

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
13	0.2000	76.00	76.0	8.0	1.115
14	0.3000	70.00	70.0	12.0	1.027
15	0.4000	70.00	70.0	16.0	1.027

Parameters for Specimen No. 2

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	155.750		169.330
Moisture content: Dry soil+tare, gms.	129.360		139.660
Moisture content: Tare, gms.	8.220		8.300
Moisture, %	21.8	22.6	22.6
Moist specimen weight, gms.	163.2		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	1.00	
Net decrease in height, in.		0.02	
Wet Density, pcf	124.8	128.0	
Dry density, pcf	102.5	104.4	
Void ratio	0.6324	0.6019	
Saturation, %	92.3	100.6	

Test Readings for Specimen No. 2

Normal stress = 3.24 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 2.758 tsf at reading no. 8

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	54.00	54.0	0.2	0.792
2	0.0100	80.00	80.0	0.4	1.173
3	0.0200	122.00	122.0	0.8	1.789
4	0.0300	148.00	148.0	1.2	2.171
5	0.0400	166.00	166.0	1.6	2.435
6	0.0500	178.00	178.0	2.0	2.611
7	0.0600	185.00	185.0	2.4	2.714
8	0.0750	188.00	188.0	3.0	2.758
9	0.0900	185.00	185.0	3.6	2.714
10	0.1000	183.00	183.0	4.0	2.684
11	0.1500	163.00	163.0	6.0	2.391
12	0.2000	162.00	162.0	8.0	2.376
13	0.3000	157.00	157.0	12.0	2.303
14	0.4000	154.00	154.0	16.0	2.259

Parameters for Specimen No. 3

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	122.680		164.790
Moisture content: Dry soil+tare, gms.	103.480		141.390
Moisture content: Tare, gms.	8.170		8.160
Moisture, %	20.1	17.6	17.6
Moist specimen weight, gms.	165.0		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.94	
Net decrease in height, in.		0.07	
Wet Density, pcf	126.6	133.8	
Dry density, pcf	105.3	113.8	
Void ratio	0.5882	0.4705	
Saturation, %	91.8	100.0	

Test Readings for Specimen No. 3

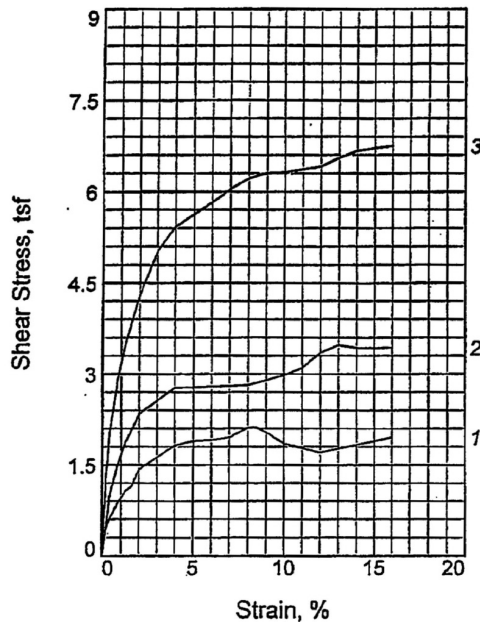
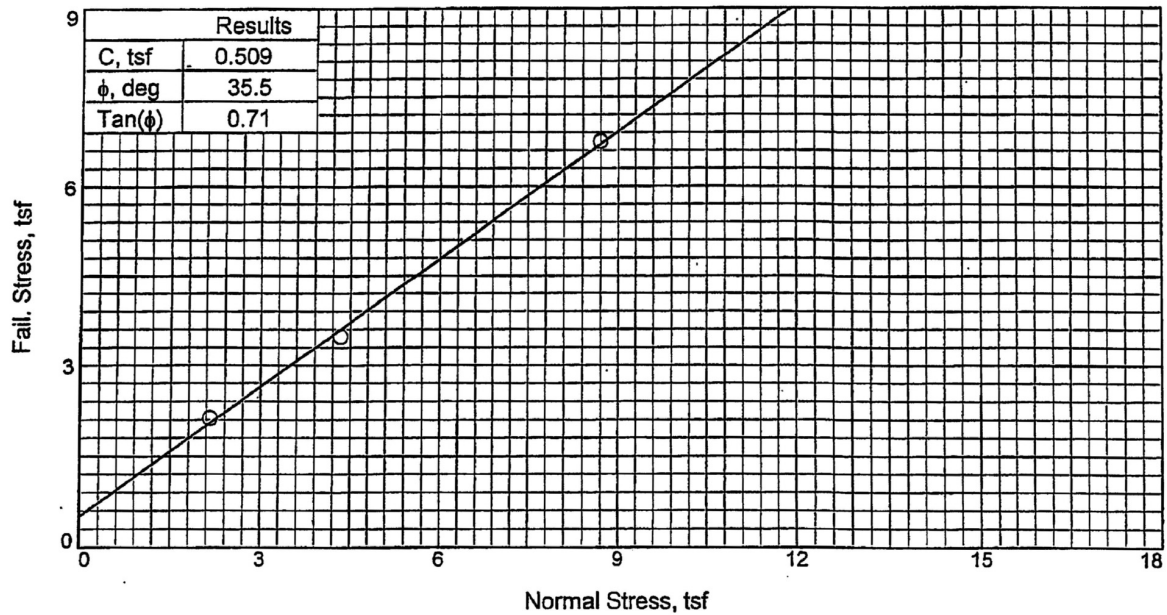
Normal stress = 6.48 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 5.119 tsf at reading no. 9

