MACTEC

November 19, 2007

Mr. Tom McCallum
Georgia Power Company
C/O Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201
Phone: (205) 992-6697
e-mail: tomccall@southernco.com

Subject: **Addendum to Geotechnical Data Report**
Attachment F – Laboratory Testing Data (Geotechnical), Revision 3, November 9, 2007
Vogtle Units 3 & 4 COL Project
Vogtle Electric Generating Plant
Burke County, Georgia
MACTEC Project Number 6141-06-0286

Dear Mr. McCallum:

MACTEC Engineering & Consulting, Inc. is pleased to submit this Addendum to Attachment F of the Final Data Report for the geotechnical exploration and laboratory testing for the Vogtle Units 3 & 4 COL Project located adjacent to the existing Vogtle Electric Generating Plant near Waynesboro, Burke County, Georgia.

This addendum consists of direct shear test data, index test results (gradation, atterberg limits, moisture content), and carbonate content test results that were not previously submitted with Attachment F, Revision 3, November 9, 2007.

It has been a pleasure to perform the work described in the attached report. If you have any questions, or if we may be of further service, we hope that you will contact us at your convenience.

Sincerely,

MACTEC ENGINEERING & CONSULTING, INC.

Matthew F. Cooke
Senior Geologist
Site Superintendent
Registered, Georgia 1887

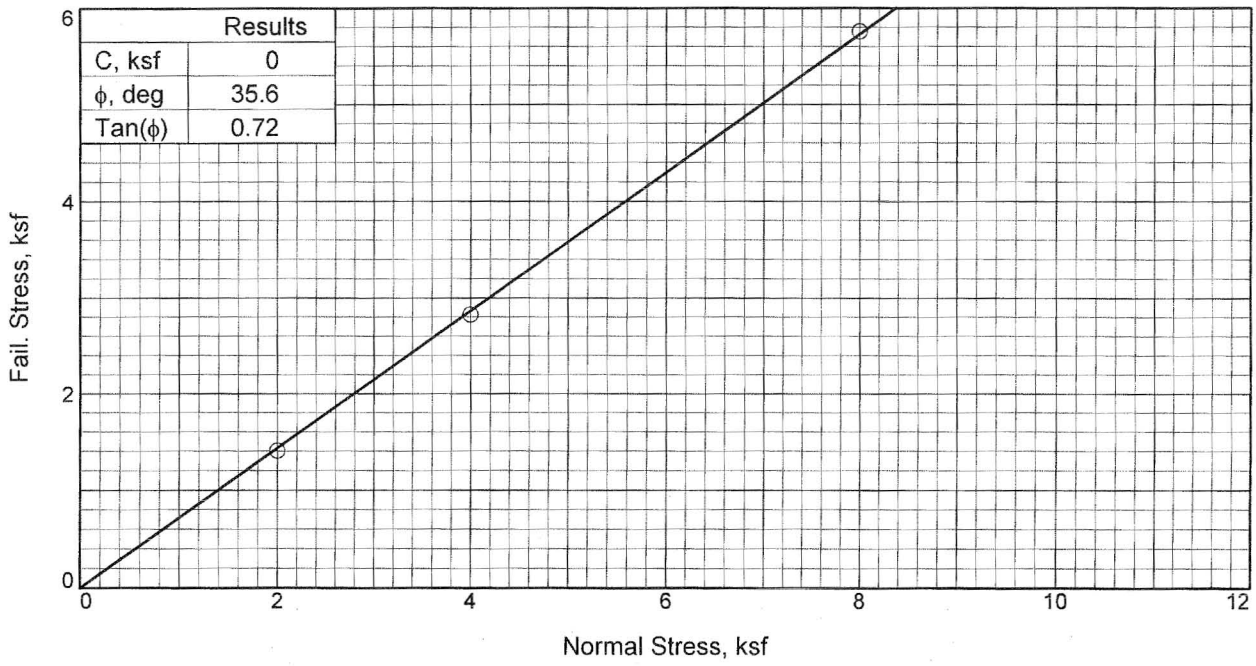
Wm. Allen Lancaster
Project Manager
Civil Engineer
Registered, Georgia 7075

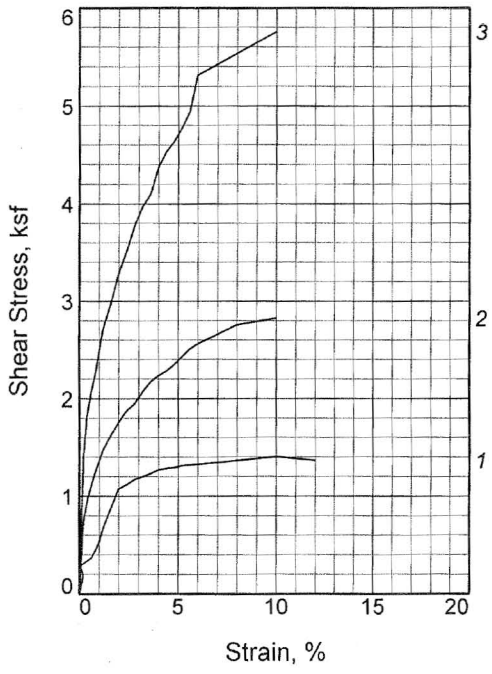
By _____ with Permission

Pieter J. DePree
Principal Geotechnical Engineer
Registered, Georgia 19637

By _____ with Permission

DCN VGCOL 324





Sample No.		1	2	3
Initial	Water Content, %	16.0	13.8	11.9
	Dry Density, pcf	98.1	96.1	88.9
	Saturation, %	60.1	49.4	35.9
	Void Ratio	0.7179	0.7532	0.8966
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	26.4	22.1	21.8
	Dry Density, pcf	98.3	96.2	88.9
	Saturation, %	99.8	79.4	65.8
	Void Ratio	0.7146	0.7521	0.8952
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.40	2.83	5.76
Strain, %		10.0	10.0	10.0
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, clayey (SC)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7476

