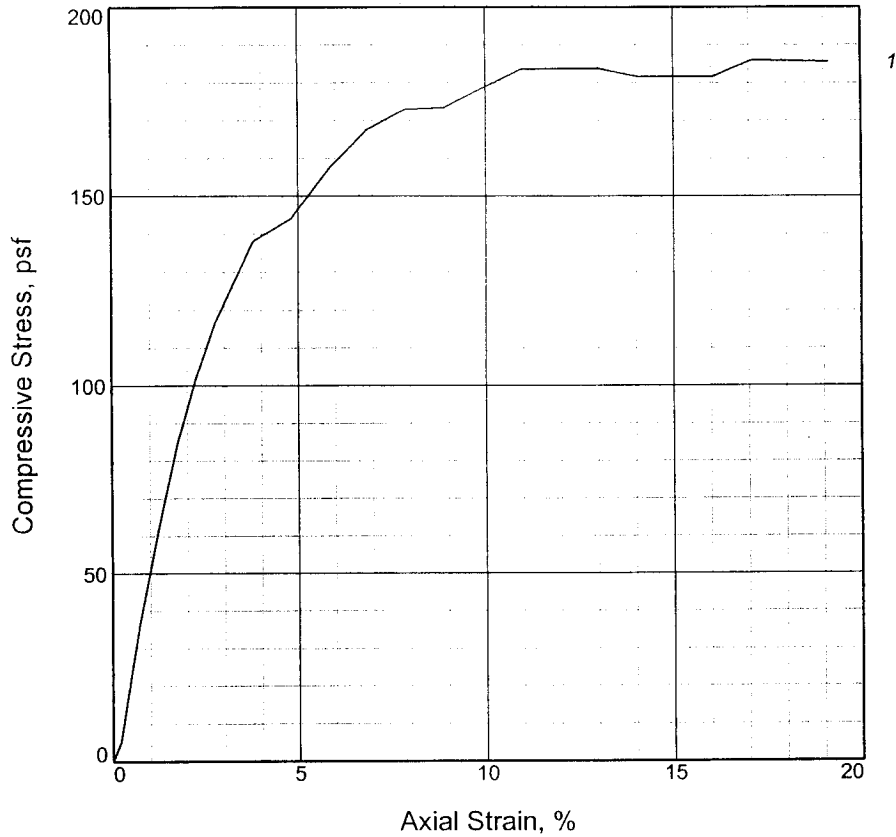


UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	183.8			
Undrained shear strength, psf	91.9			
Failure strain, %	13.0			
Strain rate, in./min.	N/A			
Water content, %	155.2			
Wet density, pcf	80.2			
Dry density, pcf	31.4			
Saturation, %	95.9			
Void ratio	4.4021			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: VSO DGR & GR CH4 W/ ARS SM, TR-WD

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

Project No.: 19082
Date: 11/14/05
Remarks:
 TORVANE = 0.050 TSF

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-5WG **Depth:** 2.5
Sample Number: 2

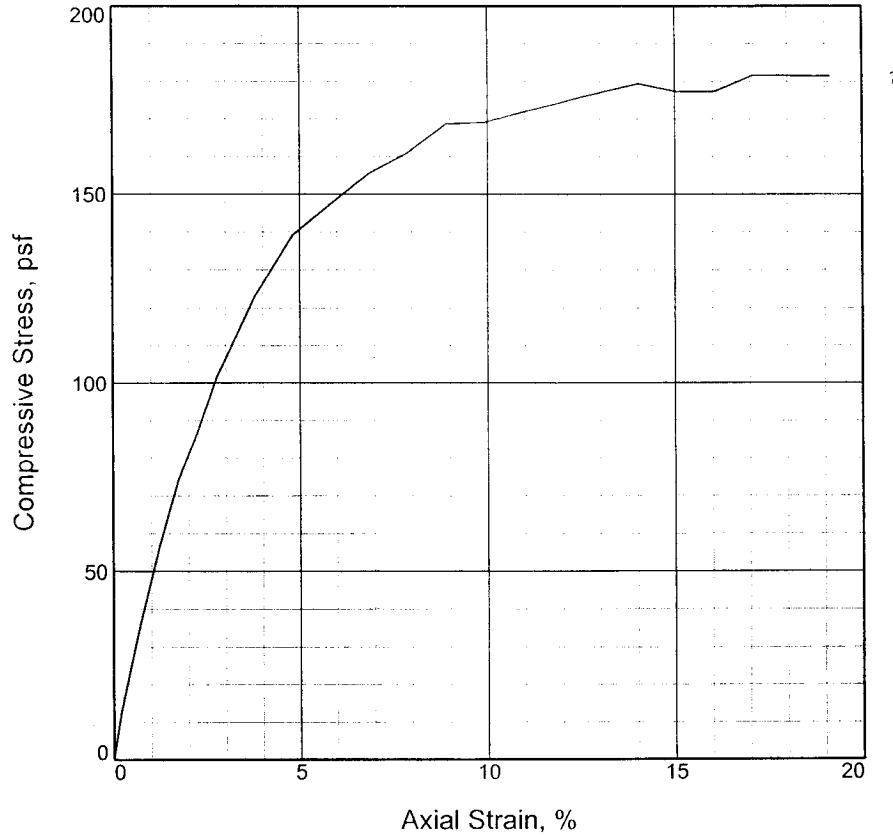
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** DP

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	179.3		
Undrained shear strength, psf	89.7		
Failure strain, %	14.0		
Strain rate, in./min.	0.058		
Water content, %	160.6		
Wet density, pcf	79.5		
Dry density, pcf	30.5		
Saturation, %	95.8		
Void ratio	4.5248		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: VSO GR CH4 W/ ARS SM, WD

