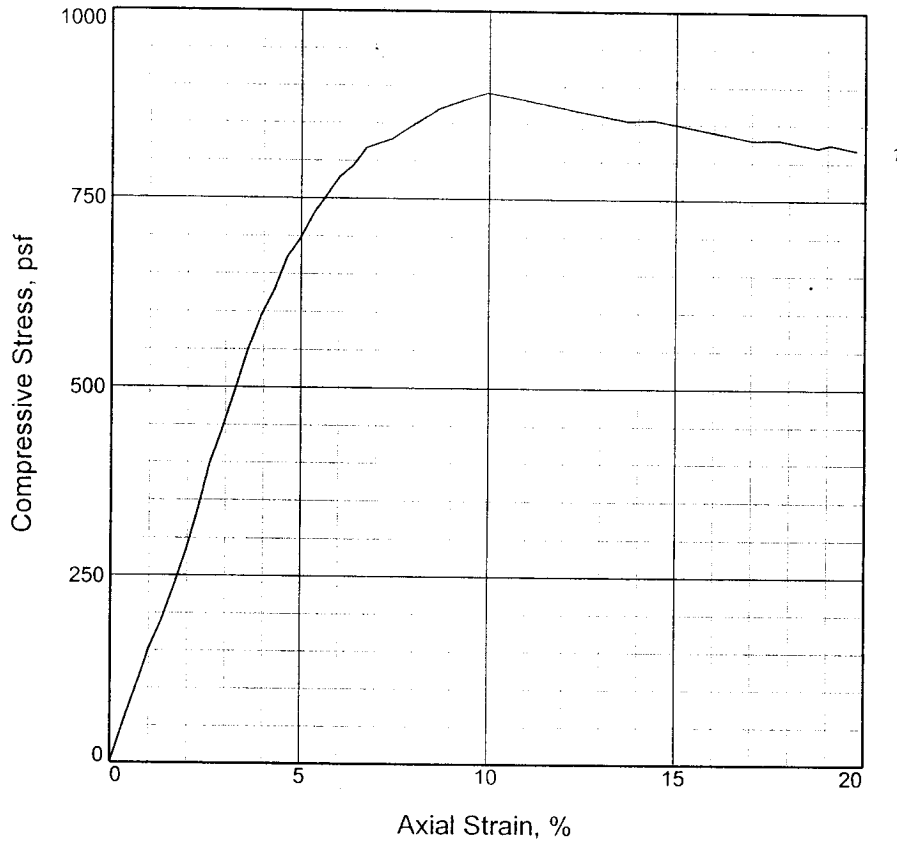


# UNCONFINED COMPRESSION TEST



|                               |        |  |  |  |
|-------------------------------|--------|--|--|--|
| Specimen No.                  | 1      |  |  |  |
| Unconfined strength, psf      | 891.1  |  |  |  |
| Undrained shear strength, psf | 445.6  |  |  |  |
| Failure strain, %             | 10.0   |  |  |  |
| Strain rate, in./min.         | 0.059  |  |  |  |
| Water content, %              | 24.3   |  |  |  |
| Wet density, pcf              | 120.3  |  |  |  |
| Dry density, pcf              | 96.8   |  |  |  |
| Saturation, %                 | 87.7   |  |  |  |
| Void ratio                    | 0.7549 |  |  |  |
| Specimen diameter, in.        | 1.388  |  |  |  |
| Specimen height, in.          | 2.930  |  |  |  |
| Height/diameter ratio         | 2.11   |  |  |  |

