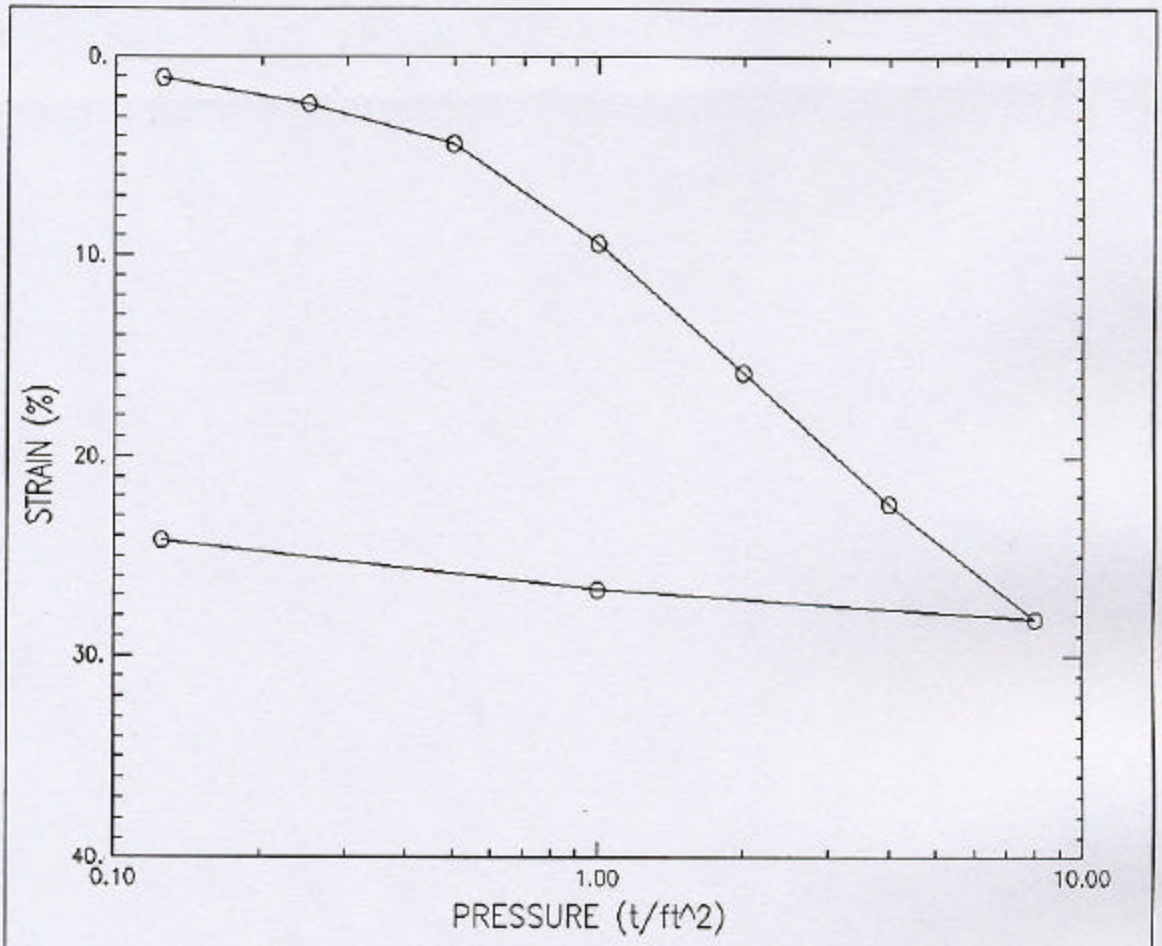
CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-5
Boring No. : 1 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 5 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Gray Brown clayey organic to organic clay
Remarks : Trimmed from 2.86 down to 2.427 inches in diameter

Load Increment : 5/9
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	4.853	0.00
2)			0.07	0.26	0.0063	4.815	0.67
3)			0.10	0.32	0.0072	4.810	0.76
4)			0.25	0.50	0.0098	4.794	1.04
5)			0.57	0.75	0.0129	4.776	1.37
6)			1.00	1.00	0.0165	4.754	1.75
7)			1.57	1.25	0.0200	4.733	2.12
8)			2.25	1.50	0.0233	4.714	2.47
9)			3.07	1.75	0.0269	4.692	2.85
10)			4.00	2.00	0.0308	4.669	3.27
11)			6.25	2.50	0.0378	4.627	4.01
12)			9.00	3.00	0.0448	4.585	4.75
13)			12.25	3.50	0.0510	4.548	5.41
14)			16.00	4.00	0.0576	4.508	6.11
15)			30.00	5.48	0.0730	4.416	7.74
16)			60.00	7.75	0.0885	4.323	9.38
17)			127.00	11.27	0.1030	4.236	10.92
18)			245.00	15.65	0.1125	4.179	11.93
19)			458.00	21.40	0.1201	4.133	12.73
20)			1341.00	36.62	0.1298	4.075	13.76
21)			1418.00	37.66	0.1306	4.071	13.85
22)			1480.00	38.47	0.1312	4.067	13.91
23)			1555.00	39.43	0.1313	4.066	13.92

URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	59.440	36.600
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	64.248	84.778
COMPRESSION INDEX		SATURATION (%)	98.852	99.998
TYPE SPECIMEN		VOID RATIO	1.624	0.988
DIA. (in) 2.430	HT. (in) 0.946	BACK PRESSURE (t/ft^2)		

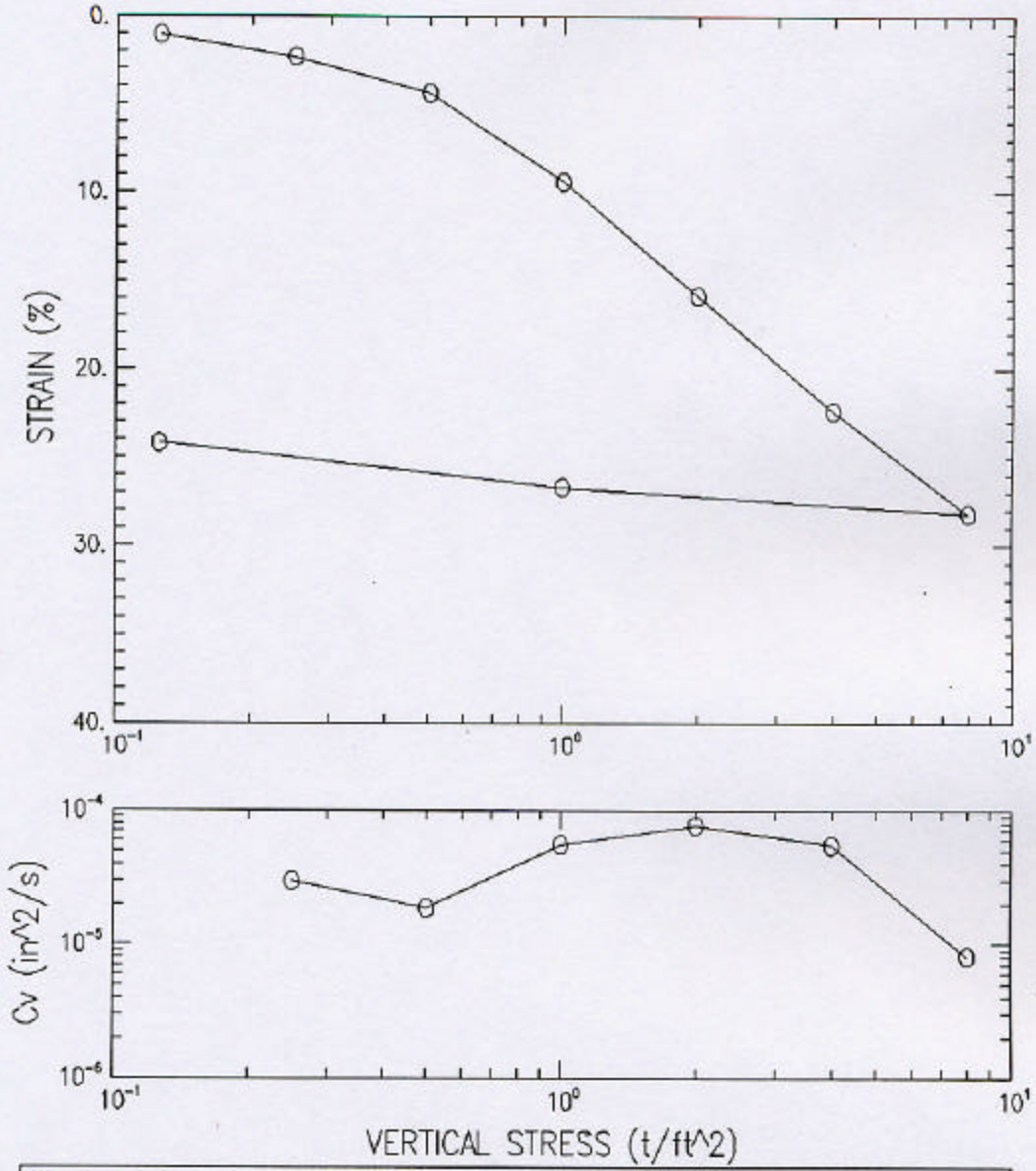
CLASSIFICATION Gray silty clay with traces of organics

LL 48.6	PL 26.7	PI 21.8	PROJECT Rhodia Peyton Slough
GS 2.700	D_{10}		Data File: RHO-1-8.CON
REMARKS		BORING NO. 1	SAMPLE NO. 8
		DEPTH 39.5-42 ft	DATE 1/21/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 8
Test Date : 1/21/02 Test No : 1-8 Depth : 39.5-42 ft
Description : Gray silty clay with traces of organics

URS

Fri Feb 01 15:12:09 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.13	0.010	1.596	1.04	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.25	0.022	1.562	2.35	23.9	0.0	2.97E-005	0.00E+000	0.00E+000
3)	0.50	0.041	1.509	4.38	37.0	0.0	1.86E-005	0.00E+000	0.00E+000
4)	1.00	0.089	1.377	9.40	11.5	0.0	5.52E-005	0.00E+000	0.00E+000
5)	2.00	0.150	1.208	15.84	7.3	0.0	7.67E-005	0.00E+000	0.00E+000
6)	4.00	0.212	1.037	22.37	8.8	0.0	5.48E-005	0.00E+000	0.00E+000
7)	8.00	0.267	0.884	28.19	50.7	0.0	8.09E-006	0.00E+000	0.00E+000
8)	1.00	0.253	0.923	26.71	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.13	0.229	0.988	24.22	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

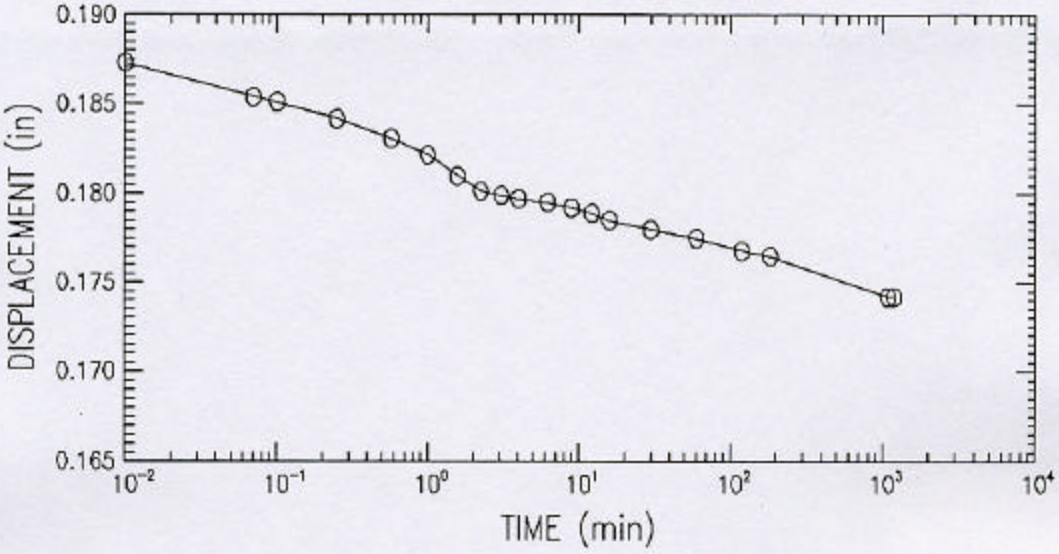
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

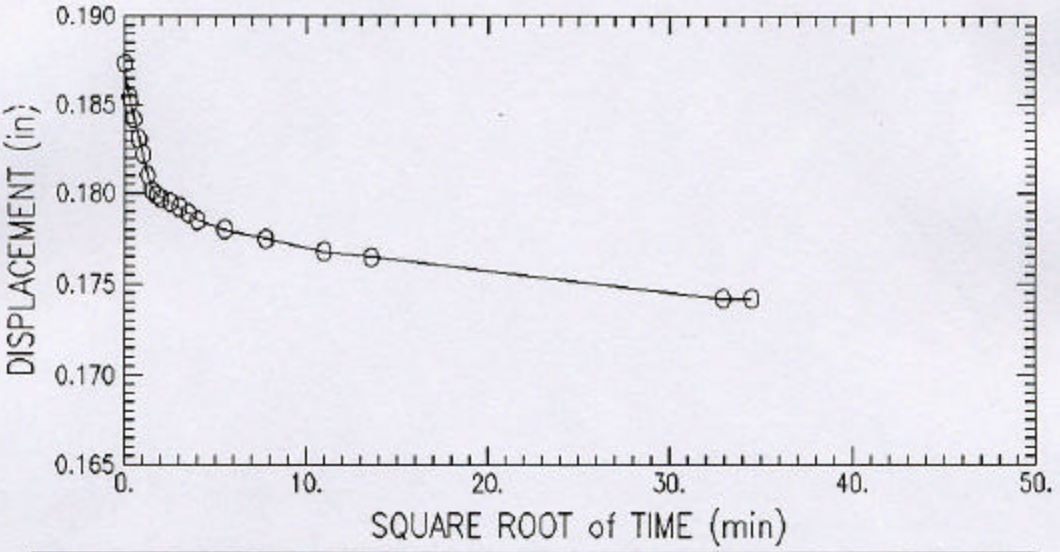
Liquid Limit : 48.55 Plastic Limit : 26.74 Plasticity Index : 21.81
Specific Gravity : 2.70 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 1.624 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	307.32	305.57	288.67	288.67
WT CONTAINER + DRY SOIL (gm)	228.34	261.59	261.59	261.59
WT CONTAINER (gm)	95.55	187.60	187.60	187.60
WT DRY SOIL (gm)	132.79	73.99	73.99	73.99
WATER CONTENT (%)	59.48	59.44	36.60	36.60
VOID RATIO	------	1.62	0.99	------
DEGREE OF SATURATION (%)	------	98.85	100.00	------
DRY DENSITY (lb/ft^3)	------	64.25	84.78	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 2 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 8
Test Date : 1/21/02 Test No : 1-8 Depth : 39.5-42 ft
Description : Gray silty clay with traces of organics

URS

Fri Feb 01 15:21:32 2002

CONSOLIDATION TEST DATA

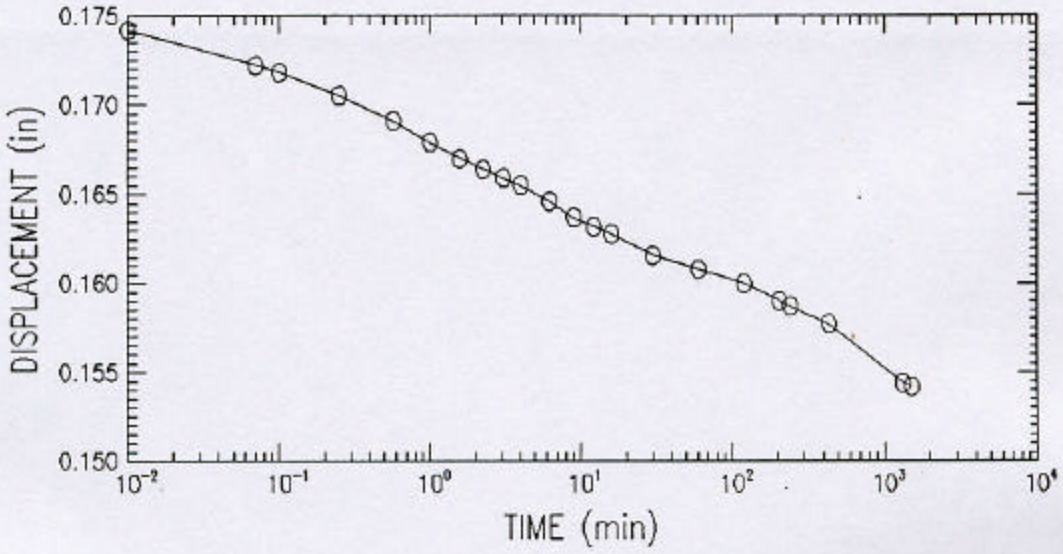
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

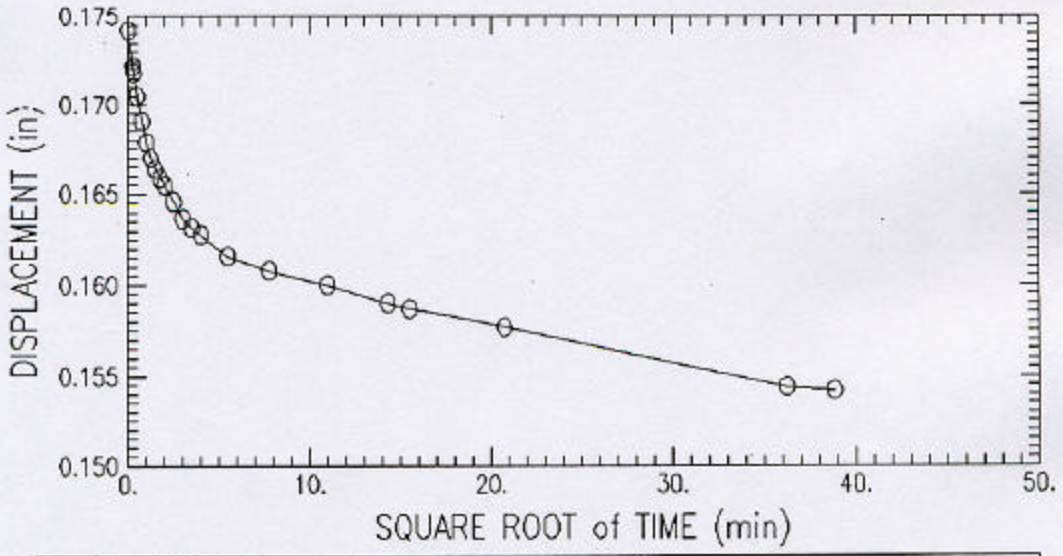
Load Increment : 2/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.589	0.00
2)			0.07	0.26	0.0019	1.584	0.20
3)			0.10	0.32	0.0022	1.583	0.23
4)			0.25	0.50	0.0031	1.580	0.33
5)			0.57	0.75	0.0042	1.577	0.44
6)			1.00	1.00	0.0051	1.575	0.54
7)			1.57	1.25	0.0063	1.571	0.67
8)			2.25	1.50	0.0071	1.569	0.76
9)			3.07	1.75	0.0074	1.568	0.78
10)			4.00	2.00	0.0076	1.568	0.80
11)			6.25	2.50	0.0078	1.567	0.82
12)			9.00	3.00	0.0081	1.566	0.86
13)			12.25	3.50	0.0084	1.565	0.89
14)			16.00	4.00	0.0088	1.564	0.93
15)			30.00	5.48	0.0093	1.563	0.98
16)			60.00	7.75	0.0098	1.562	1.04
17)			120.00	10.95	0.0105	1.560	1.11
18)			184.00	13.56	0.0108	1.559	1.14
19)			1085.00	32.94	0.0131	1.552	1.38
20)			1191.00	34.51	0.0131	1.552	1.38

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 8
Test Date : 1/21/02 Test No : 1-8 Depth : 39.5-42 ft
Description : Gray silty clay with traces of organics

URS

CONSOLIDATION TEST DATA

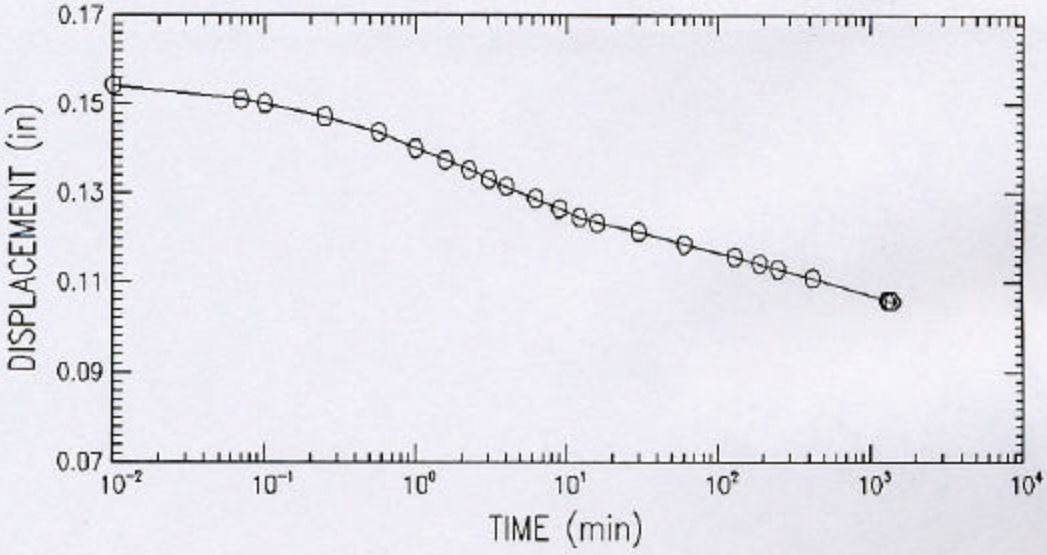
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

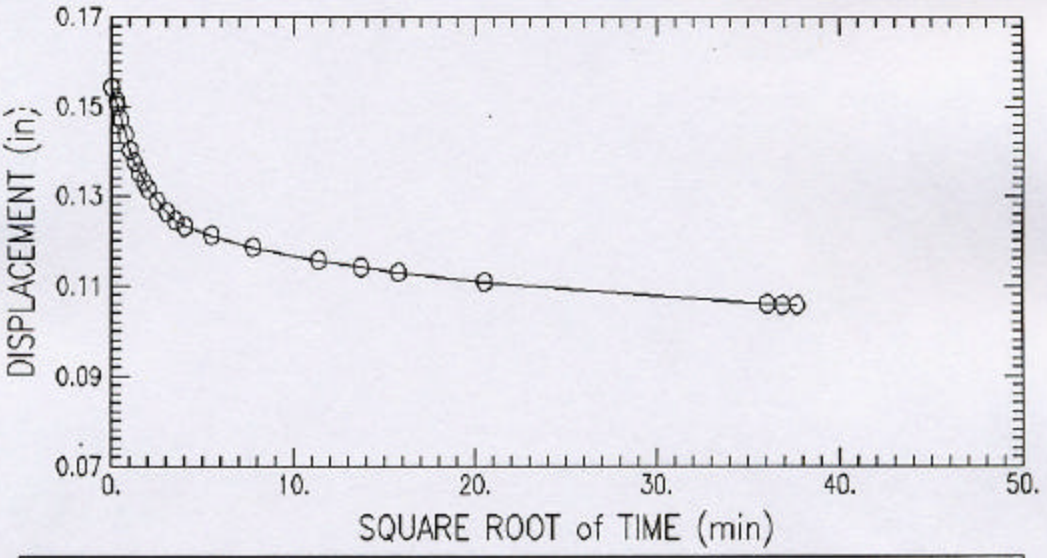
Load Increment : 3/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.588	0.00
2)			0.07	0.26	0.0020	1.582	0.21
3)			0.10	0.32	0.0024	1.581	0.25
4)			0.25	0.50	0.0037	1.577	0.39
5)			0.57	0.75	0.0051	1.574	0.54
6)			1.00	1.00	0.0063	1.570	0.67
7)			1.57	1.25	0.0072	1.568	0.76
8)			2.25	1.50	0.0078	1.566	0.82
9)			3.07	1.75	0.0083	1.565	0.88
10)			4.00	2.00	0.0087	1.564	0.92
11)			6.25	2.50	0.0096	1.561	1.01
12)			9.00	3.00	0.0105	1.559	1.11
13)			12.25	3.50	0.0110	1.557	1.16
14)			16.00	4.00	0.0114	1.556	1.21
15)			30.00	5.48	0.0126	1.553	1.33
16)			60.00	7.75	0.0134	1.550	1.42
17)			120.00	10.95	0.0142	1.548	1.50
18)			204.00	14.28	0.0152	1.546	1.61
19)			240.00	15.49	0.0155	1.545	1.64
20)			430.00	20.74	0.0165	1.542	1.74
21)			1315.00	36.26	0.0198	1.533	2.09
22)			1510.00	38.86	0.0200	1.532	2.11

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 8
Test Date : 1/21/02 Test No : 1-8 Depth : 39.5-42 ft
Description : Gray silty clay with traces of organics

URS

Fri Feb 01 15:22:11 2002

CONSOLIDATION TEST DATA

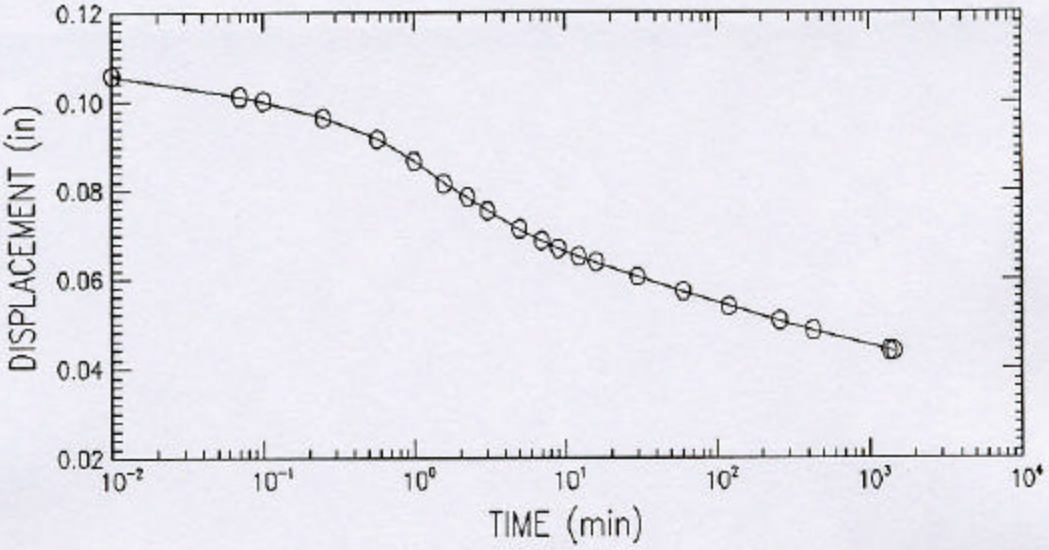
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

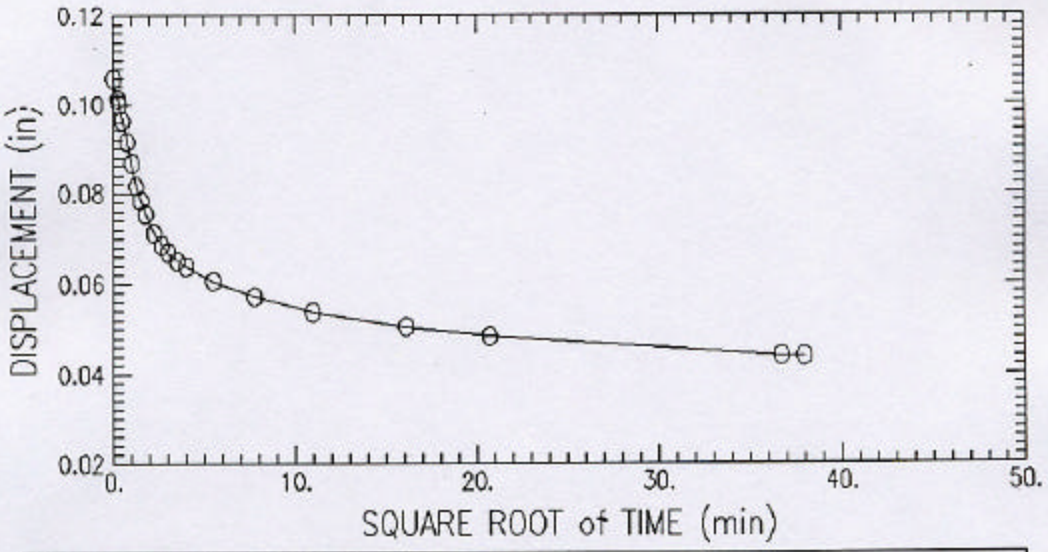
Load Increment : 4/9
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.569	0.00
2)			0.07	0.26	0.0031	1.560	0.33
3)			0.10	0.32	0.0041	1.557	0.43
4)			0.25	0.50	0.0070	1.549	0.74
5)			0.57	0.75	0.0104	1.540	1.10
6)			1.00	1.00	0.0141	1.530	1.49
7)			1.57	1.25	0.0167	1.522	1.77
8)			2.25	1.50	0.0189	1.516	2.00
9)			3.07	1.75	0.0210	1.510	2.22
10)			4.00	2.00	0.0227	1.506	2.40
11)			6.25	2.50	0.0254	1.498	2.68
12)			9.00	3.00	0.0277	1.492	2.93
13)			12.25	3.50	0.0297	1.486	3.14
14)			16.00	4.00	0.0309	1.483	3.27
15)			30.00	5.48	0.0329	1.477	3.48
16)			60.00	7.75	0.0356	1.470	3.76
17)			129.00	11.36	0.0385	1.462	4.07
18)			188.00	13.71	0.0400	1.458	4.23
19)			248.00	15.75	0.0412	1.454	4.36
20)			420.00	20.49	0.0433	1.448	4.58
21)			1300.00	36.06	0.0482	1.435	5.10
22)			1360.00	36.88	0.0484	1.434	5.11
23)			1420.00	37.68	0.0484	1.434	5.12

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 2 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 1 Sample No : 8
Test Date : 1/21/02 Test No : 1-8 Depth : 39.5-42 ft
Description : Gray silty clay with traces of organics

URS

Fri Feb 01 15:22:29 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 1-8
Boring No. : 1 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 8 Sample Type : Shelby Depth : 39.5-42 ft
Checked by : S. Capps
Soil Description : Gray silty clay with traces of organics
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

Load Increment : 5/9
Stress increment from 1.00 (t/ft^2) to 2.00 (t/ft^2)

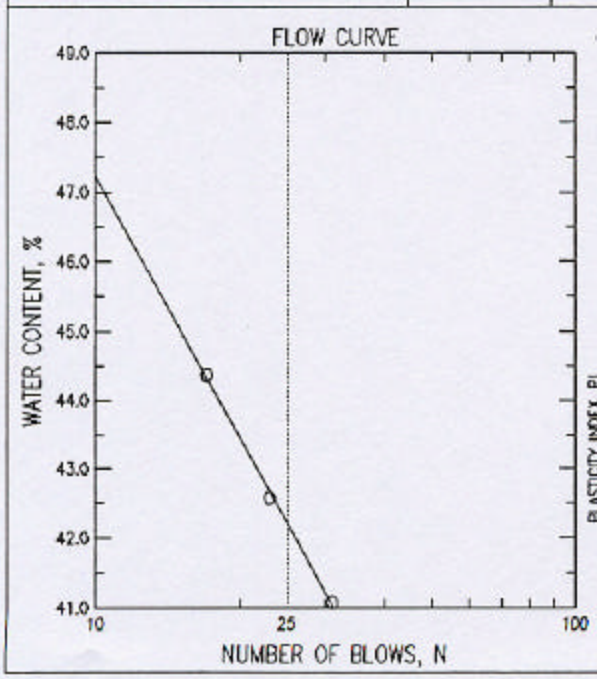
	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.490	0.00
2)			0.07	0.26	0.0046	1.477	0.49
3)			0.10	0.32	0.0056	1.474	0.59
4)			0.25	0.50	0.0093	1.464	0.98
5)			0.57	0.75	0.0141	1.451	1.49
6)			1.00	1.00	0.0191	1.437	2.02
7)			1.57	1.25	0.0242	1.423	2.56
8)			2.25	1.50	0.0273	1.414	2.89
9)			3.07	1.75	0.0303	1.406	3.20
10)			5.00	2.24	0.0345	1.394	3.65
11)			7.00	2.65	0.0371	1.387	3.92
12)			9.00	3.00	0.0388	1.382	4.10
13)			12.25	3.50	0.0406	1.377	4.29
14)			16.00	4.00	0.0419	1.374	4.43
15)			30.00	5.48	0.0452	1.364	4.78
16)			60.00	7.75	0.0486	1.355	5.14
17)			120.00	10.95	0.0520	1.346	5.50
18)			259.00	16.09	0.0553	1.336	5.85
19)			429.00	20.71	0.0574	1.331	6.07
20)			1349.00	36.73	0.0618	1.318	6.53
21)			1441.00	37.96	0.0619	1.318	6.54

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	1
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	13
SAMPLE DESCRIPTION		DATE	FILENAME
Olive Gray silty Clay		Tue Jan 22 2002	1-13

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	21	33	41		
WT. WET SOIL + TARE	26.38	25.2	26.64		
WT. DRY SOIL + TARE	22.03	20.84	21.91		
WT. WATER	4.35	4.36	4.73		
TARE WT.	11.44	10.6	11.25		
WT. DRY SOIL	10.59	10.24	10.66		
WATER CONTENT, W_N (%)	41.08	42.58	44.37		
NUMBER OF BLOWS, N	31	23	17		
ONE-POINT LIQUID LIMIT, LL	42.16	42.15	42.35		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	207				
WT. WET SOIL + TARE	28.55				
WT. DRY SOIL + TARE	26.83				
WT. WATER	1.72				
TARE WT.	16.06				
WT. DRY SOIL	10.77				
WATER CONTENT (%)	15.97				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	24.6
LIQUID LIMIT, LL	42.2
PLASTIC LIMIT, PL	16.0
PLASTICITY INDEX, PI	26.2
LIQUIDITY INDEX, LI*	0.33

*LI = (W - PL)/PI

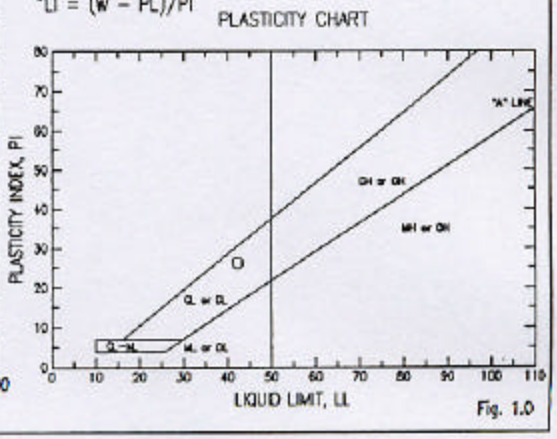


Fig. 1.0

URS

Tue Jan 22 09:17:52 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 13
Location : Martinez, CA
Soil Description : Olive Gray silty Clay
Remarks : Depth: 84.5-87.0 feet

Depth : 84.5-87.0 ft
Test Date : 01/21/02
Test Method : ASTM 1140/4318

Filename : 1-13
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#200	0.003	0.07	91.56	91.56	87

Total Dry Weight of Sample = 723.47

D85 : N/A
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : CL
ASTM Group Name : lean clay
AASHTO Group Symbol : A-7-6(25)
AASHTO Group Name : Clayey Soils

URS

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 1
Sample No. : 13
Location : Martinez, CA
Soil Description : Olive Gray silty Clay
Remarks : Depth: 84.5-87.0 feet

Depth : 84.5-87.0 ft
Test Date : 01/21/02
Test Method : ASTM 1140/4318

Filename : 1-13
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 1-13	0.00	1265.70	1015.65	24.62

Average Moisture Content = 24.62

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 207	16.06	28.55	26.83	15.97

Plastic Limit = 15.97

Liquid Limit

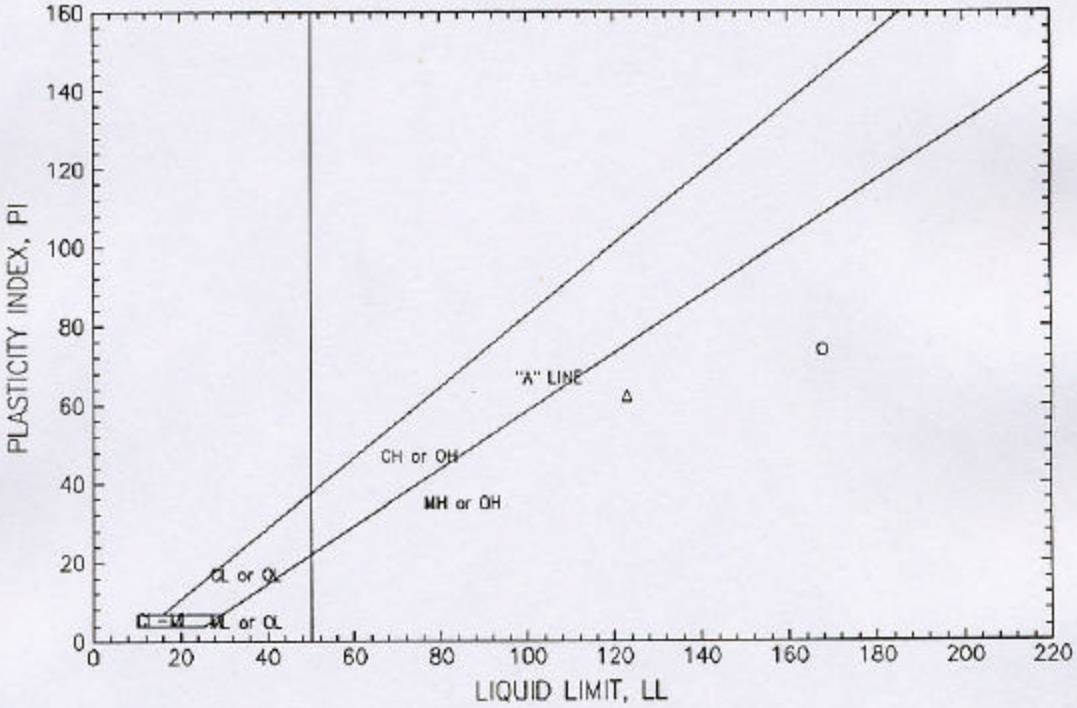
Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 21	11.44	26.38	22.03	31	41.08
2) 33	10.60	25.20	20.84	23	42.58
3) 41	11.25	26.64	21.91	17	44.37

Liquid Limit = 42.21
Plastic Index = 26.24

URS

Project : Rhodia – Martinez
Project No. : 51-00070007.00
Location : Martinez, CA
Date : Thu Jan 17 2002

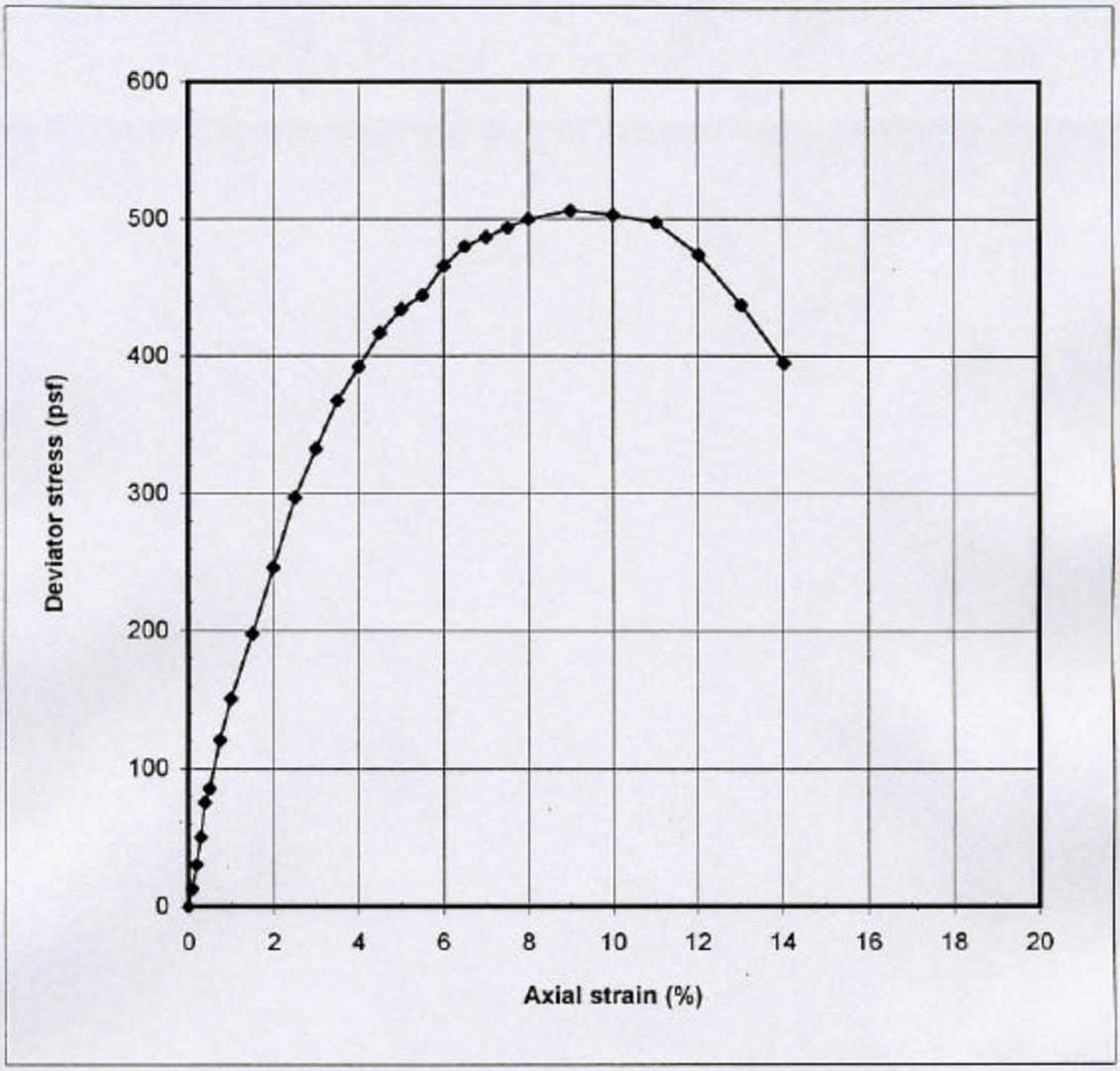
PLASTICITY CHART



Symbol	Boring No.	Sample No.	Liquid Limit	Plastic Limit	Plasticity Index
○	2	3	167.81	94.03	73.78
△	2	5	122.86	60.69	62.17

Figure 1

URS



Peak U. C. Strength (psf)	= 506	Dry density (pcf)	= 24.7
Strain at failure (%)	= 9.0	Moisture content (%)	= 193.8
Peak Shear Stress (psf)	= 253	Gs (assumed)	= 2.68
Rate of shearing (%/min)	= 0.84	Void ratio	= 5.778
Specimen height (in)	= 5.984	Saturation (%)	= 89.9
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **2**
Project: **Rhodia - Martinez**	Depth (ft): **4.5-6.0**
Project #: **51-00070007.00**	Soil: **Dark grayish brown peaty clay**

TEST REPORT: UNCONFINED COMPRESSIVE STRENGTH

URS

UNCONFINED COMPRESSIVE STRENGTH
ASTM D2166

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 2
Depth (ft) : 4.5-6.0
Date tested : 01/10/02
Soil Description : Dark grayish brown peaty clay

Specimen: Total wt. =	732.1	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.68	

Test Report: Void ratio	5.778	
Ht/Dia ratio	2.09	
Moisture	193.8	%
Total density	72.5	pcf
Dry density	24.7	pcf
Saturation	89.9	%
Shear Stress	253	psf
Max. U.C. Strength	506	psf
Strain @ failure	9.02	%

Data Reduction:

Dial factor =	1.0	in/unit
Load factor =	1.1	lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.5	0.10	12.7
0.012	1.2	0.20	30.4
0.018	2.0	0.30	50.6
0.024	3.0	0.40	75.9
0.030	3.4	0.50	85.9
0.045	4.8	0.75	121.0
0.060	6.0	1.00	150.8
0.090	7.9	1.50	197.6
0.120	9.9	2.01	246.4
0.150	12.0	2.51	297.1
0.180	13.5	3.01	332.5
0.210	15.0	3.51	367.6
0.240	16.1	4.01	392.5
0.270	17.2	4.51	417.1
0.300	18.0	5.01	434.2
0.330	18.5	5.51	443.9
0.360	19.5	6.02	465.4
0.390	20.2	6.52	479.6
0.420	20.6	7.02	486.4
0.450	21.0	7.52	493.2
0.480	21.4	8.02	499.9
0.540	21.9	9.02	506.0
0.600	22.0	10.03	502.7
0.660	22.0	11.03	497.1
0.720	21.2	12.03	473.6
0.780	19.8	13.03	437.3
0.840	18.1	14.04	395.1

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Specific Gravity of Soils

Project Name: Rhodia - Martinez

Project Number: 51-00070007.00

Location: Martinez, CA **Date: 01/17/02**

Test Method: ASTM D854

Sample Number: 2-3 **Depth, ft. 9.5-12.0**

Bottle Number: 5

Description: Dark brown clay with organics

Determination Number	pycnometer + soil + water gms	pycnometer + water gms	temperature F	Specific Gravity
1	686.7	661.48	71.0	2.110
2	687.3	661.81	65.0	2.136
3	687.5	662.13	59.0	2.126
			Average	**2.124**

Oven dried soil + tare, gms	298.22
tare, gms	250.36
Oven dried soil	47.86

Gravity of Water

URS

ATTERBERG LIMITS

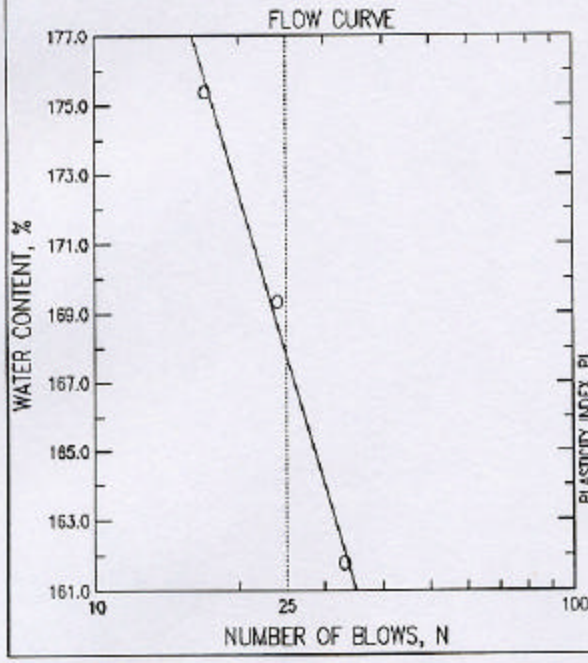
PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia – Martinez	51-00070007.00	J. Hebel	2
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	3
SAMPLE DESCRIPTION		DATE	FILENAME
Dark Brown organic Clay		Thu Jan 17 2002	2-03

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	109	83	151		
WT. WET SOIL + TARE	23.95	24.2	24.63		
WT. DRY SOIL + TARE	15.78	15.92	16.37		
WT. WATER	8.17	8.28	8.26		
TARE WT.	10.73	11.03	11.66		
WT. DRY SOIL	5.05	4.89	4.71		
WATER CONTENT, W_N (%)	161.78	169.33	175.37		
NUMBER OF BLOWS, N	33	24	17		
ONE-POINT LIQUID LIMIT, LL	167.31	168.49	167.38		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	48				
WT. WET SOIL + TARE	28.67				
WT. DRY SOIL + TARE	22.53				
WT. WATER	6.14				
TARE WT.	16				
WT. DRY SOIL	6.53				
WATER CONTENT (%)	94.03				

SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	333.7
LIQUID LIMIT, LL	167.8
PLASTIC LIMIT, PL	94.0
PLASTICITY INDEX, PI	73.8
LIQUIDITY INDEX, LI*	3.25

*LI = (W – PL)/PI



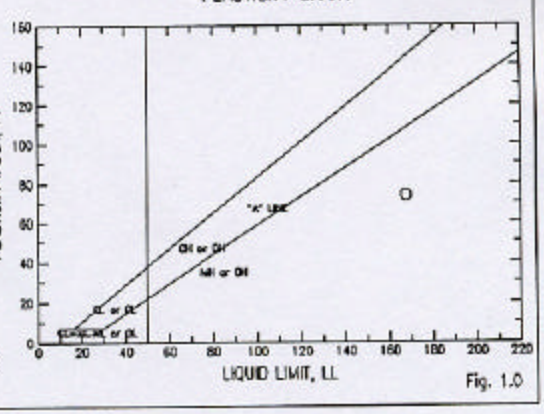


Fig. 1.0

URS

Thu Jan 17 09:31:53 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 2
Sample No. : 3
Location : Martinez, CA
Soil Description : Dark Brown organic Clay
Remarks :

Depth : 9.5-12.0 ft
Test Date : 01/16/02
Test Method : ASTM D4318

Filename : 2-03
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1)	2-03	91.56	216.72	120.42	333.68

Average Moisture Content = 333.68

Plastic Limit

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1)	48	16.00	28.67	22.53	94.03

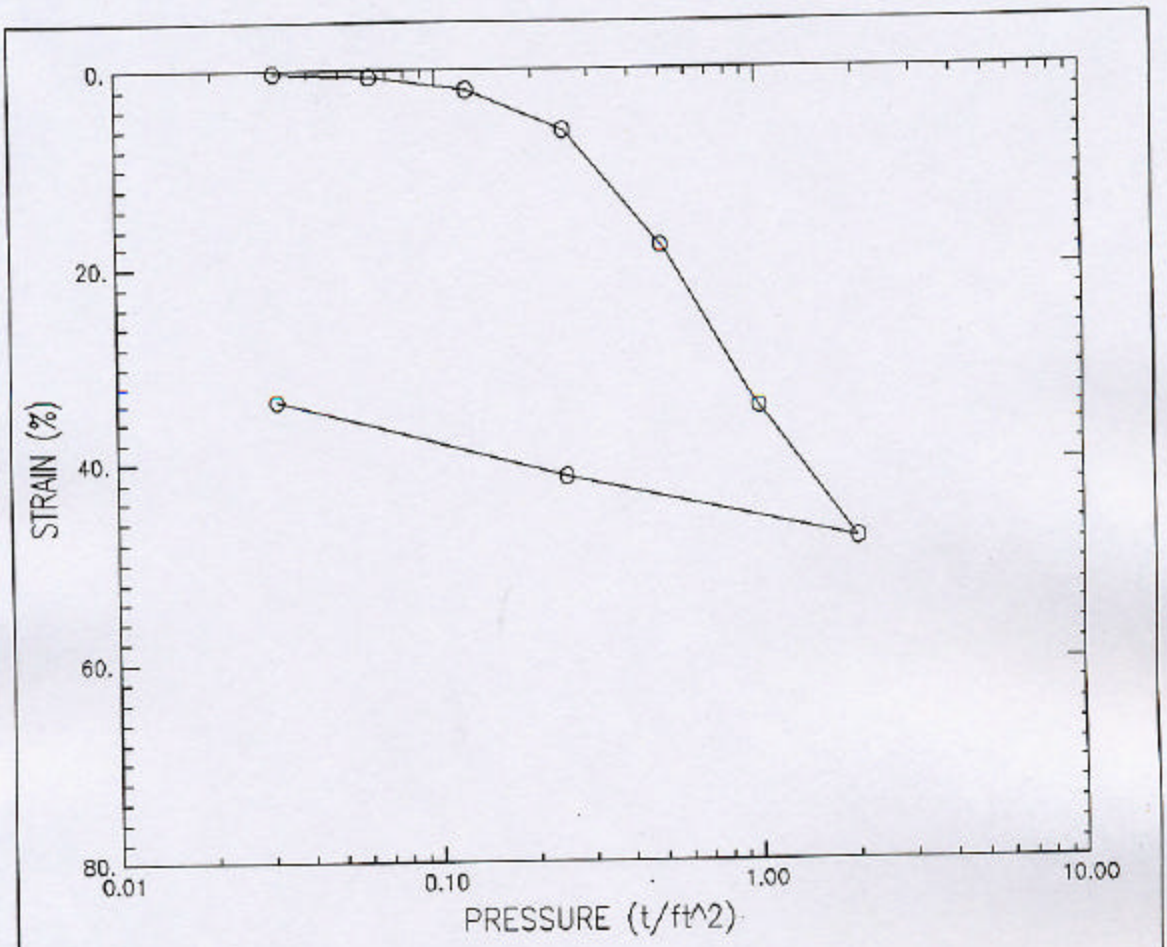
Plastic Limit = 94.03

Liquid Limit

	Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1)	109	10.73	23.95	15.78	33	161.78
2)	83	11.03	24.20	15.92	24	169.33
3)	151	11.66	24.63	16.37	17	175.37

Liquid Limit = 167.81
Plastic Index = 73.78

URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	333.677	213.308
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	15.891	23.975
COMPRESSION INDEX		SATURATION (%)	96.500	100.000
TYPE SPECIMEN		VOID RATIO	7.344	4.531
DIA. (in) 2.425	HT. (in) 0.958	BACK PRESSURE (t/ft^2)		

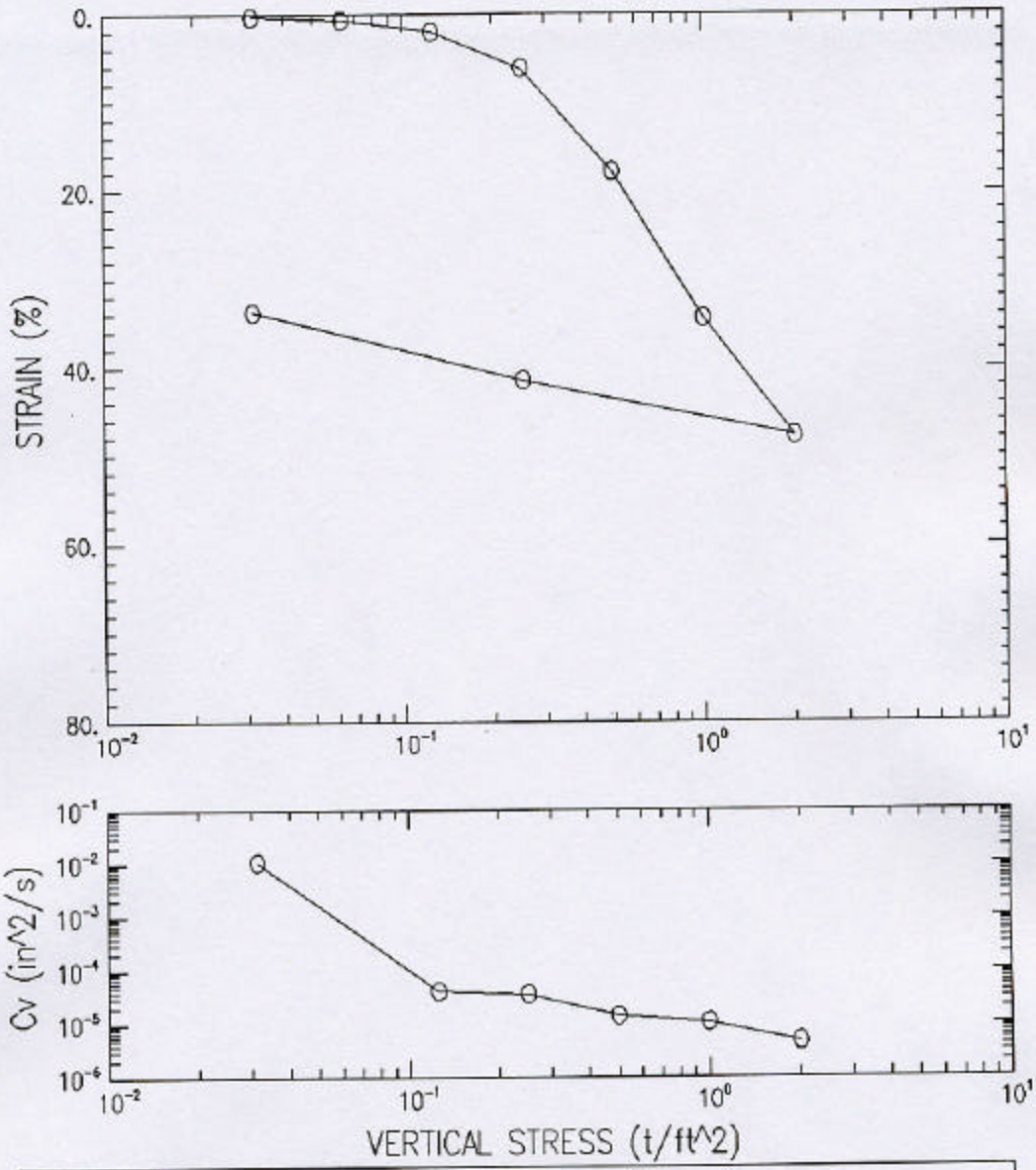
CLASSIFICATION Dark Brown organic clay (OH)

LL 167.8	PL 94.0	PI 73.8	PROJECT Rhodia – Martinez
GS 2.124	D_{10}		Data File: RHO2-3.CON
REMARKS			BORING NO. 2 / SAMPLE NO. 3
			DEPTH 9.5–12 ft. / DATE 1/14/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 3
Test Date : 1/14/02 Test No : 2-3 Depth : 9.5-12 ft.
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 12:35:07 2002