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	46.00	46.0	0.2	0.675
2	0.0100	80.00	80.0	0.4	1.173
3	0.0200	130.00	130.0	0.8	1.907
4	0.0300	178.00	178.0	1.2	2.611
5	0.0400	214.00	214.0	1.6	3.139
6	0.0500	242.00	242.0	2.0	3.550
7	0.0750	300.00	300.0	3.0	4.400
8	0.1000	338.00	338.0	4.0	4.958
9	0.1200	349.00	349.0	4.8	5.119
10	0.1400	340.00	340.0	5.6	4.987
11	0.1500	330.00	330.0	6.0	4.840
12	0.1750	312.00	312.0	7.0	4.576
13	0.2000	310.00	310.0	8.0	4.547
14	0.3000	308.00	308.0	12.0	4.518
15	0.4000	306.00	306.0	16.0	4.488

MACTEC Engineering and Consulting, Inc.



Sample No.		1	2	3
Initial	Water Content, %	18.7	17.4	17.2
	Dry Density, pcf	107.5	110.7	112.3
	Saturation, %	88.2	89.4	92.2
	Void Ratio	0.5734	0.5281	0.5065
	Diameter, in.	2.50	2.50	2.50
	Height, in.	1.01	1.01	1.01
At Test	Water Content, %	18.5	15.9	15.2
	Dry Density, pcf	112.3	118.1	119.5
	Saturation, %	99.1	99.5	99.3
	Void Ratio	0.5064	0.4327	0.4155
	Diameter, in.	2.50	2.50	2.50
	Height, in.	0.97	0.95	0.95
Normal Stress, tsf		2.160	4.330	8.700
Fail. Stress, tsf		2.127	3.476	6.747
Strain, %		8.4	13.0	16.0
Ult. Stress, tsf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Undisturbed
Description: Yellow Silty SAND (SM) Visual

LL= ND PL= ND PI= ND
Specific Gravity= 2.71

Remarks: ASTM D 3080-04. ND=Not Determined.

Lever arm mechanical shear device was used to perform the test. Samples sheared to the limitation of the machine.

Lab No. 8347

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Location: B-2302UD

Sample Number: UD-14

Depth: 108.5-111 Ft

Proj. No.: 6468-07-1777

Date: 2/7/08

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: BM

Checked By: HJ

4115706

KAW 445.08

DIRECT SHEAR TEST

4/15/2008

Date: 2/7/08
 Client: Bechtel
 Project: Exelon Texas COL (Victoria)
 Project No.: 6468-07-1777
 Location: B-2302UD
 Depth: 108.5-111 Ft Sample Number: UD-14
 Description: Yellow Silty SAND (SM) Visual
 Remarks: ASTM D 3080-04. ND=Not Determined.
 Lever arm mechanical shear device was used to perform the test. Samples sheared to the limitation of the machine.

