APPENDIX F
Pre-and Post-construction Geotechnical Sample Report

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12 March 2007

PRELIMINARY

Weeks Marine, Inc.
304 Gaille Drive
Innwoods Business Park
Covington, Louisiana 70433
Attention Mr. Ronnie Rhoades

INPLACE DENSITY TESTING - NUCLEAR METHOD (ASTM D 2922)

Project Name: State of Louisiana
New Cut Dune/Marsh Restoration (Te-37)
Terrebonne Parish, Louisiana
Purchase Order No. 125146

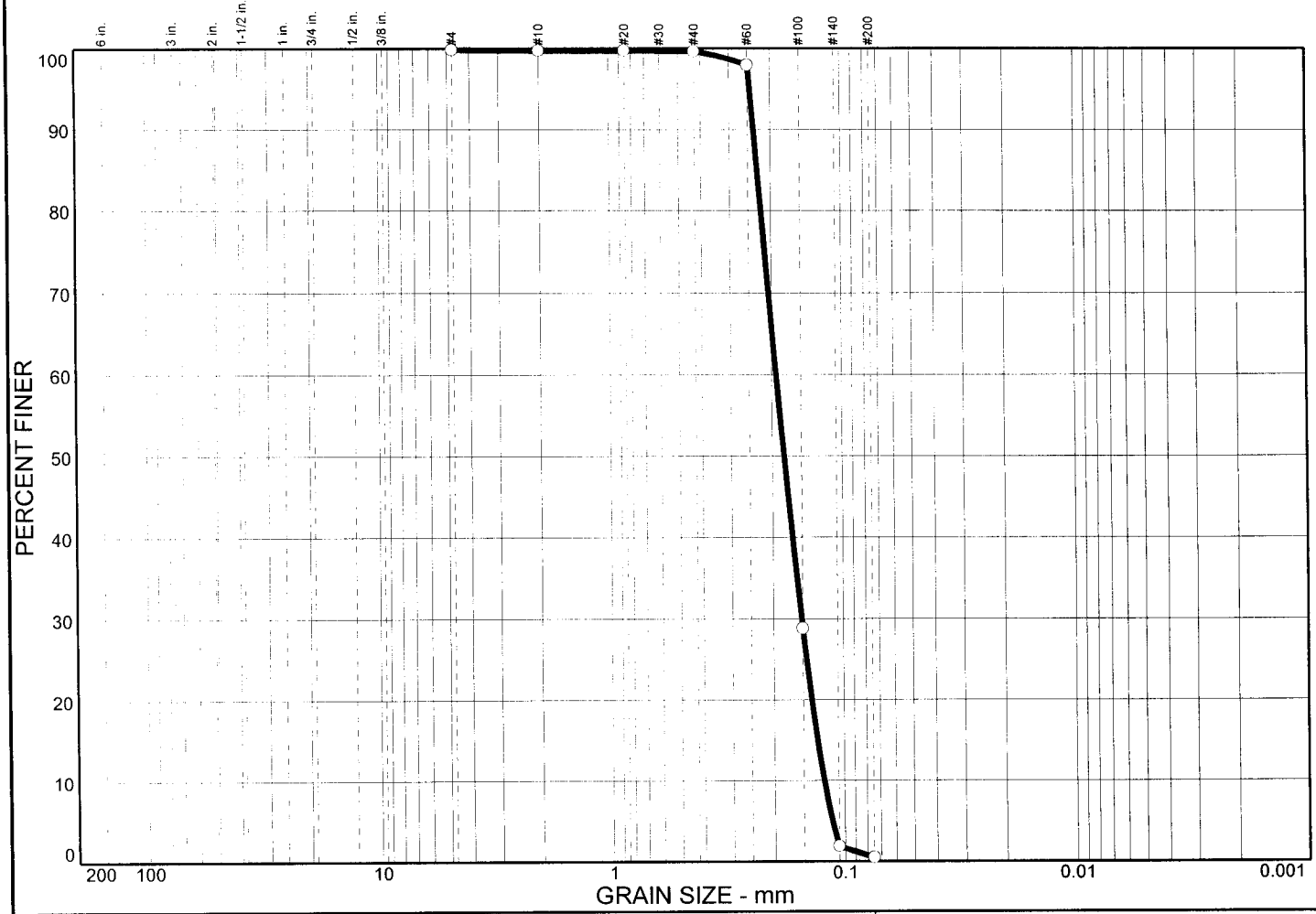
Job Number	Report Number	Page
19598	1	1
Test Date	**Material**	**Proctor Method**
3/6/07	Tan Sand	ASTM D 4253 and 4254
Compaction Requirement	**Maximum Dry Density**	**Optimum Moisture**
N/A	*	*

Test Number	1	2	3	4	5	6
Min Max dry Density/PCF	92.4/104.2	93.3/102.3	86.2/100.8	95.3/101.7	88.0/101.7	93.0/103.7
Lift Number						
Station	309+80	309+80	286+64	286+67	268+64	268+64
Lot						
Offset	DC-500	GB-900	GB-1030	DC-700	DC-400	GB-600
Depth of Test (Inches)	12	12	12	12	12	12
Depth of Fill (Inches)						
Wet Density (PCF)	106.5	108.0	105.6	102.1	99.9	94.6
Dry Density (PCF)	100.1	103.3	94.4	95.3	91.7	88.3
Water Content %	6.4	4.5	11.9	7.1	8.9	7.2
Compaction %	67.9	110.1	60.0	16.7	28.7	-51.8
Complies	N/A	N/A	N/A	N/A	N/A	N/A

Test Number	7	8	9	10		
Min Max dry Density/PCF	91.7/101.0	87.7/100.1	97.5/108.3	90.9/102.1		
Lift Number						
Station	250+64	250+64	232+64	232+64		
Lot						
Offset	GB-600	DC-300	GB-600	DC-300		
Depth of Test (Inches)	12					
Depth of Fill (Inches)						
Wet Density (PCF)	111.1	102.1	107.8	97.7		
Dry Density (PCF)	101.6	94.4	102.4	92.8		
Water Content %	9.3	8.2	5.3	4.7		
Compaction %	105.8	57.3	48.0	19.6		
Complies	N/A	N/A	N/A	N/A		

Remarks: These density tests were performed on the existing sand grade. No compaction requirements were furnished. *Test and station numbers each have their own relative density curve.

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○				0.1	0.1	99.2	0.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.229	0.192	0.178	0.152	0.131	0.123	0.98	1.57

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample MLW-960

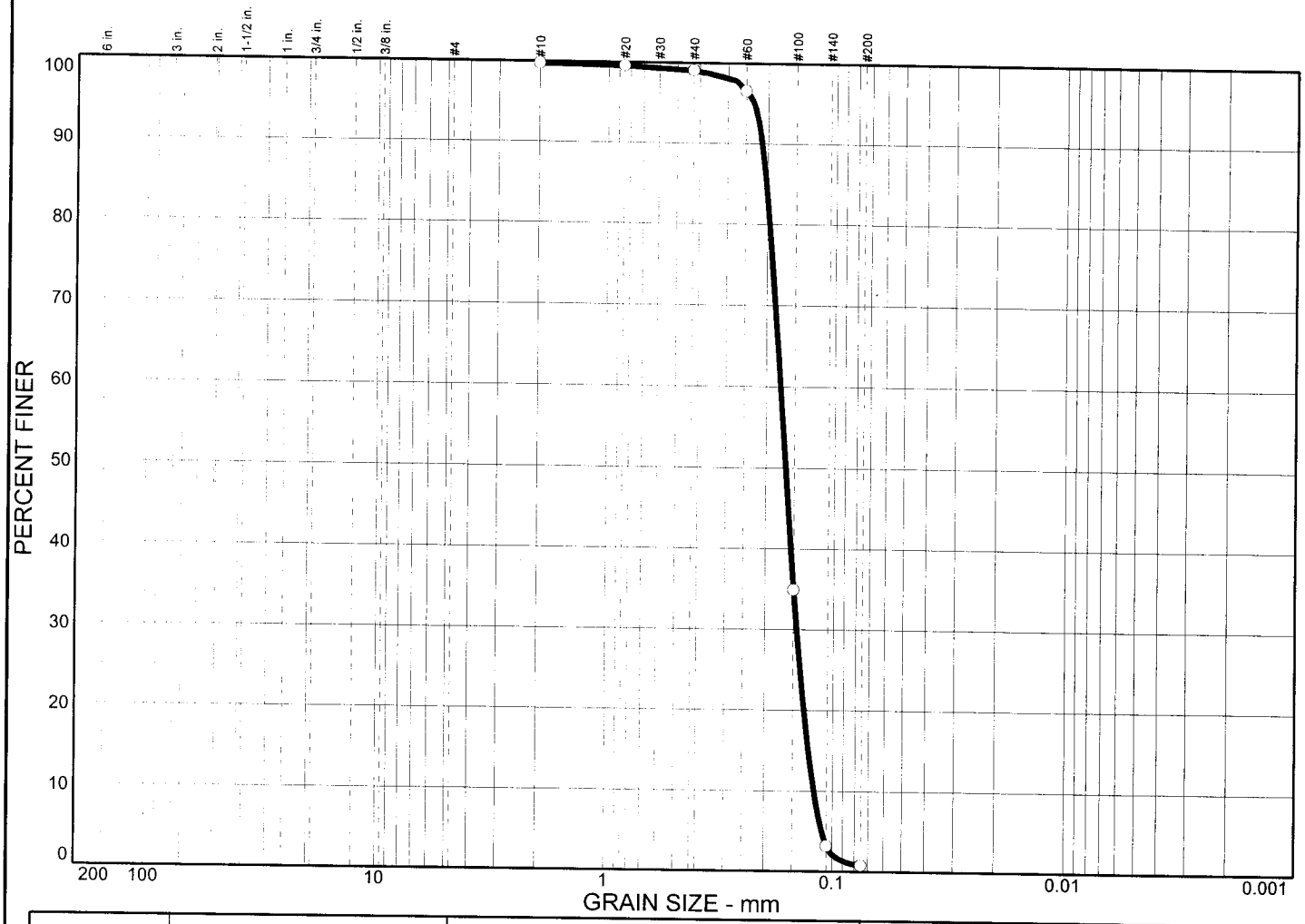
Moisture content = 27.3%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
				0.7	98.3	0.8	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.204	0.174	0.164	0.145	0.128	0.121	1.00	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

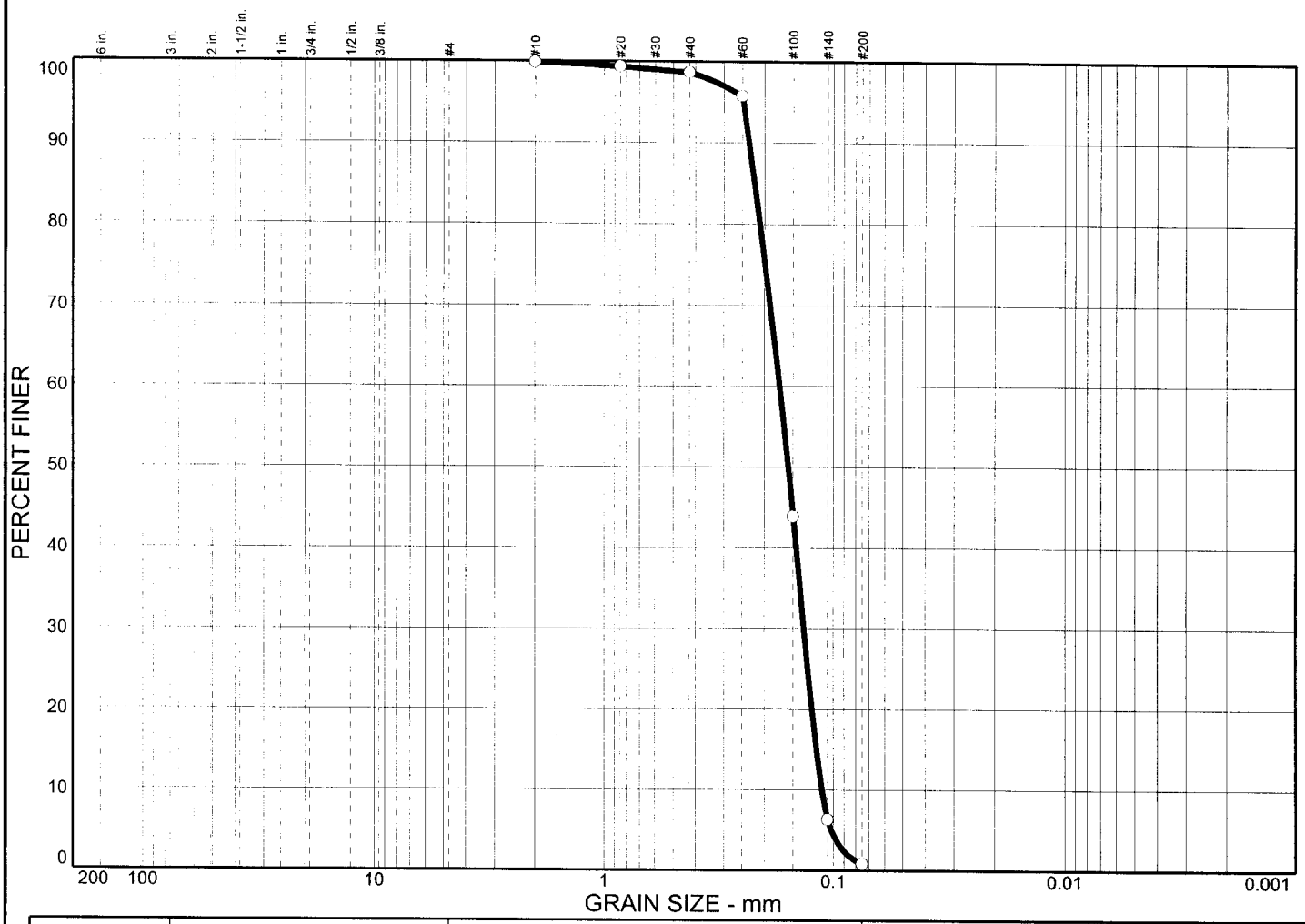
Location: 309+65

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample Wadding-980
Moisture content = 24.0%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○					1.2	97.9	0.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.221	0.172	0.158	0.135	0.119	0.112	0.94	1.53

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

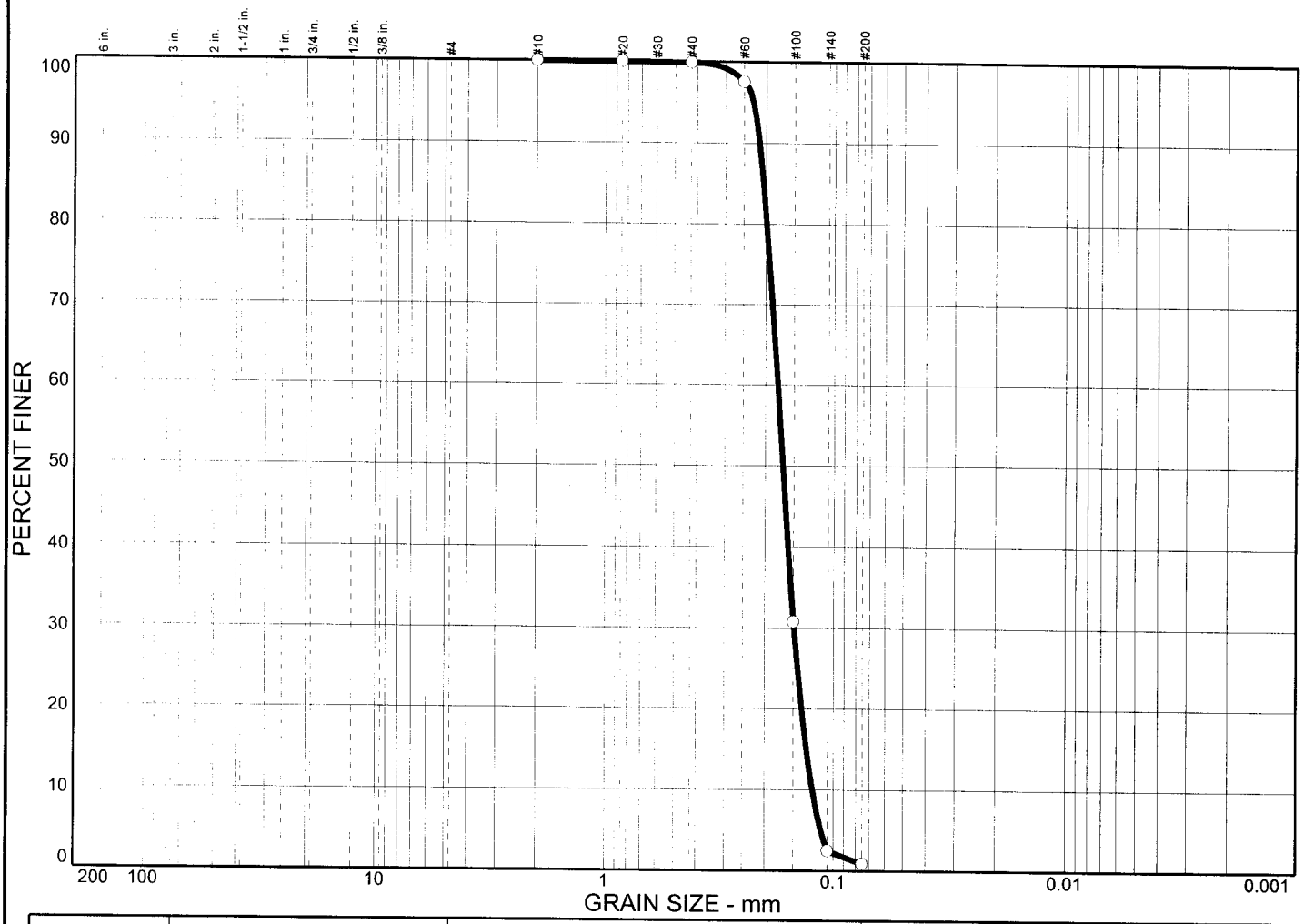
○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample BBB-0
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.0	0.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.206	0.177	0.168	0.149	0.132	0.124	1.02	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample GB-900