CONSOLIDATION TEST DATA

Project : Rhodia - Martinez | Location : Martinez, CA | Project No. : 5100070007
Test No. : 2-3
Boring No. : 2 | Test Date : 1/14/02 | Tested by : C. Wason
Sample No. : 3 | Sample Type : Shelby | Depth : 9.5-12 ft.
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.03	0.002	7.323	0.25	0.1	0.0	1.07E-002	0.00E+000	0.00E+000
2)	0.06	0.006	7.291	0.64	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
3)	0.13	0.019	7.179	1.98	17.8	0.0	4.10E-005	0.00E+000	0.00E+000
4)	0.25	0.059	6.830	6.16	19.2	0.0	3.59E-005	0.00E+000	0.00E+000
5)	0.50	0.170	5.858	17.81	41.0	0.0	1.42E-005	0.00E+000	0.00E+000
6)	1.00	0.329	4.471	34.44	38.4	0.0	1.07E-005	0.00E+000	0.00E+000
7)	2.00	0.456	3.360	47.75	55.9	0.0	4.65E-006	0.00E+000	0.00E+000
8)	0.25	0.396	3.888	41.42	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.03	0.322	4.530	33.73	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

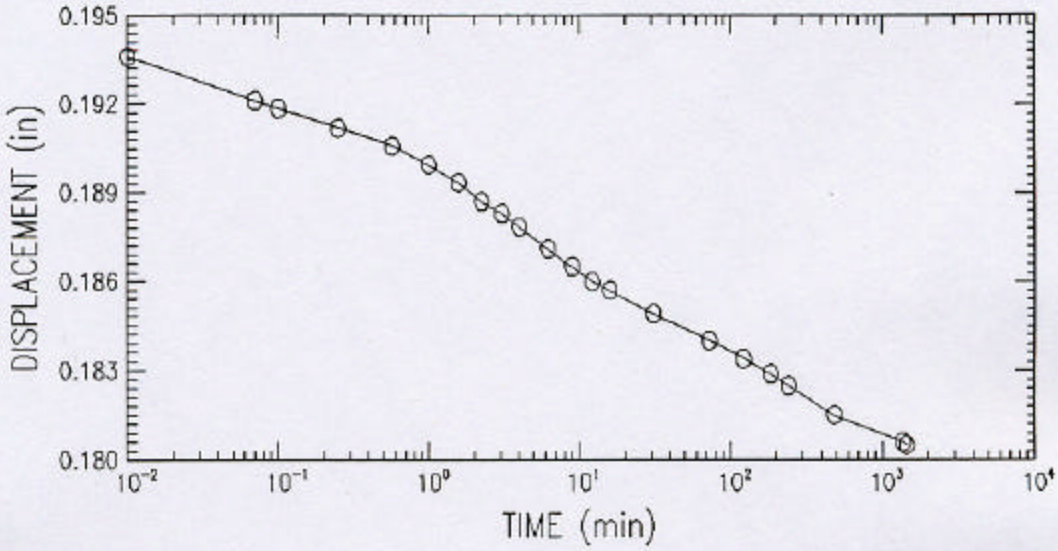
Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-3
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 9.5-12 ft.
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

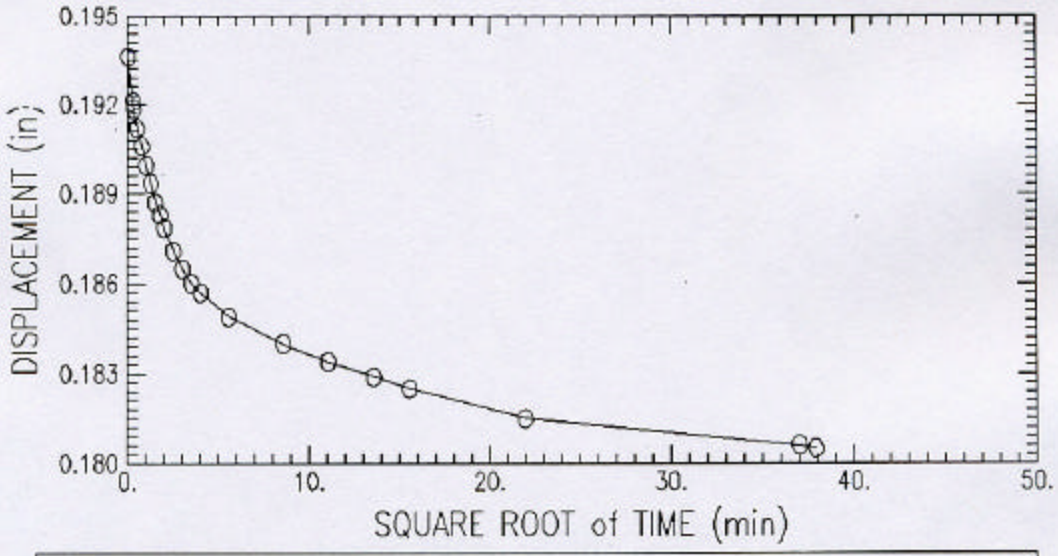
Liquid Limit : 167.81 Plastic Limit : 94.03 Plasticity Index : 73.78
Specific Gravity : 2.12 Initial Height : 0.96 Sample Diameter : 2.43 (in)
Initial Void Ratio : 7.343 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	216.72	267.55	245.39	245.39
WT CONTAINER + DRY SOIL (gm)	120.42	206.12	206.12	206.12
WT CONTAINER (gm)	91.56	187.71	187.71	187.71
WT DRY SOIL (gm)	28.86	18.41	18.41	18.41
WATER CONTENT (%)	333.68	333.68	213.31	213.31
VOID RATIO	------	7.34	4.53	------
DEGREE OF SATURATION (%)	------	96.50	100.00	------
DRY DENSITY (lb/ft^3)	------	15.89	23.97	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia - Martinez
Project No : 5100070007 Boring No : 2 Sample No : 3
Test Date : 1/14/02 Test No : 2-3 Depth : 9.5-12 ft.
Description : Dark Brown organic clay (OH)

URS

CONSOLIDATION TEST DATA

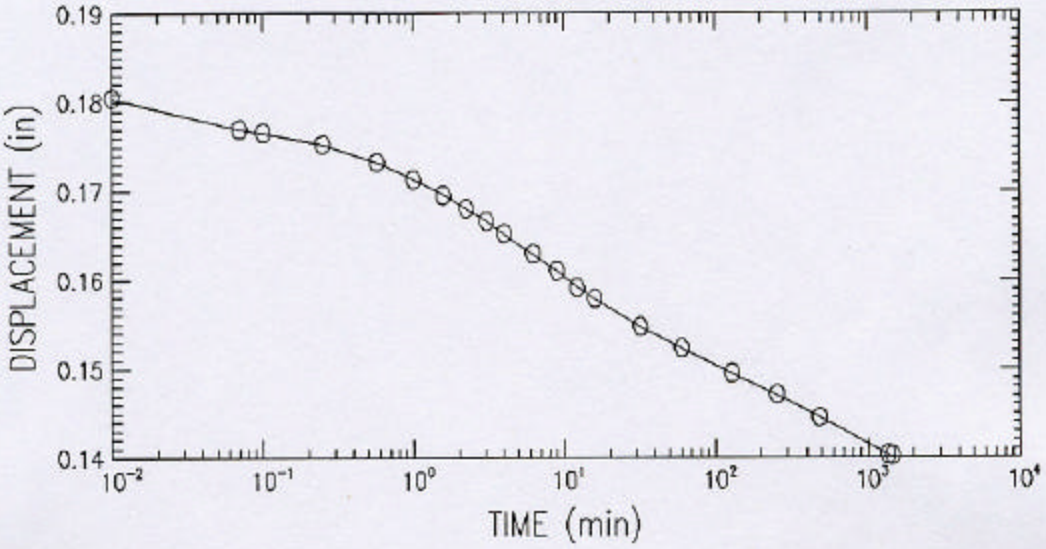
Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-3
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 9.5-12 ft.
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

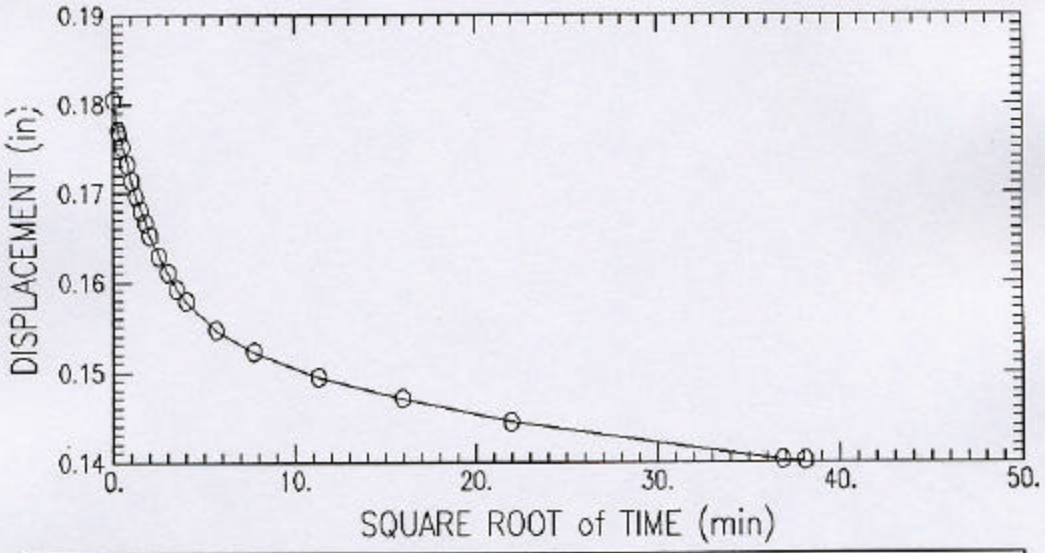
Load Increment : 3/9
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	7.310	0.00
2)			0.07	0.26	0.0015	7.297	0.16
3)			0.10	0.32	0.0018	7.295	0.18
4)			0.25	0.50	0.0024	7.289	0.25
5)			0.57	0.75	0.0030	7.284	0.31
6)			1.00	1.00	0.0036	7.278	0.38
7)			1.57	1.25	0.0043	7.273	0.44
8)			2.25	1.50	0.0049	7.267	0.51
9)			3.07	1.75	0.0053	7.264	0.55
10)			4.00	2.00	0.0058	7.260	0.60
11)			6.25	2.50	0.0065	7.253	0.68
12)			9.00	3.00	0.0071	7.248	0.74
13)			12.25	3.50	0.0076	7.243	0.80
14)			16.00	4.00	0.0079	7.241	0.83
15)			31.00	5.57	0.0087	7.234	0.91
16)			73.00	8.54	0.0096	7.226	1.00
17)			122.00	11.05	0.0102	7.221	1.07
18)			184.00	13.56	0.0107	7.216	1.12
19)			242.00	15.56	0.0111	7.213	1.16
20)			483.00	21.98	0.0121	7.204	1.27
21)			1371.00	37.03	0.0130	7.196	1.36
22)			1440.00	37.95	0.0131	7.195	1.37

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 3
Test Date : 1/14/02 Test No : 2–3 Depth : 9.5–12 ft.
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 12:43:44 2002

CONSOLIDATION TEST DATA

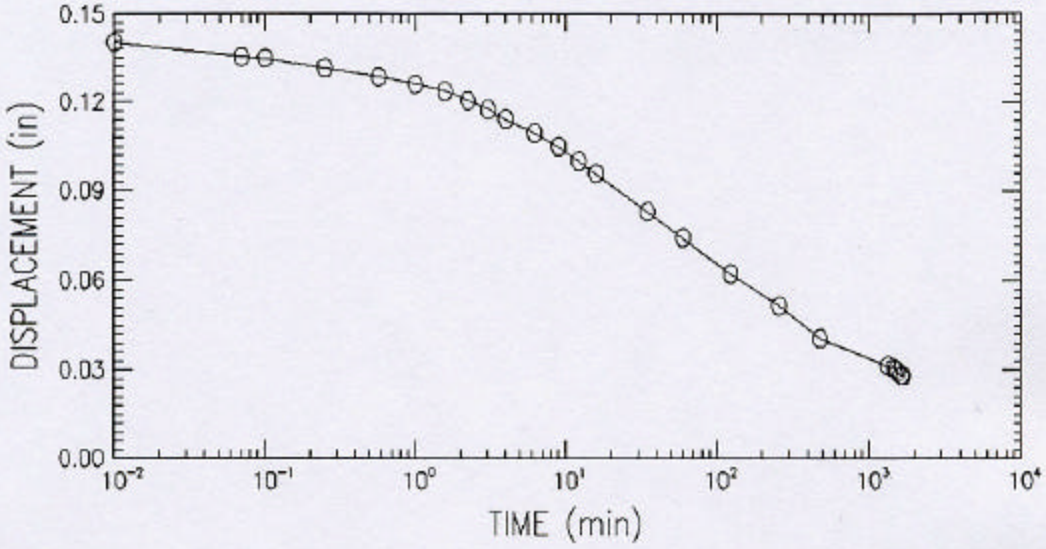
Project : Rhodia - Martinez | Location : Martinez, CA | Project No. : 5100070007
Test No. : 2-3
Boring No. : 2 | Test Date : 1/14/02 | Tested by : C. Wason
Sample No. : 3 | Sample Type : Shelby | Depth : 9.5-12 ft.
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

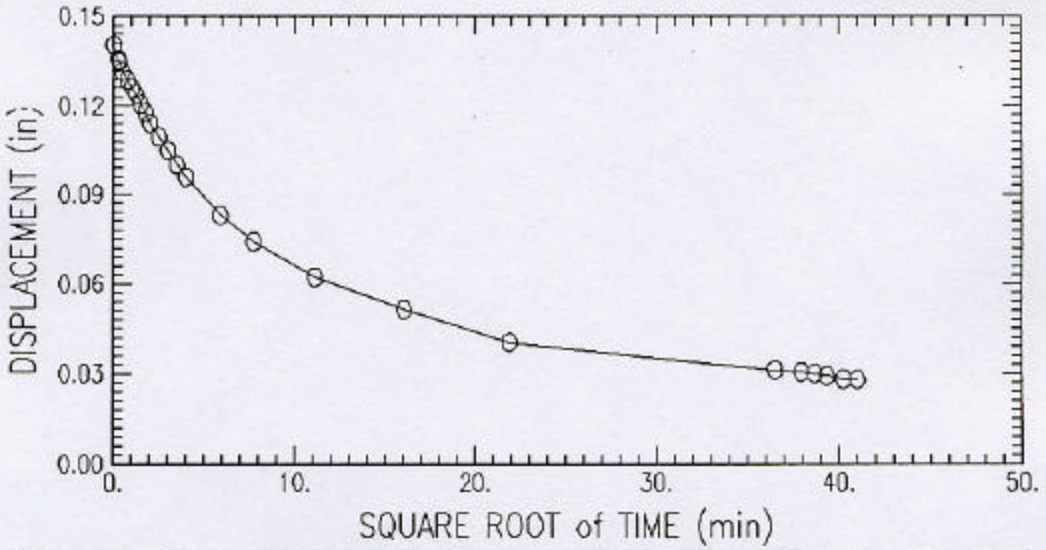
Load Increment : 4/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	7.229	0.00
2)			0.07	0.26	0.0035	7.198	0.37
3)			0.10	0.32	0.0039	7.195	0.41
4)			0.25	0.50	0.0052	7.183	0.54
5)			0.57	0.75	0.0072	7.166	0.75
6)			1.00	1.00	0.0091	7.149	0.96
7)			1.57	1.25	0.0109	7.133	1.14
8)			2.25	1.50	0.0124	7.120	1.30
9)			3.07	1.75	0.0138	7.108	1.44
10)			4.00	2.00	0.0152	7.096	1.59
11)			6.25	2.50	0.0175	7.076	1.83
12)			9.00	3.00	0.0194	7.059	2.03
13)			12.25	3.50	0.0213	7.043	2.23
14)			16.00	4.00	0.0226	7.031	2.37
15)			32.00	5.66	0.0258	7.003	2.70
16)			60.00	7.75	0.0282	6.982	2.95
17)			128.00	11.31	0.0310	6.958	3.24
18)			254.00	15.94	0.0334	6.937	3.50
19)			483.00	21.98	0.0360	6.914	3.77
20)			1360.00	36.88	0.0402	6.878	4.21
21)			1452.00	38.11	0.0403	6.877	4.22

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 3
Test Date : 1/14/02 Test No : 2–3 Depth : 9.5–12 ft.
Description : Dark Brown organic clay (OH)

URS

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CONSOLIDATION TEST DATA

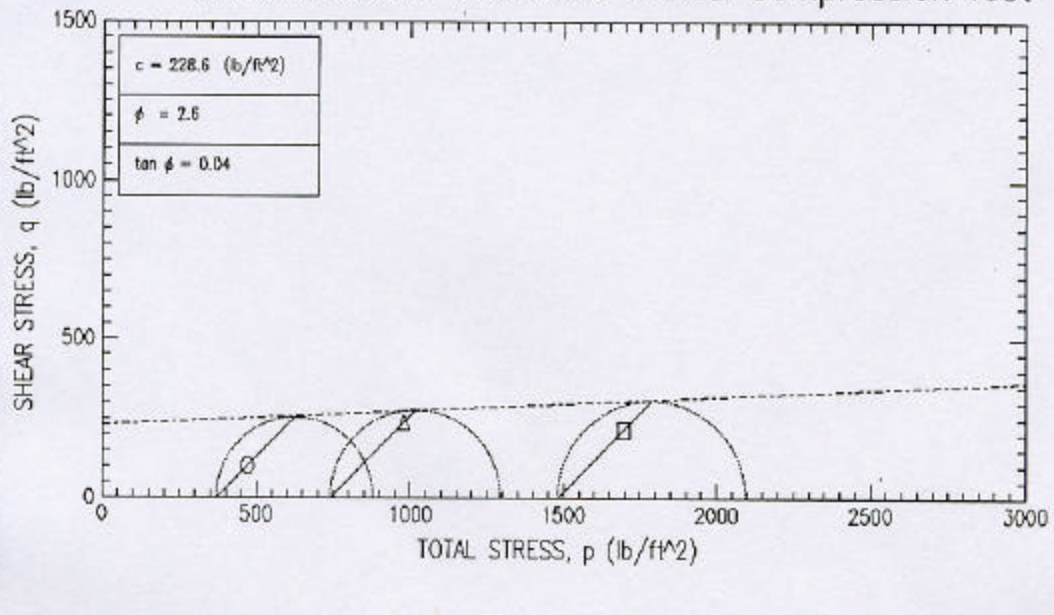
Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-3
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 9.5-12 ft.
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

Load Increment : 5/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	6.991	0.00
2)			0.07	0.26	0.0049	6.948	0.51
3)			0.10	0.32	0.0055	6.943	0.58
4)			0.25	0.50	0.0088	6.914	0.92
5)			0.57	0.75	0.0117	6.889	1.22
6)			1.00	1.00	0.0142	6.867	1.49
7)			1.57	1.25	0.0165	6.847	1.73
8)			2.25	1.50	0.0197	6.819	2.06
9)			3.07	1.75	0.0225	6.795	2.35
10)			4.00	2.00	0.0260	6.764	2.72
11)			6.25	2.50	0.0305	6.725	3.19
12)			9.00	3.00	0.0352	6.684	3.68
13)			12.25	3.50	0.0399	6.642	4.18
14)			16.00	4.00	0.0443	6.604	4.64
15)			35.00	5.92	0.0571	6.493	5.98
16)			60.00	7.75	0.0659	6.416	6.90
17)			124.00	11.14	0.0779	6.311	8.15
18)			258.00	16.06	0.0887	6.217	9.28
19)			480.00	21.91	0.0997	6.121	10.43
20)			1333.00	36.51	0.1089	6.040	11.40
21)			1440.00	37.95	0.1095	6.035	11.46
22)			1496.00	38.68	0.1101	6.030	11.52
23)			1548.00	39.34	0.1108	6.024	11.59
24)			1620.00	40.25	0.1119	6.014	11.71
25)			1682.00	41.01	0.1120	6.013	11.72

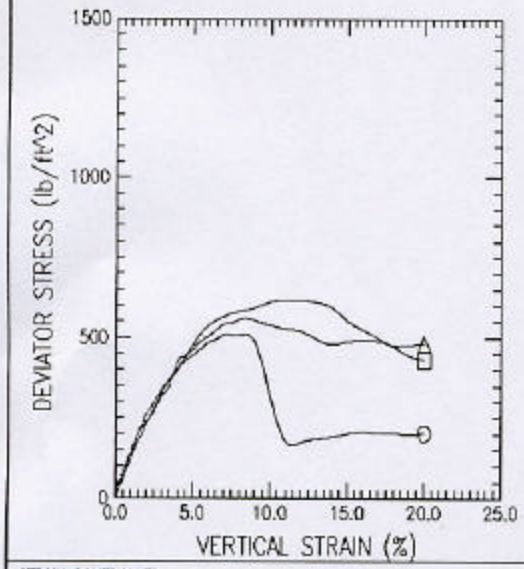
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Unconsolidated-Undrained Triaxial Compression Test



FALURE SKETCHES





SYMBOL		O	Δ	□
TEST NO.		2-4A	2-4B	2-4C
INITIAL	WATER CONTENT (%)	343.98	277.54	291.54
	DRY DENSITY (lb/ft^3)	15.20	18.27	17.69
	SATURATION (%)	94.00	93.43	94.59
	VOID RATIO	8.234	6.684	6.935
BEFORE SHEAR	WATER CONTENT (%)	343.98	277.54	291.54
	DRY DENSITY (lb/ft^3)	15.20	18.27	17.69
	SATURATION (%)	94.00	93.43	94.59
	VOID RATIO	8.234	6.684	6.935
	BACK PRESS. (lb/ft^2)	0.00	0.00	0.00
MINOR PRIN. STRESS (lb/ft^2)		370.00	740.00	1480.00
MAX. DEV. STRESS (lb/ft^2)		508.33	554.81	615.05
TIME TO FAILURE (min)		0.00	0.00	0.00
RATE OF STRAIN INCR (%/min)		0.83	0.83	0.83
INITIAL DIAMETER (in)		2.86	2.86	2.86
INITIAL HEIGHT (in)		5.98	5.98	5.98
B-VALUE		0.00	0.00	0.00

STRAIN CONTROLLED

DESCRIPTION OF SPECIMENS:

1) Brown peat

2) Brown peat

3) Brown peat

LL	PL	PI	GS 2.25

REMARKS:

1) Effective Pressure = 370 psf

2) Effective Pressure = 740 psf

3) Effective Pressure = 1480 psf

TYPE OF SPECIMEN Shelby Tube

TYPE OF TEST CU (R)

PROJECT Rhodia - Martinez

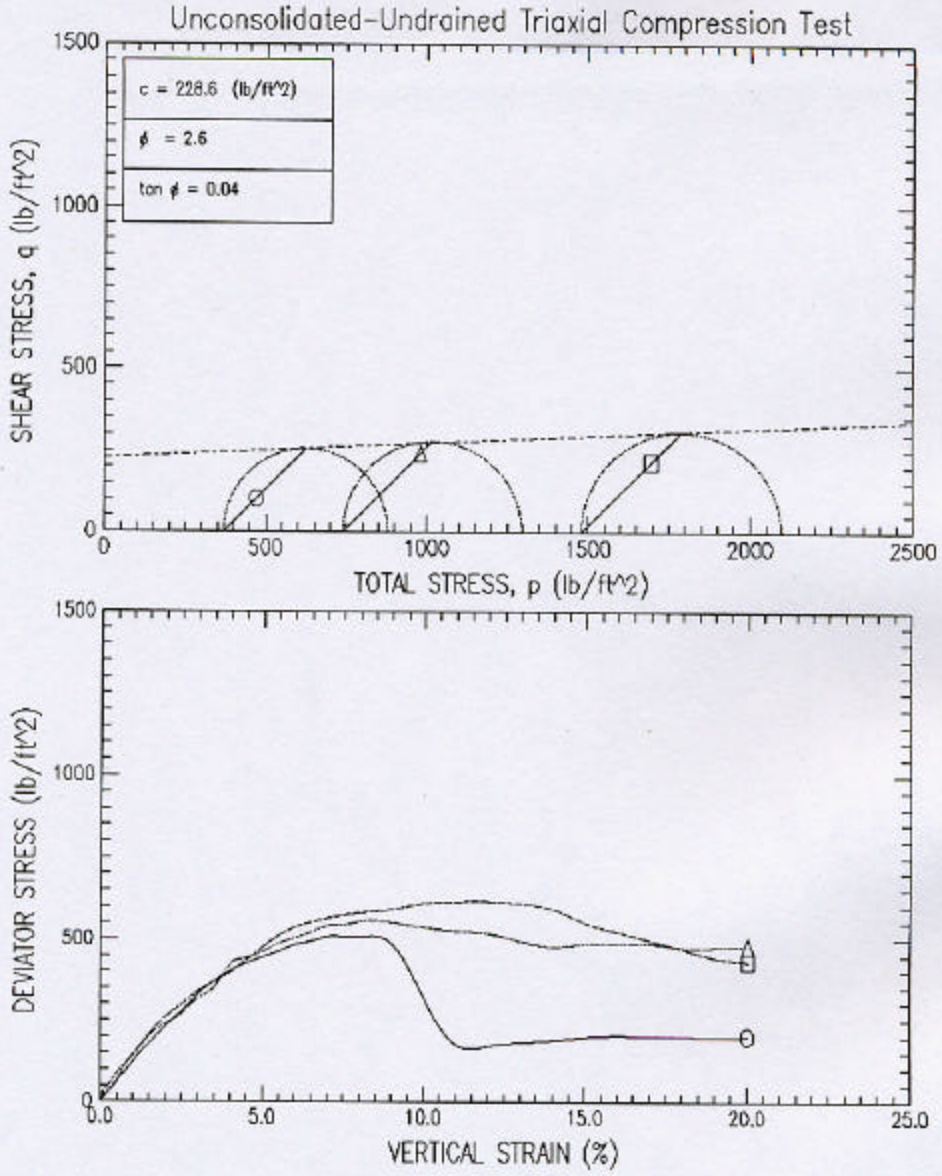
PROJECT NO.5100070007

BORING NO. 2	SAMPLE NO.	2-4A	2-4B	2-4C
TECH. J. Hebel	DEPTH/ELEV	14.5-17.0	14.5-17.0	14.5-17.0
LABORATORY	DATE	01/11/02	01/11/02	01/11/02

TRIAXIAL COMPRESSION TEST REPORT

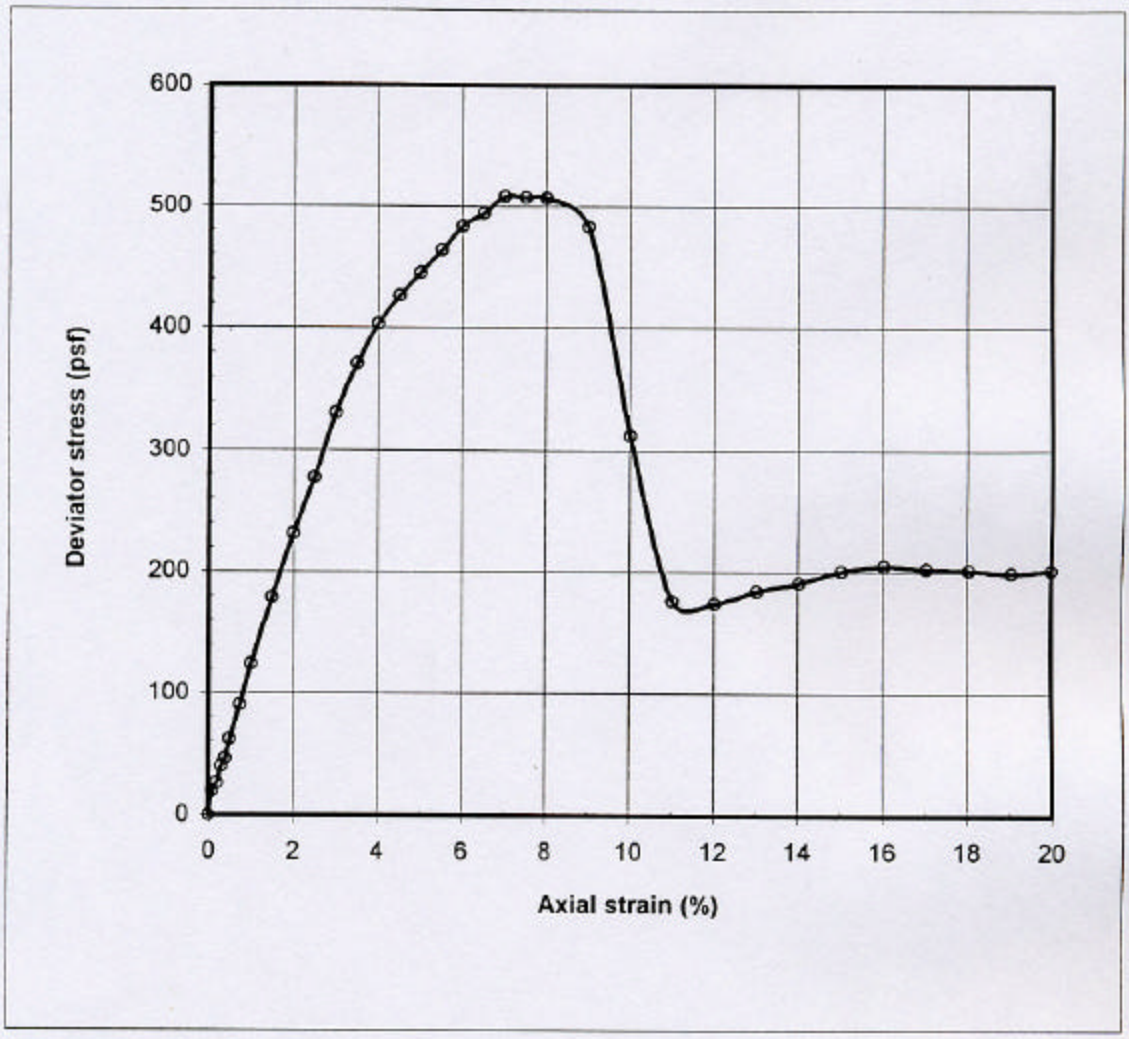
Wed 01-16-12, 11:15:25

URS



Project Name : Rhodia - Martinez					
Boring No:	Sample No	Depth	Test No	Filename	Symbol
2	2-4A	14.5-17.0	2-4A	2-4A.UU	○
2	2-4B	14.5-17.0	2-4B	2-4B.UU	△
2	2-4C	14.5-17.0	2-4C	2-4C.UU	□

URS



Peak deviator stress (psf)	= 508	Dry density (pcf)	= 15.2
Strain at failure (%)	= 7.0	Moisture content (%)	= 344.0
Confining pressure (psf)	= 370	Gs (assumed)	= 2.25
Rate of shearing (%/min)	= 0.84	Void ratio	= 8.242
Specimen height (in)	= 5.984	Saturation (%)	= 93.9
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **4-A**
Project: **Rhodia - Matinez**	Depth (ft): **14.5-17.0**
Project #: **51-00070007.00**	Soil: **Brown peat**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Matinez
Job # : 51-00070007.00
Boring # 2
Sample # : 4-A
Depth (ft) : 14.5-17.0
Date tested : 01/11/02
Soil : Brown peat
Undisturbed: : Shelby Tube

Specimen: Total wt. =	681.2	gms	
Ht. =	5.984	in	
Ave dia. =	2.860	in	
Area =	6.424	sq.in	
Volume =	630.0	c.c.	
Shearing rate =	0.05	inch/min	
Shearing rate =	0.84	%/min	
Gs (assumed) =	2.25		

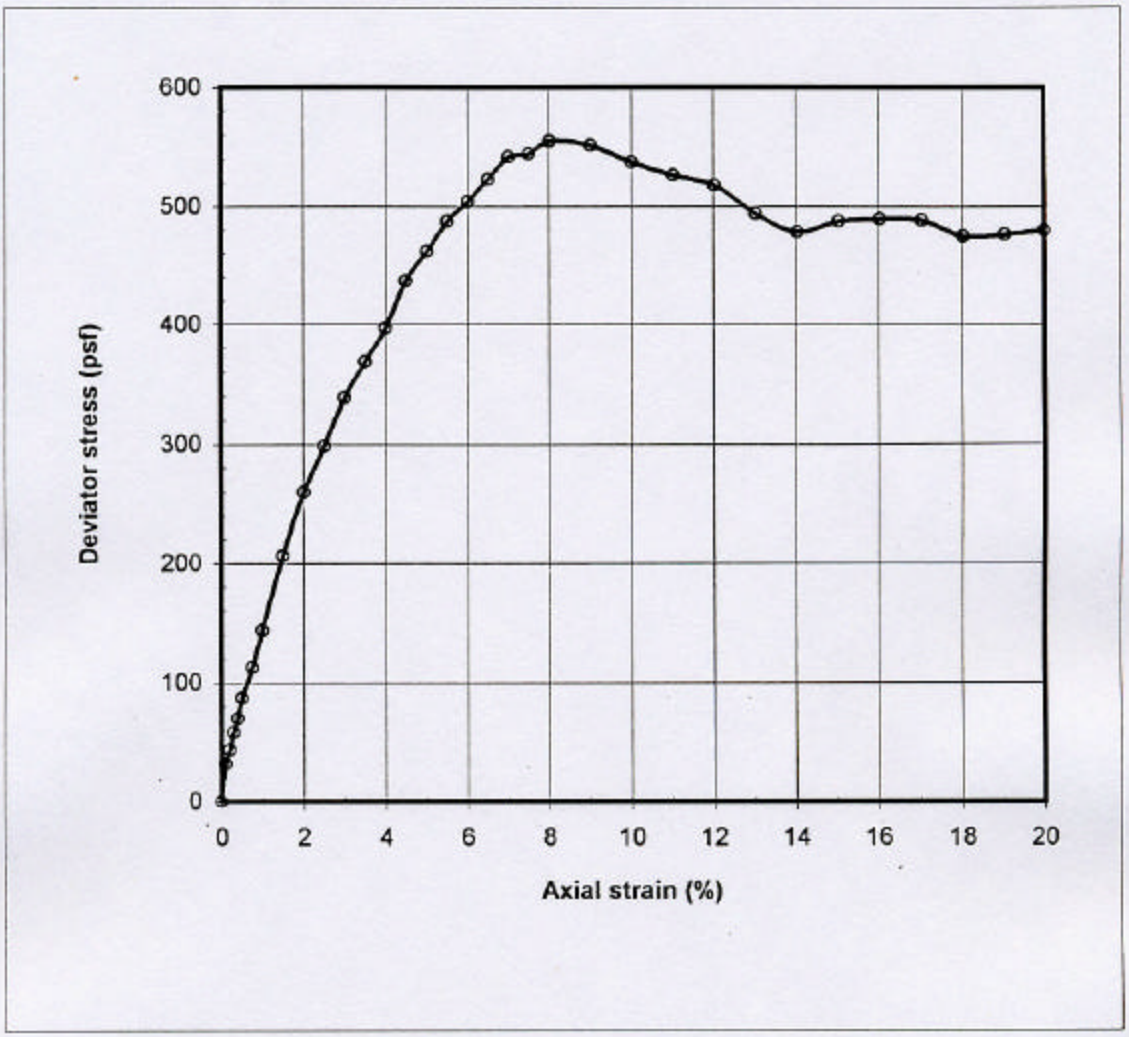
Test Report:		
Void ratio	8.242	
Ht/Dia ratio	2.09	
Moisture	344.0	%
Total density	67.5	pcf
Dry density	15.2	pcf
Saturation	93.9	%
Chamber pressure	370	psf
Max. deviator stress	508	psf
Strain @ failure	7.02	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 0.9 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	1.0	0.10	20.2
0.012	1.3	0.20	26.2
0.018	2.0	0.30	40.2
0.024	2.3	0.40	46.2
0.030	3.1	0.50	62.2
0.045	4.5	0.75	90.1
0.060	6.2	1.00	123.8
0.090	9.0	1.50	178.8
0.120	11.7	2.01	231.3
0.150	14.1	2.51	277.3
0.180	16.9	3.01	330.7
0.210	19.0	3.51	369.8
0.240	20.8	4.01	402.8
0.270	22.1	4.51	425.7
0.300	23.2	5.01	444.6
0.330	24.3	5.51	463.2
0.360	25.5	6.02	483.5
0.390	26.2	6.52	494.1
0.420	27.1	7.02	508.3
0.450	27.2	7.52	507.5
0.480	27.3	8.02	506.6
0.540	26.3	9.02	482.7
0.600	17.2	10.03	312.2
0.660	9.8	11.03	175.9
0.720	9.8	12.03	173.9
0.780	10.5	13.03	184.2
0.840	11.0	14.04	190.8
0.900	11.7	15.04	200.5
0.960	12.1	16.04	204.9
1.020	12.1	17.05	202.5
1.080	12.2	18.05	201.7
1.140	12.2	19.05	199.2
1.197	12.5	20.00	201.7

URS



Peak deviator stress (psf)	= 555	Dry density (pcf)	= 18.3
Strain at failure (%)	= 8.0	Moisture content (%)	= 277.5
Confining pressure (psf)	= 740	Gs (assumed)	= 2.25
Rate of shearing (%/min)	= 0.84	Void ratio	= 6.691
Specimen height (in)	= 5.984	Saturation (%)	= 93.3
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **4-B**
Project: **Rhodia - Matinez**	Depth (ft): **14.5-17.0**
Project #: **51-00070007.00**	Soil: **Brown clayey peat**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Matinez
Job # : 51-00070007.00
Boring # 2
Sample # : 4-B
Depth (ft) : 14.5-17.0
Date tested : 01/11/02
Soil : Brown clayey peat
Undisturbed: : Shelby Tube

Specimen: Total wt. =	696.1	grms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.25	

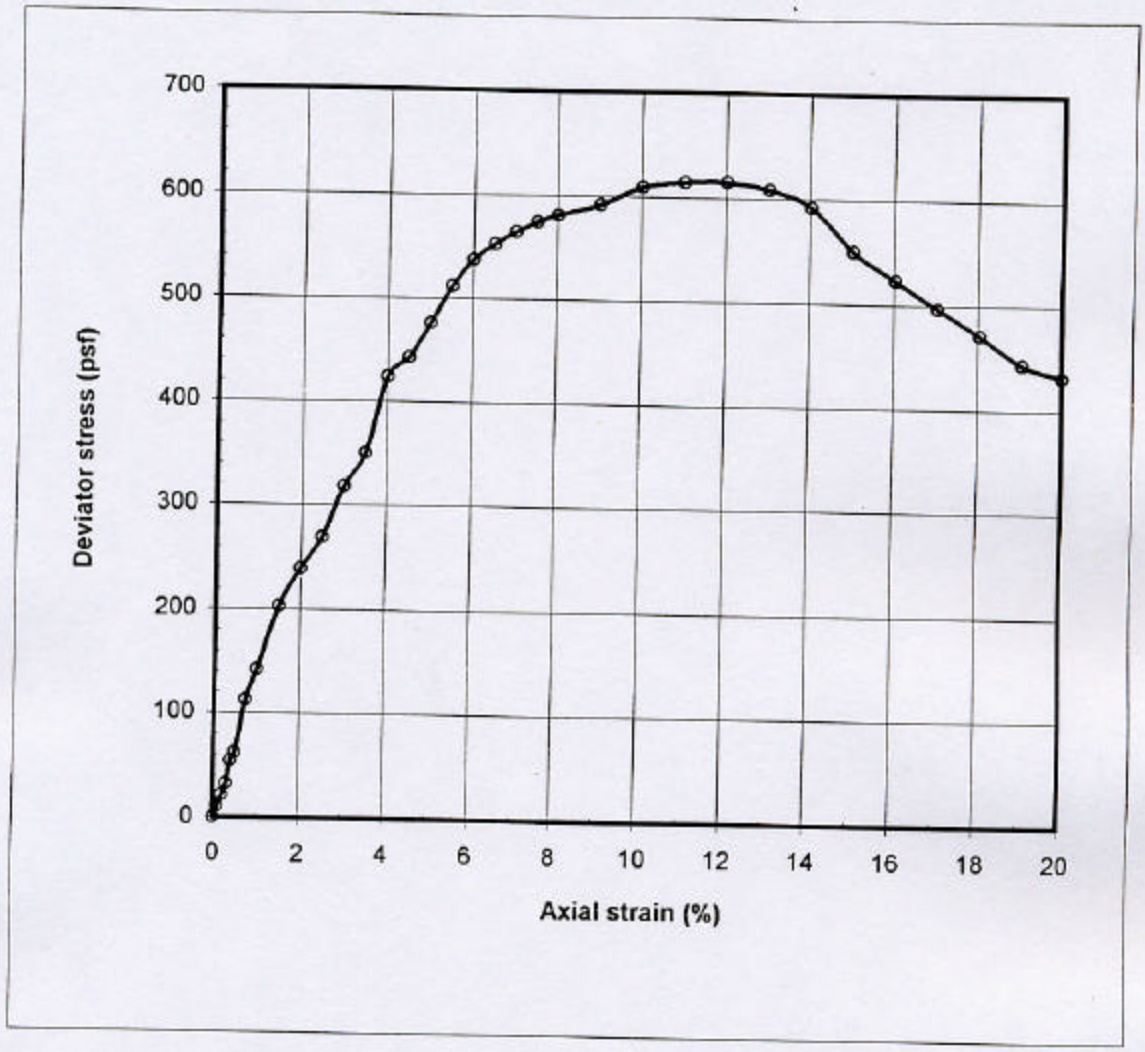
Test Report:		
Void ratio	6.691	
Ht/Dia ratio	2.09	
Moisture	277.5	%
Total density	69.0	pcf
Dry density	18.3	pcf
Saturation	93.3	%
Chamber pressure	740	psf
Max. deviator stress	555	psf
Strain @ failure	8.02	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.3 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	1.1	0.10	32.0
0.012	1.5	0.20	43.6
0.018	2.0	0.30	58.1
0.024	2.4	0.40	69.7
0.030	3.0	0.50	87.0
0.045	3.9	0.75	112.8
0.060	5.0	1.00	144.2
0.090	7.2	1.50	206.6
0.120	9.1	2.01	259.9
0.150	10.5	2.51	298.3
0.180	12.0	3.01	339.2
0.210	13.1	3.51	368.3
0.240	14.2	4.01	397.2
0.270	15.7	4.51	436.8
0.300	16.7	5.01	462.2
0.330	17.7	5.51	487.3
0.360	18.4	6.02	503.9
0.390	19.2	6.52	523.0
0.420	20.0	7.02	541.9
0.450	20.2	7.52	544.4
0.480	20.7	8.02	554.8
0.540	20.8	9.02	551.4
0.600	20.5	10.03	537.5
0.660	20.3	11.03	526.3
0.720	20.2	12.03	517.8
0.780	19.5	13.03	494.2
0.840	19.1	14.04	478.4
0.900	19.7	15.04	487.7
0.960	20.0	16.04	489.3
1.020	20.2	17.05	488.3
1.080	19.9	18.05	475.2
1.140	20.2	19.05	476.5
1.197	20.6	20.00	480.2

URS



Peak deviator stress (psf)	= 615	Dry density (pcf)	= 17.7
Strain at failure (%)	= 12.0	Moisture content (%)	= 291.5
Confining pressure (psf)	= 1480	Gs (assumed)	= 2.25
Rate of shearing (%/min)	= 0.84	Void ratio	= 6.942
Specimen height (in)	= 5.984	Saturation (%)	= 94.5
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **4-C**
Project: **Rhodia - Matinez**	Depth (ft): **14.5-17.0**
Project #: **51-00070007.00**	Soil: **Brown clayey peat**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Matinez
Job # : 51-00070007.00
Boring # 2
Sample # : 4-C
Depth (ft) : 14.5-17.0
Date tested : 01/11/02
Soil : Brown clayey peat
Undisturbed: : Shelby Tube

Specimen: Total wt. =	699.1	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.25	

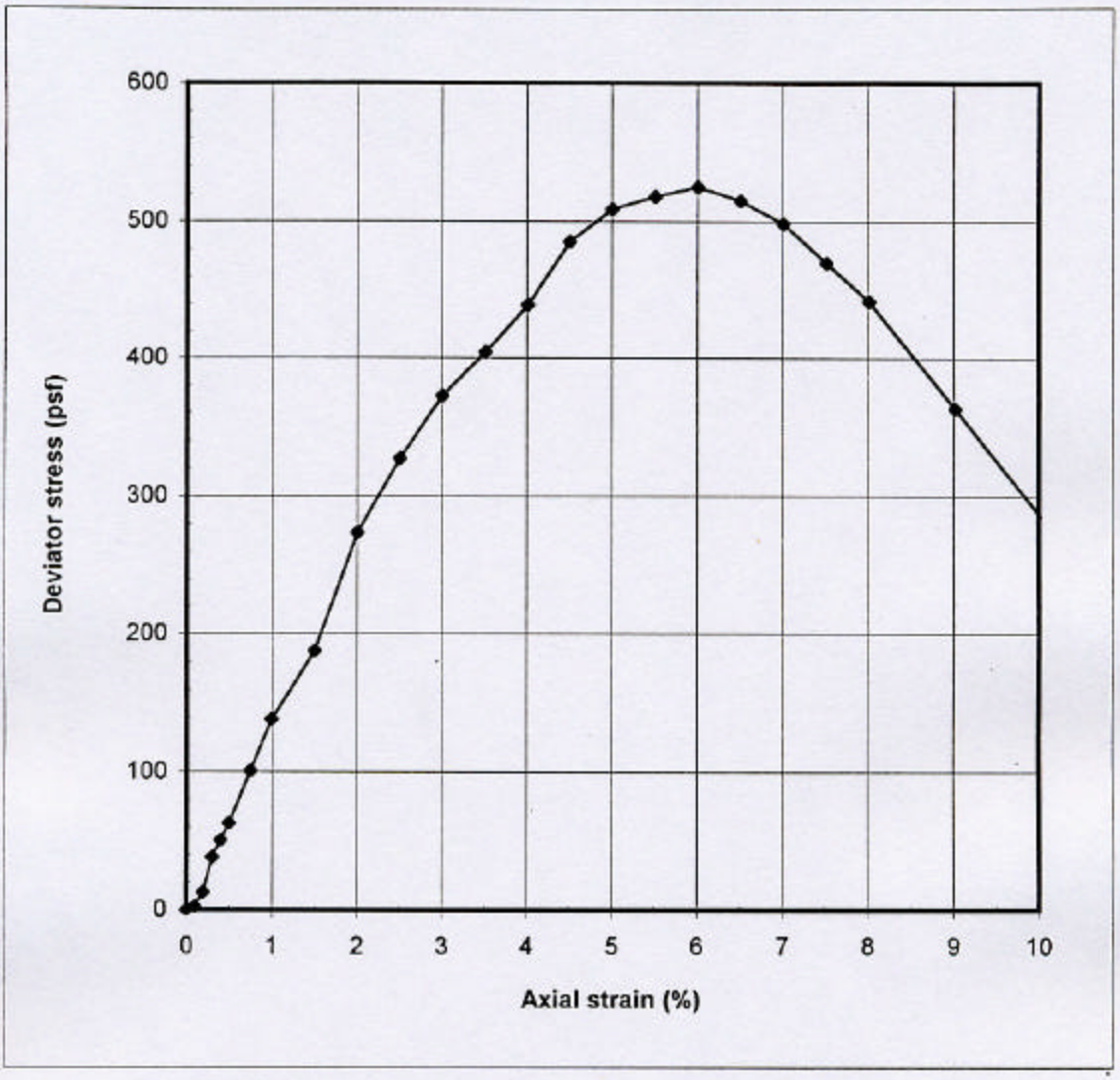
Test Report:		
Void ratio	6.942	
Ht/Dia ratio	2.09	
Moisture	291.5	%
Total density	69.2	pcf
Dry density	17.7	pcf
Saturation	94.5	%
Chamber pressure	1480	psf
Max. deviator stress	615	psf
Strain @ failure	12.03	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.4	0.10	10.8
0.012	0.8	0.20	21.6
0.018	1.2	0.30	32.4
0.024	2.0	0.40	54.0
0.030	2.3	0.50	62.0
0.045	4.2	0.75	113.0
0.060	5.3	1.00	142.2
0.090	7.6	1.50	202.9
0.120	9.0	2.01	239.0
0.150	10.2	2.51	269.5
0.180	12.1	3.01	318.0
0.210	13.4	3.51	350.4
0.240	16.3	4.01	424.0
0.270	17.1	4.51	442.5
0.300	18.5	5.01	476.2
0.330	20.0	5.51	512.1
0.360	21.1	6.02	537.4
0.390	21.8	6.52	552.3
0.420	22.4	7.02	564.4
0.450	22.9	7.52	573.9
0.480	23.3	8.02	580.8
0.540	24.0	9.02	591.7
0.600	25.0	10.03	609.6
0.660	25.5	11.03	614.8
0.720	25.8	12.03	615.0
0.780	25.8	13.03	608.0
0.840	25.4	14.04	591.7
0.900	23.9	15.04	550.3
0.960	23.0	16.04	523.3
1.020	22.1	17.05	496.8
1.080	21.2	18.05	470.8
1.140	20.2	19.05	443.1
1.197	19.9	20.00	431.4

URS



Peak U. C. Strength (psf)	= 525	Dry density (pcf)	= 20.8
Strain at failure (%)	= 6.0	Moisture content (%)	= 233.6
Peak Shear Stress (psf)	= 263	Gs (assumed)	= 2.40
Rate of shearing (%/min)	= 0.84	Void ratio	= 6.199
Specimen height (in)	= 5.984	Saturation (%)	= 90.4
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **5**
Project: **Rhodia - Martinez**	Depth (ft): **19.5-22.0**
Project #: **51-00070007.00**	Soil: **Dark brown clayey Peat**

TEST REPORT: UNCONFINED COMPRESSIVE STRENGTH

URS

UNCONFINED COMPRESSIVE STRENGTH
ASTM D2166

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 5
Depth (ft) : 19.5-22.0
Date tested : 01/08/02
Soil Description : Dark brown clayey Peat

Specimen: Total wt. =	700.8	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.40	

Test Report: Void ratio	6.199	
Ht/Dia ratio	2.09	
Moisture	233.6	%
Total density	69.4	pcf
Dry density	20.8	pcf
Saturation	90.4	%
Shear Stress	263	psf
Max. U.C. Strength	525	psf
Strain @ failure	6.02	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.1 lb/unit

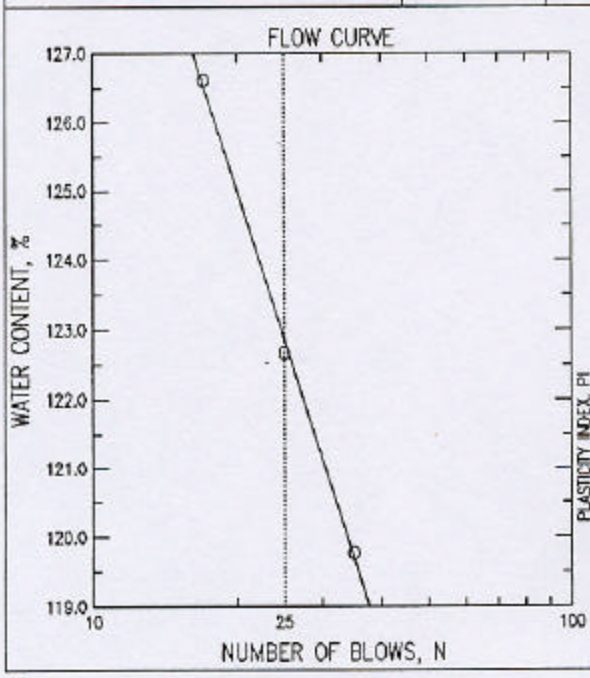
Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.1	0.10	2.5
0.012	0.5	0.20	12.7
0.018	1.5	0.30	38.0
0.024	2.0	0.40	50.6
0.030	2.5	0.50	63.2
0.045	4.0	0.75	100.8
0.060	5.5	1.00	138.3
0.090	7.5	1.50	187.6
0.120	11.0	2.01	273.8
0.150	13.2	2.51	326.8
0.180	15.1	3.01	371.9
0.210	16.5	3.51	404.3
0.240	18.0	4.01	438.8
0.270	20.0	4.51	485.0
0.300	21.1	5.01	509.0
0.330	21.6	5.51	518.3
0.360	22.0	6.02	525.1
0.390	21.7	6.52	515.2
0.420	21.1	7.02	498.3
0.450	20.0	7.52	469.7
0.480	18.9	8.02	441.5
0.540	15.7	9.02	362.7
0.600	12.5	10.03	285.6

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia – Martinez	51-00070007.00	J. Hebel	2
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	6
SAMPLE DESCRIPTION		DATE	FILENAME
Dark Brown organic Clay		Thu Jan 17 2002	2-06

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	55	45	121		
WT. WET SOIL + TARE	24.32	23.98	25.12		
WT. DRY SOIL + TARE	17.11	16.62	17.27		
WT. WATER	7.21	7.36	7.85		
TARE WT.	11.09	10.62	11.07		
WT. DRY SOIL	6.02	6	6.2		
WATER CONTENT, W_N (%)	119.77	122.67	126.61		
NUMBER OF BLOWS, N	35	25	17		
ONE-POINT LIQUID LIMIT, LL	124.74	122.67	120.84		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	210				
WT. WET SOIL + TARE	28.07				
WT. DRY SOIL + TARE	23.5				
WT. WATER	4.57				
TARE WT.	15.97				
WT. DRY SOIL	7.53				
WATER CONTENT (%)	60.69				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	241.0
LIQUID LIMIT, LL	122.9
PLASTIC LIMIT, PL	60.7
PLASTICITY INDEX, PI	62.2
LIQUIDITY INDEX, LI*	2.90

*LI = (W – PL)/PI

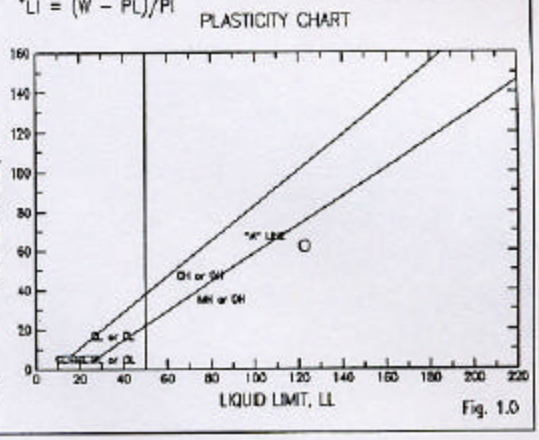


Fig. 1.0

URS

Thu Jan 17 09:34:08 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 2
Sample No. : 6
Location : Martinez, CA
Soil Description : Dark Brown organic Clay
Remarks :

Depth : 24.5-27.0 ft
Test Date : 01/16/02
Test Method : ASTM D4318

Filename : 2-06
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 2-06	89.51	209.15	124.60	240.95

Average Moisture Content = 240.95

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 210	15.97	28.07	23.50	60.69

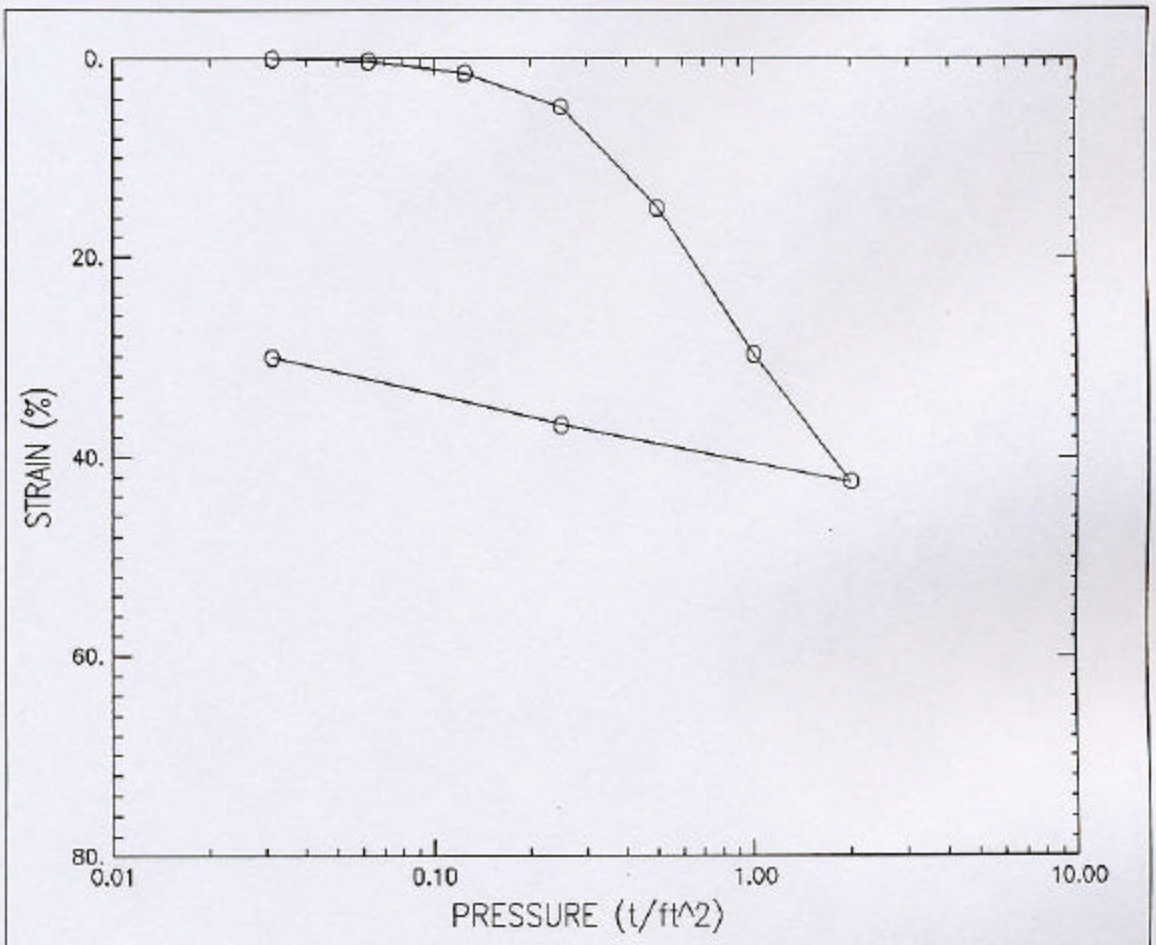
Plastic Limit = 60.69

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 55	11.09	24.32	17.11	35	119.77
2) 45	10.62	23.98	16.62	25	122.67
3) 121	11.07	25.12	17.27	17	126.61