Lab no. _____

Client: GPC c/o SNOC

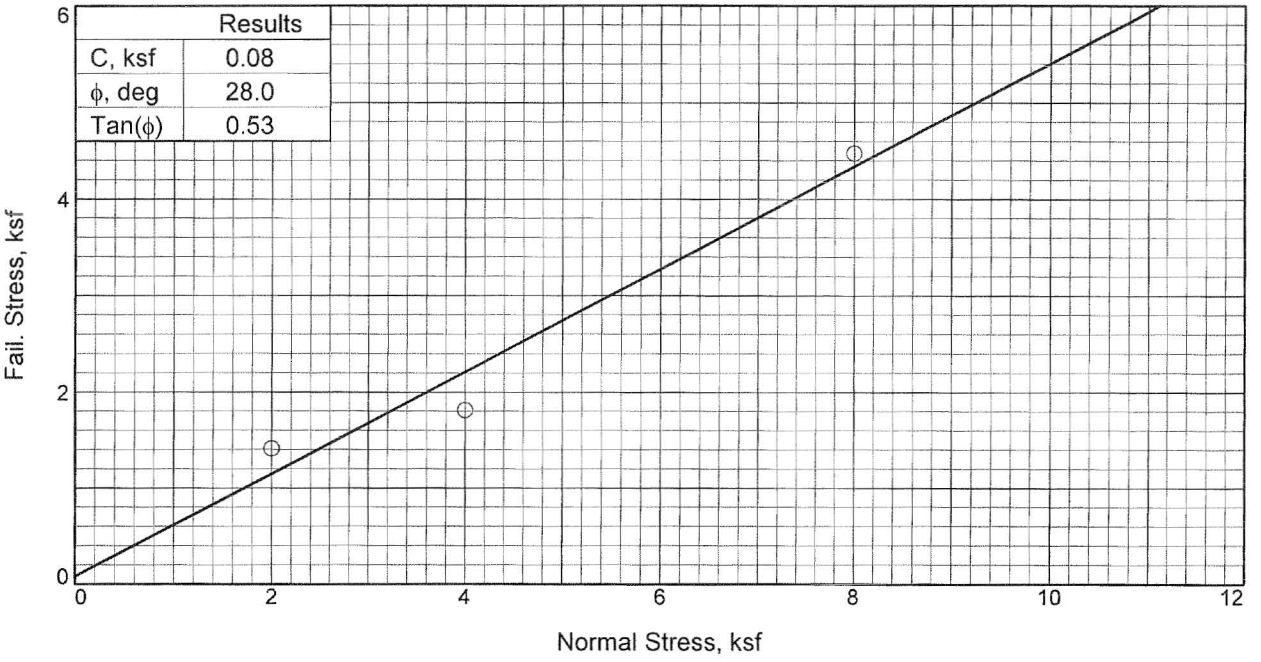
Project: Vogtle Units 3 & 4 COL Project

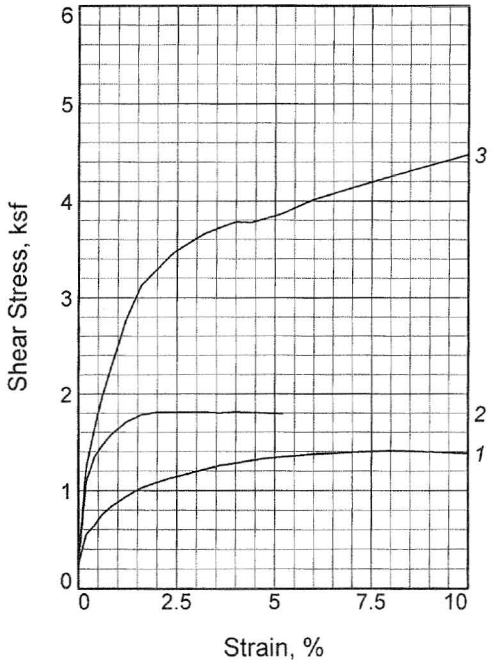
Location: B-1130
Sample Number: UD-1 **Depth:** 28.5/188.96
Proj. No.: 6141-06-0286 **Date:** 3/8/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	17.3	24.7	15.7
	Dry Density, pcf	97.2	84.3	107.0
	Saturation, %	63.7	66.6	73.6
	Void Ratio	0.7344	1.0002	0.5751
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	27.1	37.1	21.4
	Dry Density, pcf	97.4	84.3	107.0
	Saturation, %	100.2	100.1	100.3
	Void Ratio	0.7307	1.0002	0.5751
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.41	1.81	4.47
Strain, %		8.0	4.0	10.0
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, with Silt (SP-SM)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7481

Lab no. _____

Client: GPC c/o SNOC

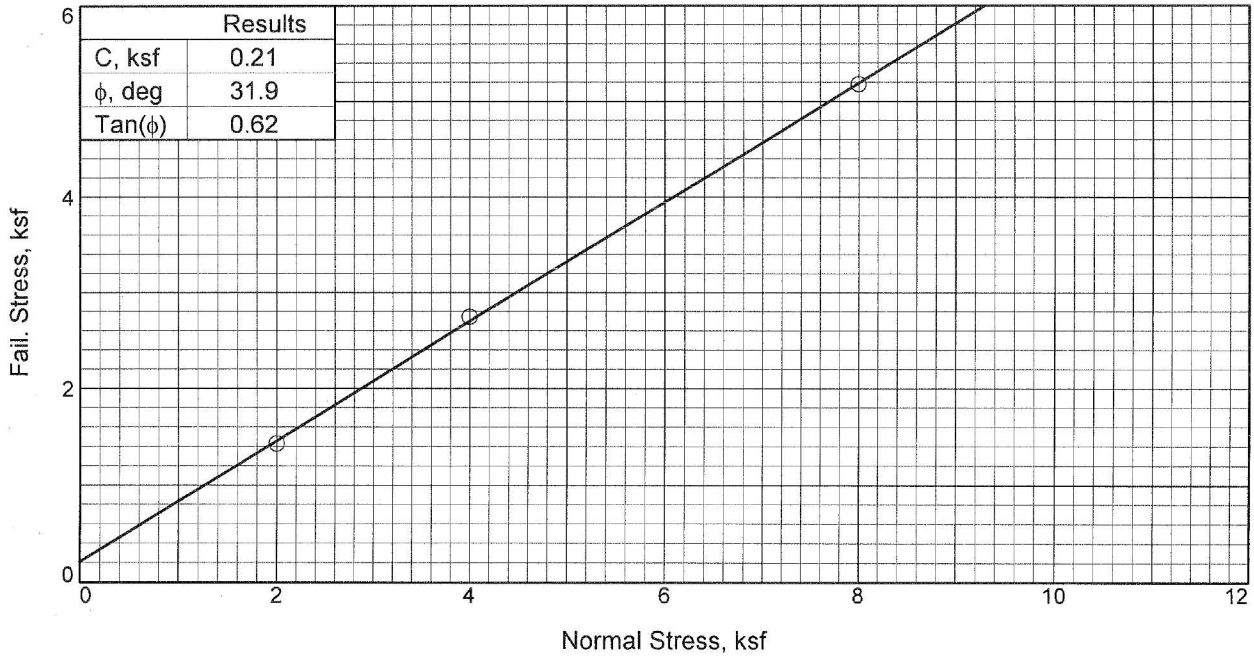
Project: Vogtle Units 3 & 4 COL Project

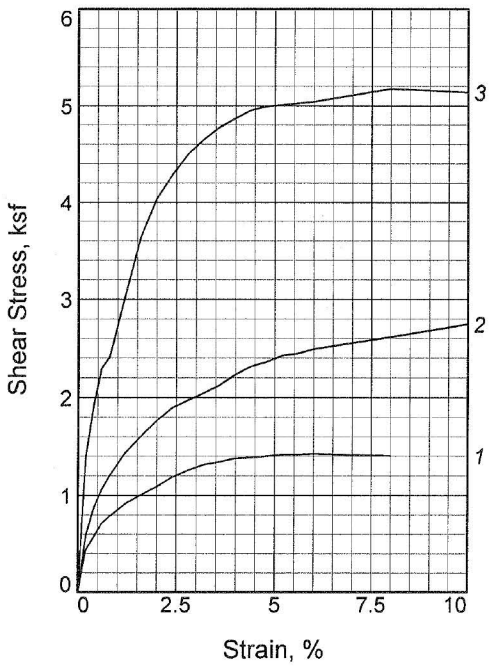
Location: B-1132
Sample Number: UD-1 **Depth:** 28.5/188.96
Proj. No.: 6141-06-0286 **Date:** 1/16/2007

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





	Sample No.	1	2	3
Initial	Water Content, %	15.9	13.6	8.8
	Dry Density, pcf	90.3	87.8	91.4
	Saturation, %	49.5	39.8	28.2
	Void Ratio	0.8659	0.9197	0.8444
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	26.5	28.8	26.8
	Dry Density, pcf	90.3	87.9	91.4
	Saturation, %	82.6	84.8	85.8
	Void Ratio	0.8657	0.9184	0.8436
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
	Normal Stress, ksf	2.00	4.00	8.00
	Fail. Stress, ksf	1.43	2.74	5.18
	Strain, %	6.0	10.0	8.0
	Ult. Stress, ksf			
	Strain, %			
	Strain rate, mm./min.	0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND with silt (SP-SM)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7589