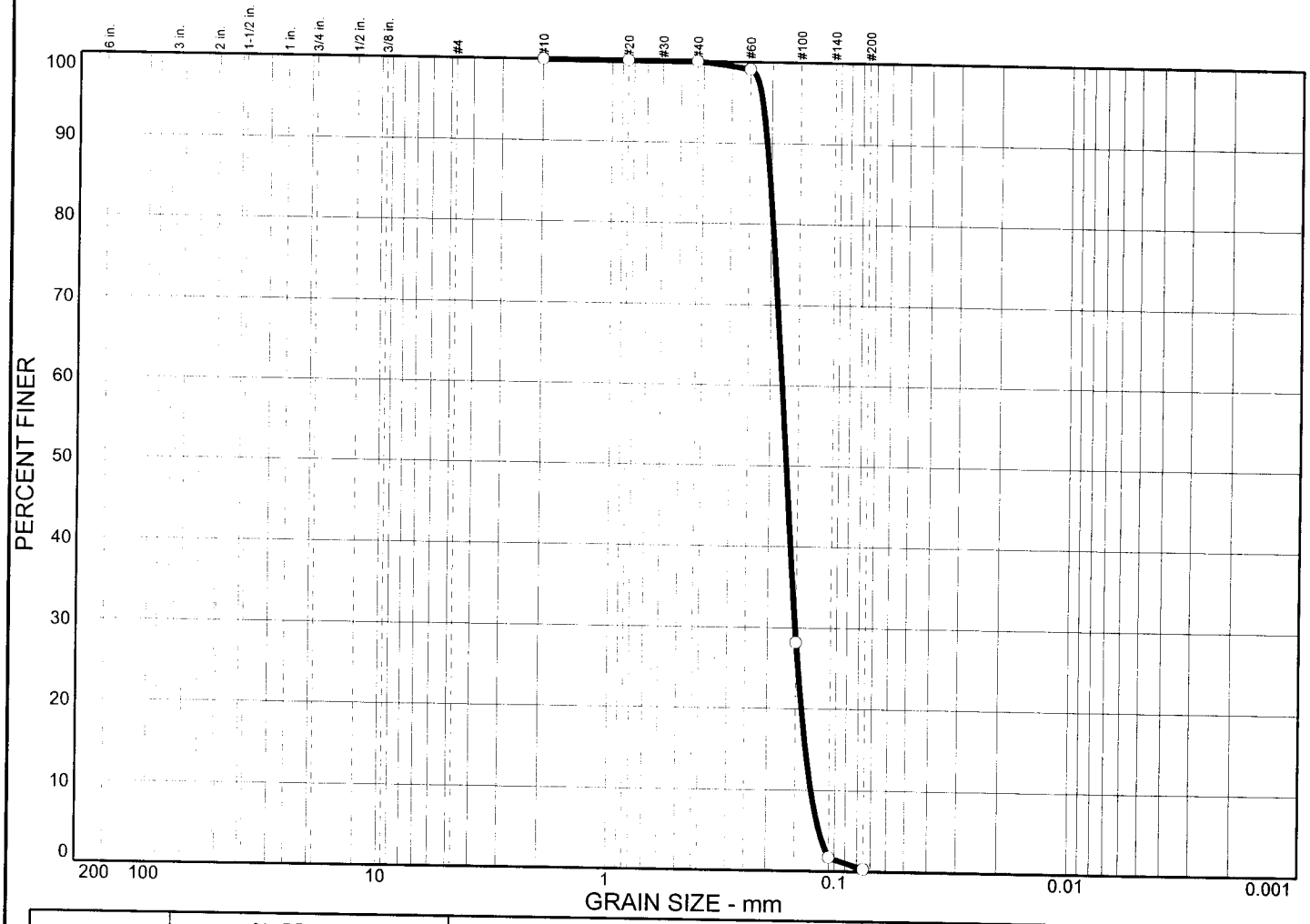
Moisture content = 25.7%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.7	0.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.203	0.177	0.169	0.152	0.135	0.128	1.02	1.39

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.

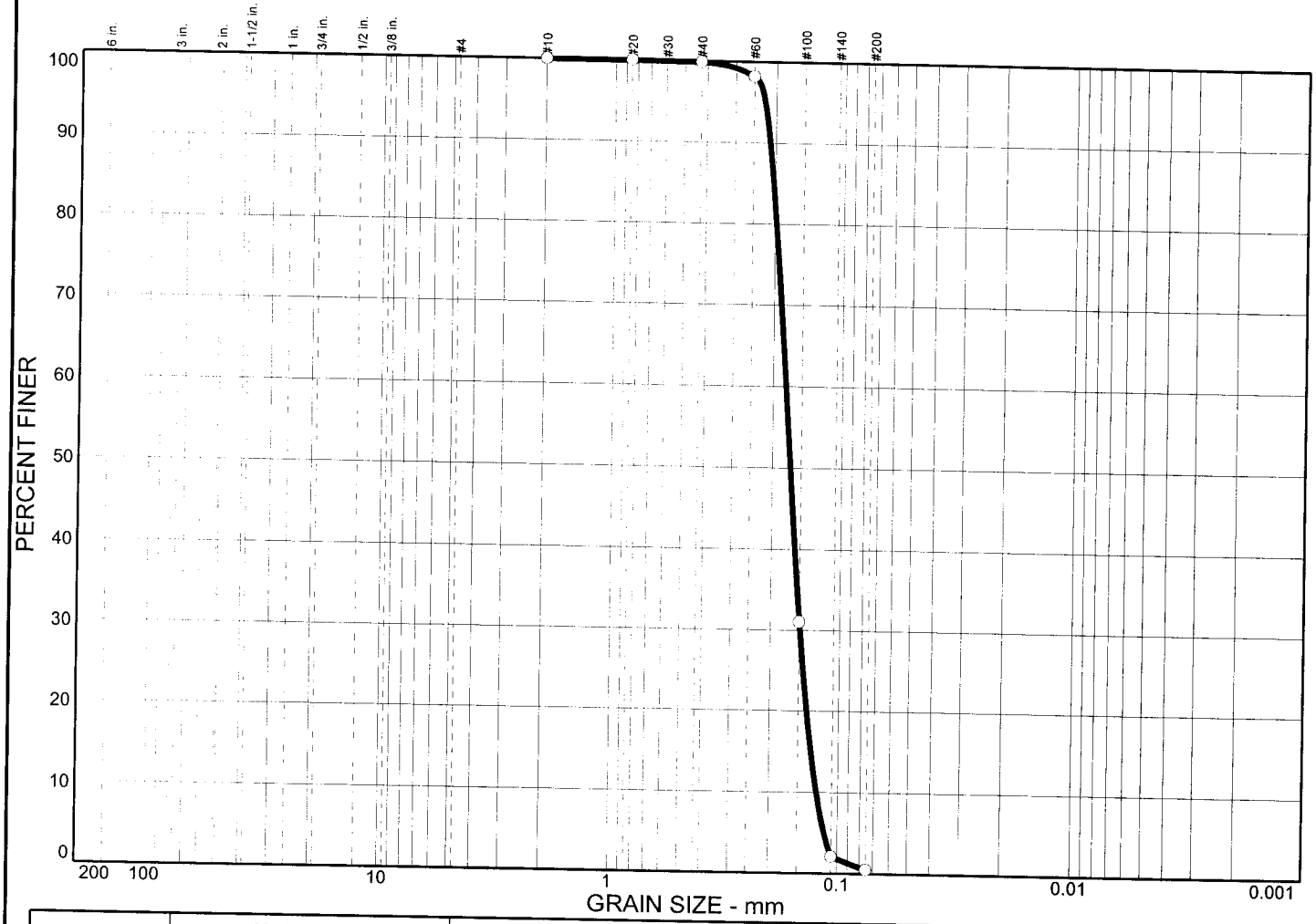
METAIRIE, LA

Remarks:

○ Sample MHW-880
Moisture content = 23.3%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.4	0.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.204	0.176	0.167	0.149	0.132	0.124	1.01	1.42

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

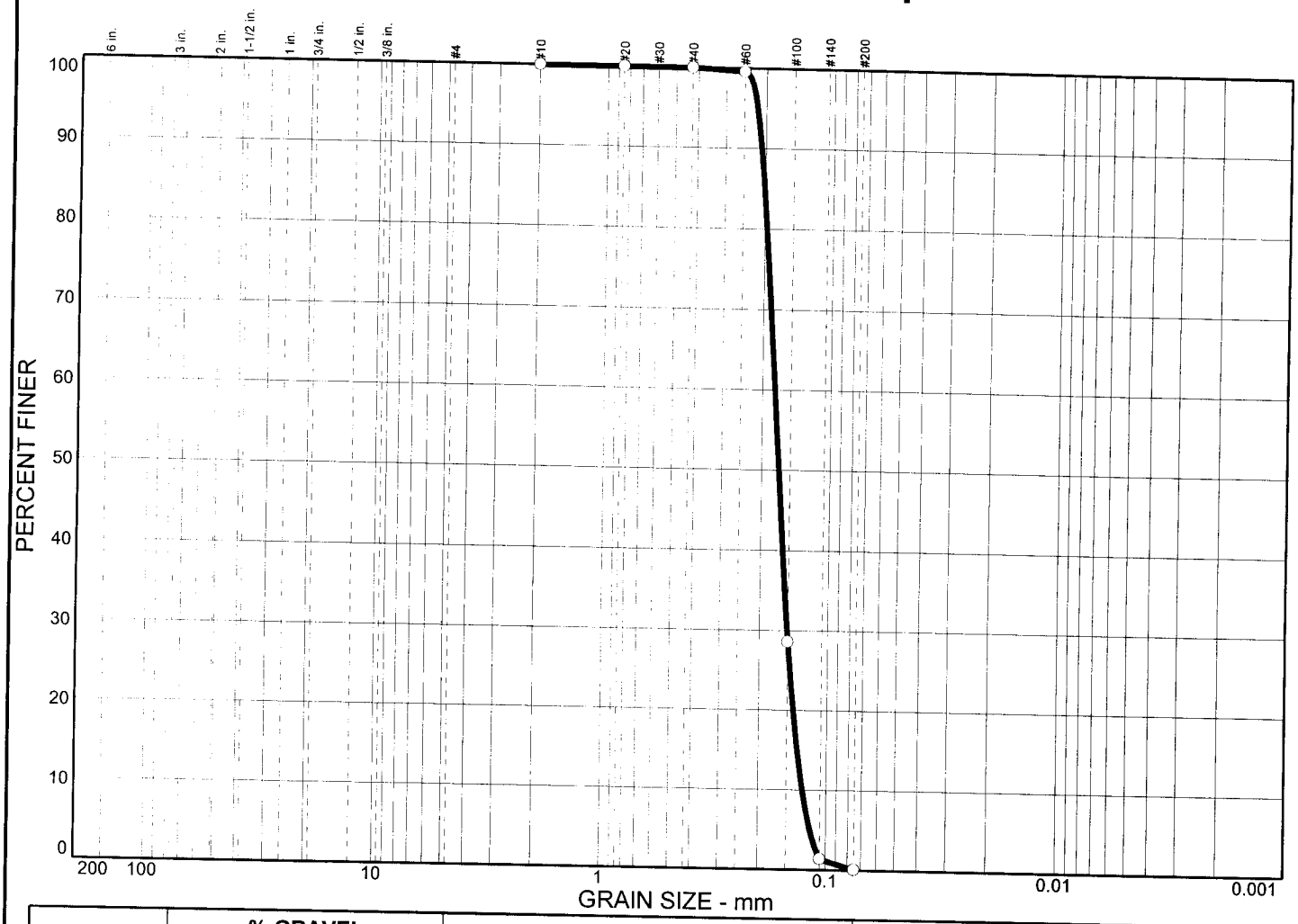
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

○ Sample DT-550
Moisture content = 21.8%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.9	0.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.202	0.177	0.168	0.151	0.135	0.128	1.01	1.38

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.

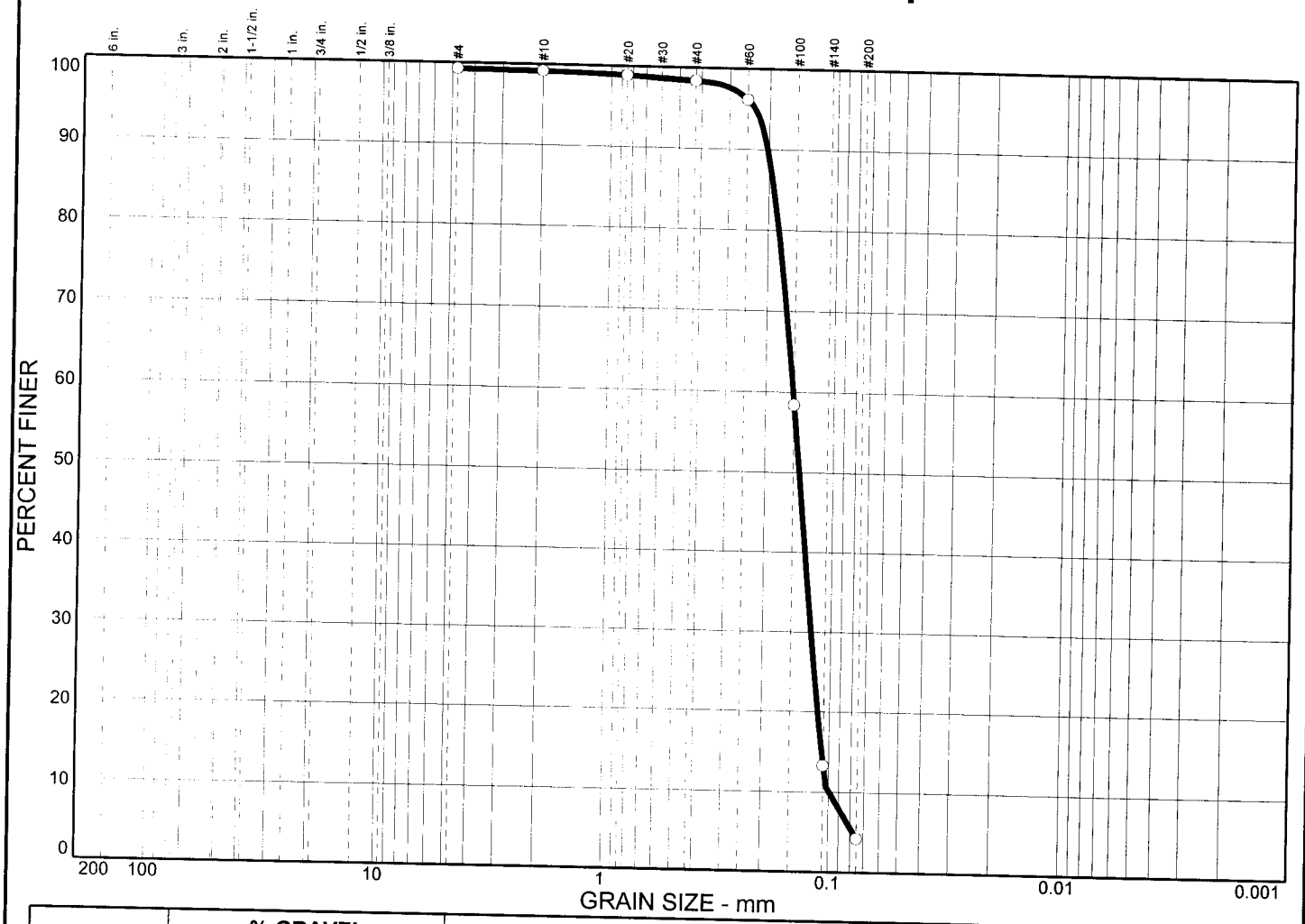
METAIRIE, LA

Remarks:

○ Sample DC-500
Moisture content = 22.2%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○				0.1	0.8	94.2	4.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.190	0.152	0.141	0.123	0.108	0.0994	0.99	1.53

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 309+65

EUSTIS ENGINEERING COMPANY, INC.

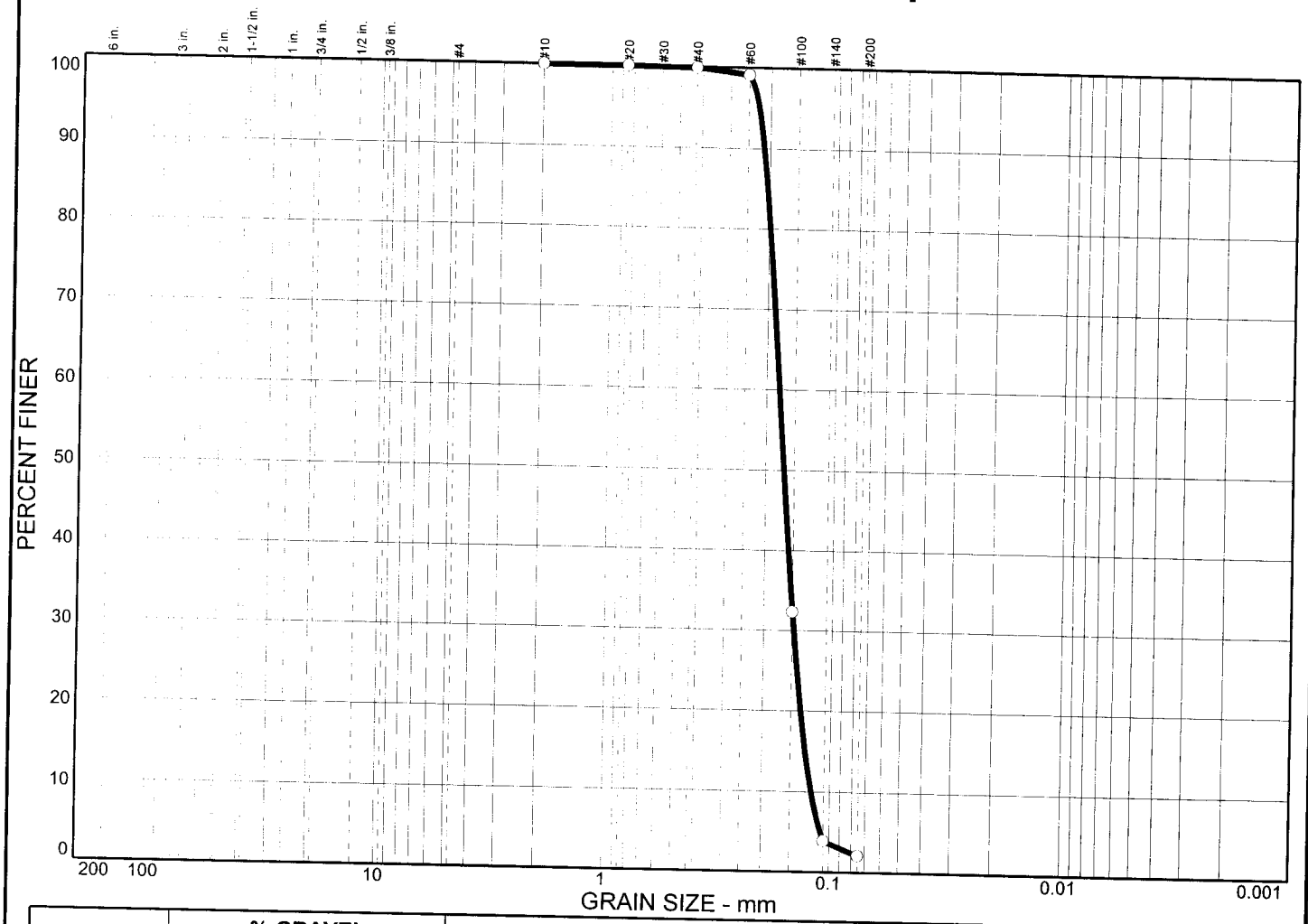
METAIRIE, LA

Remarks:

○ Sample MP-75
Moisture content = 26.0%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.1	97.8	2.1	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.205	0.176	0.167	0.148	0.129	0.121	1.02	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.