Liquid Limit = 122.86
Plastic Index = 62.17

URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	240.896	161.589
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	21.256	30.442
COMPRESSION INDEX		SATURATION (%)	96.275	99.996
TYPE SPECIMEN		VOID RATIO	5.755	3.717
DIA. (in) 2.428	HT. (in) 0.950	BACK PRESSURE (t/ft^2)		

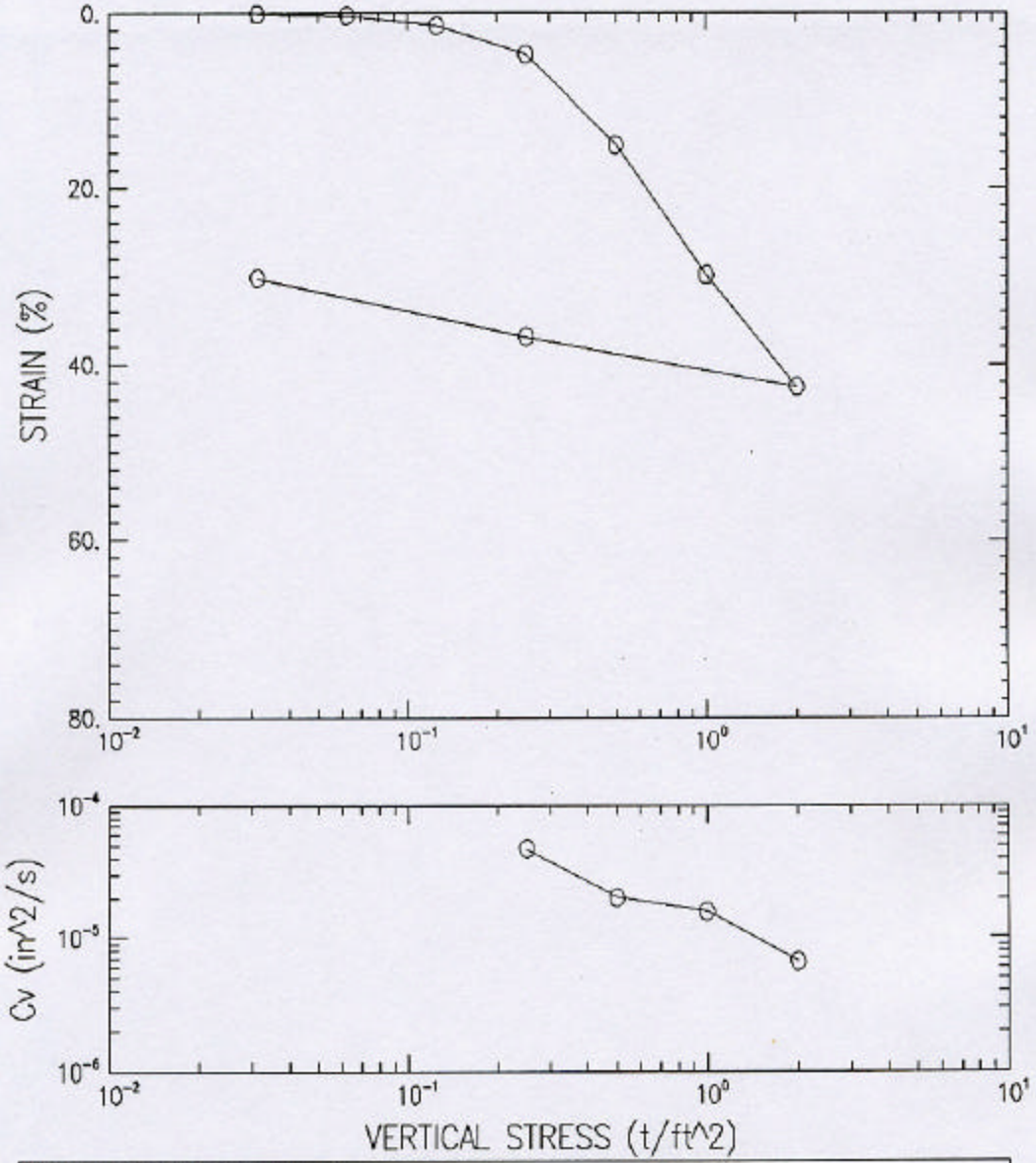
CLASSIFICATION Dark Brown organic clay (OH)

LL 122.9	PL 60.7	PI 62.2	PROJECT Rhodia – Martinez
GS 2.300	D_{10}		Data File: RH02-6.CON
REMARKS			BORING NO. 2 / SAMPLE NO. 6
			DEPTH 24.5-27 ft / DATE 1/14/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 6
Test Date : 1/14/02 Test No : 2–6 Depth : 24.5–27 ft
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 12:51:05 2002

CONSOLIDATION TEST DATA

Project : Rhodia - Martinez | Location : Martinez, CA | Project No. : 5100070007
Test No. : 2-6
Boring No. : 2 | Test Date : 1/14/02 | Tested by : C. Wason
Sample No. : 6 | Sample Type : Shelby | Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.03	0.001	5.750	0.08	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.06	0.003	5.735	0.29	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
3)	0.13	0.014	5.656	1.47	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
4)	0.25	0.045	5.432	4.78	14.7	0.0	4.72E-005	0.00E+000	0.00E+000
5)	0.50	0.143	4.740	15.03	30.0	0.0	2.00E-005	0.00E+000	0.00E+000
6)	1.00	0.283	3.741	29.81	28.3	0.0	1.58E-005	0.00E+000	0.00E+000
7)	2.00	0.404	2.886	42.47	45.6	0.0	6.62E-006	0.00E+000	0.00E+000
8)	0.25	0.350	3.266	36.85	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.03	0.287	3.717	30.17	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

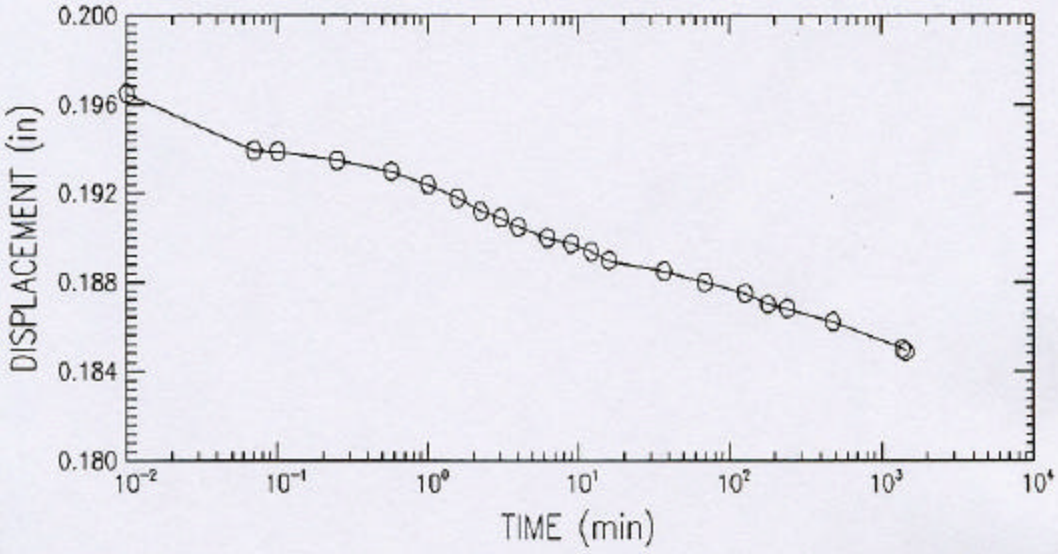
Project : Rhodia - Martinez | Location : Martinez, CA | Project No. : 5100070007
Test No. : 2-6
Boring No. : 2 | Test Date : 1/14/02 | Tested by : C. Wason
Sample No. : 6 | Sample Type : Shelby | Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

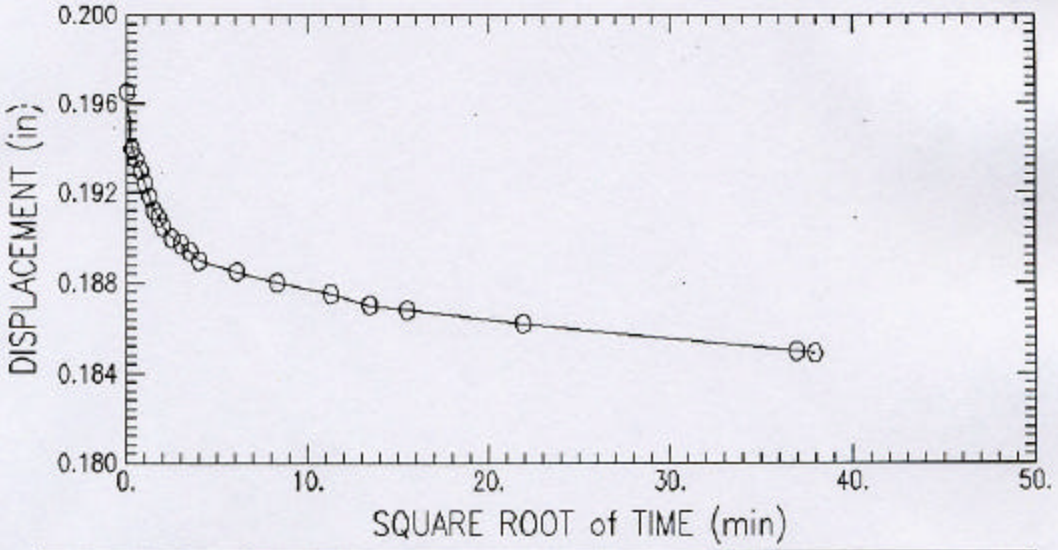
Liquid Limit : 122.86 | Plastic Limit : 60.69 | Plasticity Index : 62.17
Specific Gravity : 2.30 | Initial Height : 0.95 | Sample Diameter : 2.43 (in)
Initial Void Ratio : 5.757 | Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	209.15	269.83	250.36	250.36
WT CONTAINER + DRY SOIL (gm)	124.60	210.69	210.69	210.69
WT CONTAINER (gm)	89.51	186.14	186.14	186.14
WT DRY SOIL (gm)	35.09	24.55	24.55	24.55
WATER CONTENT (%)	240.95	240.90	161.59	161.59
VOID RATIO	------	5.76	3.72	------
DEGREE OF SATURATION (%)	------	96.27	100.00	------
DRY DENSITY (lb/ft^3)	------	21.26	30.44	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 6
Test Date : 1/14/02 Test No : 2–6 Depth : 24.5–27 ft
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 12:59:42 2002

CONSOLIDATION TEST DATA

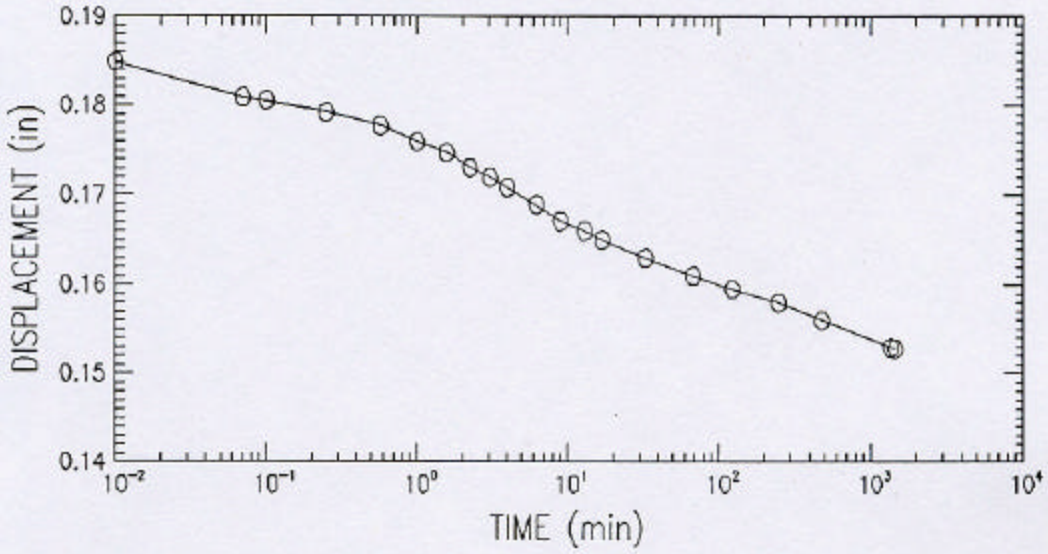
Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-6
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 6 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

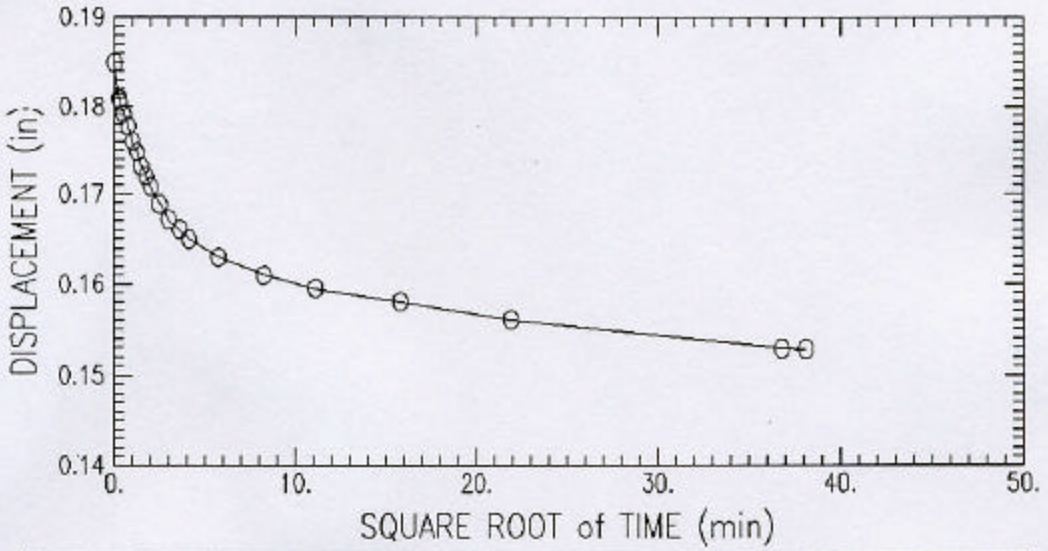
Load Increment : 3/9
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.739	0.00
2)			0.07	0.26	0.0025	5.721	0.27
3)			0.10	0.32	0.0026	5.721	0.27
4)			0.25	0.50	0.0030	5.718	0.32
5)			0.57	0.75	0.0035	5.714	0.37
6)			1.00	1.00	0.0041	5.710	0.43
7)			1.57	1.25	0.0047	5.706	0.49
8)			2.25	1.50	0.0053	5.702	0.56
9)			3.07	1.75	0.0056	5.699	0.59
10)			4.00	2.00	0.0060	5.697	0.63
11)			6.25	2.50	0.0065	5.693	0.68
12)			9.00	3.00	0.0068	5.691	0.71
13)			12.25	3.50	0.0071	5.689	0.75
14)			16.00	4.00	0.0075	5.686	0.79
15)			37.00	6.08	0.0080	5.682	0.84
16)			69.00	8.31	0.0085	5.679	0.89
17)			127.00	11.27	0.0090	5.675	0.95
18)			180.00	13.42	0.0095	5.672	1.00
19)			240.00	15.49	0.0097	5.670	1.02
20)			480.00	21.91	0.0103	5.666	1.08
21)			1366.00	36.96	0.0115	5.657	1.21
22)			1440.00	37.95	0.0116	5.657	1.22

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia - Martinez
Project No : 5100070007 Boring No : 2 Sample No : 6
Test Date : 1/14/02 Test No : 2-6 Depth : 24.5-27 ft
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 13:00:37 2002

CONSOLIDATION TEST DATA

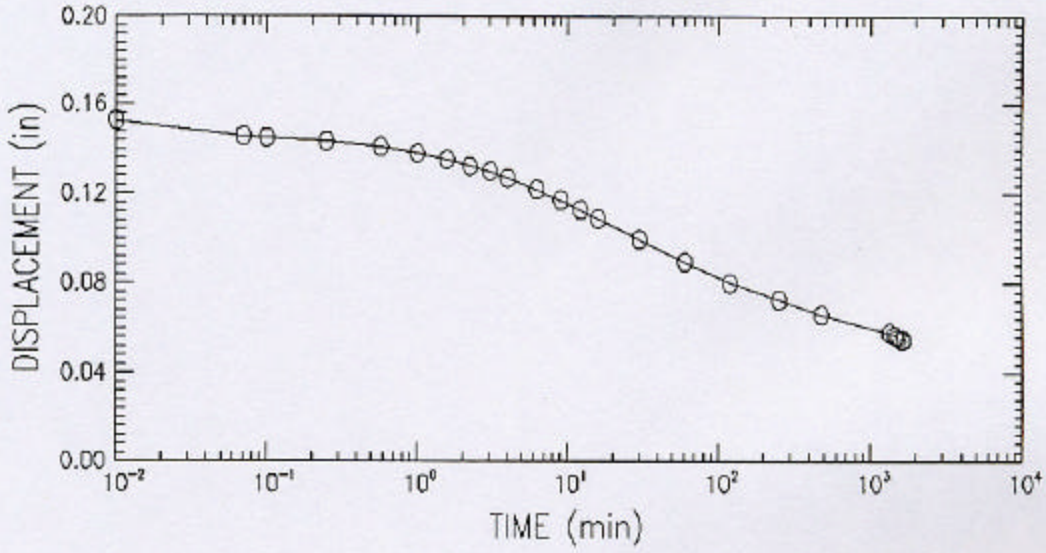
Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-6
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 6 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

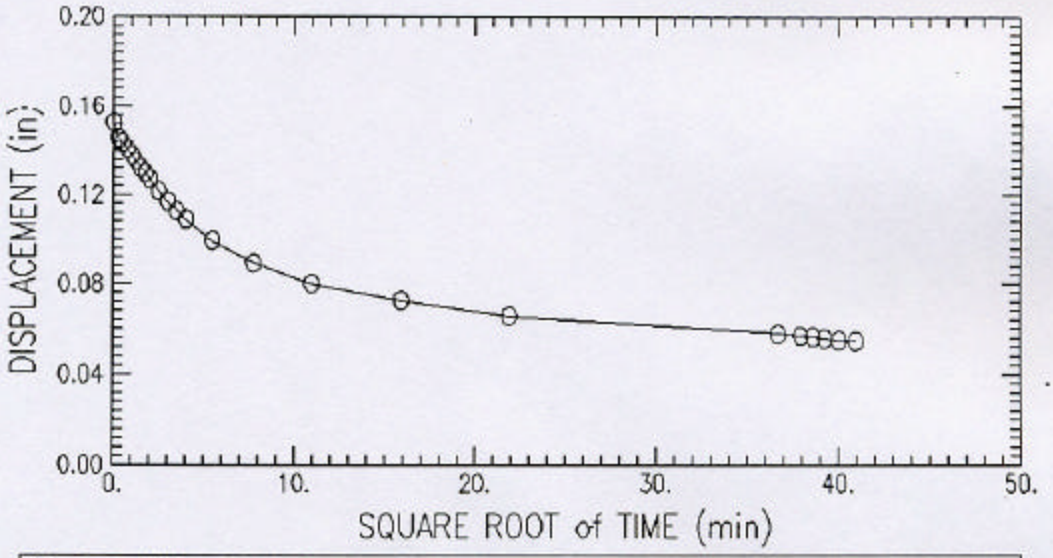
Load Increment : 4/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.675	0.00
2)			0.07	0.26	0.0040	5.646	0.43
3)			0.10	0.32	0.0044	5.643	0.46
4)			0.25	0.50	0.0057	5.634	0.60
5)			0.57	0.75	0.0072	5.624	0.75
6)			1.00	1.00	0.0089	5.611	0.94
7)			1.57	1.25	0.0101	5.603	1.06
8)			2.25	1.50	0.0118	5.591	1.24
9)			3.07	1.75	0.0129	5.583	1.36
10)			4.00	2.00	0.0141	5.574	1.48
11)			6.25	2.50	0.0160	5.561	1.68
12)			9.00	3.00	0.0178	5.548	1.87
13)			13.00	3.61	0.0189	5.540	1.99
14)			17.00	4.12	0.0199	5.533	2.09
15)			33.00	5.74	0.0219	5.519	2.30
16)			68.00	8.25	0.0239	5.505	2.51
17)			123.00	11.09	0.0254	5.494	2.67
18)			249.00	15.78	0.0269	5.483	2.83
19)			480.00	21.91	0.0289	5.469	3.04
20)			1355.00	36.81	0.0320	5.447	3.37
21)			1452.00	38.11	0.0321	5.446	3.38

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia – Martinez
Project No : 5100070007 Boring No : 2 Sample No : 6
Test Date : 1/14/02 Test No : 2–6 Depth : 24.5–27 ft
Description : Dark Brown organic clay (OH)

URS

Mon Jan 28 13:00:54 2002

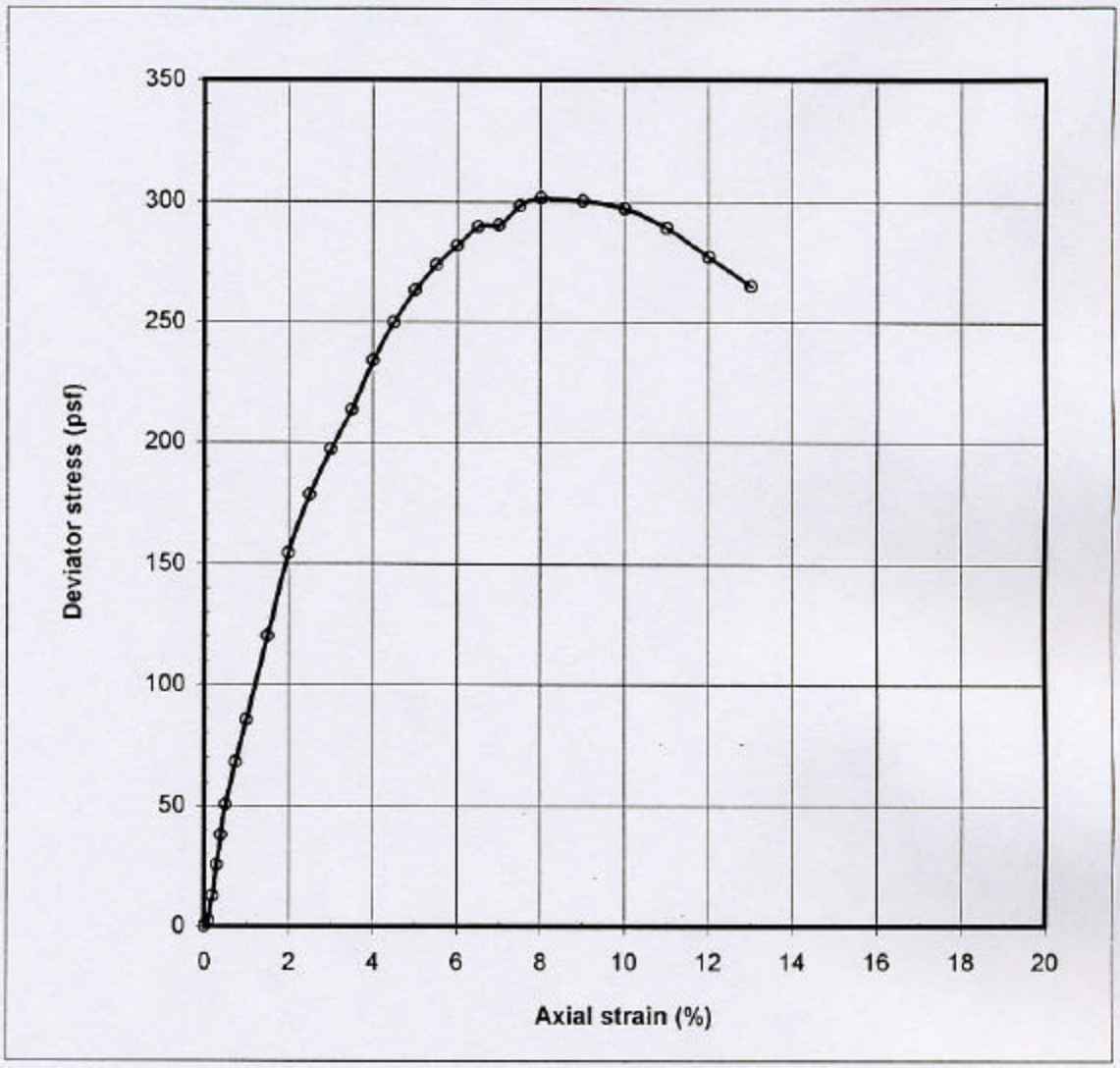
CONSOLIDATION TEST DATA

Project : Rhodia - Martinez Location : Martinez, CA Project No. : 5100070007
Test No. : 2-6
Boring No. : 2 Test Date : 1/14/02 Tested by : C. Wason
Sample No. : 6 Sample Type : Shelby Depth : 24.5-27 ft
Checked by : S. Capps
Soil Description : Dark Brown organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.428 inches in diameter

Load Increment : 5/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.529	0.00
2)			0.07	0.26	0.0069	5.480	0.73
3)			0.10	0.32	0.0076	5.475	0.80
4)			0.25	0.50	0.0092	5.463	0.97
5)			0.57	0.75	0.0118	5.445	1.24
6)			1.00	1.00	0.0147	5.424	1.55
7)			1.57	1.25	0.0175	5.404	1.84
8)			2.25	1.50	0.0205	5.383	2.16
9)			3.07	1.75	0.0228	5.367	2.40
10)			4.00	2.00	0.0258	5.345	2.71
11)			6.25	2.50	0.0310	5.308	3.26
12)			9.00	3.00	0.0358	5.274	3.77
13)			12.25	3.50	0.0400	5.244	4.21
14)			16.00	4.00	0.0440	5.216	4.63
15)			30.00	5.48	0.0534	5.149	5.62
16)			60.00	7.75	0.0635	5.077	6.68
17)			120.00	10.95	0.0727	5.012	7.65
18)			253.00	15.91	0.0802	4.959	8.44
19)			480.00	21.91	0.0870	4.910	9.16
20)			1348.00	36.72	0.0950	4.853	10.00
21)			1440.00	37.95	0.0958	4.848	10.08
22)			1491.00	38.61	0.0963	4.844	10.13
23)			1543.00	39.28	0.0969	4.840	10.20
24)			1603.00	40.04	0.0979	4.833	10.30
25)			1679.00	40.98	0.0980	4.832	10.31

URS



Peak U. C. Strength (psf)	= 301	Dry density (pcf)	= 28.2
Strain at failure (%)	= 8.0	Moisture content (%)	= 163.0
Peak Shear Stress (psf)	= 151	Gs (assumed)	= 2.40
Rate of shearing (%/min)	= 0.84	Void ratio	= 4.313
Specimen height (in)	= 5.984	Saturation (%)	= 90.7
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **8**
Project: **Rhodia - Martinez**	Depth (ft): **34.5-37.0**
Project #: **51-00070007.00**	Soil: **Gray Brown highly organic Clay**

TEST REPORT: UNCONFINED COMPRESSIVE STRENGTH

URS

UNCONFINED COMPRESSIVE STRENGTH
ASTM D2166

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 8
Depth (ft) : 34.5-37.0
Date tested : 01/08/02
Soil Description : Gray brown highly organic clay

Specimen: Total wt. =	748.8	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.40	

Test Report:		
Void ratio	4.313	
Ht/Dia ratio	2.09	
Moisture	163.0	%
Total density	74.2	pcf
Dry density	28.2	pcf
Saturation	90.7	%
Shear Stress	151	psf
Max. U.C. Strength	301	psf
Strain @ failure	8.02	%

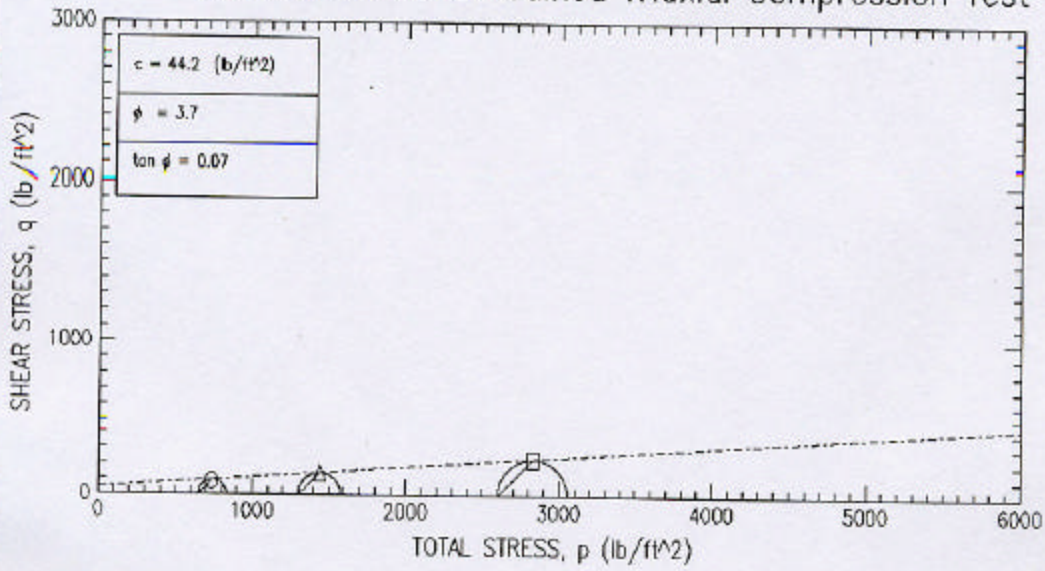
Data Reduction:

Dial factor =	1.0	in/unit
Load factor =	1.1	lb/unit

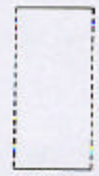
Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.1	0.10	2.5
0.012	0.5	0.20	12.7
0.018	1.0	0.30	25.3
0.024	1.5	0.40	37.9
0.030	2.0	0.50	50.5
0.045	2.7	0.75	68.1
0.060	3.4	1.00	85.5
0.090	4.8	1.50	120.1
0.120	6.2	2.01	154.3
0.150	7.2	2.51	178.3
0.180	8.0	3.01	197.1
0.210	8.7	3.51	213.2
0.240	9.6	4.01	234.0
0.270	10.3	4.51	249.8
0.300	10.9	5.01	262.9
0.330	11.4	5.51	273.6
0.360	11.8	6.02	281.6
0.390	12.2	6.52	289.6
0.420	12.3	7.02	290.4
0.450	12.7	7.52	298.3
0.480	12.9	8.02	301.3
0.540	13.0	9.02	300.4
0.600	13.0	10.03	297.0
0.660	12.8	11.03	289.2
0.720	12.4	12.03	277.0
0.780	12.0	13.03	265.0

URS

Unconsolidated-Undrained Triaxial Compression Test

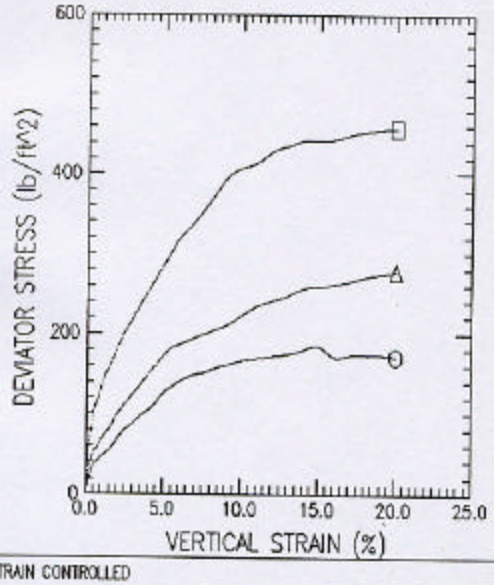


FAILURE SKETCHES


2-10A


2-10B


2-10C



SYMBOL		○	△	□	
TEST NO.		2-10A	2-10B	2-10C	
INITIAL	WATER CONTENT (%)	79.73	85.61	60.23	
	DRY DENSITY (lb/ft^3)	51.40	49.34	62.27	
	SATURATION (%)	94.97	96.17	95.99	
	VOID RATIO	2.241	2.377	1.675	
BEFORE SHEAR	WATER CONTENT (%)	79.73	85.61	60.23	
	DRY DENSITY (lb/ft^3)	51.29	49.24	62.14	
	SATURATION (%)	94.69	95.90	95.67	
	VOID RATIO	2.248	2.383	1.681	
	BACK PRESS. (lb/ft^2)	0.00	0.00	0.00	
MINOR PRIN. STRESS (lb/ft^2)		650.00	1300.00	2600.00	
MAX. DEV. STRESS (lb/ft^2)		184.19	277.32	457.14	
TIME TO FAILURE (min)		0.00	0.00	0.00	
RATE OF STRAIN INCR (%/min)		0.83	0.83	0.83	
INITIAL DIAMETER (in)		2.86	2.86	2.86	
INITIAL HEIGHT (in)		5.98	5.98	5.98	
B-VALUE		0.00	0.00	0.00	

STRAIN CONTROLLED

DESCRIPTION OF SPECIMENS:

1) Dark Gray Brown organic Clay

2) Dark Gray Brown organic Clay

3) Dark Gray Brown organic Clay

LL	PL	PI	GS 2.67

TYPE OF SPECIMEN Shelby

TYPE OF TEST CU (R)

REMARKS:

1) Effective Pressure = 650 psf

2) Effective Pressure = 1300 psf

3) Effective Pressure = 2600 psf

PROJECT Rhodia - Martinez

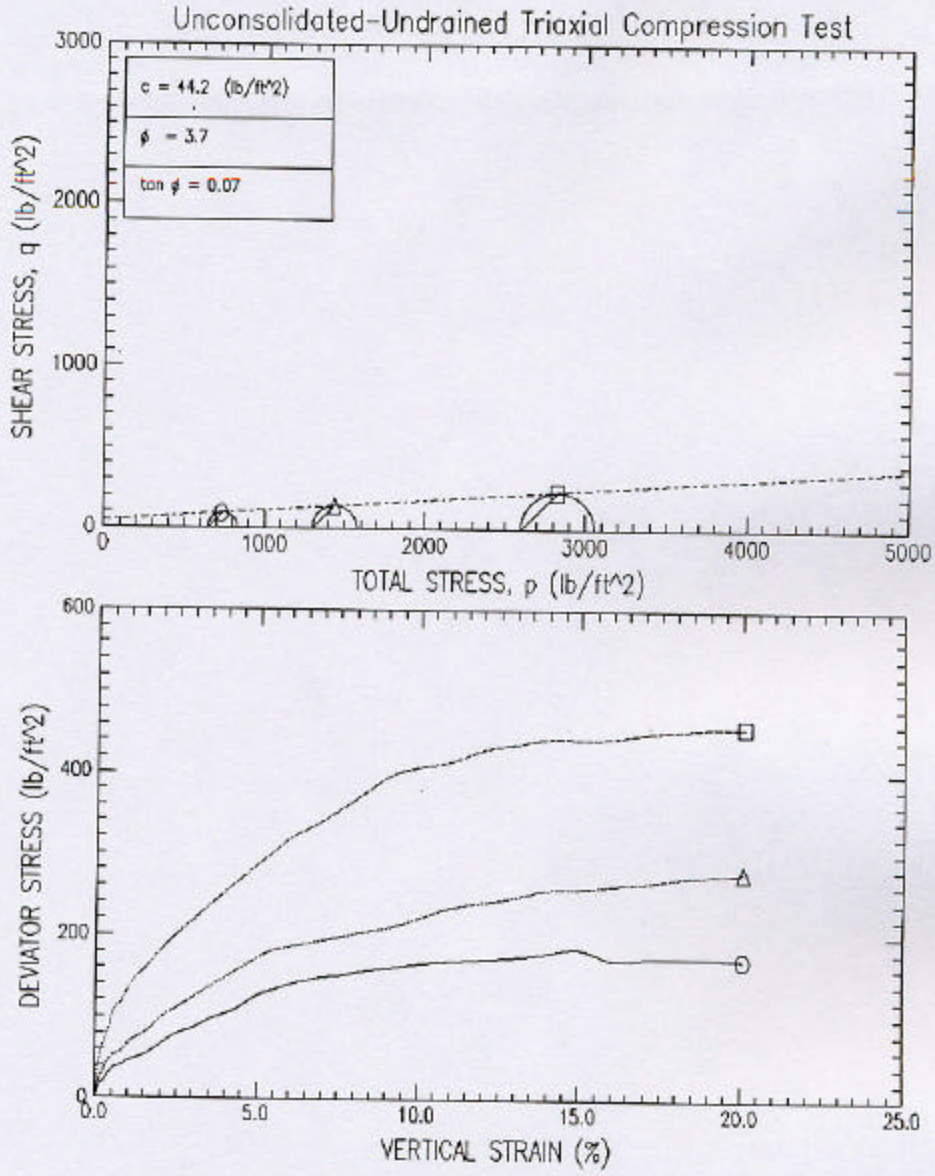
PROJECT NO.5100070007

BORING NO. 2	SAMPLE NO.	10-A	10-B	10-C
TECH. C. Wason	DEPTH/ELEV	44.5-47 ft	44.5-47 ft	44.5-47 ft
LABORATORY	DATE	1/15/02	1/15/02	1/15/02

TRIAXIAL COMPRESSION TEST REPORT

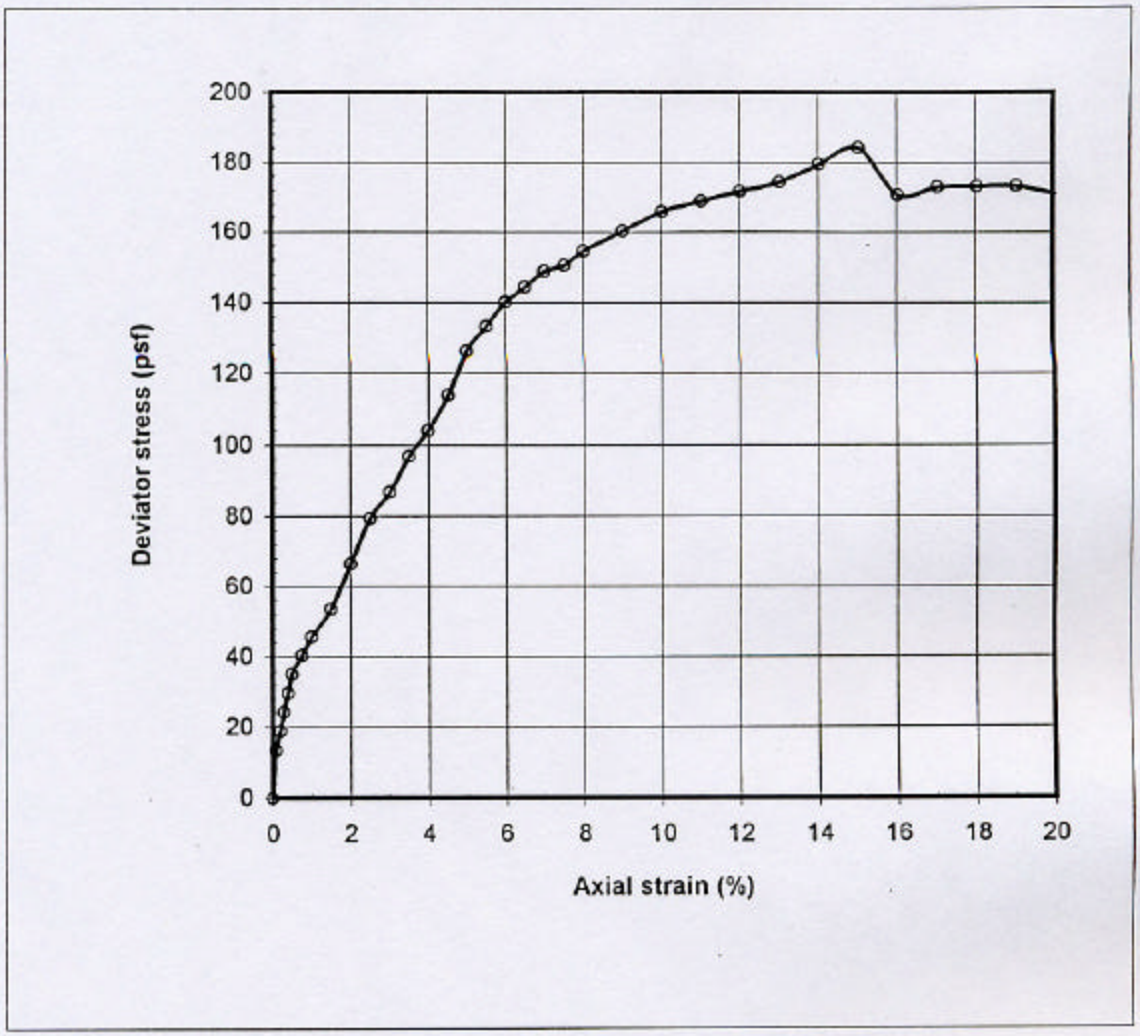
Thu 01-17-02, 1:23:54

URS



Project Name : Rhodia - Martinez					
Boring No:	Sample No	Depth	Test No	Filename	Symbol
2	10-A	44.5-47 ft	2-10A	rho2-10a.uu	○
2	10-B	44.5-47 ft	2-10B	rho2-10b.uu	△
2	10-C	44.5-47 ft	2-10C	rho2-10c.uu	□

URS



Peak deviator stress (psf)	= 184	Dry density (pcf)	= 51.4
Strain at failure (%)	= 15.0	Moisture content (%)	= 79.7
Confining pressure (psf)	= 650	Gs (assumed)	= 2.67
Rate of shearing (%/min)	= 0.84	Void ratio	= 2.244
Specimen height (in)	= 5.984	Saturation (%)	= 94.9
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **10-A**
Project: **Rhodia - Martinez**	Depth (ft): **44.5-47.0**
Project #: **51-00070007.00**	Soil: **Dark Gray Brown organic Clay**

TEST REPORT: UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 10-A
Depth (ft) : 44.5-47.0
Date tested : 01/15/02
Soil : Dark Gray Brown organic Clay
Tube/Remolded : Shelby

Specimen:

Total wt. =	932.2	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.67	

Test Report:

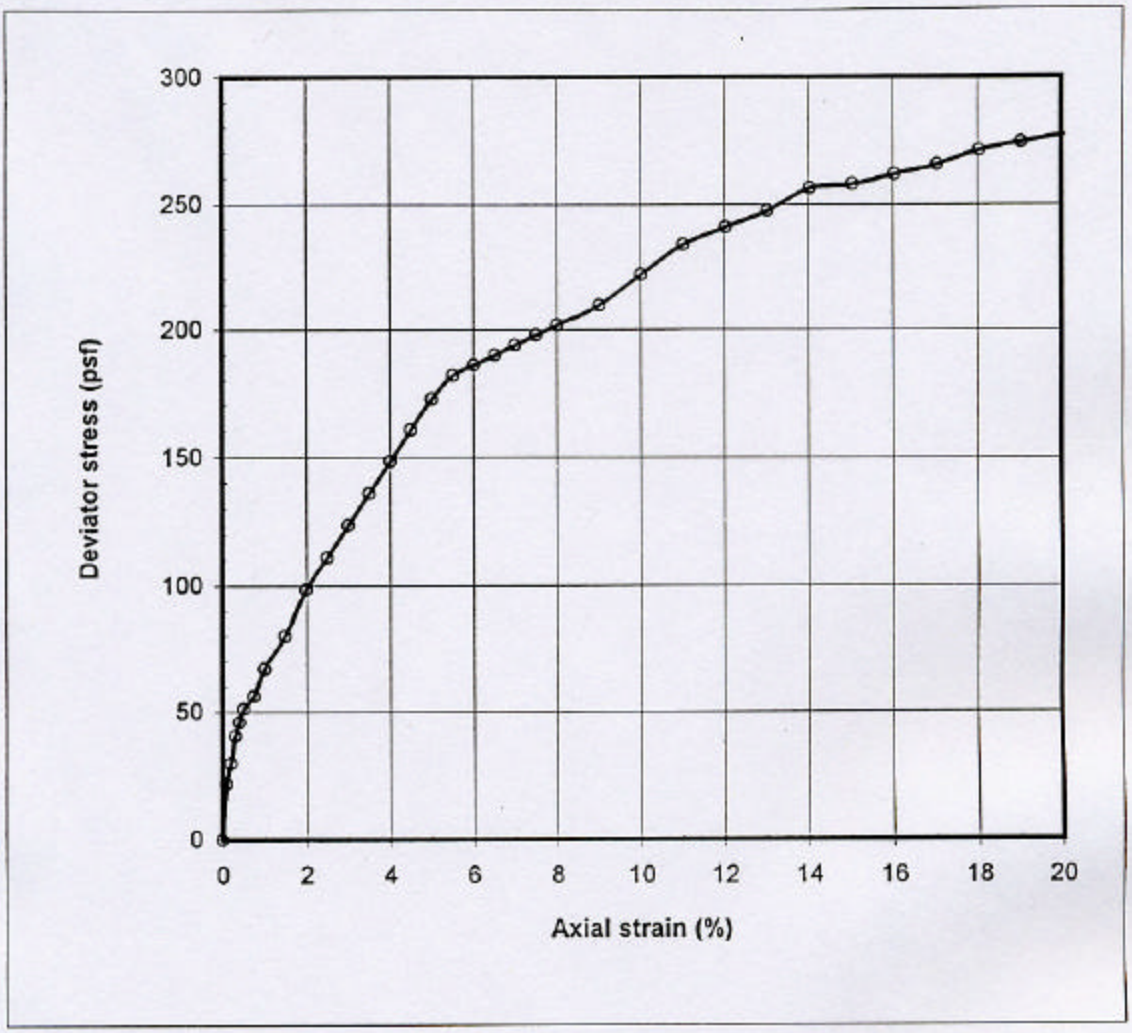
Void ratio	2.244	
Ht/Dia ratio	2.09	
Moisture	79.7	%
Total density	92.3	pcf
Dry density	51.4	pcf
Saturation	94.9	%
Chamber pressure	650	psf
Max. deviator stress	184	psf
Strain @ failure	15.04	%

Data Reduction:

Dial factor =	1.0	in/unit
Load factor =	1.2	lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.5	0.10	13.5
0.012	0.7	0.20	18.9
0.018	0.9	0.30	24.3
0.024	1.1	0.40	29.7
0.030	1.3	0.50	35.1
0.045	1.5	0.75	40.3
0.060	1.7	1.00	45.6
0.090	2.0	1.50	53.4
0.120	2.5	2.01	66.4
0.150	3.0	2.51	79.3
0.180	3.3	3.01	86.7
0.210	3.7	3.51	96.8
0.240	4.0	4.01	104.1
0.270	4.4	4.51	113.9
0.300	4.9	5.01	126.1
0.330	5.2	5.51	133.1
0.360	5.5	6.02	140.1
0.390	5.7	6.52	144.4
0.420	5.9	7.02	148.7
0.450	6.0	7.52	150.4
0.480	6.2	8.02	154.5
0.540	6.5	9.02	160.3
0.600	6.8	10.03	165.8
0.660	7.0	11.03	168.8
0.720	7.2	12.03	171.6
0.780	7.4	13.03	174.4
0.840	7.7	14.04	179.4
0.900	8.0	15.04	184.2
0.960	7.5	16.04	170.6
1.020	7.7	17.05	173.1
1.080	7.8	18.05	173.2
1.140	7.9	19.05	173.3
1.200	7.9	20.05	171.2

URS



Peak deviator stress (psf)	= 277	Dry density (pcf)	= 49.3
Strain at failure (%)	= 20.1	Moisture content (%)	= 85.6
Confining pressure (psf)	= 1300	Gs (assumed)	= 2.67
Rate of shearing (%/min)	= 0.84	Void ratio	= 2.380
Specimen height (in)	= 5.984	Saturation (%)	= 96.1
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **10-B**
Project: **Rhodia - Martinez**	Depth (ft): **44.5-47.0**
Project #: **51-00070007.00**	Soil: **Dark Gray Brown organic Clay**

TEST REPORT: UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 10-B
Depth (ft) : 44.5-47.0
Date tested : 01/15/02
Soil : Dark Gray Brown organic Clay
Tube/Remolded : Shelby

Specimen:
Total wt. = 924.1 gms
Ht. = 5.984 in
Ave dia. = 2.860 in
Area = 6.424 sq.in
Volume = 630.0 c.c.
Shearing rate = 0.05 inch/min
Shearing rate = 0.84 %/min
Gs (assumed) = 2.67

Test Report:

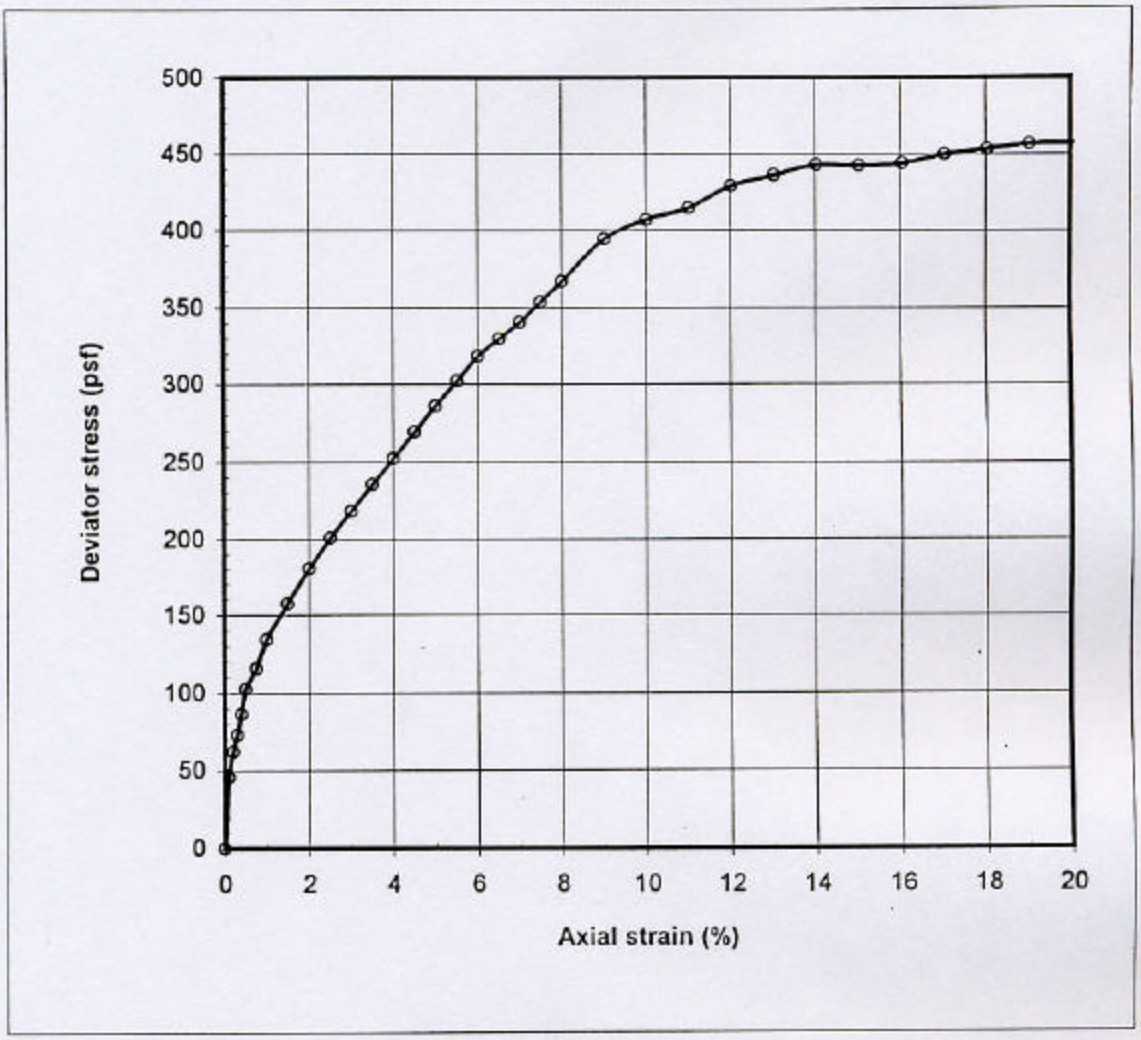
Void ratio	2.380	
Ht/Dia ratio	2.09	
Moisture	85.6	%
Total density	91.5	pcf
Dry density	49.3	pcf
Saturation	96.1	%
Chamber pressure	1300	psf
Max. deviator stress	277	psf
Strain @ failure	20.05	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.8	0.10	21.7
0.012	1.1	0.20	29.7
0.018	1.5	0.30	40.5
0.024	1.7	0.40	45.9
0.030	1.9	0.50	51.2
0.045	2.1	0.75	56.5
0.060	2.5	1.00	67.1
0.090	3.0	1.50	80.1
0.120	3.7	2.01	98.3
0.150	4.2	2.51	111.0
0.180	4.7	3.01	123.5
0.210	5.2	3.51	136.0
0.240	5.7	4.01	148.3
0.270	6.2	4.51	160.4
0.300	6.7	5.01	172.5
0.330	7.1	5.51	181.8
0.360	7.3	6.02	185.9
0.390	7.5	6.52	190.0
0.420	7.7	7.02	194.0
0.450	7.9	7.52	198.0
0.480	8.1	8.02	201.9
0.540	8.5	9.02	209.6
0.600	9.1	10.03	221.9
0.660	9.7	11.03	233.9
0.720	10.1	12.03	240.8
0.780	10.5	13.03	247.5
0.840	11.0	14.04	256.3
0.900	11.2	15.04	257.9
0.960	11.5	16.04	261.7
1.020	11.8	17.05	265.3
1.080	12.2	18.05	270.9
1.140	12.5	19.05	274.2
1.200	12.8	20.05	277.3

URS



Peak deviator stress (psf)	= 457	Dry density (pcf)	= 62.2
Strain at failure (%)	= 20.1	Moisture content (%)	= 60.2
Confining pressure (psf)	= 2600	Gs (assumed)	= 2.67
Rate of shearing (%/min)	= 0.84	Void ratio	= 1.678
Specimen height (in)	= 5.984	Saturation (%)	= 95.9
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **10-C**
Project: **Rhodia - Martinez**	Depth (ft): **44.5-47.0**
Project #: **51-00070007.00**	Soil: **Dark Gray Brown organic Clay**

TEST REPORT: UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 10-C
Depth (ft) : 44.5-47.0
Date tested : 01/15/02
Soil : Dark Gray Brown organic Clay
Tube/Remolded : Shelby

Specimen:

Total wt. =	1006.9	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.67	

Test Report:

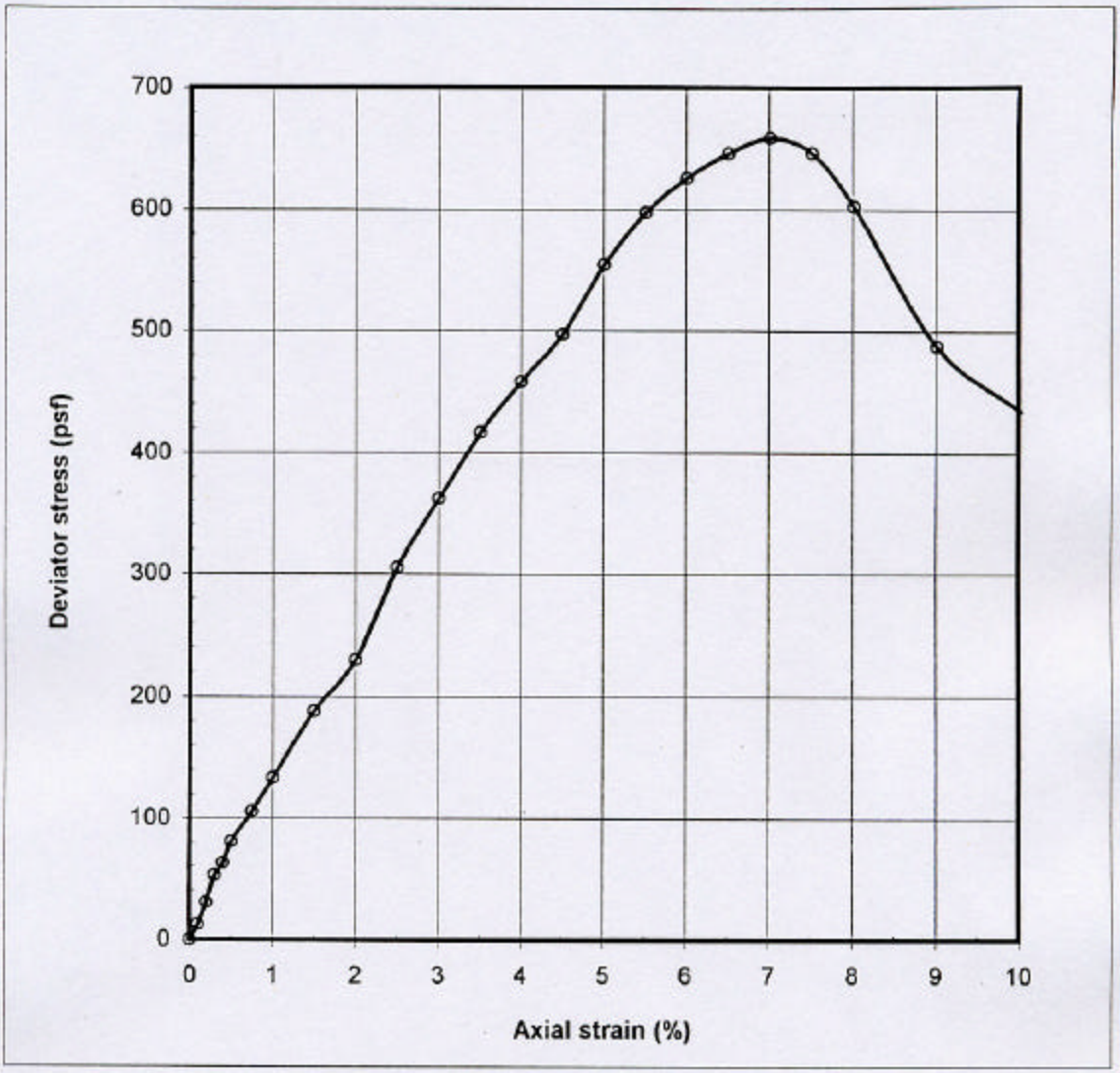
Void ratio	1.678	
Ht/Dia ratio	2.09	
Moisture	60.2	%
Total density	99.7	pcf
Dry density	62.2	pcf
Saturation	95.9	%
Chamber pressure	2600	psf
Max. deviator stress	457	psf
Strain @ failure	20.05	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	1.7	0.10	46.0
0.012	2.3	0.20	62.2
0.018	2.7	0.30	72.9
0.024	3.2	0.40	86.4
0.030	3.8	0.50	102.5
0.045	4.3	0.75	115.7
0.060	5.0	1.00	134.1
0.090	5.9	1.50	157.5
0.120	6.8	2.01	180.6
0.150	7.6	2.51	200.8
0.180	8.3	3.01	218.2
0.210	9.0	3.51	235.3
0.240	9.7	4.01	252.3
0.270	10.4	4.51	269.1
0.300	11.1	5.01	285.7
0.330	11.8	5.51	302.1
0.360	12.5	6.02	318.4
0.390	13.0	6.52	329.3
0.420	13.5	7.02	340.2
0.450	14.1	7.52	353.4
0.480	14.7	8.02	366.4
0.540	16.0	9.02	394.5
0.600	16.7	10.03	407.2
0.660	17.2	11.03	414.7
0.720	18.0	12.03	429.1
0.780	18.5	13.03	436.0
0.840	19.0	14.04	442.6
0.900	19.2	15.04	442.1
0.960	19.5	16.04	443.7
1.020	20.0	17.05	449.6
1.080	20.4	18.05	453.1
1.140	20.8	19.05	456.3
1.200	21.1	20.05	457.1