Lab no. _____

Client: GPC c/o SNOC

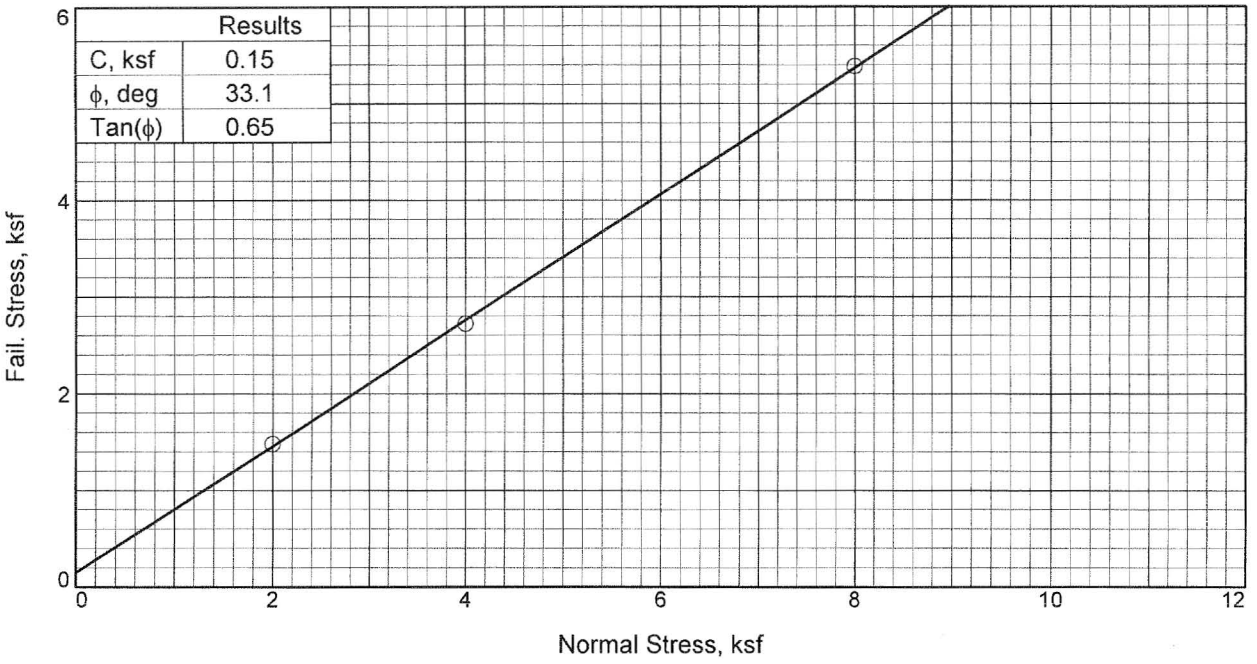
Project: Vogtle Units 3 & 4 COL Project

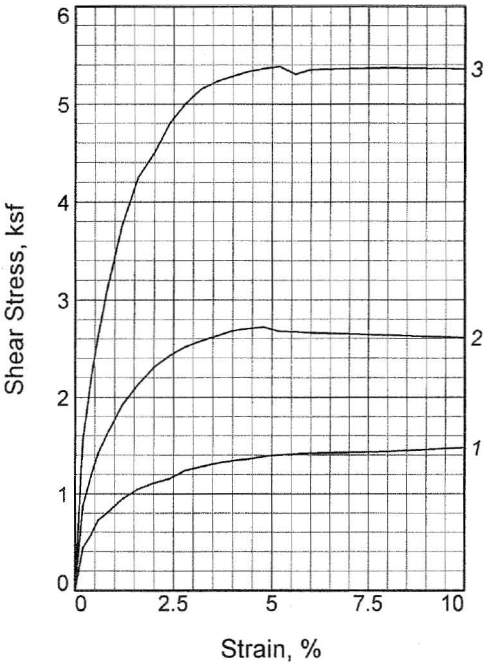
Location: B-3030
Sample Number: UD-1 **Depth:** 30.0/191.99
Proj. No.: 6141-06-0286 **Date:** 1/19/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	15.6	16.8	21.0
	Dry Density, pcf	87.0	90.8	93.7
	Saturation, %	45.3	53.2	71.4
	Void Ratio	0.9271	0.8476	0.7908
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	28.2	27.1	26.6
	Dry Density, pcf	87.0	90.8	93.7
	Saturation, %	81.8	85.8	90.5
	Void Ratio	0.9271	0.8472	0.7900
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.48	2.72	5.38
Strain, %		10.0	4.8	5.2
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, with silt (SP-SM)

LL= **PL=** **PI=**
Specific Gravity= 2.687
Remarks: Lab no. 7595

Lab no. _____

Client: GPC c/o SNOC

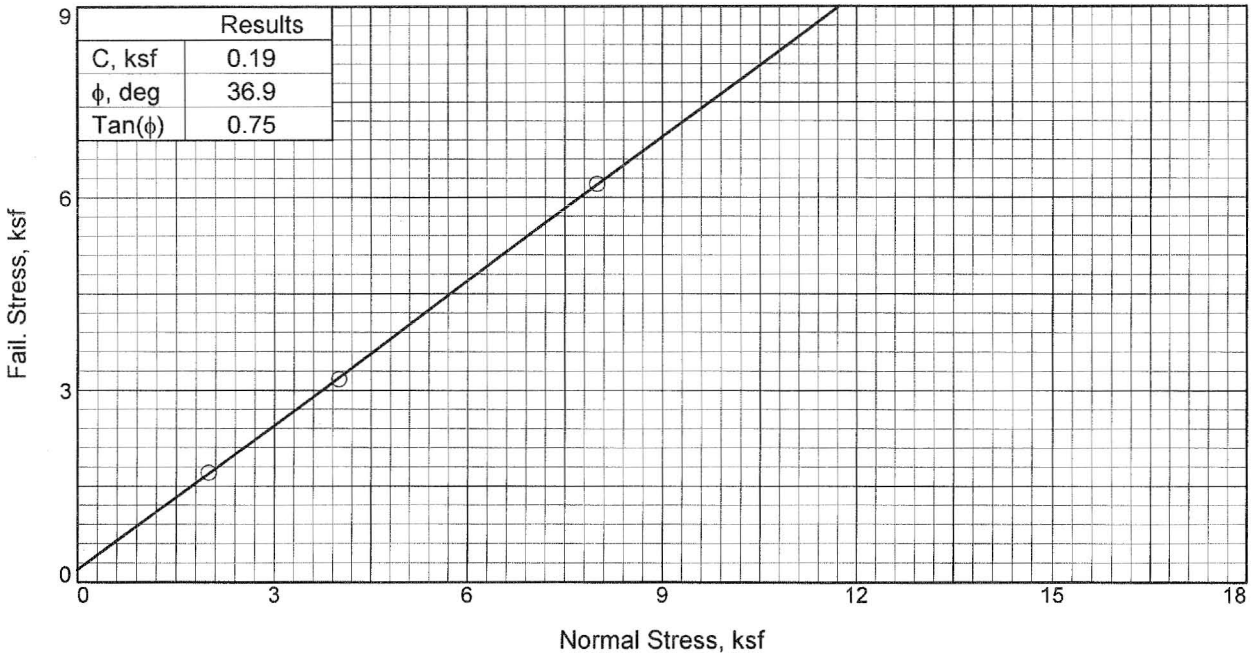
Project: Vogtle Units 3 & 4 COL Project

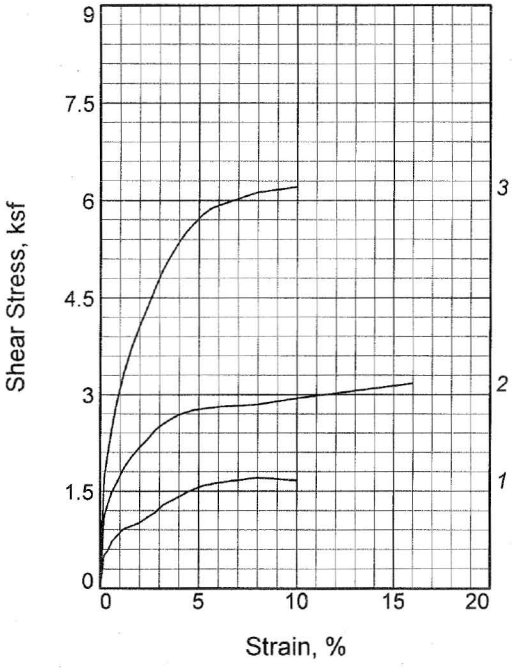
Location: B-3033
Sample Number: UD-1 **Depth:** 13.5/208.76
Proj. No.: 6141-06-0286 **Date:** 1/17/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	17.4	16.3	15.3
	Dry Density, pcf	104.8	101.1	102.9
	Saturation, %	77.3	65.8	64.9
	Void Ratio	0.6081	0.6673	0.6375
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	22.6	23.5	21.5
	Dry Density, pcf	104.8	101.4	103.2
	Saturation, %	100.1	95.8	91.5
	Void Ratio	0.6081	0.6630	0.6338
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.71	3.17	6.21
Strain, %		8.0	16.0	10.0
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: Sand, silty (SM)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7600