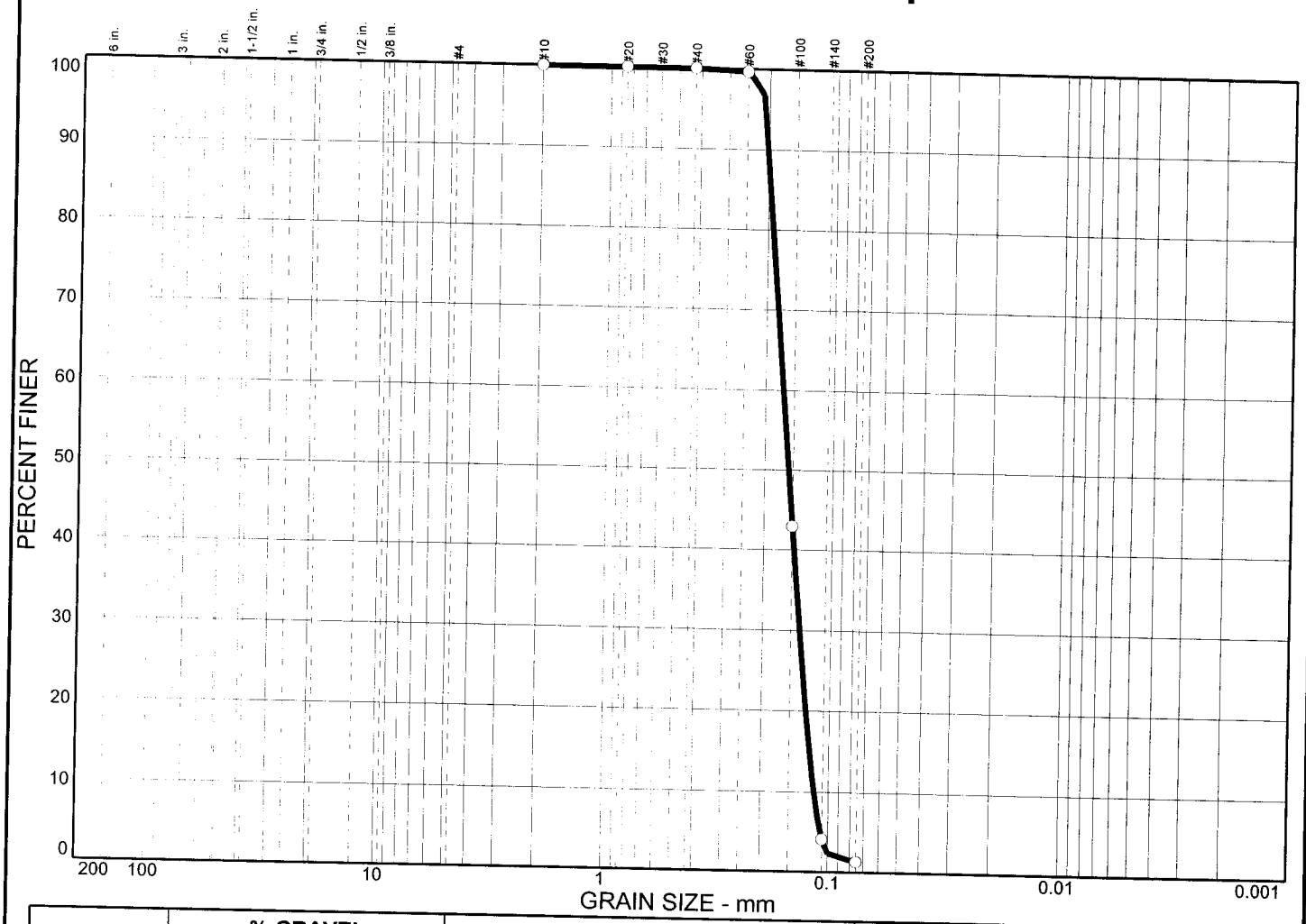
METAIRIE, LA

Remarks:

Sample DC-700
Moisture content = 24.1%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	98.7	1.3	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.197	0.168	0.157	0.137	0.122	0.116	0.97	1.44

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

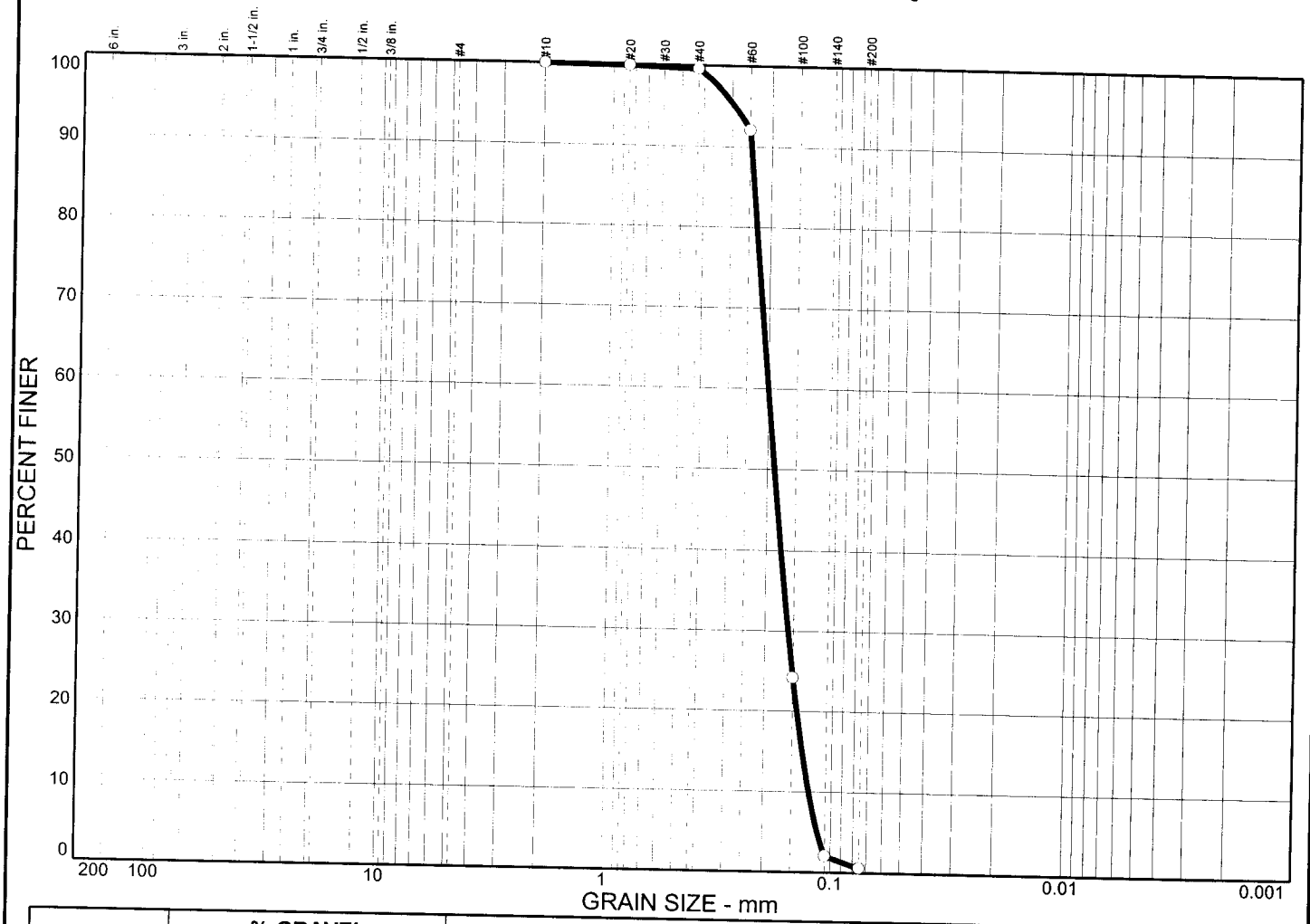
Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample DT-750
Moisture content = 25.7%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell framents, organic matter

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.4	99.0	0.6	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.238	0.201	0.186	0.159	0.135	0.126	0.99	1.59

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.

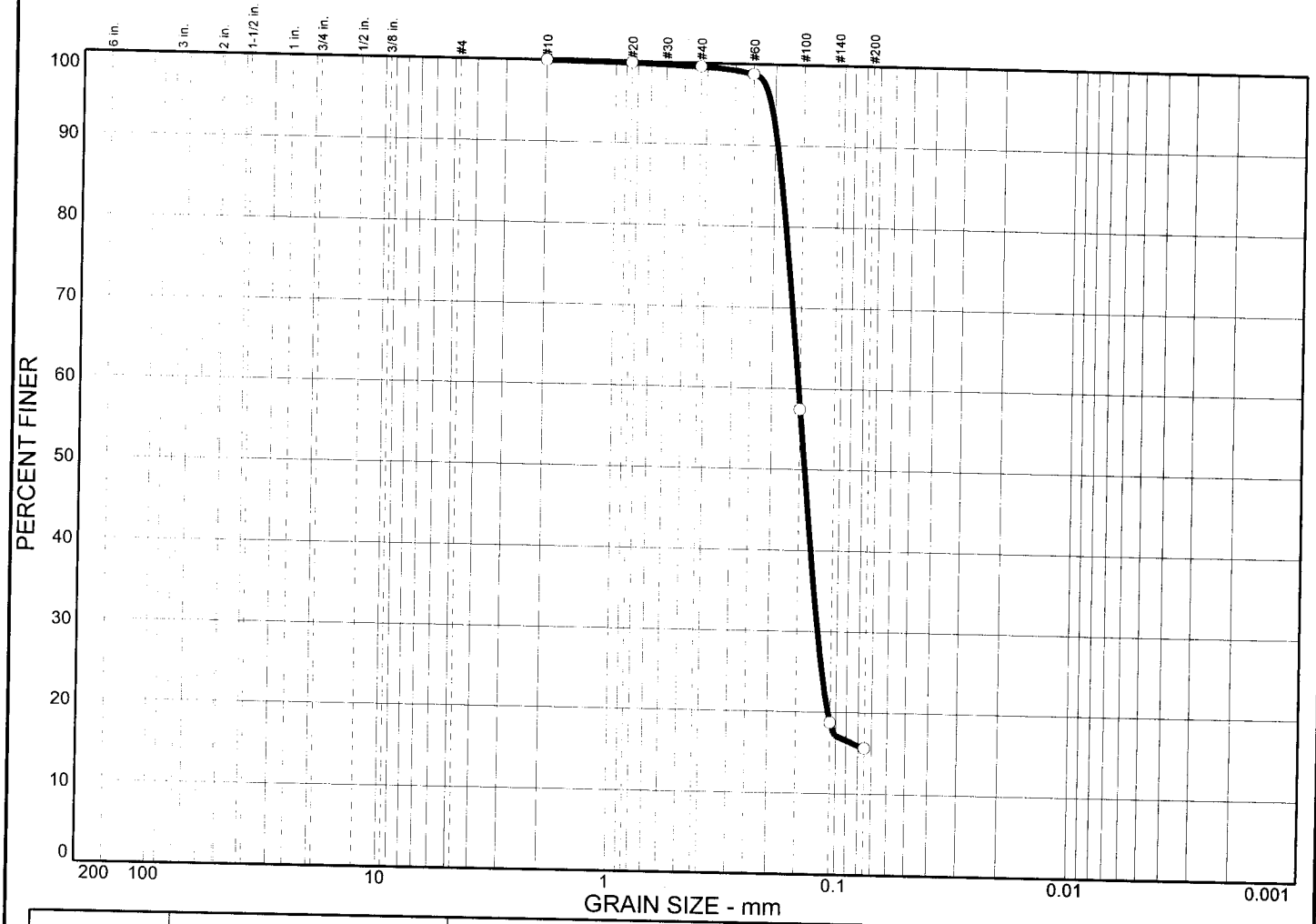
METAIRIE, LA

Remarks:

Sample Wadding-1340
Moisture content = 21.8%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.4	84.0	15.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.185	0.153	0.142	0.122				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan silty sand with shell fragments, roots, organic matter	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

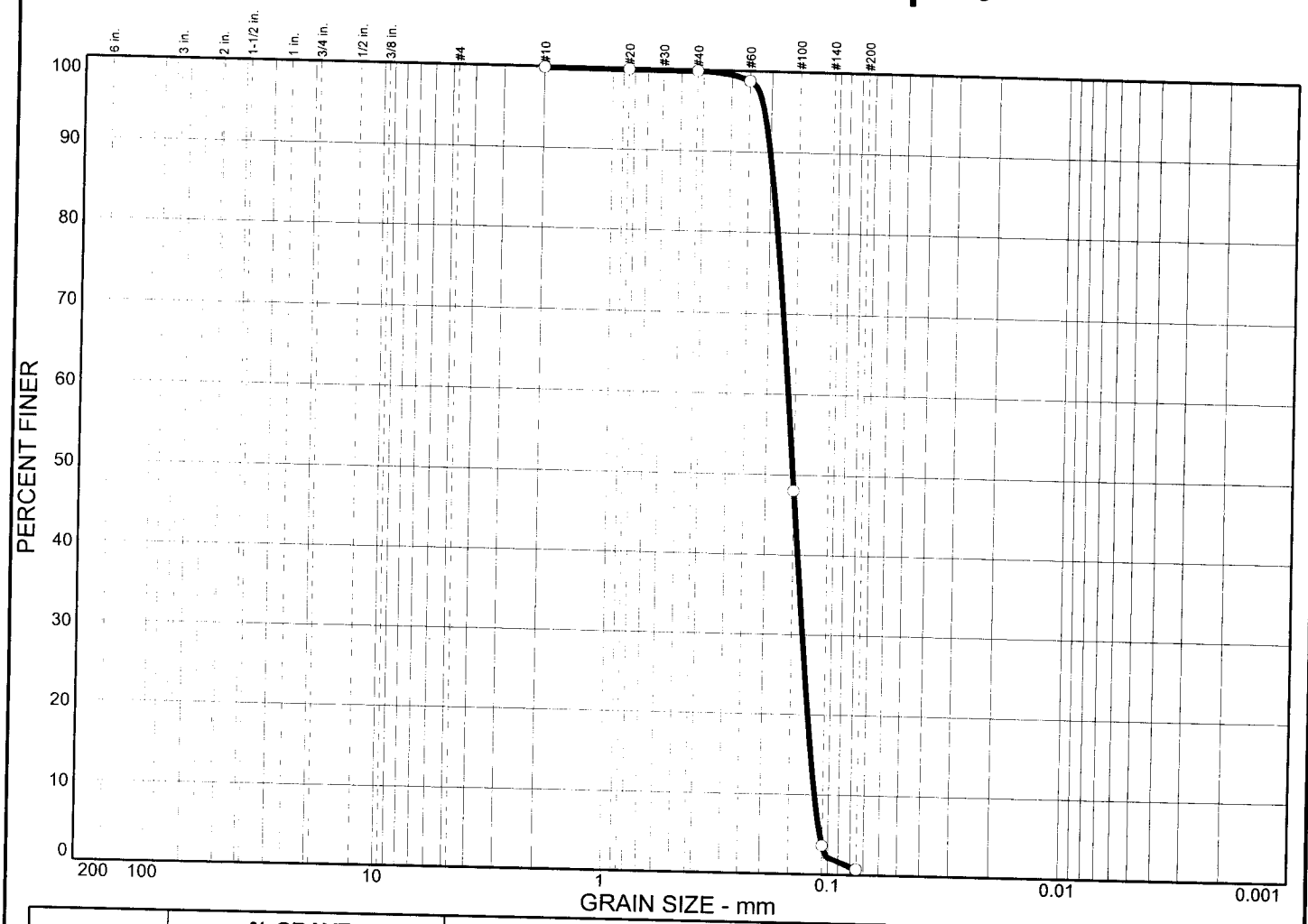
○ **Location:** 286+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample BBB-300
Moisture content = 25.9%
Estimated Wentworth Classification: Tan fine to very fine sand with silt, shell fragments,roots, organic matter

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
				0.0	99.2	0.7	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.192	0.161	0.152	0.135	0.121	0.116	0.97	1.39