**Description:** M BR & GR CH3 W/ SI LEN, ARS SM

LL =      PL =      PI =      Assumed GS= 2.72      Type: UNDISTURBED

**Project No.:** 19082

**Date:** 12-8-05

**Remarks:**

**Client:** URS Corporation

**Project:** U.S. Army Corps of Engineers  
Inner Harbor Navigational Canal

**Source of Sample:** IHNC-TFG-9G      **Depth:** 0.0

**Sample Number:** 1

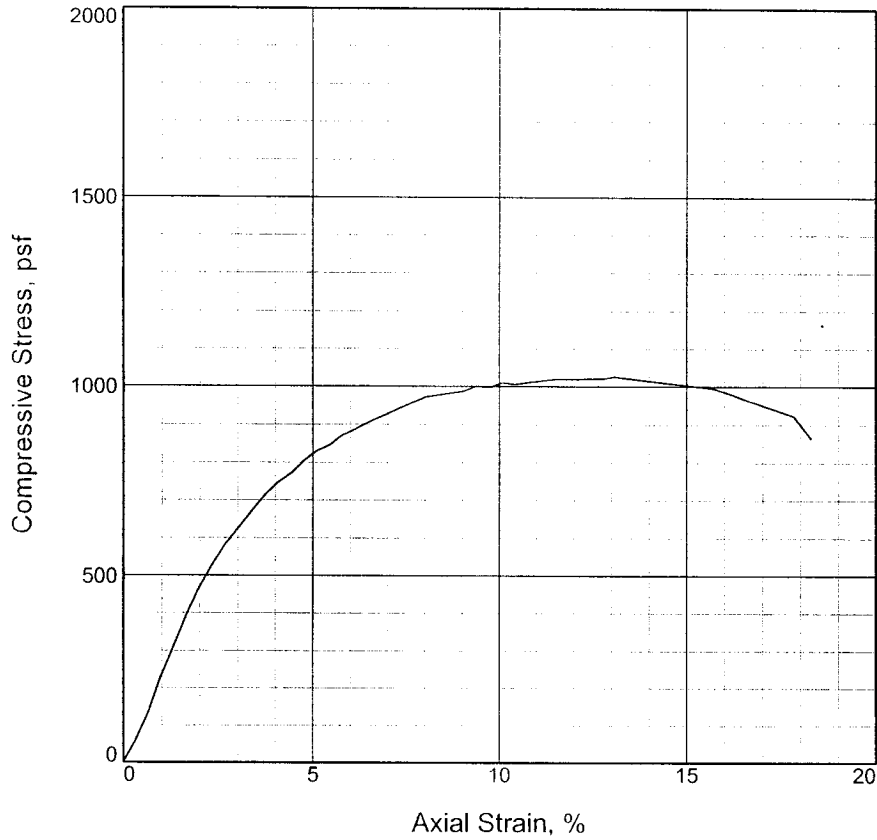
UNCONFINED COMPRESSION TEST

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL      Checked By: JS

# UNCONFINED COMPRESSION TEST



|                               |        |  |  |  |
|-------------------------------|--------|--|--|--|
| Specimen No.                  | 1      |  |  |  |
| Unconfined strength, psf      | 1000.3 |  |  |  |
| Undrained shear strength, psf | 500.2  |  |  |  |
| Failure strain, %             | 9.4    |  |  |  |
| Strain rate, in./min.         | 0.059  |  |  |  |
| Water content, %              | 47.1   |  |  |  |
| Wet density, pcf              | 104.1  |  |  |  |
| Dry density, pcf              | 70.8   |  |  |  |
| Saturation, %                 | 91.5   |  |  |  |
| Void ratio                    | 1.3990 |  |  |  |
| Specimen diameter, in.        | 1.388  |  |  |  |
| Specimen height, in.          | 2.930  |  |  |  |
| Height/diameter ratio         | 2.11   |  |  |  |