Type of Sample: Undisturbed

Specific Gravity=2.71

LL=ND

PL= ND

PI=ND

Parameters for Specimen No. 1

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	149.560		167.150
Moisture content: Dry soil+tare, gms.	126.690		141.680
Moisture content: Tare, gms.	4.190		4.200
Moisture, %	18.7	18.5	18.5
Moist specimen weight, gms.	166.1		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.97	
Net decrease in height, in.		0.04	
Wet Density, pcf	127.6	133.1	
Dry density, pcf	107.5	112.3	
Void ratio	0.5734	0.5064	
Saturation, %	88.2	99.1	

Test Readings for Specimen No. 1

Normal stress = 2.16 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 2.127 tsf at reading no. 12

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	30.00	30.0	0.2	0.440
2	0.0100	42.00	42.0	0.4	0.616
3	0.0200	58.00	58.0	0.8	0.851
4	0.0300	71.00	71.0	1.2	1.041
5	0.0400	79.00	79.0	1.6	1.159
6	0.0500	97.00	97.0	2.0	1.423
7	0.1000	124.00	124.0	4.0	1.819
8	0.1250	129.00	129.0	5.0	1.892
9	0.1500	130.00	130.0	6.0	1.907
10	0.1750	133.00	133.0	7.0	1.951
11	0.2000	144.00	144.0	8.0	2.112
12	0.2100	145.00	145.0	8.4	2.127

MACTEC Engineering and Consulting, Inc.

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
13	0.2250	139.00	139.0	9.0	2.039
14	0.2500	126.00	126.0	10.0	1.848
15	0.3000	116.00	116.0	12.0	1.701
16	0.4000	133.00	133.0	16.0	1.951

Parameters for Specimen No. 2

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	131.100		166.350
Moisture content: Dry soil+tare, gms.	112.280		144.120
Moisture content: Tare, gms.	4.230		4.250
Moisture, %	17.4	15.9	15.9
Moist specimen weight, gms.	168.9		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.95	
Net decrease in height, in.		0.06	
Wet Density, pcf	130.0	136.9	
Dry density, pcf	110.7	118.1	
Void ratio	0.5281	0.4327	
Saturation, %	89.4	99.5	

Test Readings for Specimen No. 2

Normal stress = 4.33 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 3.476 tsf at reading no. 13

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	34.00	34.0	0.2	0.499
2	0.0100	68.00	68.0	0.4	0.997
3	0.0200	100.00	100.0	0.8	1.467
4	0.0300	124.00	124.0	1.2	1.819
5	0.0400	142.00	142.0	1.6	2.083
6	0.0500	160.00	160.0	2.0	2.347
7	0.1000	189.00	189.0	4.0	2.772
8	0.1500	190.00	190.0	6.0	2.787
9	0.2000	192.00	192.0	8.0	2.816
10	0.2500	203.00	203.0	10.0	2.978
11	0.2750	211.00	211.0	11.0	3.095
12	0.3000	228.00	228.0	12.0	3.344
13	0.3250	237.00	237.0	13.0	3.476
14	0.3500	234.00	234.0	14.0	3.432
15	0.3750	234.00	234.0	15.0	3.432
16	0.4000	234.00	234.0	16.0	3.432

MACTEC Engineering and Consulting, Inc.

Parameters for Specimen No. 3

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	135.940		172.220
Moisture content: Dry soil+tare, gms.	116.570		150.030
Moisture content: Tare, gms.	4.210		4.260
Moisture, %	17.2	15.2	15.2
Moist specimen weight, gms.	171.2		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.95	
Net decrease in height, in.		0.06	
Wet Density, pcf	131.7	137.7	
Dry density, pcf	112.3	119.5	
Void ratio	0.5065	0.4155	
Saturation, %	92.2	99.3	