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

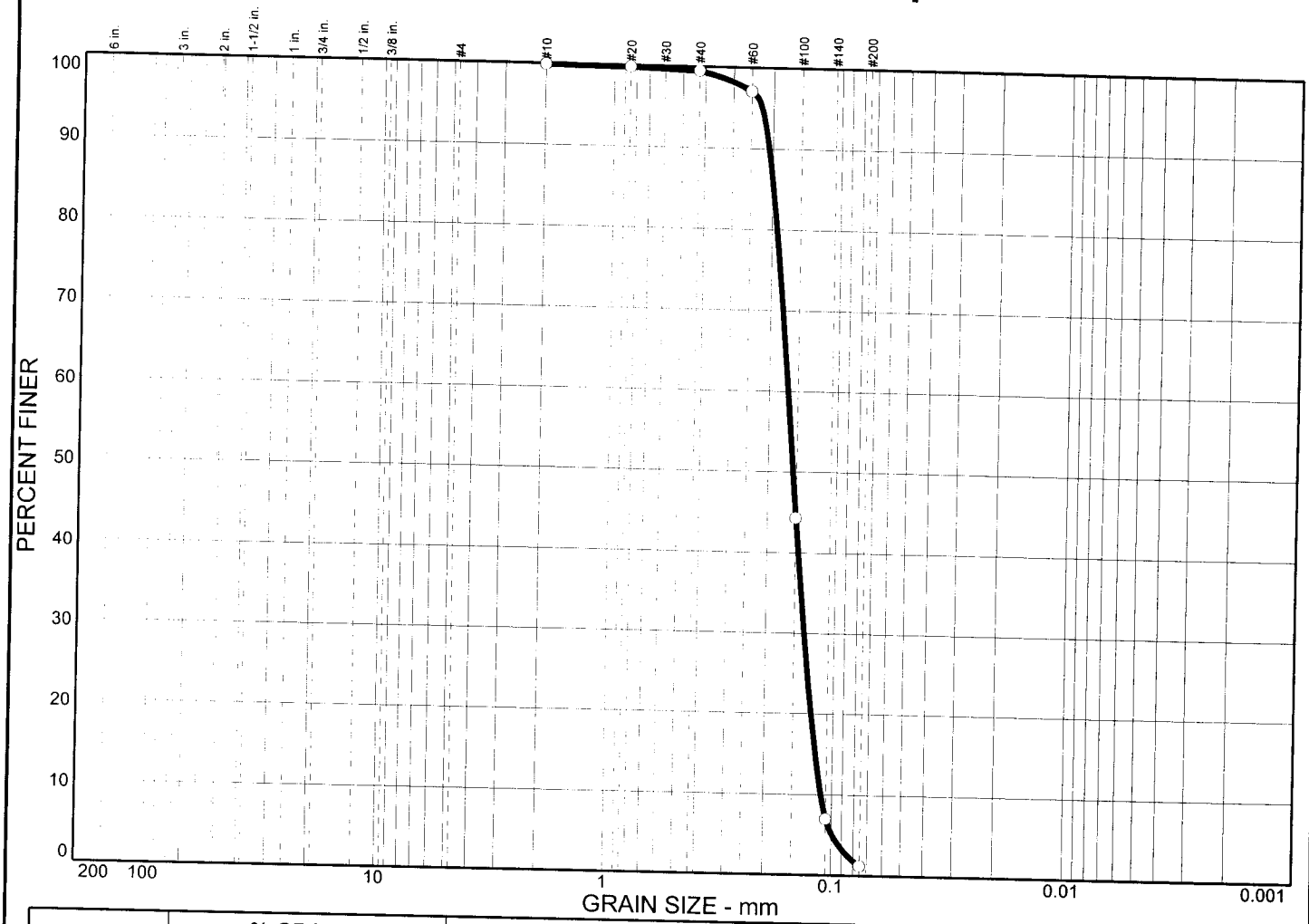
Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample LT-1306
Moisture content = 27.3%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
				0.4	98.3	1.2	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.198	0.166	0.156	0.136	0.119	0.112	0.99	1.48

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

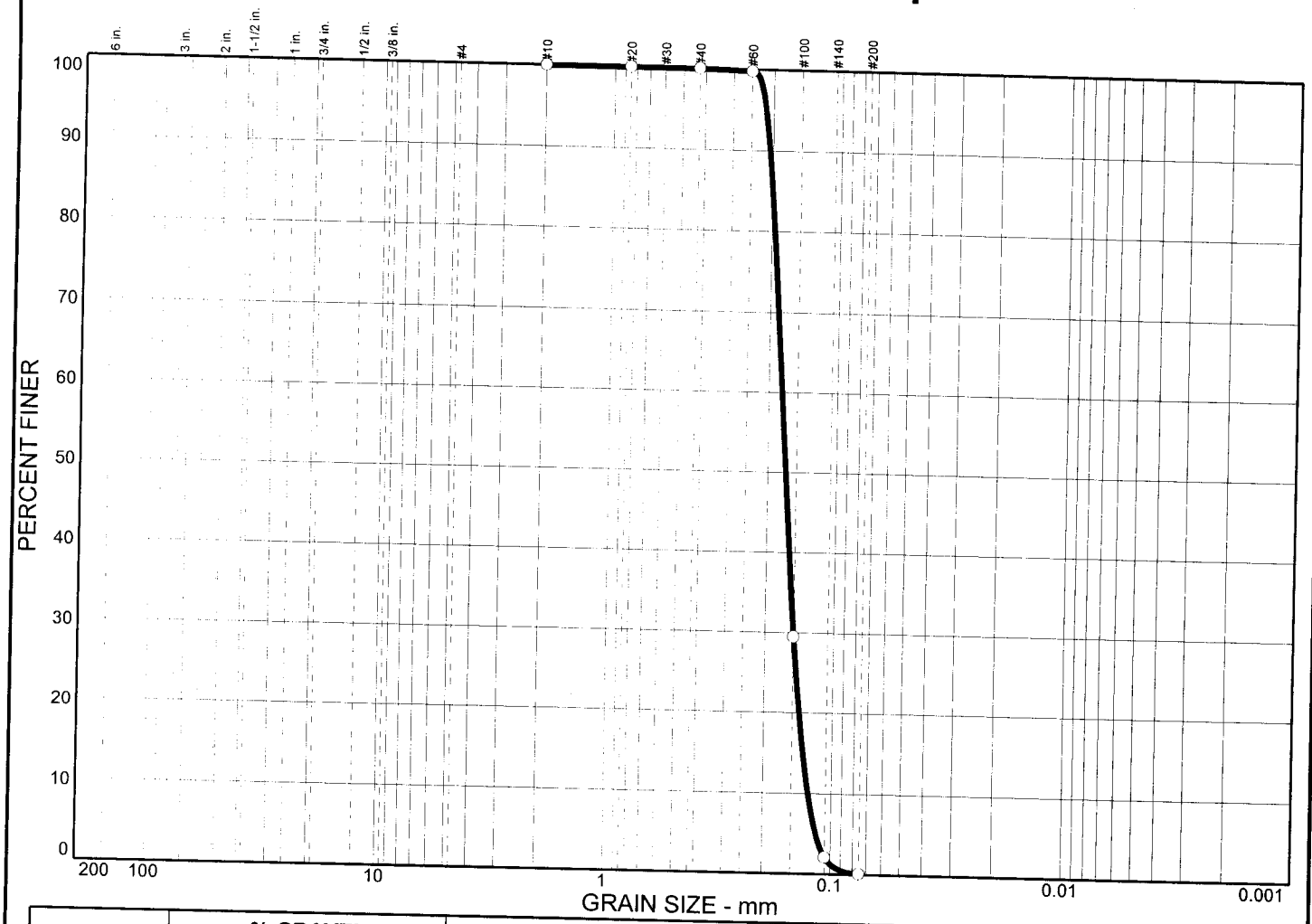
Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample MP-410
Moisture content = 26.9%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	99.9	0.1	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.200	0.175	0.167	0.150	0.134	0.127	1.02	1.38

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 286+64

EUSTIS ENGINEERING COMPANY, INC.

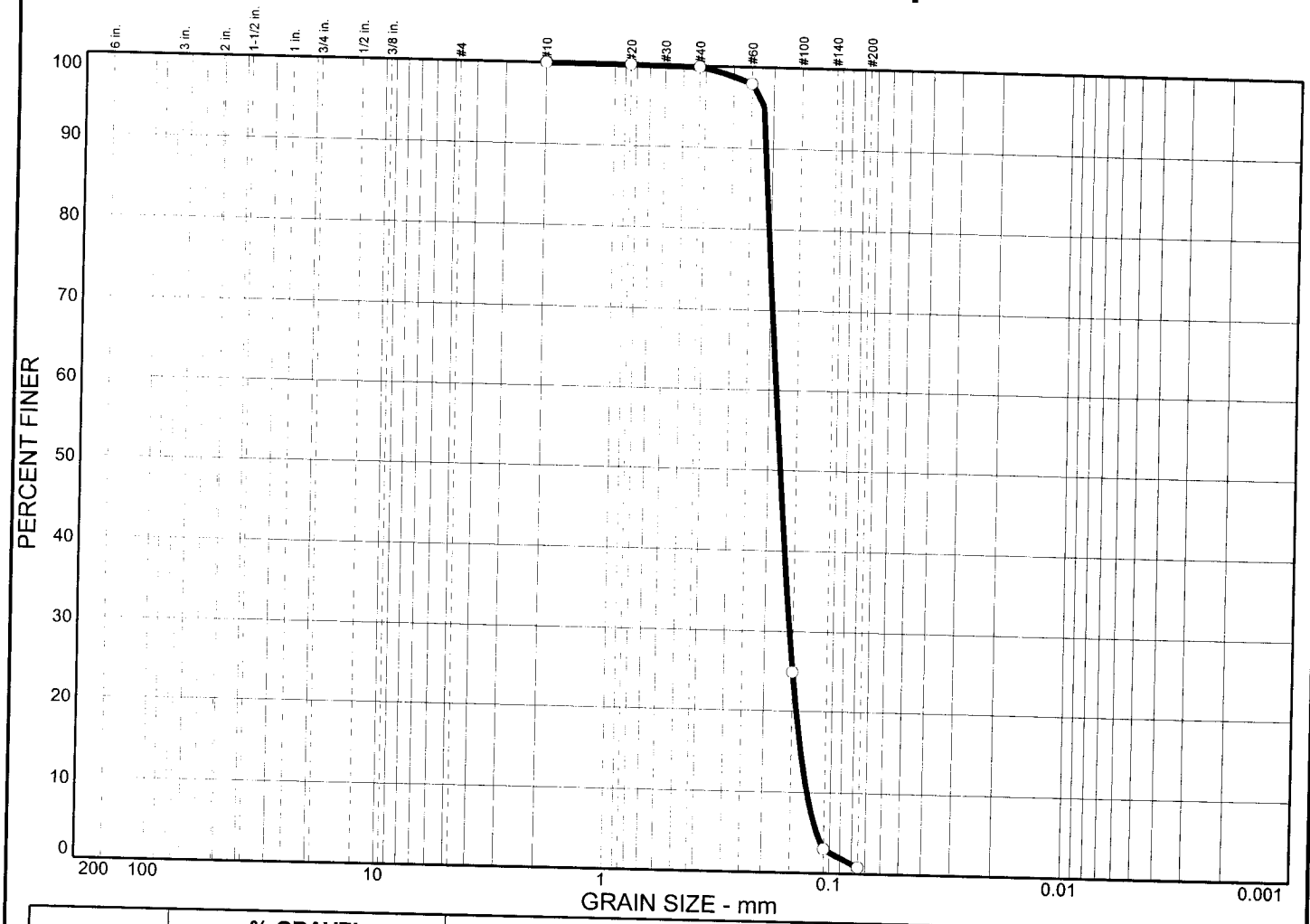
METAIRIE, LA

Remarks:

Sample HT-1250
Moisture content = 21.2%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.1	0.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.210	0.186	0.176	0.156	0.136	0.127	1.03	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

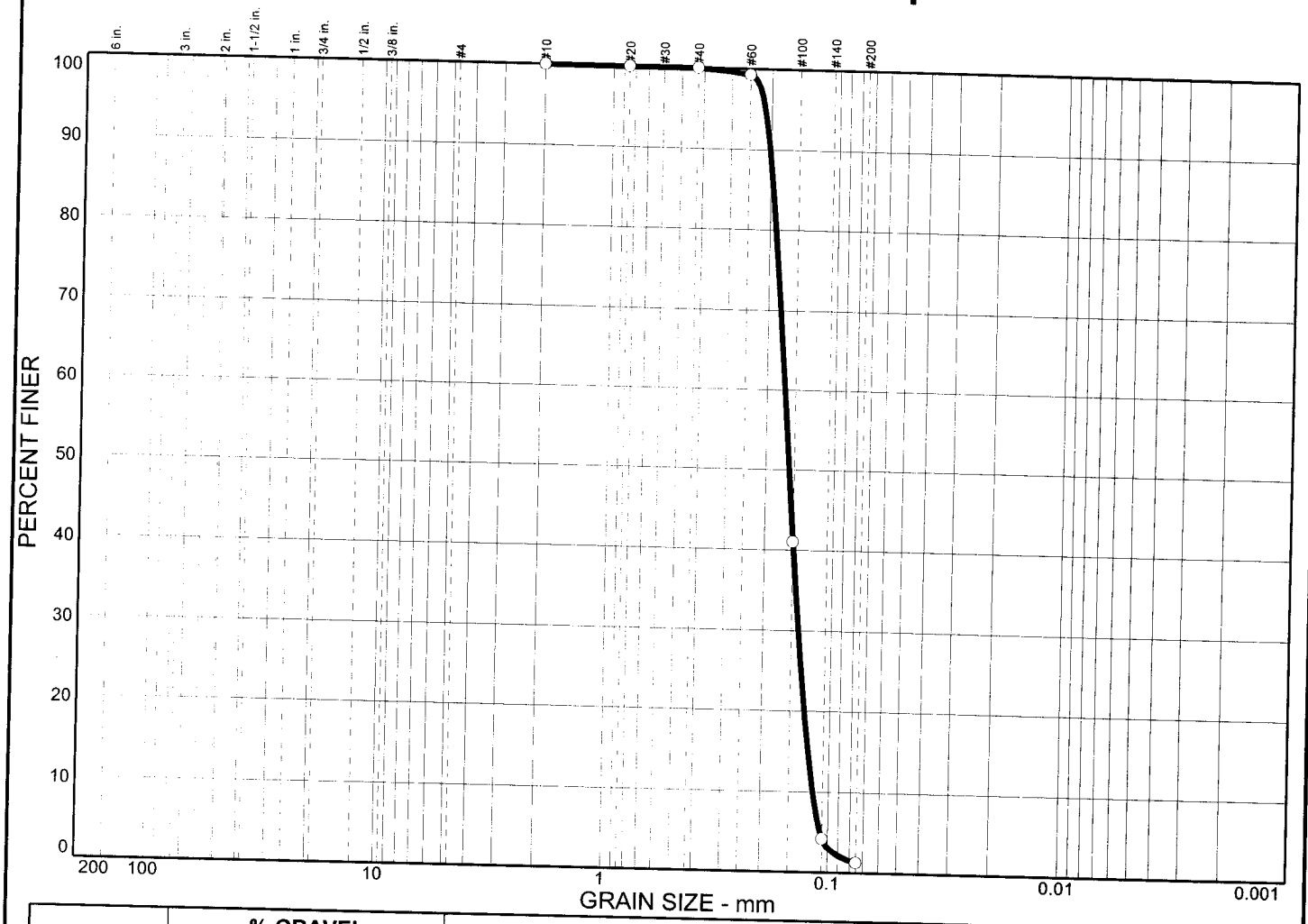
○ **Location:** 286+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample GB-1030
Moisture content = 27.8%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	98.7	1.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.195	0.167	0.158	0.140	0.124	0.118	1.00	1.42

MATERIAL DESCRIPTION	USCS	AASHTO
○ Black fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 268+64

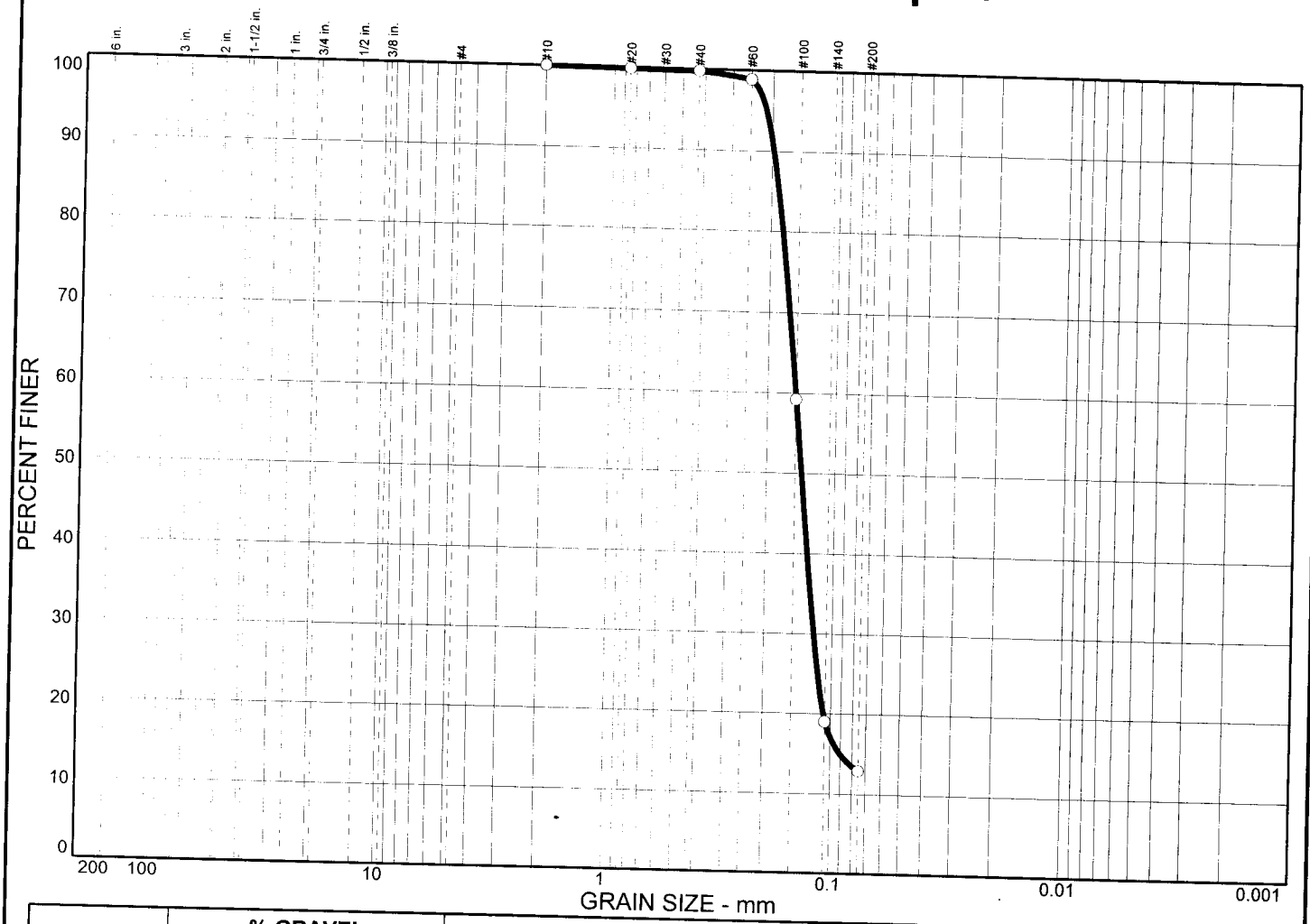
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