URS



Peak U. C. Strength (psf)	= 659	Dry density (pcf)	= 48.6
Strain at failure (%)	= 7.0	Moisture content (%)	= 86.2
Peak Shear Stress (psf)	= 329	Gs (assumed)	= 2.75
Rate of shearing (%/min)	= 0.84	Void ratio	= 2.530
Specimen height (in)	= 5.984	Saturation (%)	= 93.7
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **12**
Project: **Rhodia - Martinez**	Depth (ft): **54.5-57.0**
Project #: **51-00070007.00**	Soil: **Gray clay with black carbon nodules**

TEST REPORT: UNCONFINED COMPRESSIVE STRENGTH

URS

UNCONFINED COMPRESSIVE STRENGTH
ASTM D2166

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 12
Depth (ft) : 54.5-57.0
Date tested : 01/08/02
Soil Description : Gray clay with black carbon nodules

Specimen: Total wt. =	914.1	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.75	

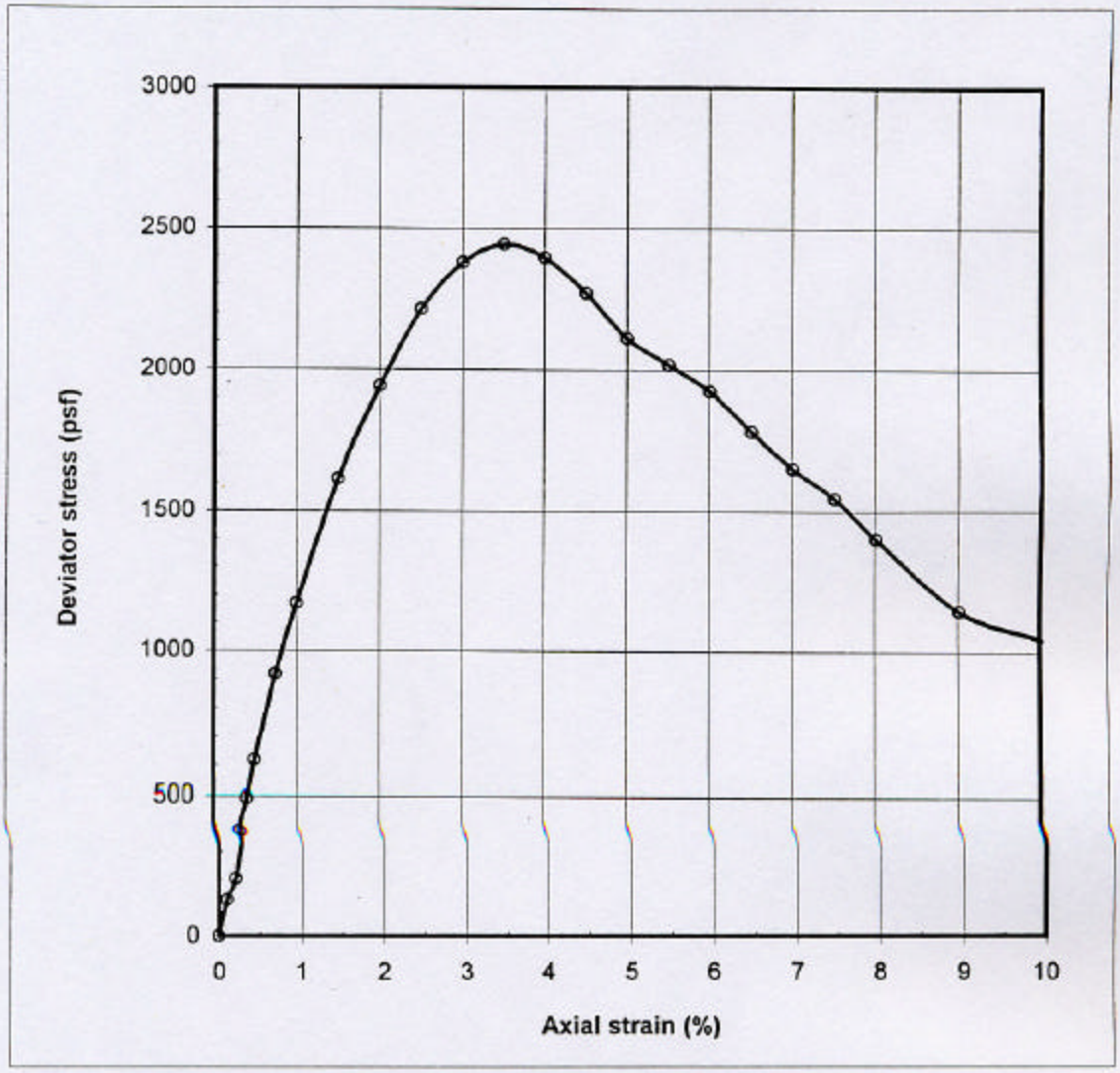
Test Report:		
Void ratio	2.530	
Ht/Dia ratio	2.09	
Moisture	86.2	%
Total density	90.5	pcf
Dry density	48.6	pcf
Saturation	93.7	%
Shear Stress	329	psf
Max. U.C. Strength	659	psf
Strain @ failure	7.02	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.1 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	0.5	0.10	12.7
0.012	1.2	0.20	30.4
0.018	2.1	0.30	53.2
0.024	2.5	0.40	63.2
0.030	3.2	0.50	80.9
0.045	4.2	0.75	105.9
0.060	5.3	1.00	133.3
0.090	7.5	1.50	187.6
0.120	9.2	2.01	229.0
0.150	12.3	2.51	304.5
0.180	14.7	3.01	362.1
0.210	17.0	3.51	416.6
0.240	18.8	4.01	458.3
0.270	20.5	4.51	497.1
0.300	23.0	5.01	554.8
0.330	24.9	5.51	597.5
0.360	26.2	6.02	625.4
0.390	27.2	6.52	645.8
0.420	27.9	7.02	658.8
0.450	27.5	7.52	645.9
0.480	25.8	8.02	602.7
0.540	21.1	9.02	487.5
0.600	19.0	10.03	434.1

URS



Peak U. C. Strength (psf)	= 2441	Dry density (pcf)	= 102.9
Strain at failure (%)	= 3.5	Moisture content (%)	= 23.7
Peak Shear Stress (psf)	= 1220	Gs (assumed)	= 2.85
Rate of shearing (%/min)	= 0.84	Void ratio	= 0.729
Specimen height (in)	= 5.984	Saturation (%)	= 92.6
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **2** Sample #: **14**
Project: **Rhodia - Martinez**	Depth (ft): **69.5-72.0**
Project #: **51-00070007.00**	Soil: **Gray silty clay w/sandstone nodules**

TEST REPORT: UNCONFINED COMPRESSIVE STRENGTH

URS

UNCONFINED COMPRESSIVE STRENGTH
ASTM D2166

Project : Rhodia - Martinez
Job # : 51-00070007.00
Boring # 2
Sample # : 14
Depth (ft) : 69.5-72.0
Date tested : 01/08/02
Soil Description : Gray silty clay w/sandstone nodules

Specimen: Total wt. =	1284.8	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.85	

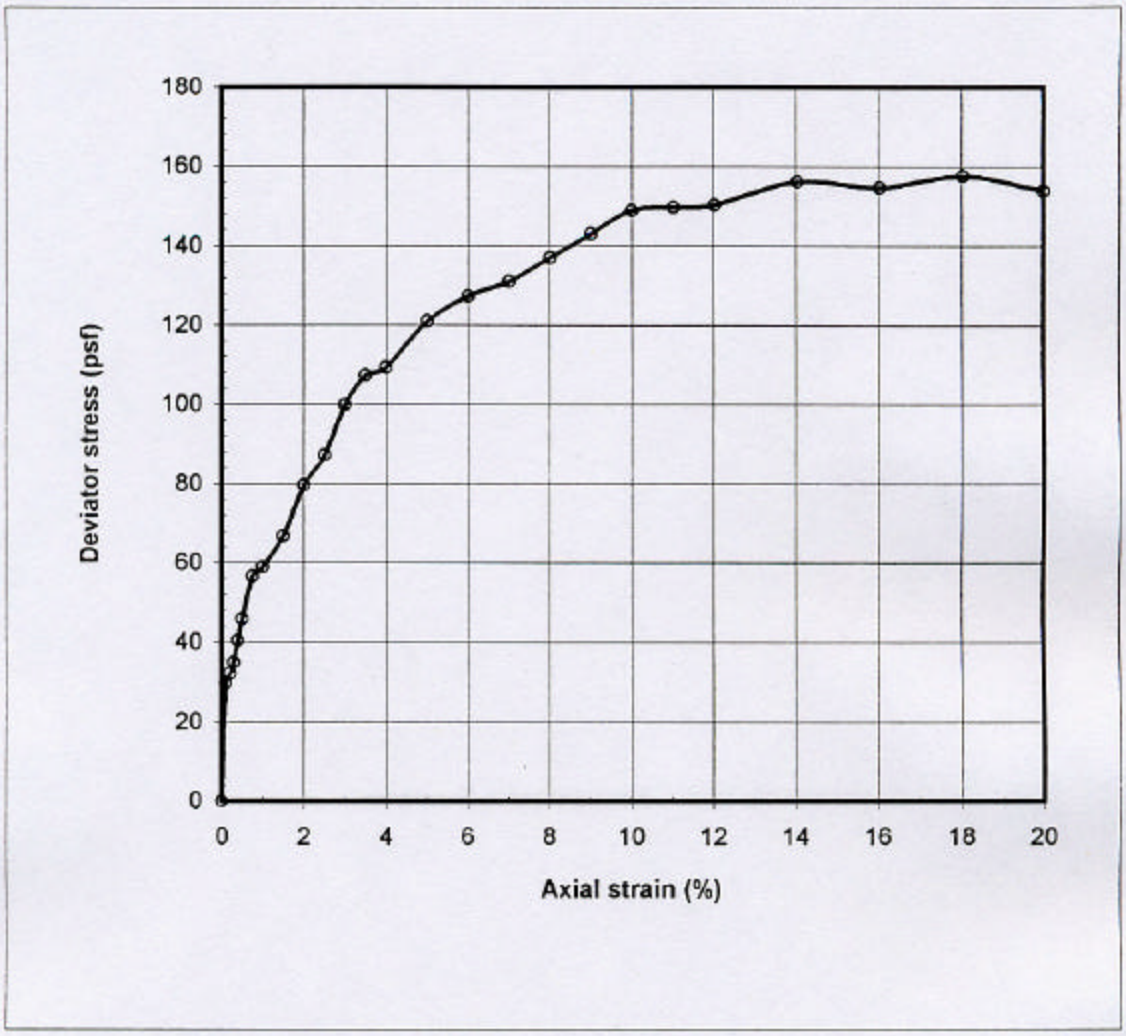
Test Report: Void ratio	0.729	
Ht/Dia ratio	2.09	
Moisture	23.7	%
Total density	127.3	pcf
Dry density	102.9	pcf
Saturation	92.6	%
Shear Stress	1220	psf
Max. U.C. Strength	2441	psf
Strain @ failure	3.51	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.1 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	5.0	0.10	126.9
0.012	8.0	0.20	202.8
0.018	15.0	0.30	379.8
0.024	19.5	0.40	493.2
0.030	24.5	0.50	619.1
0.045	36.5	0.75	920.0
0.060	46.5	1.00	1169.1
0.090	64.5	1.50	1613.4
0.120	78.0	2.01	1941.2
0.150	89.3	2.51	2211.0
0.180	96.5	3.01	2377.0
0.210	99.6	3.51	2440.7
0.240	98.2	4.01	2393.9
0.270	93.5	4.51	2267.4
0.300	87.5	5.01	2110.8
0.330	84.0	5.51	2015.6
0.360	80.5	6.02	1921.4
0.390	75.0	6.52	1780.6
0.420	69.9	7.02	1650.6
0.450	65.8	7.52	1545.4
0.480	60.0	8.02	1401.5
0.540	49.5	9.02	1143.7
0.600	45.6	10.03	1042.0

URS



Peak deviator stress (psf)	= 158	Dry density (pcf)	= 41.7
Strain at failure (%)	= 18.0	Moisture content (%)	= 108.7
Confining pressure (psf)	= 300	Gs (assumed)	= 2.70
Rate of shearing (%/min)	= 0.84	Void ratio	= 3.044
Specimen height (in)	= 5.984	Saturation (%)	= 96.4
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #. **3** Sample #: **1**
Project: **Rhodia Peyton Slough**	Depth (ft): **0.0-3.5**
Project #: **51-00070007.00**	Soil: **Dark gray silty clay (Bay Mud)**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia Peyton Slough
Job # : 51-00070007.00
Boring # 3
Sample # : 1
Depth (ft) : 0.0-3.5
Date tested : 01/1802
Soil : Dark gray silty clay (Bay Mud)
Undisturbed: : Shelby Tube

Specimen: Total wt. =	878.0	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.70	

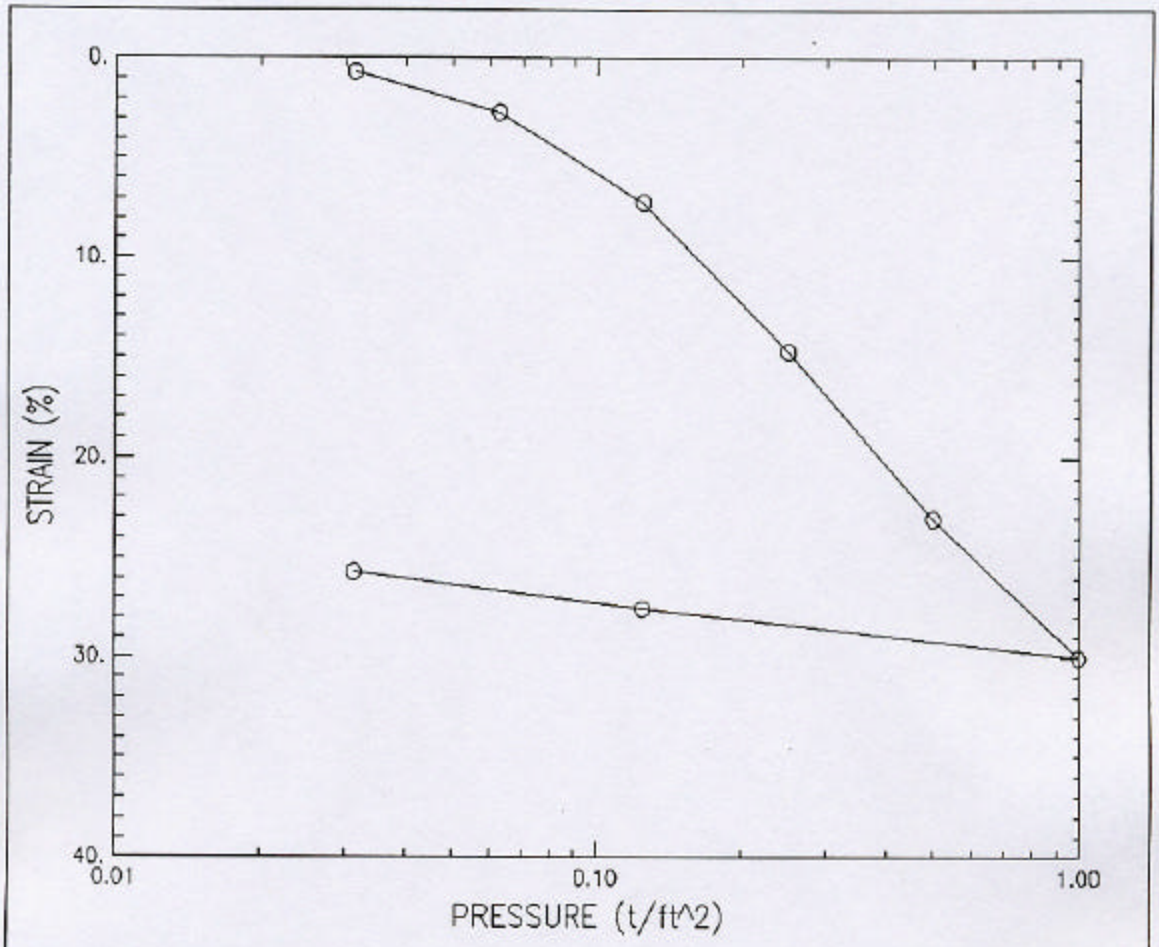
Test Report:		
Void ratio	3.044	
Ht/Dia ratio	2.09	
Moisture	108.7	%
Total density	87.0	pcf
Dry density	41.7	pcf
Saturation	96.4	%
Chamber pressure	300	psf
Max. deviator stress	158	psf
Strain @ failure	18.05	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	1.1	0.10	29.8
0.012	1.2	0.20	32.5
0.018	1.3	0.30	35.1
0.024	1.5	0.40	40.5
0.030	1.7	0.50	45.8
0.045	2.1	0.75	56.5
0.060	2.2	1.00	59.0
0.090	2.5	1.50	66.7
0.120	3.0	2.01	79.7
0.150	3.3	2.51	87.2
0.180	3.8	3.01	99.9
0.210	4.1	3.51	107.2
0.240	4.2	4.01	109.3
0.300	4.7	5.01	121.0
0.360	5.0	6.02	127.3
0.420	5.2	7.02	131.0
0.480	5.5	8.02	137.1
0.540	5.8	9.02	143.0
0.600	6.1	10.03	148.7
0.660	6.2	11.03	149.5
0.720	6.3	12.03	150.2
0.840	6.7	14.04	156.1
0.960	6.8	16.04	154.7
1.080	7.1	18.05	157.7
1.197	7.1	20.00	153.9

URS



		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)	WATER CONTENT (%)	116.929	77.654
PRECONSOL. PRESSURE (t/ft^2)	DRY DENSITY (lb/ft^3)	39.626	53.347
COMPRESSION INDEX	SATURATION (%)	98.949	100.001
TYPE SPECIMEN	VOID RATIO	3.002	1.972
DIA. (in) 2.430 HT. (in) 0.949	BACK PRESSURE (t/ft^2)		

CLASSIFICATION Gray organic clay

LL 0.0	PL 0.0	PI 0.0
GS 2.540	D_{10}	
REMARKS		

PROJECT Rhodia Peyton Slough

Data File: LPT1

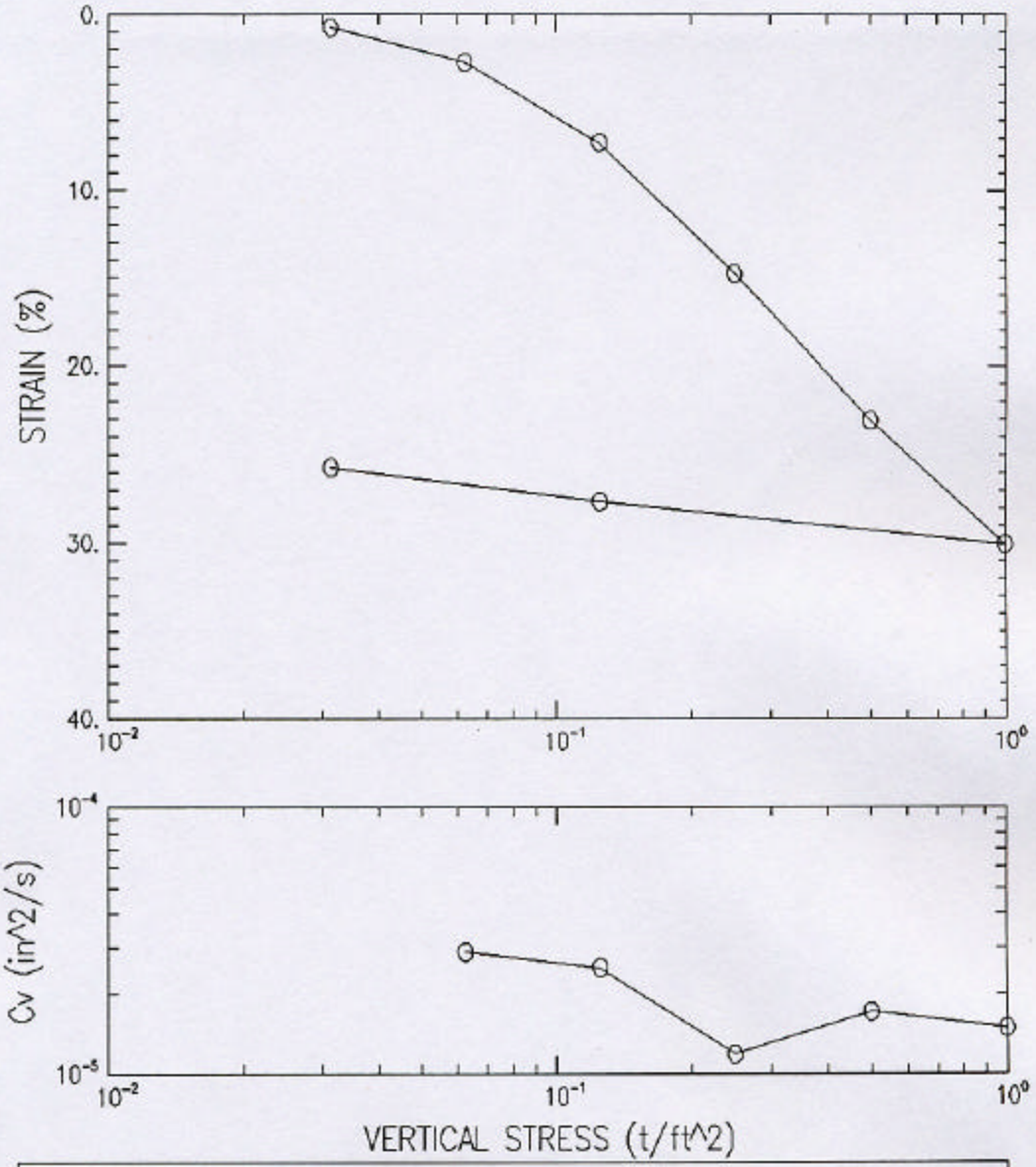
BORING NO. 3 SAMPLE NO. 1

DEPTH 0-2.5 feet DATE 1/21/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 1
Test Date : 1/21/02 Test No : 3-1 Depth : 0-2.5 feet
Description : Gray organic clay

URS

Wed Feb 06 16:56:29 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-1
Boring No. : 3 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.03	0.007	2.973	0.71	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.06	0.026	2.893	2.72	24.7	0.0	2.89E-005	0.00E+000	0.00E+000
3)	0.13	0.069	2.713	7.22	26.5	0.0	2.52E-005	0.00E+000	0.00E+000
4)	0.25	0.140	2.412	14.73	49.4	0.0	1.18E-005	0.00E+000	0.00E+000
5)	0.50	0.219	2.080	23.04	28.3	0.0	1.72E-005	0.00E+000	0.00E+000
6)	1.00	0.285	1.799	30.04	26.8	0.0	1.49E-005	0.00E+000	0.00E+000
7)	0.13	0.262	1.897	27.60	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
8)	0.03	0.244	1.972	25.72	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

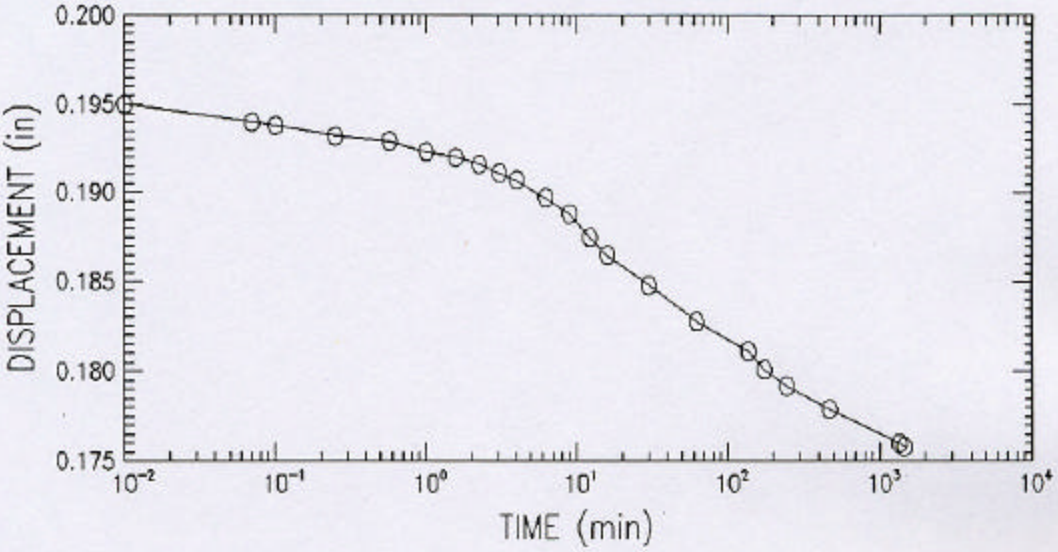
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-1
Boring No. : 3 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

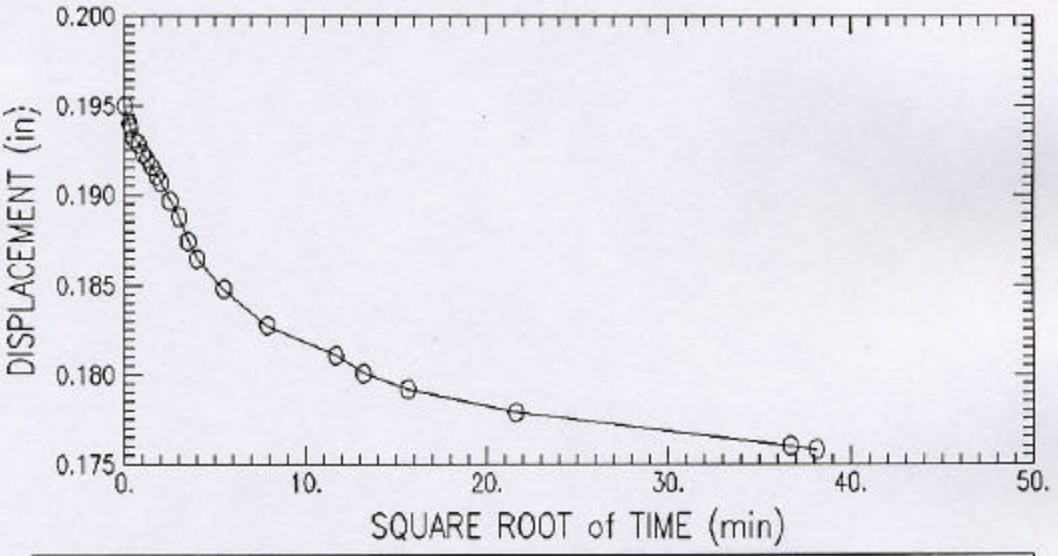
Liquid Limit : 0 Plastic Limit : 0 Plasticity Index : 0
Specific Gravity : 2.54 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 3.001 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	261.13	286.50	268.52	268.52
WT CONTAINER + DRY SOIL (gm)	171.98	232.97	232.97	232.97
WT CONTAINER (gm)	95.74	187.19	187.19	187.19
WT DRY SOIL (gm)	76.24	45.78	45.78	45.78
WATER CONTENT (%)	116.93	116.93	77.65	77.65
VOID RATIO	------	3.00	1.97	------
DEGREE OF SATURATION (%)	------	98.95	100.00	------
DRY DENSITY (lb/ft^3)	------	39.63	53.35	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 2 OF 8)
STRESS : 0.063 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 1
Test Date : 1/21/02 Test No : 3-1 Depth : 0-2.5 feet
Description : Gray organic clay

URS

CONSOLIDATION TEST DATA

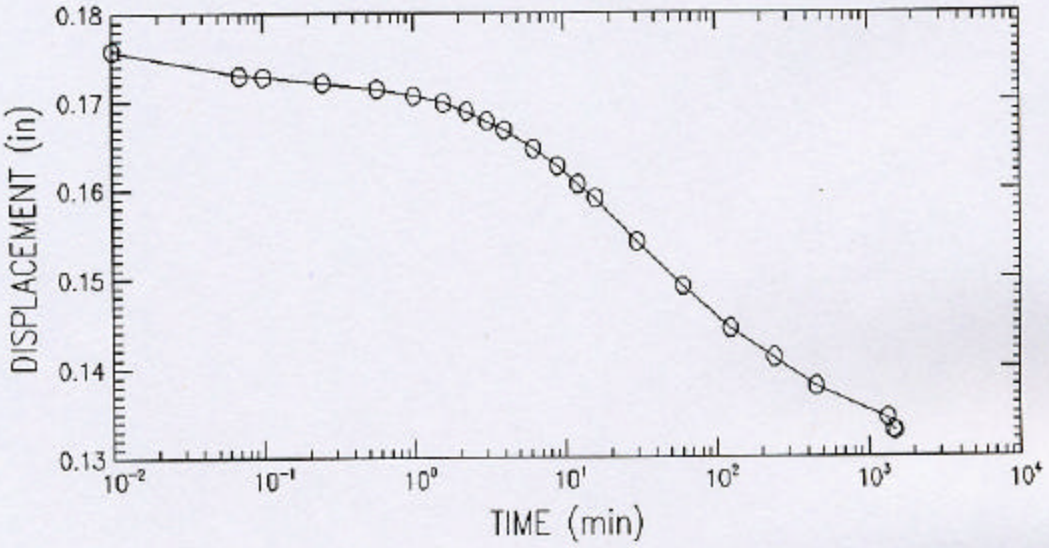
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-1
Boring No. : 3 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

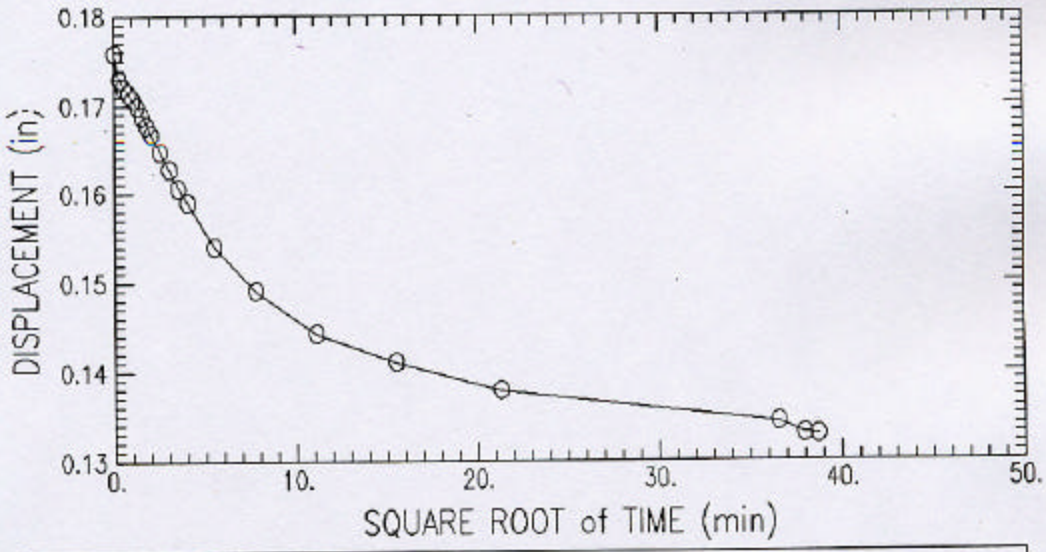
Load Increment : 2/8
Stress increment from 0.03 (t/ft^2) to 0.06 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.972	0.00
2)			0.07	0.26	0.0010	2.968	0.11
3)			0.10	0.32	0.0012	2.967	0.13
4)			0.25	0.50	0.0018	2.964	0.19
5)			0.57	0.75	0.0021	2.963	0.22
6)			1.00	1.00	0.0027	2.961	0.28
7)			1.57	1.25	0.0030	2.959	0.32
8)			2.25	1.50	0.0034	2.958	0.36
9)			3.07	1.75	0.0039	2.955	0.41
10)			4.00	2.00	0.0043	2.954	0.45
11)			6.25	2.50	0.0053	2.950	0.56
12)			9.00	3.00	0.0062	2.946	0.65
13)			12.25	3.50	0.0075	2.940	0.79
14)			16.00	4.00	0.0085	2.936	0.90
15)			30.00	5.48	0.0102	2.929	1.07
16)			62.00	7.87	0.0123	2.920	1.29
17)			136.00	11.66	0.0139	2.913	1.46
18)			174.00	13.19	0.0149	2.909	1.57
19)			245.00	15.65	0.0158	2.905	1.66
20)			468.00	21.63	0.0171	2.900	1.80
21)			1348.00	36.72	0.0190	2.892	2.00
22)			1455.00	38.14	0.0192	2.891	2.02

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 8)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 1
Test Date : 1/21/02 Test No : 3-1 Depth : 0-2.5 feet
Description : Gray organic clay

URS

Wed Feb 06 17:07:11 2002

CONSOLIDATION TEST DATA

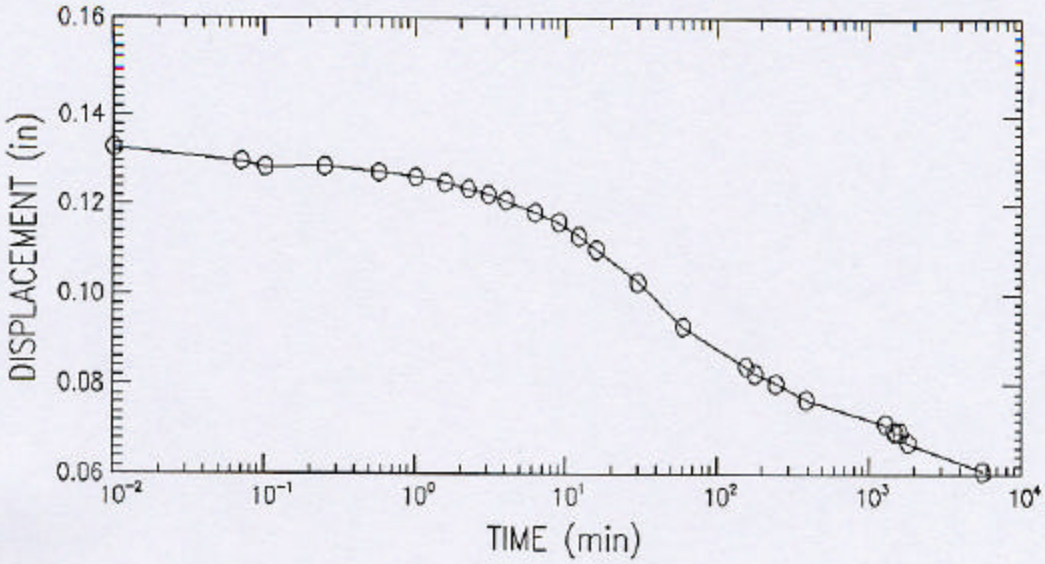
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-1
Boring No. : 3 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

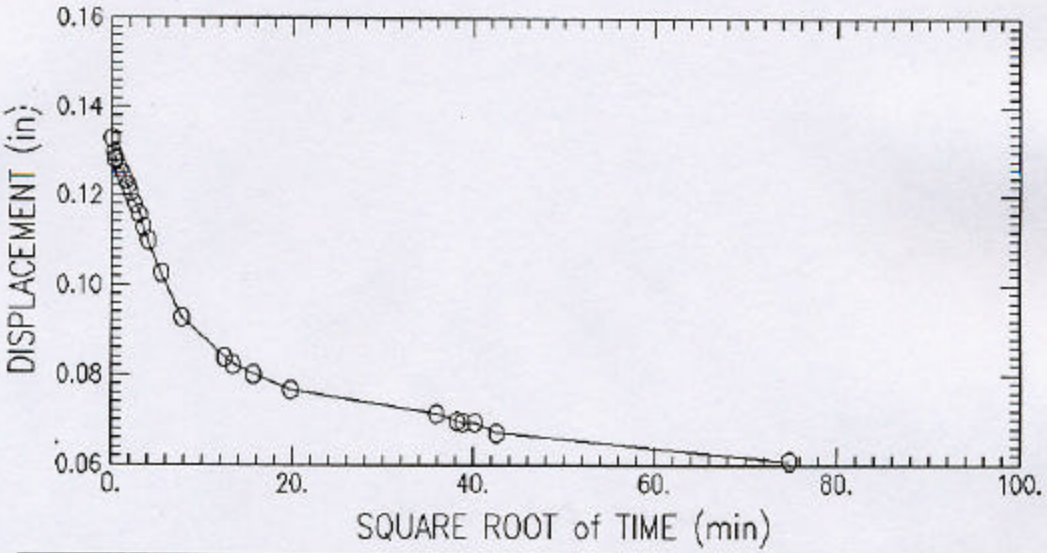
Load Increment : 3/8
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.920	0.00
2)			0.07	0.26	0.0029	2.908	0.30
3)			0.10	0.32	0.0030	2.907	0.32
4)			0.25	0.50	0.0037	2.904	0.39
5)			0.57	0.75	0.0044	2.902	0.46
6)			1.00	1.00	0.0051	2.899	0.54
7)			1.57	1.25	0.0059	2.895	0.62
8)			2.25	1.50	0.0069	2.891	0.73
9)			3.07	1.75	0.0080	2.886	0.84
10)			4.00	2.00	0.0090	2.882	0.95
11)			6.25	2.50	0.0111	2.873	1.17
12)			9.00	3.00	0.0131	2.865	1.38
13)			12.25	3.50	0.0152	2.856	1.60
14)			16.00	4.00	0.0168	2.849	1.77
15)			30.00	5.48	0.0217	2.829	2.29
16)			60.00	7.75	0.0267	2.807	2.81
17)			123.00	11.09	0.0315	2.787	3.32
18)			240.00	15.49	0.0347	2.774	3.66
19)			453.00	21.28	0.0379	2.760	3.99
20)			1336.00	36.55	0.0415	2.745	4.37
21)			1441.00	37.96	0.0428	2.740	4.51
22)			1500.00	38.73	0.0429	2.739	4.52

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 8)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 1
Test Date : 1/21/02 Test No : 3-1 Depth : 0-2.5 feet
Description : Gray organic clay

URS

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-1
Boring No. : 3 Test Date : 1/21/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

Load Increment : 4/8
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.820	0.00
2)			0.07	0.26	0.0031	2.807	0.33
3)			0.10	0.32	0.0045	2.801	0.47
4)			0.25	0.50	0.0043	2.802	0.45
5)			0.57	0.75	0.0057	2.796	0.60
6)			1.00	1.00	0.0068	2.791	0.72
7)			1.57	1.25	0.0081	2.786	0.85
8)			2.25	1.50	0.0095	2.780	1.00
9)			3.07	1.75	0.0107	2.775	1.13
10)			4.00	2.00	0.0122	2.769	1.29
11)			6.25	2.50	0.0148	2.758	1.56
12)			9.00	3.00	0.0170	2.748	1.79
13)			12.25	3.50	0.0201	2.735	2.12
14)			16.00	4.00	0.0230	2.723	2.42
15)			30.00	5.48	0.0302	2.693	3.18
16)			60.00	7.75	0.0402	2.651	4.24
17)			156.00	12.49	0.0490	2.614	5.16
18)			180.00	13.42	0.0506	2.607	5.33
19)			246.00	15.68	0.0527	2.598	5.55
20)			390.00	19.75	0.0562	2.583	5.92
21)			1288.00	35.89	0.0616	2.560	6.49
22)			1460.00	38.21	0.0632	2.554	6.66
23)			1508.00	38.83	0.0635	2.552	6.69
24)			1618.00	40.22	0.0635	2.552	6.69
25)			1815.00	42.60	0.0658	2.543	6.93
26)			5601.00	74.84	0.0721	2.516	7.60

URS

Project Name: Rhodia Peyton Slough

Project Number: 51-00070007.00

Location: Martinez, CA

Date: 01/25/02

Test Method: ASTM D854

Sample Number: 3 - 2 Depth, ft. 5.0 - 7.5

Bottle Number: 2

Description: Gray silty clay with shell fragments

Determination Number	pycnometer + soil + water gms	pycnometer + water gms	temperature F	Specific Gravity
1	733.9	666.94	74.0	2.658
2	734.3	667.22	68.0	2.668
3	734.6	667.49	62.0	2.672
			Average	2.666

Oven dried soil + tare, gms	393.84
tare, gms	286.66
Oven dried soil	107.18

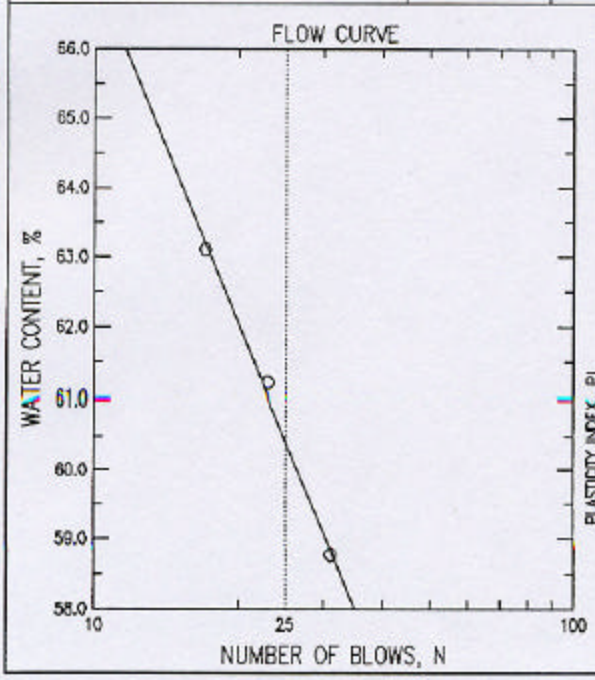
URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	3
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	2
SAMPLE DESCRIPTION		DATE	FILENAME
Gray silty Clay w/ shell fragments		Wed Jan 23 2002	3-02

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	28	40	176		
WT. WET SOIL + TARE	24.85	23.94	24.35		
WT. DRY SOIL + TARE	19.69	18.94	19.2		
WT. WATER	5.16	5	5.15		
TARE WT.	10.91	10.77	11.04		
WT. DRY SOIL	8.78	8.17	8.16		
WATER CONTENT, W_N (%)	58.77	61.20	63.11		
NUMBER OF BLOWS, N	31	23	17		
ONE-POINT LIQUID LIMIT, LL	60.32	60.59	60.24		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	25				
WT. WET SOIL + TARE	28.51				
WT. DRY SOIL + TARE	26.1				
WT. WATER	2.41				
TARE WT.	15.82				
WT. DRY SOIL	10.28				
WATER CONTENT (%)	23.44				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	57.6
LIQUID LIMIT, LL	60.4
PLASTIC LIMIT, PL	23.4
PLASTICITY INDEX, PI	37.0
LIQUIDITY INDEX, LI*	1.19

*LI = (W - PL)/PI

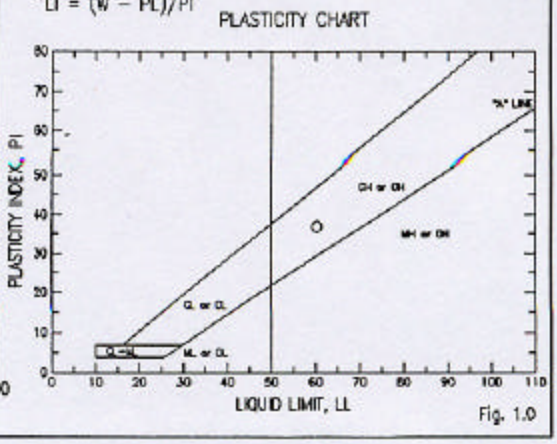


Fig. 1.0

URS

Wed Jan 23 09:21:50 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 2
Location : Martinez, CA
Soil Description : Gray silty Clay w/ shell fragments
Remarks :

Depth : 5.0-7.5 ft
Test Date : 01/22/02
Test Method : ASTM D4318

Filename : 3-02
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 3-02	89.56	232.96	175.13	67.58

Average Moisture Content = 67.58

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 25	15.82	28.51	26.10	23.44

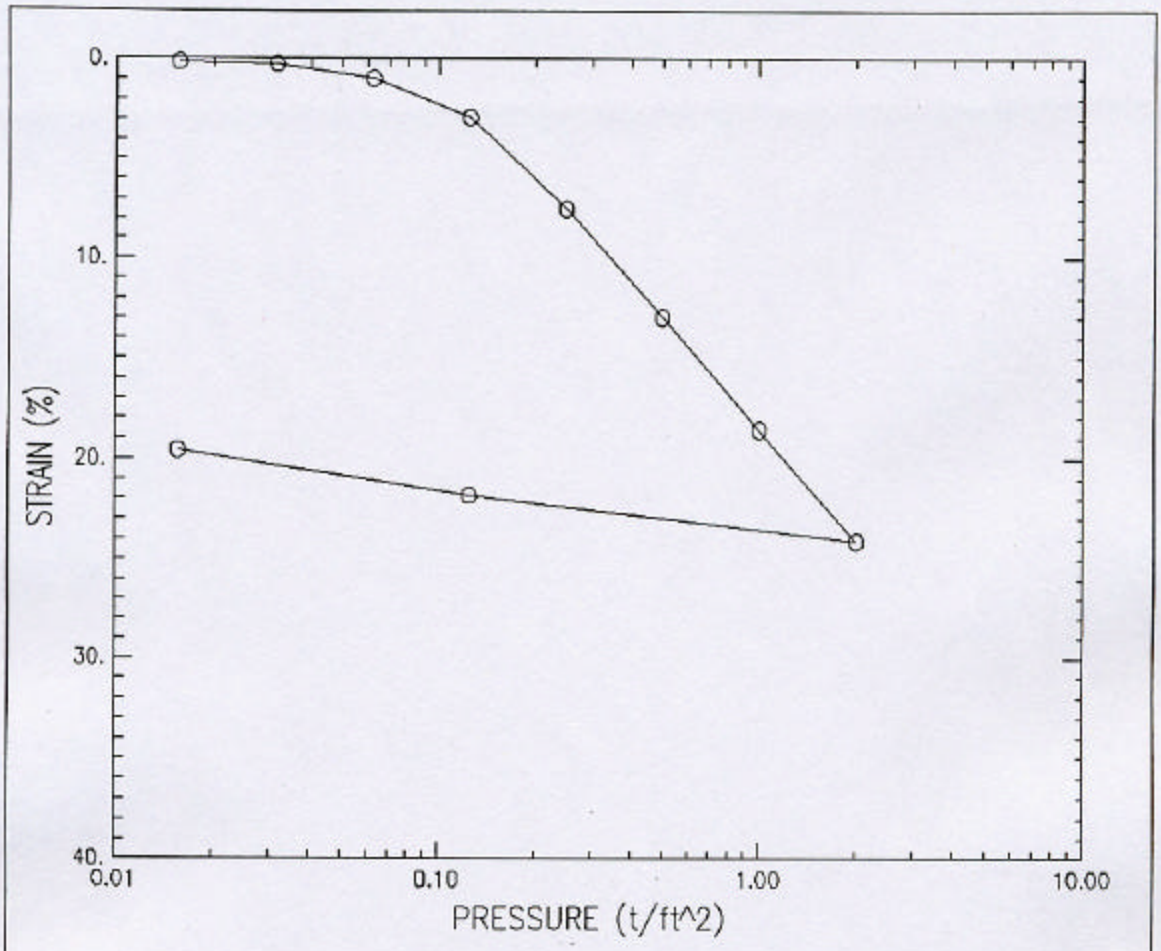
Plastic Limit = 23.44

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 28	10.91	24.85	19.69	31	58.77
2) 40	10.77	23.94	18.94	23	61.20
3) 176	11.04	24.35	19.20	17	63.11

Liquid Limit = 60.42
Plastic Index = 36.97

URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	67.579	47.445
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	59.097	73.485
COMPRESSION INDEX		SATURATION (%)	99.197	100.001
TYPE SPECIMEN		VOID RATIO	1.816	1.265
DIA. (in) 2.429	HT. (in) 0.950	BACK PRESSURE (t/ft^2)		
CLASSIFICATION Gray sa-silty clay / sa-clayey silt w/ shell frags				
LL 60.4	PL 23.4 PI 37.0	PROJECT Rhodia Peyton Slough		
GS 2.666	D_{10}	Data File: RHO-3-2.CON		
REMARKS		BORING NO. 3	SAMPLE NO. 2	
		DEPTH 5.0-7.5 ft	DATE 1/18/02	
		Woodward Clyde Consultants CONSOLIDATION TEST REPORT		

URS

Tue Jan 29 17:02:23 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough
Location : Martinez, CA
Project No. : 5100070007
Test No. : 3-2
Boring No. : 3
Test Date : 1/18/02
Tested by : C. Wason
Sample No. : 2
Sample Type : Shelby
Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.02	0.001	1.812	0.14	0.3	0.0	2.55E-003	0.00E+000	0.00E+000
2)	0.03	0.002	1.809	0.26	1.8	0.0	4.21E-004	0.00E+000	0.00E+000
3)	0.06	0.009	1.788	0.99	236.2	0.0	3.10E-006	0.00E+000	0.00E+000
4)	0.13	0.028	1.733	2.97	43.0	0.0	1.65E-005	0.00E+000	0.00E+000
5)	0.25	0.072	1.604	7.54	21.4	0.0	3.11E-005	0.00E+000	0.00E+000
6)	0.50	0.123	1.451	12.97	17.8	0.0	3.35E-005	0.00E+000	0.00E+000
7)	1.00	0.177	1.293	18.58	14.6	0.0	3.59E-005	0.00E+000	0.00E+000
8)	2.00	0.229	1.137	24.12	13.8	0.0	3.33E-005	0.00E+000	0.00E+000
9)	0.13	0.207	1.201	21.84	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
10)	0.02	0.186	1.264	19.61	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

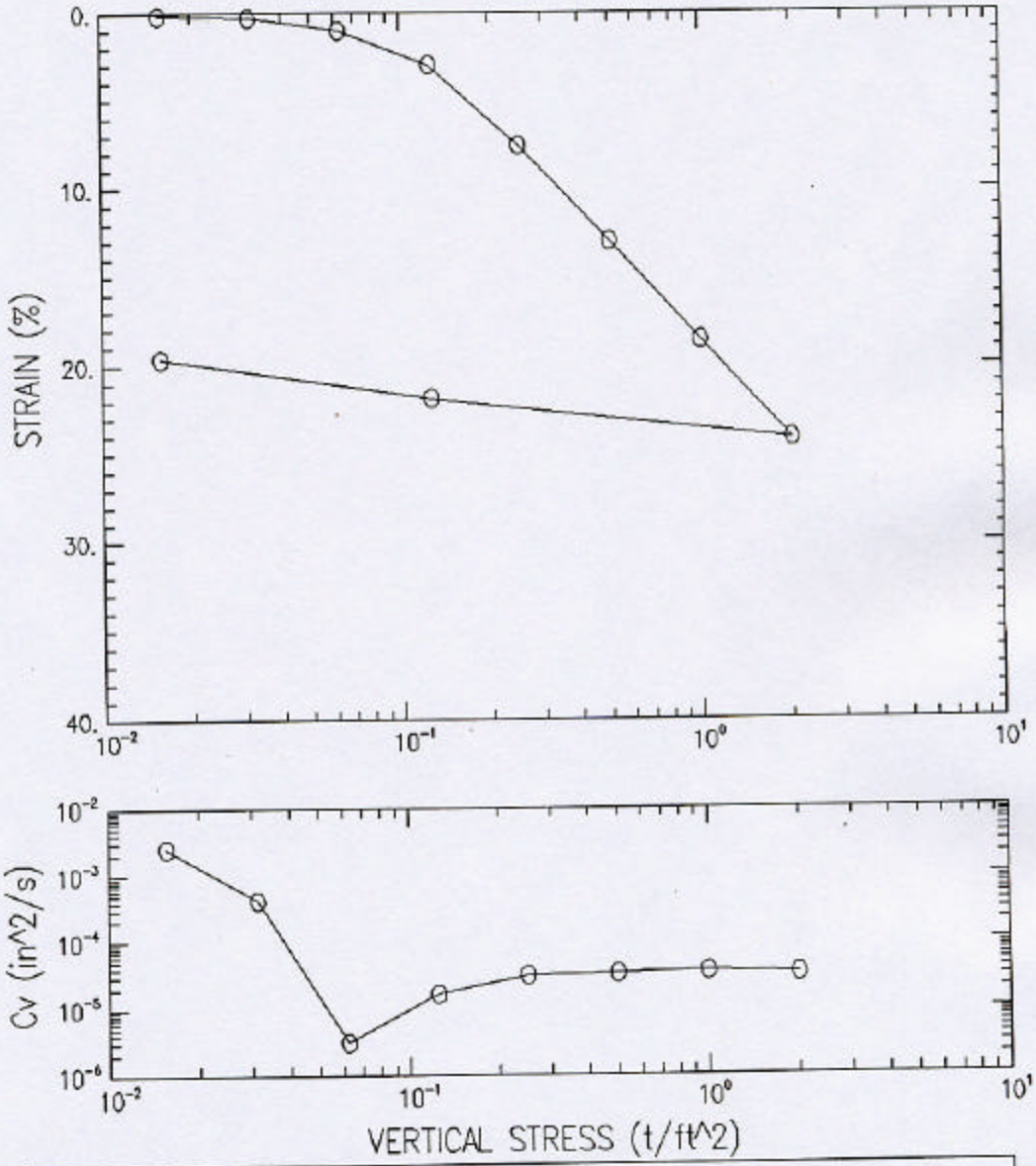
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-2
Boring No. : 3 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

Liquid Limit : 60.42 Plastic Limit : 23.44 Plasticity Index : 36.98
Specific Gravity : 2.67 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 1.816 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	232.96	298.05	284.30	284.30
WT CONTAINER + DRY SOIL (gm)	175.13	251.90	251.90	251.90
WT CONTAINER (gm)	89.56	183.61	183.61	183.61
WT DRY SOIL (gm)	85.57	68.29	68.29	68.29
WATER CONTENT (%)	67.58	67.58	47.44	47.44
VOID RATIO	------	1.82	1.26	------
DEGREE OF SATURATION (%)	------	99.20	100.00	------
DRY DENSITY (lb/ft^3)	------	59.10	73.48	------

URS

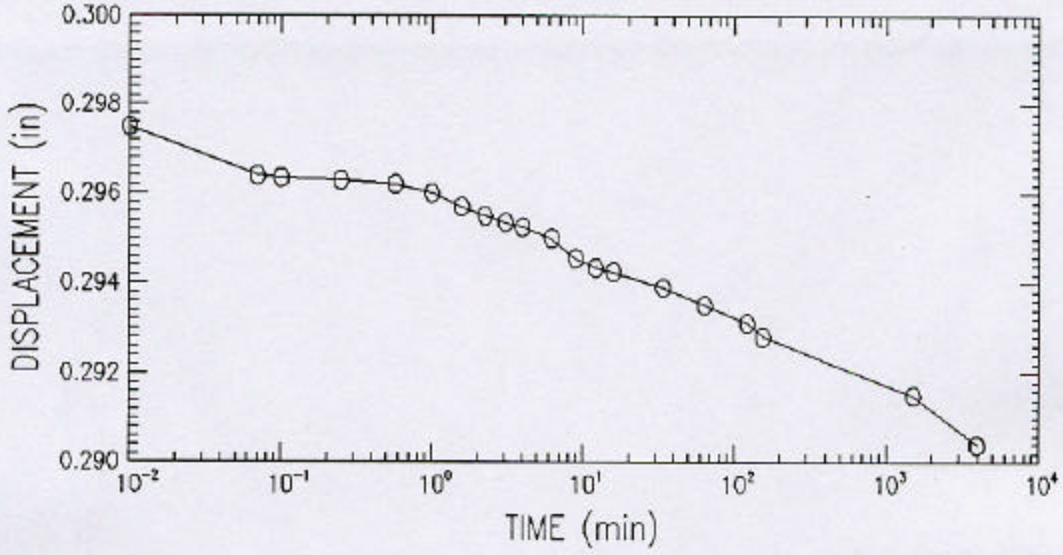
CONSOLIDATION TEST
SUMMARY REPORT

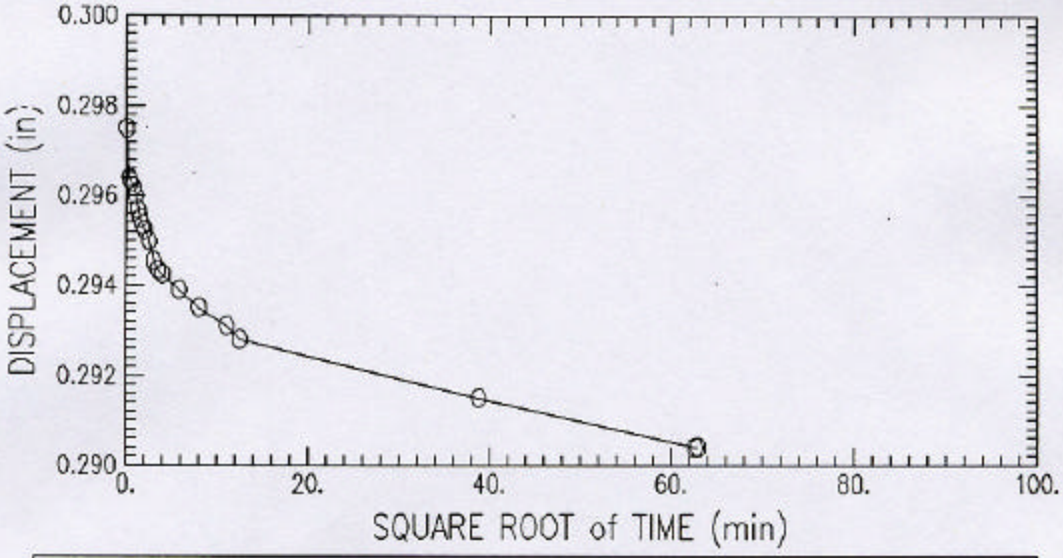


Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 2
Test Date : 1/18/02 Test No : 3-2 Depth : 5.0-7.5 ft
Description : Gray sa-silty clay / sa-clayey silt w/ shell frags

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 10)
STRESS : 0.063 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 2
Test Date : 1/18/02 Test No : 3-2 Depth : 5.0-7.5 ft
Description : Gray sa-silty clay / sa-clayey silt w/ shell frags

URS

Tue Jan 29 17:12:19 2002

CONSOLIDATION TEST DATA

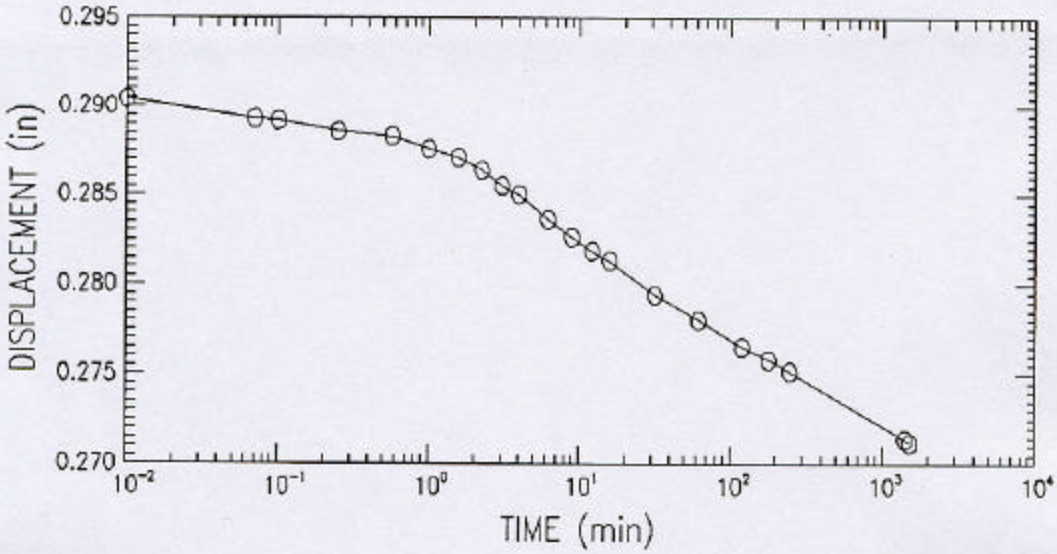
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-2
Boring No. : 3 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

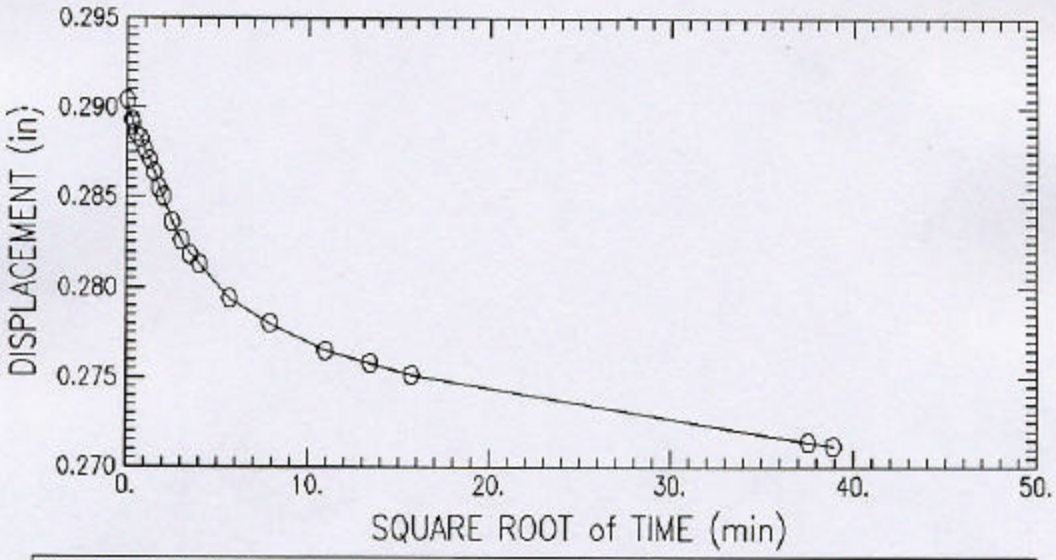
Load Increment : 3/10
Stress increment from 0.03 (t/ft^2) to 0.06 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.812	0.00
2)			0.07	0.26	0.0011	1.809	0.12
3)			0.10	0.32	0.0011	1.809	0.12
4)			0.25	0.50	0.0012	1.809	0.13
5)			0.57	0.75	0.0013	1.809	0.14
6)			1.00	1.00	0.0015	1.808	0.16
7)			1.57	1.25	0.0018	1.807	0.19
8)			2.25	1.50	0.0020	1.807	0.21
9)			3.07	1.75	0.0021	1.806	0.23
10)			4.00	2.00	0.0022	1.806	0.24
11)			6.25	2.50	0.0025	1.805	0.26
12)			9.00	3.00	0.0030	1.804	0.31
13)			12.25	3.50	0.0031	1.803	0.33
14)			16.00	4.00	0.0032	1.803	0.34
15)			34.00	5.83	0.0036	1.802	0.38
16)			64.00	8.00	0.0040	1.801	0.42
17)			122.00	11.05	0.0044	1.799	0.46
18)			155.00	12.45	0.0047	1.799	0.49
19)			1505.00	38.79	0.0060	1.795	0.63
20)			3927.00	62.67	0.0071	1.791	0.75
21)			3970.00	63.01	0.0071	1.791	0.75

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 10)
STRESS : 0.13 (t/ft^2).





