

Specimen No.		1
Initial	Water Content,	84.7
	Dry Density, pcf	49.4
	Saturation,	94.3
	Void Ratio	2.4619
	Diameter, in.	1.388
At Test	Height, in.	2.930
	Water Content,	89.7
	Dry Density, pcf	49.5
	Saturation,	100.0
	Void Ratio	2.4590
Strain rate, in./min.	Diameter, in.	1.388
	Height, in.	2.929
Back Pressure, psf		0.0
Cell Pressure, psf		1051.2
Fail. Stress, psf		100.3
Ult. Stress, psf		122.0
σ_1 Failure, psf		1151.5
σ_3 Failure, psf		1051.2

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: vSo Gr CH4 w/ Ins ML

LL= 80 PL= 22 PI= 58

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.0500 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 18.5

Sample Number: 2

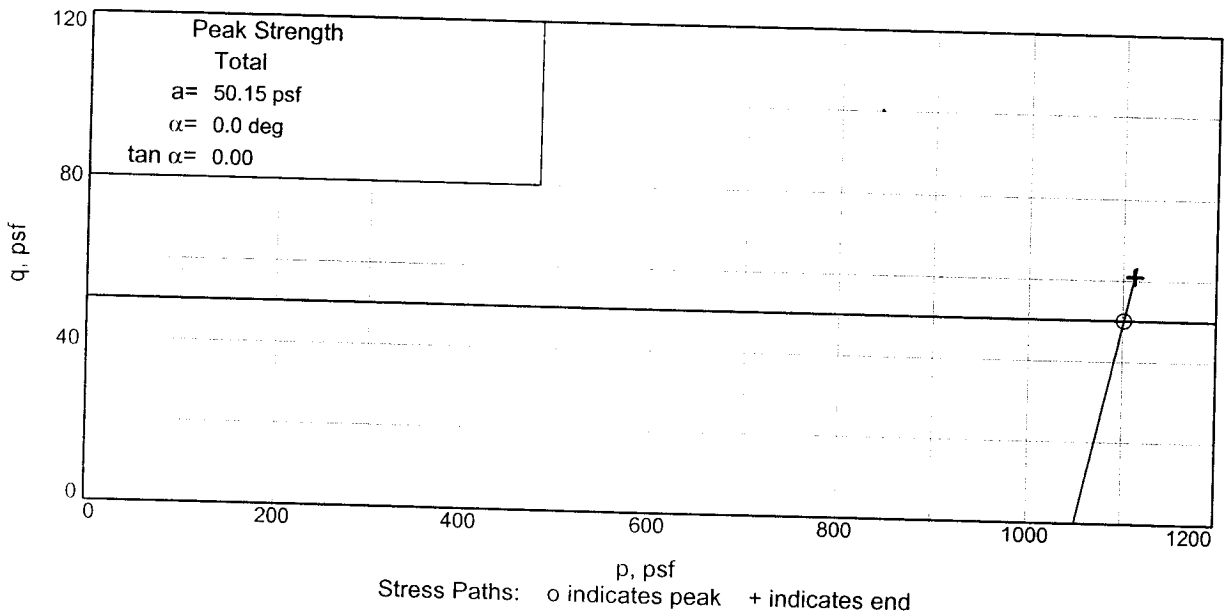
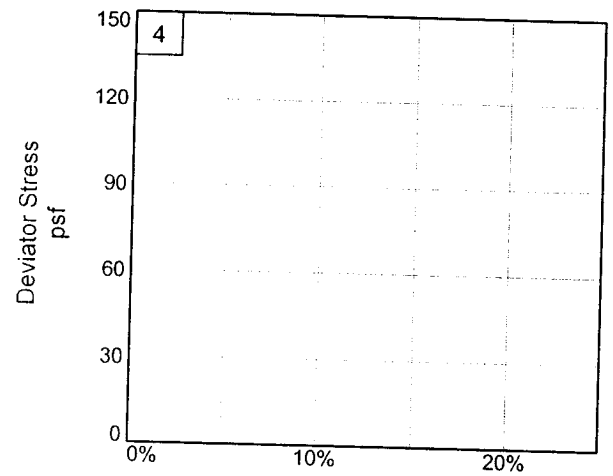
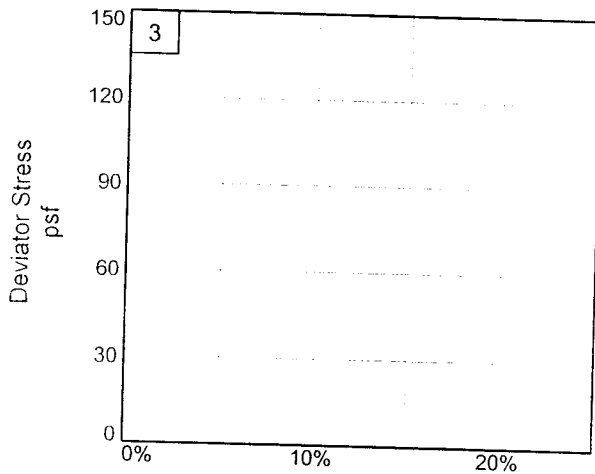
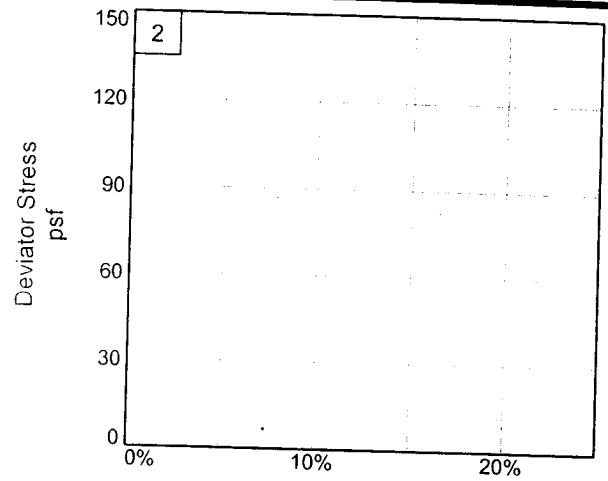
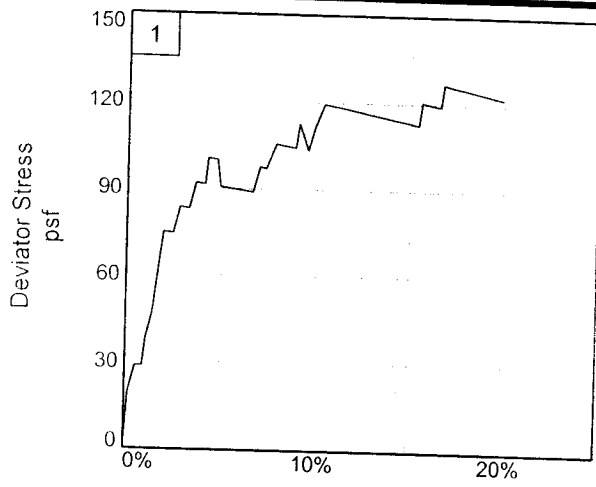
Proj. No.: 19080 **Date:** 11-10-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure _____

Tested By: ZH Checked By: RNE



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 Depth: 18.5 Sample Number: 2

Project No.: 19080

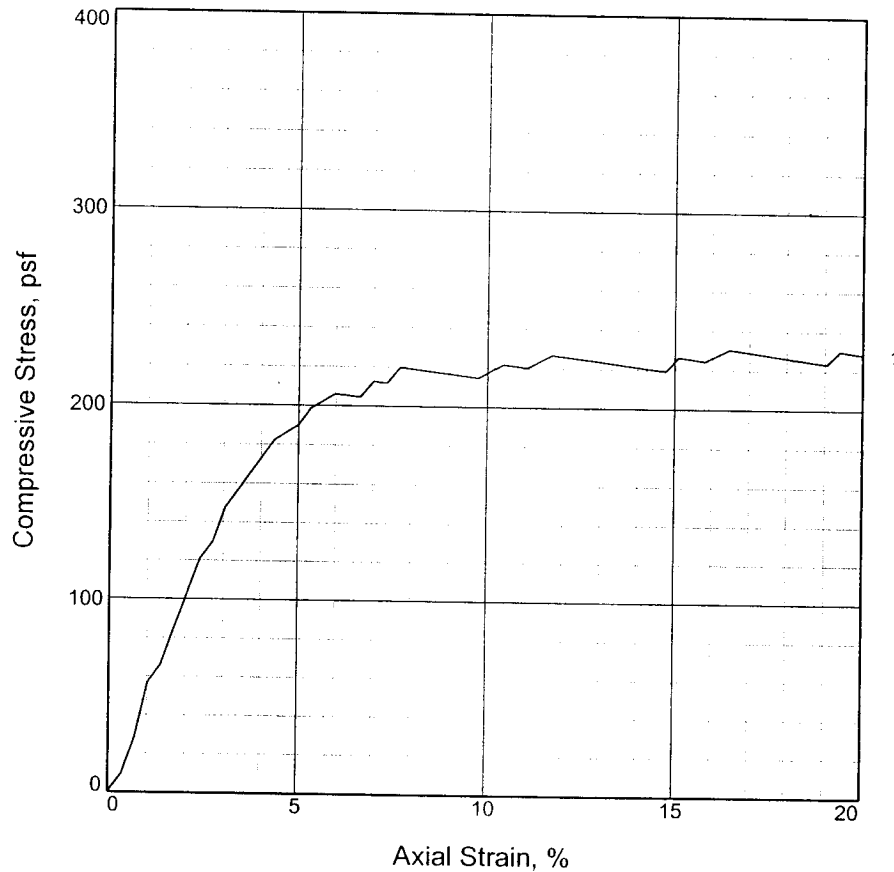
Figure _____

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	205.8			
Undrained shear strength, psf	102.9			
Failure strain, %	6.0			
Strain rate, in./min.	0.059			
Water content, %	85.7			
Wet density, pcf	92.6			
Dry density, pcf	49.9			
Saturation, %	96.6			
Void ratio	2.4313			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: vSo Gr CH4

LL = PL = PI = Assumed GS= 2.74 Type: Undisturbed

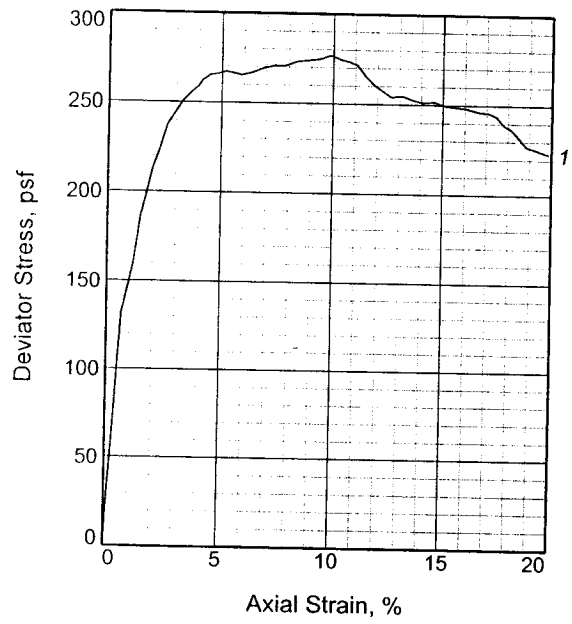
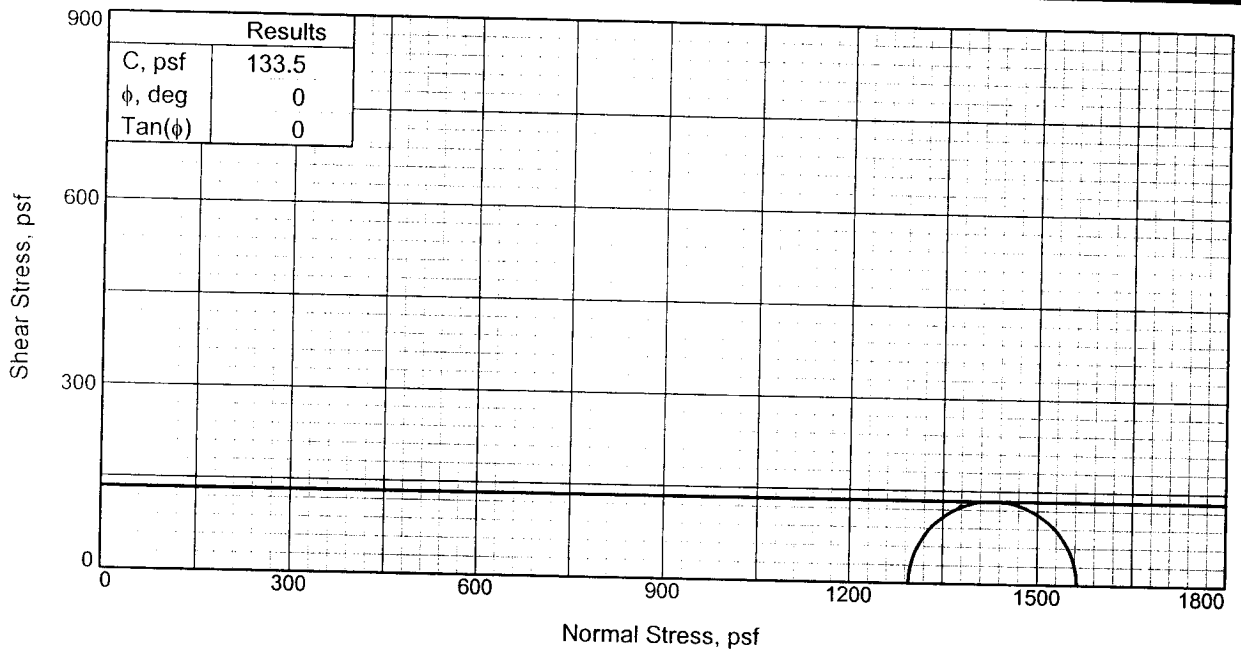
Project No.: 19080
Date: 11-10-05
Remarks:
 Torvane = 0.050 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 21.0
Sample Number: 3

UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure _____



Specimen No.		1
Initial	Water Content,	90.9
	Dry Density, pcf	48.2
	Saturation,	97.7
	Void Ratio	2.5505
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	93.1
	Dry Density, pcf	48.2
	Saturation,	100.0
	Void Ratio	2.5498
	Diameter, in.	1.388
	Height, in.	2.930
Strain rate, in./min.		0.030
Back Pressure, psf		0.0
Cell Pressure, psf		1296.0
Fail. Stress, psf		267.1
Ult. Stress, psf		223.1
σ_1 Failure, psf		1563.1
σ_3 Failure, psf		1296.0

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: St Gr CH4

LL= 90 PL= 25 PI= 65

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.0500 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 23.5

Sample Number: 4

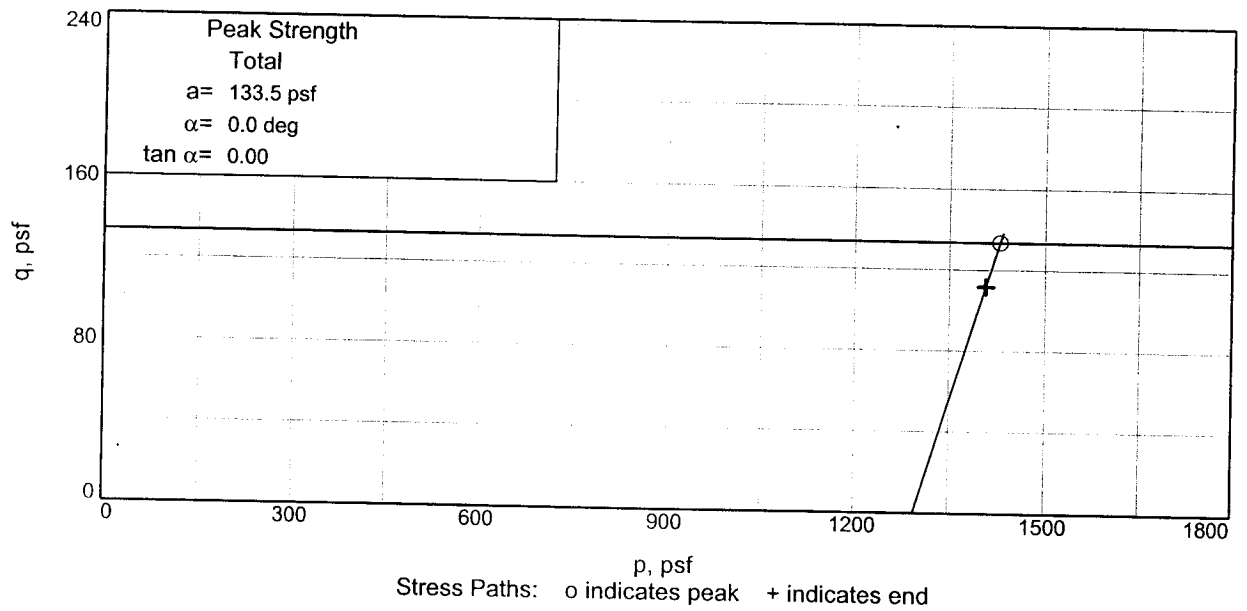
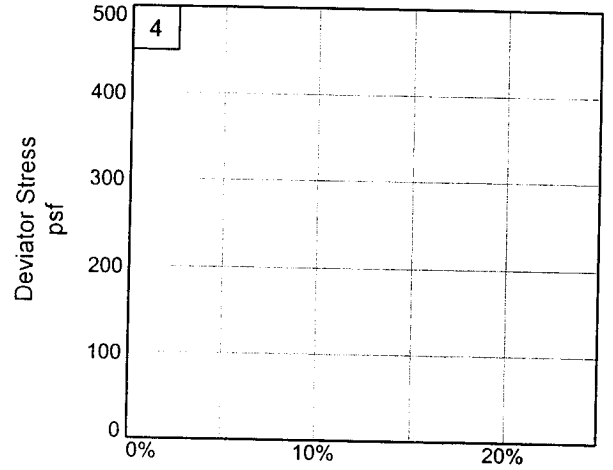
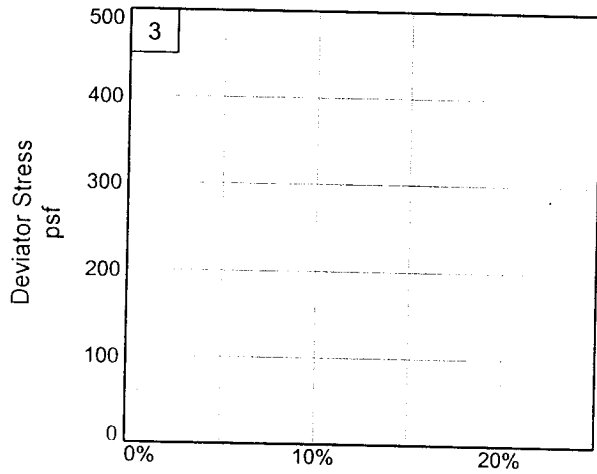
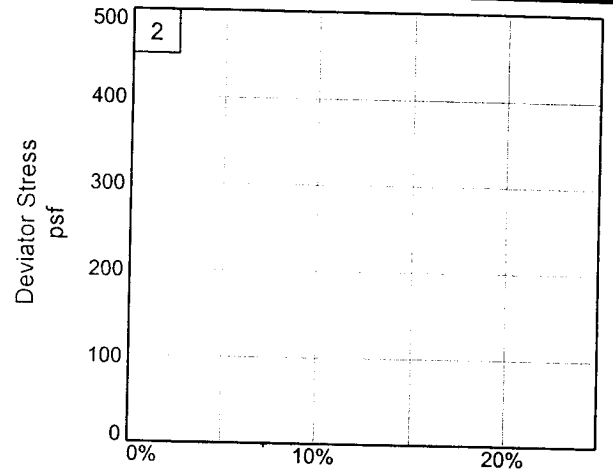
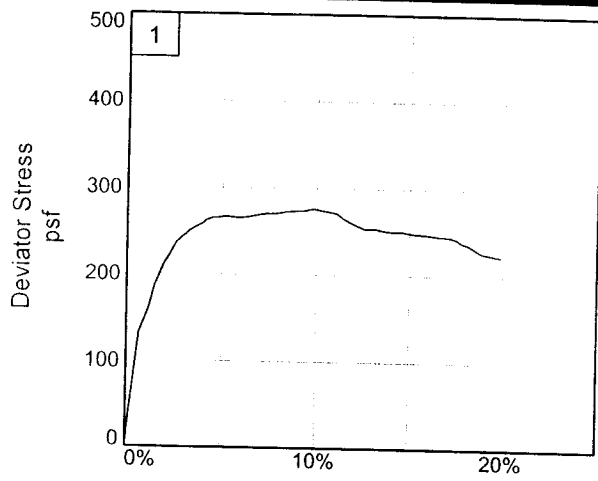
Proj. No.: 19080 **Date:** 11-10-05

TRIAxIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure _____

Tested By: ZH Checked By: RNE



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 23.5 **Sample Number:** 4

Project No.: 19080

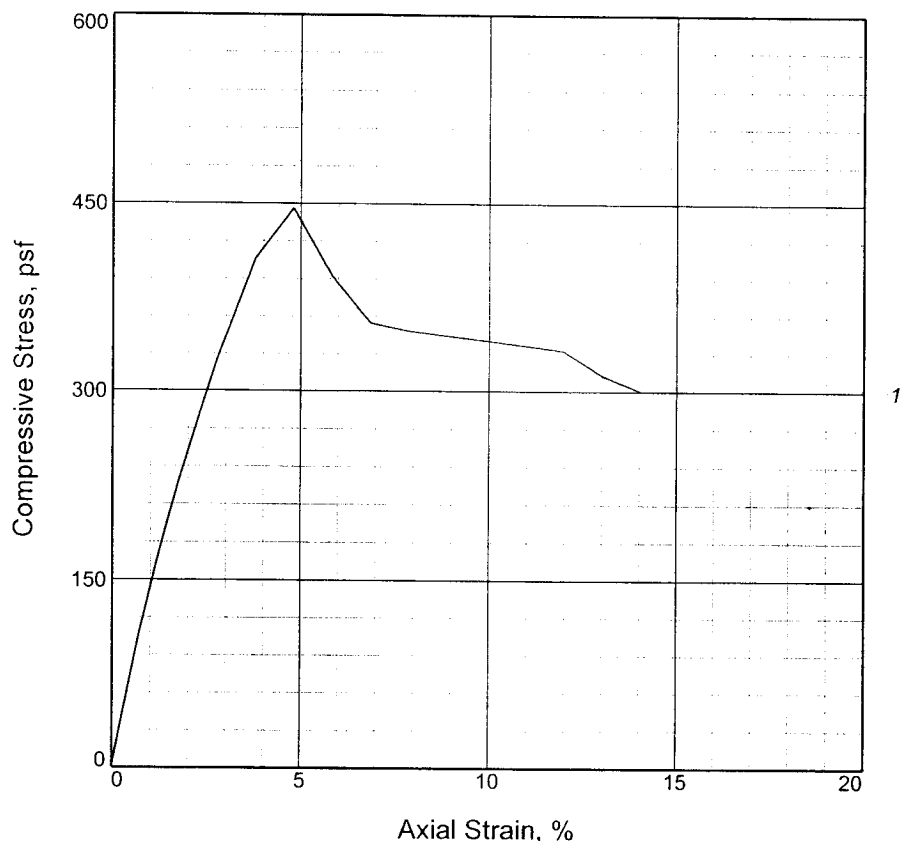
Figure _____

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH

Checked By: RNE

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	446.0			
Undrained shear strength, psf	223.0			
Failure strain, %	4.8			
Strain rate, in./min.	0.059			
Water content, %	88.2			
Wet density, pcf	89.7			
Dry density, pcf	47.7			
Saturation, %	93.6			
Void ratio	2.5623			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: vSo Gr CH4 w/ ars SM

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

Project No.: 19080
Date: 11-10-05
Remarks:
 Torvane = 0.100 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 26.0
Sample Number: 5

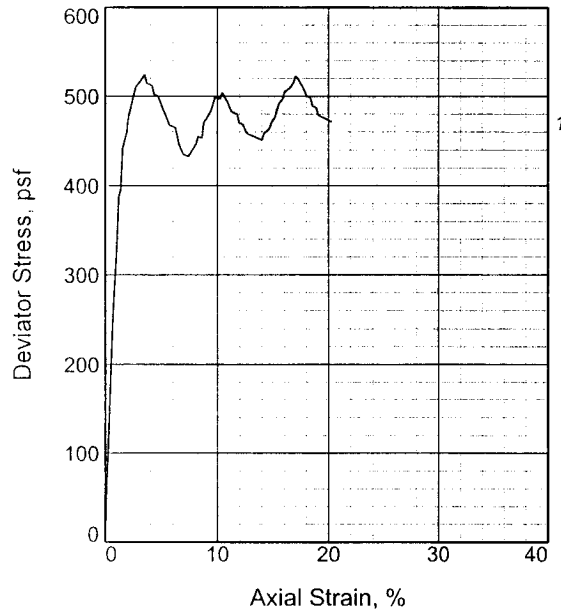
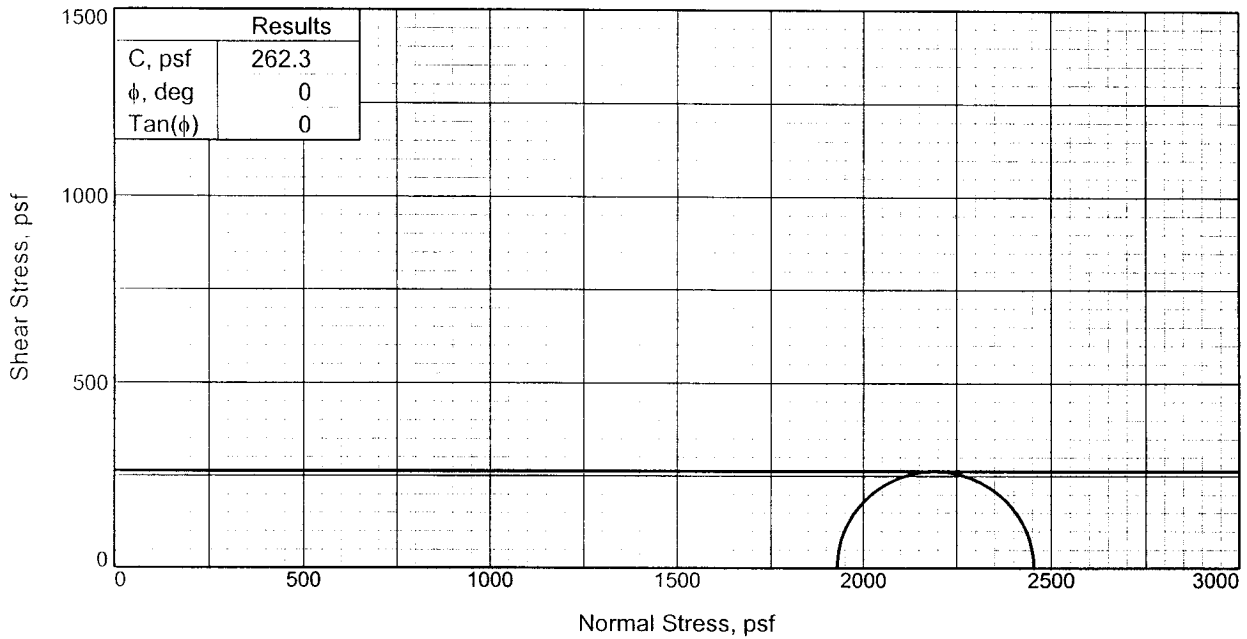
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: JS