Test Readings for Specimen No. 3

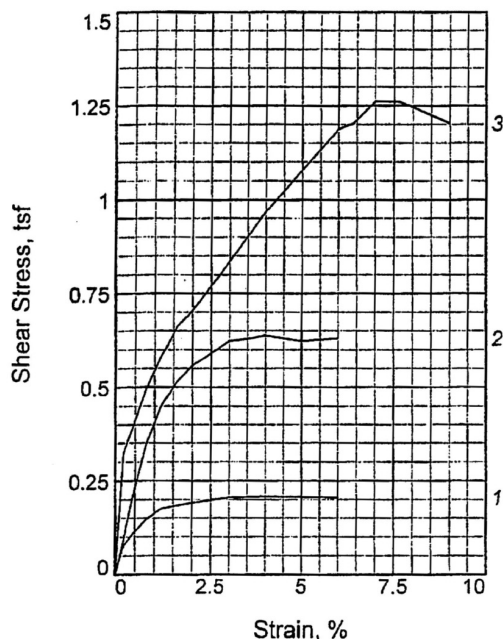
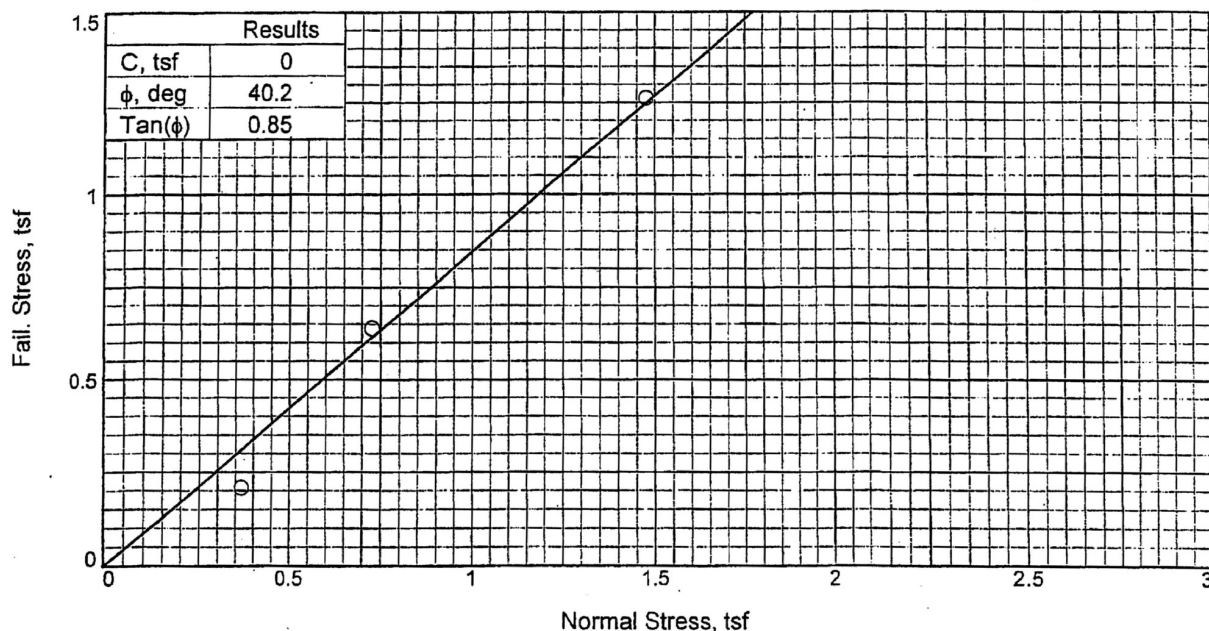
Normal stress = 8.7 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 6.747 tsf at reading no. 18

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	92.00	92.0	0.2	1.349
2	0.0100	140.00	140.0	0.4	2.053
3	0.0200	196.00	196.0	0.8	2.875
4	0.0300	234.00	234.0	1.2	3.432
5	0.0400	264.00	264.0	1.6	3.872
6	0.0500	292.00	292.0	2.0	4.283
7	0.0750	342.00	342.0	3.0	5.016
8	0.1000	370.00	370.0	4.0	5.427
9	0.1500	397.00	397.0	6.0	5.823
10	0.1750	412.00	412.0	7.0	6.043
11	0.2000	424.00	424.0	8.0	6.219
12	0.2250	430.00	430.0	9.0	6.307
13	0.2500	431.00	431.0	10.0	6.322
14	0.3000	437.00	437.0	12.0	6.410
15	0.3250	447.00	447.0	13.0	6.556
16	0.3500	455.00	455.0	14.0	6.674
17	0.3750	458.00	458.0	15.0	6.718
18	0.4000	460.00	460.0	16.0	6.747

MACTEC Engineering and Consulting, Inc.