Lab no. _____

Client: GPC c/o SNOC

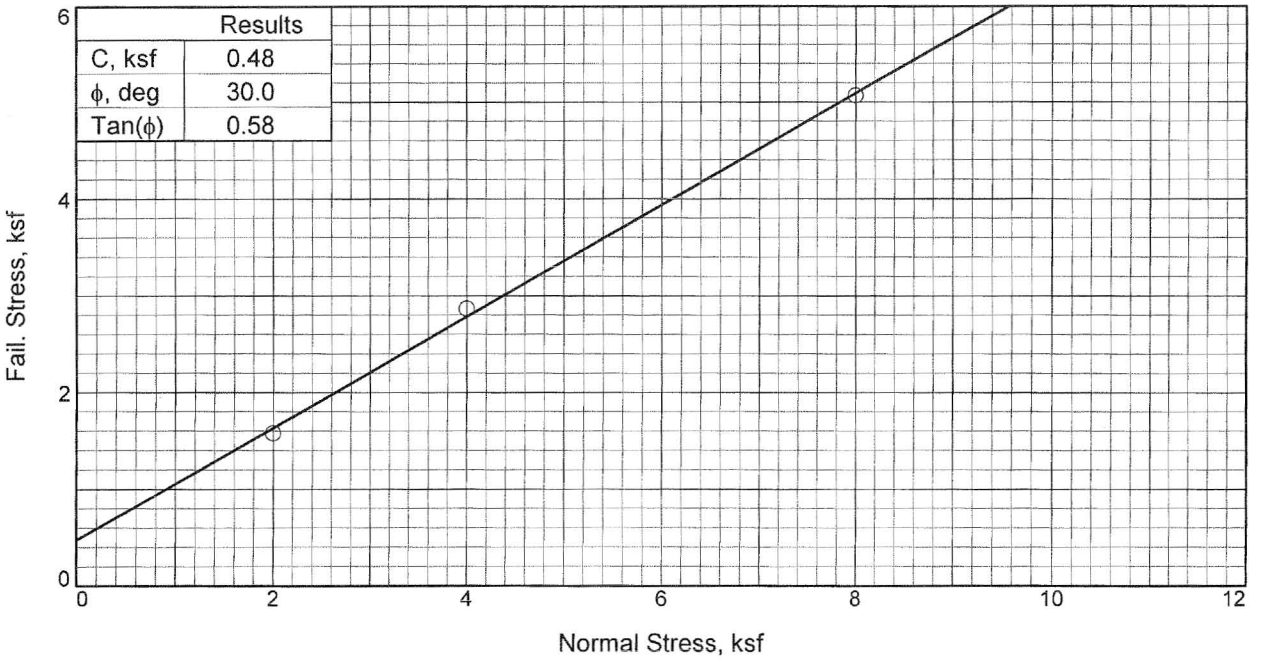
Project: Vogtle Units 3 & 4 COL Project

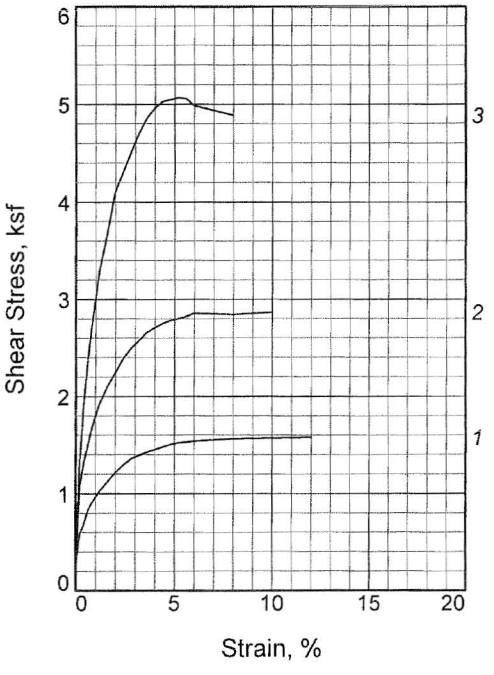
Location: B-3034
Sample Number: UD-2 **Depth:** 33.5/191.17
Proj. No.: 6141-06-0286 **Date:** 12/19/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	15.1	14.8	15.8
	Dry Density, pcf	97.6	98.6	104.5
	Saturation, %	56.1	56.2	69.4
	Void Ratio	0.7271	0.7089	0.6133
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	23.1	22.5	16.0
	Dry Density, pcf	97.6	98.7	104.7
	Saturation, %	85.7	85.7	70.8
	Void Ratio	0.7266	0.7084	0.6100
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.58	2.87	5.07
Strain, %		12.0	10.0	5.2
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, silty (SM)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7606