Specimen No.	1	
Initial	Water Content,	88.2
	Dry Density, pcf	49.0
	Saturation,	97.0
	Void Ratio	2.4913
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	90.5
	Dry Density, pcf	49.2
	Saturation,	100.0
	Void Ratio	2.4798
	Diameter, in.	1.386
	Height, in.	2.927
Strain rate, in./min.	0.030	
Back Pressure, psf	0.0	
Cell Pressure, psf	1929.6	
Fail. Stress, psf	524.6	
Ult. Stress, psf	471.4	
σ_1 Failure, psf	2454.2	
σ_3 Failure, psf	1929.6	

Type of Test:

Unconsolidated Undrained

Sample Type: Undisturbed

Description: So Gr CH4 w/ SL

LL= 98 PL= 27 PI= 71

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.100 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 28.5

Sample Number: 6

Proj. No.: 19080

Date: 11-10-05

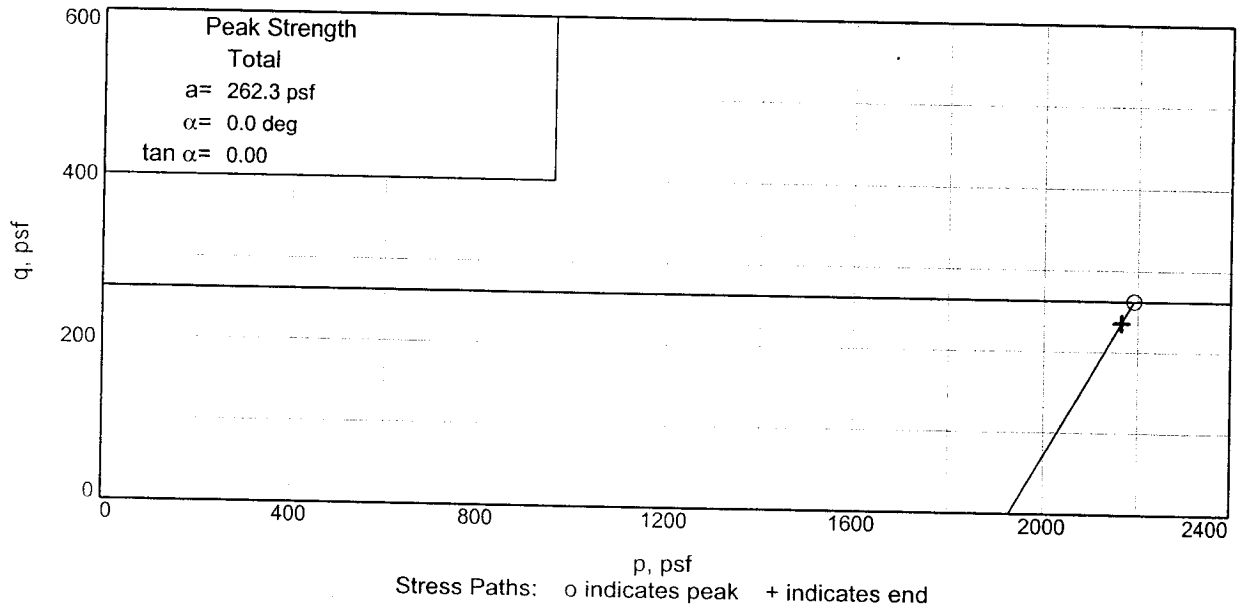
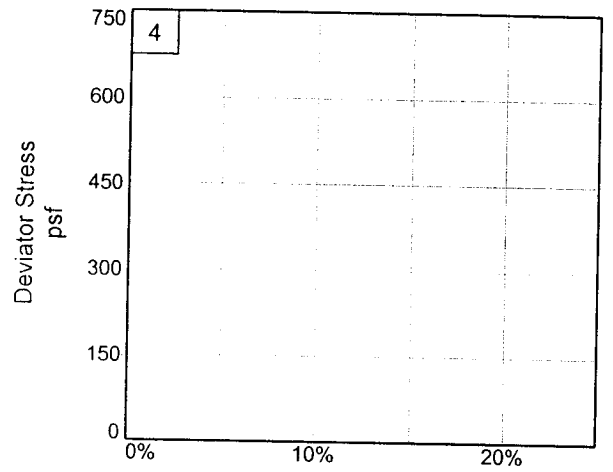
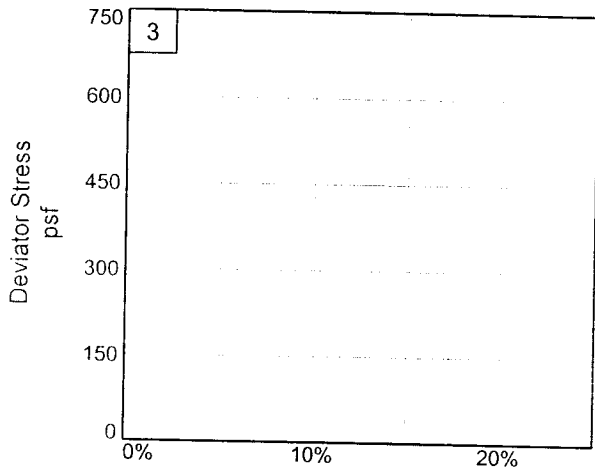
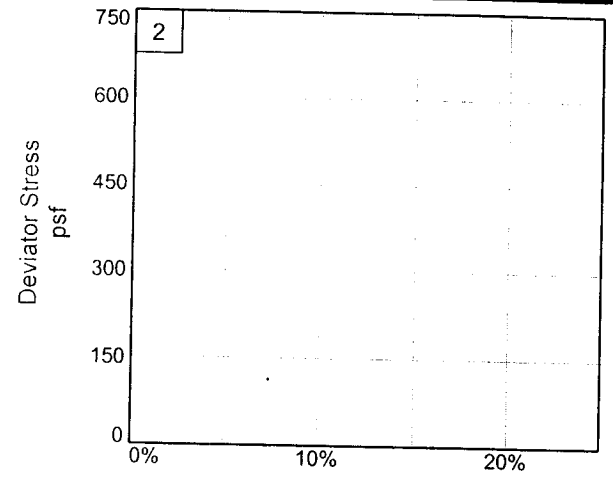
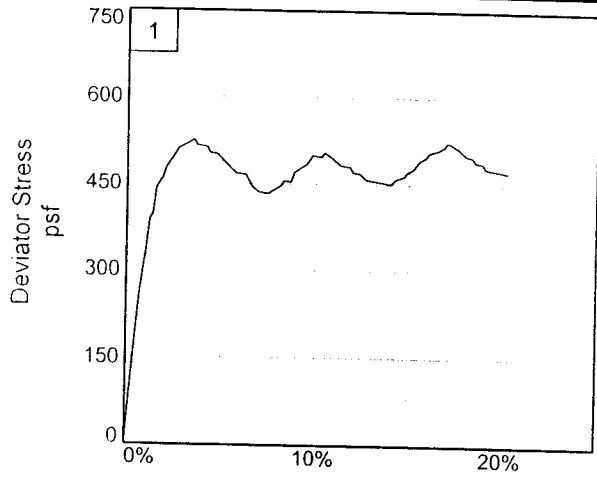
TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 Depth: 28.5 Sample Number: 6

Project No.: 19080

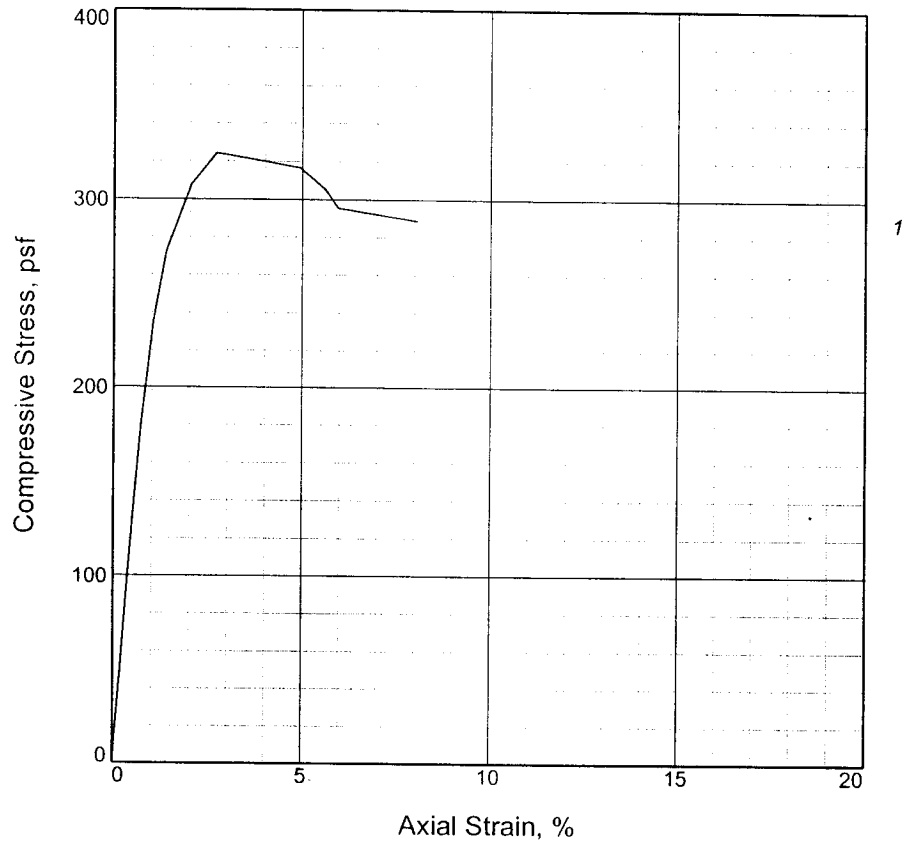
Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR

Checked By: JS

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	324.1		
Undrained shear strength, psf	162.0		
Failure strain, %	2.7		
Strain rate, in./min.	0.059		
Water content, %	86.6		
Wet density, pcf	92.0		
Dry density, pcf	49.3		
Saturation, %	96.1		
Void ratio	2.4678		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: vSo Gr CH4 w/ SL

LL = PL = PI = Assumed GS= 2.74 Type: Undisturbed

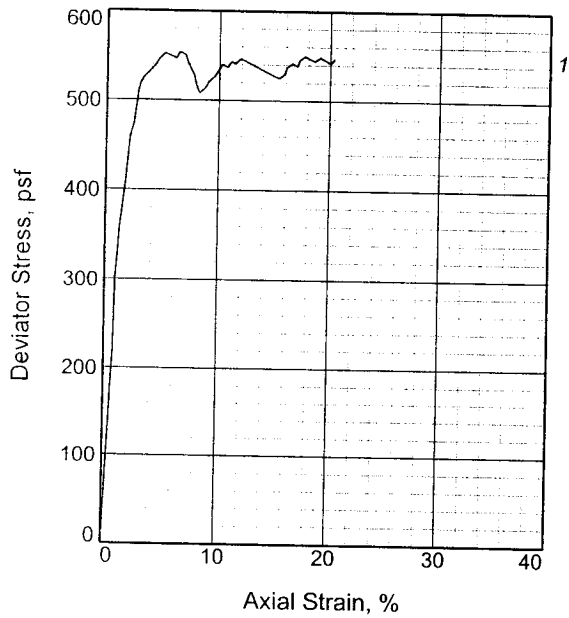
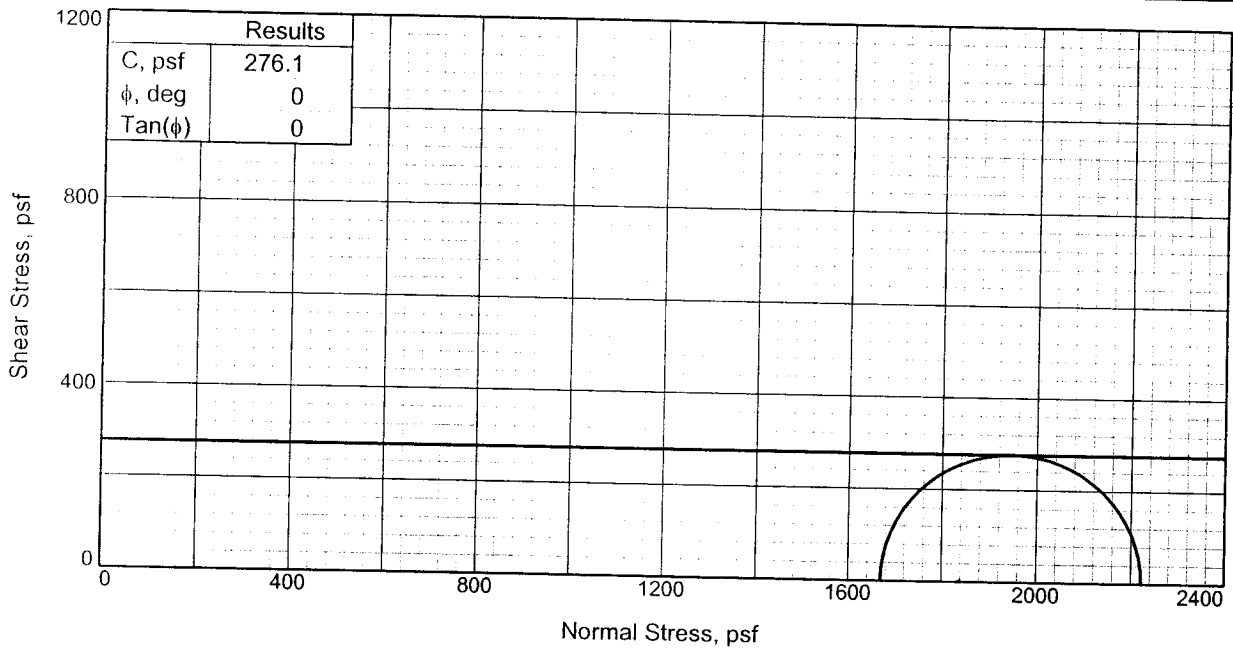
Project No.: 19080
Date: 11-9-05
Remarks:
 Torvane = 0.100 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 31.0
Sample Number: 7