**Description:** M GR CH3 W/ LNS & ARS SM, TR-WD

LL =      PL =      PI =      Assumed GS= 2.72      Type: UNDISTURBED

**Project No.:** 19082

**Date:** 12-8-05

**Remarks:**

TORVANE = 0.150 TSF

**Client:** URS Corporation

**Project:** U.S. Army Corps of Engineers  
Inner Harbor Navigational Canal

**Source of Sample:** IHNC-TFG-9G

**Depth:** 5.0

**Sample Number:** 3

UNCONFINED COMPRESSION TEST

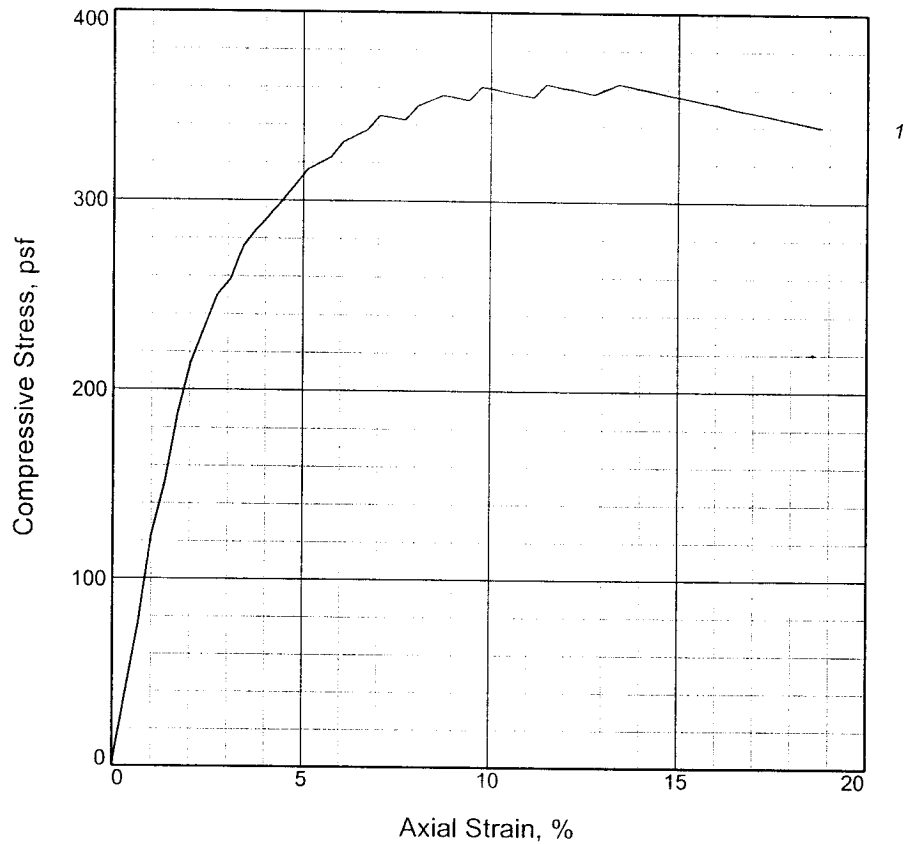
**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL

Checked By: JS

# UNCONFINED COMPRESSION TEST



|                               |        |  |  |  |
|-------------------------------|--------|--|--|--|
| Specimen No.                  | 1      |  |  |  |
| Unconfined strength, psf      | 345.0  |  |  |  |
| Undrained shear strength, psf | 172.5  |  |  |  |
| Failure strain, %             | 7.0    |  |  |  |
| Strain rate, in./min.         | 0.058  |  |  |  |
| Water content, %              | 68.3   |  |  |  |
| Wet density, pcf              | 97.2   |  |  |  |
| Dry density, pcf              | 57.8   |  |  |  |
| Saturation, %                 | 95.8   |  |  |  |
| Void ratio                    | 1.9386 |  |  |  |
| Specimen diameter, in.        | 1.388  |  |  |  |
| Specimen height, in.          | 2.930  |  |  |  |
| Height/diameter ratio         | 2.11   |  |  |  |

**Description:** VSO GR CH4 W/ ARS & LNS ML

|      |      |      |                  |                   |
|------|------|------|------------------|-------------------|
| LL = | PL = | PI = | Assumed GS= 2.72 | Type: UNDISTURBED |
|------|------|------|------------------|-------------------|