Lab no. _____

Client: GPC c/o SNOC

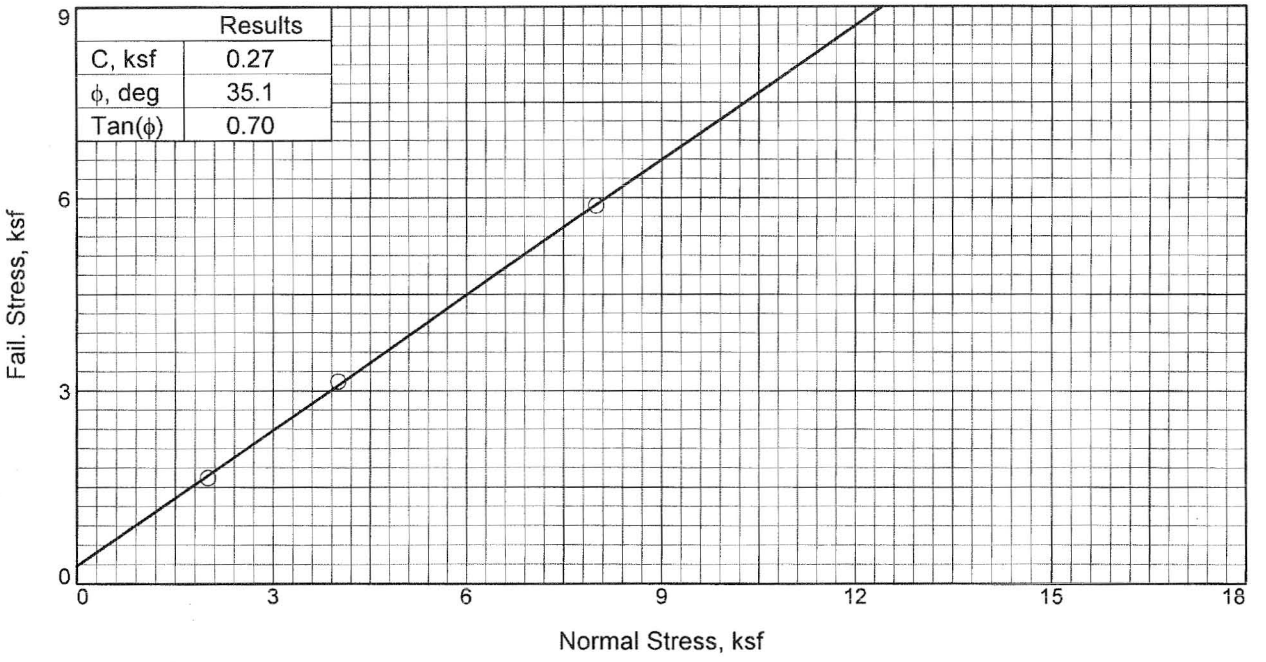
Project: Vogtle Units 3 & 4 COL Project

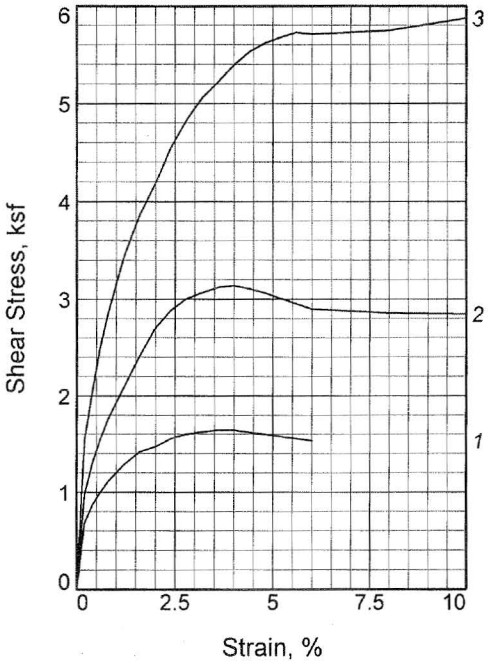
Location: B-4030
Sample Number: UD-3 **Depth:** 33.5/188.85
Proj. No.: 6141-06-0286 **Date:** 1/31/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	15.0	14.4	13.4
	Dry Density, pcf	103.2	101.3	100.3
	Saturation, %	64.0	58.7	53.1
	Void Ratio	0.6337	0.6643	0.6801
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	20.9	22.2	21.9
	Dry Density, pcf	103.2	101.4	100.3
	Saturation, %	89.3	90.5	87.0
	Void Ratio	0.6333	0.6623	0.6801
	Diameter, mm.	63.6	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.64	3.14	5.87
Strain, %		3.6	4.0	10.0
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, silty (SM)

LL= **PL=** **PI=**
Specific Gravity= 2.70
Remarks: Lab no. 7610

Lab no. _____

Client: GPC c/o SNOC

Project: Vogtle Units 3 & 4 COL Project

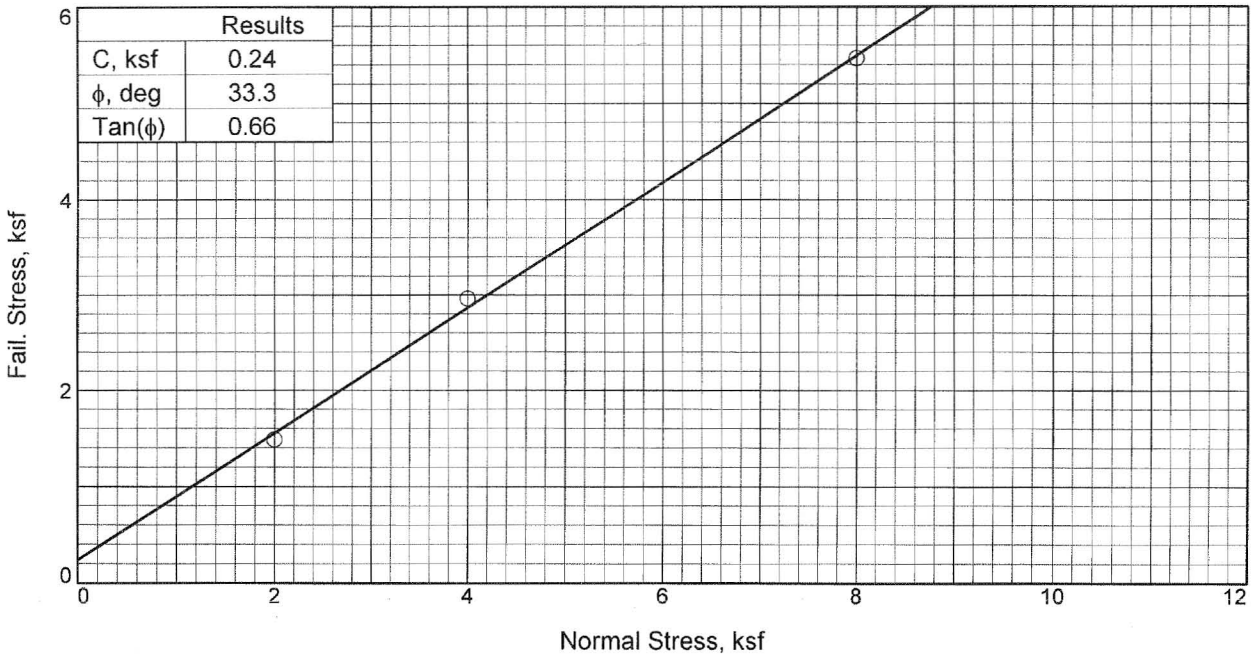
Source of Sample: B-4031 **Depth:** 28.5/193.63
Sample Number: UD-1

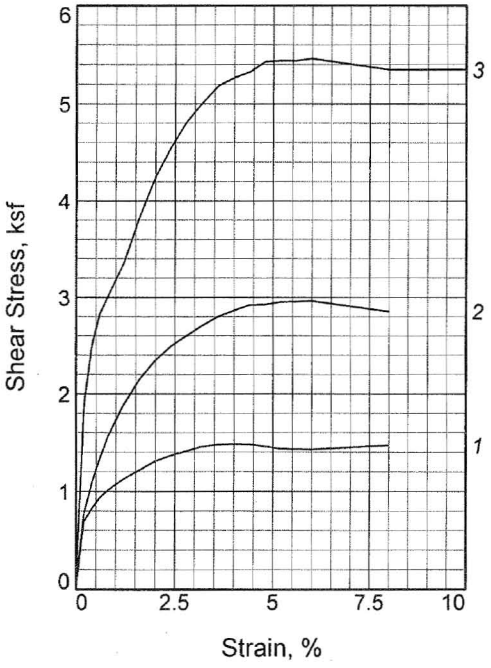
Proj. No.: 6141-06-0286 **Date:** 2/18/07

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK





Sample No.		1	2	3
Initial	Water Content, %	18.9	18.5	17.6
	Dry Density, pcf	93.0	93.8	96.8
	Saturation, %	62.7	62.8	64.2
	Void Ratio	0.8127	0.7967	0.7413
	Diameter, mm.	63.7	63.6	63.6
	Height, mm.	23.7	23.7	23.7
At Test	Water Content, %	26.8	25.0	22.8
	Dry Density, pcf	93.1	94.1	96.8
	Saturation, %	89.1	85.3	83.2
	Void Ratio	0.8109	0.7917	0.7411
	Diameter, mm.	63.7	63.6	63.6
	Height, mm.	23.7	23.7	23.7
Normal Stress, ksf		2.00	4.00	8.00
Fail. Stress, ksf		1.49	2.96	5.46
Strain, %		4.0	6.0	6.0
Ult. Stress, ksf				
Strain, %				
Strain rate, mm./min.		0.0	0.0	0.0

Sample Type: Undisturbed
Description: SAND, with clay (SP-SC)