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 2
Test Date : 1/18/02 Test No : 3-2 Depth : 5.0-7.5 ft
Description : Gray sa-silty clay / sa-clayey silt w/ shell frags

URS

Tue Jan 29 17:12:39 2002

CONSOLIDATION TEST DATA

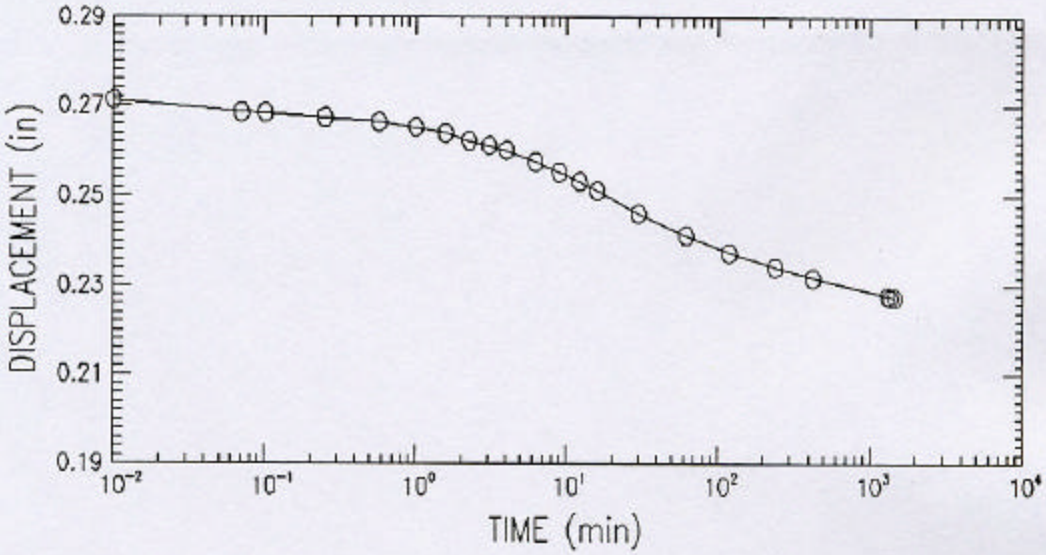
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-2
Boring No. : 3 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

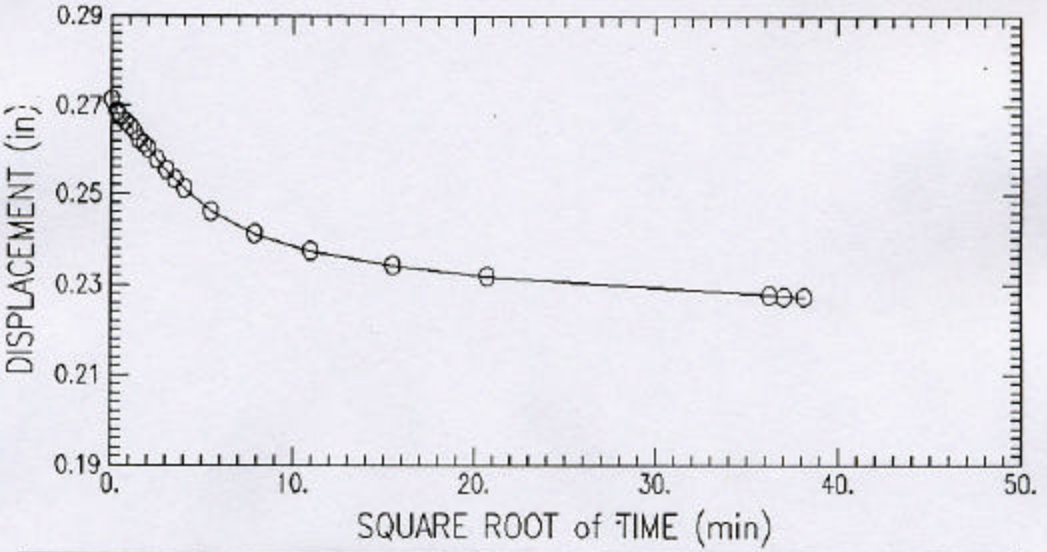
Load Increment : 4/10
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.795	0.00
2)			0.07	0.26	0.0011	1.792	0.12
3)			0.10	0.32	0.0012	1.791	0.13
4)			0.25	0.50	0.0018	1.790	0.19
5)			0.57	0.75	0.0021	1.789	0.22
6)			1.00	1.00	0.0028	1.787	0.29
7)			1.57	1.25	0.0033	1.785	0.35
8)			2.25	1.50	0.0040	1.783	0.42
9)			3.07	1.75	0.0049	1.780	0.52
10)			4.00	2.00	0.0054	1.779	0.57
11)			6.25	2.50	0.0068	1.775	0.72
12)			9.00	3.00	0.0078	1.772	0.82
13)			12.25	3.50	0.0086	1.770	0.90
14)			16.00	4.00	0.0091	1.768	0.96
15)			32.00	5.66	0.0110	1.762	1.16
16)			62.00	7.87	0.0124	1.758	1.31
17)			120.00	10.95	0.0139	1.754	1.46
18)			180.00	13.42	0.0146	1.752	1.54
19)			247.00	15.72	0.0152	1.750	1.61
20)			1410.00	37.55	0.0190	1.739	2.00
21)			1515.00	38.92	0.0192	1.738	2.02

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 10)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 2
Test Date : 1/18/02 Test No : 3-2 Depth : 5.0-7.5 ft
Description : Gray sa-silty clay / sa-clayey silt w/ shell frags

URS

Tue Jan 29 17:12:55 2002

CONSOLIDATION TEST DATA

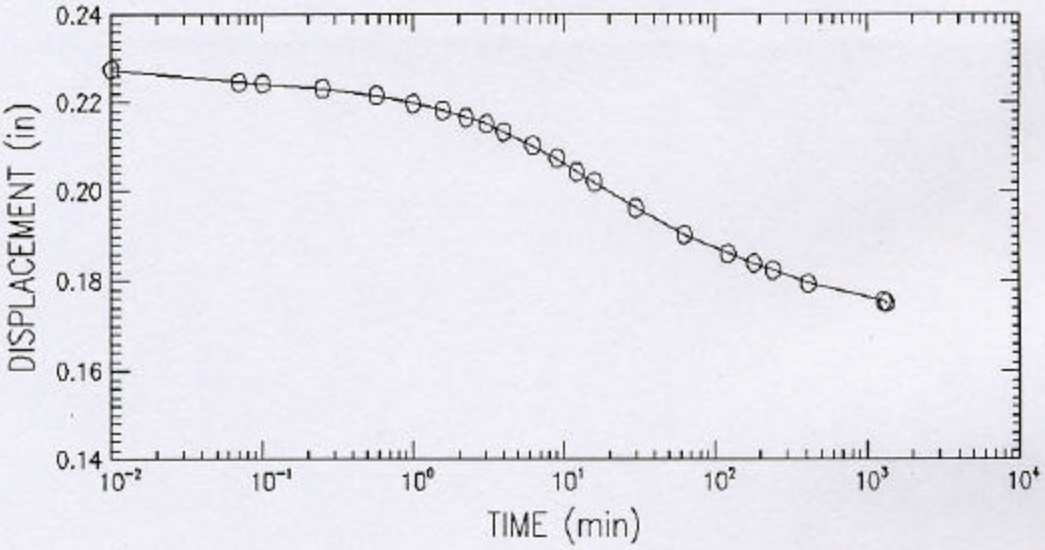
Project : Rhodia Peyton Slough
Location : Martinez, CA
Project No. : 5100070007
Test No. : 3-2
Boring No. : 3
Test Date : 1/18/02
Tested by : C. Wason
Sample No. : 2
Sample Type : Shelby
Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

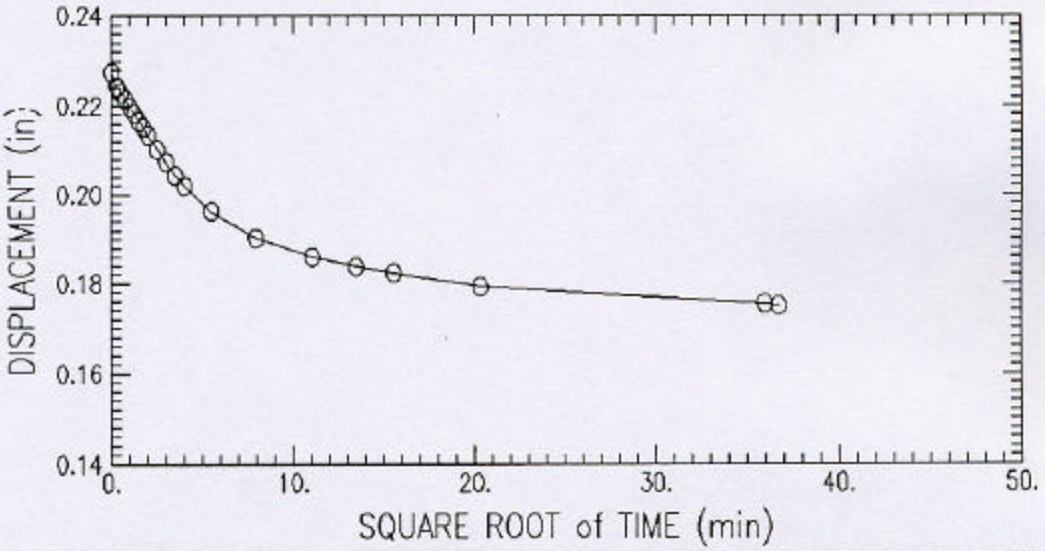
Load Increment : 5/10
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.759	0.00
2)			0.07	0.26	0.0025	1.752	0.26
3)			0.10	0.32	0.0027	1.751	0.28
4)			0.25	0.50	0.0037	1.748	0.39
5)			0.57	0.75	0.0047	1.745	0.49
6)			1.00	1.00	0.0058	1.742	0.61
7)			1.57	1.25	0.0070	1.738	0.74
8)			2.25	1.50	0.0088	1.733	0.93
9)			3.07	1.75	0.0098	1.730	1.03
10)			4.00	2.00	0.0108	1.727	1.14
11)			6.25	2.50	0.0135	1.719	1.42
12)			9.00	3.00	0.0158	1.712	1.66
13)			12.25	3.50	0.0179	1.706	1.88
14)			16.00	4.00	0.0199	1.700	2.09
15)			30.00	5.48	0.0250	1.685	2.63
16)			62.00	7.87	0.0299	1.670	3.15
17)			120.00	10.95	0.0337	1.659	3.55
18)			240.00	15.49	0.0369	1.650	3.88
19)			428.00	20.69	0.0393	1.643	4.14
20)			1313.00	36.24	0.0434	1.630	4.57
21)			1373.00	37.05	0.0436	1.630	4.59
22)			1455.00	38.14	0.0438	1.629	4.61

URS

CONSOLIDATION TEST
TIME CURVES (STEP 6 OF 10)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 2
Test Date : 1/18/02 Test No : 3-2 Depth : 5.0-7.5 ft
Description : Gray sa-silty clay / sa-clayey silt w/ shell frags

URS

Tue Jan 29 17:13:13 2002

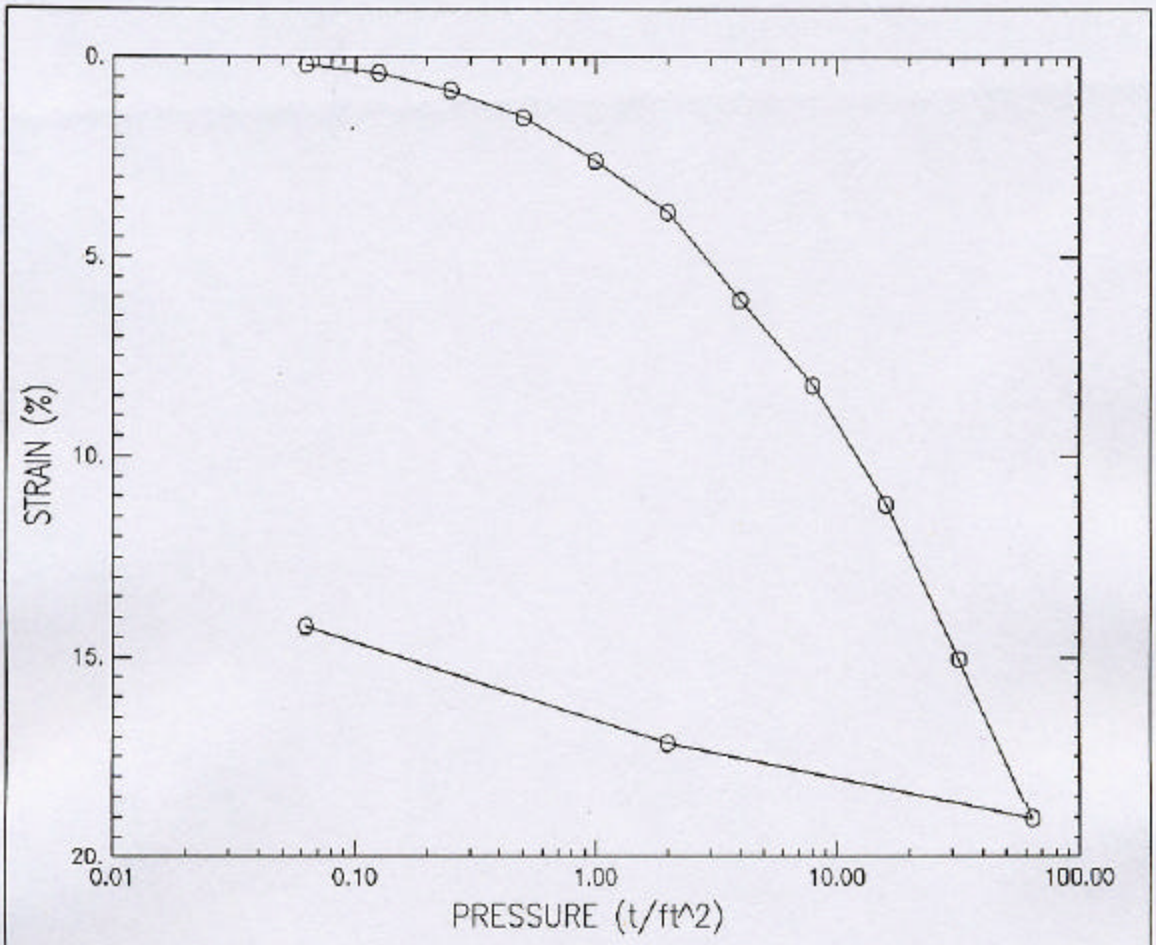
CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-2
Boring No. : 3 Test Date : 1/18/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray sa-silty clay / sa-clayey silt w/ shell frags
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

Load Increment : 6/10
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.686	0.00
2)			0.07	0.26	0.0029	1.678	0.31
3)			0.10	0.32	0.0032	1.677	0.34
4)			0.25	0.50	0.0043	1.673	0.45
5)			0.57	0.75	0.0059	1.669	0.62
6)			1.00	1.00	0.0077	1.663	0.81
7)			1.57	1.25	0.0092	1.659	0.97
8)			2.25	1.50	0.0108	1.654	1.14
9)			3.07	1.75	0.0122	1.650	1.28
10)			4.00	2.00	0.0140	1.645	1.47
11)			6.25	2.50	0.0171	1.635	1.80
12)			9.00	3.00	0.0201	1.627	2.12
13)			12.25	3.50	0.0231	1.618	2.43
14)			16.00	4.00	0.0254	1.611	2.67
15)			30.00	5.48	0.0311	1.594	3.27
16)			63.00	7.94	0.0371	1.576	3.91
17)			122.00	11.05	0.0413	1.564	4.35
18)			181.00	13.45	0.0435	1.557	4.58
19)			241.00	15.52	0.0450	1.553	4.74
20)			413.00	20.32	0.0480	1.544	5.05
21)			1293.00	35.96	0.0519	1.532	5.46
22)			1350.00	36.74	0.0523	1.531	5.51

URS



		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)	WATER CONTENT (%)	30.982	21.623
PRECONSOL. PRESSURE (t/ft^2)	DRY DENSITY (lb/ft^3)	92.331	107.657
COMPRESSION INDEX	SATURATION (%)	99.143	99.995
TYPE SPECIMEN	VOID RATIO	0.859	0.595
DIA. (in) 2.425 HT. (in) 0.950	BACK PRESSURE (t/ft^2)		

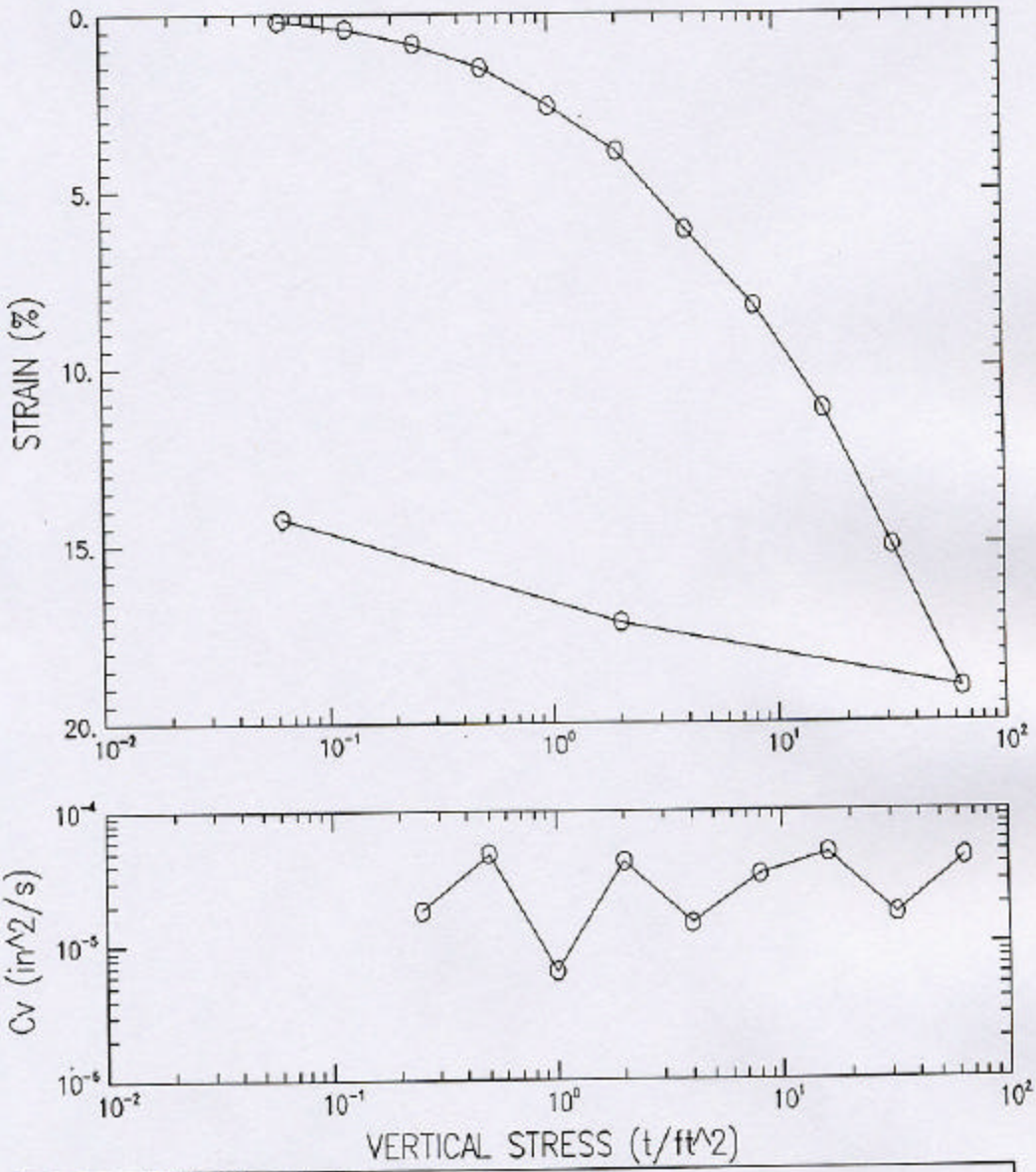
CLASSIFICATION Gray fine sa-si clay/clayey fine sa-silt w/ shell

LL 0.0 PL 0.0 PI 0.0	PROJECT Rhodia Peyton Slough
GS 2.750 D_{10}	Data File: RHO-3-3.CON
REMARKS	BORING NO. 3 SAMPLE NO. 3
	DEPTH 10-12.5 ft DATE 1/29/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 3
Test Date : 1/29/02 Test No : 3-3 Depth : 10-12.5 ft
Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell

URS

Wed Feb 13 17:29:36 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.06	0.002	0.856	0.19	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.13	0.004	0.852	0.41	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
3)	0.25	0.008	0.844	0.84	40.2	0.0	1.82E-005	0.00E+000	0.00E+000
4)	0.50	0.014	0.831	1.52	15.0	0.0	4.81E-005	0.00E+000	0.00E+000
5)	1.00	0.025	0.811	2.60	110.3	0.0	6.44E-006	0.00E+000	0.00E+000
6)	2.00	0.037	0.788	3.86	16.4	0.0	4.22E-005	0.00E+000	0.00E+000
7)	4.00	0.058	0.746	6.09	46.3	0.0	1.45E-005	0.00E+000	0.00E+000
8)	8.00	0.078	0.706	8.24	19.1	0.0	3.35E-005	0.00E+000	0.00E+000
9)	16.00	0.106	0.651	11.19	12.6	0.0	4.79E-005	0.00E+000	0.00E+000
10)	32.00	0.143	0.580	15.05	33.1	0.0	1.69E-005	0.00E+000	0.00E+0
11)	64.00	0.181	0.505	19.04	11.5	0.0	4.43E-005	0.00E+000	0.00E+0
12)	2.00	0.163	0.540	17.16	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
13)	0.06	0.135	0.595	14.23	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

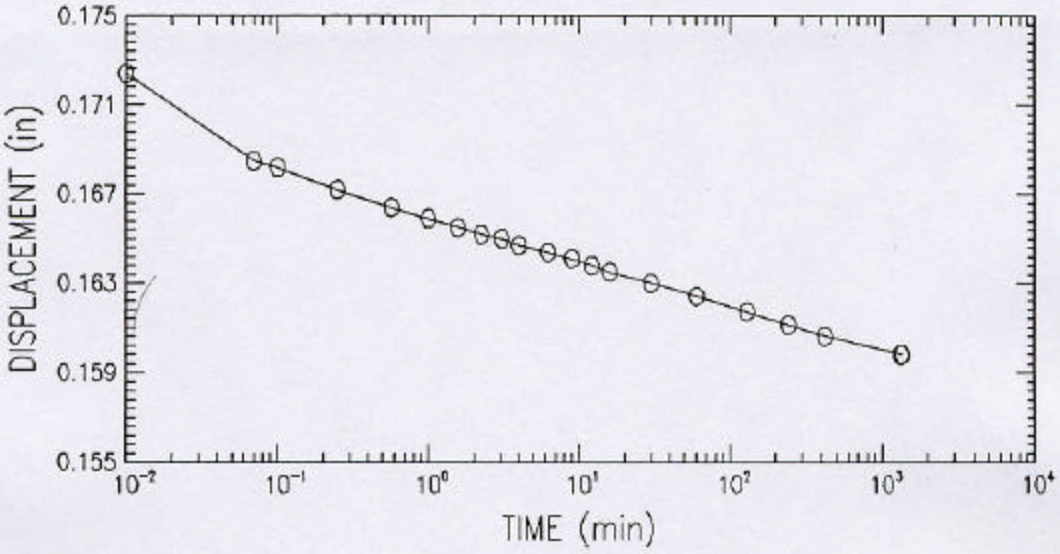
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

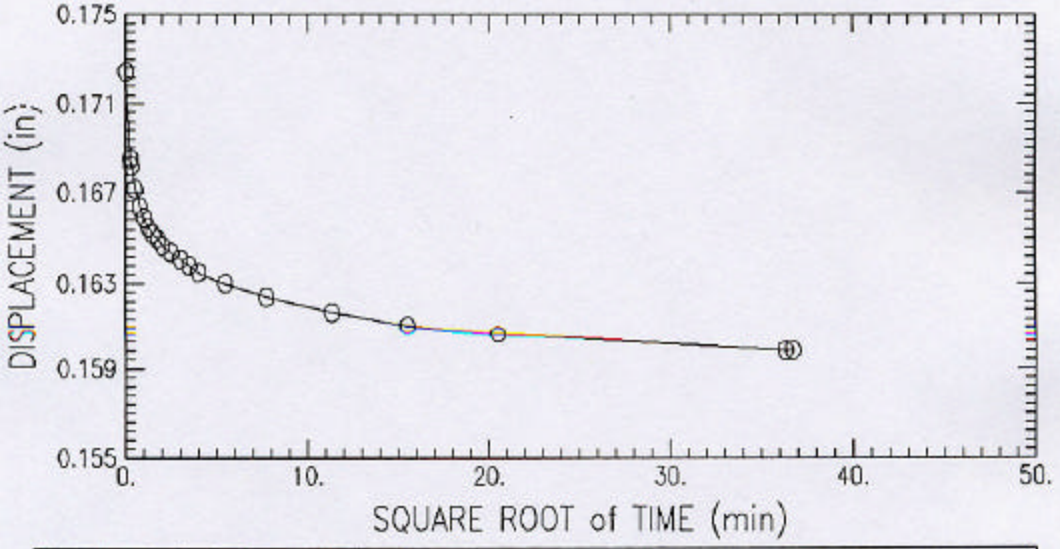
Liquid Limit : 0 Plastic Limit : 0 Plasticity Index : 0
Specific Gravity : 2.75 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 0.8595 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	273.96	326.98	317.03	317.03
WT CONTAINER + DRY SOIL (gm)	221.51	294.04	294.04	294.04
WT CONTAINER (gm)	52.20	187.72	187.72	187.72
WT DRY SOIL (gm)	169.31	106.32	106.32	106.32
WATER CONTENT (%)	30.98	30.98	21.62	21.62
VOID RATIO	------	0.86	0.59	------
DEGREE OF SATURATION (%)	------	99.14	100.00	------
DRY DENSITY (lb/ft^3)	------	92.33	107.66	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 6 OF 13)
STRESS : 2 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 3
Test Date : 1/29/02 Test No : 3-3 Depth : 10-12.5 ft
Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell

URS

Wed Feb 13 17:38:24 2002

CONSOLIDATION TEST DATA

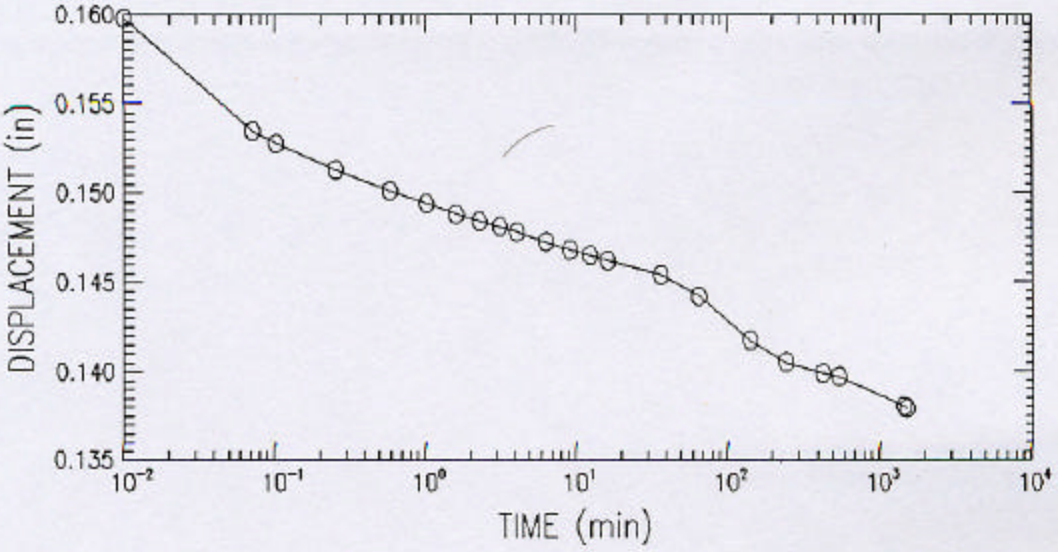
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

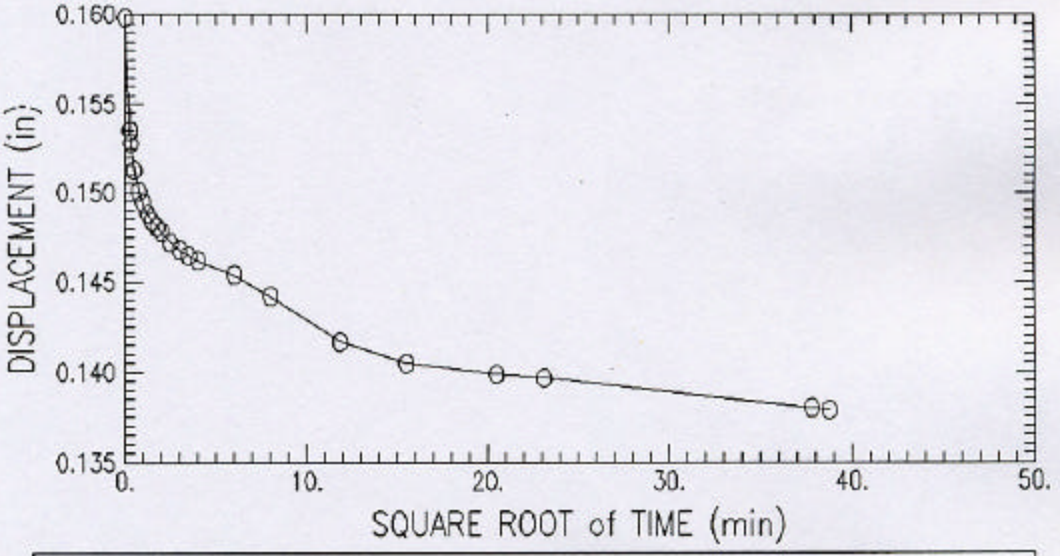
Load Increment : 6/13
Stress increment from 1.00 (t/ft^2) to 2.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	0.838	0.00
2)			0.07	0.26	0.0039	0.831	0.41
3)			0.10	0.32	0.0042	0.830	0.44
4)			0.25	0.50	0.0052	0.828	0.55
5)			0.57	0.75	0.0060	0.827	0.63
6)			1.00	1.00	0.0065	0.826	0.68
7)			1.57	1.25	0.0069	0.825	0.73
8)			2.25	1.50	0.0072	0.824	0.76
9)			3.07	1.75	0.0074	0.824	0.78
10)			4.00	2.00	0.0077	0.823	0.81
11)			6.25	2.50	0.0080	0.823	0.84
12)			9.00	3.00	0.0083	0.822	0.87
13)			12.25	3.50	0.0086	0.822	0.91
14)			16.00	4.00	0.0089	0.821	0.94
15)			30.00	5.48	0.0094	0.820	0.99
16)			60.00	7.75	0.0100	0.819	1.05
17)			129.00	11.36	0.0107	0.817	1.13
18)			241.00	15.52	0.0113	0.816	1.19
19)			420.00	20.49	0.0118	0.815	1.24
20)			1320.00	36.33	0.0126	0.814	1.33
21)			1349.00	36.73	0.0126	0.814	1.33

URS

CONSOLIDATION TEST
TIME CURVES (STEP 7 OF 13)
STRESS : 4 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 3
Test Date : 1/29/02 Test No : 3-3 Depth : 10-12.5 ft
Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell

URS

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CONSOLIDATION TEST DATA

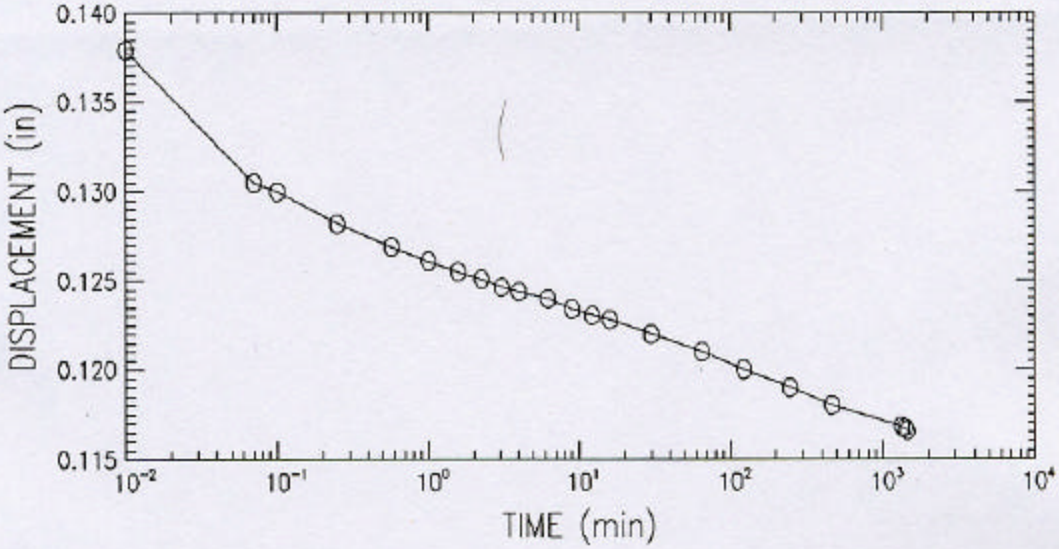
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

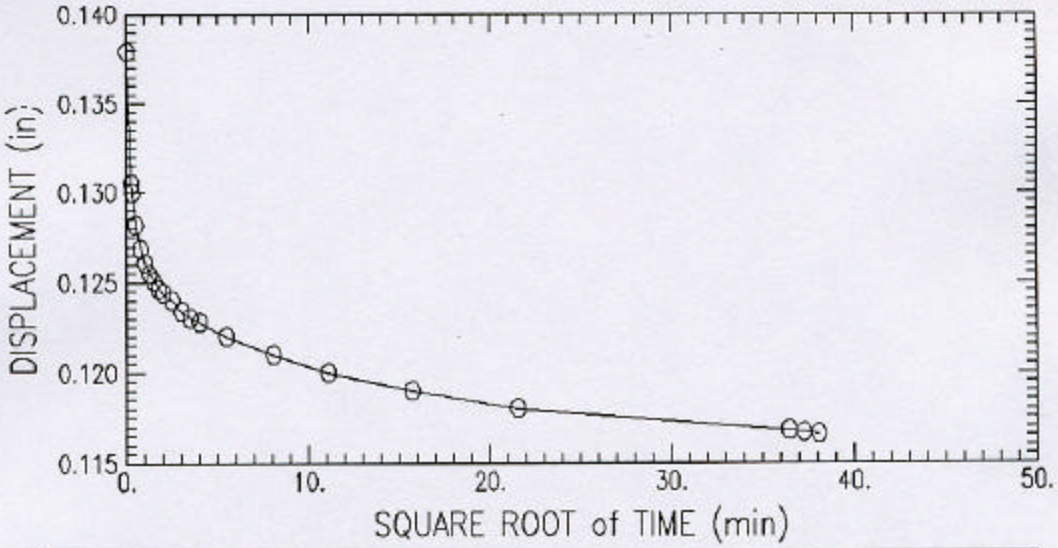
Load Increment : 7/13
Stress increment from 2.00 (t/ft^2) to 4.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	0.835	0.00
2)			0.07	0.26	0.0063	0.822	0.66
3)			0.10	0.32	0.0070	0.821	0.74
4)			0.25	0.50	0.0085	0.818	0.89
5)			0.57	0.75	0.0097	0.816	1.02
6)			1.00	1.00	0.0104	0.814	1.09
7)			1.57	1.25	0.0110	0.813	1.16
8)			2.25	1.50	0.0114	0.813	1.20
9)			3.07	1.75	0.0117	0.812	1.23
10)			4.00	2.00	0.0120	0.811	1.26
11)			6.25	2.50	0.0126	0.810	1.32
12)			9.00	3.00	0.0130	0.809	1.37
13)			12.25	3.50	0.0133	0.809	1.40
14)			16.00	4.00	0.0136	0.808	1.43
15)			36.00	6.00	0.0144	0.807	1.52
16)			64.00	8.00	0.0156	0.804	1.64
17)			140.00	11.83	0.0181	0.799	1.91
18)			240.00	15.49	0.0193	0.797	2.03
19)			420.00	20.49	0.0199	0.796	2.10
20)			535.00	23.13	0.0201	0.795	2.12
21)			1430.00	37.82	0.0218	0.792	2.30
22)			1505.00	38.79	0.0219	0.792	2.31

URS

CONSOLIDATION TEST
TIME CURVES (STEP 8 OF 13)
STRESS : 8 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 3
Test Date : 1/29/02 Test No : 3-3 Depth : 10-12.5 ft
Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell

URS

Wed Feb 13 17:39:16 2002

CONSOLIDATION TEST DATA

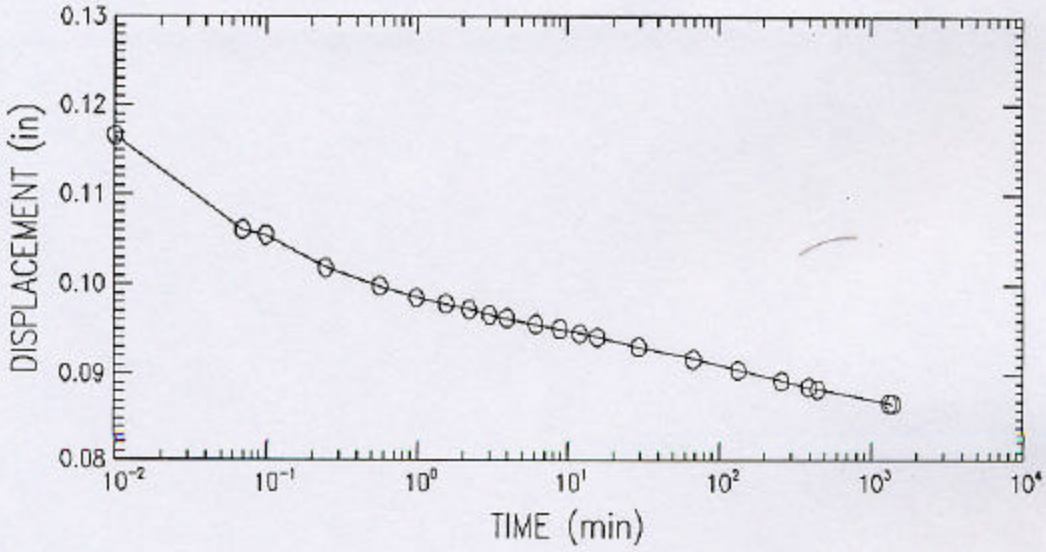
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

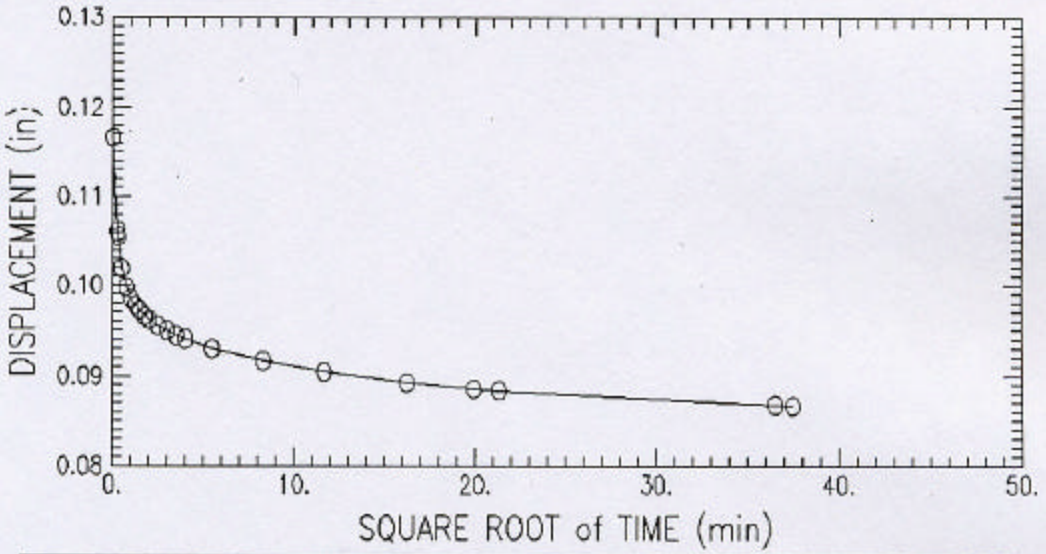
Load Increment : 8/13
Stress increment from 4.00 (t/ft^2) to 8.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	0.817	0.00
2)			0.07	0.26	0.0074	0.802	0.78
3)			0.10	0.32	0.0079	0.801	0.83
4)			0.25	0.50	0.0097	0.798	1.02
5)			0.57	0.75	0.0110	0.795	1.16
6)			1.00	1.00	0.0118	0.794	1.24
7)			1.57	1.25	0.0124	0.792	1.31
8)			2.25	1.50	0.0128	0.792	1.35
9)			3.07	1.75	0.0133	0.791	1.40
10)			4.00	2.00	0.0135	0.790	1.42
11)			6.25	2.50	0.0139	0.789	1.46
12)			9.00	3.00	0.0145	0.788	1.53
13)			12.25	3.50	0.0148	0.788	1.56
14)			16.00	4.00	0.0151	0.787	1.59
15)			30.00	5.48	0.0159	0.785	1.67
16)			65.00	8.06	0.0169	0.784	1.78
17)			123.00	11.09	0.0179	0.782	1.88
18)			247.00	15.72	0.0189	0.780	1.99
19)			465.00	21.56	0.0199	0.778	2.10
20)			1330.00	36.47	0.0211	0.775	2.22
21)			1390.00	37.28	0.0212	0.775	2.23
22)			1450.00	38.08	0.0213	0.775	2.24

URS

CONSOLIDATION TEST
TIME CURVES (STEP 9 OF 13)
STRESS : 16 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 3 Sample No : 3
Test Date : 1/29/02 Test No : 3-3 Depth : 10-12.5 ft
Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell

URS

Wed Feb 13 17:39:33 2002

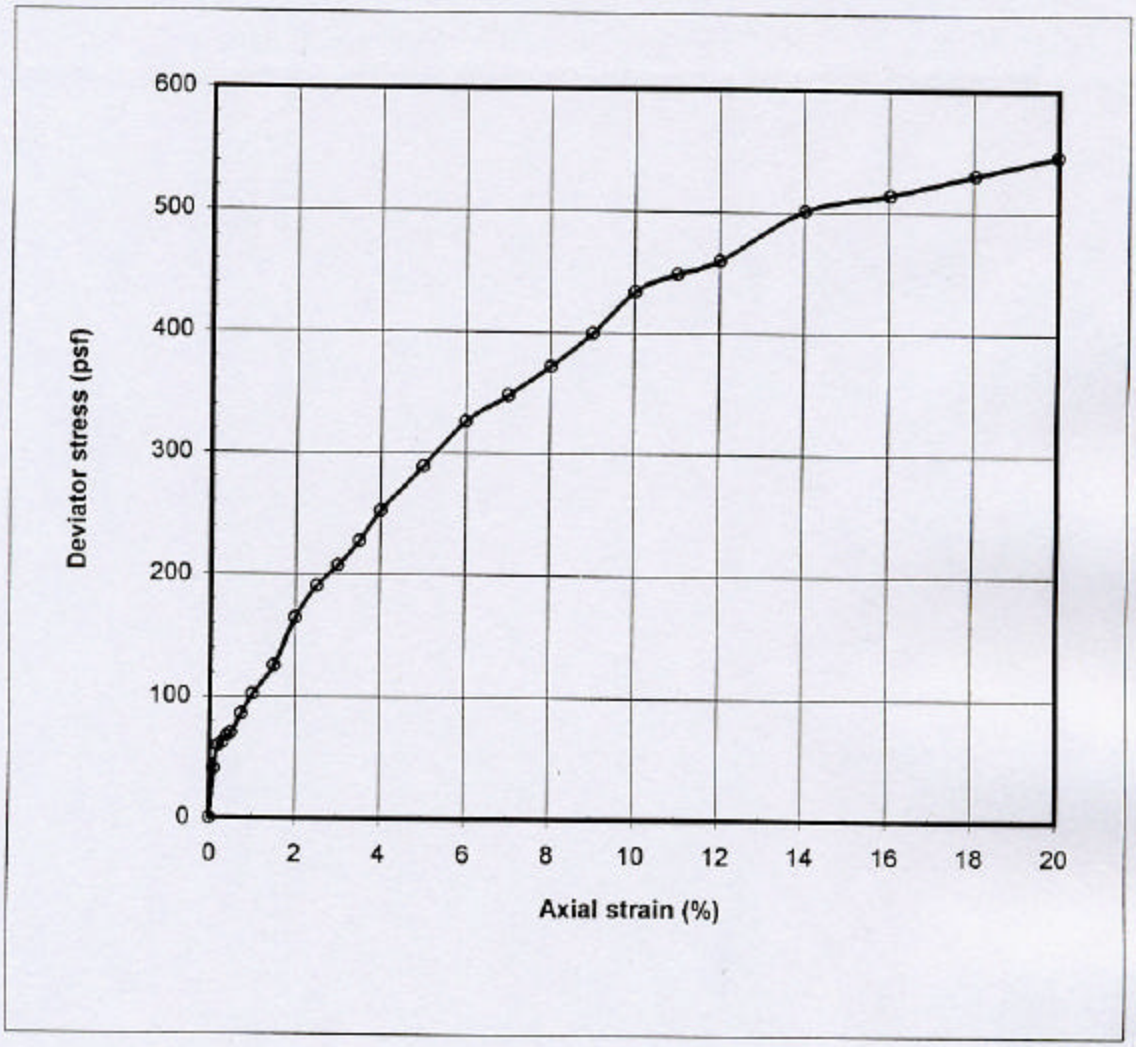
CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 3-3
Boring No. : 3 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 3 Sample Type : Shelby Depth : 10-12.5 ft
Checked by : S. Capps
Soil Description : Gray fine sa-si clay/clayey fine sa-silt w/ shell
Remarks : Trimmed from 2.86 down to 2.425 inches in diameter

Load Increment : 9/13
Stress increment from 8.00 (t/ft^2) to 16.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	0.818	0.00
2)			0.07	0.26	0.0105	0.797	1.11
3)			0.10	0.32	0.0111	0.796	1.17
4)			0.25	0.50	0.0147	0.789	1.55
5)			0.57	0.75	0.0168	0.785	1.77
6)			1.00	1.00	0.0181	0.782	1.91
7)			1.57	1.25	0.0188	0.781	1.98
8)			2.25	1.50	0.0194	0.780	2.04
9)			3.07	1.75	0.0200	0.779	2.11
10)			4.00	2.00	0.0204	0.778	2.15
11)			6.25	2.50	0.0211	0.776	2.22
12)			9.00	3.00	0.0216	0.776	2.27
13)			12.25	3.50	0.0221	0.775	2.33
14)			16.00	4.00	0.0225	0.774	2.37
15)			30.00	5.48	0.0236	0.772	2.48
16)			69.00	8.31	0.0249	0.769	2.62
17)			136.00	11.66	0.0261	0.767	2.75
18)			263.00	16.22	0.0273	0.764	2.87
19)			397.00	19.92	0.0280	0.763	2.95
20)			455.00	21.33	0.0282	0.763	2.97
21)			1332.00	36.50	0.0298	0.759	3.14
22)			1405.00	37.48	0.0299	0.759	3.15

URS



Peak deviator stress (psf)	= 546	Dry density (pcf)	= 83.4
Strain at failure (%)	= 20.0	Moisture content (%)	= 36.8
Confining pressure (psf)	= 1100	Gs (assumed)	= 2.75
Rate of shearing (%/min)	= 0.84	Void ratio	= 1.058
Specimen height (in)	= 5.984	Saturation (%)	= 95.7
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #. **3** Sample #: **3**
Project: **Rhodia Peyton Slough**	Depth (ft): **10.0-12.5**
Project #: **51-00070007.00**	Soil: **Dark gray silty clay (Bay Mud)**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia Peyton Slough
Job # : 51-00070007.00
Boring # 3
Sample # : 3
Depth (ft) : 10.0-12.5
Date tested : 01/1802
Soil : Dark gray silty clay (Bay Mud)
Undisturbed: : Shelby Tube

Specimen: Total wt. =	1152.2	gms
Ht. =	5.984	in
Ave dia. =	2.860	in
Area =	6.424	sq.in
Volume =	630.0	c.c.
Shearing rate =	0.05	inch/min
Shearing rate =	0.84	%/min
Gs (assumed) =	2.75	

Test Report: Void ratio	1.058	
Ht/Dia ratio	2.09	
Moisture	36.8	%
Total density	114.1	pcf
Dry density	83.4	pcf
Saturation	95.7	%
Chamber pressure	1100	psf
Max. deviator stress	546	psf
Strain @ failure	20.00	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	1.5	0.10	40.6
0.012	2.2	0.20	59.5
0.018	2.3	0.30	62.1
0.024	2.5	0.40	67.5
0.030	2.6	0.50	70.1
0.045	3.2	0.75	86.1
0.060	3.8	1.00	101.9
0.090	4.7	1.50	125.5
0.120	6.2	2.01	164.6
0.150	7.2	2.51	190.2
0.180	7.9	3.01	207.6
0.210	8.7	3.51	227.5
0.240	9.7	4.01	252.3
0.300	11.2	5.01	288.3
0.360	12.8	6.02	326.0
0.420	13.8	7.02	347.7
0.480	14.9	8.02	371.4
0.540	16.2	9.02	399.4
0.600	17.8	10.03	434.0
0.660	18.6	11.03	448.5
0.720	19.3	12.03	460.1
0.840	21.5	14.04	500.9
0.960	22.6	16.04	514.2
1.080	23.9	18.05	530.8
1.197	25.2	20.00	546.3

URS

Project Name: Rhodia Peyton Slough

Project Number: 51-00070007.00

Location: Martinez, CA

Date: 01/25/02

Test Method: ASTM D854

Sample Number: 3 - 4 Depth, ft. 15.0 - 17.5

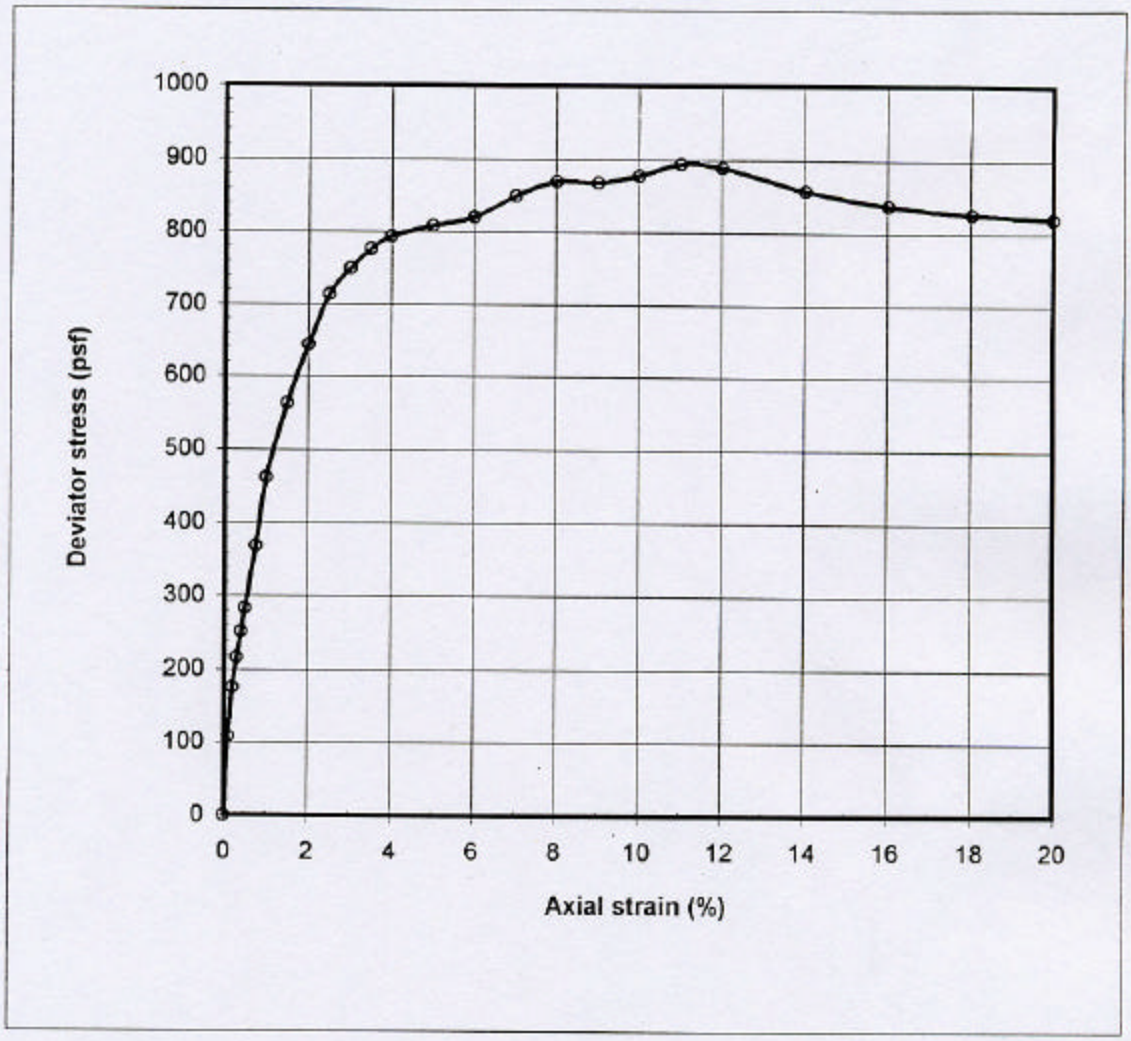
Bottle Number: 5

Description: Dark gray clayey silty sand

Determination Number	pycnometer + soil + water gms	pycnometer + water gms	temperature F	Specific Gravity
1	724.3	661.32	74.0	2.682
2	724.6	661.64	68.0	2.682
3	724.8	661.86	64.0	2.682
			Average	2.682