**Project No.:** 19082

**Date:** 12-8-05

**Remarks:**

TORVANE = 0.100 TSF

**Client:** URS Corporation

**Project:** U.S. Army Corps of Engineers  
Inner Harbor Navigational Canal

**Source of Sample:** IHNC-TFG-9G      **Depth:** 10.0

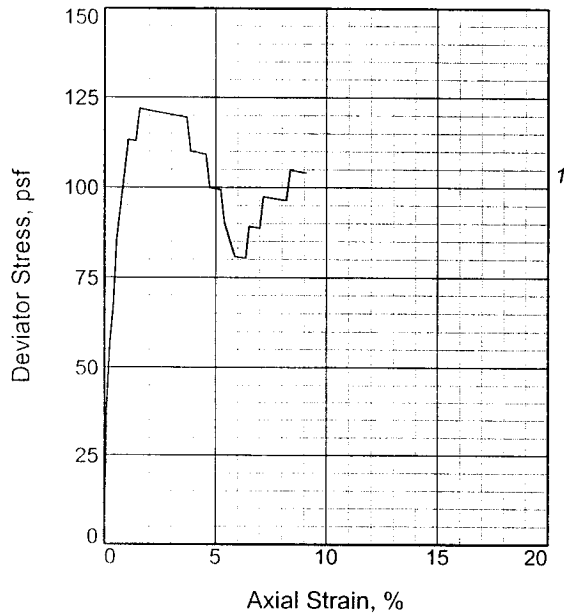
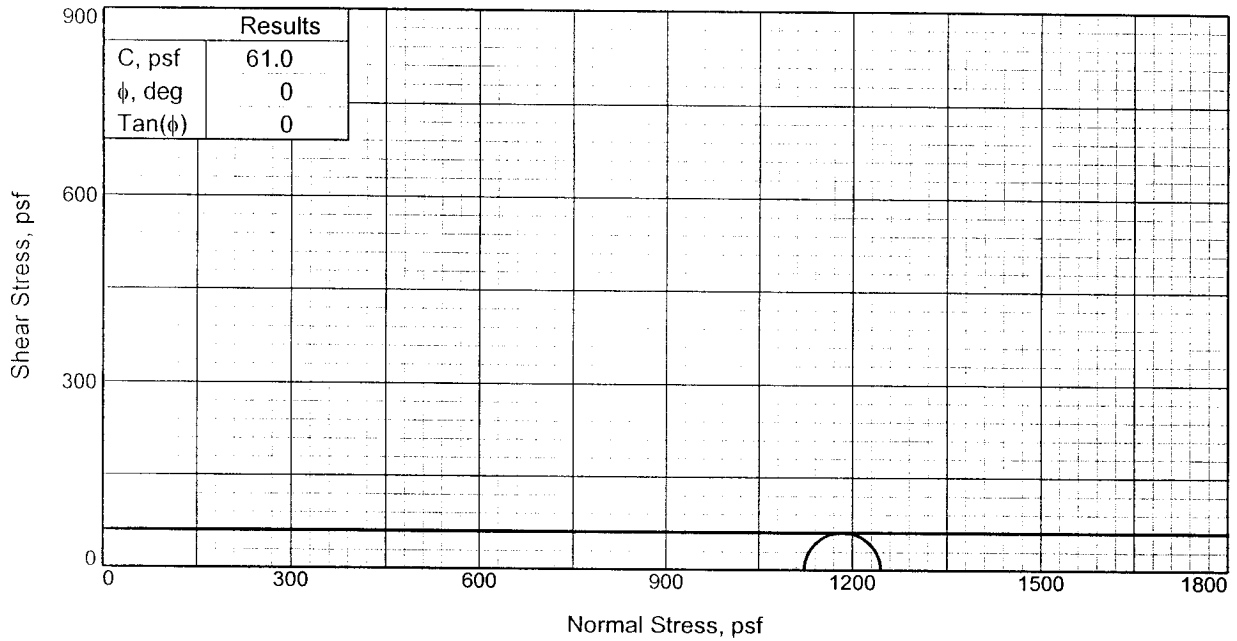
**Sample Number:** 5