Sample No.		1	2	3
Initial	Water Content, %	13.9	11.3	10.4
	Dry Density, pcf	97.3	101.9	96.6
	Saturation, %	50.4	45.4	37.0
	Void Ratio	0.7581	0.6794	0.7708
	Diameter, in.	2.50	2.50	2.50
	Height, in.	1.00	1.01	1.01
At Test	Water Content, %	24.8	21.5	16.3
	Dry Density, pcf	101.6	106.3	103.8
	Saturation, %	99.7	96.8	69.1
	Void Ratio	0.6828	0.6095	0.6476
	Diameter, in.	2.50	2.50	2.50
	Height, in.	0.96	0.97	0.94
Normal Stress, tsf		0.367	0.727	1.476
Fail. Stress, tsf		0.208	0.638	1.261
Strain, %		4.0	4.0	7.0
Ult. Stress, tsf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Undisturbed

Description: Light Yellowish Brown Sandy SILT
(ML) Visual

LL= ND PL= ND PI= ND

Specific Gravity= 2.74

Remarks: ASTM D3080-04. ND=not determined.

Lever arm Mechanical shear device was used to perform the test. Sample sheared to the limitation of the machine.

Lab No. 8348

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Location: B-2304UD

Sample Number: UD-2

Depth: 11-13.3 Ft

Proj. No.: 6468-07-1777

Date: 1/30/08

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: BM

Checked By: HJ

KAW 7/16/08

Remarks: Some of the data points measured are not shown to allow for plotting of failure plane. Unexpected increase in stress beyond 7% strain. Failure stresses have been chosen from within a range of 7% strain.
Volume 3 Rev. 0 - 7/18/2008

Page 1363 of 2042

DCN# EXE808

DIRECT SHEAR TEST

7/16/2008

Date: 1/30/08
 Client: Bechtel
 Project: Exelon Texas COL (Victoria)
 Project No.: 6468-07-1777
 Location: B-2304UD
 Depth: 11-13.3 Ft Sample Number: UD-2
 Description: Light Yellowish Brown Sandy SILT (ML) Visual
 Remarks: ASTM D3080-04. ND=not determined.
 Lever arm Mechanical shear device was used to perform the test. Sample sheared to the limitation of the machine.

Type of Sample: Undisturbed

Specific Gravity=2.74

LL= ND

PL= ND

PI= ND

Parameters for Specimen No. 1

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	115.590		156.330
Moisture content: Dry soil+tare, gms.	102.470		126.870
Moisture content: Tare, gms.	8.340		8.290
Moisture, %	13.9	24.8	24.8
Moist specimen weight, gms.	143.3		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.00	0.96	
Net decrease in height, in.		0.04	
Wet Density, pcf	110.9	126.9	
Dry density, pcf	97.3	101.6	
Void ratio	0.7581	0.6828	
Saturation, %	50.4	99.7	

Test Readings for Specimen No. 1

Normal stress = .367 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 0.208 tsf at reading no. 8

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	5.00	5.0	0.2	0.073
2	0.0100	7.00	7.0	0.4	0.103
3	0.0200	10.00	10.0	0.8	0.147
4	0.0300	12.00	12.0	1.2	0.176
5	0.0400	12.50	12.5	1.6	0.183
6	0.0500	13.00	13.0	2.0	0.191
7	0.0750	14.00	14.0	3.0	0.205
8	0.1000	14.20	14.2	4.0	0.208
9	0.1500	14.00	14.0	6.0	0.205

MACTEC Engineering and Consulting, Inc.

Parameters for Specimen No. 2

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	139.110		165.700
Moisture content: Dry soil+tare, gms.	125.860		137.830
Moisture content: Tare, gms.	8.200		8.360
Moisture, %	11.3	21.5	21.5
Moist specimen weight, gms.	147.4		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.97	
Net decrease in height, in.		0.04	
Wet Density, pcf	113.3	129.2	
Dry density, pcf	101.9	106.3	
Void ratio	0.6794	0.6095	
Saturation, %	45.4	96.8	

Test Readings for Specimen No. 2

Normal stress = .727 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 0.638 tsf at reading no. 9