○ Sample DC-400
Moisture content = 25.6%
Estimated Wentworth Classification:
Black fine to very fine sand with shell fragments, organic matter

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	86.9	12.9	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.186	0.151	0.141	0.121	0.0905			

MATERIAL DESCRIPTION	USCS	AASHTO
Dark gray silty sand with shell fragments, roots	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

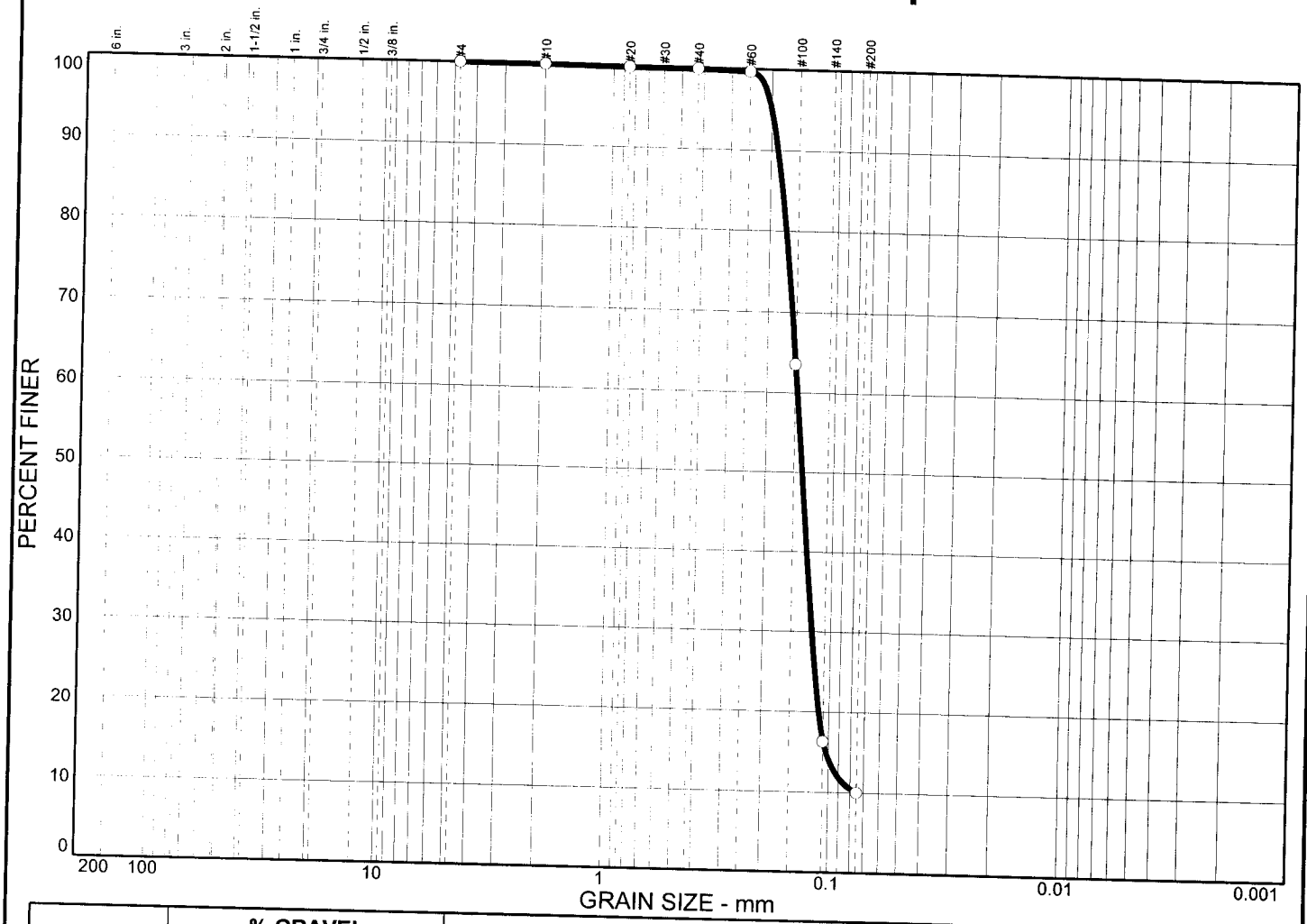
Location: 268+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample MP-300
Moisture content = 28.7%
Estimated Wentworth Classification:
Dark gray fine to very fine sand with silt, shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	89.9	10.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.177	0.147	0.138	0.121	0.103	0.0750	1.34	1.96

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with silt, shell fragments, roots	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

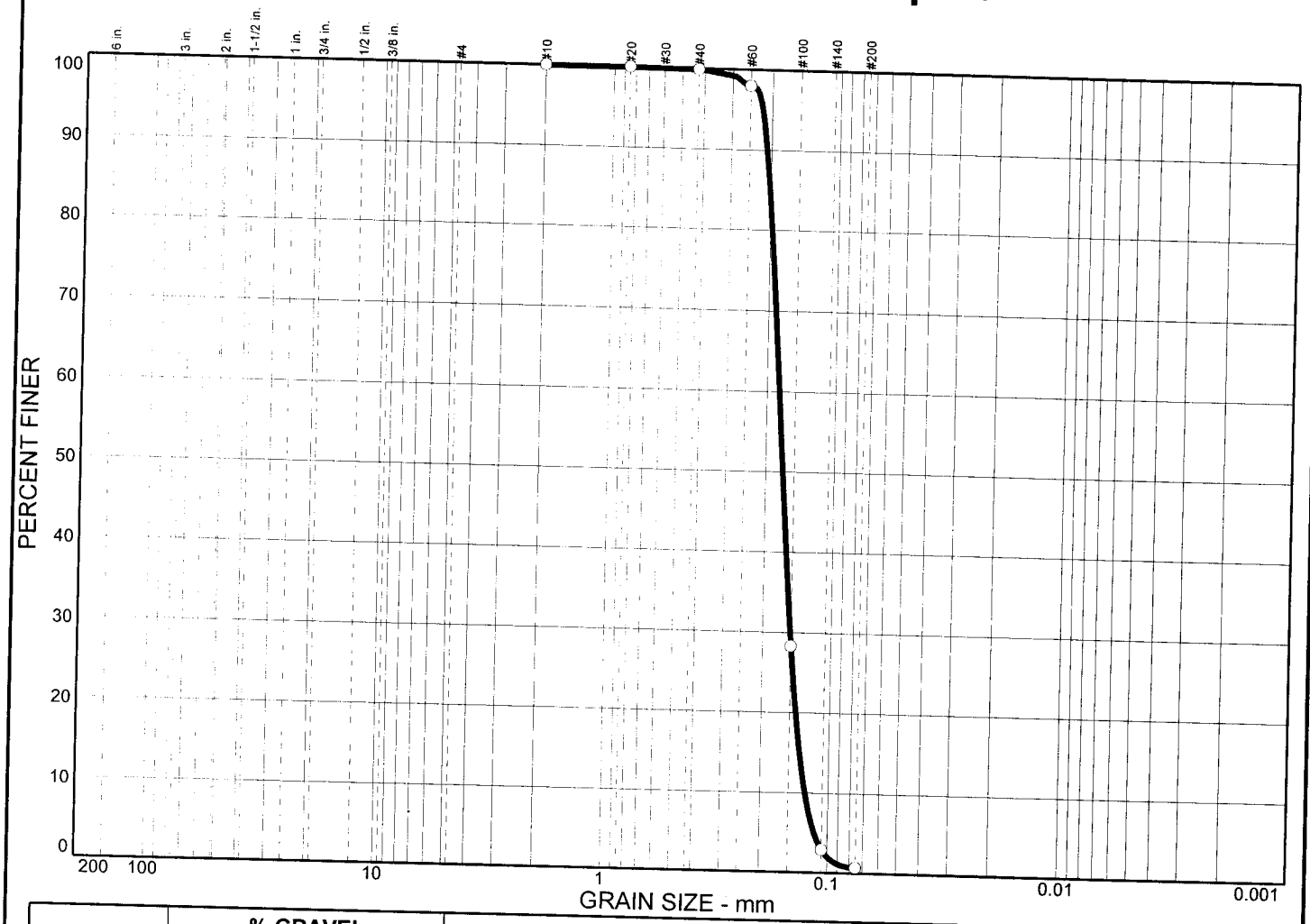
○ **Location:** 268+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample BBB-0
Moisture content = 30.2%
Estimated Wentworth Classification:
Tan fine to very fine sand with trace silt, shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.2	0.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.202	0.177	0.169	0.152	0.135	0.127	1.02	1.39

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

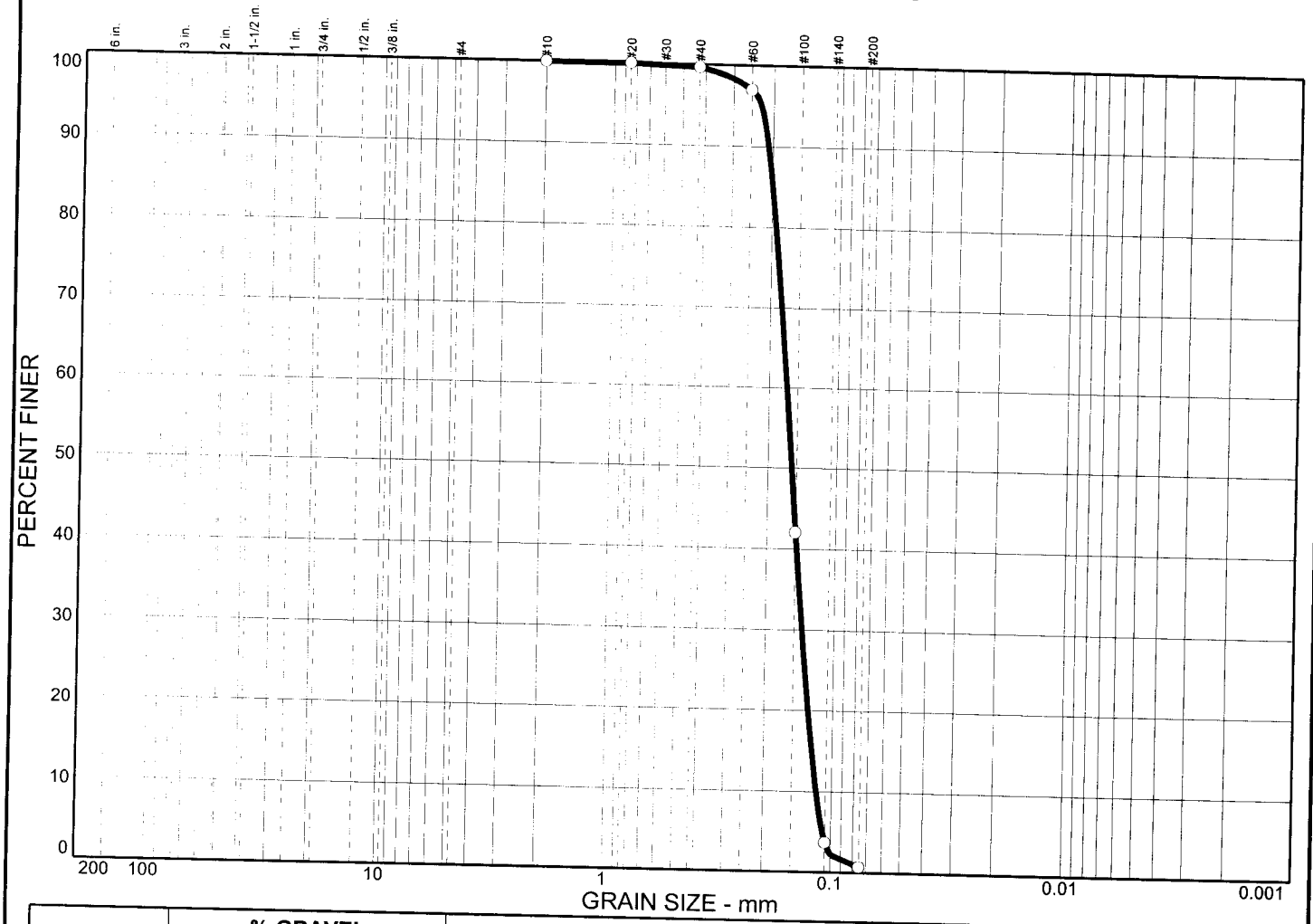
○ **Location:** 268+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample GB-600
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.3	99.0	0.7	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.200	0.168	0.158	0.139	0.123	0.117	0.98	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 268+64

EUSTIS ENGINEERING COMPANY, INC.

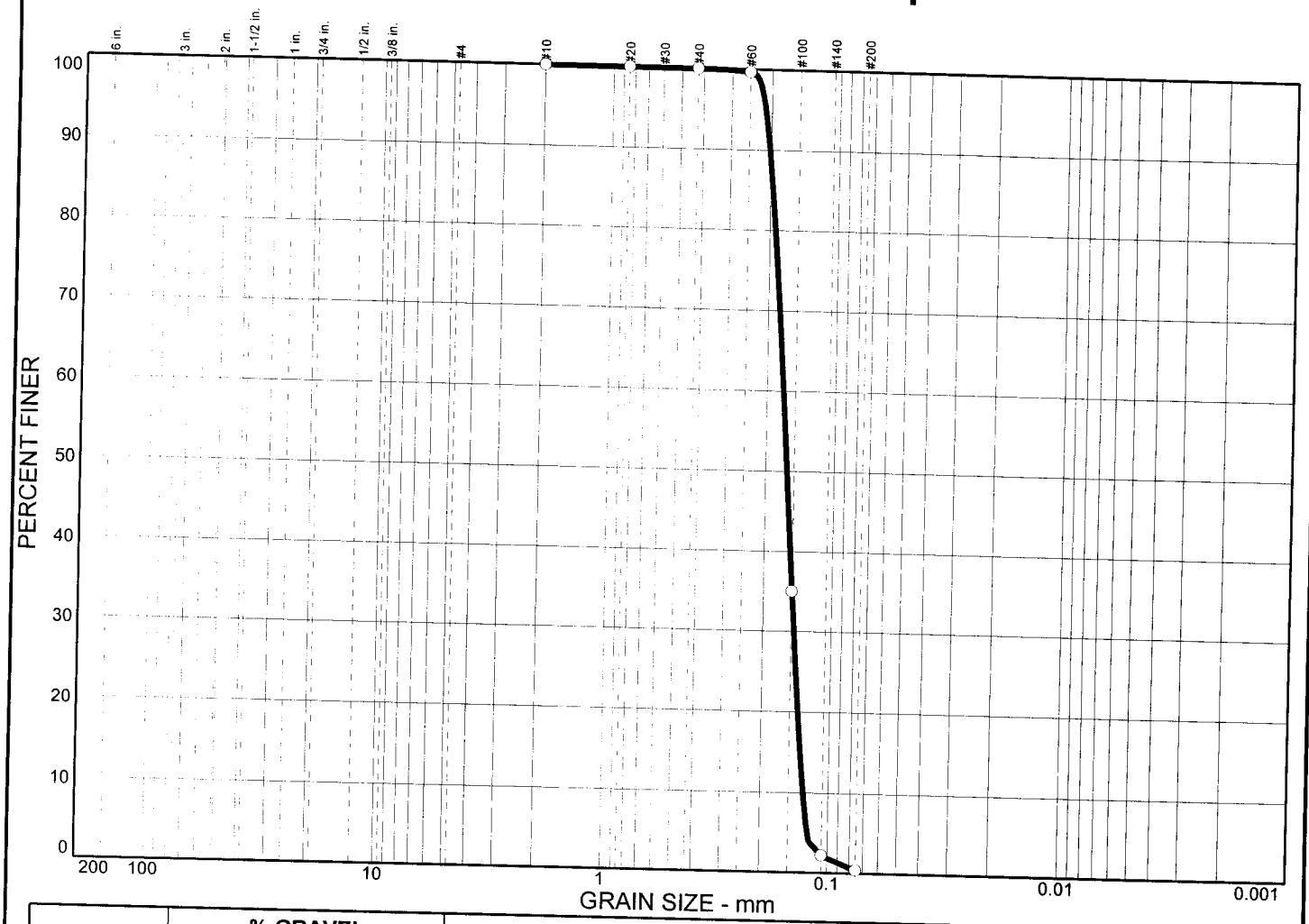
METAIRIE, LA

Remarks:

Sample Wadding-1060
Moisture content = 25.2%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.6	0.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.196	0.170	0.162	0.146	0.134	0.129	0.97	1.31