UNCONFINED COMPRESSION TEST

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1

Tested By: JL      Checked By: JS



|                         |                  |        |
|-------------------------|------------------|--------|
| Specimen No.            |                  | 1      |
| Initial                 | Water Content,   | 98.4   |
|                         | Dry Density, pcf | 45.6   |
|                         | Saturation,      | 98.6   |
|                         | Void Ratio       | 2.6926 |
|                         | Diameter, in.    | 1.388  |
|                         | Height, in.      | 2.930  |
| At Test                 | Water Content,   | 99.4   |
|                         | Dry Density, pcf | 45.7   |
|                         | Saturation,      | 100.0  |
|                         | Void Ratio       | 2.6843 |
|                         | Diameter, in.    | 1.387  |
|                         | Height, in.      | 2.928  |
| Strain rate, in./min.   |                  | 0.030  |
| Back Pressure, psf      |                  | 0.0    |
| Cell Pressure, psf      |                  | 1123.2 |
| Fail. Stress, psf       |                  | 121.9  |
| Ult. Stress, psf        |                  | 104.0  |
| $\sigma_1$ Failure, psf |                  | 1245.1 |
| $\sigma_3$ Failure, psf |                  | 1123.2 |

**Type of Test:**  
Unconsolidated Undrained

**Sample Type:** UNDISTURBED

**Description:** VSO DGR & GR CHOA W/ WD,  
ARS ML

**Assumed Specific Gravity=** 2.70

**Remarks:**

**Client:** URS Corporation

**Project:** U.S. Army Corps of Engineers  
Inner Harbor Navigational Canal

**Source of Sample:** IHNC-TFG-9G      **Depth:** 15.0

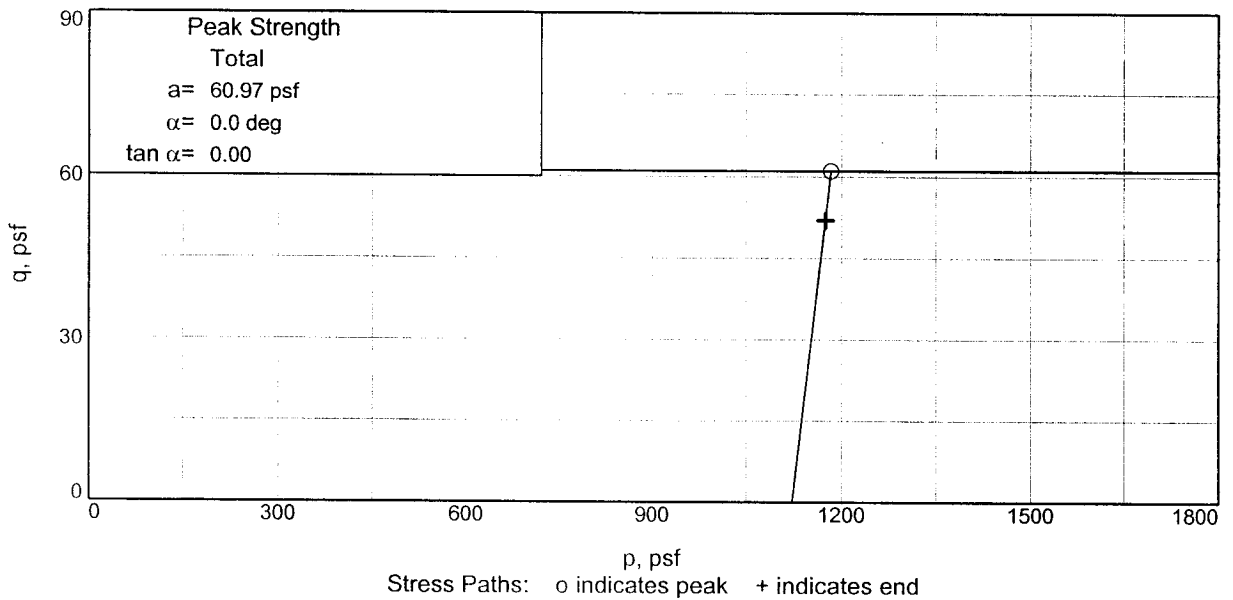
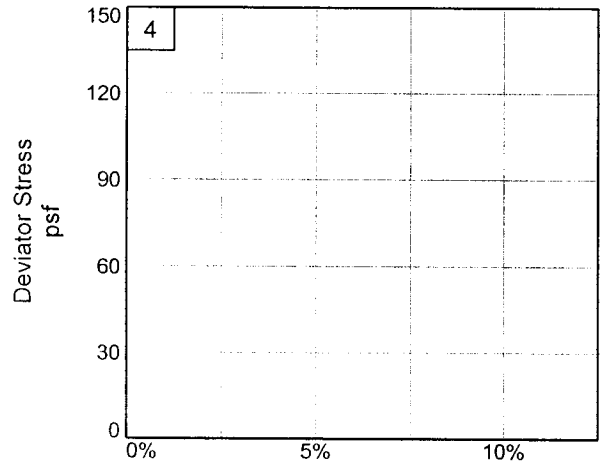
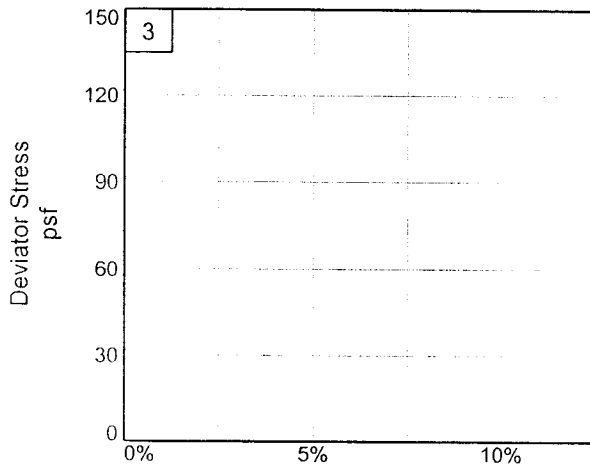
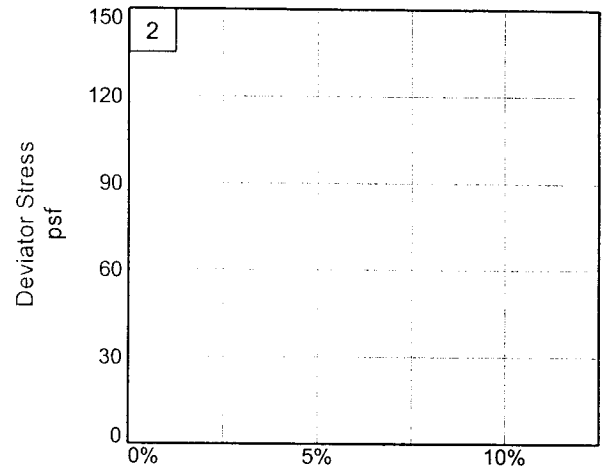
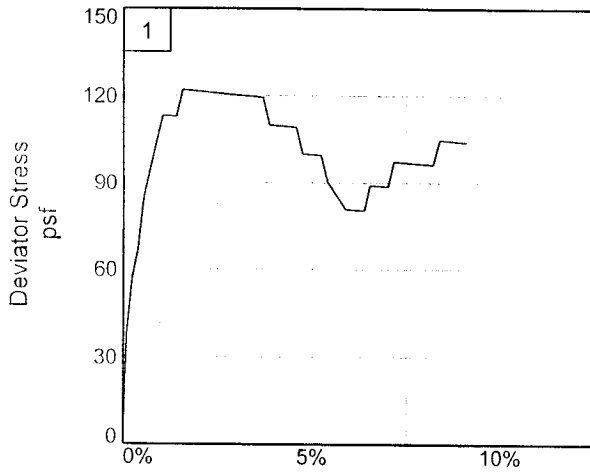
**Sample Number:** 7

**Proj. No.:** 19082      **Date:** 12-8-05

TRIAxIAL SHEAR TEST REPORT

**EUSTIS ENGINEERING COMPANY, INC.**

Figure 1



Client: URS Corporation

Project: U.S. Army Corps of Engineers

Source of Sample: IHNC-TFG-9G

Depth: 15.0

Sample Number: 7

Project No.: 19082

Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: JL

Checked By: JS