Oven dried soil + tare, gms	358.48
tare, gms	258.20
Oven dried soil	100.28

URS



Peak deviator stress (psf)	= 895	Dry density (pcf)	= 81.4
Strain at failure (%)	= 11.0	Moisture content (%)	= 39.0
Confining pressure (psf)	= 1700	Gs (assumed)	= 2.75
Rate of shearing (%/min)	= 0.84	Void ratio	= 1.110
Specimen height (in)	= 5.984	Saturation (%)	= 96.6
Specimen diameter (in)	= 2.860	Ht / Dia ratio	= 2.09

	Boring #: **3** Sample #: **4**
Project: **Rhodia Peyton Slough**	Depth (ft): **15.0-17.5**
Project #: **51-00070007.00**	Soil: **Dark gray silty clayey sand**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia Peyton Slough
Job # : 51-00070007.00
Boring # 3
Sample # : 4
Depth (ft) : 15.0-17.5
Date tested : 01/1802
Soil : Dark gray silty clayey sand
Undisturbed: : Shelby Tube

Specimen: Total wt. =	1141.7	grms	
Ht. =	5.984	in	
Ave dia. =	2.860	in	
Area =	6.424	sq.in	
Volume =	630.0	c.c.	
Shearing rate =	0.05	inch/min	
Shearing rate =	0.84	%/min	
Gs (assumed) =	2.75		

Test Report: Void ratio	1.110	
Ht/Dia ratio	2.09	
Moisture	39.0	%
Total density	113.1	pcf
Dry density	81.4	pcf
Saturation	96.6	%
Chamber pressure	1700	psf
Max. deviator stress	895	psf
Strain @ failure	11.03	%

Data Reduction:

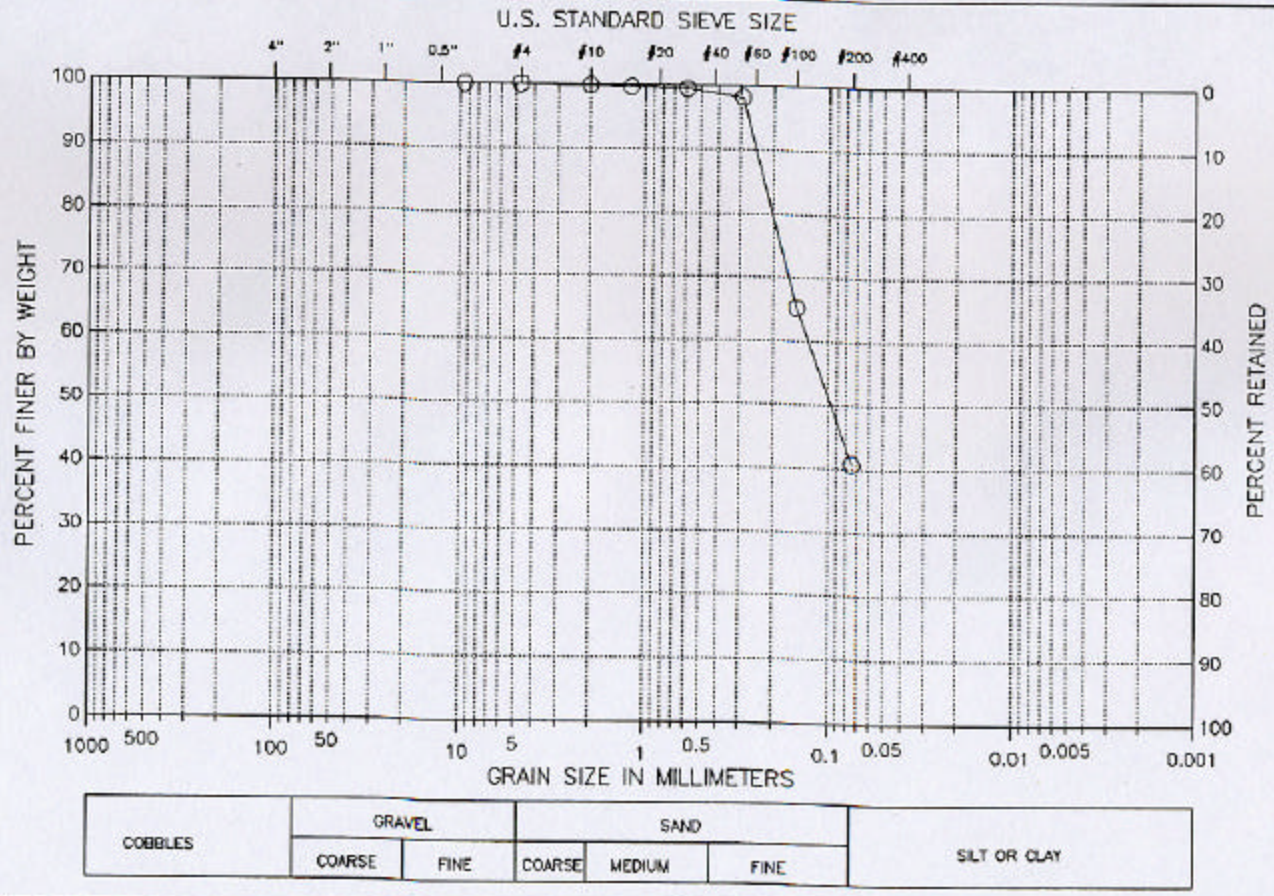
Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	4.0	0.10	108.3
0.012	6.5	0.20	175.8
0.018	8.0	0.30	216.1
0.024	9.3	0.40	251.0
0.030	10.5	0.50	283.1
0.045	13.7	0.75	368.5
0.060	17.2	1.00	461.4
0.090	21.1	1.50	563.2
0.120	24.2	2.01	642.7
0.150	27.0	2.51	713.4
0.180	28.5	3.01	749.1
0.210	29.7	3.51	776.6
0.240	30.5	4.01	793.4
0.300	31.4	5.01	808.3
0.360	32.2	6.02	820.1
0.420	33.7	7.02	849.2
0.480	34.9	8.02	869.9
0.540	35.2	9.02	867.8
0.600	36.0	10.03	877.8
0.660	37.1	11.03	894.5
0.720	37.3	12.03	889.2
0.840	36.8	14.04	857.3
0.960	36.8	16.04	837.3
1.080	37.2	18.05	826.2
1.197	37.8	20.00	819.5

URS

Boring No. : 3
Sample No: 4
Tested by : J. Hebel
Filename : 3-04

Project : Rhodia – Martinez
Project No.: 51-00070007.00
Location: Martinez, CA
Date : Wed Jan 23 2002



Classification :
(SC-SM) Silty, clayey sand
Visual Description :
Dark Gray silty clayey Sand

Remarks :
Depth: 15.0-17.5 feet

Figure 1

URS

Wed Jan 23 09:26:28 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 4
Location : Martinez, CA
Soil Description : Dark Gray silty clayey Sand
Remarks : Depth: 15.0-17.5 feet

Depth : 15.0-17.5 ft
Test Date : 01/22/02
Test Method : ASTM D422/4318

Filename : 3-04
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
0.375"	0.374	9.51	0.00	0.00	100
#4	0.187	4.75	0.04	0.04	100
#10	0.079	2.00	0.63	0.67	100
#16	0.047	1.19	1.07	1.74	100
#30	0.023	0.60	2.07	3.81	99
#50	0.012	0.30	8.03	11.84	98
#100	0.006	0.15	216.16	228.00	65
#200	0.003	0.07	161.80	389.80	41

Total Dry Weight of Sample = 657.4

D85 : 0.2243 mm
D60 : 0.1281 mm
D50 : 0.0964 mm
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : SC-SM
ASTM Group Name : Silty, clayey sand
AASHTO Group Symbol : A-4(0)
AASHTO Group Name : Silty Soils

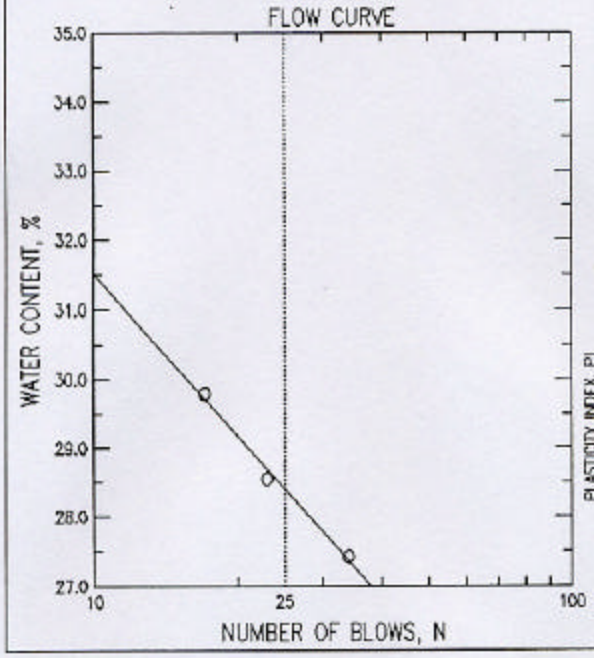
URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia – Martinez	51-00070007.00	J. Hebel	3
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	4
SAMPLE DESCRIPTION		DATE	FILENAME
Dark Gray silty clayey Sand		Wed Jan 23 2002	3-04

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	4	49	43		
WT. WET SOIL + TARE	24.31	25.08	25.64		
WT. DRY SOIL + TARE	21.59	21.9	22.25		
WT. WATER	2.72	3.18	3.39		
TARE WT.	11.67	10.76	10.87		
WT. DRY SOIL	9.92	11.14	11.38		
WATER CONTENT, W_N (%)	27.42	28.55	29.79		
NUMBER OF BLOWS, N	34	25	17		
ONE-POINT LIQUID LIMIT, LL	28.46	28.26	28.43		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	18				
WT. WET SOIL + TARE	29.24				
WT. DRY SOIL + TARE	26.88				
WT. WATER	2.36				
TARE WT.	15.94				
WT. DRY SOIL	10.94				
WATER CONTENT (%)	21.57				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	39.0
LIQUID LIMIT, LL	28.4
PLASTIC LIMIT, PL	21.6
PLASTICITY INDEX, PI	6.8
LIQUIDITY INDEX, LI*	2.55

*LI = (W – PL)/PI

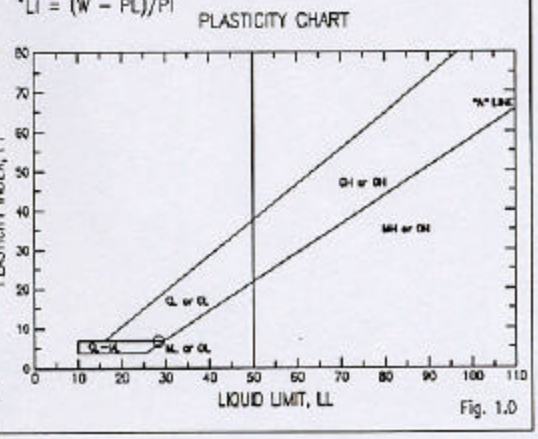


Fig. 1.0

URS

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 4
Location : Martinez, CA
Soil Description : Dark Gray silty clayey Sand
Remarks : Depth: 15.0-17.5 feet

Depth : 15.0-17.5 ft
Test Date : 01/22/02
Test Method : ASTM D422/4318

Filename : 3-04
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 3-04	0.00	1141.70	821.31	39.01

Average Moisture Content = 39.01

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 18	15.94	29.24	26.88	21.57

Plastic Limit = 21.57

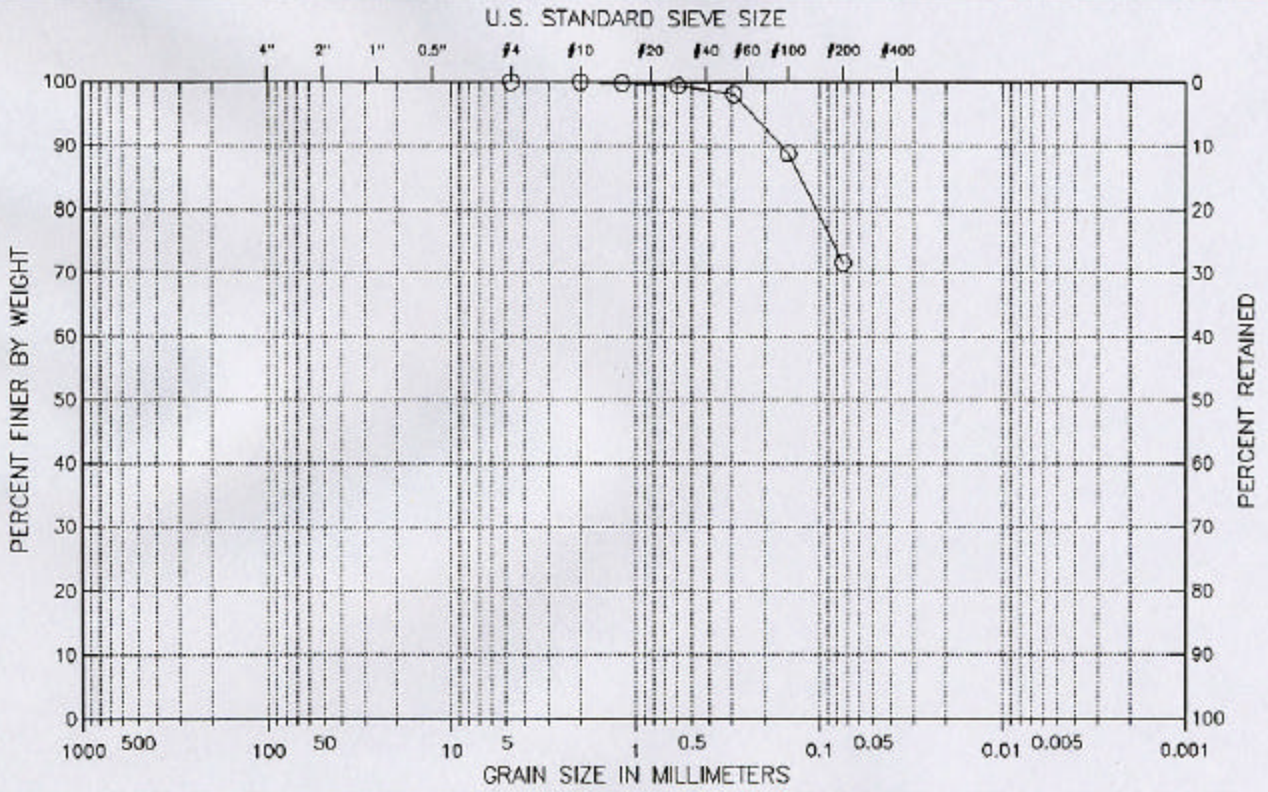
Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 4	11.67	24.31	21.59	34	27.42
2) 49	10.76	25.08	21.90	23	28.55
3) 43	10.87	25.64	22.25	17	29.79

Liquid Limit = 28.40
Plastic Index = 6.83

URS

	Boring No. : 3 Sample No: 6 Tested by : J. Hebel Filename : 3-06	Project : Rhodia Peyton Slough Project No.: 51-00070007.00 Location: Martinez, CA Date : Mon Jan 21 2002



Classification :

Visual Description :
Gray sandy silty Clay

Remarks :
Depth: 25.0-26.5 feet

Figure 1

URS

Mon Jan 21 09:35:44 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 6
Location : Martinez, CA
Soil Description : Gray sandy silty Clay
Remarks : Depth: 25.0-26.5 feet

Depth : 25.0-26.5 ft
Test Date : 01/21/02
Test Method : ASTM D422

Filename : 3-06
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

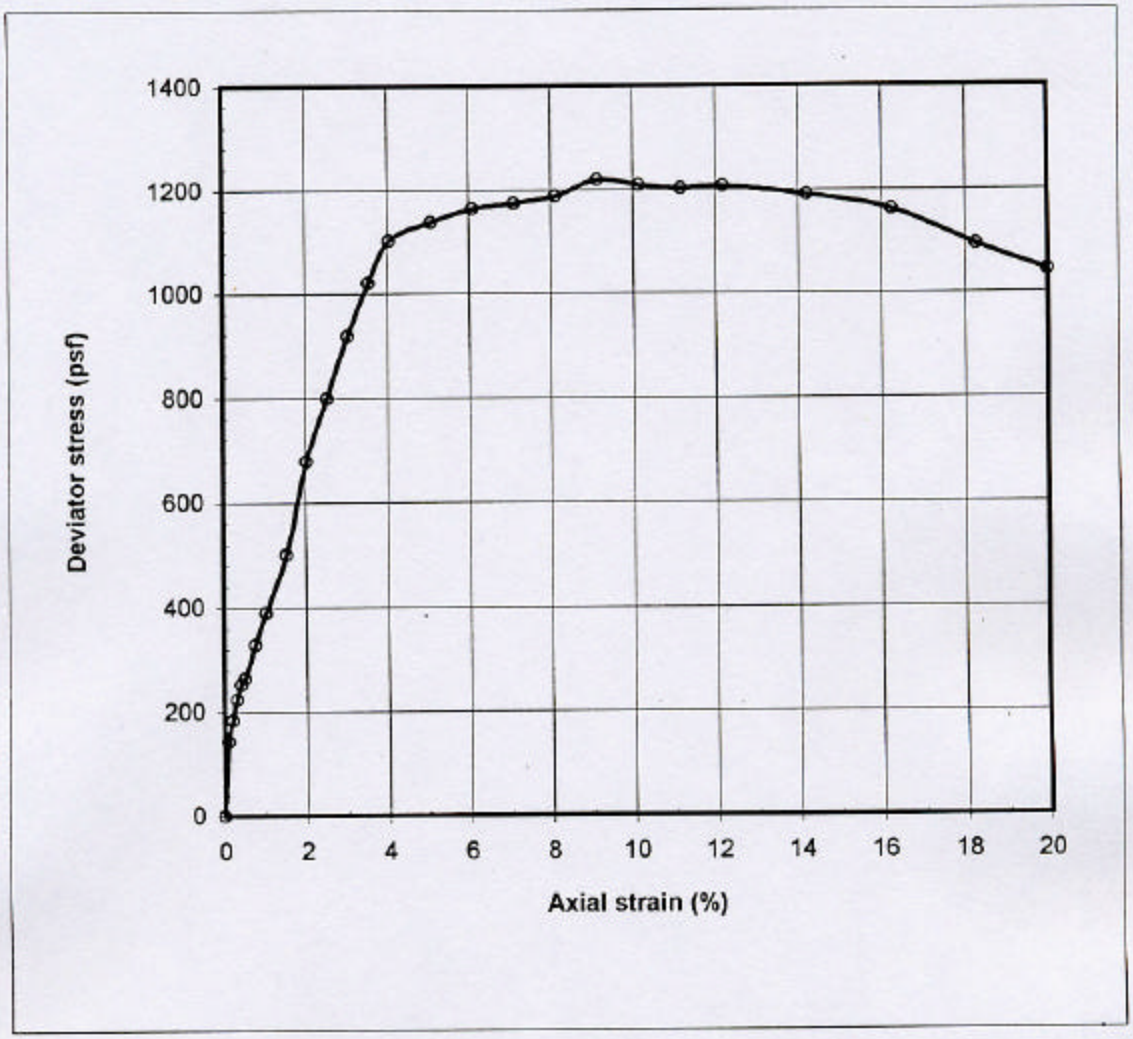
Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#4	0.187	4.75	0.00	0.00	100
#10	0.079	2.00	0.01	0.01	100
#16	0.047	1.19	0.31	0.32	100
#30	0.023	0.60	1.30	1.62	100
#50	0.012	0.30	4.85	6.47	98
#100	0.006	0.15	32.25	38.72	89
#200	0.003	0.07	60.02	98.74	72

Total Dry Weight of Sample = 348.8

D85 : 0.1271 mm
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-4(0)
AASHTO Group Name : Silty Soils

URS



Peak deviator stress (psf)	= 1218	Dry density (pcf)	= 75.4
Strain at failure (%)	= 9.1	Moisture content (%)	= 49.2
Confining pressure (psf)	= 3700	Gs (assumed)	= 3.10
Rate of shearing (%/min)	= 0.85	Void ratio	= 1.568
Specimen height (in)	= 5.906	Saturation (%)	= 97.3
Specimen diameter (in)	= 2.325	Ht / Dia ratio	= 2.54

	Boring #. **3** Sample #: **8**
Project: **Rhodia Peyton Slough**	Depth (ft): **35.0-37.5**
Project #: **51-00070007.00**	Soil: **Dark gray silty clay (Bay Mud)**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia Peyton Slough
Job # : 51-00070007.00
Boring # 3
Sample # : 8
Depth (ft) : 35.0-37.5
Date tested : 01/1802
Soil : Dark gray silty clay (Bay Mud)
Undisturbed: : Shelby Tube

Specimen: Total wt.	=	740.4	gms
Ht.	=	5.906	in
Ave dia.	=	2.325	in
Area	=	4.246	sq.in
Volume	=	410.9	c.c.
Shearing rate	=	0.05	inch/min
Shearing rate	=	0.85	%/min
Gs (assumed)	=	3.10	

Test Report:		
Void ratio	1.568	
Ht/Dia ratio	2.54	
Moisture	49.2	%
Total density	112.4	pcf
Dry density	75.4	pcf
Saturation	97.3	%
Chamber pressure	3700	psf
Max. deviator stress	1218	psf
Strain @ failure	9.14	%

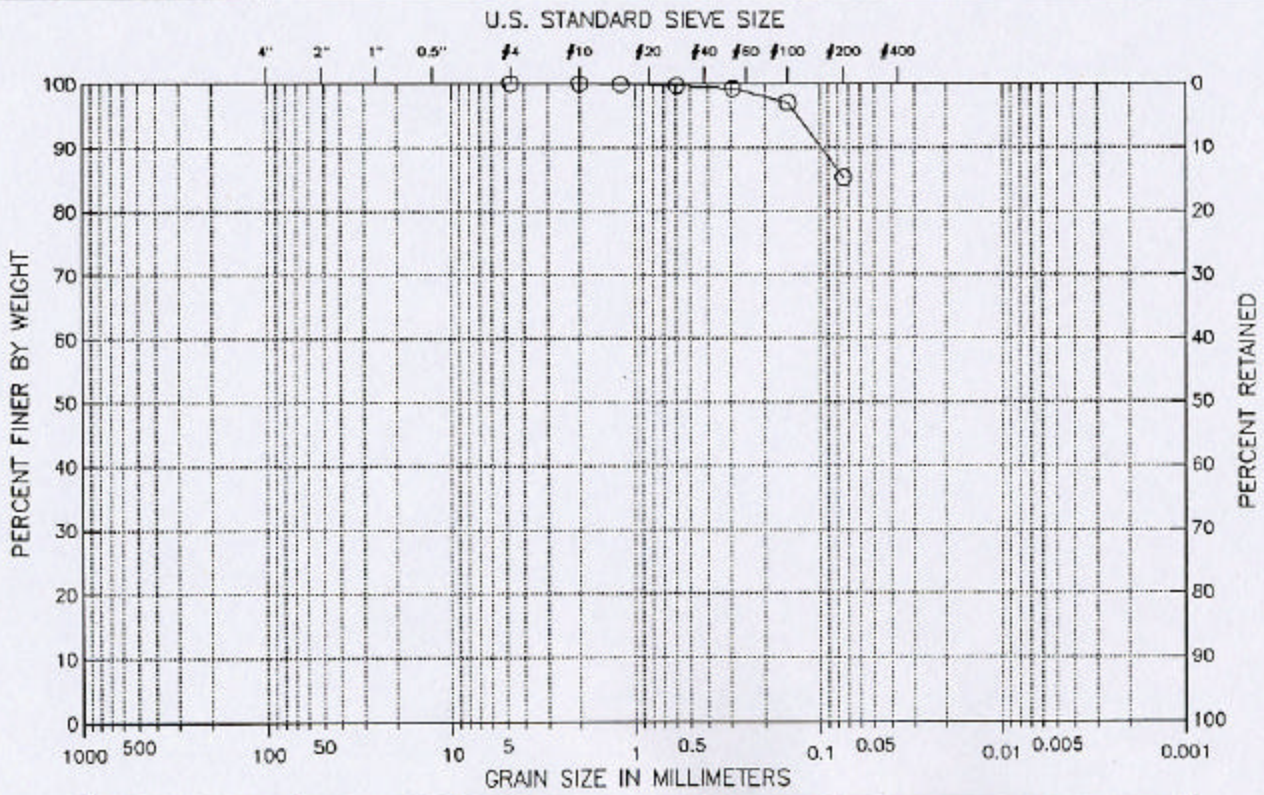
Data Reduction:

Dial factor =	1.0	in/unit
Load factor =	1.2	lb/unit

Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	3.5	0.10	143.4
0.012	4.5	0.20	184.2
0.018	5.5	0.30	224.8
0.024	6.2	0.41	253.2
0.030	6.5	0.51	265.2
0.045	8.1	0.76	329.6
0.060	9.6	1.02	389.7
0.090	12.4	1.52	500.7
0.120	16.9	2.03	678.9
0.150	20.0	2.54	799.3
0.180	23.1	3.05	918.4
0.210	25.8	3.56	1020.3
0.240	28.0	4.06	1101.5
0.300	29.2	5.08	1136.6
0.360	30.2	6.10	1162.9
0.420	30.8	7.11	1173.2
0.480	31.5	8.13	1186.7
0.540	32.7	9.14	1218.3
0.600	32.8	10.16	1208.4
0.660	33.0	11.18	1202.0
0.720	33.5	12.19	1206.2
0.840	33.8	14.22	1188.9
0.960	33.8	16.25	1160.7
1.080	32.6	18.29	1092.4
1.181	31.8	20.00	1043.2

URS

	Boring No. : 3 Sample No: 8 Tested by : J. Hebel Filename : 3-08	Project : Rhodia - Martinez Project No.: 51-00070007.00 Location: Martinez, CA Date : Wed Jan 23 2002



Classification :
(CL) lean clay
Visual Description :
Dark Gray silty Clay

Remarks :
Depth: 35.0-37.5 feet

Figure 1

URS

Wed Jan 23 09:30:23 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 8
Location : Martinez, CA
Soil Description : Dark Gray silty Clay
Remarks : Depth: 35.0-37.5 feet

Depth : 35.0-37.5 ft
Test Date : 01/22/02
Test Method : ASTM D422/4318

Filename : 3-08
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#4	0.187	4.75	0.00	0.00	100
#10	0.079	2.00	0.05	0.05	100
#16	0.047	1.19	0.27	0.32	100
#30	0.023	0.60	0.78	1.10	100
#50	0.012	0.30	2.23	3.33	99
#100	0.006	0.15	9.32	12.65	97
#200	0.003	0.07	50.49	63.14	85

Total Dry Weight of Sample = 430.35

D85 : N/A
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

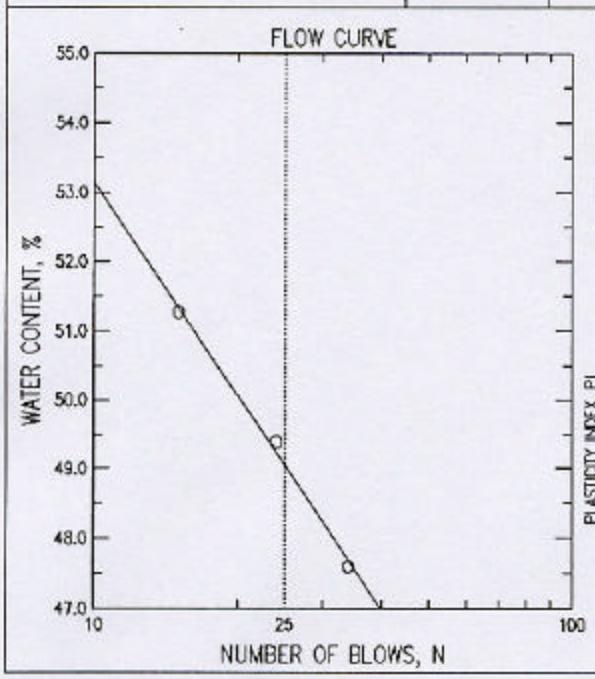
Soil Classification
ASTM Group Symbol : CL
ASTM Group Name : lean clay
AASHTO Group Symbol : A-7-6(25)
AASHTO Group Name : Clayey Soils

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia – Martinez	51-00070007.00	J. Hebel	3
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	8
SAMPLE DESCRIPTION		DATE	FILENAME
Dark Grey silty Clay		Wed Jan 23 2002	3-08

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	216	8	99		
WT. WET SOIL + TARE	26.7	26.96	25.68		
WT. DRY SOIL + TARE	21.55	21.72	20.63		
WT. WATER	5.15	5.24	5.05		
TARE WT.	10.73	11.11	10.78		
WT. DRY SOIL	10.82	10.61	9.85		
WATER CONTENT, W_N (%)	47.60	49.39	51.27		
NUMBER OF BLOWS, N	34	24	15		
ONE-POINT LIQUID LIMIT, LL	49.40	49.14	48.20		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	13				
WT. WET SOIL + TARE	28.34				
WT. DRY SOIL + TARE	25.81				
WT. WATER	2.53				
TARE WT.	15.61				
WT. DRY SOIL	10.2				
WATER CONTENT (%)	24.80				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	49.2
LIQUID LIMIT, LL	49.1
PLASTIC LIMIT, PL	24.8
PLASTICITY INDEX, PI	24.3
LIQUIDITY INDEX, LI*	1.01

*LI = (W – PL)/PI

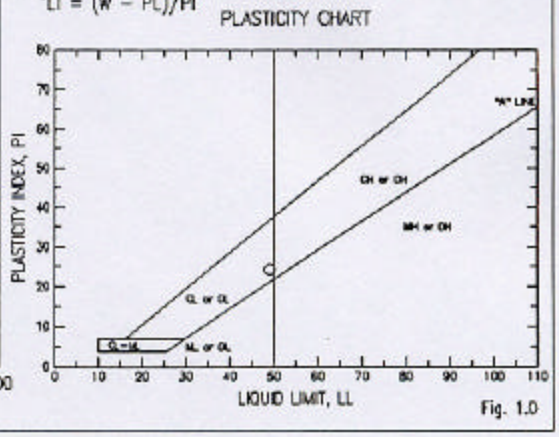


Fig. 1.0

URS

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia - Martinez
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 8
Location : Martinez, CA
Soil Description : Dark Gray silty Clay
Remarks : Depth: 35.0-37.5 feet

Depth : 35.0-37.5 ft
Test Date : 01/22/02
Test Method : ASTM D422/4318

Filename : 3-08
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 3-08	0.00	740.40	496.18	49.22

Average Moisture Content = 49.22

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 13	15.61	28.34	25.81	24.80

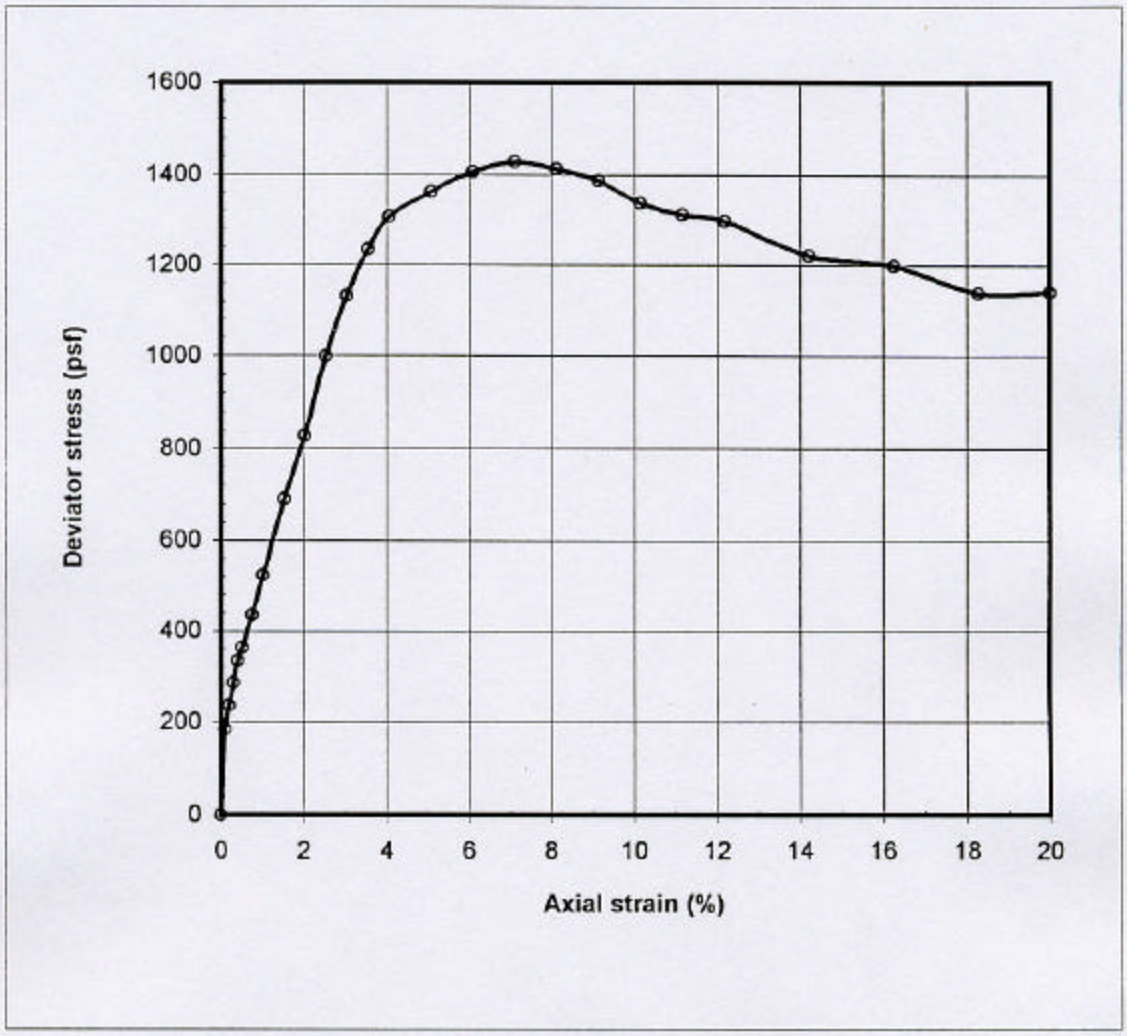
Plastic Limit = 24.80

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 216	10.73	26.70	21.55	34	47.60
2) 8	11.11	26.96	21.72	24	49.39
3) 99	10.78	25.68	20.63	15	51.27

Liquid Limit = 49.05
Plastic Index = 24.25

URS



Peak deviator stress (psf)	= 1428	Dry density (pcf)	= 71.8
Strain at failure (%)	= 7.1	Moisture content (%)	= 52.9
Confining pressure (psf)	= 5200	Gs (assumed)	= 3.10
Rate of shearing (%/min)	= 0.85	Void ratio	= 1.695
Specimen height (in)	= 5.906	Saturation (%)	= 96.8
Specimen diameter (in)	= 2.325	Ht / Dia ratio	= 2.54

	Boring #. **3** Sample #: **11**
Project: **Rhodia Peyton Slough**	Depth (ft): **50.0-52.5**
Project #: **51-00070007.00**	Soil: **Dark gray silty clay (Bay Mud)**

URS

UNCONSOLIDATED-UNDRAINED TRIAXIAL COMPRESSION TEST
ASTM D2850

Project : Rhodia Peyton Slough
Job # : 51-00070007.00
Boring # 3
Sample # : 11
Depth (ft) : 50.0-52.5
Date tested : 01/1802
Soil : Dark gray silty clay (Bay Mud)
Undisturbed: : Shelby Tube

Specimen: Total wt. =	723.0	gms	
Ht. =	5.906	in	
Ave dia. =	2.325	in	
Area =	4.246	sq.in	
Volume =	410.9	c.c.	
Shearing rate =	0.05	inch/min	
Shearing rate =	0.85	%/min	
Gs (assumed) =	3.10		

Test Report: Void ratio	1.695	
Ht/Dia ratio	2.54	
Moisture	52.9	%
Total density	109.8	pcf
Dry density	71.8	pcf
Saturation	96.8	%
Chamber pressure	5200	psf
Max. deviator stress	1428	psf
Strain @ failure	7.11	%

Data Reduction:

Dial factor = 1.0 in/unit
Load factor = 1.2 lb/unit

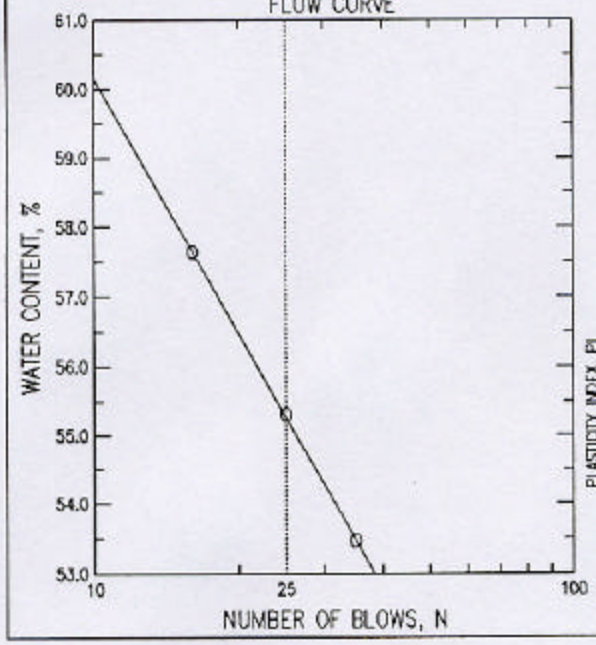
Dial Read.	Load Read.	Axial Strain (%)	Deviator Stress (psf)
0.000	0.0	0.00	0.0
0.006	4.5	0.10	184.3
0.012	5.8	0.20	237.4
0.018	7.0	0.30	286.2
0.024	8.2	0.41	334.9
0.030	8.9	0.51	363.1
0.045	10.7	0.76	435.4
0.060	12.9	1.02	523.6
0.090	17.1	1.52	690.5
0.120	20.6	2.03	827.6
0.150	25.0	2.54	999.1
0.180	28.5	3.05	1133.1
0.210	31.2	3.56	1233.9
0.240	33.2	4.06	1306.1
0.300	35.0	5.08	1362.3
0.360	36.5	6.10	1405.5
0.420	37.5	7.11	1428.4
0.480	37.5	8.13	1412.8
0.540	37.2	9.14	1386.0
0.600	36.3	10.16	1337.3
0.660	36.0	11.18	1311.3
0.720	36.0	12.19	1296.3
0.840	34.7	14.22	1220.5
0.960	34.9	16.25	1198.5
1.080	34.0	18.29	1139.3
1.181	34.8	20.00	1141.7

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	3
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	11
SAMPLE DESCRIPTION		DATE	FILENAME
Brownish Gray silty Clay		Wed Jan 23 2002	3-11

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	15	151	55		
WT. WET SOIL + TARE	23.65	24.83	24.21		
WT. DRY SOIL + TARE	19.25	20.14	19.42		
WT. WATER	4.4	4.69	4.79		
TARE WT.	11.02	11.66	11.11		
WT. DRY SOIL	8.23	8.48	8.31		
WATER CONTENT, W_N (%)	53.46	55.31	57.64		
NUMBER OF BLOWS, N	35	25	16		
ONE-POINT LIQUID LIMIT, LL	55.68	55.31	54.61		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	16				
WT. WET SOIL + TARE	27.92				
WT. DRY SOIL + TARE	25.27				
WT. WATER	2.65				
TARE WT.	15.76				
WT. DRY SOIL	9.51				
WATER CONTENT (%)	27.87				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	52.9
LIQUID LIMIT, LL	55.3
PLASTIC LIMIT, PL	27.9
PLASTICITY INDEX, PI	27.4
LIQUIDITY INDEX, LI*	0.91

*LI = (W - PL)/PI

PLASTICITY CHART

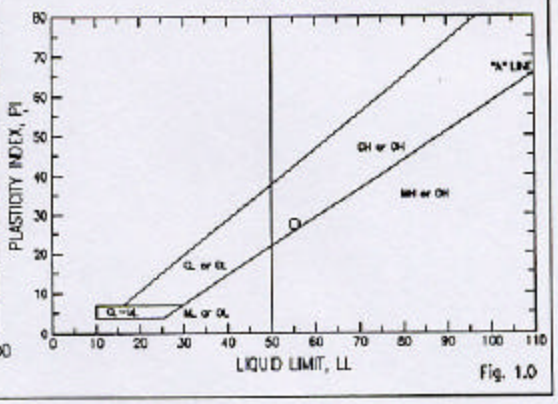


Fig. 1.0

URS

Wed Jan 23 09:33:08 2002 Page : 1

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 3
Sample No. : 11
Location : Martinez, CA
Soil Description : Brownish Gray silty Clay
Remarks :

Depth : 50.0-52.5 ft
Test Date : 01/22/02
Test Method : ASTM D4318

Filename : 3-11
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 3-11	0.00	723.00	472.80	52.92

Average Moisture Content = 52.92

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 16	15.76	27.92	25.27	27.87

Plastic Limit = 27.87

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 15	11.02	23.65	19.25	35	53.46
2) 151	11.66	24.83	20.14	25	55.31
3) 55	11.11	24.21	19.42	16	57.64

Liquid Limit = 55.28
Plastic Index = 27.41

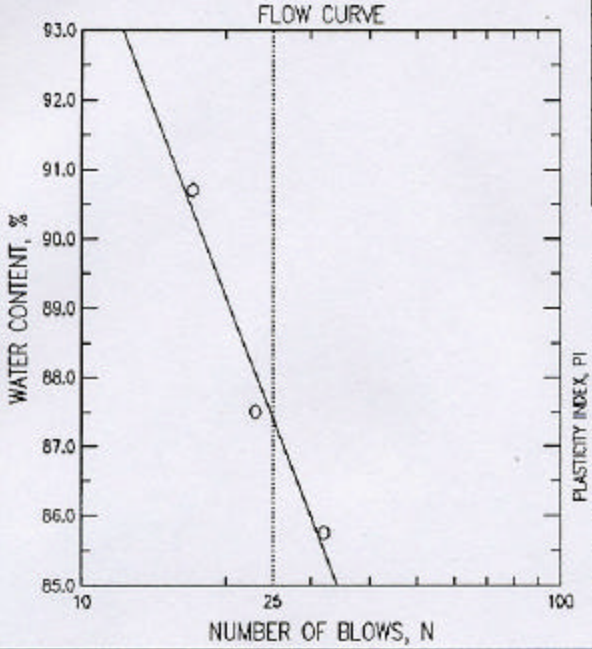
URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	4
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	1
SAMPLE DESCRIPTION		DATE	FILENAME
Gray clayey Silt to clayey organic Silt		Mon Feb 04 2002	4-01

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	133	132	34		
WT. WET SOIL + TARE	24.31	24.89	24.27		
WT. DRY SOIL + TARE	18.11	18.45	17.83		
WT. WATER	6.2	6.44	6.44		
TARE WT.	10.88	11.09	10.73		
WT. DRY SOIL	7.23	7.36	7.1		
WATER CONTENT, W_N (%)	85.75	87.50	90.70		
NUMBER OF BLOWS, N	32	23	17		
ONE-POINT LIQUID LIMIT, LL	88.35	86.62	86.57		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	110				
WT. WET SOIL + TARE	28.53				
WT. DRY SOIL + TARE	25.03				
WT. WATER	3.5				
TARE WT.	16.21				
WT. DRY SOIL	8.82				
WATER CONTENT (%)	39.68				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	108.2
LIQUID LIMIT, LL	87.4
PLASTIC LIMIT, PL	39.7
PLASTICITY INDEX, PI	47.7
LIQUIDITY INDEX, LI*	1.44

*LI = (W - PL)/PI

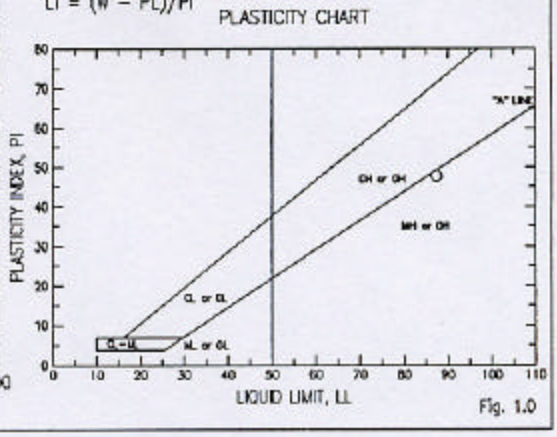


Fig. 1.0

URS

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 4
Sample No. : 1
Location : Martinez, CA
Soil Description : Gray clayey Silt to clayey organic Silt
Remarks : Depth: 0.0-2.5 feet

Depth : 0.0-2.5 ft
Test Date : 02/01/02
Test Method : ASTM 4318/1140

Filename : 4-01
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 4-01	47.30	142.75	93.14	108.22

Average Moisture Content = 108.22

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 110	16.21	28.53	25.03	39.68

Plastic Limit = 39.68

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 133	10.88	24.31	18.11	32	85.75
2) 132	11.09	24.89	18.45	23	87.50
3) 34	10.73	24.27	17.83	17	90.70

Liquid Limit = 87.41
Plastic Index = 47.73

URS

Mon Feb 04 09:16:56 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 4
Sample No. : 1
Location : Martinez, CA
Soil Description : Gray clayey Silt to clayey organic Silt
Remarks : Depth: 0.0-2.5 feet

Depth : 0.0-2.5 ft
Test Date : 02/01/02
Test Method : ASTM 4318/1140

Filename : 4-01
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

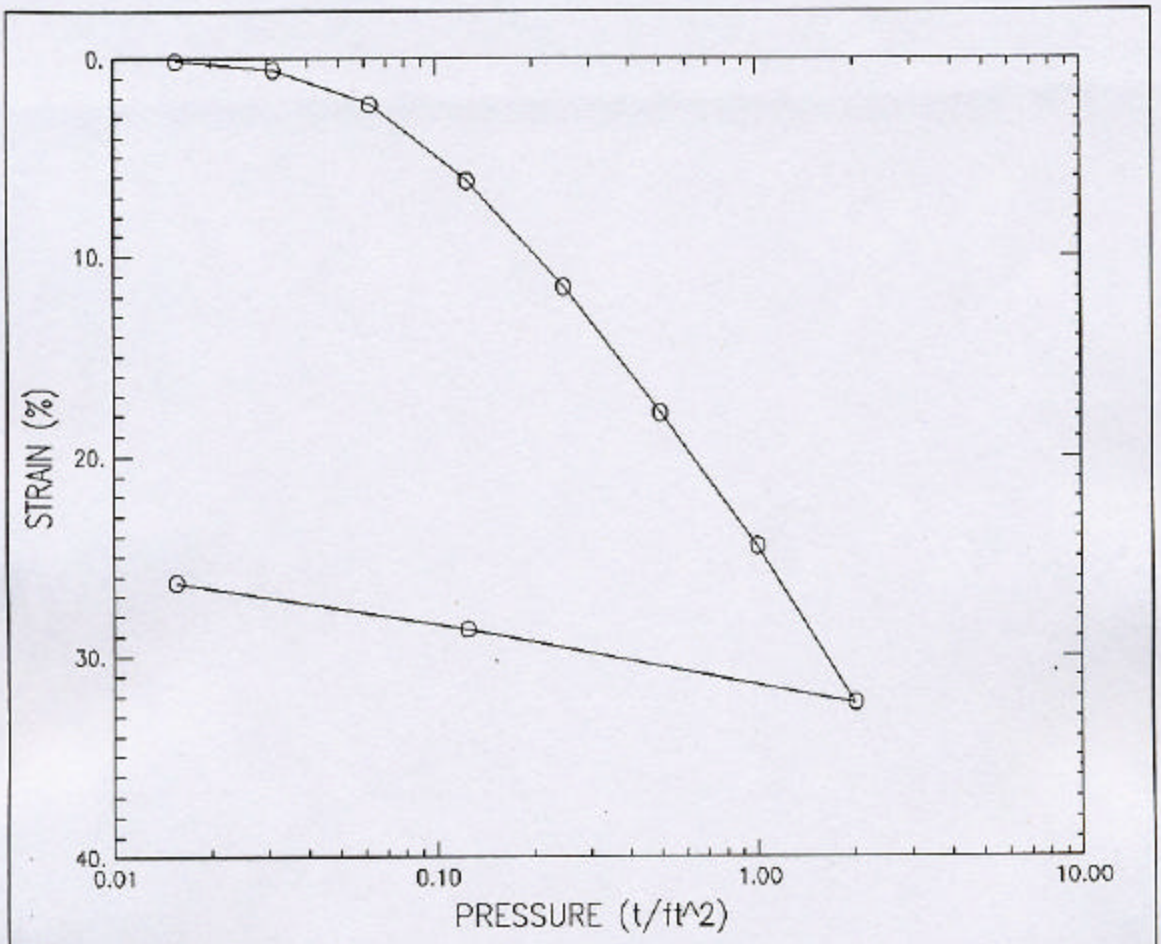
Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#200	0.003	0.07	15.29	15.29	88

Total Dry Weight of Sample = 123.6

D85 : N/A
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : MH
ASTM Group Name : elastic silt
AASHTO Group Symbol : A-7-5(56)
AASHTO Group Name : Clayey Soils

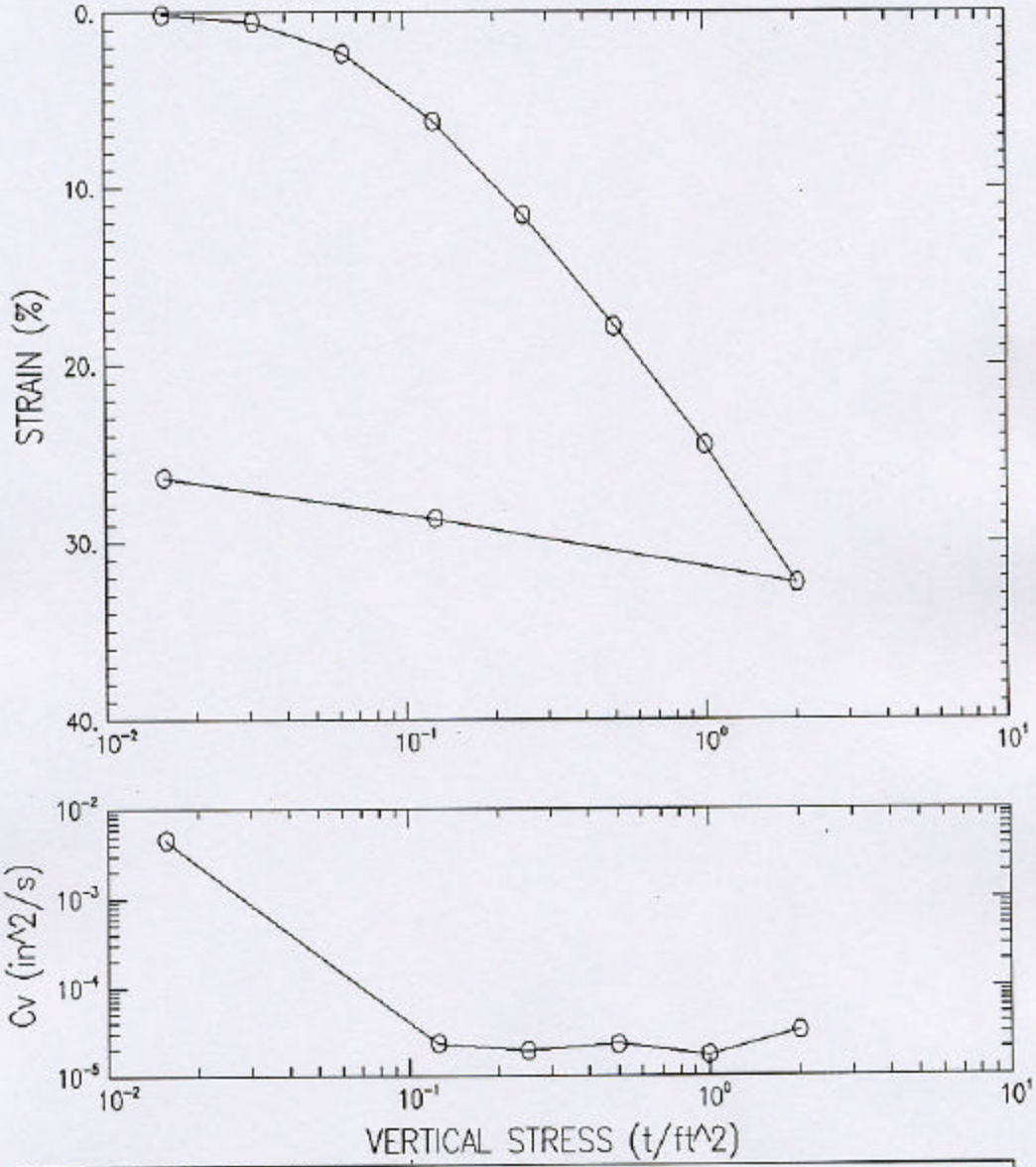
URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	108.207	70.288
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	43.148	58.533
COMPRESSION INDEX		SATURATION (%)	99.895	99.995
TYPE SPECIMEN		VOID RATIO	2.979	1.933
DIA. (in) 2.429	HT. (in) 0.954	BACK PRESSURE (t/ft^2)		
CLASSIFICATION Gray silty organic clay (OH)				
LL 87.4	PL 39.7 PI 47.7	PROJECT Rhodia Peyton Slough		
GS 2.750	D_{10}	Data File: RHO-4-1.CON		
REMARKS		BORING NO. 4	SAMPLE NO. 1	
		DEPTH 0-2.5 feet	DATE 1/30/02	
		Woodward Clyde Consultants CONSOLIDATION TEST REPORT		

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 1
Test Date : 1/30/02 Test No : 4-1 Depth : 0-2.5 feet
Description : Gray silty organic clay (OH)

URS

Wed Feb 13 17:14:38 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-1
Boring No. : 4 Test Date : 1/30/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.02	0.001	2.974	0.12	0.2	0.0	4.53E-003	0.00E+000	0.00E+000
2)	0.03	0.005	2.957	0.56	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
3)	0.06	0.022	2.886	2.33	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
4)	0.13	0.059	2.733	6.19	29.7	0.0	2.31E-005	0.00E+000	0.00E+000
5)	0.25	0.110	2.519	11.55	32.8	0.0	1.89E-005	0.00E+000	0.00E+000
6)	0.50	0.170	2.268	17.86	24.2	0.0	2.25E-005	0.00E+000	0.00E+000
7)	1.00	0.234	2.004	24.49	27.3	0.0	1.70E-005	0.00E+000	0.00E+000
8)	2.00	0.308	1.693	32.32	12.0	0.0	3.19E-005	0.00E+000	0.00E+000
9)	0.13	0.273	1.840	28.63	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
10)	0.02	0.251	1.932	26.30	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

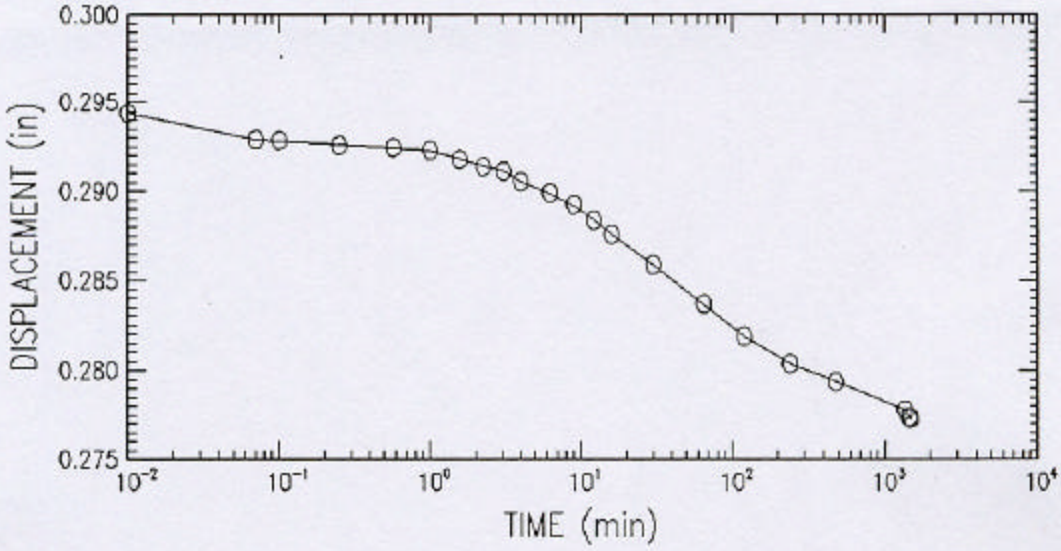
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-1
Boring No. : 4 Test Date : 1/30/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