LL =	PL =	PI =	Assumed GS= 2.7	Type: UNDISTURBED
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Project No.: 19082
Date: 11/14/05
Remarks:
 TORVANE = 0.320 TSF

Figure 1

Client: URS Corporation

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

Source of Sample: B-5WG **Depth:** 10.0

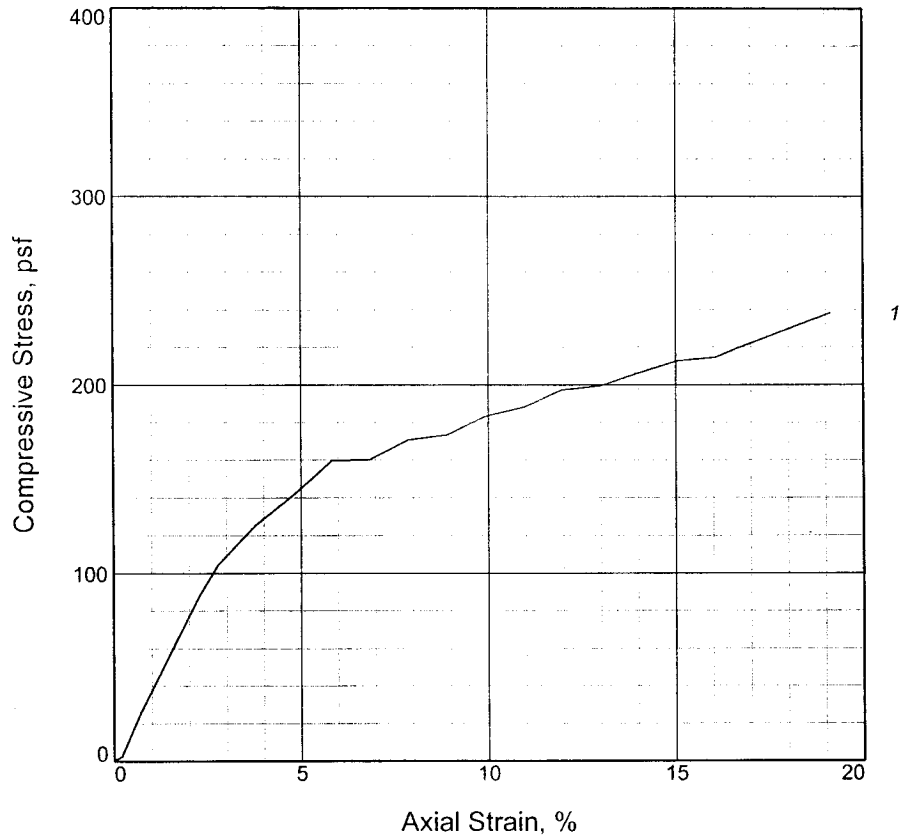
Sample Number: 5

UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH Checked By: DP

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	238.2			
Undrained shear strength, psf	119.1			
Failure strain, %	19.1			
Strain rate, in./min.	0.059			
Water content, %	41.7			
Wet density, pcf	111.1			
Dry density, pcf	78.4			
Saturation, %	97.3			
Void ratio	1.1664			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: VSO GR CH4 W/ ARS SM, WD

LL =	PL =	PI =	Assumed GS= 2.72	Type: UNDISTURBED
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Project No.: 19082
Date: 11/14/05
Remarks:
 TORVANE = 0.0200 tsf

Figure 1

Client: URS Corporation

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

Source of Sample: B-5WG **Depth:** 15.0

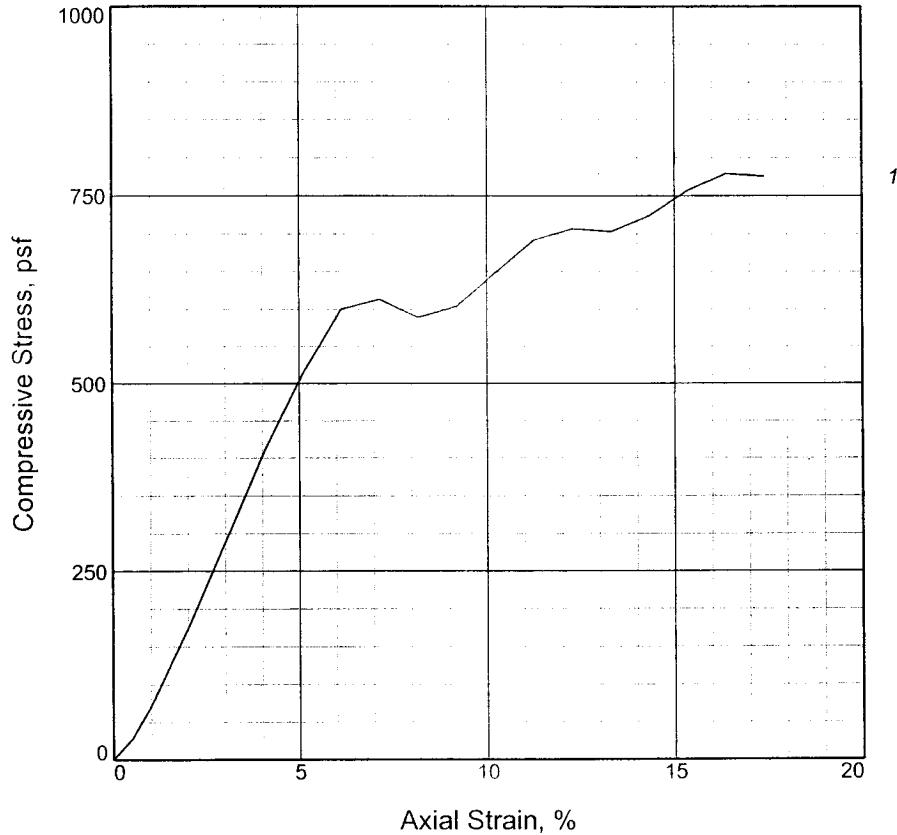
Sample Number: 7

UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH **Checked By:** DP

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	691.9			
Undrained shear strength, psf	345.9			
Failure strain, %	11.3			
Strain rate, in./min.	0.059			
Water content, %	31.0			
Wet density, pcf	117.3			
Dry density, pcf	89.5			
Saturation, %	94.7			
Void ratio	0.8829			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH2