LL= **PL=** **PI=**
Specific Gravity= 2.7
Remarks: Lab no. 7620

Lab no. _____

Client: GPC c/o SNOC

Project: Vogtle Units 3 & 4 COL Project

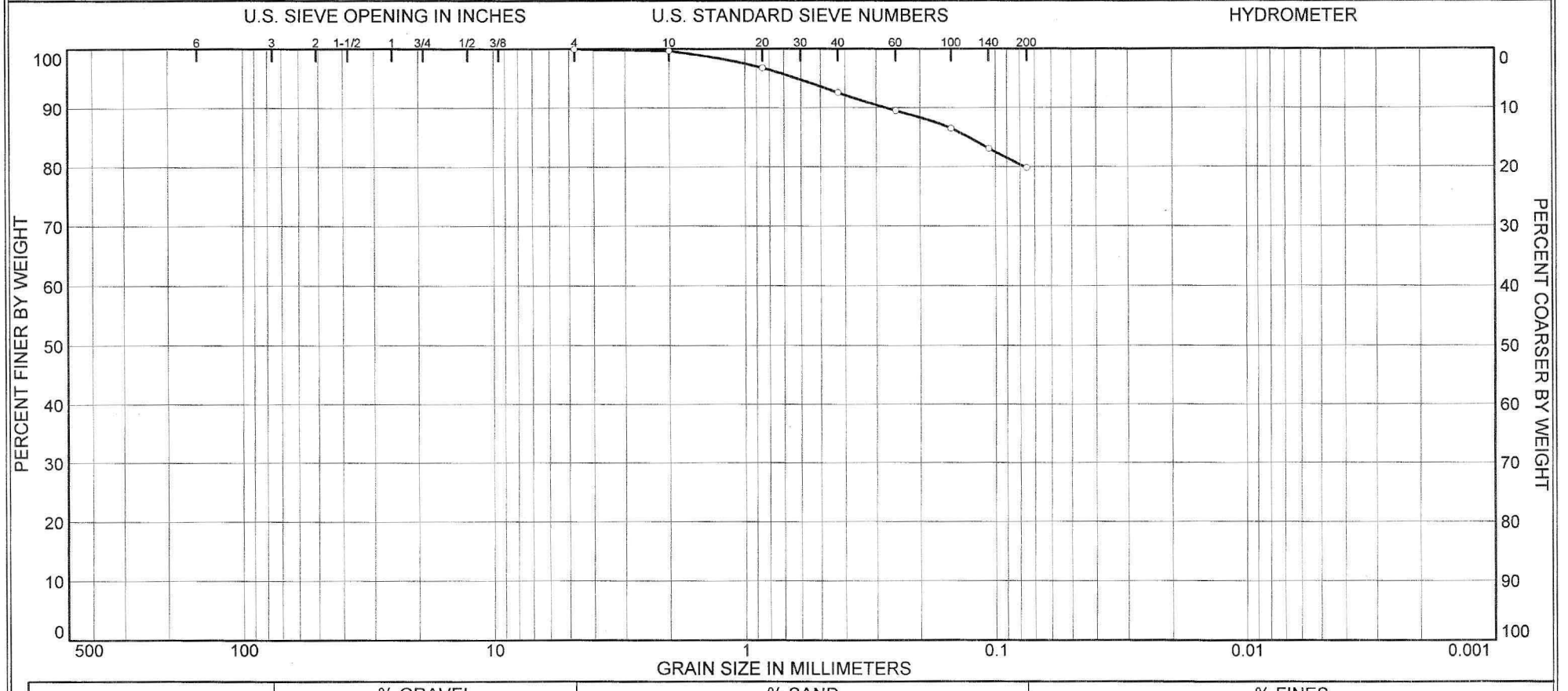
Location: B-4034
Sample Number: UD-2 **Depth:** 33.5/189.29
Proj. No.: 6141-06-0286 **Date:** 2/17/2007

DIRECT SHEAR TEST REPORT

MACTEC ENGINEERING AND CONSULTING, INC.

Tested By: JA **Checked By:** DK

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.3	7.1	12.8	79.8	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-3001	UD-14	388.5/-170.10	2/4/07		Clay, with sand (CL)		NV	NP

Client GPC c/o SNOC

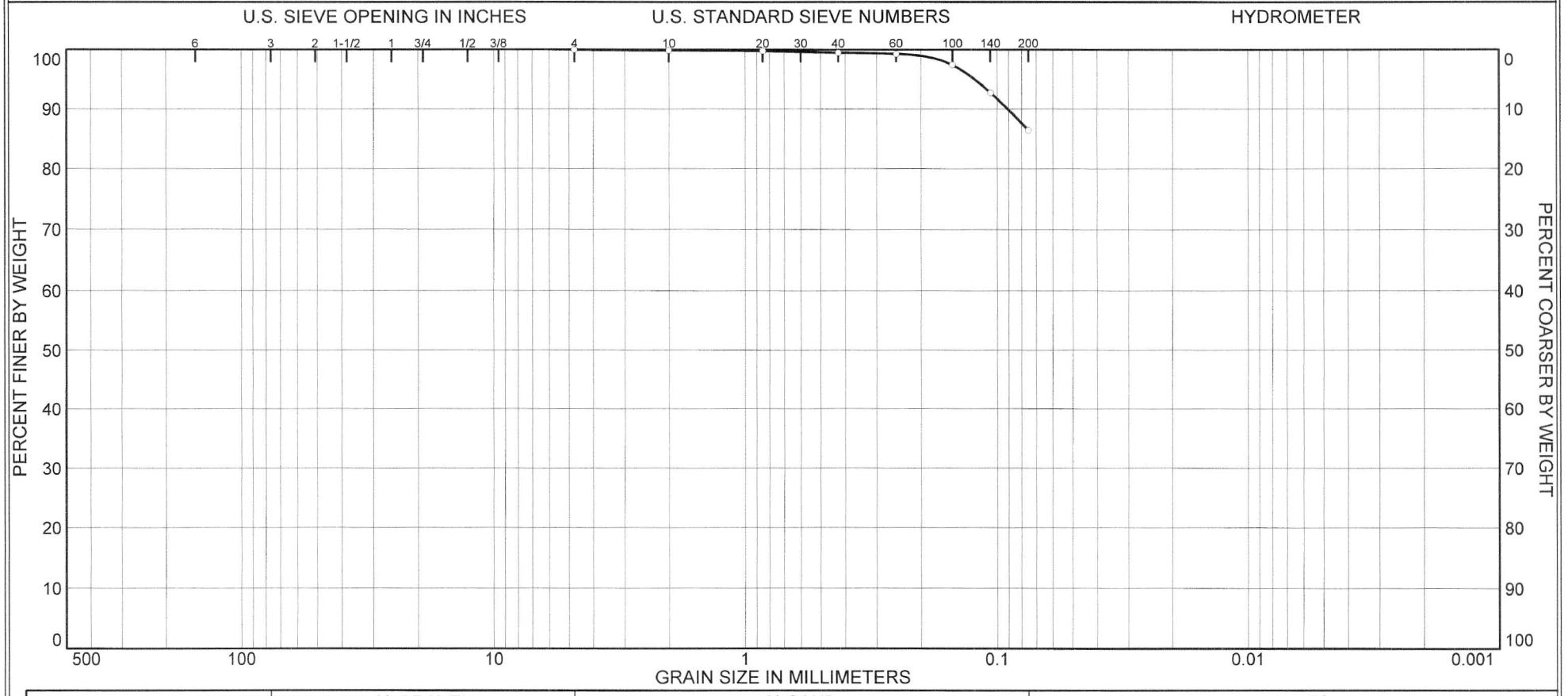
Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 7501

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewed by: HJ

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.1	0.4	13.1	86.4	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-3002	SS-27	123.5/95.4 ft.	10/18/07	MH	Silt (MH)		64	34