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 268+64

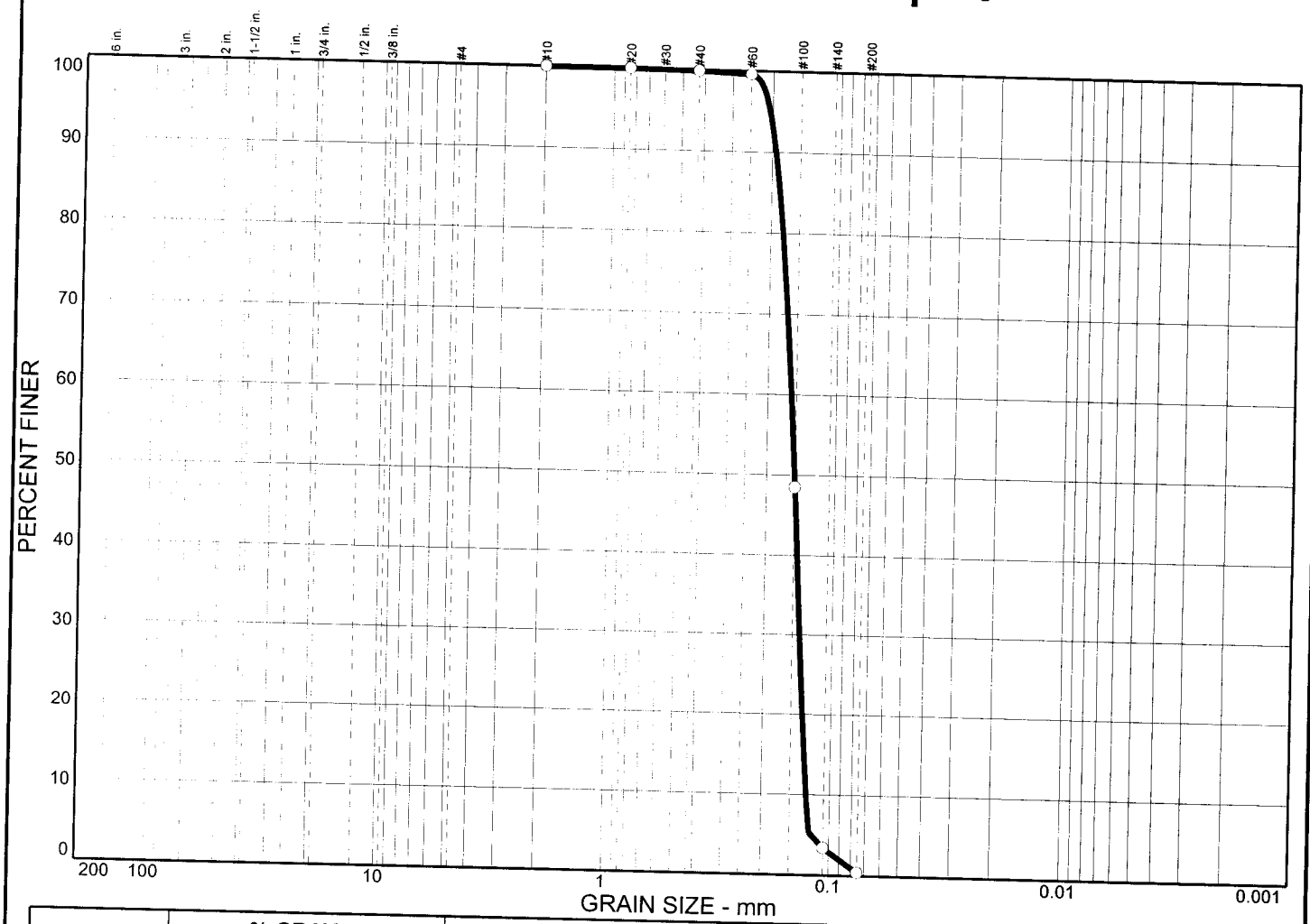
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

○ Sample MHW-970
Moisture content = 26.0%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, organic matter

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.5	0.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.184	0.158	0.151	0.139	0.131	0.127	0.97	1.24

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 268+64

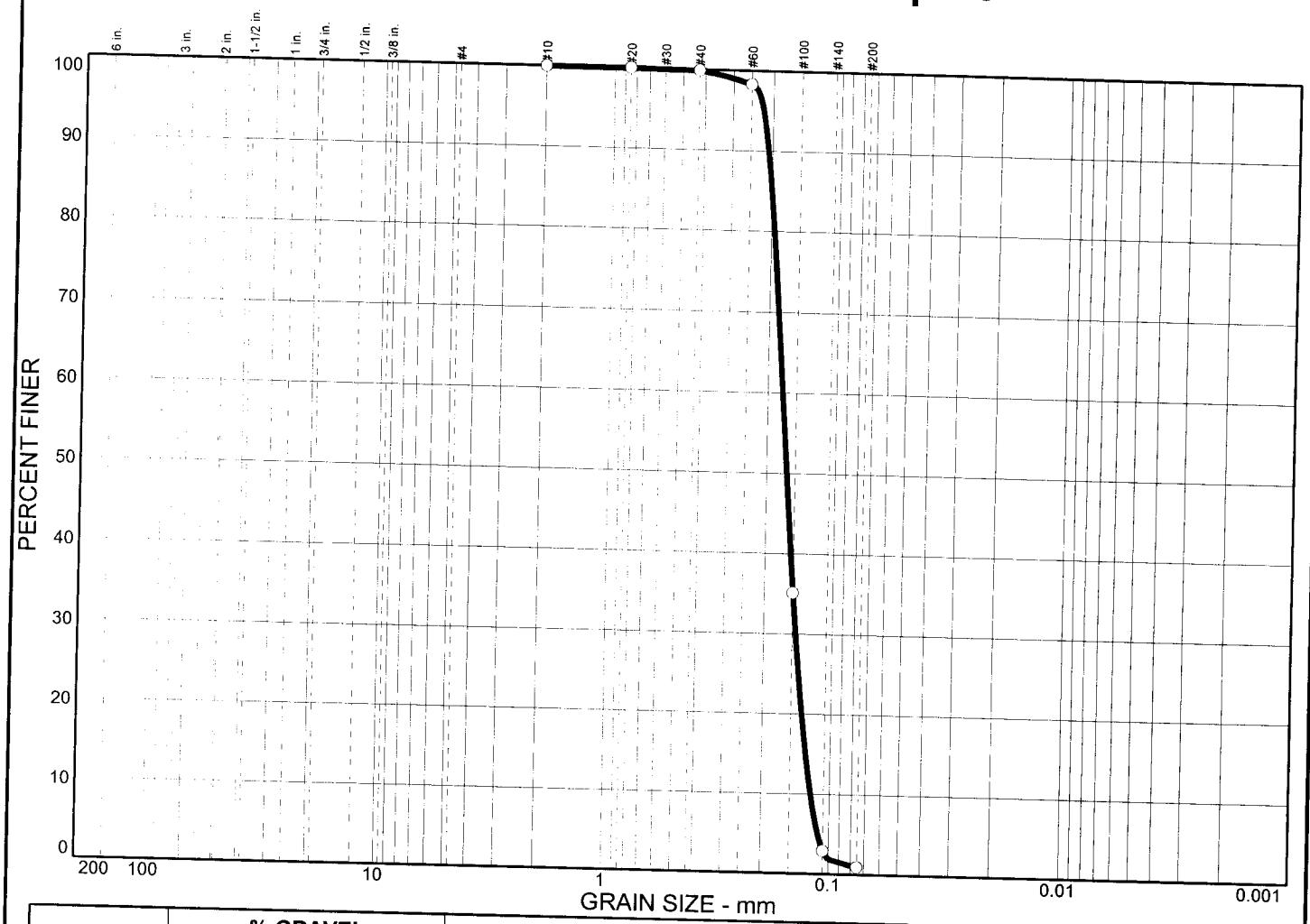
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

○ Sample DT-450
Moisture content = 26.7%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.1	99.0	0.9	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.201	0.173	0.163	0.145	0.129	0.122	1.00	1.42

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 268+64

EUSTIS ENGINEERING COMPANY, INC.

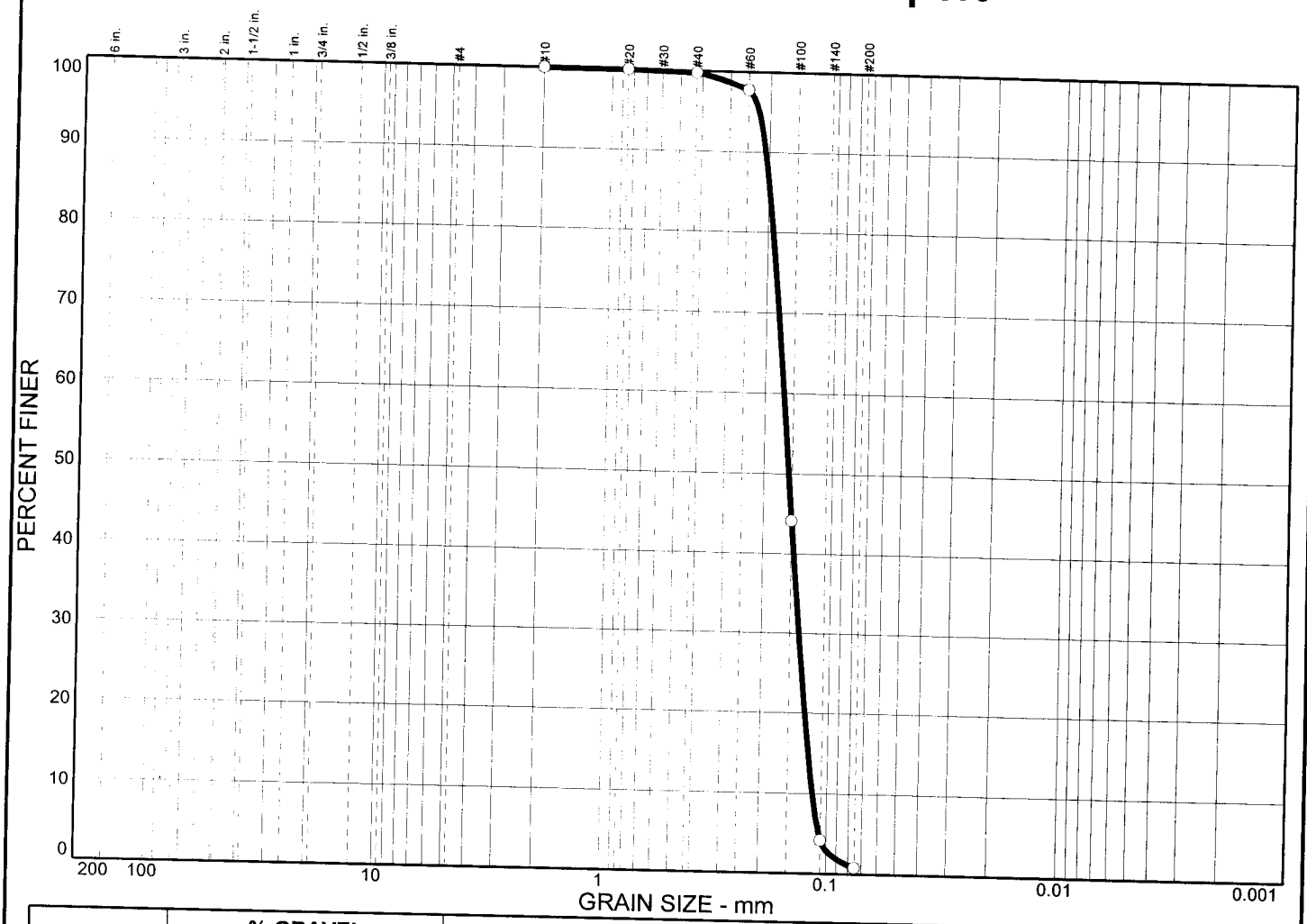
METAIRIE, LA

Remarks:

Sample MLW-1020
Moisture content = 25.4%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	99.0	0.8	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.198	0.166	0.156	0.137	0.122	0.116	0.97	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

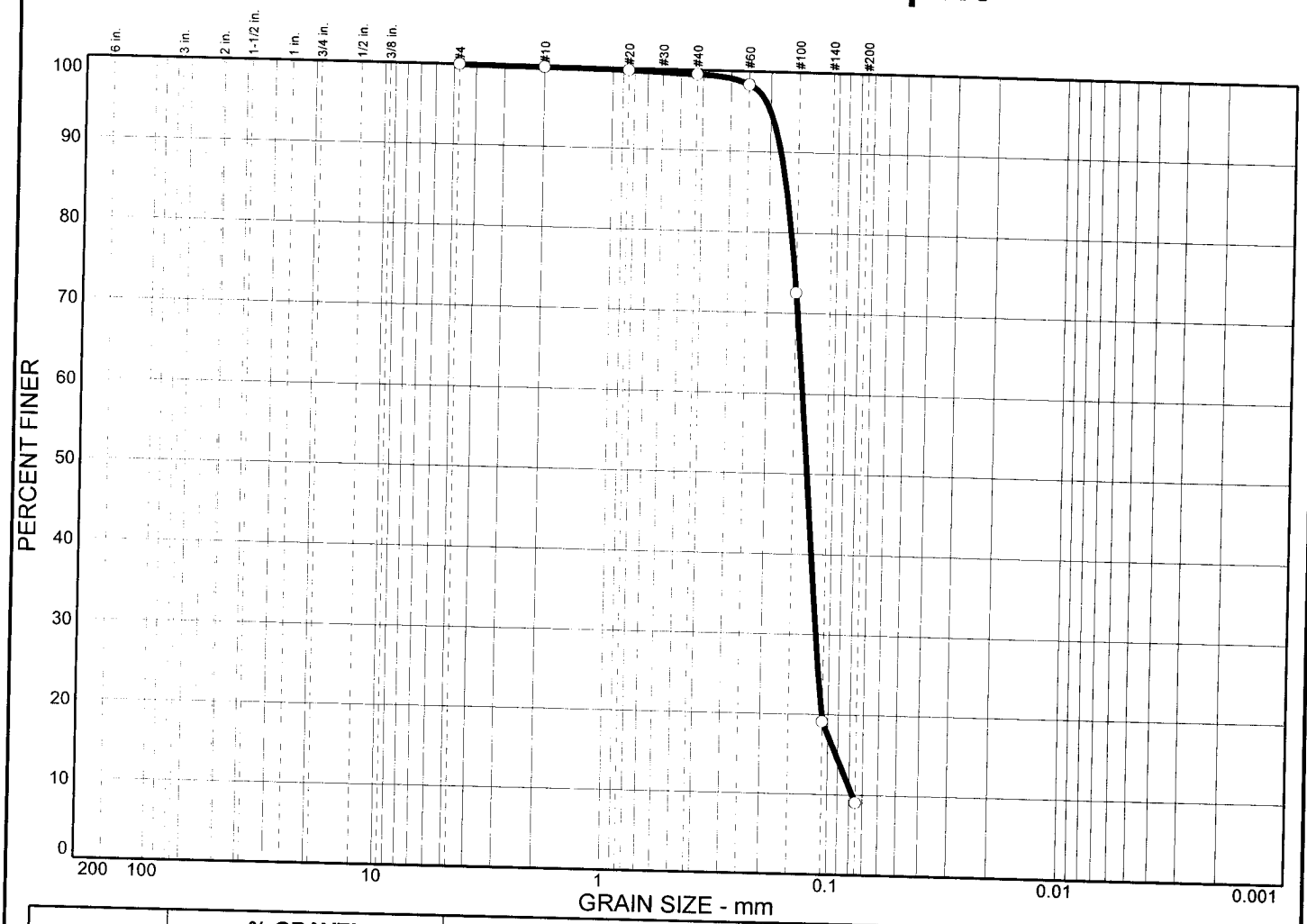
Location: 250+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample DC-300
Moisture content = 26.3%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.1	0.4	90.5	9.0	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.168	0.138	0.130	0.115	0.0921	0.0776	1.24	1.78

MATERIAL DESCRIPTION	USCS	AASHTO
Black fine sand with silt, shell fragments, decaded wood & roots	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 250+64

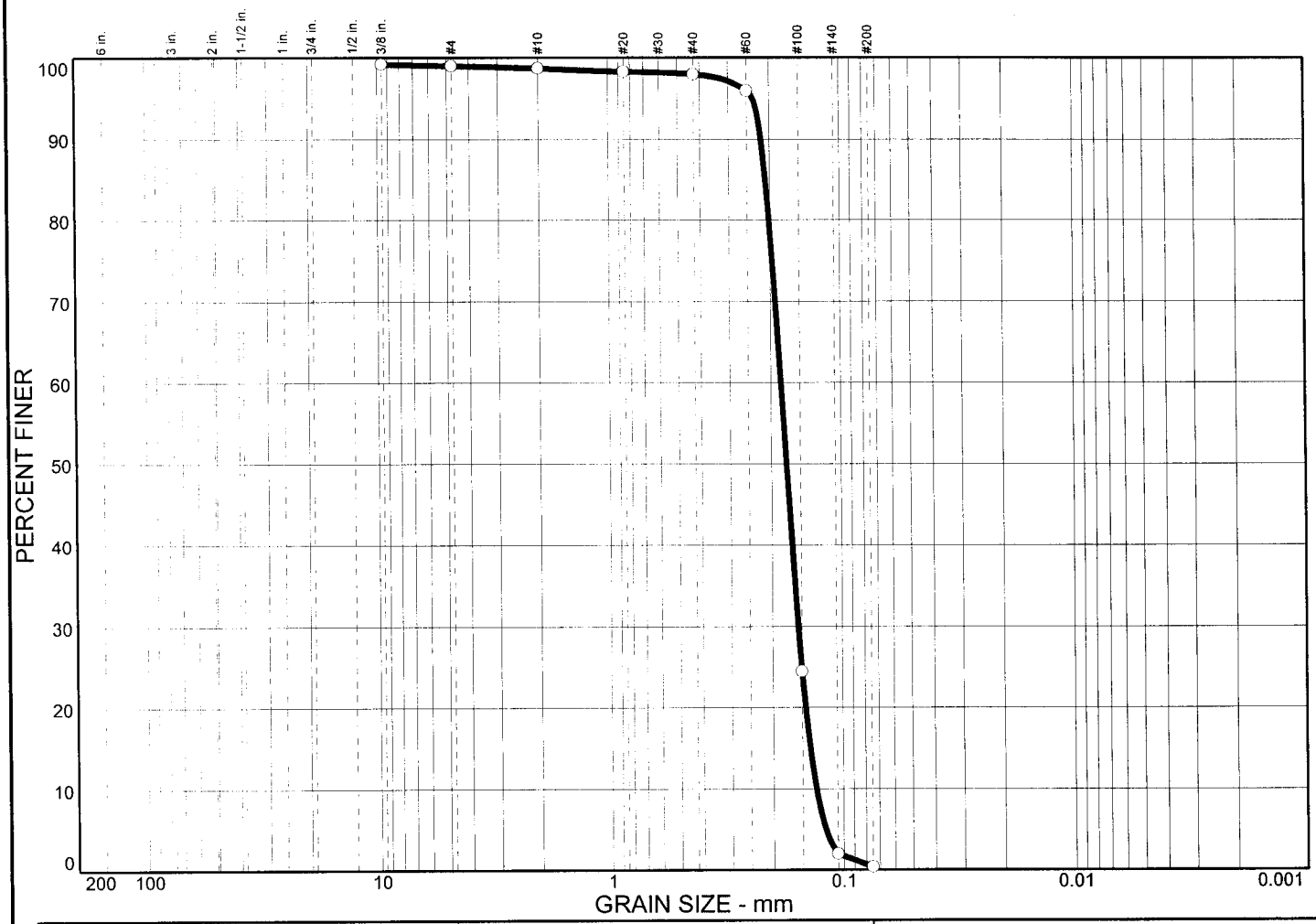
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