LL =	PL =	PI =	Assumed GS= 2.7	Type: UNDISTURBED
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Project No.: 19082

Date: 11/14/05

Remarks:

TORVANE = 0.050 tsf

Client: URS Corporation

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

Source of Sample: B-5WG **Depth:** 20.0

Sample Number: 9

UNCONFINED COMPRESSION TEST

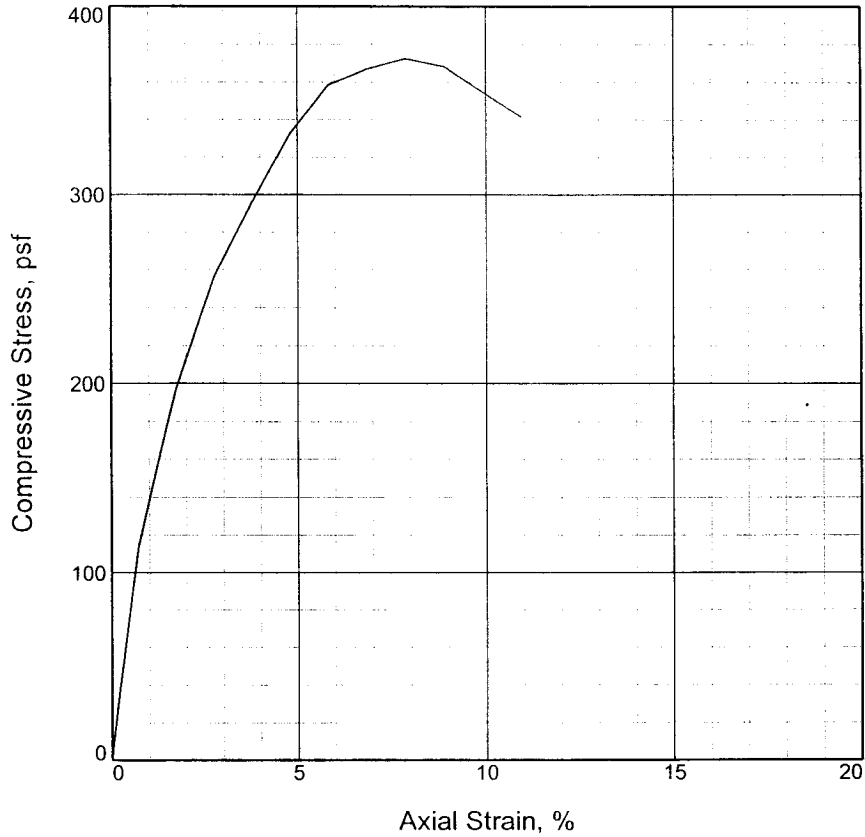
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH

Checked By: DP

UNCONFINED COMPRESSION TEST



1

Specimen No.	1			
Unconfined strength, psf	372.3			
Undrained shear strength, psf	186.2			
Failure strain, %	7.9			
Strain rate, in./min.	0.059			
Water content, %	58.9			
Wet density, pcf	99.7			
Dry density, pcf	62.8			
Saturation, %	93.9			
Void ratio	1.7047			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: VSO GR CH4 W/ LNS & LYS ML
LL = **PL =** **PI =** **Assumed GS= 2.72** **Type: UNDISTURBED**

Project No.: 19082
Date: 11/14/05
Remarks:
 Torvane = 0.130 tsf

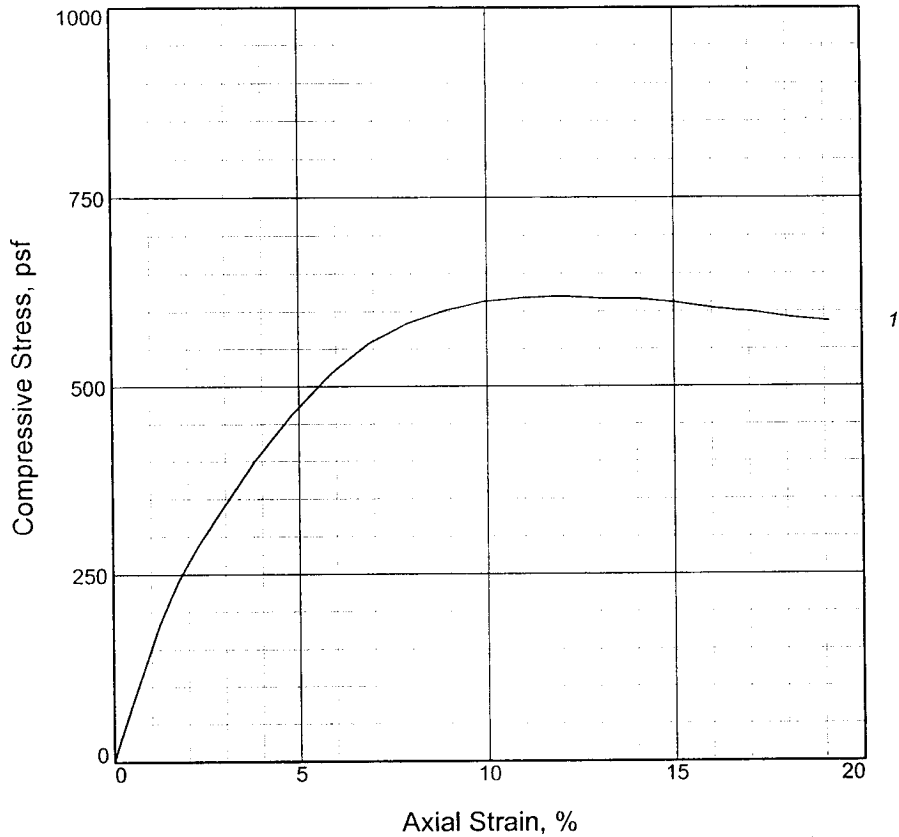
Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-5WG **Depth:** 25.0
Sample Number: 11