Client GPC c/o SNOC

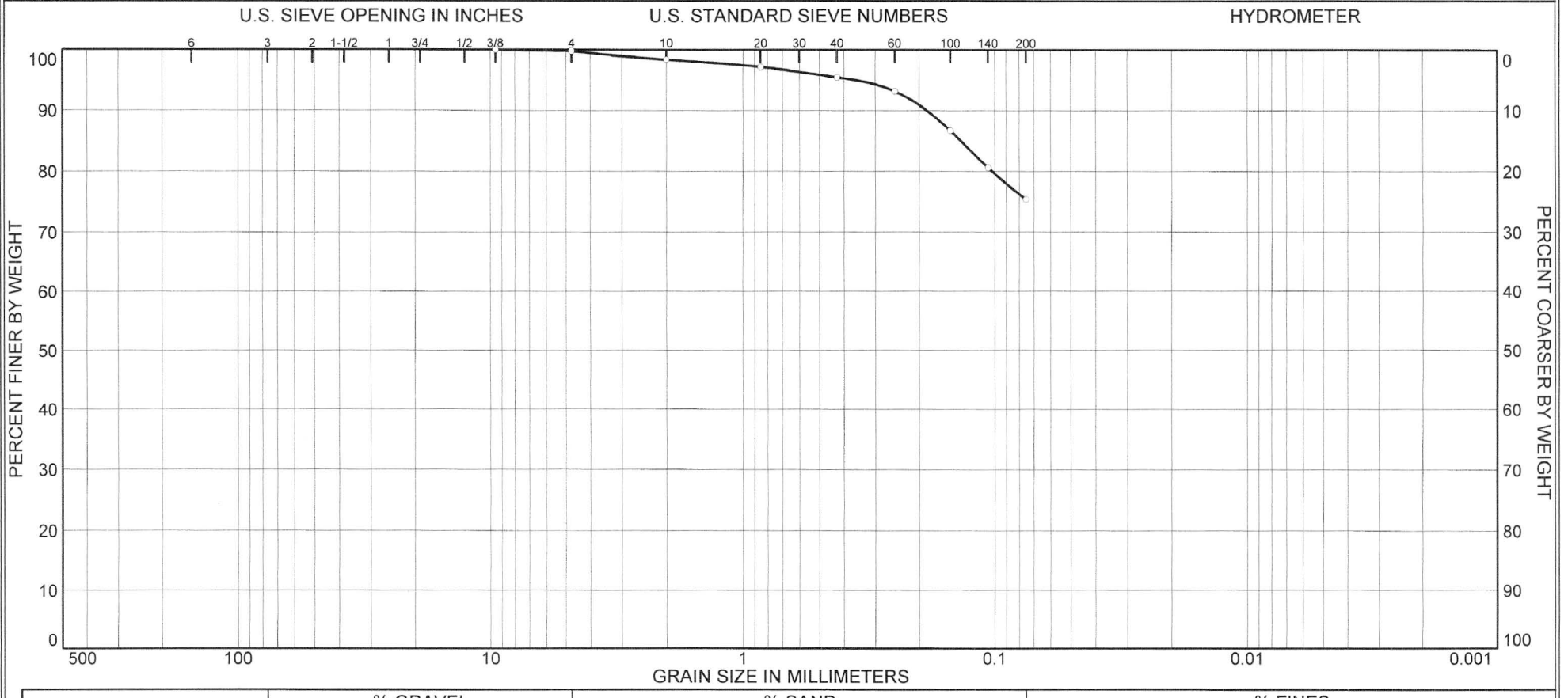
Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 8077

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewed by: HJ

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.2	1.4	2.9	20.1	75.4	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-3006	SS-34	148.5/69.1 ft.	10/18/07	CH	CLAY, with sand (CH)		56	25

Client GPC c/o SNOC

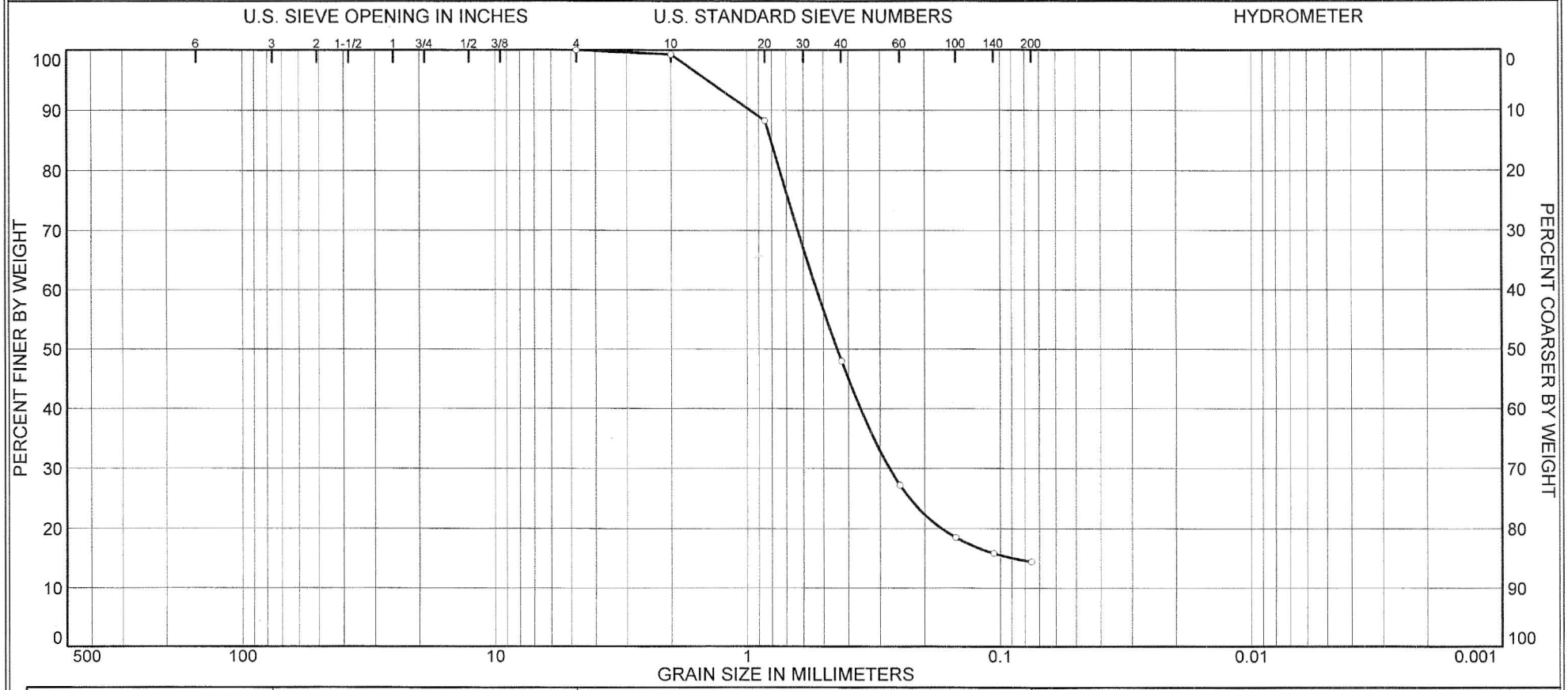
Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 8078

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewed by: HJ

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.7	51.3	33.6	14.4	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-3030	UD-3	40/181.99	1/19/2007		SAND, clayey (SC)			