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	6.00	6.0	0.2	0.088
2	0.0100	13.00	13.0	0.4	0.191
3	0.0200	24.00	24.0	0.8	0.352
4	0.0300	31.00	31.0	1.2	0.455
5	0.0400	35.00	35.0	1.6	0.513
6	0.0500	38.00	38.0	2.0	0.557
7	0.0750	42.50	42.5	3.0	0.623
8	0.0900	43.00	43.0	3.6	0.631
9	0.1000	43.50	43.5	4.0	0.638
10	0.1250	42.50	42.5	5.0	0.623
11	0.1500	43.00	43.0	6.0	0.631

Parameters for Specimen No. 3

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	115.800		159.250
Moisture content: Dry soil+tare, gms.	105.660		138.060
Moisture content: Tare, gms.	8.370		8.260
Moisture, %	10.4	16.3	16.3
Moist specimen weight, gms.	138.3		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.94	
Net decrease in height, in.		0.07	
Wet Density, pcf	106.7	120.8	
Dry density, pcf	96.6	103.8	
Void ratio	0.7708	0.6476	
Saturation, %	37.0	69.1	

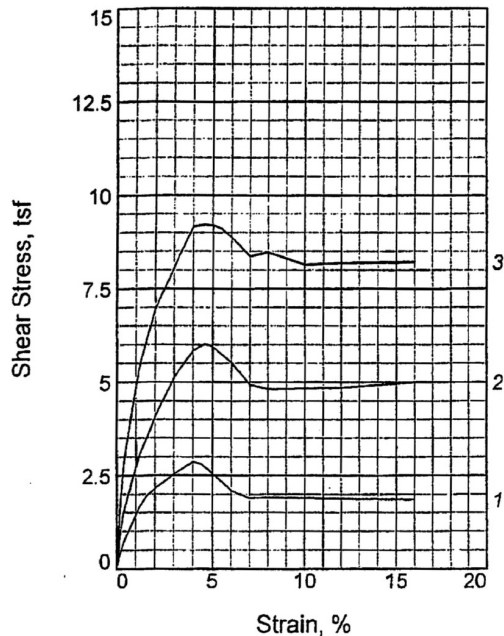
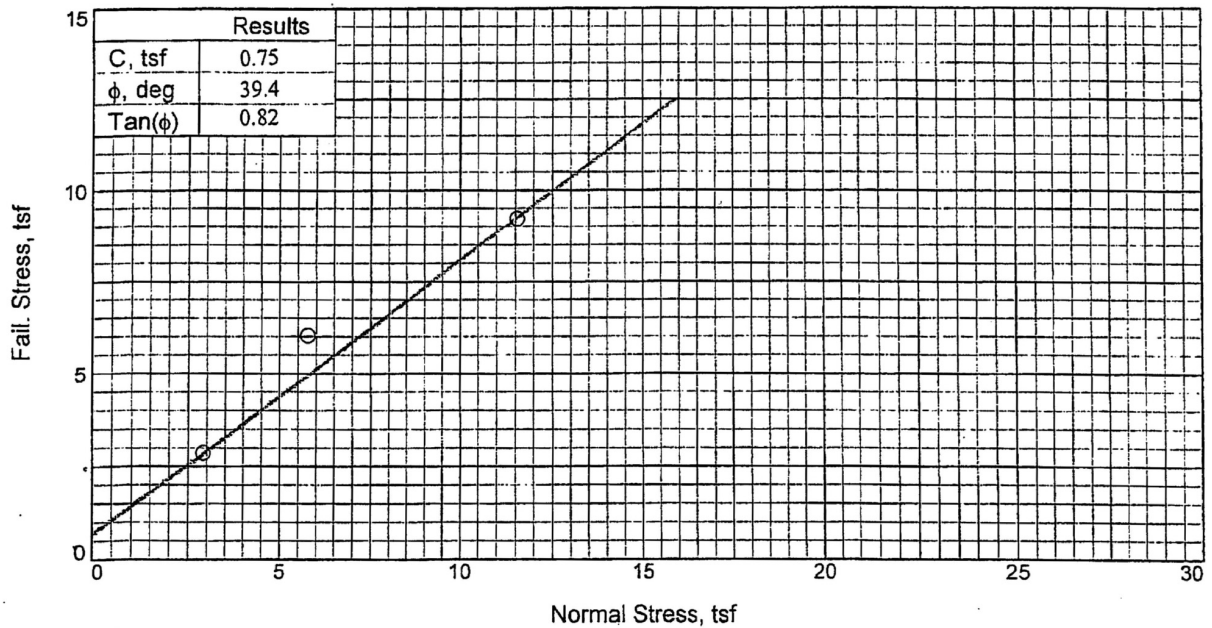
Test Readings for Specimen No. 3