Figure 1

UNCONFINED COMPRESSION TEST
EUSTIS ENGINEERING COMPANY, INC.

Tested By: ZH _____ **Checked By:** DP _____

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	619.7			
Undrained shear strength, psf	309.9			
Failure strain, %	12.0			
Strain rate, in./min.	0.059			
Water content, %	53.2			
Wet density, pcf	103.1			
Dry density, pcf	67.3			
Saturation, %	94.5			
Void ratio	1.5418			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ SL

LL = **PL =** **PI =** **Assumed GS= 2.74** **Type: UNDISTURBED**

Project No.: 19082

Date: 11/14/05

Remarks:

TORVANE = 0.100 tsf

Client: URS Corporation

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

Source of Sample: B-5WG **Depth:** 30.0

Sample Number: 13

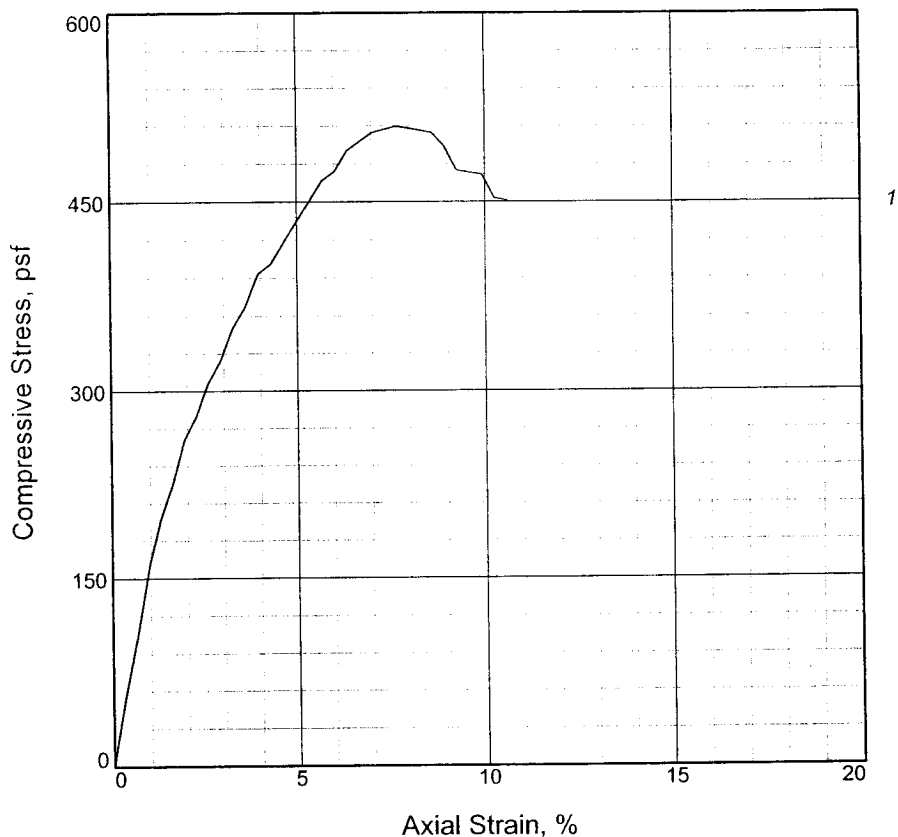
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH **Checked By:** DP

UNCONFINED COMPRESSION TEST



Specimen No.	1		
Unconfined strength, psf	509.6		
Undrained shear strength, psf	254.8		
Failure strain, %	7.7		
Strain rate, in./min.	0.022		
Water content, %	68.7		
Wet density, pcf	98.1		
Dry density, pcf	58.1		
Saturation, %	96.9		
Void ratio	1.9422		
Specimen diameter, in.	1.388		
Specimen height, in.	2.930		
Height/diameter ratio	2.11		

Description: SO GR CH4 W/ SL

LL = **PL =** **PI =** **Assumed GS= 2.74** **Type: UNDISTURBED**

Project No.: 19082
Date: 11/11/05
Remarks:
 TORVANE = 0.150 tsf

Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-5WG **Depth:** 35.0
Sample Number: 15