Sample MP-500; Moisture content = 28.3%; Estimated Wentworth Classification: Black fine to very fine sand with trace silt, shell fragments, decaded woods & roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○				0.3	0.7	97.6	0.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.209	0.181	0.173	0.155	0.139	0.131	1.01	1.38

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 250+64

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample BBB-150

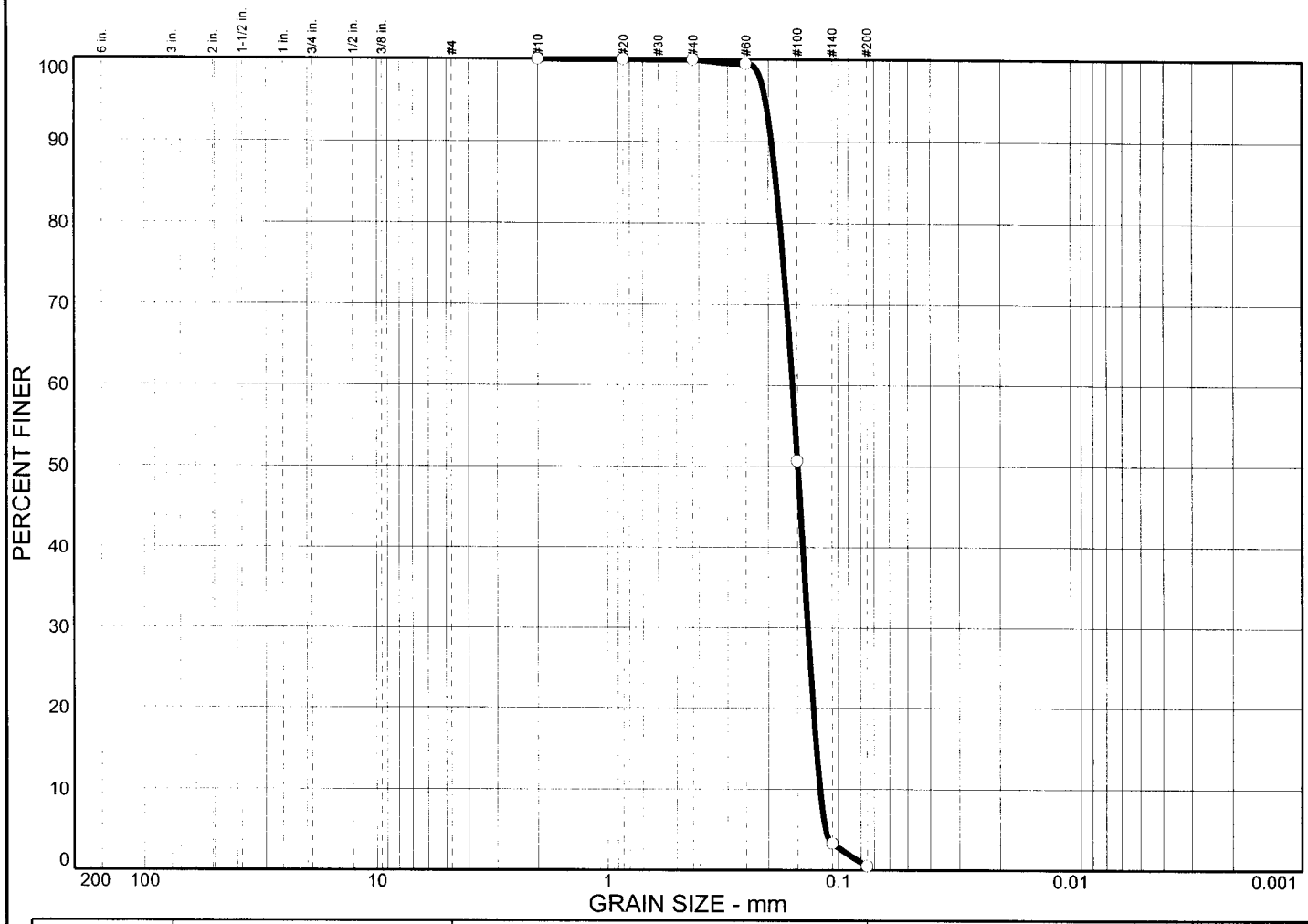
Moisture content = 25.9%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.5	0.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.185	0.157	0.149	0.135	0.125	0.120	0.97	1.31

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 250+64

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample GB-600

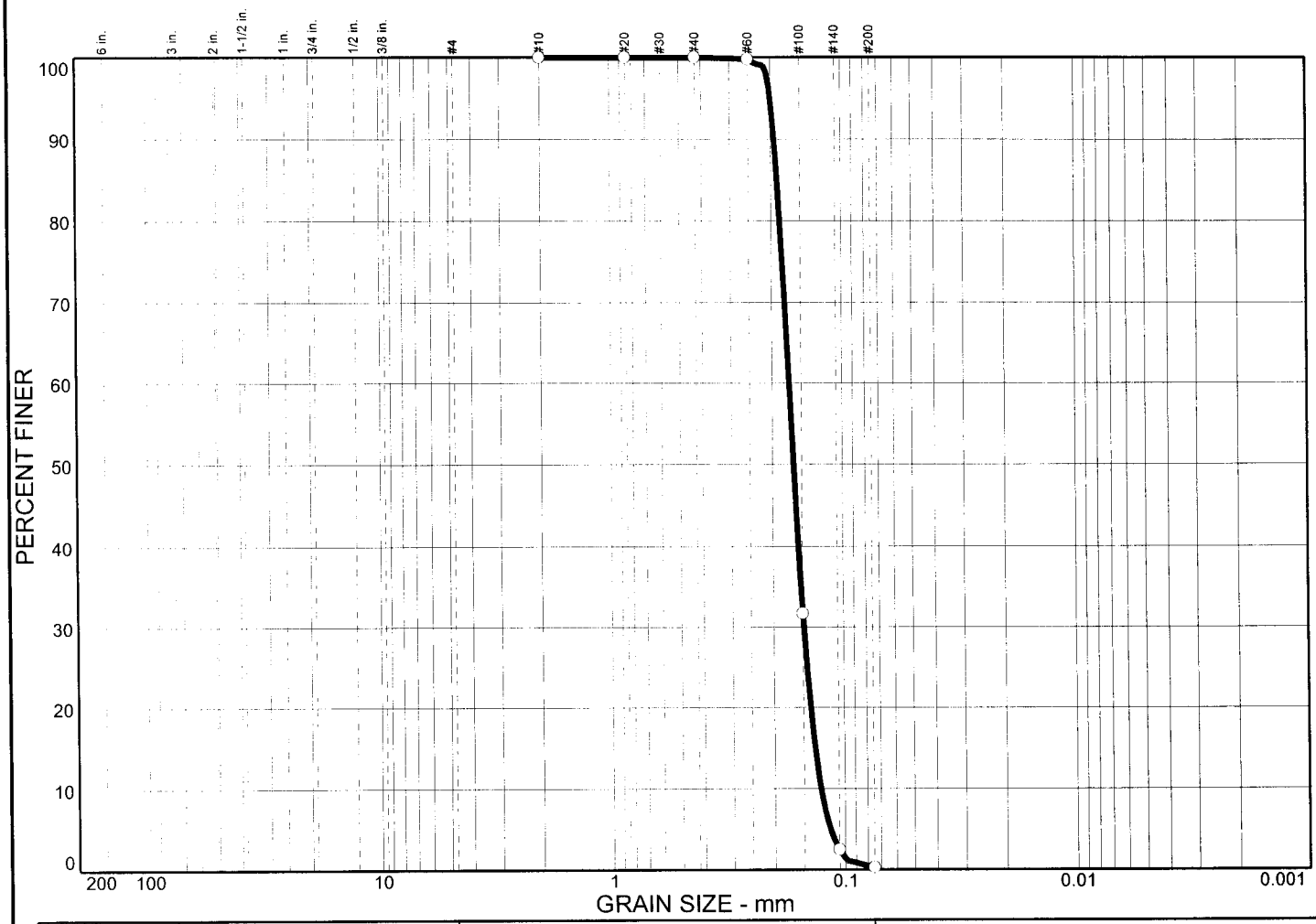
Moisture content = 24.9%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell framgents, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.7	0.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.189	0.169	0.163	0.149	0.134	0.127	1.03	1.33

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 250+64

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample HT-740

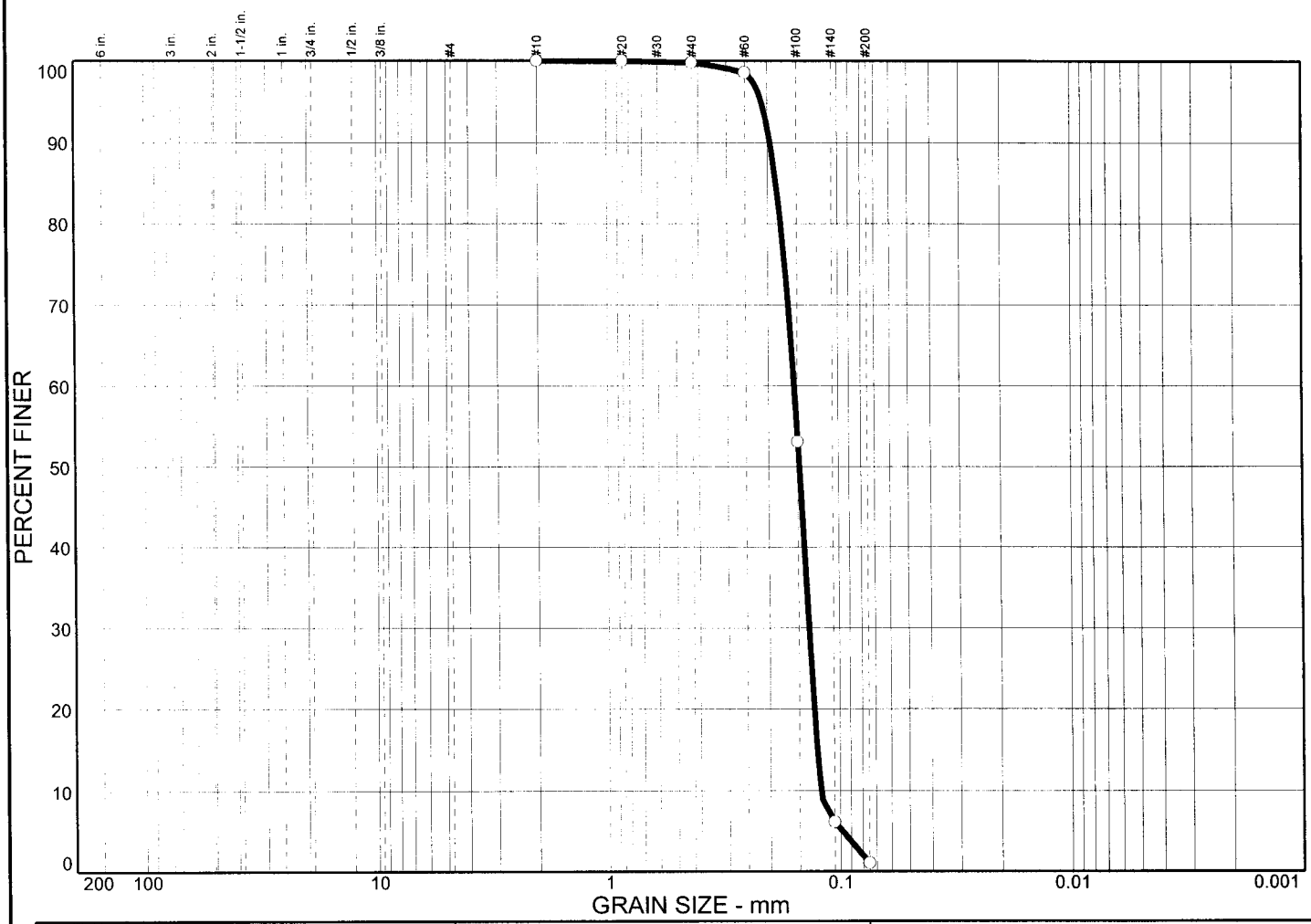
Moisture content = 23.2%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	98.8	1.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.184	0.155	0.148	0.136	0.126	0.121	0.98	1.28

	MATERIAL DESCRIPTION	USCS	AASHTO
○	Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 250+64

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

○ Sample DT-350

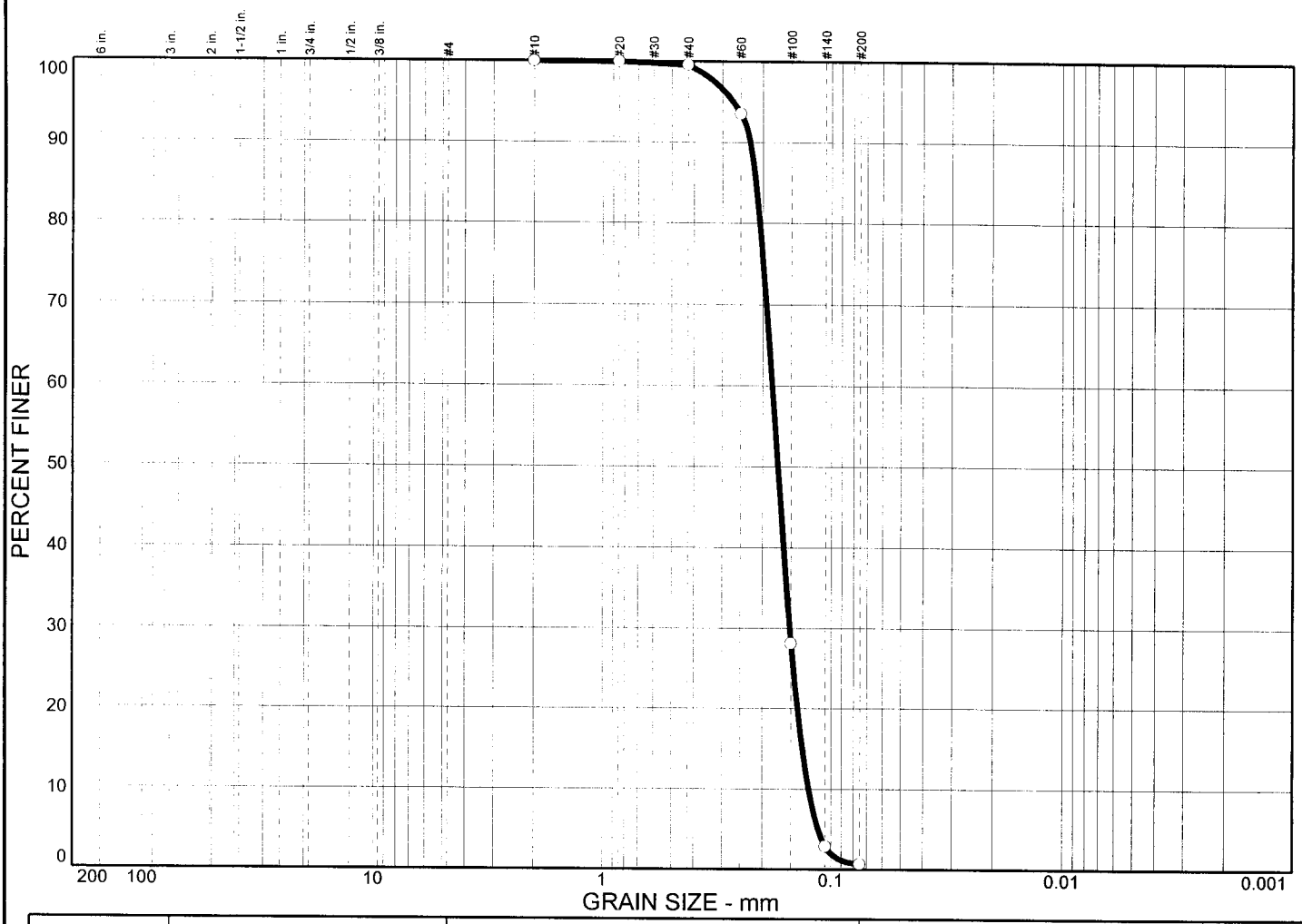
Moisture content = 25.2%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.4	98.9	0.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.215	0.182	0.172	0.152	0.134	0.125	1.01	1.45

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 250+64

EUSTIS ENGINEERING COMPANY, INC.