Figure 1

UNCONFINED COMPRESSION TEST
EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR Checked By: JS



Specimen No.		1
Initial	Water Content,	37.8
	Dry Density, pcf	79.2
	Saturation,	90.4
	Void Ratio	1.1283
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	41.5
	Dry Density, pcf	79.5
	Saturation,	100.0
	Void Ratio	1.1205
	Diameter, in.	1.386
	Height, in.	2.926
Strain rate, in./min.		0.029
Back Pressure, psf		0.0
Cell Pressure, psf		1670.4
Fail. Stress, psf		552.1
Ult. Stress, psf		546.9
σ_1 Failure, psf		2222.5
σ_3 Failure, psf		1670.4

Type of Test:
Unconsolidated Undrained
Sample Type: Undisturbed
Description: So Gr CL5 w/ SIF

LL= 30 PL= 13 PI= 17
Assumed Specific Gravity= 2.70
Remarks: Torvane = 0.100 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 33.5
Sample Number: 8
Proj. No.: 19080 **Date:** 11-9-05

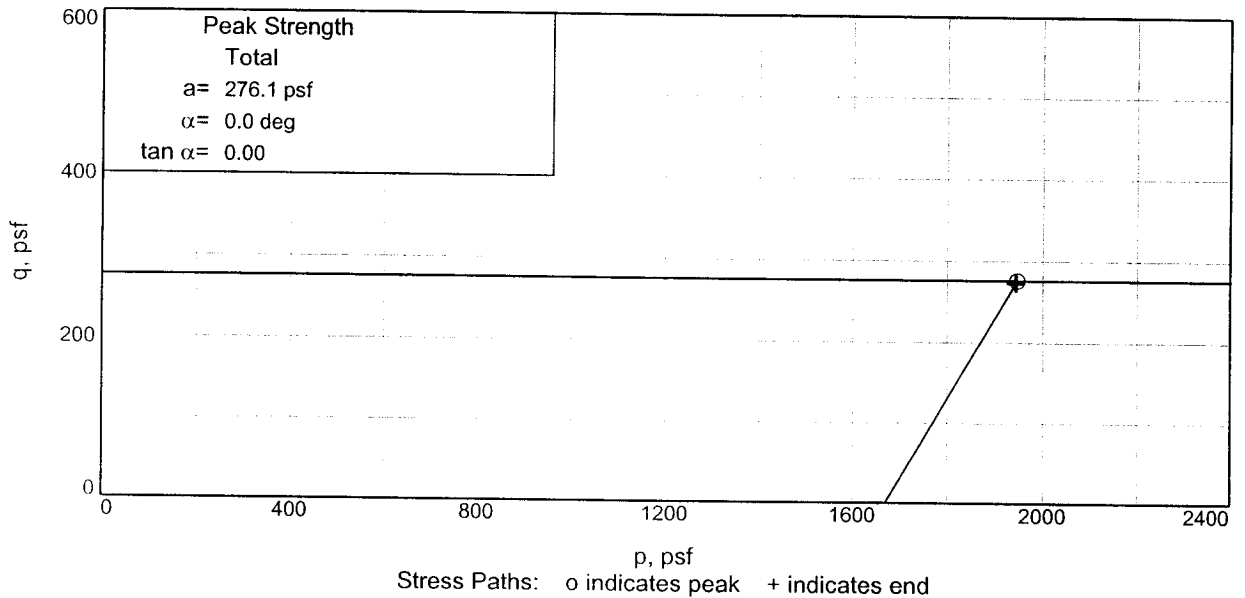
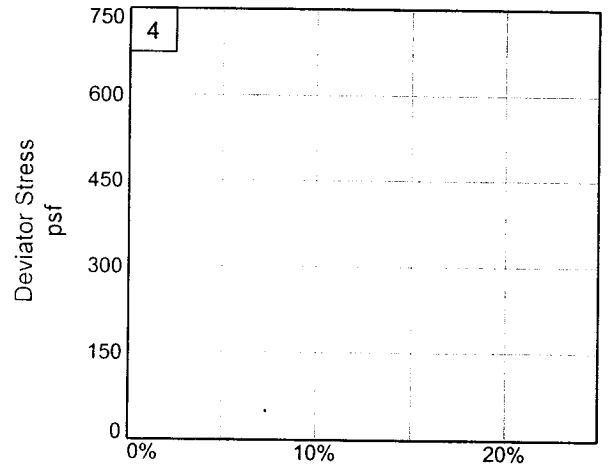
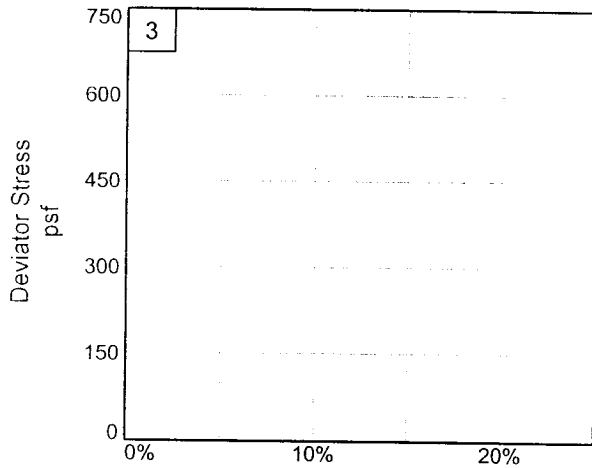
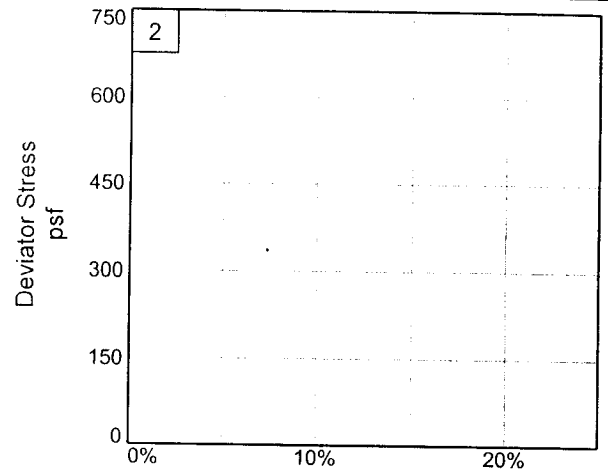
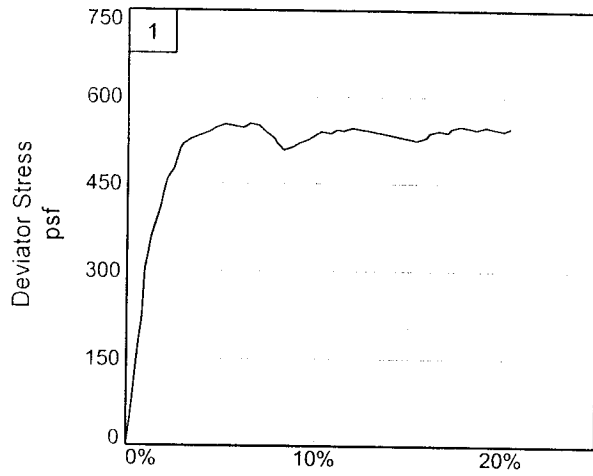
TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 33.5 **Sample Number:** 8

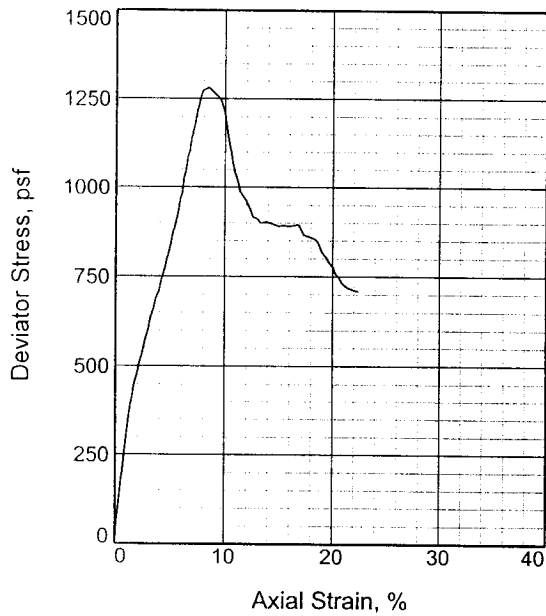
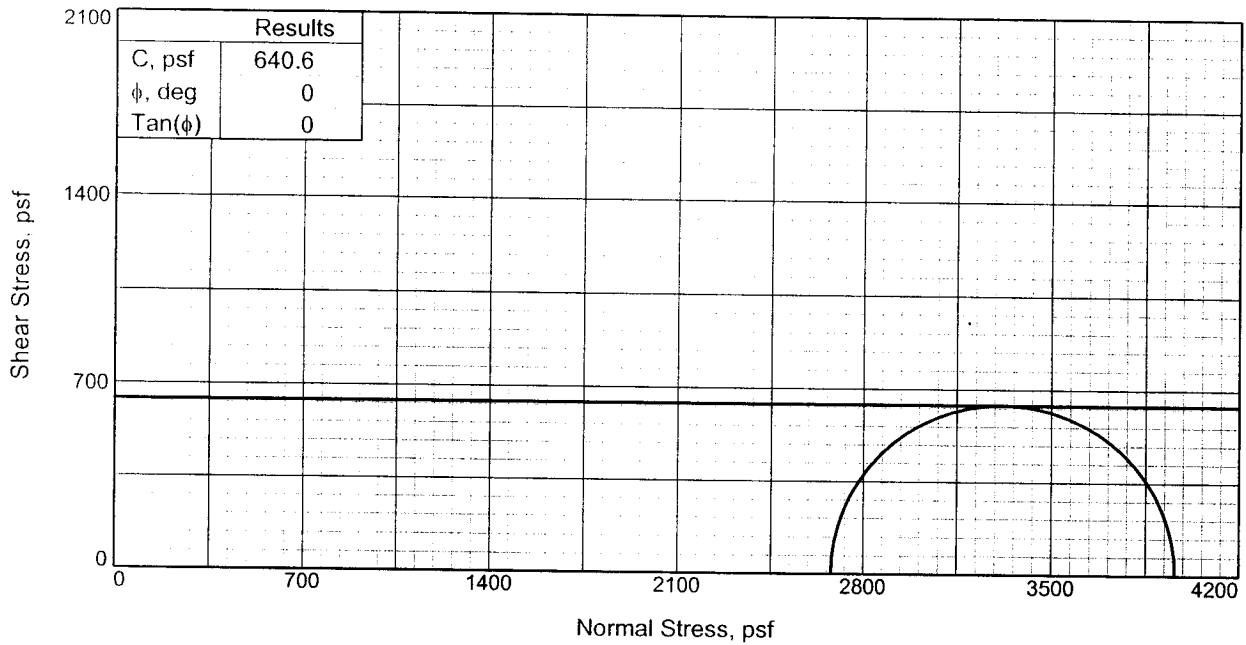
Project No.: 19080

Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR

Checked By: JS



Specimen No.		1
Initial	Water Content,	67.4
	Dry Density, pcf	59.0
	Saturation,	97.6
	Void Ratio	1.8784
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	69.0
	Dry Density, pcf	59.0
	Saturation,	100.0
	Void Ratio	1.8778
	Diameter, in.	1.388
	Height, in.	2.930
Strain rate, in./min.		0.030
Back Pressure, psf		0.0
Cell Pressure, psf		2678.4
Fail. Stress, psf		1281.1
Ult. Stress, psf		708.7
σ_1 Failure, psf		3959.5
σ_3 Failure, psf		2678.4

Type of Test:

Unconsolidated Undrained

Sample Type: Undisturbed

Description: M Gr CH4 w/ ars SM, SL

LL= 87 PL= 26 PI= 61

Assumed Specific Gravity= 2.72

Remarks: Torvane = 0.320 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 51.0
Sample Number: 15
Proj. No.: 19080 **Date:** 11-10-05

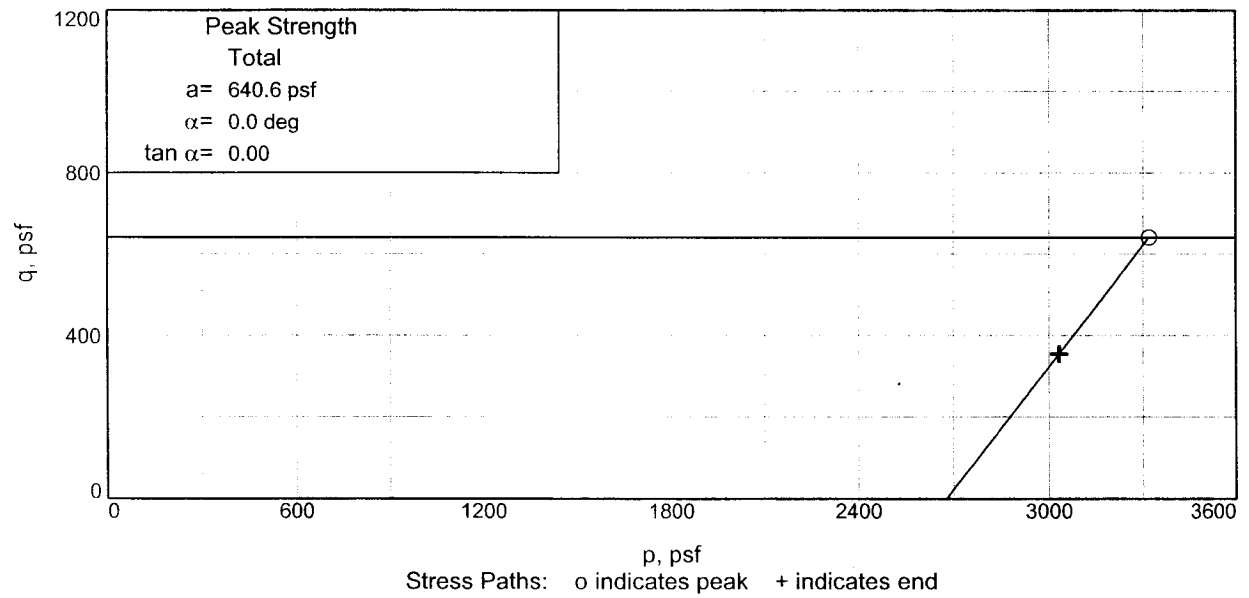
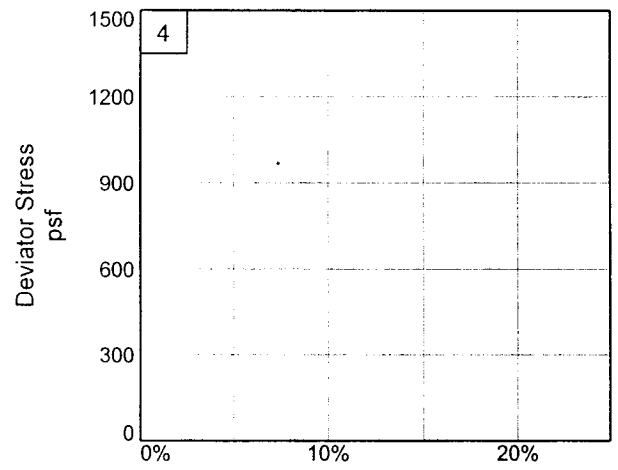
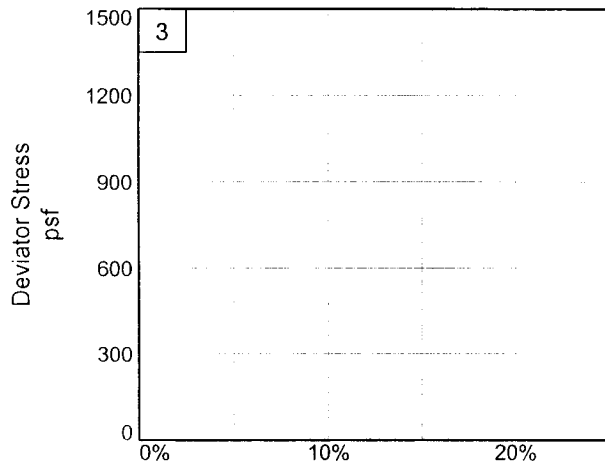
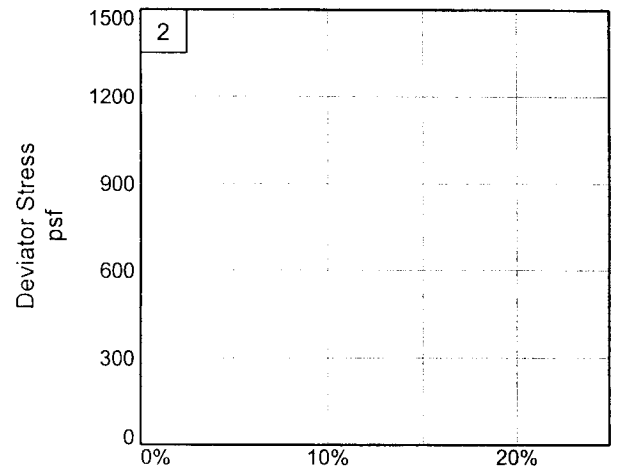
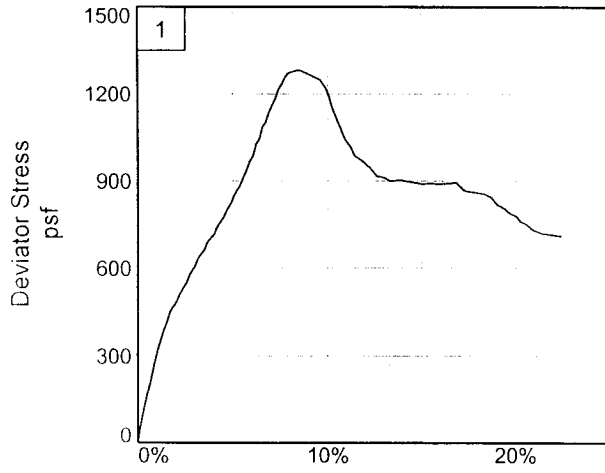
TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 51.0 **Sample Number:** 15

Project No.: 19080

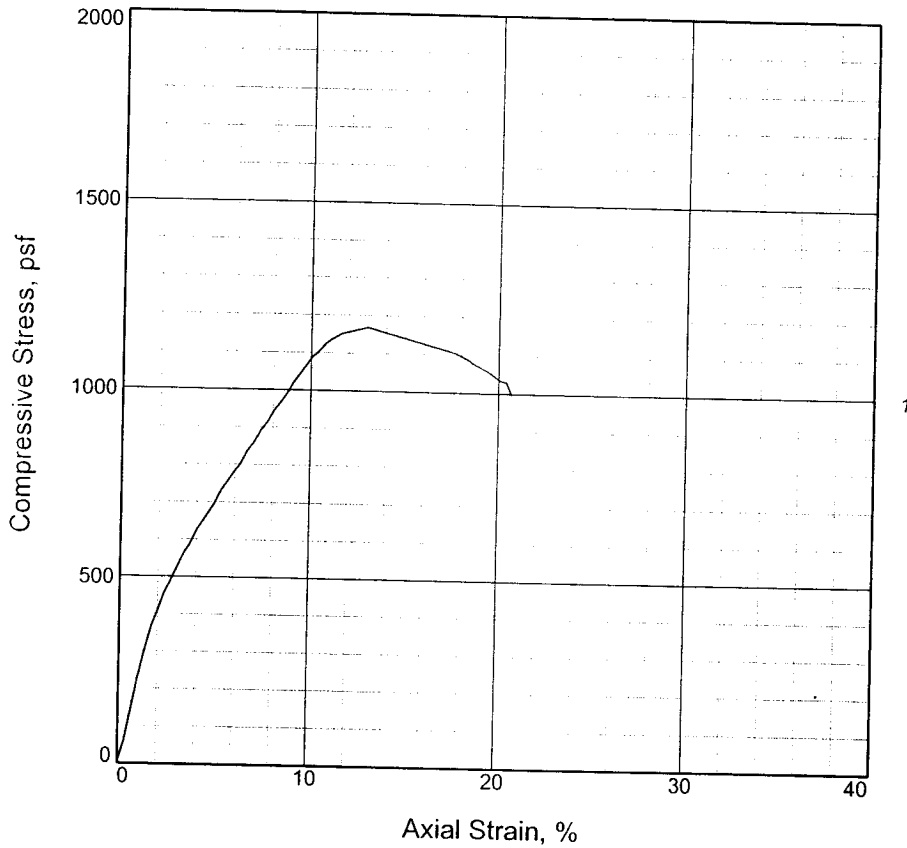
Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR

Checked By: JS

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	1166.9			
Undrained shear strength, psf	583.5			
Failure strain, %	13.0			
Strain rate, in./min.	0.059			
Water content, %	49.9			
Wet density, pcf	103.4			
Dry density, pcf	69.0			
Saturation, %	92.4			
Void ratio	1.4790			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: M Gr CH4

LL =	PL =	PI =	Assumed GS= 2.74	Type: Undisturbed
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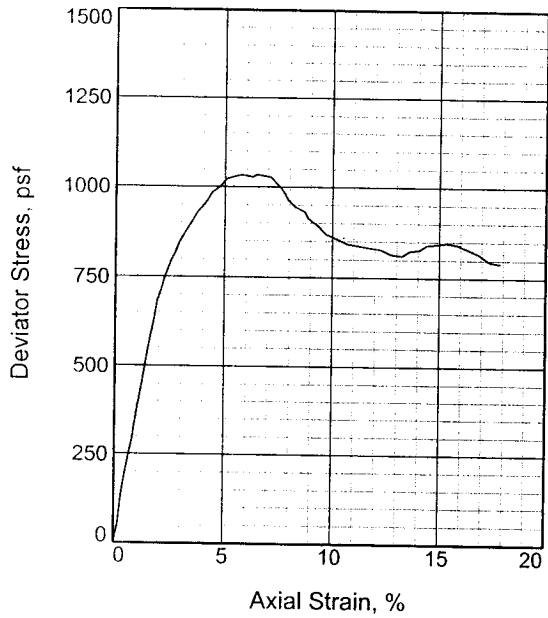
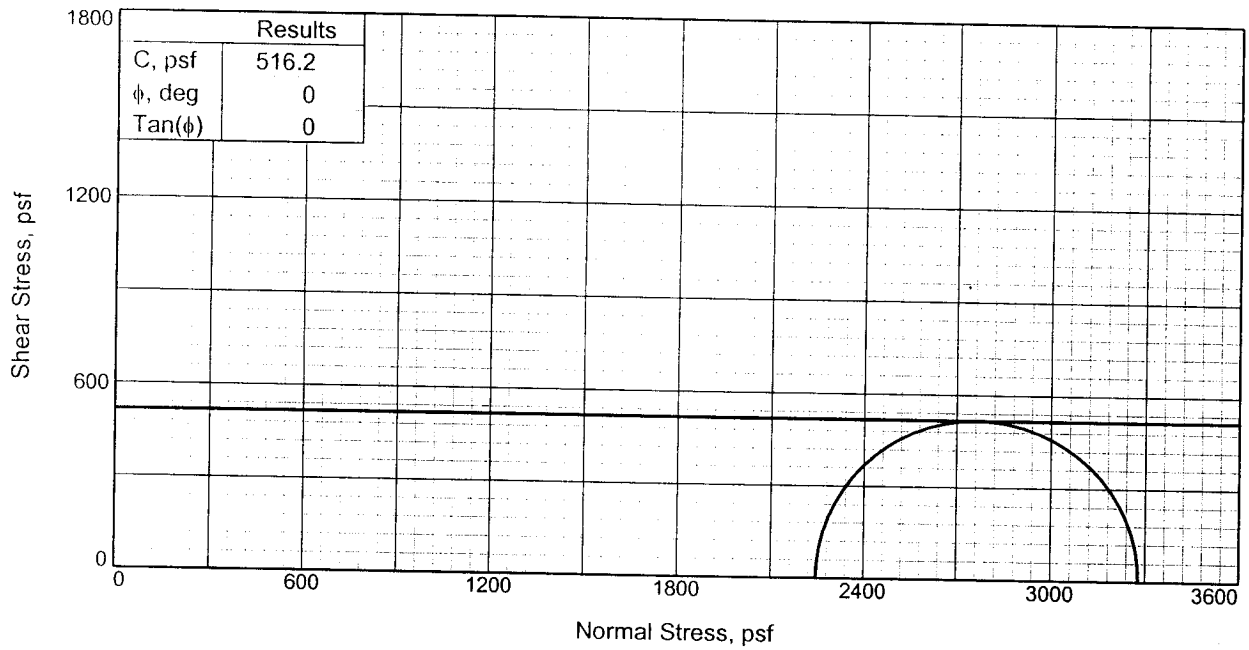
Project No.: 19080
Date: 11-10-05
Remarks:
 Torvane = 0.250 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 56.0
Sample Number: 17

Figure 1

UNCONFINED COMPRESSION TEST
EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR Checked By: JS