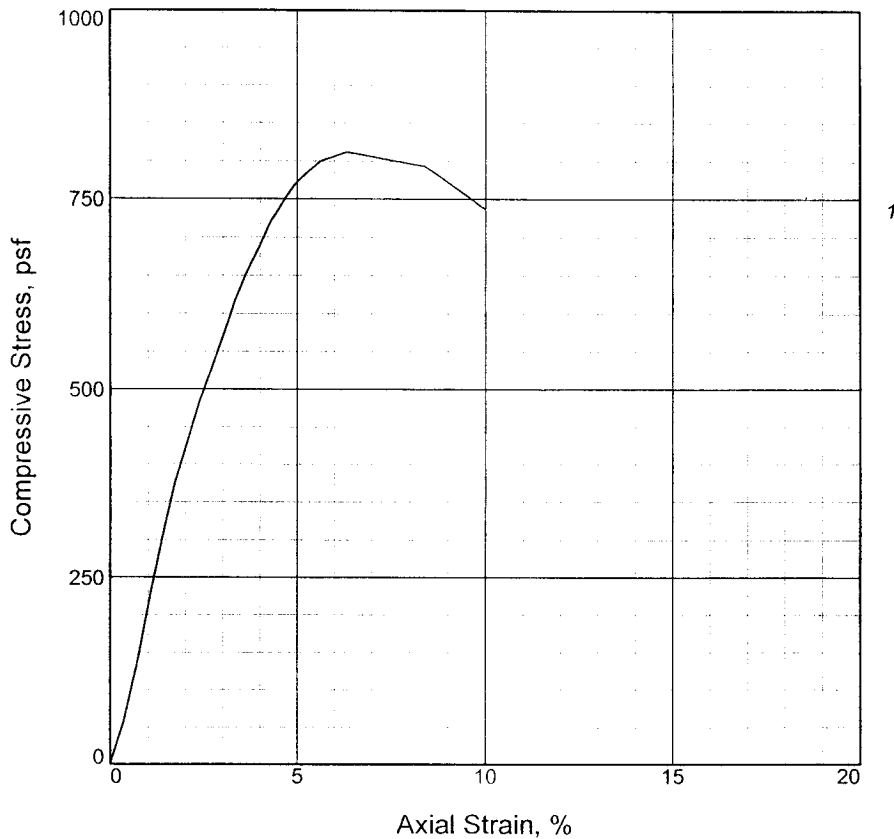
UNCONFINED COMPRESSION TEST

EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: LR Checked By: DP

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	811.2			
Undrained shear strength, psf	405.6			
Failure strain, %	6.3			
Strain rate, in./min.	0.059			
Water content, %	82.8			
Wet density, pcf	92.7			
Dry density, pcf	50.7			
Saturation, %	95.6			
Void ratio	2.3721			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO Gr CH4 w/ SL

LL = **PL =** **PI =** **Assumed GS= 2.74** **Type: UNDISTURBED**

Project No.: 19082

Date: 11/11/05

Remarks:

TORVANE = 0.150 tsf

Client: URS Corporation

Project: U.S. Army Corps of Engineers

Inner Harbor Navigational Canal

Source of Sample: B-5WG **Depth:** 40.0

Sample Number: 17

UNCONFINED COMPRESSION TEST

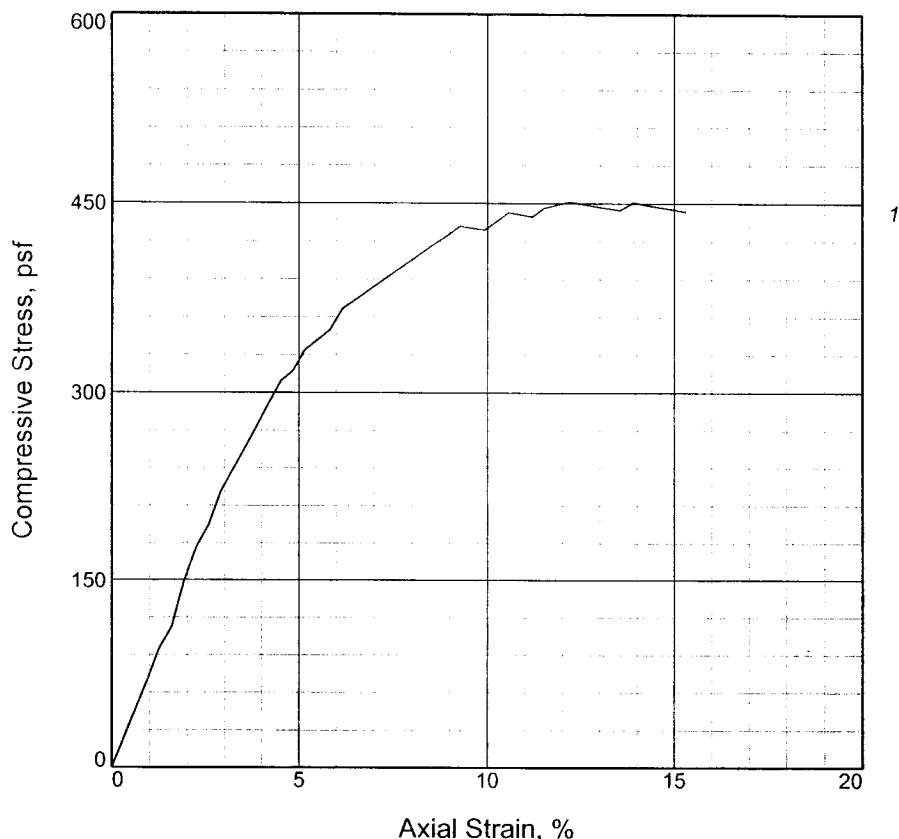
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: LR

Checked By: DP

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	431.7			
Undrained shear strength, psf	215.9			
Failure strain, %	9.3			
Strain rate, in./min.	0.061			
Water content, %	42.8			
Wet density, pcf	108.3			
Dry density, pcf	75.8			
Saturation, %	94.0			
Void ratio	1.2394			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: VSO GR CH4 W/ LYS SM, SIF