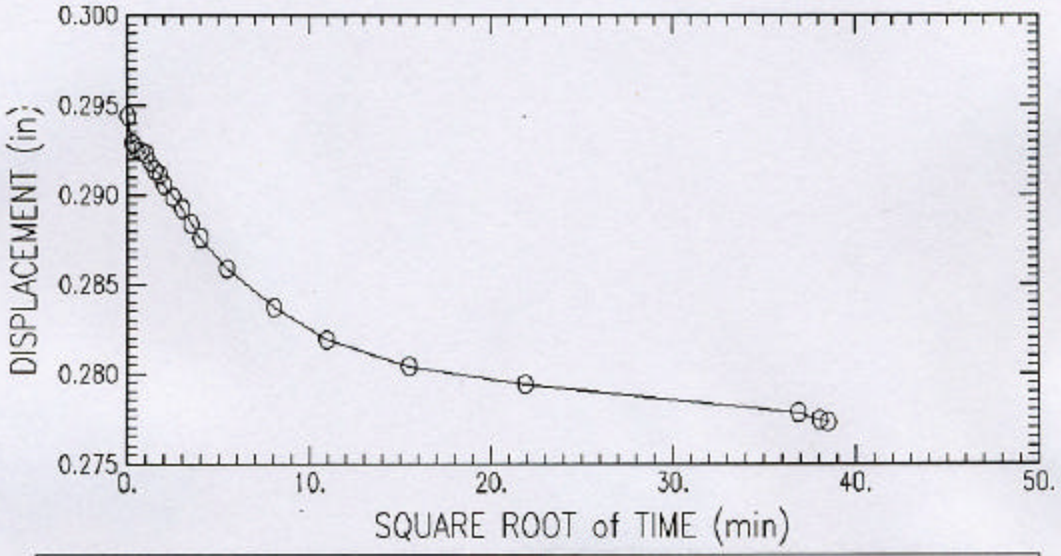
Liquid Limit : 87.41 Plastic Limit : 39.68 Plasticity Index : 47.73
Specific Gravity : 2.75 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 2.98 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	142.75	287.85	268.86	268.86
WT CONTAINER + DRY SOIL (gm)	93.14	233.66	233.66	233.66
WT CONTAINER (gm)	47.30	183.58	183.58	183.58
WT DRY SOIL (gm)	45.84	50.08	50.08	50.08
WATER CONTENT (%)	108.22	108.21	70.29	70.29
VOID RATIO	------	2.98	1.93	------
DEGREE OF SATURATION (%)	------	99.89	100.00	------
DRY DENSITY (lb/ft^3)	------	43.15	58.53	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 10)
STRESS : 0.063 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 1
Test Date : 1/30/02 Test No : 4-1 Depth : 0-2.5 feet
Description : Gray silty organic clay (OH)

URS

CONSOLIDATION TEST DATA

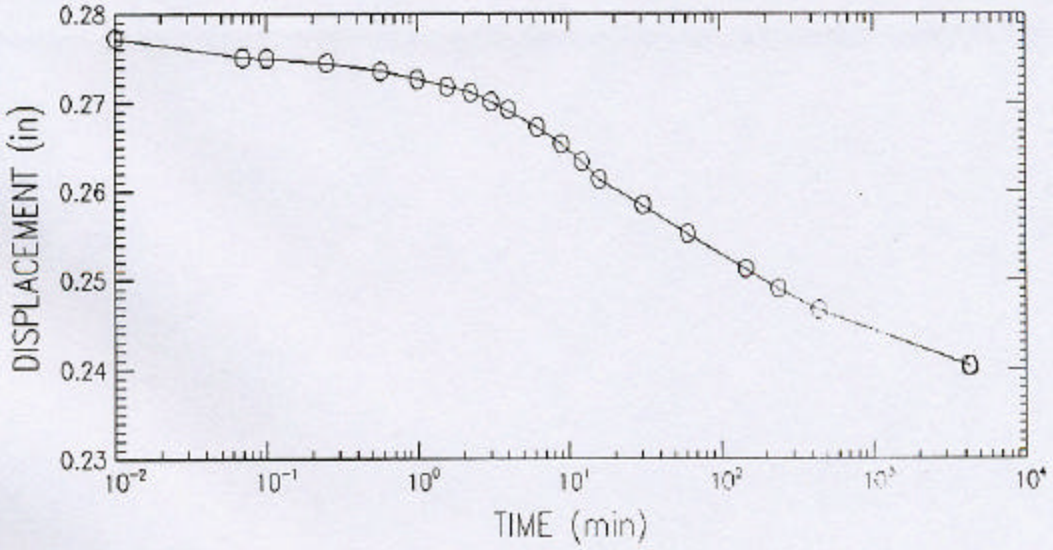
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-1
Boring No. : 4 Test Date : 1/30/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

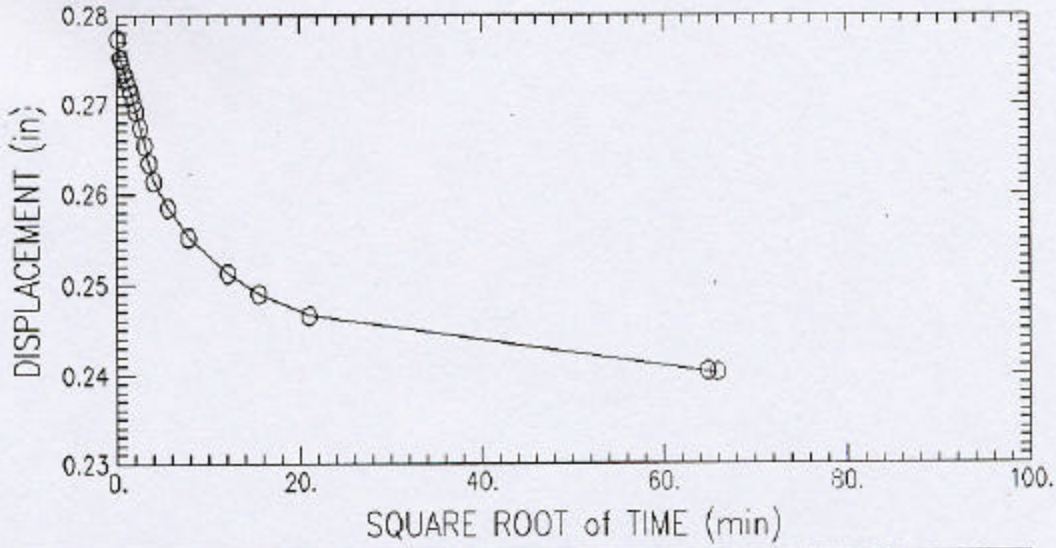
Load Increment : 3/10
Stress increment from 0.03 (t/ft^2) to 0.06 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.962	0.00
2)			0.07	0.26	0.0015	2.955	0.16
3)			0.10	0.32	0.0015	2.955	0.16
4)			0.25	0.50	0.0018	2.954	0.19
5)			0.57	0.75	0.0020	2.954	0.20
6)			1.00	1.00	0.0021	2.953	0.22
7)			1.57	1.25	0.0026	2.951	0.27
8)			2.25	1.50	0.0030	2.949	0.31
9)			3.07	1.75	0.0032	2.948	0.34
10)			4.00	2.00	0.0039	2.946	0.40
11)			6.25	2.50	0.0045	2.943	0.47
12)			9.00	3.00	0.0051	2.940	0.54
13)			12.25	3.50	0.0060	2.937	0.63
14)			16.00	4.00	0.0068	2.933	0.71
15)			30.00	5.48	0.0085	2.926	0.89
16)			65.00	8.06	0.0107	2.917	1.12
17)			120.00	10.95	0.0125	2.910	1.31
18)			240.00	15.49	0.0140	2.903	1.47
19)			480.00	21.91	0.0150	2.899	1.57
20)			1361.00	36.89	0.0166	2.892	1.74
21)			1448.00	38.05	0.0170	2.891	1.78
22)			1484.00	38.52	0.0171	2.890	1.79

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 10)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 1
Test Date : 1/30/02 Test No : 4-1 Depth : 0-2.5 feet
Description : Gray silty organic clay (OH)

URS

Wed Feb 13 17:22:36 2002

CONSOLIDATION TEST DATA

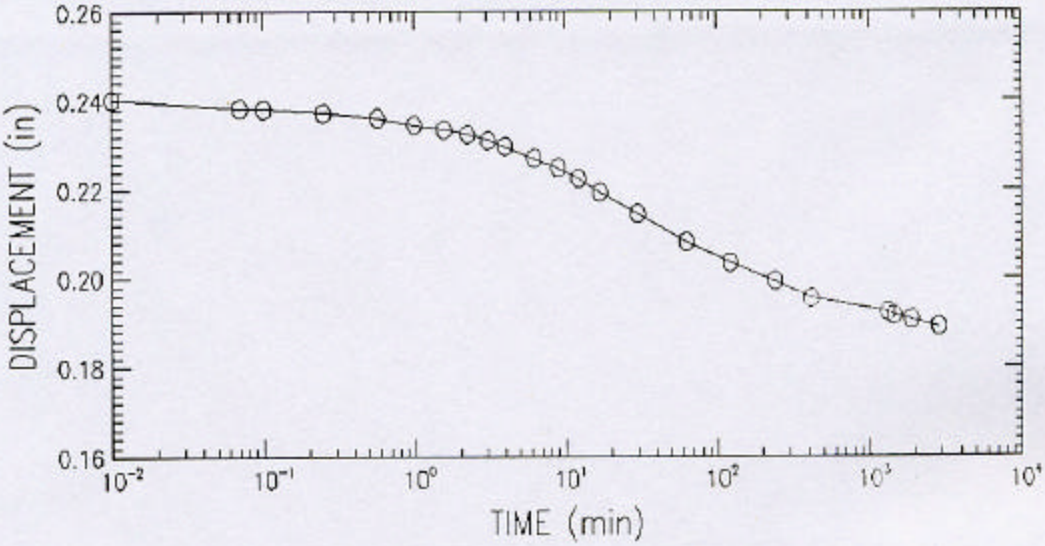
Project : Rhodia Peyton Slough
Location : Martinez, CA
Project No. : 5100070007
Test No. : 4-1
Boring No. : 4
Test Date : 1/30/02
Tested by : C. Wason
Sample No. : 1
Sample Type : Shelby
Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

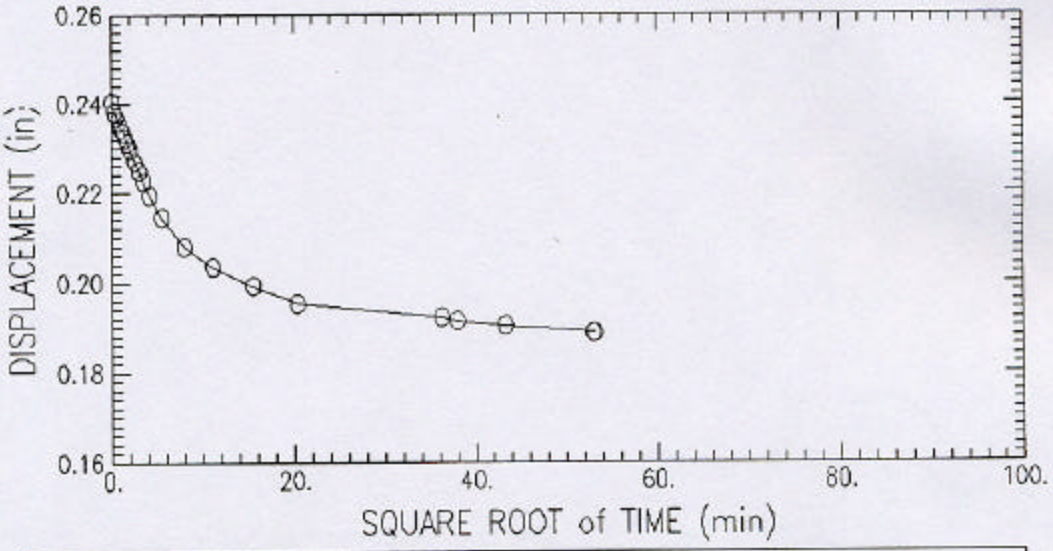
Load Increment : 4/10
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.909	0.00
2)			0.07	0.26	0.0022	2.899	0.23
3)			0.10	0.32	0.0023	2.899	0.24
4)			0.25	0.50	0.0028	2.897	0.29
5)			0.57	0.75	0.0037	2.893	0.39
6)			1.00	1.00	0.0046	2.889	0.48
7)			1.57	1.25	0.0054	2.886	0.57
8)			2.25	1.50	0.0061	2.883	0.64
9)			3.07	1.75	0.0071	2.879	0.74
10)			4.00	2.00	0.0080	2.875	0.84
11)			6.25	2.50	0.0100	2.867	1.04
12)			9.00	3.00	0.0118	2.859	1.24
13)			12.25	3.50	0.0139	2.851	1.46
14)			16.00	4.00	0.0159	2.842	1.67
15)			31.00	5.57	0.0188	2.830	1.97
16)			61.00	7.81	0.0220	2.817	2.31
17)			147.00	12.12	0.0260	2.800	2.72
18)			240.00	15.49	0.0283	2.791	2.97
19)			442.00	21.02	0.0307	2.781	3.22
20)			4207.00	64.86	0.0369	2.755	3.87
21)			4347.00	65.93	0.0370	2.754	3.88

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 10)
STRESS : 0.25 (t/ft^2) .





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 1
Test Date : 1/30/02 Test No : 4-1 Depth : 0-2.5 feet
Description : Gray silty organic clay (OH)

URS

Wed Feb 13 17:22:58 2002

CONSOLIDATION TEST DATA

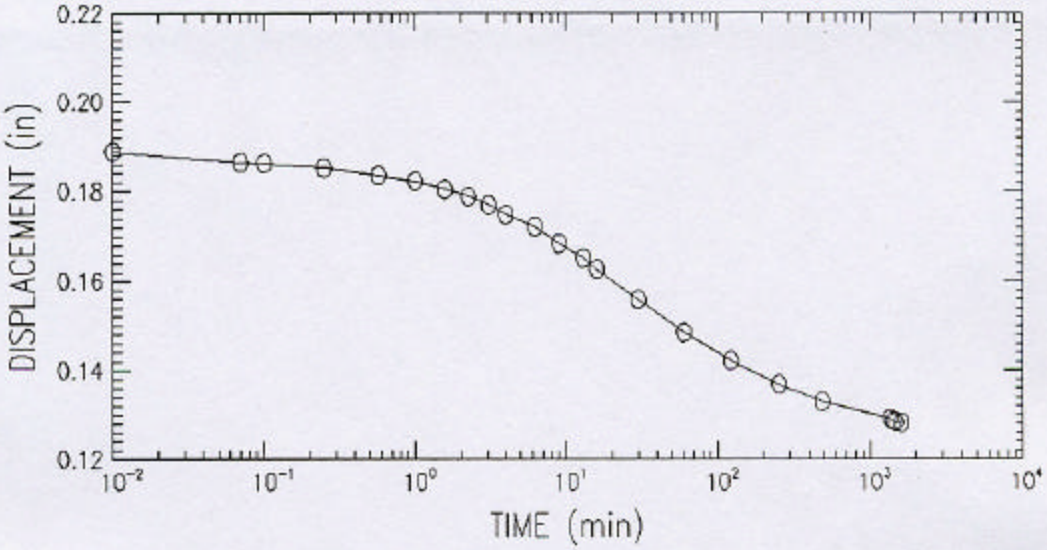
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-1
Boring No. : 4 Test Date : 1/30/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

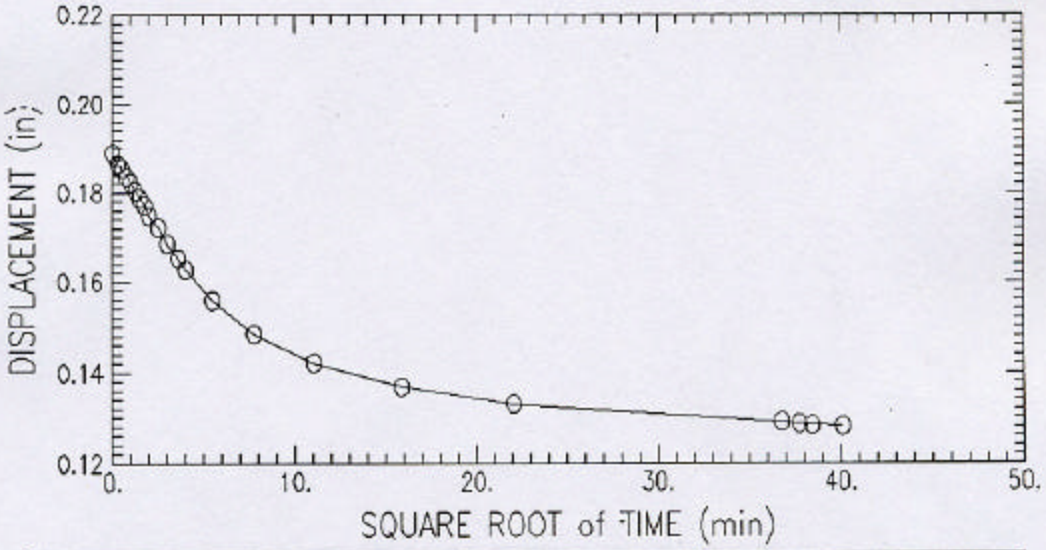
Load Increment : 5/10
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.826	0.00
2)			0.07	0.26	0.0020	2.817	0.21
3)			0.10	0.32	0.0022	2.816	0.23
4)			0.25	0.50	0.0030	2.813	0.31
5)			0.57	0.75	0.0042	2.808	0.44
6)			1.00	1.00	0.0057	2.802	0.60
7)			1.57	1.25	0.0067	2.798	0.70
8)			2.25	1.50	0.0078	2.793	0.82
9)			3.07	1.75	0.0091	2.788	0.95
10)			4.00	2.00	0.0105	2.782	1.10
11)			6.25	2.50	0.0132	2.771	1.38
12)			9.00	3.00	0.0154	2.761	1.61
13)			12.25	3.50	0.0178	2.751	1.87
14)			17.00	4.12	0.0209	2.738	2.19
15)			30.00	5.48	0.0258	2.718	2.70
16)			63.00	7.94	0.0322	2.691	3.37
17)			122.00	11.05	0.0368	2.672	3.86
18)			240.00	15.49	0.0410	2.655	4.30
19)			414.00	20.35	0.0449	2.638	4.71
20)			1312.00	36.22	0.0480	2.625	5.03
21)			1440.00	37.95	0.0488	2.622	5.11
22)			1876.00	43.31	0.0498	2.618	5.22
23)			2802.00	52.93	0.0514	2.611	5.39
24)			2825.00	53.15	0.0514	2.611	5.39

URS

CONSOLIDATION TEST
TIME CURVES (STEP 6 OF 10)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 1
Test Date : 1/30/02 Test No : 4-1 Depth : 0-2.5 feet
Description : Gray silty organic clay (OH)

URS

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-1
Boring No. : 4 Test Date : 1/30/02 Tested by : C. Wason
Sample No. : 1 Sample Type : Shelby Depth : 0-2.5 feet
Checked by : S. Capps
Soil Description : Gray silty organic clay (OH)
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

Load Increment : 6/10
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.766	0.00
2)			0.07	0.26	0.0024	2.756	0.25
3)			0.10	0.32	0.0026	2.755	0.27
4)			0.25	0.50	0.0036	2.751	0.37
5)			0.57	0.75	0.0053	2.744	0.56
6)			1.00	1.00	0.0066	2.738	0.69
7)			1.57	1.25	0.0084	2.731	0.88
8)			2.25	1.50	0.0100	2.724	1.05
9)			3.07	1.75	0.0118	2.716	1.24
10)			4.00	2.00	0.0140	2.707	1.47
11)			6.25	2.50	0.0166	2.696	1.74
12)			9.00	3.00	0.0203	2.681	2.13
13)			13.00	3.61	0.0236	2.667	2.47
14)			16.00	4.00	0.0261	2.657	2.74
15)			30.00	5.48	0.0330	2.628	3.46
16)			60.00	7.75	0.0404	2.597	4.23
17)			122.00	11.05	0.0467	2.571	4.89
18)			252.00	15.87	0.0520	2.549	5.45
19)			487.00	22.07	0.0558	2.533	5.85
20)			1352.00	36.77	0.0598	2.516	6.27
21)			1425.00	37.75	0.0602	2.515	6.31
22)			1478.00	38.44	0.0605	2.513	6.34
23)			1608.00	40.10	0.0607	2.512	6.36

URS

Project Name: Rhodia Peyton Slough

Project Number: 51-00070007.00

Location: Martinez, CA

Date: 01/25/02

Test Method: ASTM D854

Sample Number: 4 - 2 Depth, ft. 5.0 - 7.5

Bottle Number: 1A

Description: Gray organic clay

Determination Number	pycnometer + soil + water gms	pycnometer + water gms	temperature F	Specific Gravity
1	704.0	671.44 671.71	71.0	2.380
2	704.4	672.03	66.0	2.362
3	704.6	667.49	60.0	2.954
			Average	2.565

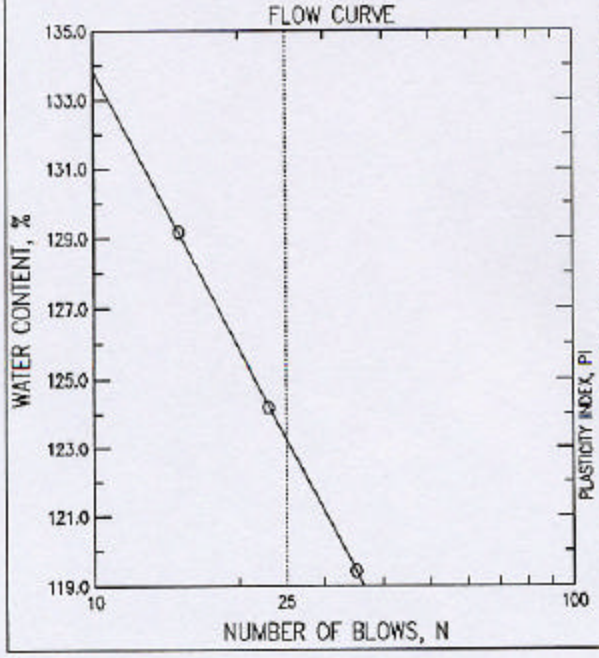
Oven dried soil + tare, gms	306.44
tare, gms	250.37
Oven dried soil	56.07

URS

ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	4
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	2
SAMPLE DESCRIPTION		DATE	FILENAME
Gray organic Clay		Tue Jan 29 2002	4-02

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	25	133	109		
WT. WET SOIL + TARE	23.81	23.3	23.05		
WT. DRY SOIL + TARE	17.17	16.42	16.1		
WT. WATER	6.64	6.88	6.95		
TARE WT.	11.61	10.88	10.72		
WT. DRY SOIL	5.56	5.54	5.38		
WATER CONTENT, W_N (%)	119.42	124.19	129.18		
NUMBER OF BLOWS, N	35	23	15		
ONE-POINT LIQUID LIMIT, LL	124.39	122.94	121.44		
PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	26				
WT. WET SOIL + TARE	27.58				
WT. DRY SOIL + TARE	23.29				
WT. WATER	4.29				
TARE WT.	15.84				
WT. DRY SOIL	7.45				
WATER CONTENT (%)	57.58				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	211.5
LIQUID LIMIT, LL	123.3
PLASTIC LIMIT, PL	57.6
PLASTICITY INDEX, PI	65.7
LIQUIDITY INDEX, LI*	2.34

*LI = (W - PL)/PI

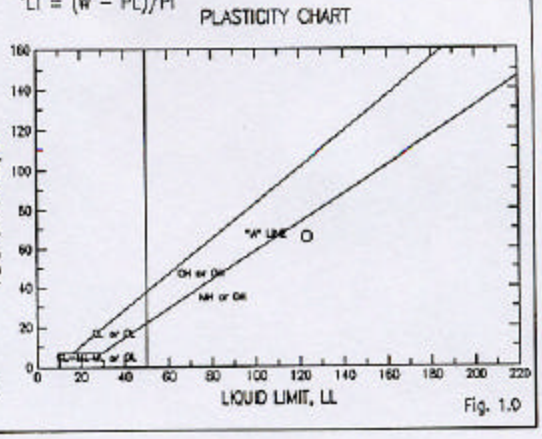


Fig. 1.0

URS

Tue Jan 29 09:49:00 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 4
Sample No. : 2
Location : Martinez, CA
Soil Description : Gray organic Clay
Remarks :

Depth : 5.0-7.5 ft
Test Date : 01/28/02
Test Method : ASTM D4318

Filename : 4-02
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 4-02	97.51	213.72	134.82	211.47

Average Moisture Content = 211.47

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 26	15.84	27.58	23.29	57.58

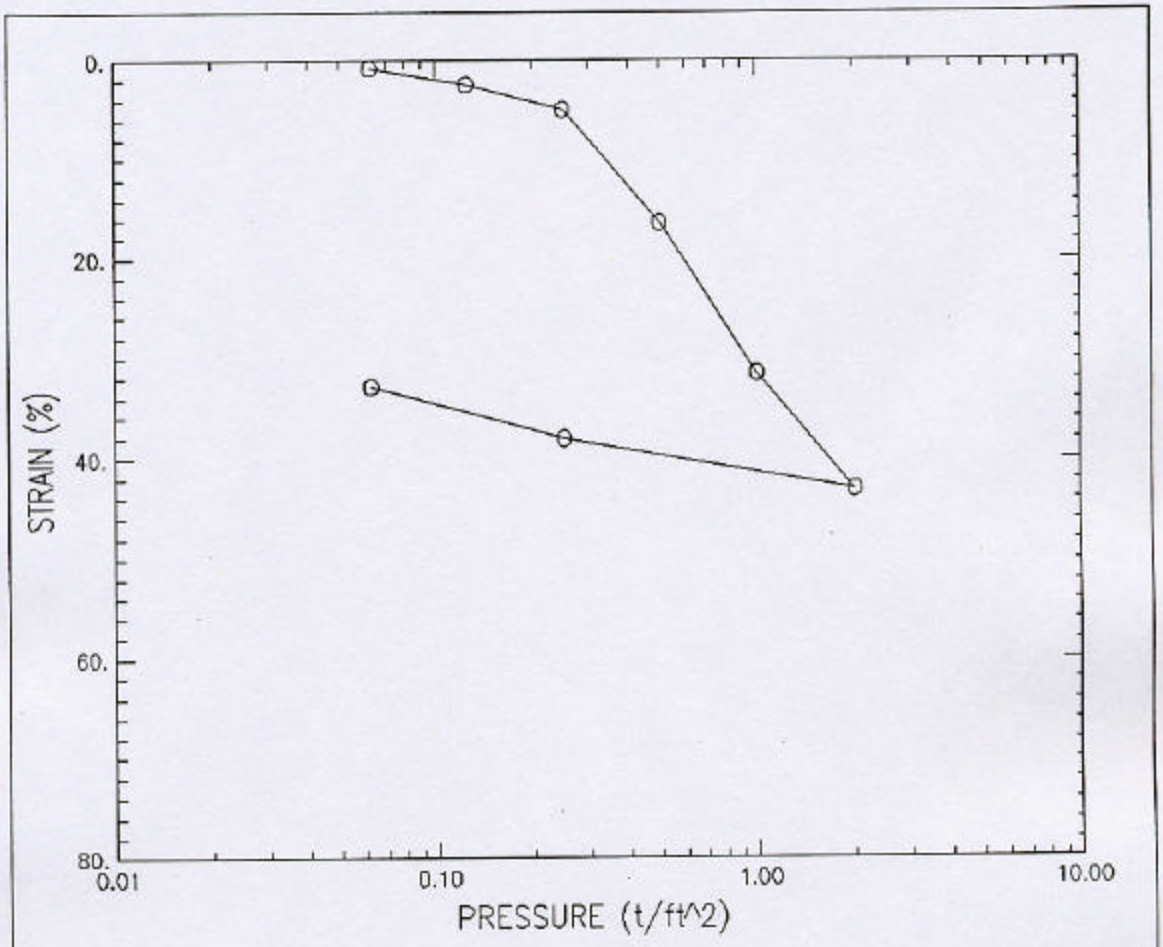
Plastic Limit = 57.58

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 25	11.61	23.81	17.17	35	119.42
2) 133	10.88	23.30	16.42	23	124.19
3) 109	10.72	23.05	16.10	15	129.18

Liquid Limit = 123.28
Plastic Index = 65.69

URS

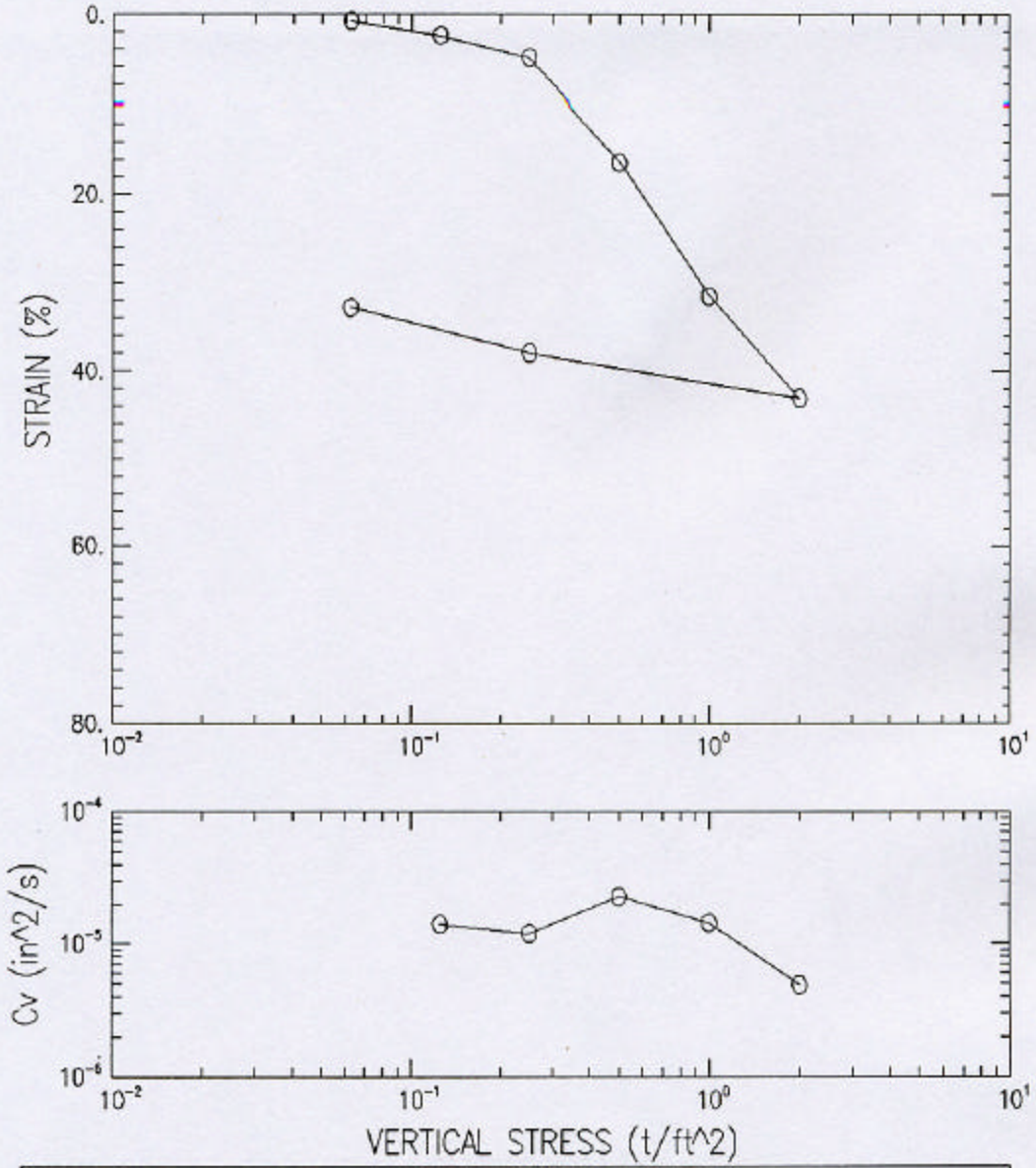


		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	211.483	131.807
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	24.553	36.552
COMPRESSION INDEX		SATURATION (%)	98.241	100.001
TYPE SPECIMEN		VOID RATIO	5.522	3.381
DIA. (in) 2.430	HT. (in) 0.950	BACK PRESSURE (t/ft^2)		
CLASSIFICATION Gray organic silt / organic clay				
LL 123.3	PL 57.6	PI 65.7	PROJECT Rhodia Peyton Slough	
GS 2.565	D_{10}		Data File: RHO-4-2.CON	
REMARKS			BORING NO. 4	SAMPLE NO. 2
			DEPTH 5.0-7.5 ft	DATE 1/22/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 2
Test Date : 1/22/02 Test No : 4-2 Depth : 5.0-7.5 ft
Description : Gray organic silt / organic clay

URS

Mon Feb 04 13:08:08 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.06	0.007	5.473	0.74	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.13	0.023	5.364	2.42	51.3	0.0	1.40E-005	0.00E+000	0.00E+000
3)	0.25	0.047	5.198	4.97	57.6	0.0	1.19E-005	0.00E+000	0.00E+000
4)	0.50	0.155	4.460	16.28	25.9	0.0	2.28E-005	0.00E+000	0.00E+000
5)	1.00	0.299	3.467	31.50	29.8	0.0	1.44E-005	0.00E+000	0.00E+000
6)	2.00	0.409	2.715	43.04	59.6	0.0	4.89E-006	0.00E+000	0.00E+000
7)	0.25	0.361	3.045	37.97	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
8)	0.06	0.312	3.381	32.82	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

Mon Feb 04 13:08:08 2002

CONSOLIDATION TEST DATA

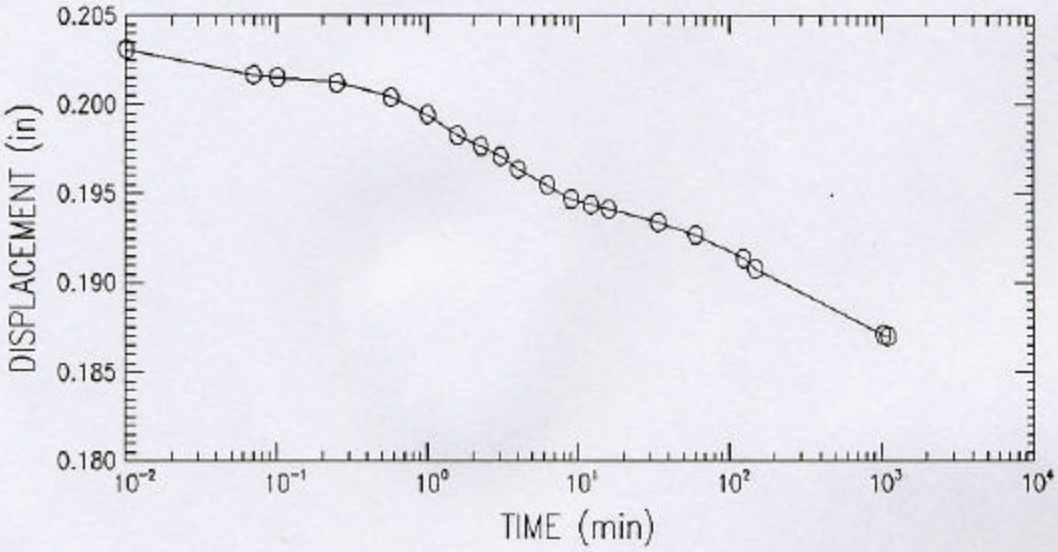
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

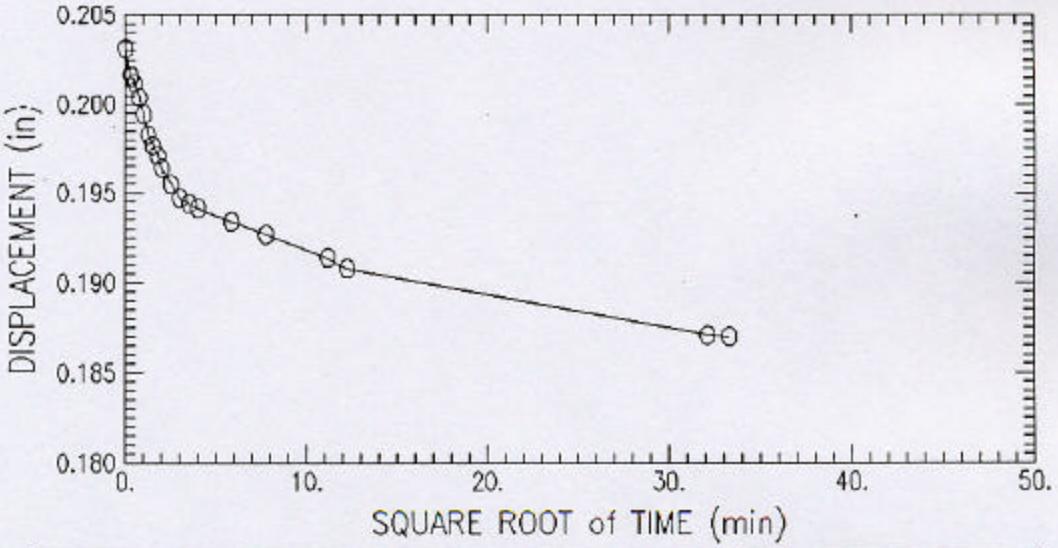
Liquid Limit : 123.28 Plastic Limit : 57.58 Plasticity Index : 65.7
Specific Gravity : 2.57 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 5.5203 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	213.72	272.27	249.65	249.65
WT CONTAINER + DRY SOIL (gm)	134.82	212.23	212.23	212.23
WT CONTAINER (gm)	97.51	183.84	183.84	183.84
WT DRY SOIL (gm)	37.31	28.39	28.39	28.39
WATER CONTENT (%)	211.47	211.48	131.81	131.81
VOID RATIO	------	5.52	3.38	------
DEGREE OF SATURATION (%)	------	98.24	100.00	------
DRY DENSITY (lb/ft^3)	------	24.55	36.55	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 2 OF 8)
STRESS : 0.13 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 2
Test Date : 1/22/02 Test No : 4-2 Depth : 5.0-7.5 ft
Description : Gray organic silt / organic clay

URS

Mon Feb 04 13:15:43 2002

CONSOLIDATION TEST DATA

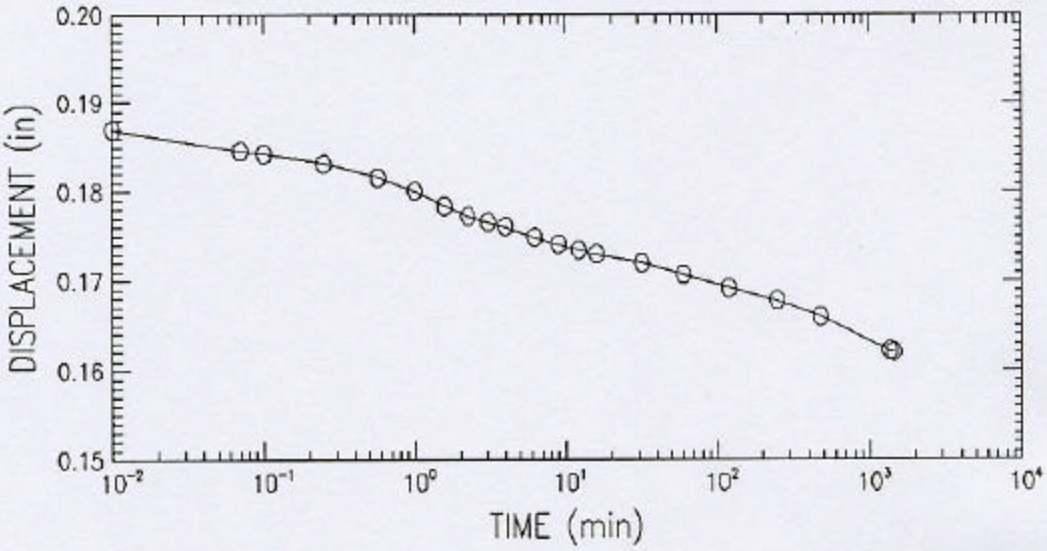
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

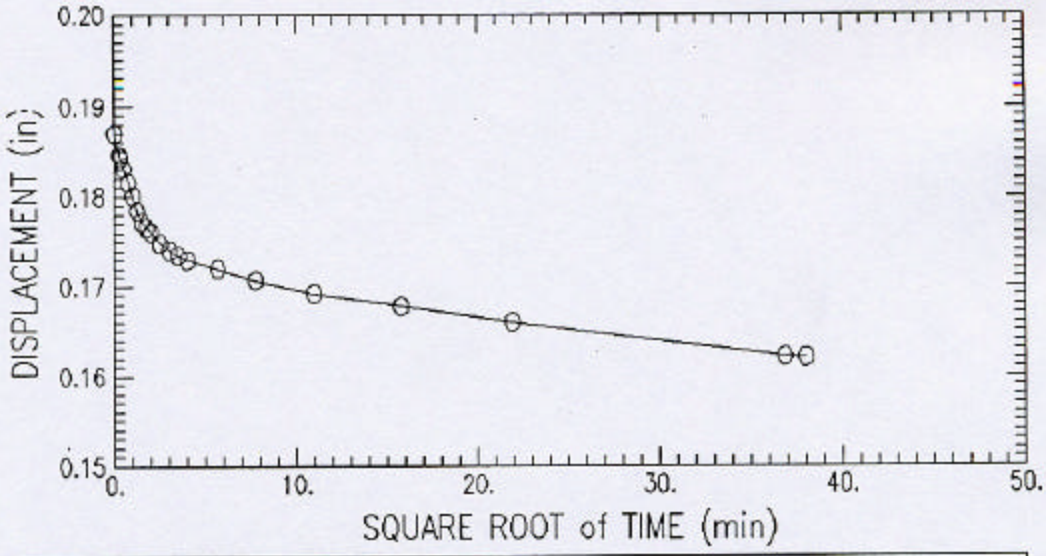
Load Increment : 2/8
Stress increment from 0.06 (t/ft^2) to 0.13 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.468	0.00
2)			0.07	0.26	0.0015	5.458	0.15
3)			0.10	0.32	0.0016	5.457	0.17
4)			0.25	0.50	0.0019	5.455	0.20
5)			0.57	0.75	0.0027	5.450	0.28
6)			1.00	1.00	0.0037	5.443	0.38
7)			1.57	1.25	0.0048	5.435	0.51
8)			2.25	1.50	0.0054	5.431	0.57
9)			3.07	1.75	0.0060	5.427	0.63
10)			4.00	2.00	0.0067	5.422	0.71
11)			6.25	2.50	0.0076	5.416	0.80
12)			9.00	3.00	0.0084	5.410	0.88
13)			12.25	3.50	0.0087	5.408	0.92
14)			16.00	4.00	0.0090	5.407	0.94
15)			34.00	5.83	0.0097	5.402	1.02
16)			60.00	7.75	0.0104	5.397	1.09
17)			124.00	11.14	0.0117	5.388	1.23
18)			149.00	12.21	0.0123	5.384	1.30
19)			1031.00	32.11	0.0160	5.358	1.68
20)			1109.00	33.30	0.0161	5.358	1.70

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 8)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 2
Test Date : 1/22/02 Test No : 4-2 Depth : 5.0-7.5 ft
Description : Gray organic silt / organic clay

URS

CONSOLIDATION TEST DATA

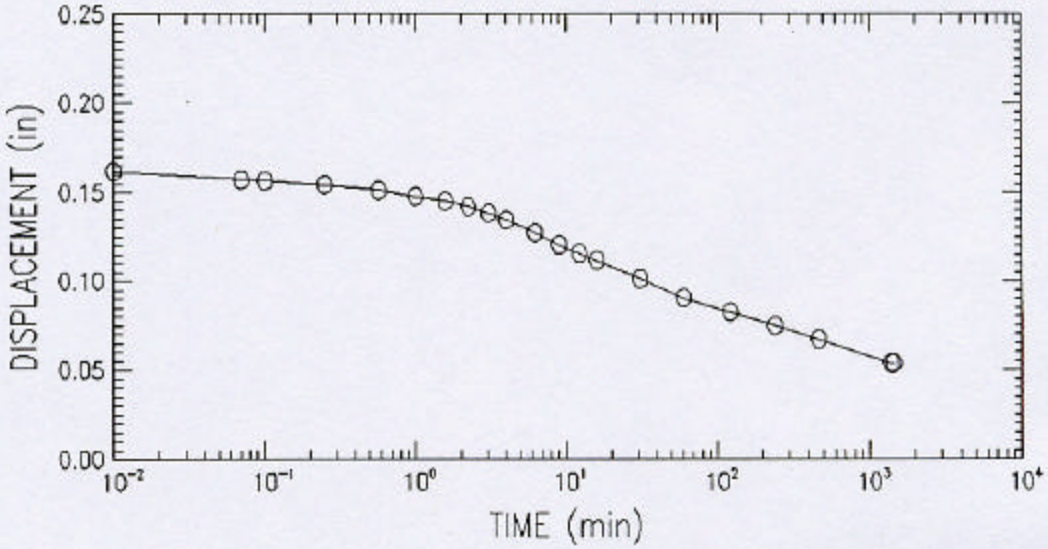
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

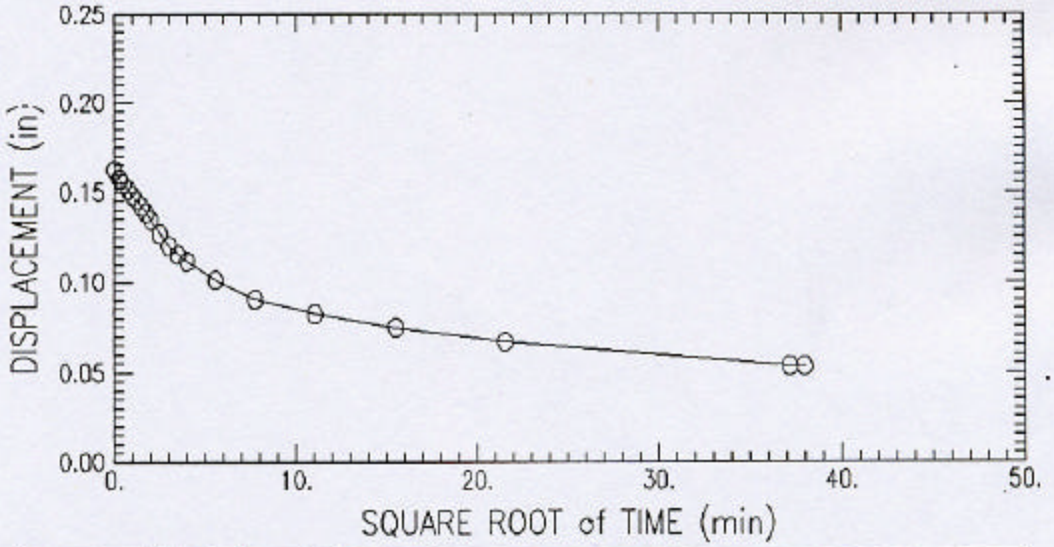
Load Increment : 3/8
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.410	0.00
2)			0.07	0.26	0.0024	5.393	0.25
3)			0.10	0.32	0.0027	5.391	0.28
4)			0.25	0.50	0.0038	5.384	0.40
5)			0.57	0.75	0.0054	5.373	0.57
6)			1.00	1.00	0.0069	5.362	0.73
7)			1.57	1.25	0.0086	5.351	0.91
8)			2.25	1.50	0.0098	5.343	1.03
9)			3.07	1.75	0.0104	5.338	1.09
10)			4.00	2.00	0.0109	5.335	1.15
11)			6.25	2.50	0.0121	5.327	1.27
12)			9.00	3.00	0.0129	5.321	1.36
13)			12.25	3.50	0.0135	5.317	1.42
14)			16.00	4.00	0.0140	5.314	1.47
15)			32.00	5.66	0.0150	5.307	1.58
16)			60.00	7.75	0.0163	5.298	1.72
17)			120.00	10.95	0.0178	5.288	1.87
18)			248.00	15.75	0.0192	5.278	2.02
19)			480.00	21.91	0.0210	5.266	2.21
20)			1360.00	36.88	0.0248	5.240	2.61
21)			1446.00	38.03	0.0249	5.239	2.62

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 8)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 2
Test Date : 1/22/02 Test No : 4-2 Depth : 5.0-7.5 ft
Description : Gray organic silt / organic clay

URS

Mon Feb 04 13:16:16 2002

CONSOLIDATION TEST DATA

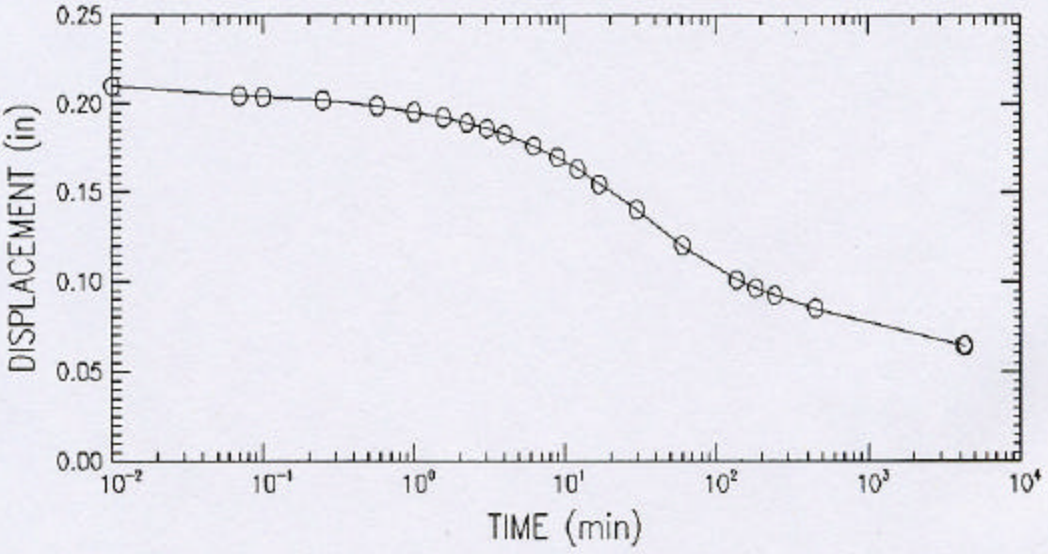
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

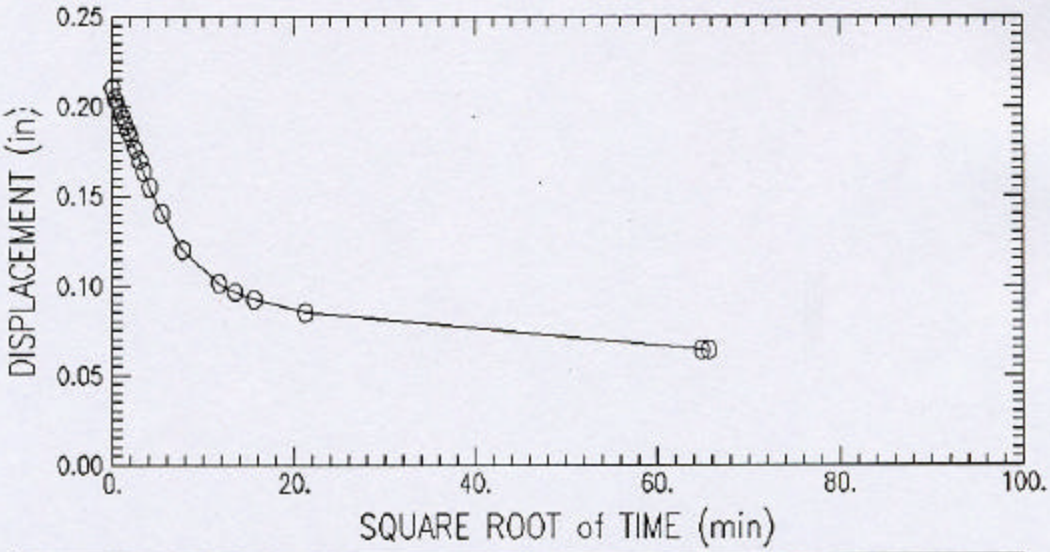
Load Increment : 4/8
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.349	0.00
2)			0.07	0.26	0.0047	5.317	0.49
3)			0.10	0.32	0.0053	5.313	0.56
4)			0.25	0.50	0.0076	5.297	0.80
5)			0.57	0.75	0.0107	5.276	1.13
6)			1.00	1.00	0.0143	5.251	1.51
7)			1.57	1.25	0.0168	5.234	1.77
8)			2.25	1.50	0.0200	5.212	2.11
9)			3.07	1.75	0.0236	5.187	2.48
10)			4.00	2.00	0.0275	5.161	2.90
11)			6.25	2.50	0.0349	5.110	3.67
12)			9.00	3.00	0.0418	5.062	4.40
13)			12.25	3.50	0.0464	5.031	4.89
14)			16.00	4.00	0.0504	5.003	5.31
15)			31.00	5.57	0.0608	4.932	6.40
16)			60.00	7.75	0.0717	4.857	7.55
17)			122.00	11.05	0.0797	4.802	8.39
18)			240.00	15.49	0.0874	4.749	9.20
19)			464.00	21.54	0.0951	4.697	10.01
20)			1384.00	37.20	0.1083	4.606	11.40
21)			1444.00	38.00	0.1084	4.605	11.41

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 8)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 2
Test Date : 1/22/02 Test No : 4-2 Depth : 5.0-7.5 ft
Description : Gray organic silt / organic clay

URS

Mon Feb 04 13:16:32 2002

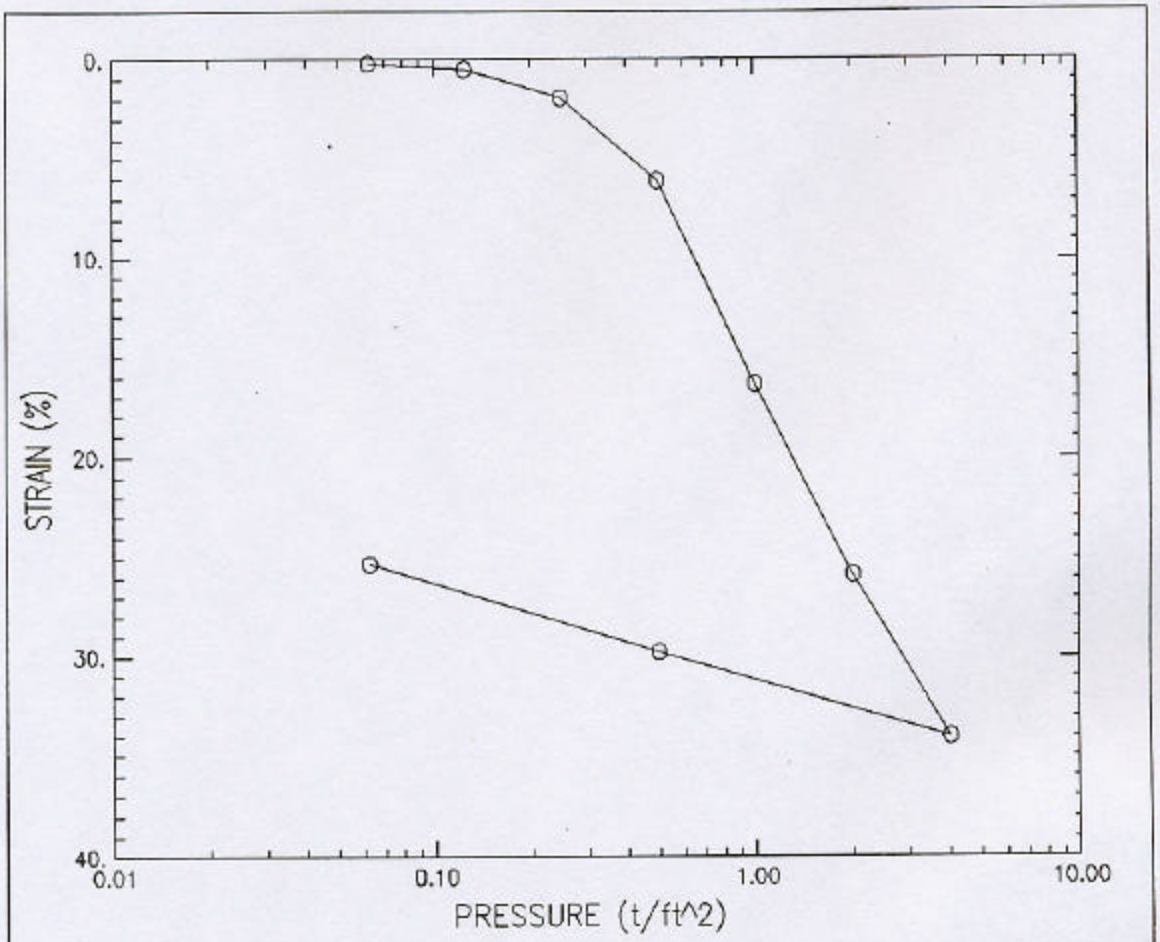
CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-2
Boring No. : 4 Test Date : 1/22/02 Tested by : C. Wason
Sample No. : 2 Sample Type : Shelby Depth : 5.0-7.5 ft
Checked by : S. Capps
Soil Description : Gray organic silt / organic clay
Remarks : Trimmed from 2.86 down to 2.43 inches in diameter