Client GPC c/o SNOC

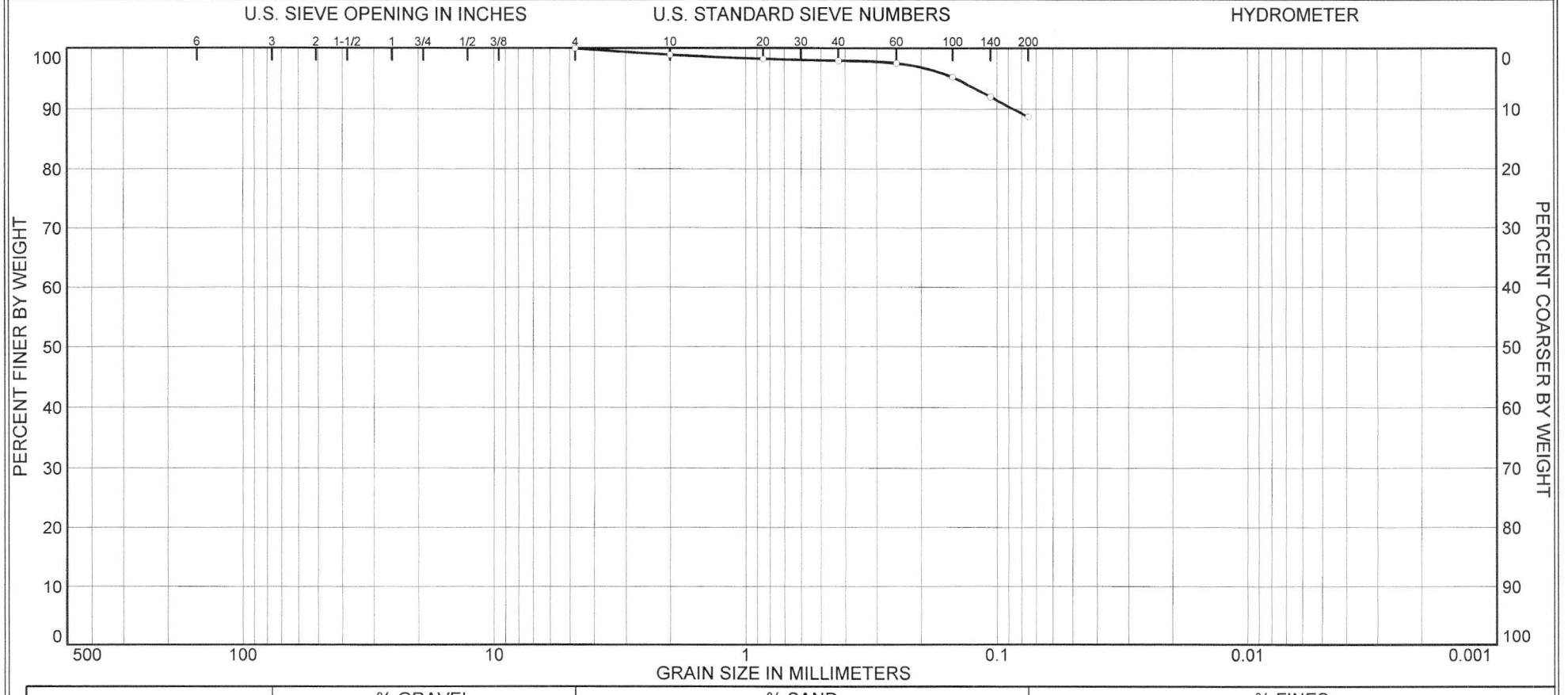
Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 7591

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewed by: HJ

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	1.1	1.0	9.2	88.7	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-4001	SS-27	128.5/90.4 ft.	10/18/07	CH	CLAY (CH)		56	29

Client GPC c/o SNOC

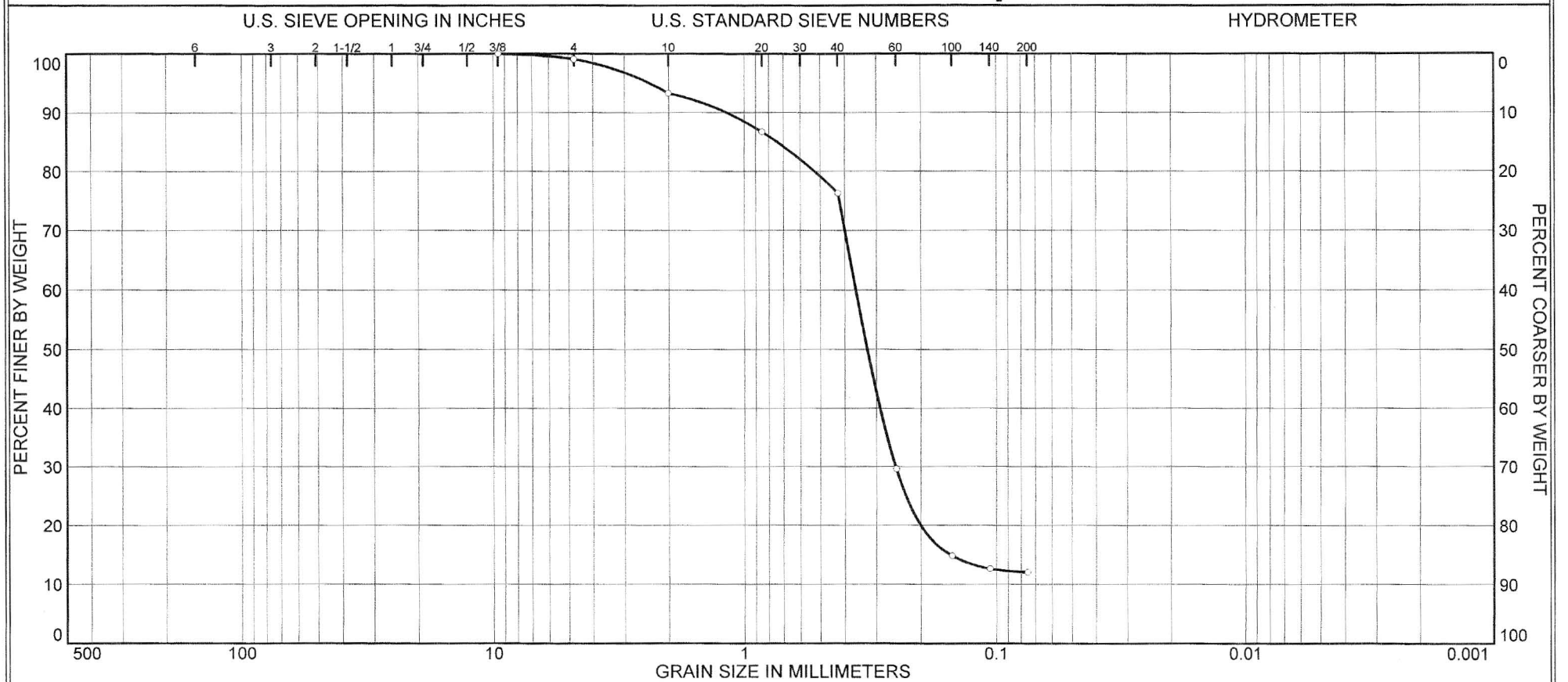
Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 8079

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewed by: HJ

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.9	5.8	17.0	64.3	12.0	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
B-4031	UD-3	38.5/183.63	2/19/07		SAND, silty (SM)			

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 COL Project

Project No. 6141-06-0286 Lab no. 7612

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: EH Reviewqed by:HJ

MACTEC

MOISTURE CONTENT

ASTM D2216-05

Project Name Vogtle COL Project
Tested By EH
Test Date 10/31/2007

Project No. 6141-06-0286
Reviewed By HJ HJ
Review Date 11/1/07 11/1/07

Boring No.	Sample No.	Depth Elev. (Ft)	Date Sampled	Sample Lab ID#					Moisture Content (%)
B-3034	UD-3	38.5/ 186.17	12/19/06	7601	SAND, silty (SM)				17.8
B-4030	UD-4	38.5 183.5	1./31/07	7607	SAND, silty,clayey (SC-SM)				17.3
B-4034	UD-3	38.5 184.29	2/17/07	7621	SAND, with clay (SP-SC)				17.3

MACTEC

Determination of Carbonate Content of Soils

Project No.: 6141-06-0286 Tested By: BM Reviewed By: JW

Project Name: Vogtle COL Test Date: 10/18/2007 Review Date: 11/1/2007

Sample Information				ASTM D 4373-02		ASTM D 3042-03
Boring No.	Sample No.	Depth (ft.)	Lab ID No.	Pre-washed Calcite Equivalent (%)	Post-washed Calcite Equivalent (%)	Soluble Material (%)
B-3002	SPT-27	123.5	8077	49	61	NA*
B-3006	SPT-34	148.5	8078	78	76	NA*
B-4001	SPT-27	128.5	8079	56	65	NA*

*NA: Not Assigned.

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