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

Project No.: 19082
Date: 11/14/05
Remarks:
 Torvane = 0.060 tsf

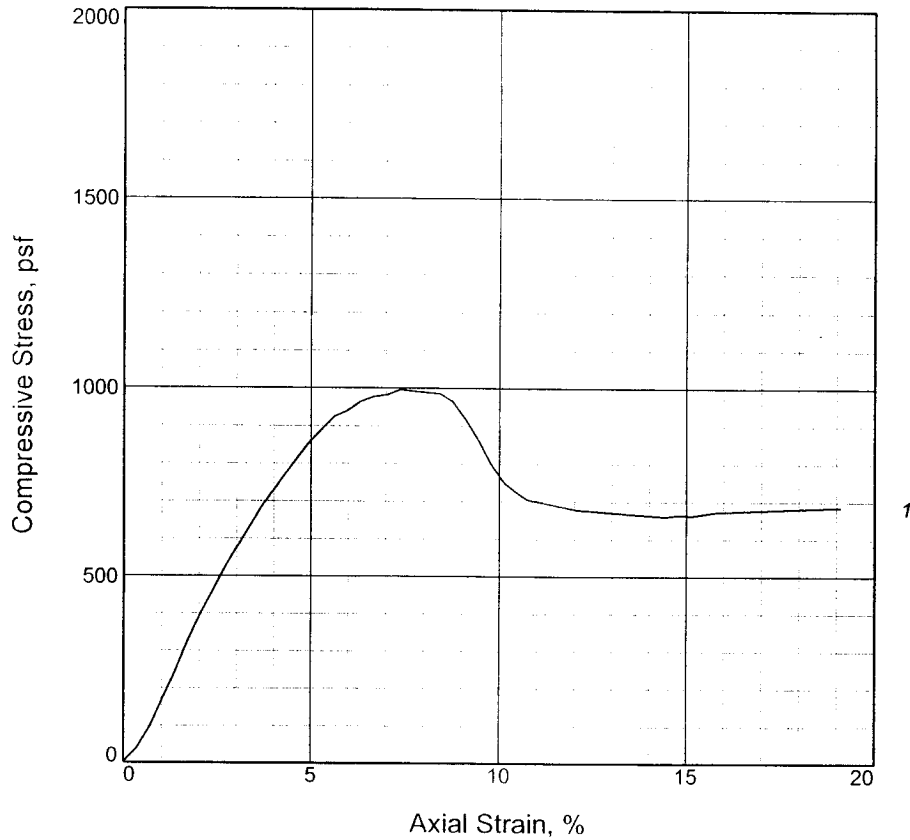
Client: URS Corporation
Project: U.S. Army Corps of Engineers
 Inner Harbor Navigational Canal
Source of Sample: B-5WG **Depth:** 45.0
Sample Number: 19

UNCONFINED COMPRESSION TEST
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: ZH Checked By: DP

UNCONFINED COMPRESSION TEST



Specimen No.	1			
Unconfined strength, psf	996.0			
Undrained shear strength, psf	498.0			
Failure strain, %	7.4			
Strain rate, in./min.	0.059			
Water content, %	45.8			
Wet density, pcf	103.7			
Dry density, pcf	71.1			
Saturation, %	89.8			
Void ratio	1.3878			
Specimen diameter, in.	1.388			
Specimen height, in.	2.930			
Height/diameter ratio	2.11			

Description: SO GR CH4 W/ ARS SM, SL

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

Project No.: 19082

Date: 11/11/05

Remarks:

TORVANE = 0.200 tsf

Client: URS Corporation

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

Source of Sample: B-5WG **Depth:** 50.0

Sample Number: 21

UNCONFINED COMPRESSION TEST

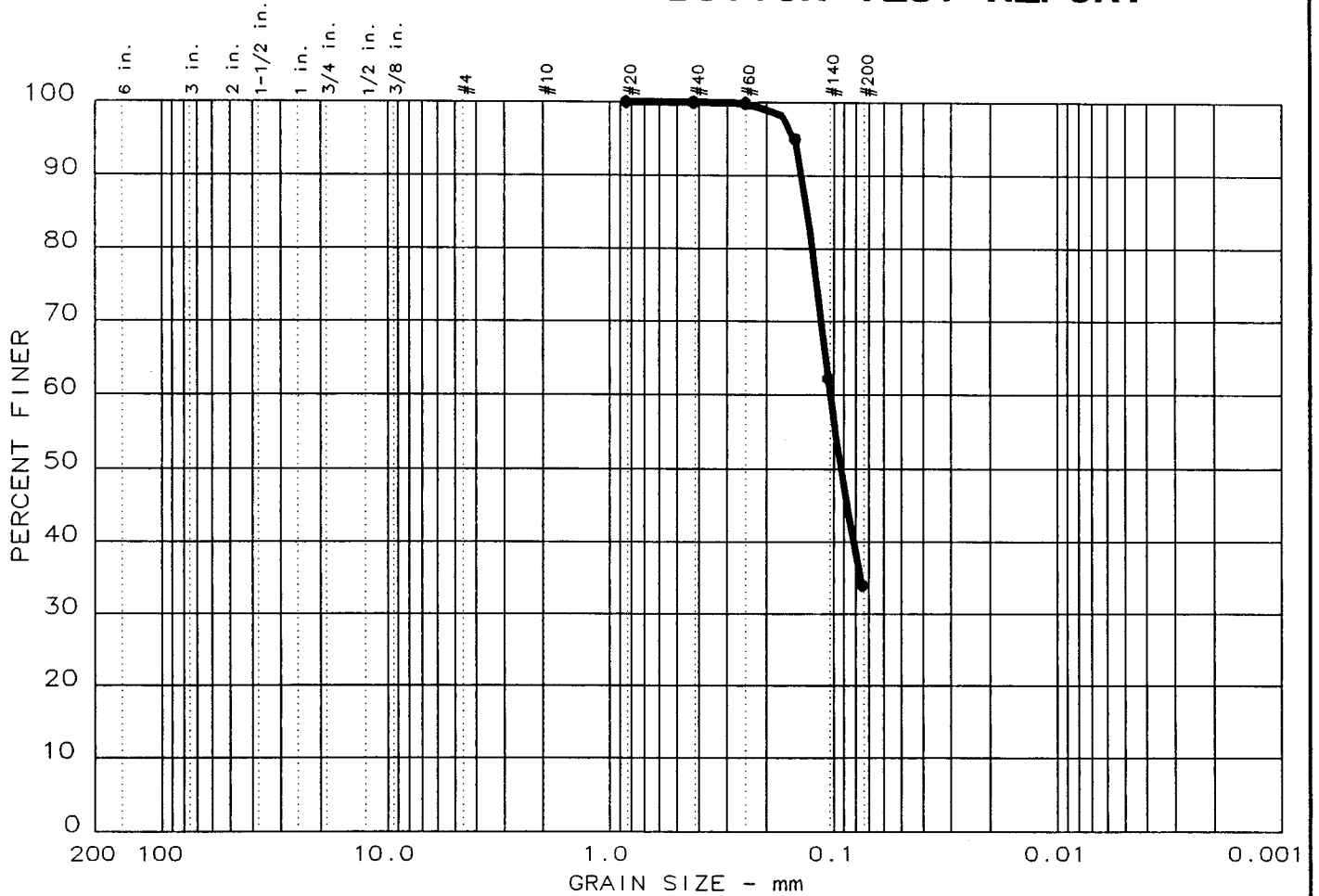
EUSTIS ENGINEERING COMPANY, INC.