Normal stress = 1.476 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 1.261 tsf at reading no. 10

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	22.00	22.0	0.2	0.323
2	0.0100	26.00	26.0	0.4	0.381
3	0.0200	34.00	34.0	0.8	0.499
4	0.0300	40.00	40.0	1.2	0.587
5	0.0400	45.00	45.0	1.6	0.660
6	0.0500	48.00	48.0	2.0	0.704
7	0.1000	66.00	66.0	4.0	0.968
8	0.1500	81.00	81.0	6.0	1.188
9	0.1600	82.00	82.0	6.4	1.203
10	0.1750	86.00	86.0	7.0	1.261
11	0.1900	86.00	86.0	7.6	1.261
12	0.2000	85.00	85.0	8.0	1.247
13	0.2250	82.00	82.0	9.0	1.203



Sample No.		1	2	3
Initial	Water Content, %	19.0	16.6	18.0
	Dry Density, pcf	96.6	99.8	101.1
	Saturation, %	69.8	65.8	73.7
	Void Ratio	0.7311	0.6767	0.6553
	Diameter, in.	2.50	2.50	2.50
	Height, in.	1.01	1.01	1.01
At Test	Water Content, %	23.1	21.5	20.6
	Dry Density, pcf	101.6	106.2	107.2
	Saturation, %	95.6	100.2	98.8
	Void Ratio	0.6470	0.5758	0.5601
	Diameter, in.	2.50	2.50	2.50
	Height, in.	0.96	0.95	0.95
Normal Stress, tsf		2.910	5.770	11.550
Fail. Stress, tsf		2.860	6.028	9.211
Strain, %		4.0	4.6	4.6
Ult. Stress, tsf				
Strain, %				
Strain rate, in./min.		0.01	0.01	0.01

Sample Type: Undisturbed
Description: Pale Brown Poorly Graded SAND with Silt (SP-SM) Visual
LL= 1ND **PL=** ND **PI=** ND
Specific Gravity= 2.68
Remarks: ASTM D 3080-04. ND=Not Determined.
 Lever arm mechanical shear device was used to perform the test. Samples sheared to the limitation of the machine.
Lab No. 8351

Client: Bechtel

Project: Exelon Texas COL (Victoria)

Location: B-2304UD

Sample Number: UD-15

Depth: 141-143.5 Ft

Proj. No.: 6468-07-1777

Date: 2/2/08

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: BM

Checked By: HJ

[Signature]
2/16/08

KAW 7/16/08

DIRECT SHEAR TEST

7/16/2008

Date: 2/2/08
Client: Bechtel
Project: Exelon Texas COL (Victoria)
Project No.: 6468-07-1777
Location: B-2304UD
Depth: 141-143.5 Ft **Sample Number:** UD-15
Description: Pale Brown Poorly Graded SAND with Silt (SP-SM) Visual
Remarks: ASTM D 3080-04. ND=Not Determined.
 Lever arm mechanical shear device was used to perform the test. Samples sheared to the limitation of the machine.
Type of Sample: Undisturbed
Specific Gravity=2.68 **LL**=ND **PL**=ND **PI**=ND

Parameters for Specimen No. 1			
Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	113.440		162.050
Moisture content: Dry soil+tare, gms.	95.960		132.450
Moisture content: Tare, gms.	4.200		4.230
Moisture, %	19.0	23.1	23.1
Moist specimen weight, gms.	149.5		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.96	
Net decrease in height, in.		0.05	
Wet Density, pcf	115.1	125.0	
Dry density, pcf	96.6	101.6	
Void ratio	0.7311	0.6470	
Saturation, %	69.8	95.6	

Test Readings for Specimen No. 1
 Normal stress = 2.91 tsf
 Strain rate, in./min. = 0.01
 Fail. Stress = 2.860 tsf at reading no. 8

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	30.00	30.0	0.2	0.440
2	0.0100	50.00	50.0	0.4	0.733
3	0.0200	82.00	82.0	0.8	1.203
4	0.0300	112.00	112.0	1.2	1.643
5	0.0400	134.00	134.0	1.6	1.965
6	0.0500	146.00	146.0	2.0	2.141
7	0.0750	172.00	172.0	3.0	2.523
8	0.1000	195.00	195.0	4.0	2.860
9	0.1100	192.00	192.0	4.4	2.816
10	0.1250	174.00	174.0	5.0	2.552
11	0.1500	143.00	143.0	6.0	2.097
12	0.1750	129.00	129.0	7.0	1.892

MACTEC Engineering and Consulting, Inc.