Specimen No.		1
Initial	Water Content,	54.7
	Dry Density, pcf	65.7
	Saturation,	93.3
	Void Ratio	1.6055
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	58.4
	Dry Density, pcf	65.8
	Saturation,	100.0
	Void Ratio	1.6007
	Diameter, in.	1.387
	Height, in.	2.928
Strain rate, in./min.		0.029
Back Pressure, psf		0.0
Cell Pressure, psf		2246.4
Fail. Stress, psf		1032.4
Ult. Stress, psf		790.4
σ_1 Failure, psf		3278.8
σ_3 Failure, psf		2246.4

Type of Test:

Unconsolidated Undrained

Sample Type: Undisturbed

Description: M Gr CH4 w/ SL

LL= 73 PL= 19 PI= 54

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.250 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 58.5

Sample Number: 18

Proj. No.: 19080 **Date:** 11-10-05

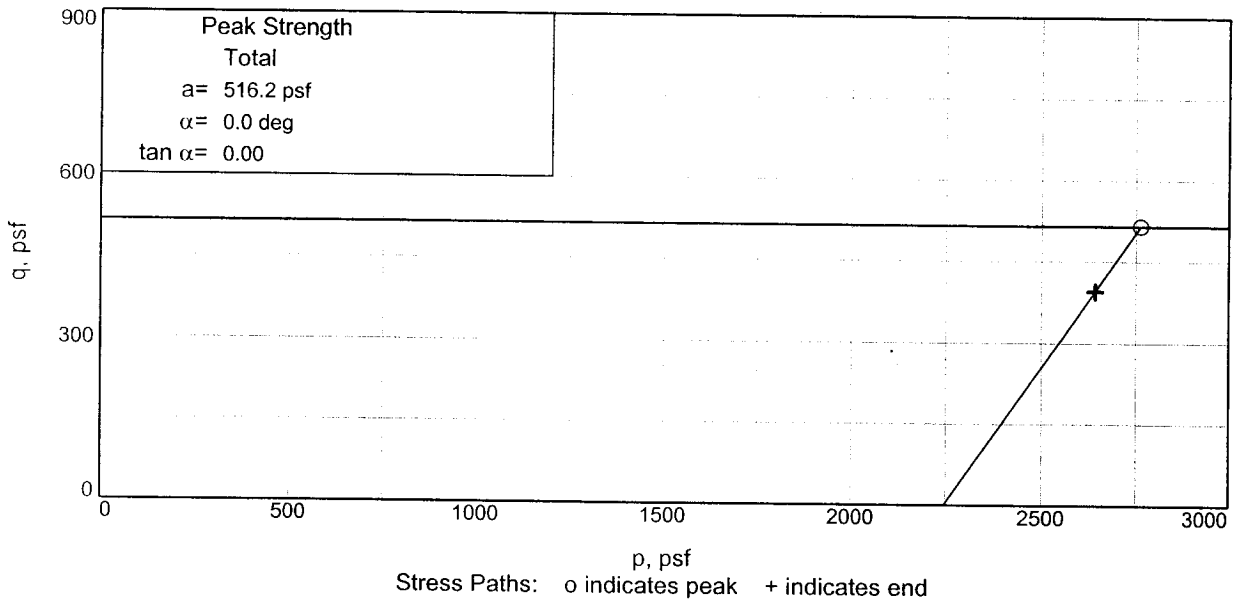
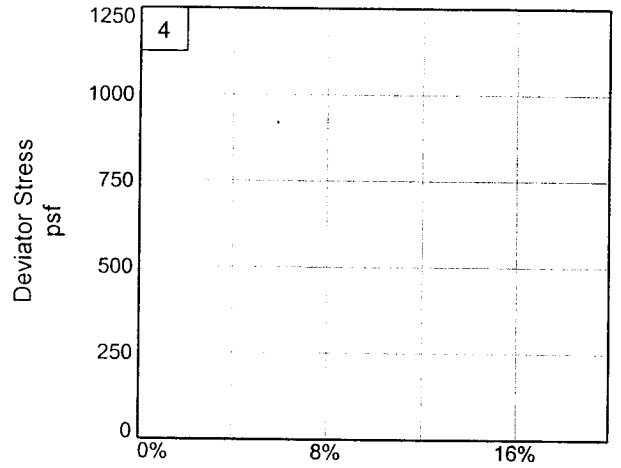
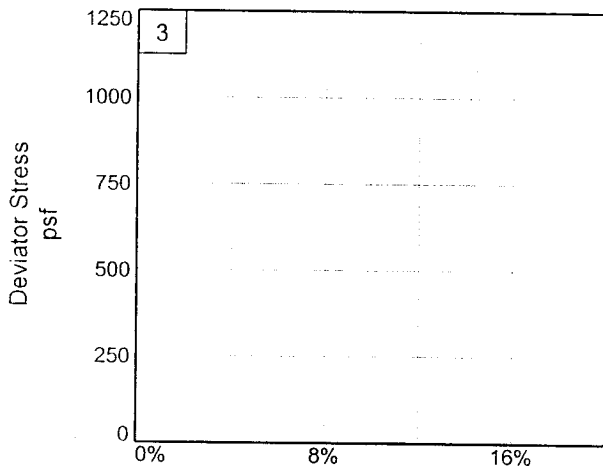
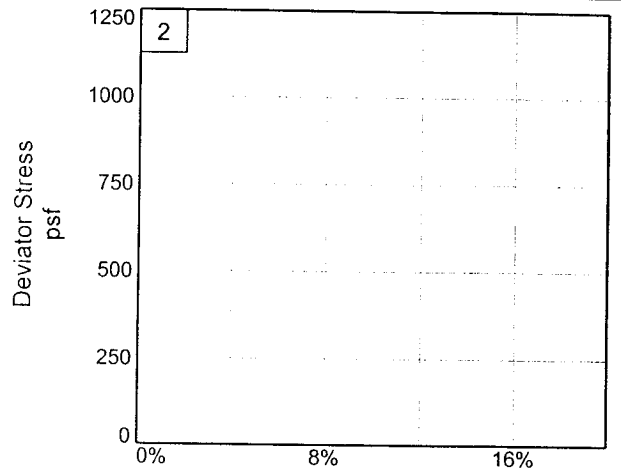
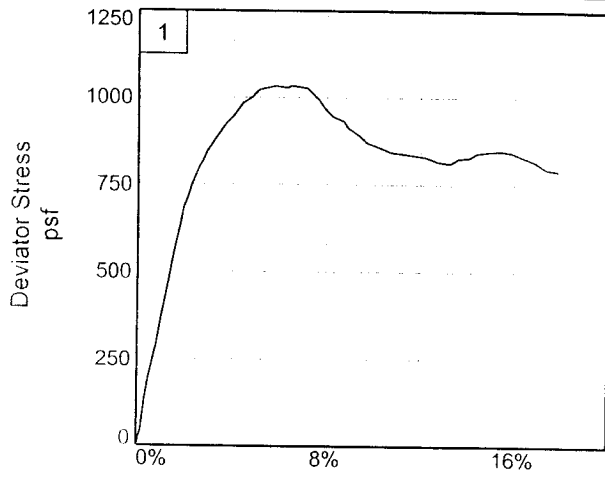
TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 58.5 **Sample Number:** 18

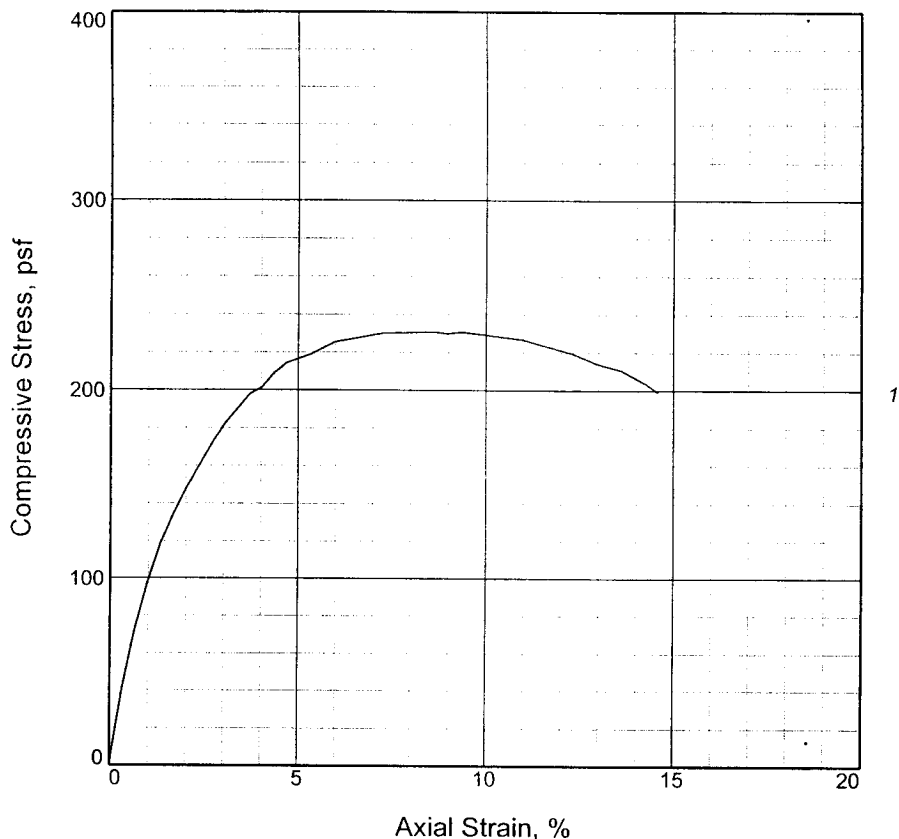
Project No.: 19080

Figure _____

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR _____ **Checked By:** JS _____

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	230.7			
Undrained shear strength, psf	115.3			
Failure strain, %	8.6			
Strain rate, in./min.	0.058			
Water content, %	19.5			
Wet density, pcf	124.0			
Dry density, pcf	103.8			
Saturation, %	84.5			
Void ratio	0.6243			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: vSo lGr & T CL3

LL =	PL =	PI =	Assumed GS= 2.70	Type: Undisturbed
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Project No.: 19080

Date: 11-10-05

Remarks:

Torvane = 1.000 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 61.0

Sample Number: 19

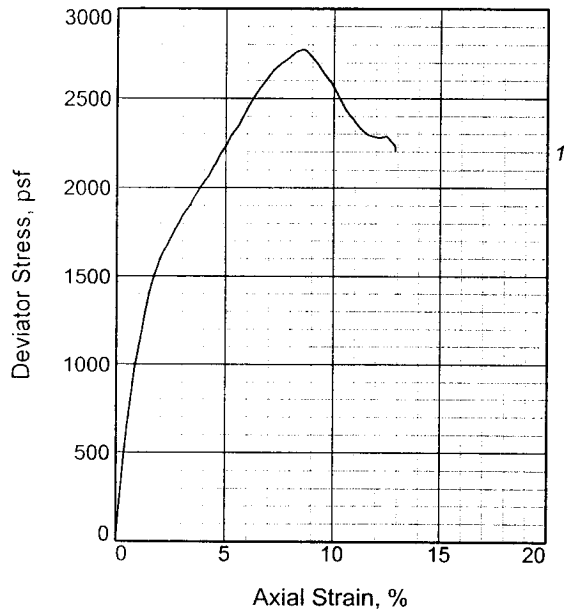
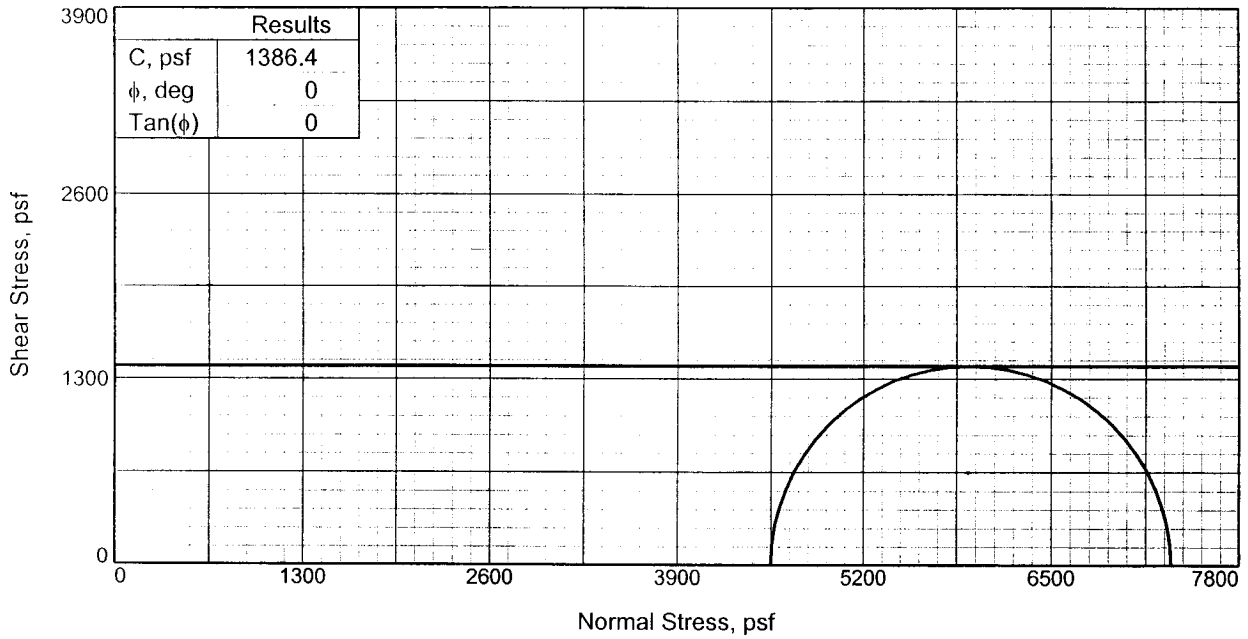
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: JS