Figure 1

Tested By: RR

Checked By: DP

PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	66.0	34.0		SM1		

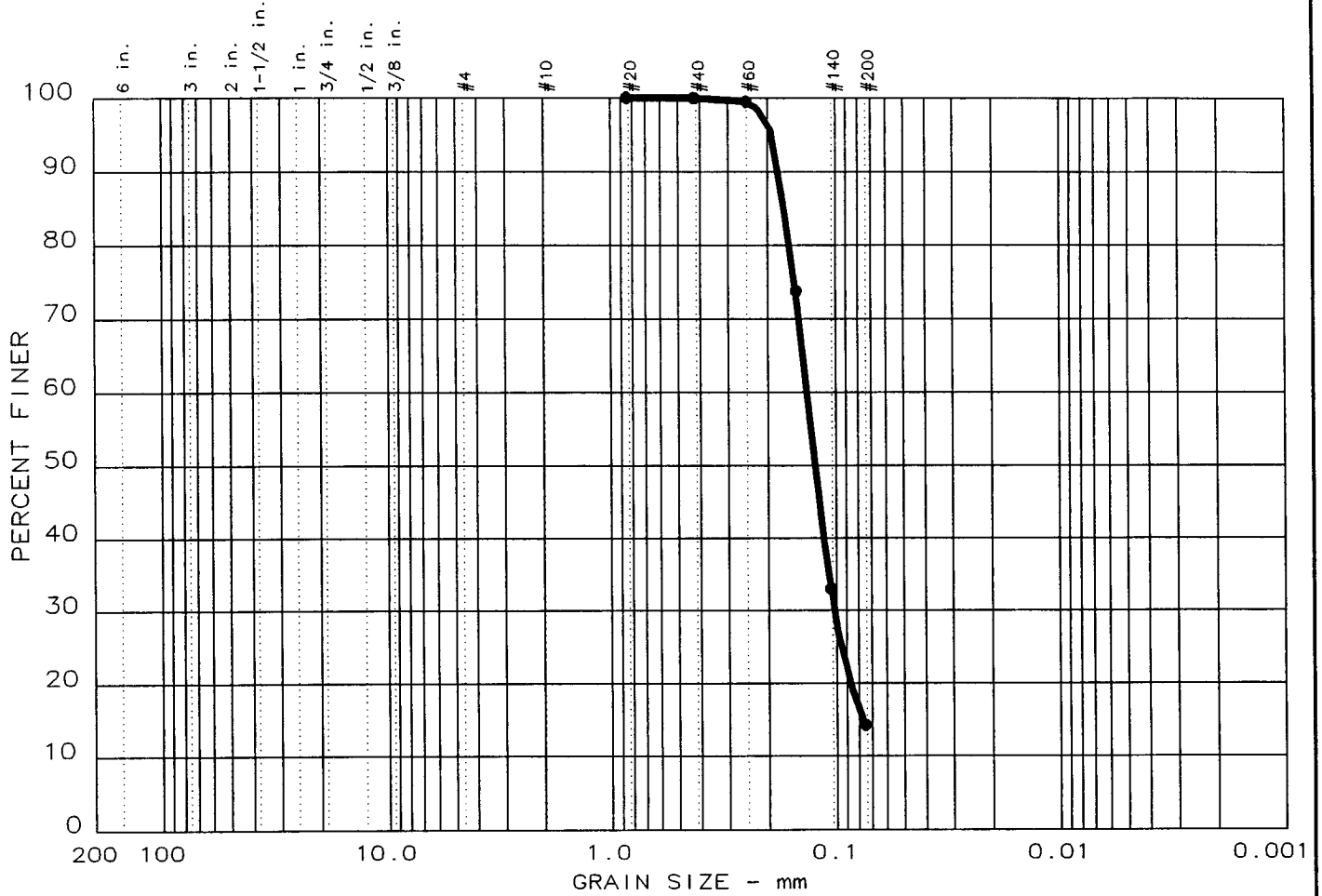
SIEVE inches size	PERCENT FINER		
●			
X	GRAIN SIZE		
D ₆₀	0.10		
D ₃₀			
D ₁₀			
X	COEFFICIENTS		
C _c			
C _u			