Test Readings for Specimen No. 1

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
13	0.2000	130.00	130.0	8.0	1.907
14	0.3000	128.00	128.0	12.0	1.877
15	0.4000	126.00	126.0	16.0	1.848

Parameters for Specimen No. 2

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	106.090		156.830
Moisture content: Dry soil+tare, gms.	91.580		129.790
Moisture content: Tare, gms.	4.220		4.200
Moisture, %	16.6	21.5	21.5
Moist specimen weight, gms.	152.0		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.95	
Net decrease in height, in.		0.06	
Wet Density, pcf	116.4	129.0	
Dry density, pcf	99.8	106.2	
Void ratio	0.6767	0.5758	
Saturation, %	65.8	100.2	

Test Readings for Specimen No. 2

Normal stress = 5.77 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 6.028 tsf at reading no. 9

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	68.00	68.0	0.2	0.997
2	0.0100	108.00	108.0	0.4	1.584
3	0.0200	160.00	160.0	0.8	2.347
4	0.0300	206.00	206.0	1.2	3.022
5	0.0400	240.00	240.0	1.6	3.520
6	0.0500	278.00	278.0	2.0	4.078
7	0.0750	348.00	348.0	3.0	5.104
8	0.1000	398.00	398.0	4.0	5.838
9	0.1150	411.00	411.0	4.6	6.028
10	0.1250	405.00	405.0	5.0	5.940
11	0.1500	376.00	376.0	6.0	5.515
12	0.1750	336.00	336.0	7.0	4.928
13	0.2000	328.00	328.0	8.0	4.811
14	0.3000	330.00	330.0	12.0	4.840
15	0.4000	340.00	340.0	16.0	4.987

Parameters for Specimen No. 3

Specimen Parameter	Initial	Consolidated	Final
Moisture content: Moist soil+tare, gms.	129.690		157.580
Moisture content: Dry soil+tare, gms.	110.530		131.330
Moisture content: Tare, gms.	4.220		4.190
Moisture, %	18.0	20.6	20.6
Moist specimen weight, gms.	155.0		
Diameter, in.	2.50	2.50	
Area, in. ²	4.91	4.91	
Height, in.	1.01	0.95	
Net decrease in height, in.		0.06	
Wet Density, pcf	119.3	129.4	
Dry density, pcf	101.1	107.2	
Void ratio	0.6553	0.5601	
Saturation, %	73.7	98.8	

Test Readings for Specimen No. 3

Normal stress = 11.55 tsf

Strain rate, in./min. = 0.01

Fail. Stress = 9.211 tsf at reading no. 8

No.	Horizontal Def. Dial in.	Load Dial	Load lbs.	Strain %	Shear Stress tsf
0	0.0000	0.00	0.0	0.0	0.000
1	0.0050	128.00	128.0	0.2	1.877
2	0.0100	200.00	200.0	0.4	2.934
3	0.0200	292.00	292.0	0.8	4.283
4	0.0300	366.00	366.0	1.2	5.368
5	0.0400	422.00	422.0	1.6	6.190
6	0.0500	474.00	474.0	2.0	6.952
7	0.1000	625.00	625.0	4.0	9.167
8	0.1150	628.00	628.0	4.6	9.211
9	0.1250	627.00	627.0	5.0	9.197
10	0.1350	622.00	622.0	5.4	9.123
11	0.1500	605.00	605.0	6.0	8.874
12	0.1750	570.00	570.0	7.0	8.361
13	0.2000	578.00	578.0	8.0	8.478
14	0.2500	555.00	555.0	10.0	8.141
15	0.3000	558.00	558.0	12.0	8.185
16	0.4000	560.00	560.0	16.0	8.214

MACTEC Engineering and Consulting, Inc.