Load Increment : 5/8
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	5.849	0.00
2)			0.07	0.26	0.0053	5.813	0.56
3)			0.10	0.32	0.0058	5.809	0.61
4)			0.25	0.50	0.0079	5.795	0.83
5)			0.57	0.75	0.0110	5.774	1.16
6)			1.00	1.00	0.0144	5.750	1.52
7)			1.57	1.25	0.0173	5.730	1.82
8)			2.25	1.50	0.0204	5.709	2.15
9)			3.07	1.75	0.0234	5.688	2.46
10)			4.00	2.00	0.0267	5.666	2.81
11)			6.25	2.50	0.0334	5.620	3.52
12)			9.00	3.00	0.0399	5.575	4.20
13)			12.25	3.50	0.0466	5.529	4.91
14)			17.00	4.12	0.0552	5.470	5.81
15)			30.00	5.48	0.0696	5.371	7.33
16)			60.00	7.75	0.0897	5.233	9.44
17)			137.00	11.70	0.1086	5.104	11.43
18)			182.00	13.49	0.1134	5.071	11.94
19)			243.00	15.59	0.1175	5.043	12.37
20)			450.00	21.21	0.1250	4.991	13.16
21)			4216.00	64.93	0.1456	4.850	15.33
22)			4315.00	65.69	0.1458	4.848	15.35

URS



		BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	101.383	67.582
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	44.211	59.196
COMPRESSION INDEX		SATURATION (%)	98.119	100.003
TYPE SPECIMEN		VOID RATIO	2.728	1.784
DIA. (in) 2.429	HT. (in) 0.955	BACK PRESSURE (t/ft^2)		

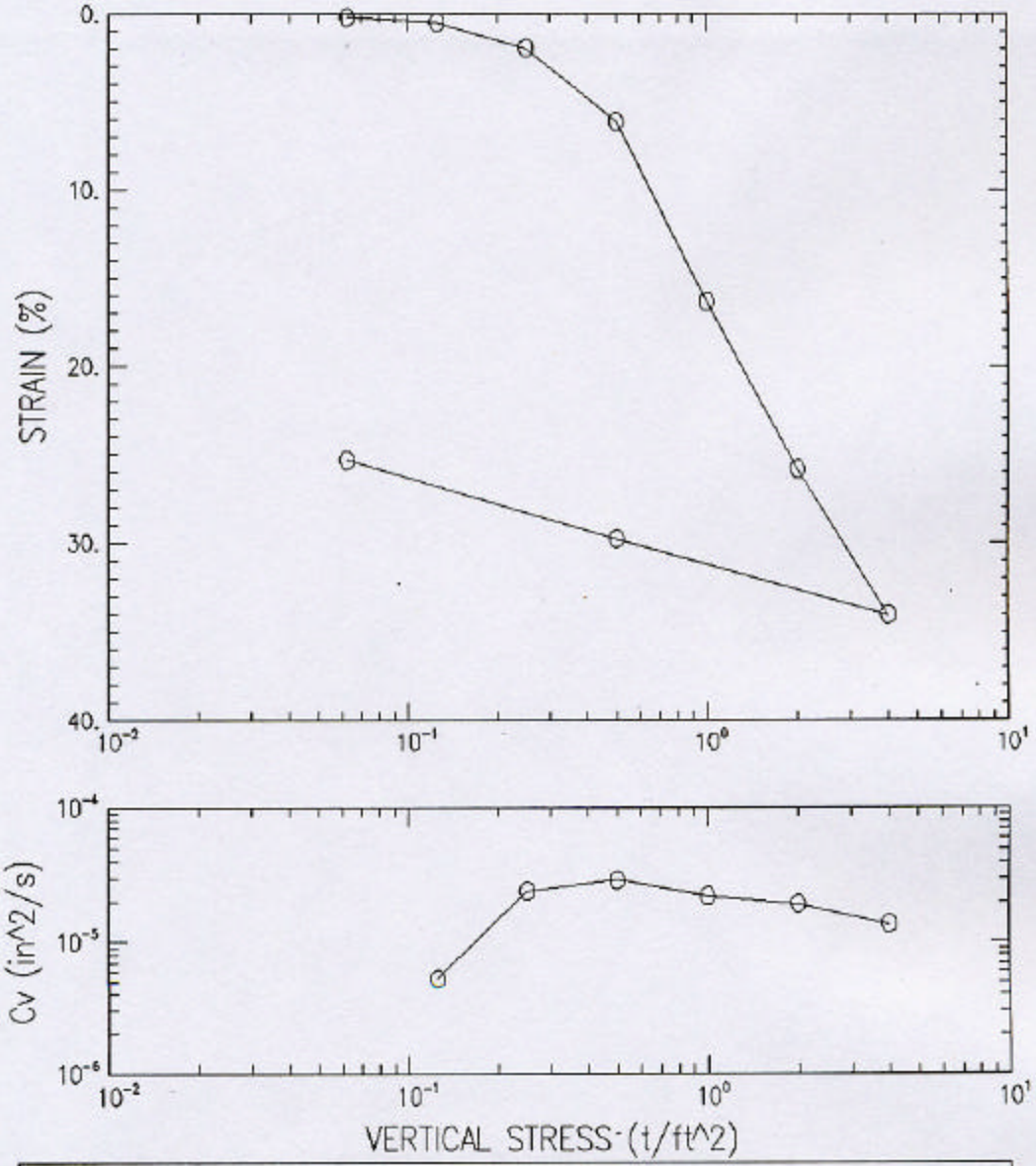
CLASSIFICATION Brownish Gray organic clay

LL 0.0	PL 0.0	PI 0.0	PROJECT Rhodia Peyton Slough
GS 2.640	D_{10}		Data File: RHO-4-4.CON
REMARKS			BORING NO. 4	SAMPLE NO. 4
			DEPTH 15-17.5 ft	DATE 1/29/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

URS

CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 4
Test Date : 1/29/02 Test No : 4-4 Depth : 15-17.5 ft
Description : Brownish Gray organic clay

URS

Wed Feb 13 16:43:23 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-4
Boring No. : 4 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 4 Sample Type : Shelby Depth : 15-17.5 ft
Checked by : S. Capps
Soil Description : Brownish Gray organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.06	0.002	2.720	0.20	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.13	0.005	2.709	0.50	140.4	0.0	5.29E-006	0.00E+000	0.00E+000
3)	0.25	0.019	2.655	1.96	30.5	0.0	2.39E-005	0.00E+000	0.00E+000
4)	0.50	0.058	2.500	6.11	23.7	0.0	2.90E-005	0.00E+000	0.00E+000
5)	1.00	0.156	2.118	16.37	26.8	0.0	2.20E-005	0.00E+000	0.00E+000
6)	2.00	0.247	1.765	25.84	24.3	0.0	1.91E-005	0.00E+000	0.00E+000
7)	4.00	0.325	1.459	34.03	27.1	0.0	1.35E-005	0.00E+000	0.00E+000
8)	0.50	0.284	1.618	29.77	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
9)	0.06	0.242	1.784	25.33	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

URS

CONSOLIDATION TEST DATA

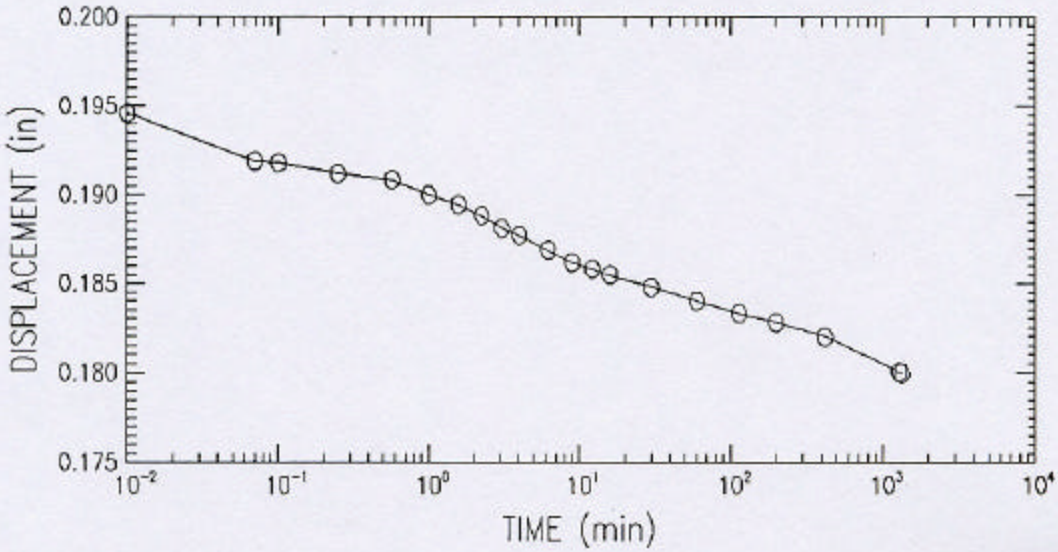
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-4
Boring No. : 4 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 4 Sample Type : Shelby Depth : 15-17.5 ft
Checked by : S. Capps
Soil Description : Brownish Gray organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

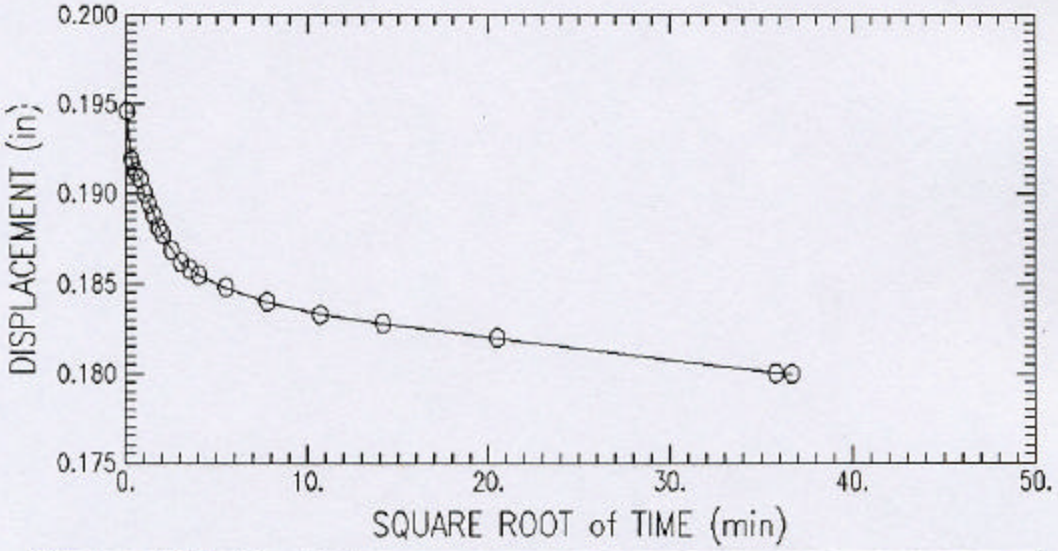
Liquid Limit : 0 Plastic Limit : 0 Plasticity Index : 0
Specific Gravity : 2.64 Initial Height : 0.95 Sample Diameter : 2.43 (in)
Initial Void Ratio : 2.729 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	208.14	289.54	272.19	272.19
WT CONTAINER + DRY SOIL (gm)	135.22	237.50	237.50	237.50
WT CONTAINER (gm)	63.29	186.17	186.17	186.17
WT DRY SOIL (gm)	71.93	51.33	51.33	51.33
WATER CONTENT (%)	101.38	101.38	67.58	67.58
VOID RATIO	------	2.73	1.78	------
DEGREE OF SATURATION (%)	------	98.12	100.00	------
DRY DENSITY (lb/ft^3)	------	44.21	59.20	------

URS

CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 9)
STRESS : 0.25 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 4
Test Date : 1/29/02 Test No : 4-4 Depth : 15-17.5 ft
Description : Brownish Gray organic clay

URS

CONSOLIDATION TEST DATA

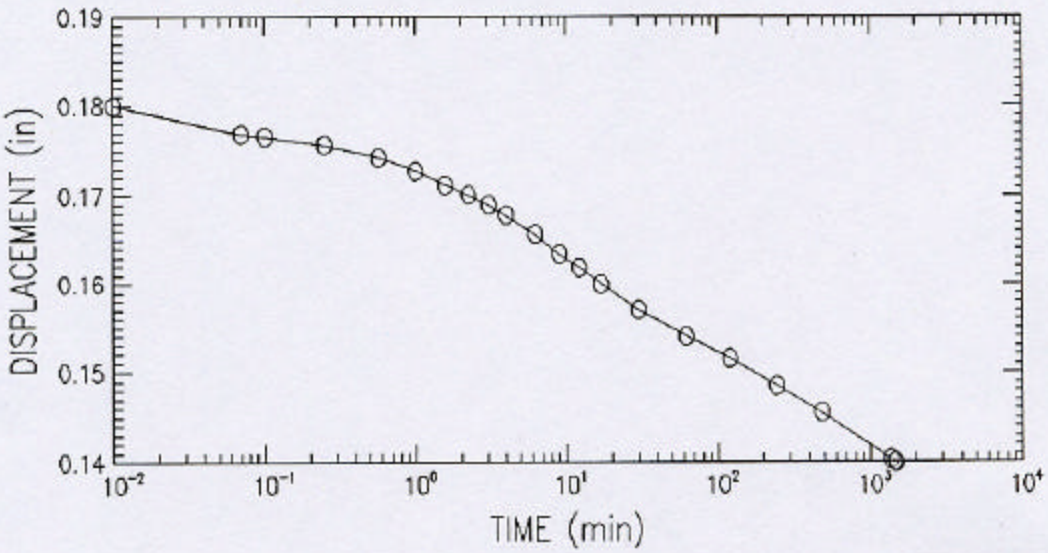
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-4
Boring No. : 4 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 4 Sample Type : Shelby Depth : 15-17.5 ft
Checked by : S. Capps
Soil Description : Brownish Gray organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

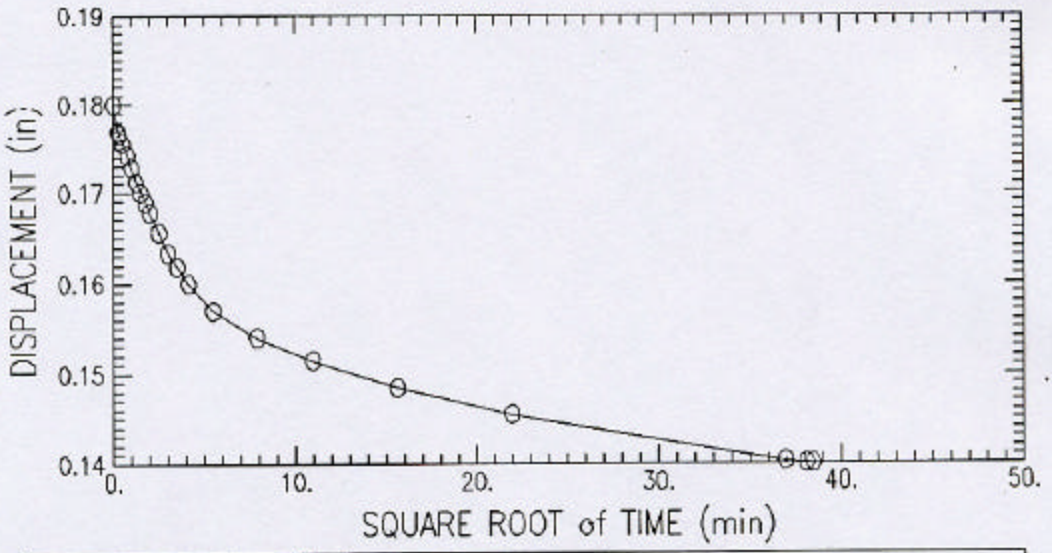
Load Increment : 3/9
Stress increment from 0.13 (t/ft^2) to 0.25 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.717	0.00
2)			0.07	0.26	0.0027	2.706	0.28
3)			0.10	0.32	0.0028	2.706	0.29
4)			0.25	0.50	0.0034	2.704	0.36
5)			0.57	0.75	0.0038	2.702	0.39
6)			1.00	1.00	0.0046	2.699	0.48
7)			1.57	1.25	0.0051	2.697	0.54
8)			2.25	1.50	0.0058	2.694	0.60
9)			3.07	1.75	0.0064	2.692	0.68
10)			4.00	2.00	0.0068	2.690	0.72
11)			6.25	2.50	0.0077	2.687	0.81
12)			9.00	3.00	0.0084	2.684	0.88
13)			12.25	3.50	0.0088	2.683	0.92
14)			16.00	4.00	0.0091	2.681	0.95
15)			30.00	5.48	0.0098	2.679	1.03
16)			60.00	7.75	0.0106	2.675	1.11
17)			114.00	10.68	0.0113	2.673	1.18
18)			200.00	14.14	0.0118	2.671	1.24
19)			420.00	20.49	0.0126	2.668	1.32
20)			1283.00	35.82	0.0146	2.660	1.52
21)			1346.00	36.69	0.0146	2.660	1.53

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 9)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 4
Test Date : 1/29/02 Test No : 4-4 Depth : 15-17.5 ft
Description : Brownish Gray organic clay

URS

Wed Feb 13 16:50:19 2002

CONSOLIDATION TEST DATA

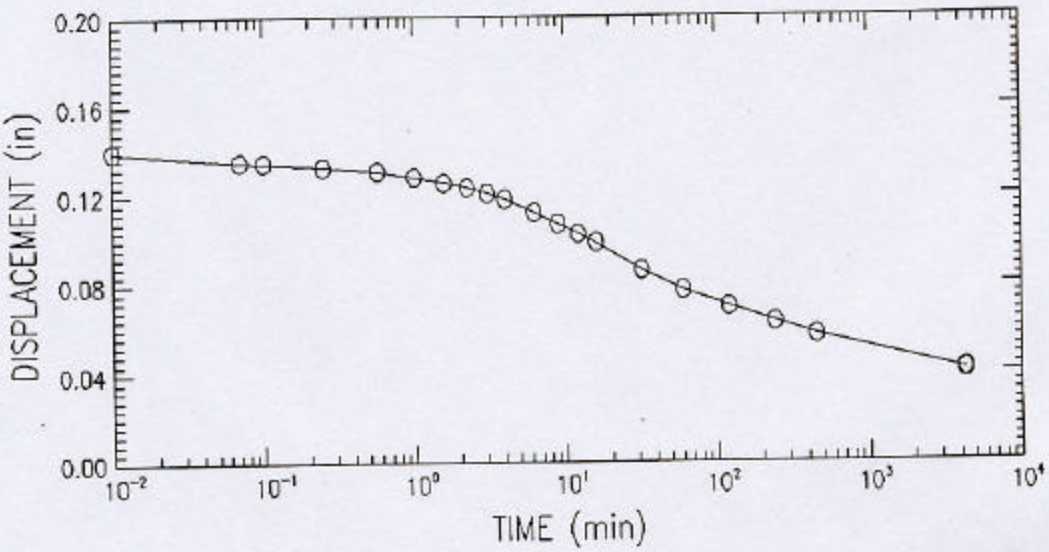
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-4
Boring No. : 4 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 4 Sample Type : Shelby Depth : 15-17.5 ft
Checked by : S. Capps
Soil Description : Brownish Gray organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

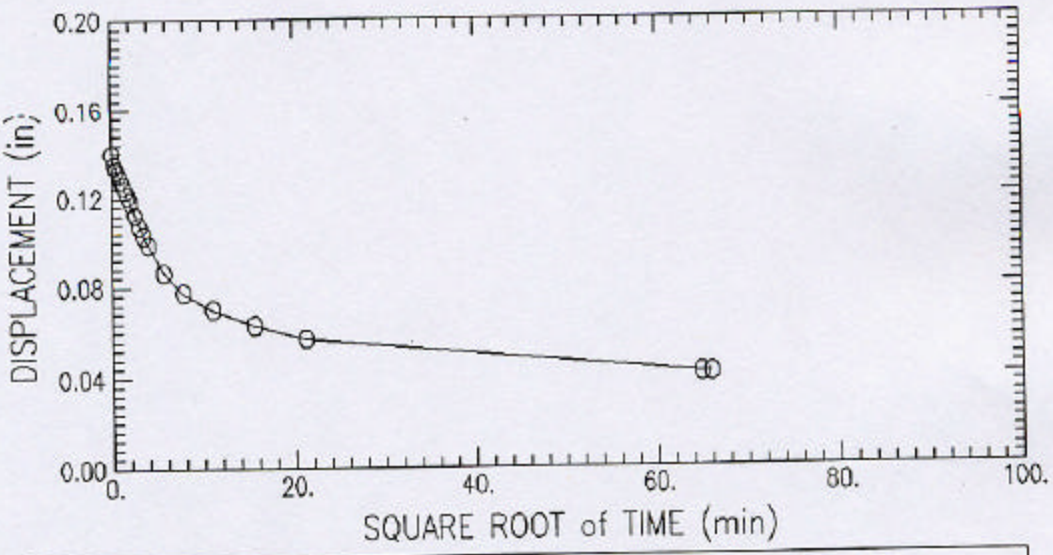
Load Increment : 4/9
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.672	0.00
2)			0.07	0.26	0.0031	2.660	0.32
3)			0.10	0.32	0.0034	2.659	0.36
4)			0.25	0.50	0.0043	2.655	0.45
5)			0.57	0.75	0.0057	2.650	0.60
6)			1.00	1.00	0.0072	2.644	0.75
7)			1.57	1.25	0.0088	2.638	0.92
8)			2.25	1.50	0.0099	2.633	1.04
9)			3.07	1.75	0.0110	2.629	1.15
10)			4.00	2.00	0.0122	2.624	1.28
11)			6.25	2.50	0.0144	2.616	1.50
12)			9.00	3.00	0.0166	2.607	1.74
13)			12.25	3.50	0.0181	2.601	1.90
14)			17.00	4.12	0.0200	2.594	2.10
15)			30.00	5.48	0.0230	2.582	2.41
16)			62.00	7.87	0.0260	2.570	2.72
17)			120.00	10.95	0.0285	2.561	2.99
18)			244.00	15.62	0.0315	2.549	3.30
19)			482.00	21.95	0.0345	2.537	3.61
20)			1366.00	36.96	0.0397	2.517	4.16
21)			1453.00	38.12	0.0399	2.516	4.18
22)			1481.00	38.48	0.0400	2.516	4.19

URS

CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 9)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 4
Test Date : 1/29/02 Test No : 4-4 Depth : 15-17.5 ft
Description : Brownish Gray organic clay

URS

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-4
Boring No. : 4 Test Date : 1/29/02 Tested by : C. Wason
Sample No. : 4 Sample Type : Shelby Depth : 15-17.5 ft
Checked by : S. Capps
Soil Description : Brownish Gray organic clay
Remarks : Trimmed from 2.86 down to 2.429 inches in diameter

Load Increment : 5/9
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	2.573	0.00
2)			0.07	0.26	0.0047	2.554	0.49
3)			0.10	0.32	0.0052	2.552	0.54
4)			0.25	0.50	0.0071	2.545	0.74
5)			0.57	0.75	0.0091	2.537	0.95
6)			1.00	1.00	0.0117	2.527	1.23
7)			1.57	1.25	0.0142	2.517	1.49
8)			2.25	1.50	0.0164	2.509	1.71
9)			3.07	1.75	0.0189	2.499	1.98
10)			4.00	2.00	0.0216	2.488	2.26
11)			6.25	2.50	0.0275	2.465	2.88
12)			9.00	3.00	0.0327	2.445	3.43
13)			12.25	3.50	0.0370	2.428	3.88
14)			16.00	4.00	0.0411	2.412	4.31
15)			32.00	5.66	0.0536	2.363	5.62
16)			60.00	7.75	0.0627	2.328	6.56
17)			120.00	10.95	0.0701	2.299	7.34
18)			242.00	15.56	0.0770	2.272	8.07
19)			450.00	21.21	0.0830	2.248	8.70
20)			4215.00	64.92	0.0986	2.188	10.33
21)			4350.00	65.95	0.0987	2.187	10.34

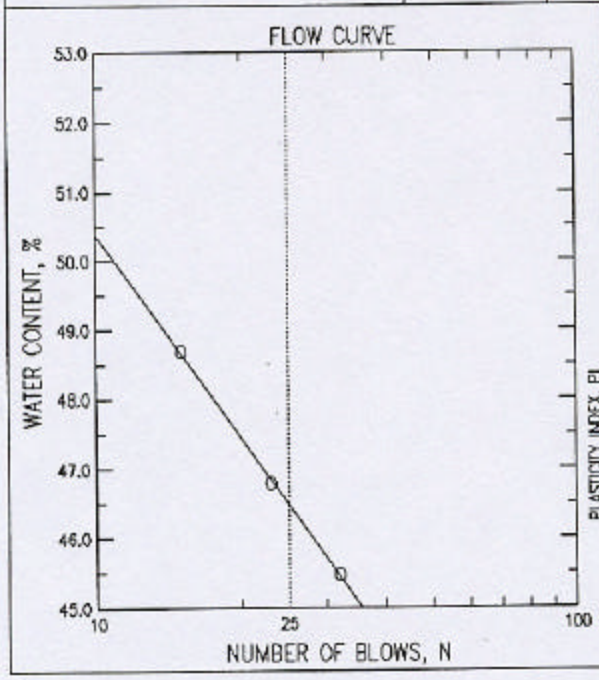
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ATTERBERG LIMITS

PROJECT	PROJECT NUMBER	TESTED BY	BORING NUMBER
Rhodia Peyton Slough	51-00070007.00	J. Hebel	4
LOCATION		CHECKED BY	SAMPLE NUMBER
Martinez, CA		S. Capps	7
SAMPLE DESCRIPTION		DATE	FILENAME
Gray clayey Silt w/ organics		Wed Feb 06 2002	4-07

LIQUID LIMIT DETERMINATIONS					
CONTAINER NUMBER	27	45	121		
WT. WET SOIL + TARE	24.01	23.68	24.09		
WT. DRY SOIL + TARE	19.9	19.52	19.83		
WT. WATER	4.11	4.16	4.26		
TARE WT.	10.86	10.63	11.08		
WT. DRY SOIL	9.04	8.89	8.75		
WATER CONTENT, W_N (%)	45.46	46.79	48.69		
NUMBER OF BLOWS, N	32	23	15		
ONE-POINT LIQUID LIMIT, LL	46.84	46.32	45.77		

PLASTIC LIMIT DETERMINATIONS					
CONTAINER NUMBER	1				
WT. WET SOIL + TARE	28.11				
WT. DRY SOIL + TARE	25.53				
WT. WATER	2.58				
TARE WT.	16.1				
WT. DRY SOIL	9.43				
WATER CONTENT (%)	27.36				



SUMMARY OF RESULTS	
NATURAL WATER CONTENT, W (%)	50.0
LIQUID LIMIT, LL	46.5
PLASTIC LIMIT, PL	27.4
PLASTICITY INDEX, PI	19.1
LIQUIDITY INDEX, LI*	1.19

*LI = (W - PL)/PI

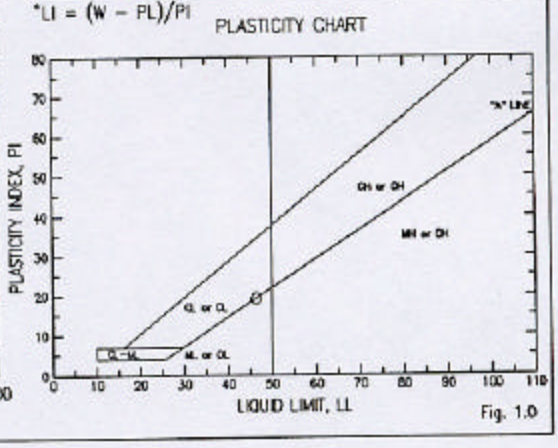


Fig. 1.0

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Wed Feb 06 09:26:17 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 4
Sample No. : 7
Location : Martinez, CA
Soil Description : Gray clayey Silt w/ organics
Remarks : Depth: 40.0-42.5 feet

Depth : 40.0-42.5 ft
Test Date : 02/05/02
Test Method : ASTM 4318/1140

Filename : 4-07
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

Natural Moisture Content

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 4-07	86.53	172.28	143.68	50.04

Average Moisture Content = 50.04

Plastic Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Moisture Content (%)
1) 1	16.10	28.11	25.53	27.36

Plastic Limit = 27.36

Liquid Limit

Moisture Content ID	Mass of Container (gm)	Mass of Container and Moist Soil (gm)	Mass of Container and Dried Soil (gm)	Number of Drops	Moisture Content (%)
1) 27	10.86	24.01	19.90	32	45.46
2) 45	10.63	23.68	19.52	23	46.79
3) 121	11.08	24.09	19.83	15	48.69

Liquid Limit = 46.49
Plastic Index = 19.13

URS

Wed Feb 06 09:26:17 2002

GEOTECHNICAL LABORATORY TEST DATA

Project : Rhodia Peyton Slough
Project No. : 51-00070007.00
Boring No. : 4
Sample No. : 7
Location : Martinez, CA
Soil Description : Gray clayey Silt w/ organics
Remarks : Depth: 40.0-42.5 feet

Depth : 40.0-42.5 ft
Test Date : 02/05/02
Test Method : ASTM 4318/1140

Filename : 4-07
Elevation : NA
Tested by : J. Hebel
Checked by : S. Capps

COARSE SIEVE SET

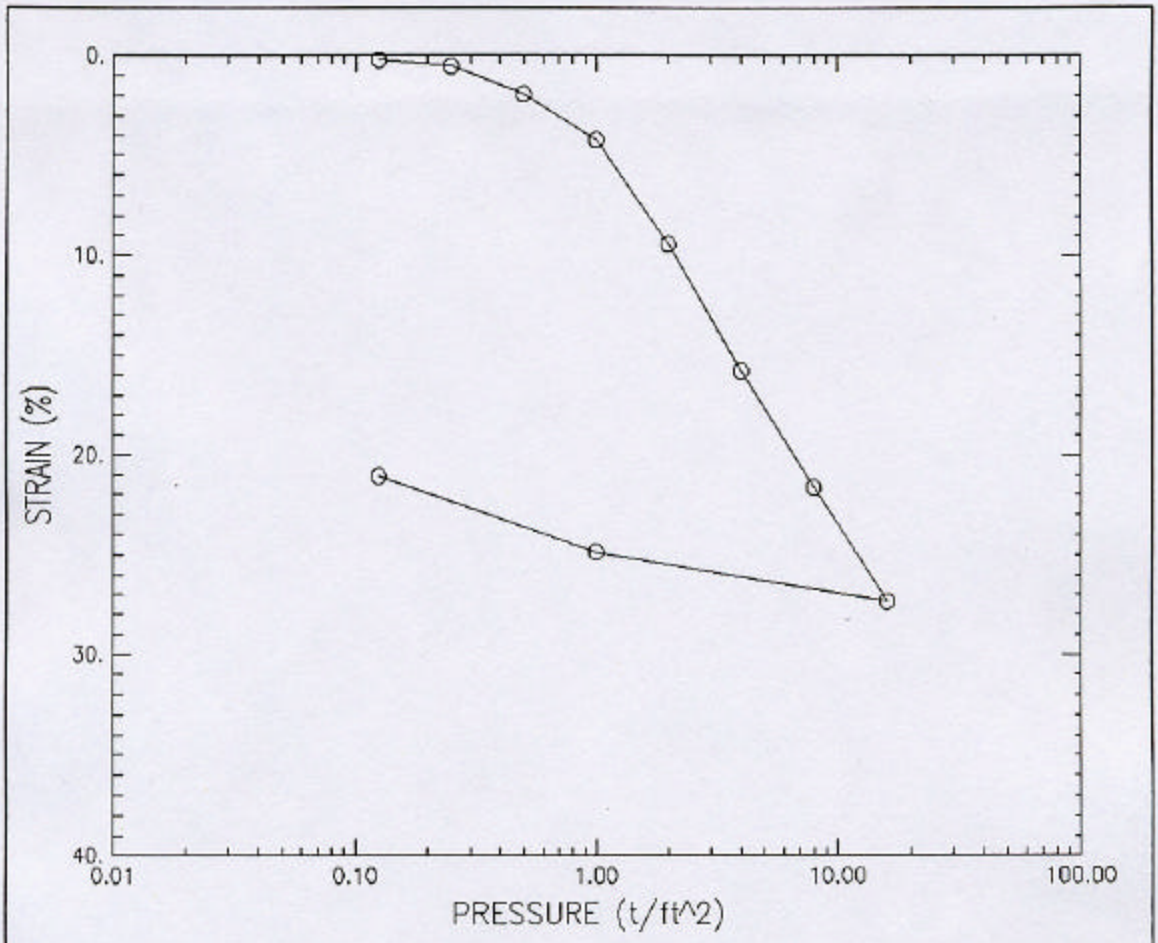
Sieve Mesh	Sieve Openings Inches	Millimeters	Weight Retained (gm)	Cumulative Weight Retained (gm)	Percent Finer (%)
#200	0.003	0.07	21.05	21.05	85

Total Dry Weight of Sample = 143.19

D85 : N/A
D60 : N/A
D50 : N/A
D30 : N/A
D15 : N/A
D10 : N/A

Soil Classification
ASTM Group Symbol : ML
ASTM Group Name : silt
AASHTO Group Symbol : A-7-6(19)
AASHTO Group Name : Clayey Soils

URS



			BEFORE TEST	AFTER TEST
OVERBURDEN PRESSURE (t/ft^2)		WATER CONTENT (%)	50.029	32.544
PRECONSOL. PRESSURE (t/ft^2)		DRY DENSITY (lb/ft^3)	70.369	89.187
COMPRESSION INDEX		SATURATION (%)	97.596	100.000
TYPE SPECIMEN		VOID RATIO	1.369	0.869
DIA. (in) 1.939	HT. (in) 0.936	BACK PRESSURE (t/ft^2)		

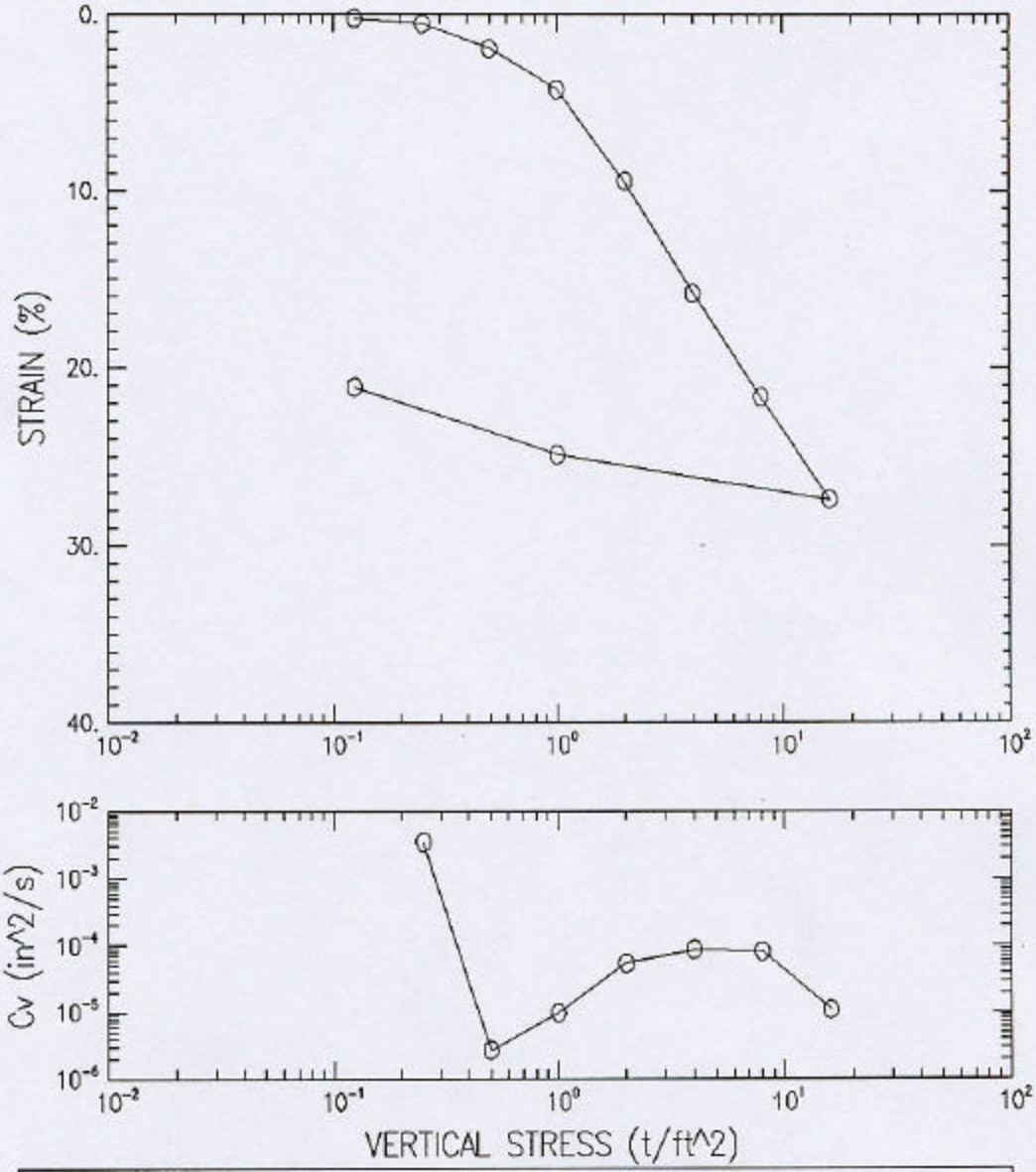
CLASSIFICATION Gray clayey silt to si-clay w/ traces of organic

LL 46.5	PL 27.4	PI 19.1	PROJECT Rhodia Peyton Slough
GS 2.670	D_{10}		Data File: RHO-4-7.CON
REMARKS			BORING NO. 4 / SAMPLE NO. 7
			DEPTH 40-42.5 ft / DATE 2/01/02

Woodward Clyde Consultants
CONSOLIDATION TEST REPORT

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CONSOLIDATION TEST
SUMMARY REPORT



Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 7
Test Date : 2/01/02 Test No : 4-7 Depth : 40-42.5 ft
Description : Gray clayey silt to si-clay w/ traces of organic

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Wed Feb 13 16:58:01 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-7
Boring No. : 4 Test Date : 2/01/02 Tested by : C. Wason
Sample No. : 7 Sample Type : Tube Depth : 40-42.5 ft
Checked by : S. Capps
Soil Description : Gray clayey silt to si-clay w/ traces of organic
Remarks : Trimmed from 2.33 down to 1.939 inches in diameter

	APPLIED PRESSURE (t/ft^2)	FINAL DISPLACEMENT (in)	VOID RATIO	STRAIN AT END (%)	FITTING TIME (min) SQ.RT.	FITTING TIME (min) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) SQ.RT.	COEFFICIENT OF CONSOLIDATION (in^2/s) LOG	COEFFICIENT OF CONSOLIDATION (in^2/s) AVE
1)	0.13	0.002	1.363	0.23	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
2)	0.25	0.005	1.356	0.54	0.2	0.0	3.49E-003	0.00E+000	0.00E+000
3)	0.50	0.018	1.323	1.93	260.3	0.0	2.70E-006	0.00E+000	0.00E+000
4)	1.00	0.040	1.268	4.25	68.8	0.0	9.82E-006	0.00E+000	0.00E+000
5)	2.00	0.088	1.145	9.44	11.5	0.0	5.44E-005	0.00E+000	0.00E+000
6)	4.00	0.148	0.994	15.81	6.3	0.0	8.72E-005	0.00E+000	0.00E+000
7)	8.00	0.203	0.856	21.65	5.8	0.0	8.17E-005	0.00E+000	0.00E+000
8)	16.00	0.256	0.721	27.36	37.6	0.0	1.09E-005	0.00E+000	0.00E+000
9)	1.00	0.233	0.780	24.87	0.0	0.0	0.00E+000	0.00E+000	0.00E+000
10)	0.13	0.197	0.869	21.09	0.0	0.0	0.00E+000	0.00E+000	0.00E+000

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CONSOLIDATION TEST DATA

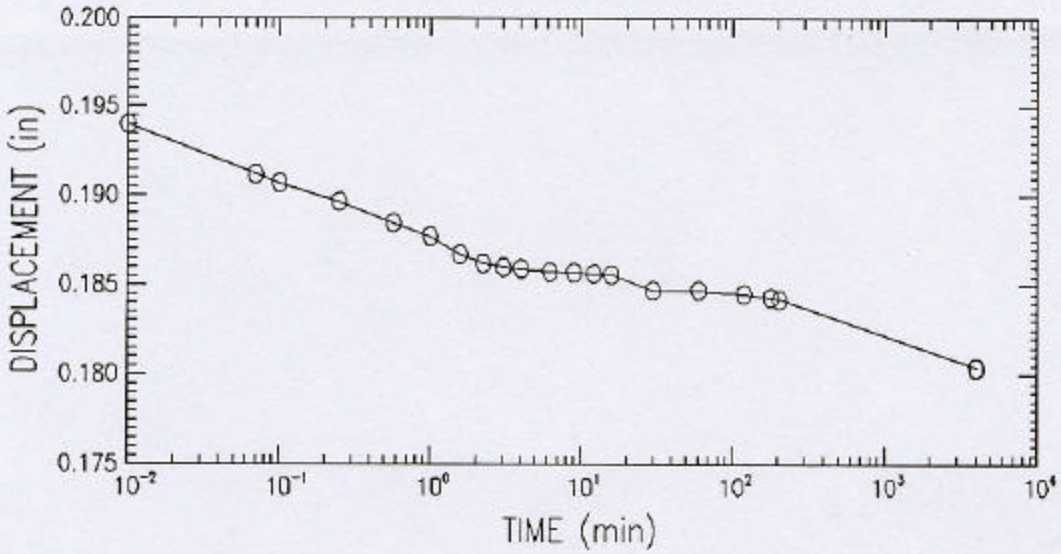
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-7
Boring No. : 4 Test Date : 2/01/02 Tested by : C. Wason
Sample No. : 7 Sample Type : Tube Depth : 40-42.5 ft
Checked by : S. Capps
Soil Description : Gray clayey silt to si-clay w/ traces of organic
Remarks : Trimmed from 2.33 down to 1.939 inches in diameter

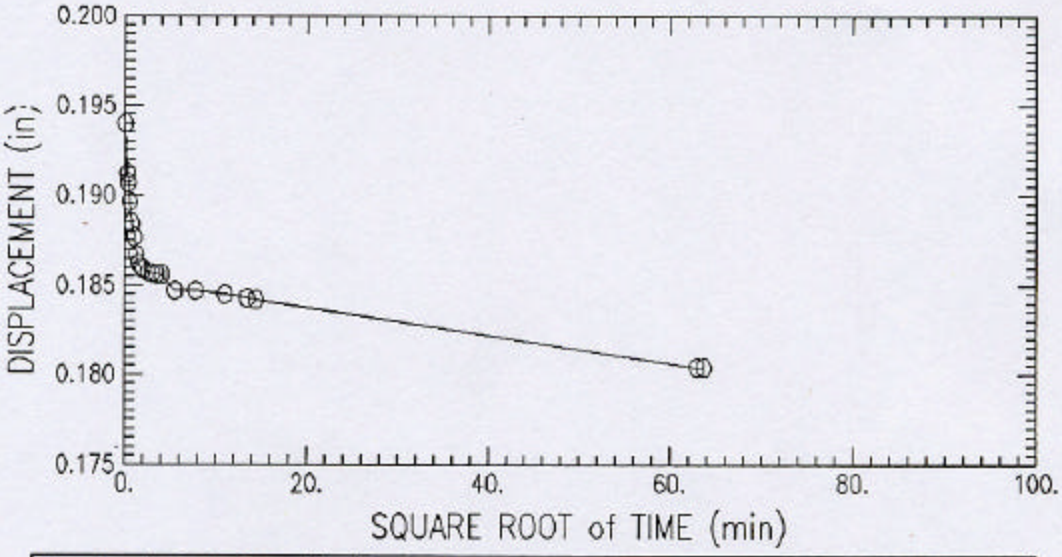
Liquid Limit : 46.49 Plastic Limit : 27.36 Plasticity Index : 19.13
Specific Gravity : 2.67 Initial Height : 0.94 Sample Diameter : 1.94 (in)
Initial Void Ratio : 1.368 Weight of Piston and top cap : 0.00 (gm)

	TRIMMINGS	SPECIMEN + RING BEFORE	SPECIMEN + RING AFTER	AFTER
CONTAINER NO.		RING	RING	
WT CONTAINER + WET SOIL (gm)	172.28	296.60	287.67	287.67
WT CONTAINER + DRY SOIL (gm)	143.68	271.05	271.05	271.05
WT CONTAINER (gm)	86.53	219.98	219.98	219.98
WT DRY SOIL (gm)	57.15	51.07	51.07	51.07
WATER CONTENT (%)	50.04	50.03	32.54	32.54
VOID RATIO	------	1.37	0.87	------
DEGREE OF SATURATION (%)	------	97.60	100.00	------
DRY DENSITY (lb/ft^3)	------	70.37	89.19	------

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CONSOLIDATION TEST
TIME CURVES (STEP 3 OF 10)
STRESS : 0.5 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 7
Test Date : 2/01/02 Test No : 4-7 Depth : 40-42.5 ft
Description : Gray clayey silt to si-clay w/ traces of organic

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CONSOLIDATION TEST DATA

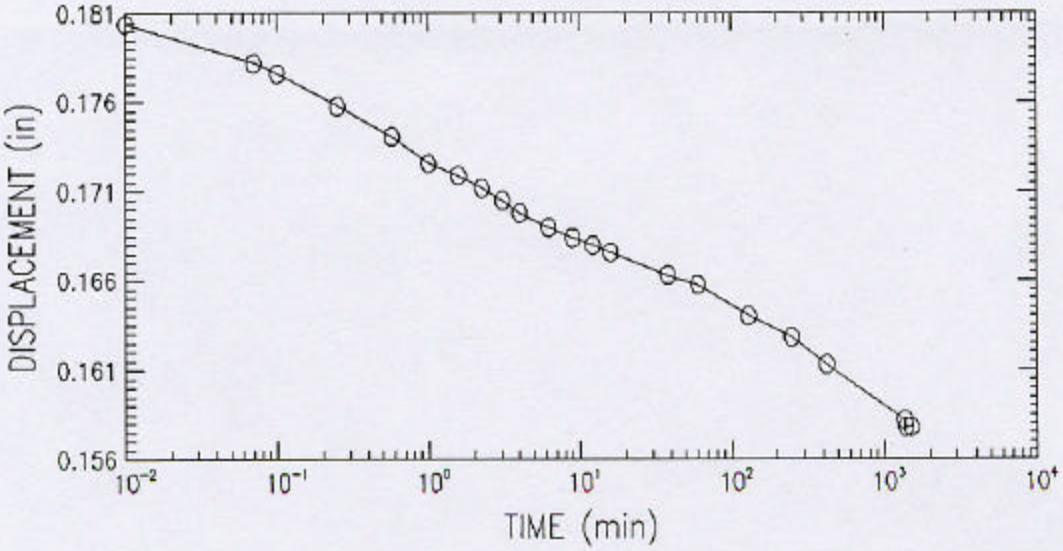
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-7
Boring No. : 4 Test Date : 2/01/02 Tested by : C. Wason
Sample No. : 7 Sample Type : Tube Depth : 40-42.5 ft
Checked by : S. Capps
Soil Description : Gray clayey silt to si-clay w/ traces of organic
Remarks : Trimmed from 2.33 down to 1.939 inches in diameter

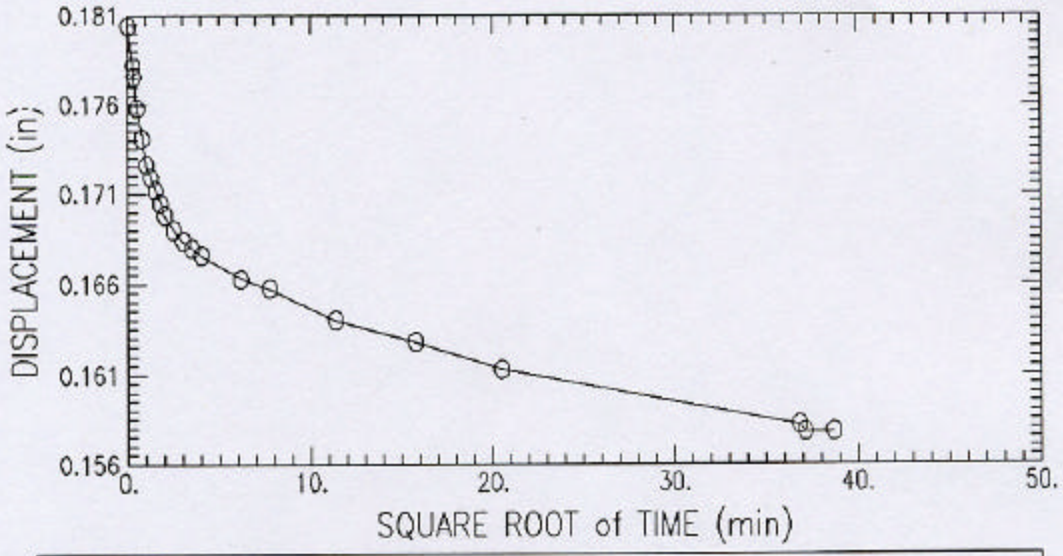
Load Increment : 3/10
Stress increment from 0.25 (t/ft^2) to 0.50 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.360	0.00
2)			0.07	0.26	0.0028	1.353	0.30
3)			0.10	0.32	0.0033	1.352	0.35
4)			0.25	0.50	0.0043	1.349	0.46
5)			0.57	0.75	0.0055	1.346	0.59
6)			1.00	1.00	0.0063	1.344	0.67
7)			1.57	1.25	0.0073	1.342	0.78
8)			2.25	1.50	0.0078	1.340	0.83
9)			3.07	1.75	0.0080	1.340	0.85
10)			4.00	2.00	0.0081	1.340	0.87
11)			6.25	2.50	0.0083	1.339	0.88
12)			9.00	3.00	0.0083	1.339	0.89
13)			12.25	3.50	0.0083	1.339	0.89
14)			16.00	4.00	0.0084	1.339	0.90
15)			30.00	5.48	0.0093	1.337	0.99
16)			60.00	7.75	0.0093	1.337	0.99
17)			120.00	10.95	0.0095	1.336	1.01
18)			180.00	13.42	0.0097	1.336	1.04
19)			206.00	14.35	0.0098	1.335	1.05
20)			3969.00	63.00	0.0136	1.326	1.45
21)			4063.00	63.74	0.0136	1.326	1.45

URS

CONSOLIDATION TEST
TIME CURVES (STEP 4 OF 10)
STRESS : 1 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 7
Test Date : 2/01/02 Test No : 4-7 Depth : 40-42.5 ft
Description : Gray clayey silt to si-clay w/ traces of organic

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CONSOLIDATION TEST DATA

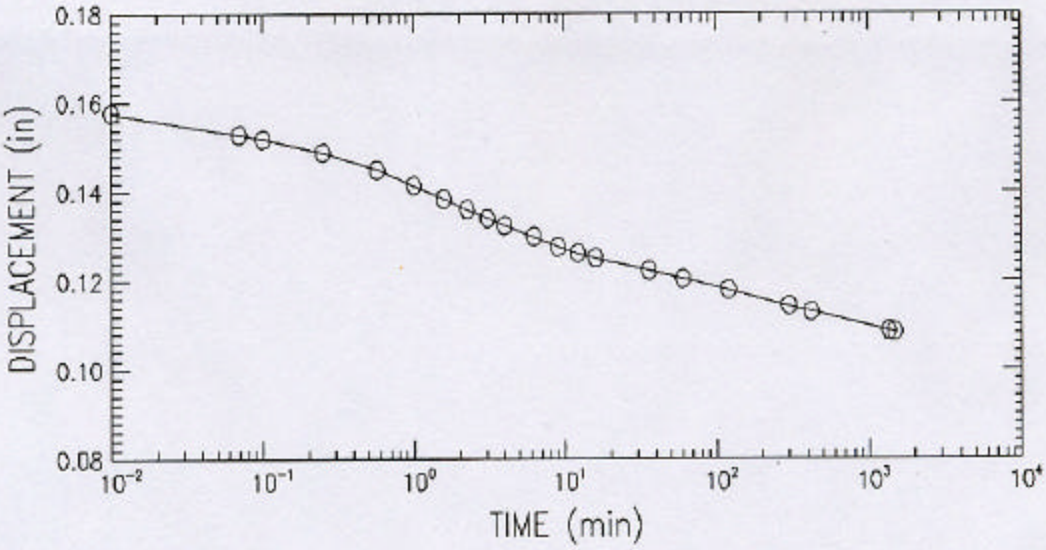
Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-7
Boring No. : 4 Test Date : 2/01/02 Tested by : C. Wason
Sample No. : 7 Sample Type : Tube Depth : 40-42.5 ft
Checked by : S. Capps
Soil Description : Gray clayey silt to si-clay w/ traces of organic
Remarks : Trimmed from 2.33 down to 1.939 inches in diameter

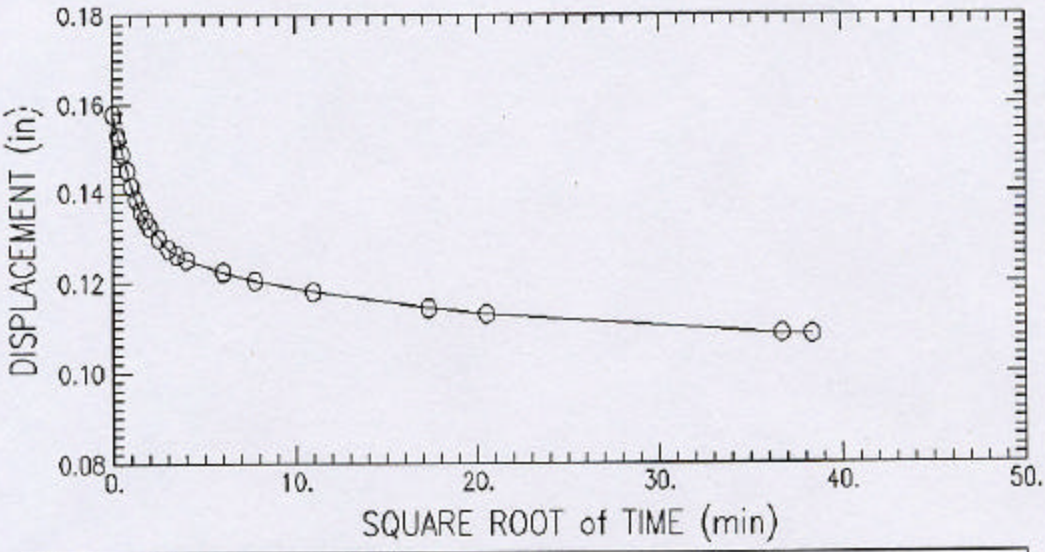
Load Increment : 4/10
Stress increment from 0.50 (t/ft^2) to 1.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.334	0.00
2)			0.07	0.26	0.0022	1.328	0.23
3)			0.10	0.32	0.0028	1.327	0.30
4)			0.25	0.50	0.0046	1.322	0.49
5)			0.57	0.75	0.0063	1.318	0.67
6)			1.00	1.00	0.0078	1.314	0.83
7)			1.57	1.25	0.0085	1.312	0.91
8)			2.25	1.50	0.0092	1.310	0.98
9)			3.07	1.75	0.0099	1.309	1.06
10)			4.00	2.00	0.0106	1.307	1.13
11)			6.25	2.50	0.0114	1.305	1.22
12)			9.00	3.00	0.0120	1.303	1.28
13)			12.25	3.50	0.0124	1.302	1.32
14)			16.00	4.00	0.0128	1.301	1.37
15)			38.00	6.16	0.0141	1.298	1.51
16)			60.00	7.75	0.0147	1.297	1.56
17)			129.00	11.36	0.0164	1.292	1.75
18)			248.00	15.75	0.0176	1.289	1.88
19)			420.00	20.49	0.0191	1.285	2.04
20)			1357.00	36.84	0.0222	1.277	2.37
21)			1380.00	37.15	0.0226	1.276	2.41
22)			1498.00	38.70	0.0226	1.276	2.41

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CONSOLIDATION TEST
TIME CURVES (STEP 5 OF 10)
STRESS : 2 (t/ft^2)





Woodward Clyde Consultants
Project Name : Rhodia Peyton Slough
Project No : 5100070007 Boring No : 4 Sample No : 7
Test Date : 2/01/02 Test No : 4-7 Depth : 40-42.5 ft
Description : Gray clayey silt to si-clay w/ traces of organic

URS

Wed Feb 13 17:09:08 2002

CONSOLIDATION TEST DATA

Project : Rhodia Peyton Slough Location : Martinez, CA Project No. : 5100070007
Test No. : 4-7
Boring No. : 4 Test Date : 2/01/02 Tested by : C. Wason
Sample No. : 7 Sample Type : Tube Depth : 40-42.5 ft
Checked by : S. Capps
Soil Description : Gray clayey silt to si-clay w/ traces of organic
Remarks : Trimmed from 2.33 down to 1.939 inches in diameter

Load Increment : 5/10
Stress increment from 1.00 (t/ft^2) to 2.00 (t/ft^2)

	DATE	TIME	ELAPSED TIME (min)	SQRT. OF TIME (min)	CHANGE IN HEIGHT (in)	VOID RATIO	STRAIN (%)
1)			0.00	0.00	0.0000	1.311	0.00
2)			0.07	0.26	0.0048	1.299	0.51
3)			0.10	0.32	0.0058	1.296	0.62
4)			0.25	0.50	0.0088	1.289	0.94
5)			0.57	0.75	0.0127	1.279	1.36
6)			1.00	1.00	0.0163	1.270	1.74
7)			1.57	1.25	0.0193	1.262	2.06
8)			2.25	1.50	0.0217	1.256	2.32
9)			3.07	1.75	0.0236	1.251	2.52
10)			4.00	2.00	0.0253	1.247	2.70
11)			6.25	2.50	0.0278	1.241	2.97
12)			9.00	3.00	0.0301	1.235	3.21
13)			12.25	3.50	0.0315	1.231	3.36
14)			16.00	4.00	0.0326	1.228	3.48
15)			36.00	6.00	0.0354	1.221	3.78
16)			60.00	7.75	0.0373	1.217	3.98
17)			120.00	10.95	0.0398	1.210	4.25
18)			300.00	17.32	0.0435	1.201	4.65
19)			420.00	20.49	0.0448	1.198	4.78
20)			1350.00	36.74	0.0492	1.186	5.25
21)			1473.00	38.38	0.0494	1.186	5.28