SIEVE number size	PERCENT FINER		
●			
20	100.0		
40	100.0		
60	99.8		
100	95.0		
140	62.2		
200	34.0		

Sample information:
 ● Boring 5WG, Sample 26
 GnGr SM1

Remarks:
 Sample depth 61.5'

PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	85.7	14.3		SM1-s		

SIEVE inches size	PERCENT FINER		
●			
X	GRAIN SIZE		
D ₆₀	0.13		
D ₃₀	0.10		
D ₁₀			
X	COEFFICIENTS		
C _c			
C _u			

SIEVE number size	PERCENT FINER		
●			
20	100.0		
40	99.9		
60	99.5		
100	73.8		
140	33.0		
200	14.3		

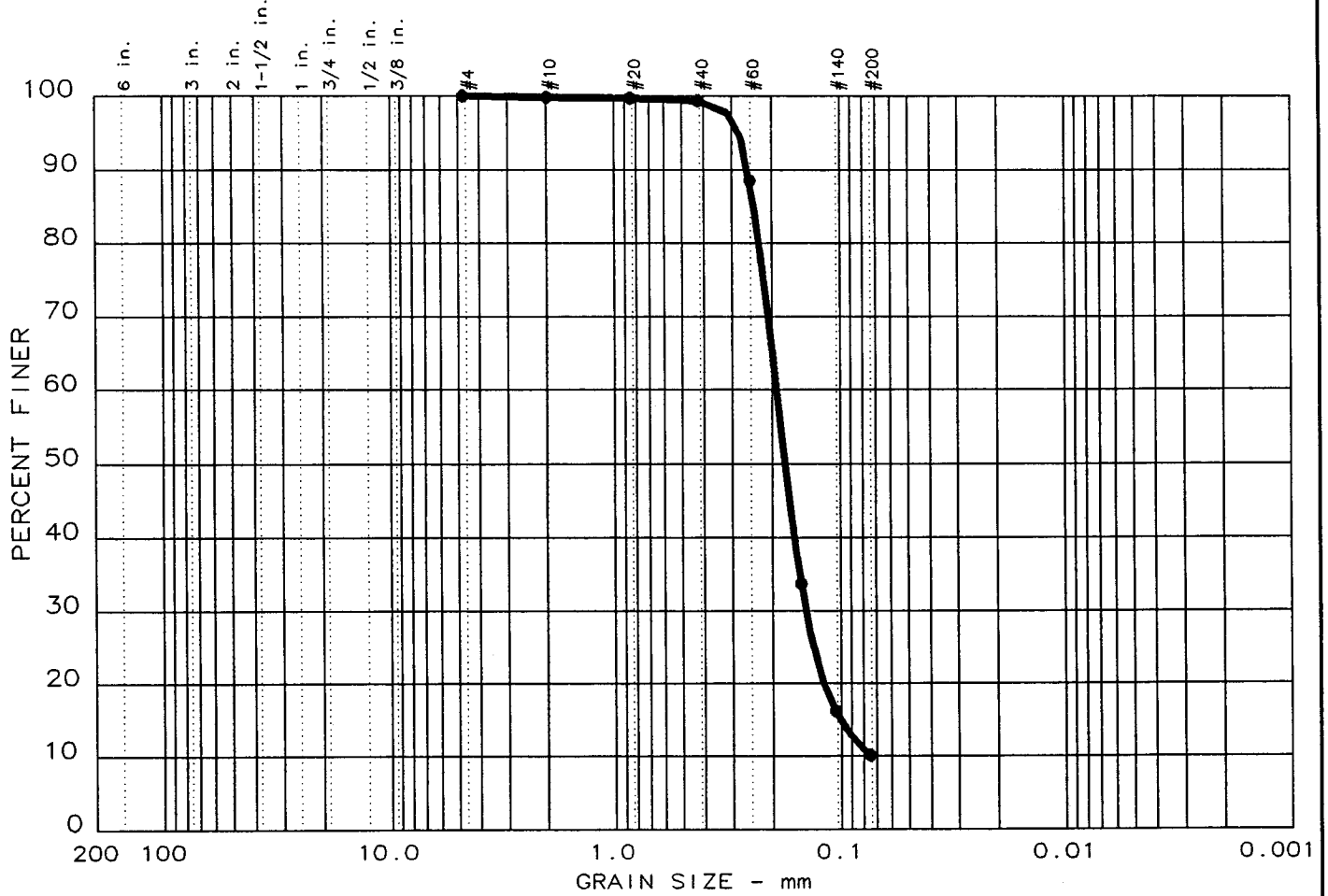
Sample information:
 ● Boring 5WG, Sample 30
 Gr SM1-s

Remarks:
 Sample depth 70.5'

**Eustis
Engineering
Company, Inc.**

Project No.: 19082
 Project: USACE
 Date: 11-18-05
 Data Sheet No. _____

PARTICLE SIZE DISTRIBUTION TEST REPORT



% +3"	% GRAVEL	% SAND	% SILT	% CLAY	USCS	LL	PI
0.0	0.0	89.9	10.1		SM1-s		

SIEVE inches size	PERCENT FINER		
●			
X	GRAIN SIZE		
D ₆₀	0.19		
D ₃₀	0.14		
D ₁₀			
X	COEFFICIENTS		
C _c			
C _u			

SIEVE number size	PERCENT FINER		
●			
4	100.0		
10	99.8		
20	99.7		
40	99.3		
60	88.6		
100	33.7		
140	16.2		
200	10.1		

Sample information:
 ● Boring 5WG, Sample 36
 Gr SM1-s

Remarks:
 Sample depth 85.0'