Specimen No.		1
Initial	Water Content,	39.4
	Dry Density, pcf	79.5
	Saturation,	93.9
	Void Ratio	1.1511
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	41.8
	Dry Density, pcf	79.7
	Saturation,	100.0
	Void Ratio	1.1451
	Diameter, in.	1.387
	Height, in.	2.927
Strain rate, in./min.		0.029
Back Pressure, psf		0.0
Cell Pressure, psf		4550.4
Fail. Stress, psf		2772.7
Ult. Stress, psf		2201.1
σ_1 Failure, psf		7323.1
σ_3 Failure, psf		4550.4

Type of Test:

Unconsolidated Undrained

Sample Type: Undisturbed

Description: St T & Gr CH4 w/ Ins SM

LL= 70 PL= 24 PI= 46

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.550 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 88.5

Sample Number: 30

Proj. No.: 19080

Date: 11-10-05

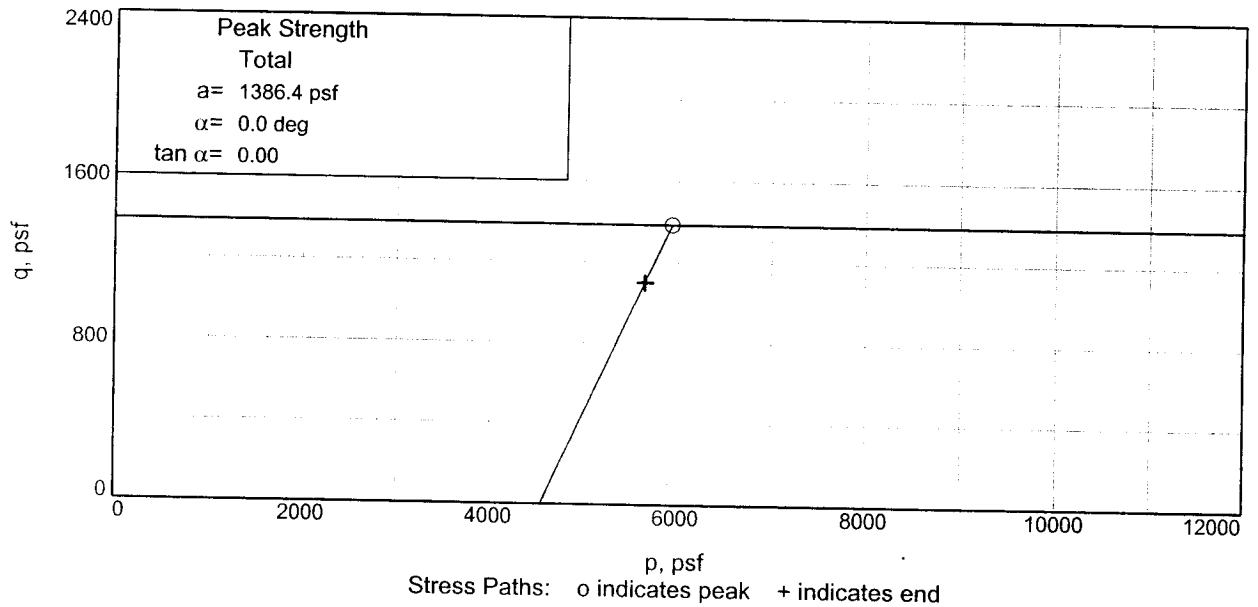
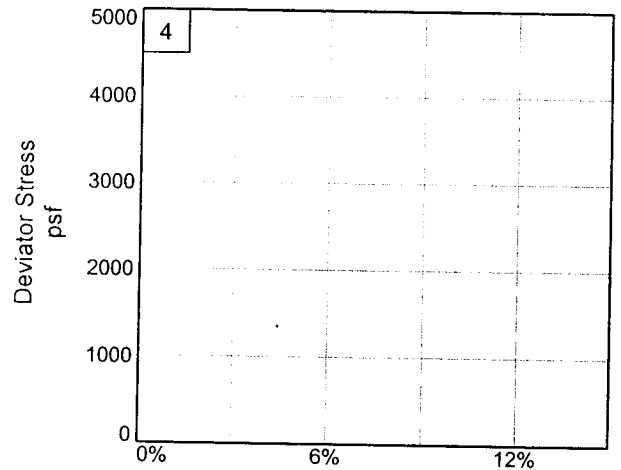
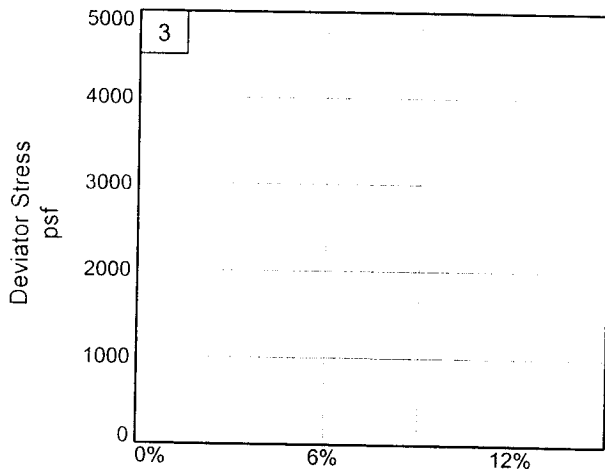
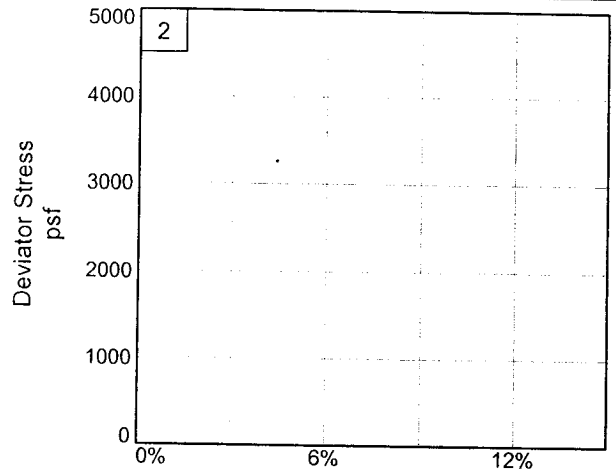
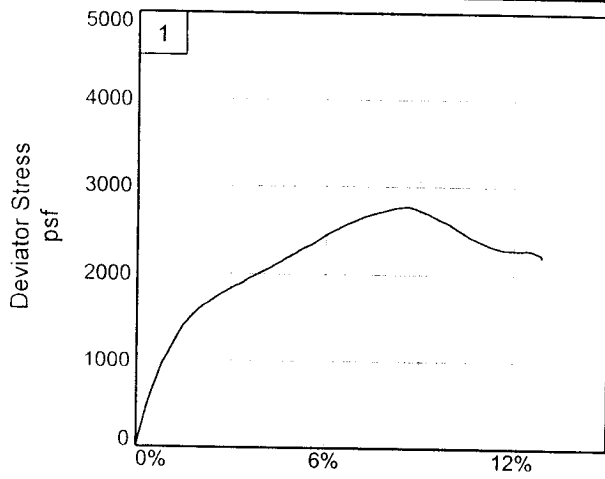
TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: JS



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 Depth: 88.5 Sample Number: 30

Project No.: 19080

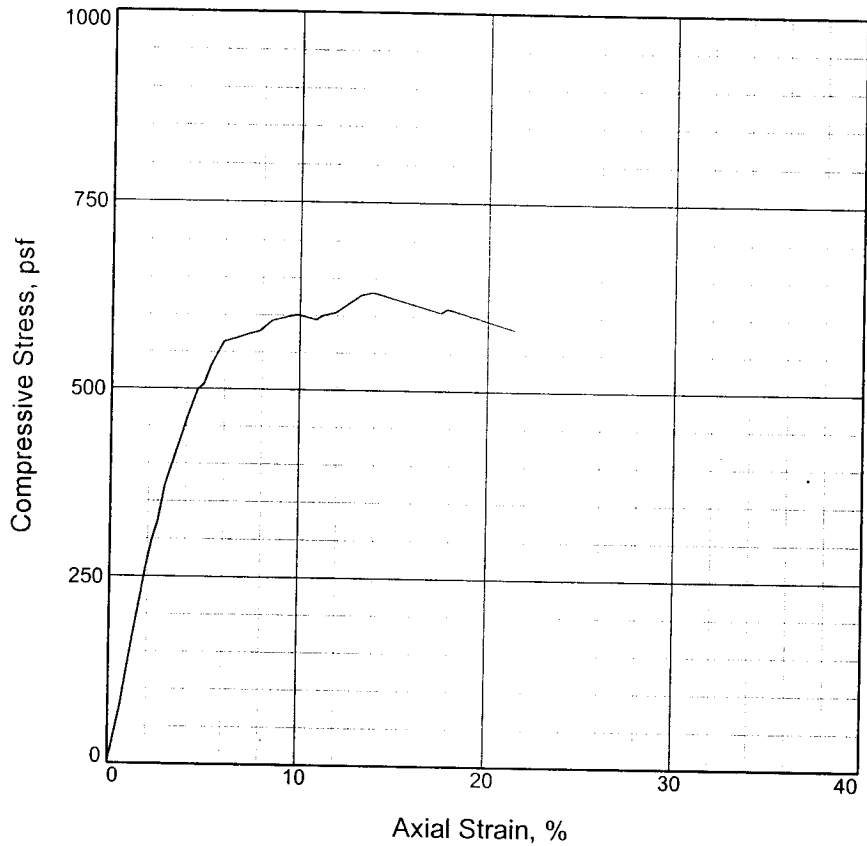
Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR

Checked By: JS

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	600.5			
Undrained shear strength, psf	300.3			
Failure strain, %	9.9			
Strain rate, in./min.	0.058			
Water content, %	42.0			
Wet density, pcf	111.6			
Dry density, pcf	78.6			
Saturation, %	98.3			
Void ratio	1.1606			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: So Gr & T CH3 w/ lns & ars SM

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

Project No.: 19080

Date: 11-10-05

Remarks:

Torvane = 0.450 tsf

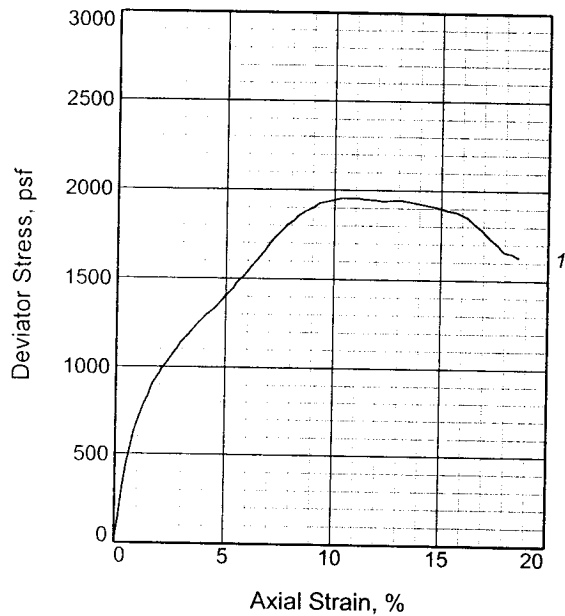
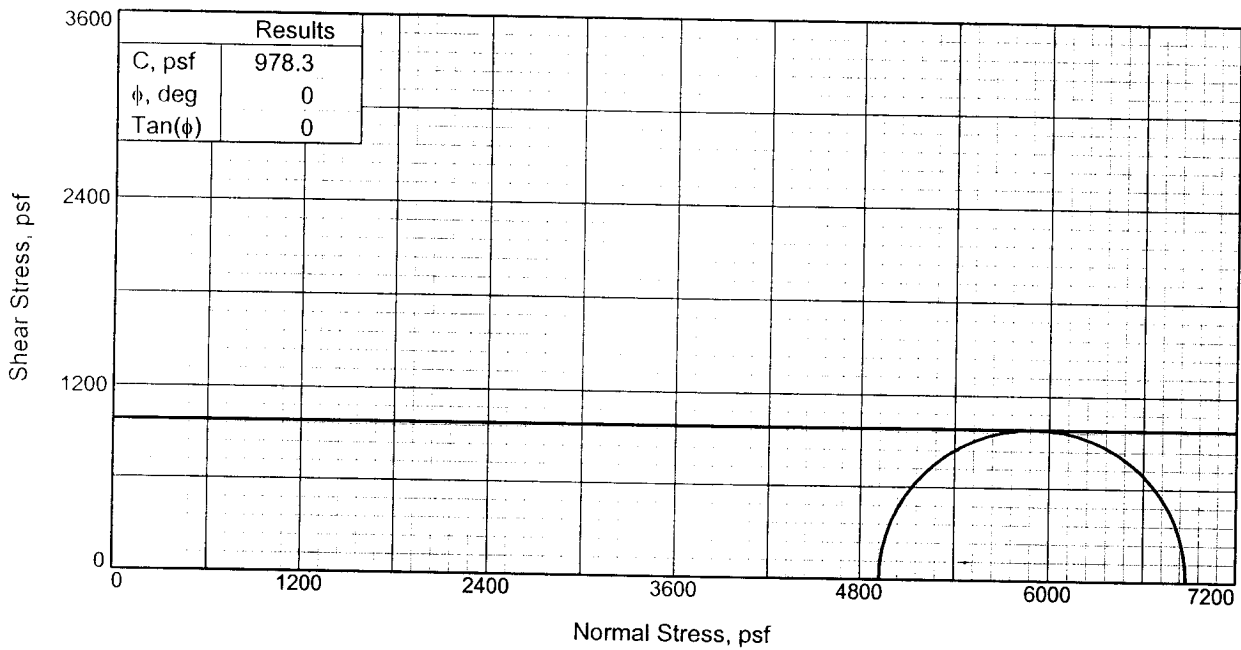
Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA
Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL
Source of Sample: B-9 **Depth:** 91.0
Sample Number: 31

UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR **Checked By:** JS



Specimen No.		1
Initial	Water Content,	47.6
	Dry Density, pcf	73.7
	Saturation,	98.8
	Void Ratio	1.3205
	Diameter, in.	1.388
	Height, in.	2.930
At Test	Water Content,	48.1
	Dry Density, pcf	73.8
	Saturation,	100.0
	Void Ratio	1.3181
	Diameter, in.	1.388
	Height, in.	2.929
Strain rate, in./min.		0.030
Back Pressure, psf		0.0
Cell Pressure, psf		4924.8
Fail. Stress, psf		1956.5
Ult. Stress, psf		1626.8
σ_1 Failure, psf		6881.3
σ_3 Failure, psf		4924.8

Type of Test:
Unconsolidated Undrained

Sample Type: Undisturbed

Description: M Gr CH4 w/ lns ML

LL= 72 PL= 22 PI= 50

Assumed Specific Gravity= 2.74

Remarks: Torvane = 0.375 tsf

Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 **Depth:** 96.0

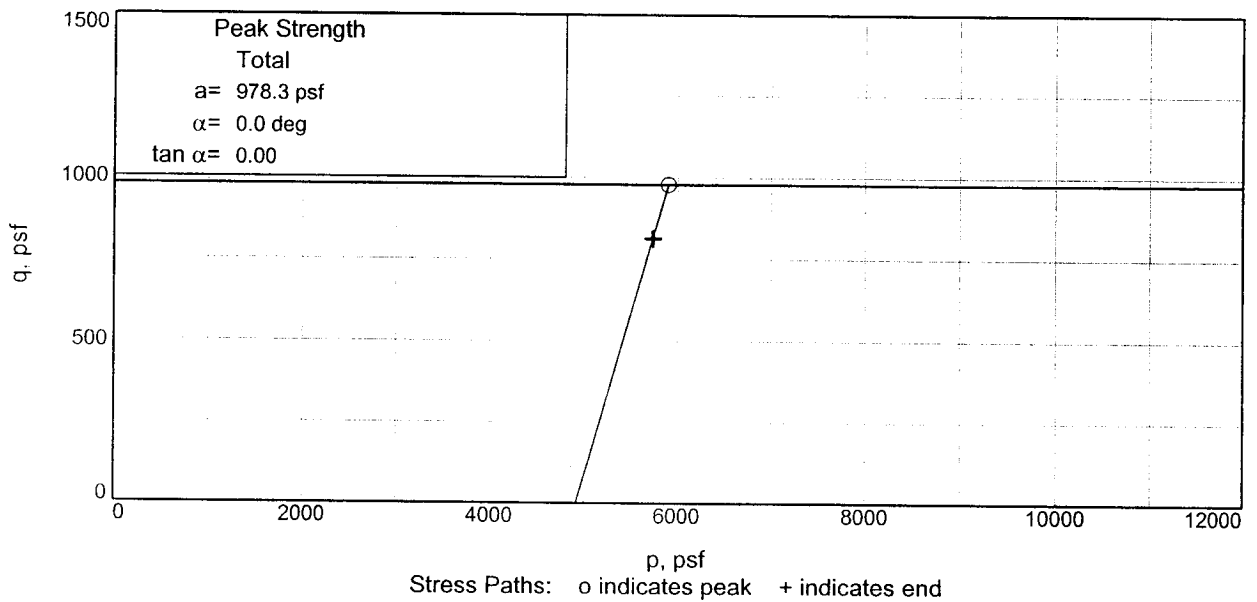
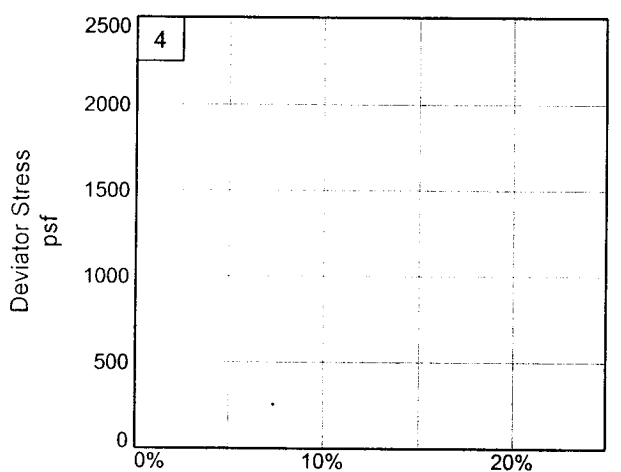
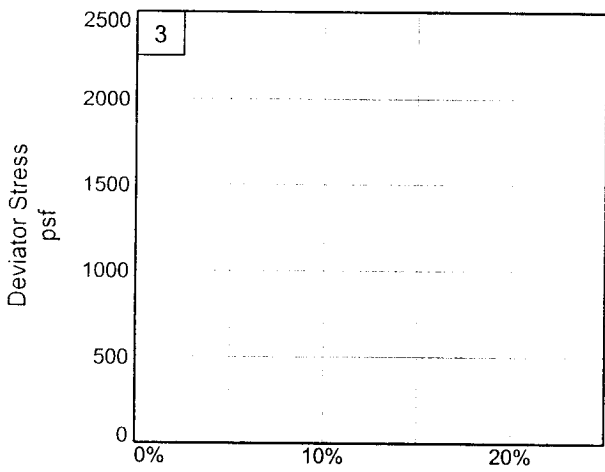
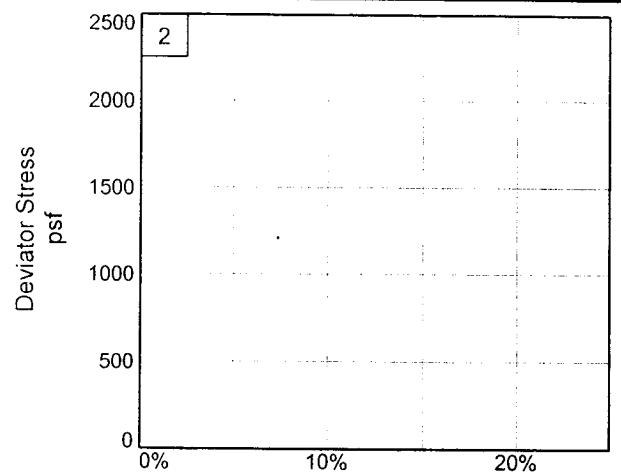
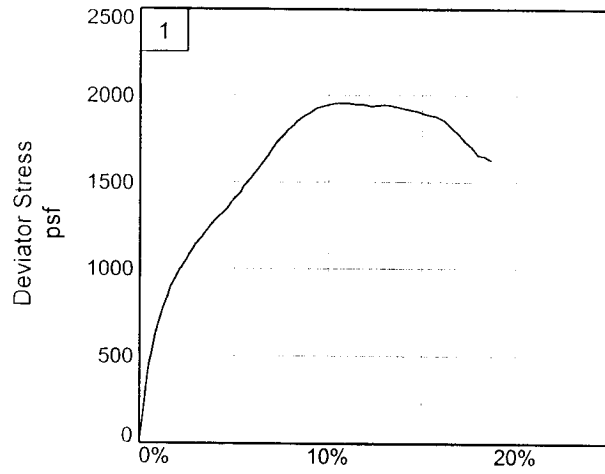
Sample Number: 33

Proj. No.: 19080 **Date:** 11-10-05

TRIAXIAL SHEAR TEST REPORT

EUSTIS ENGINEERING COMPANY, INC.

Figure 1



Client: LINFIELD, HUNTER & JUNIUS, INC., METAIRIE, LOUISIANA

Project: USACE - REPAIRS TO LEVEES AND FLOODWALLS AT THE 17TH STREET CANAL

Source of Sample: B-9 Depth: 96.0 Sample Number: 33

Project No.: 19080

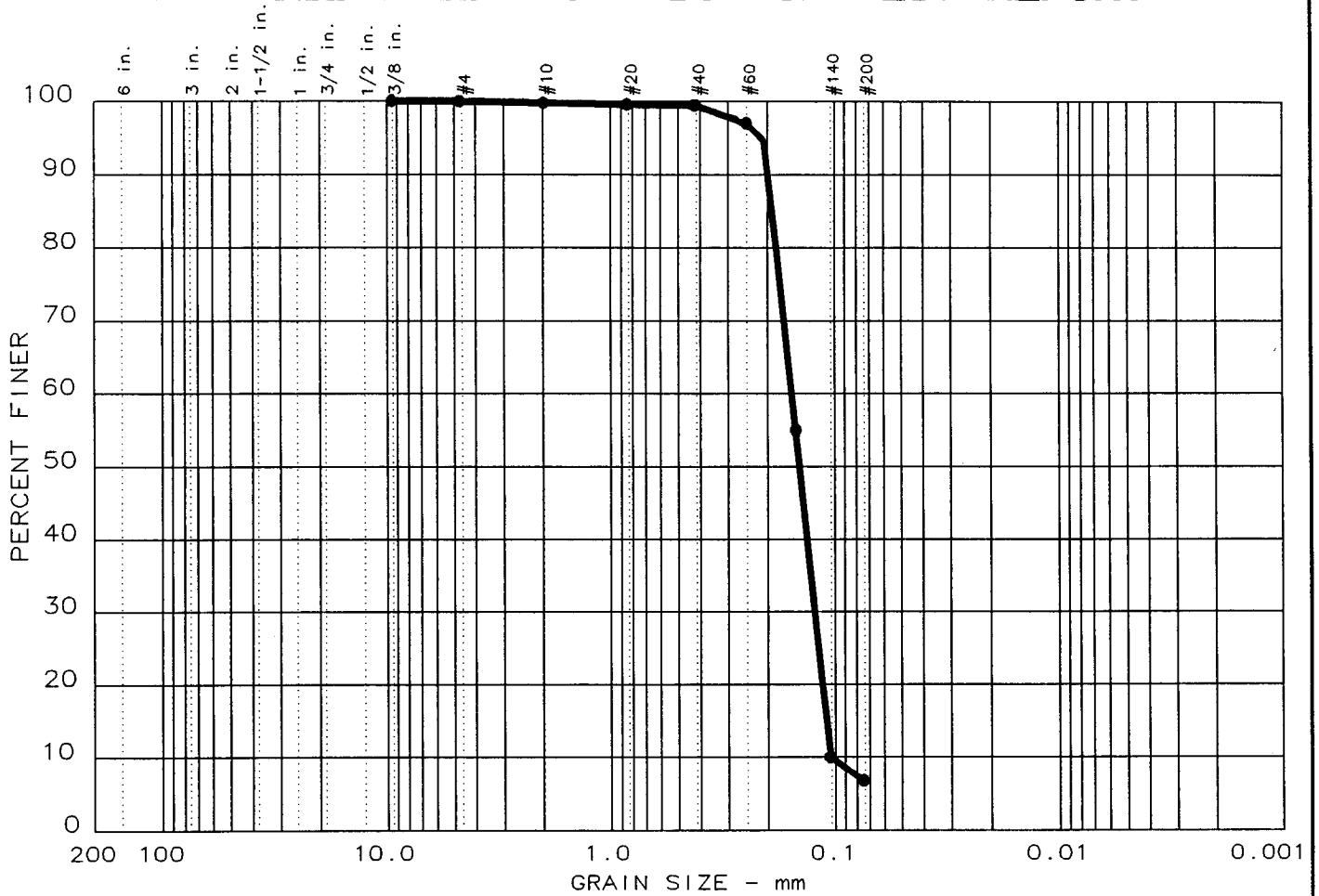
Figure 2

EUSTIS ENGINEERING COMPANY, INC.

Tested By: RR

Checked By: JS

PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.1	93.1	6.8		SP		

SIEVE Inches size	PERCENT FINER		
0.375	●	100.0	
X	GRAIN SIZE		
D ₆₀	●	0.16	
D ₃₀	●	0.12	
D ₁₀	●	0.10	
X	COEFFICIENTS		
C _c	●	0.93	
C _u	●	1.5	

SIEVE number size	PERCENT FINER		
4	●	99.9	
10	●	99.7	
20	●	99.5	
40	●	99.4	
60	●	97.0	
100	●	55.0	
140	●	10.0	
200	●	6.8	

Sample information:
 ● Boring 9, Sample 10
 Gr SP

Remarks:
 Sample depth 38.5'

**Eustis
Engineering
Company, Inc.**

Project No.: 19080
 Project: USACE - 17TH Street Canal
 Date: 11-17-05 Data Sheet No. _____