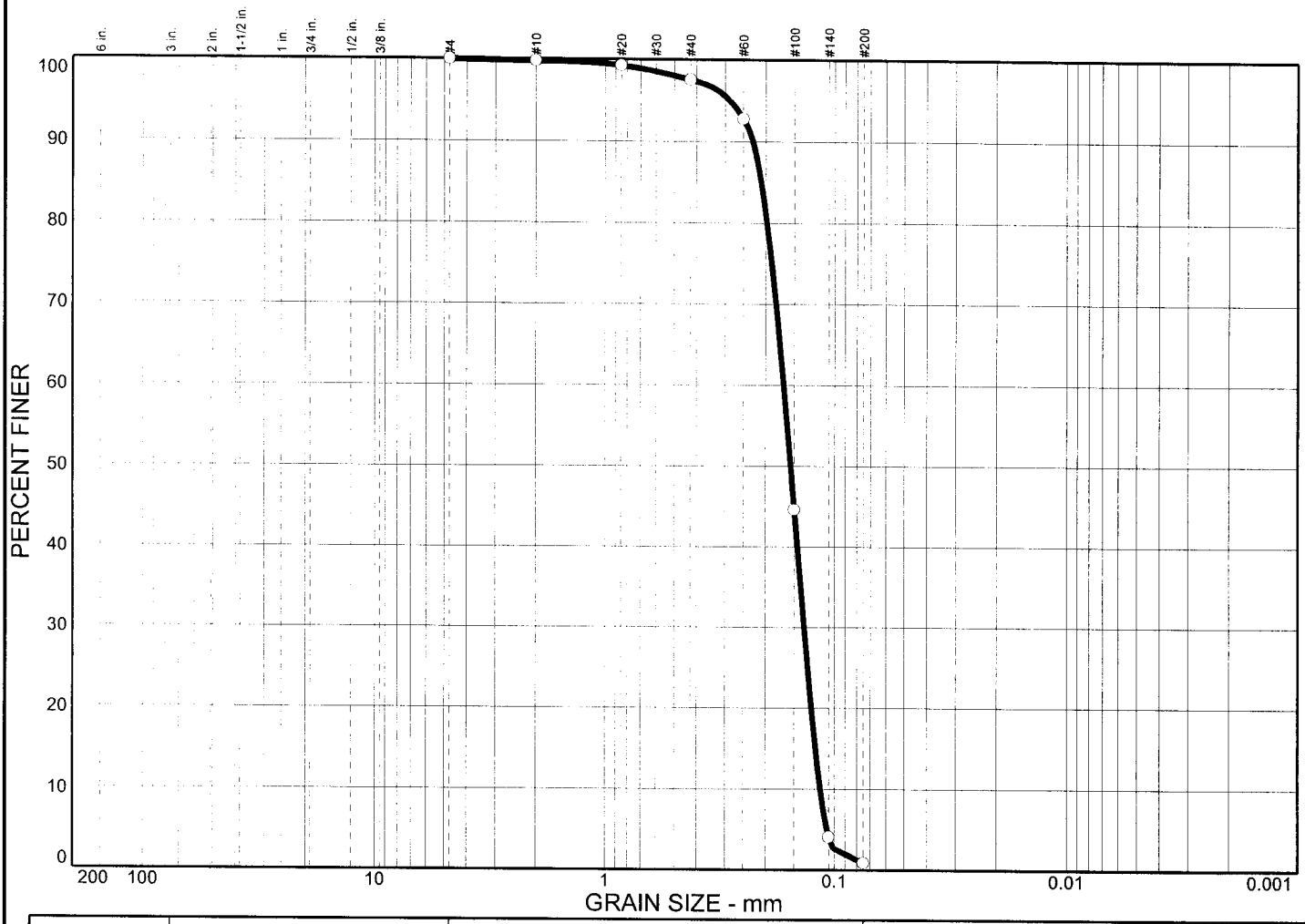
METAIRIE, LA

Remarks:

○ Sample Wadding-830
Moisture content = 23.9%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.2	2.2	96.7	0.9	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.210	0.167	0.156	0.136	0.121	0.116	0.96	1.45

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 250+64

EUSTIS ENGINEERING COMPANY, INC.

METAIRIE, LA

Remarks:

Sample LT-790

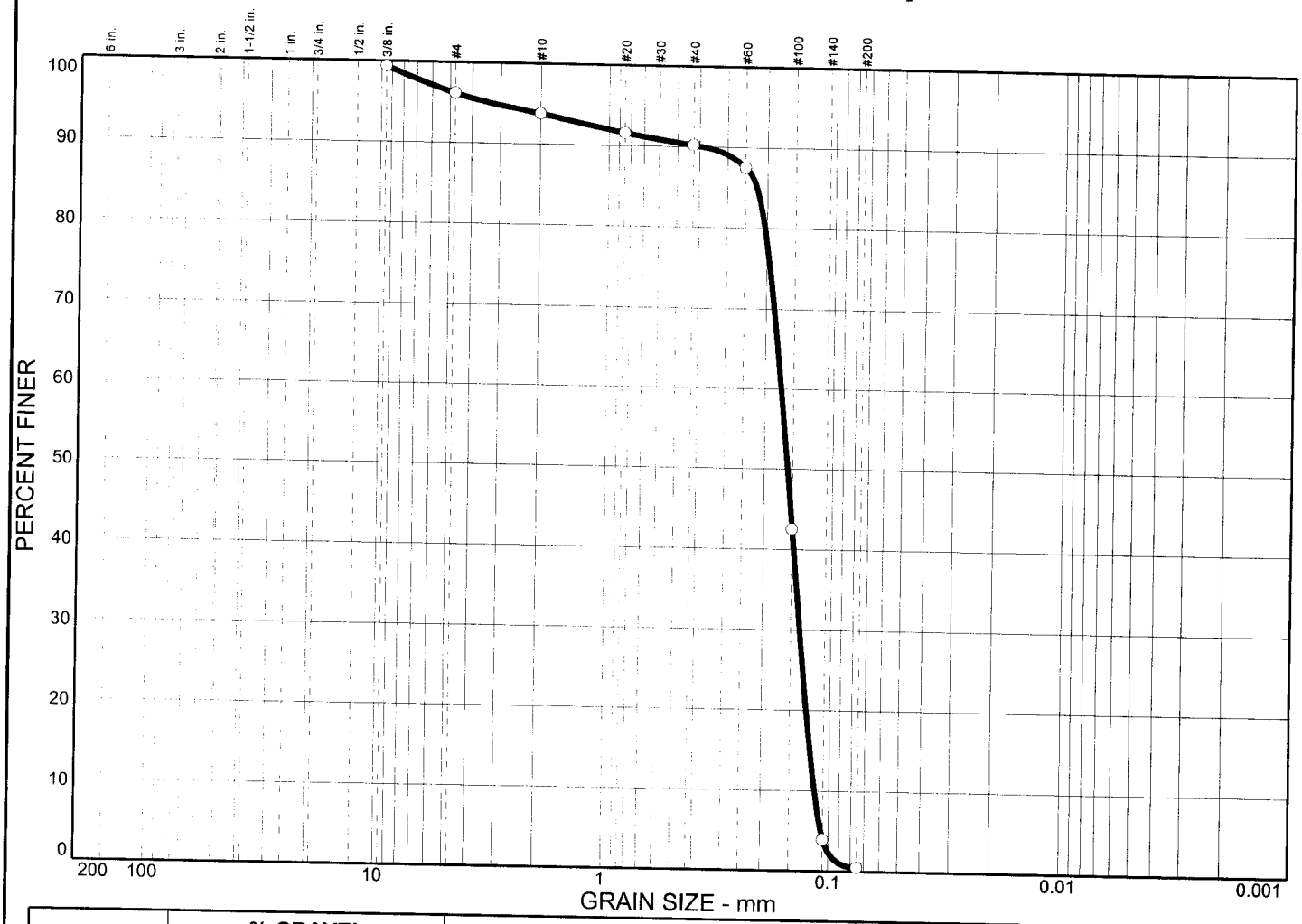
Moisture content = 25.4%

Estimated Wentworth Classification:

Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
			2.4	3.6	89.7	0.5	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.223	0.170	0.158	0.137	0.122	0.116	0.96	1.47

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

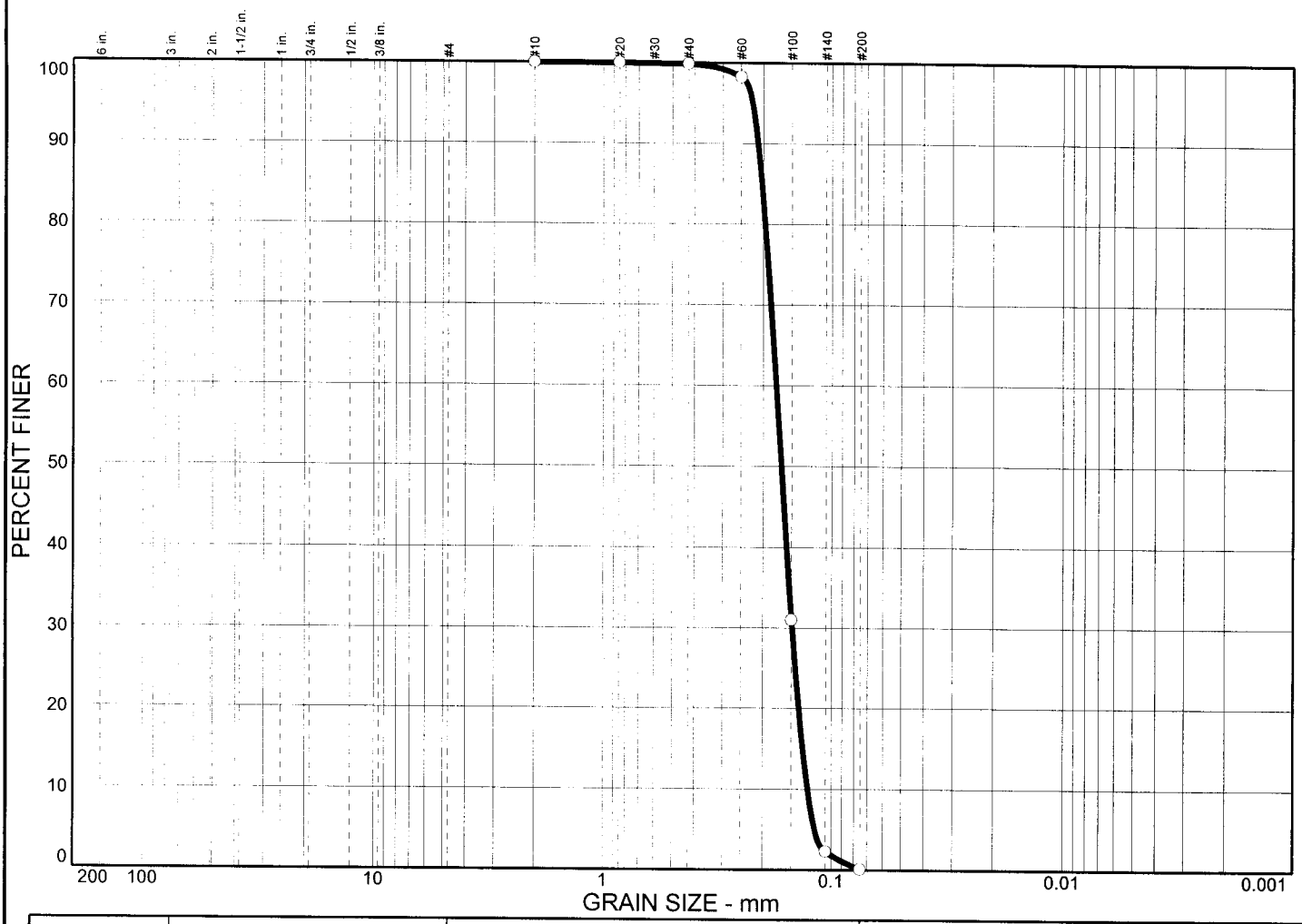
Location: 232+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample DC-300
Moisture content = 18.7%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.8	0.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.203	0.176	0.167	0.149	0.134	0.127	0.99	1.38

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

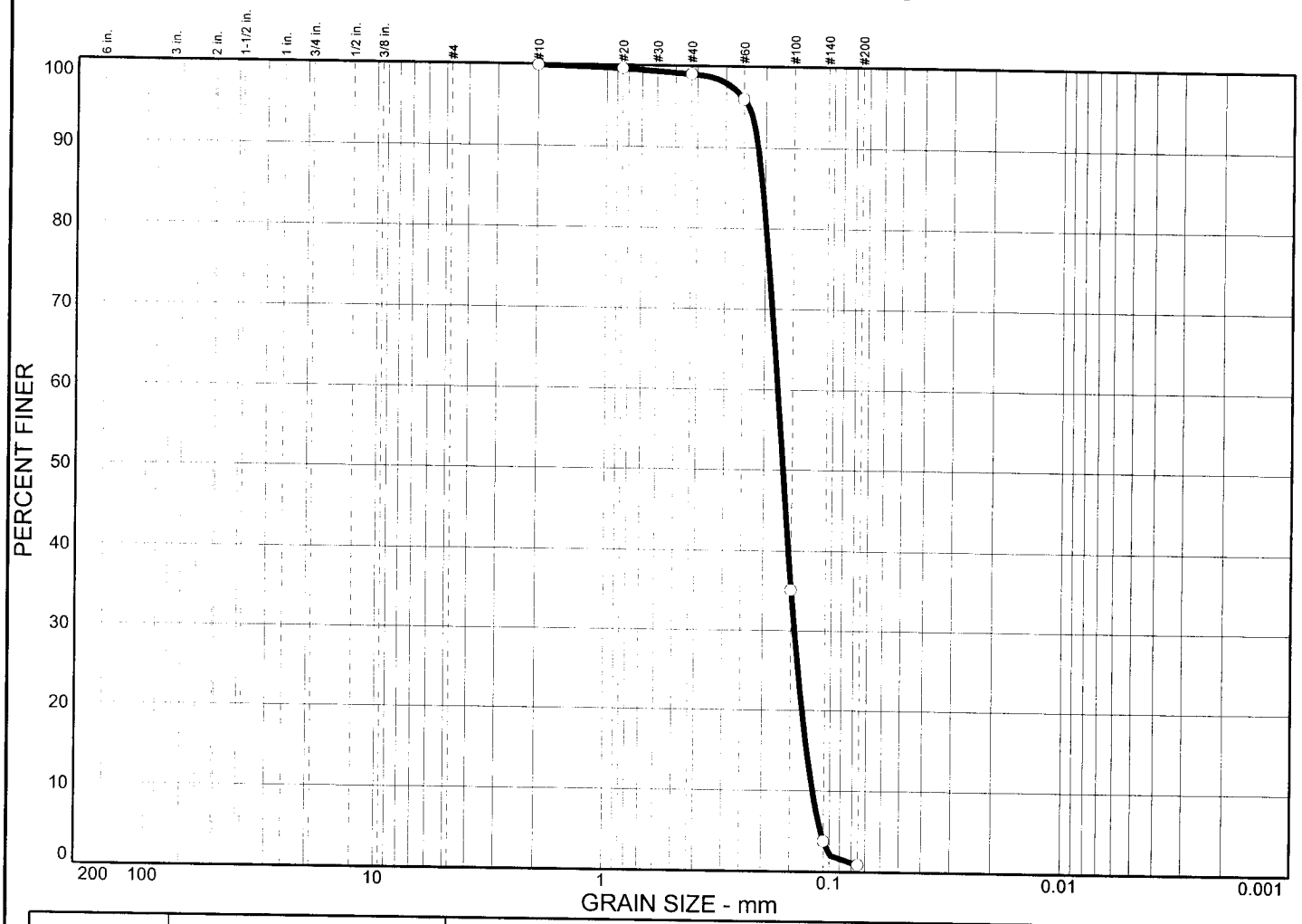
○ **Location:** 232+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample BBB-160
Moisture content = 26.5%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, roots

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
				0.9	98.1	0.9	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.206	0.174	0.165	0.145	0.127	0.119	1.01	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

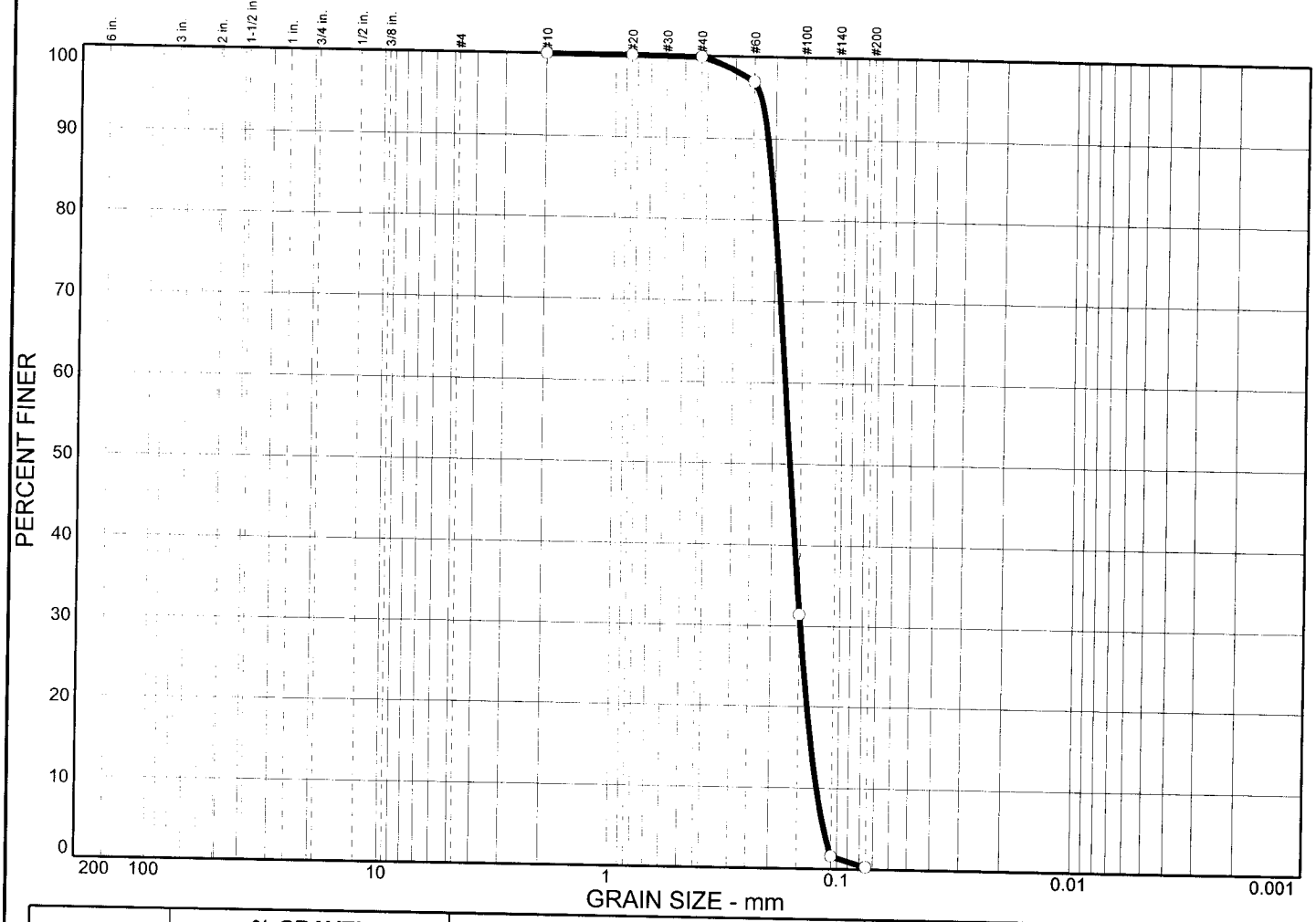
Location: 232+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample MP-590
Moisture content = 26.1%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, organic matter

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.6	0.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.207	0.177	0.168	0.149	0.131	0.124	1.01	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

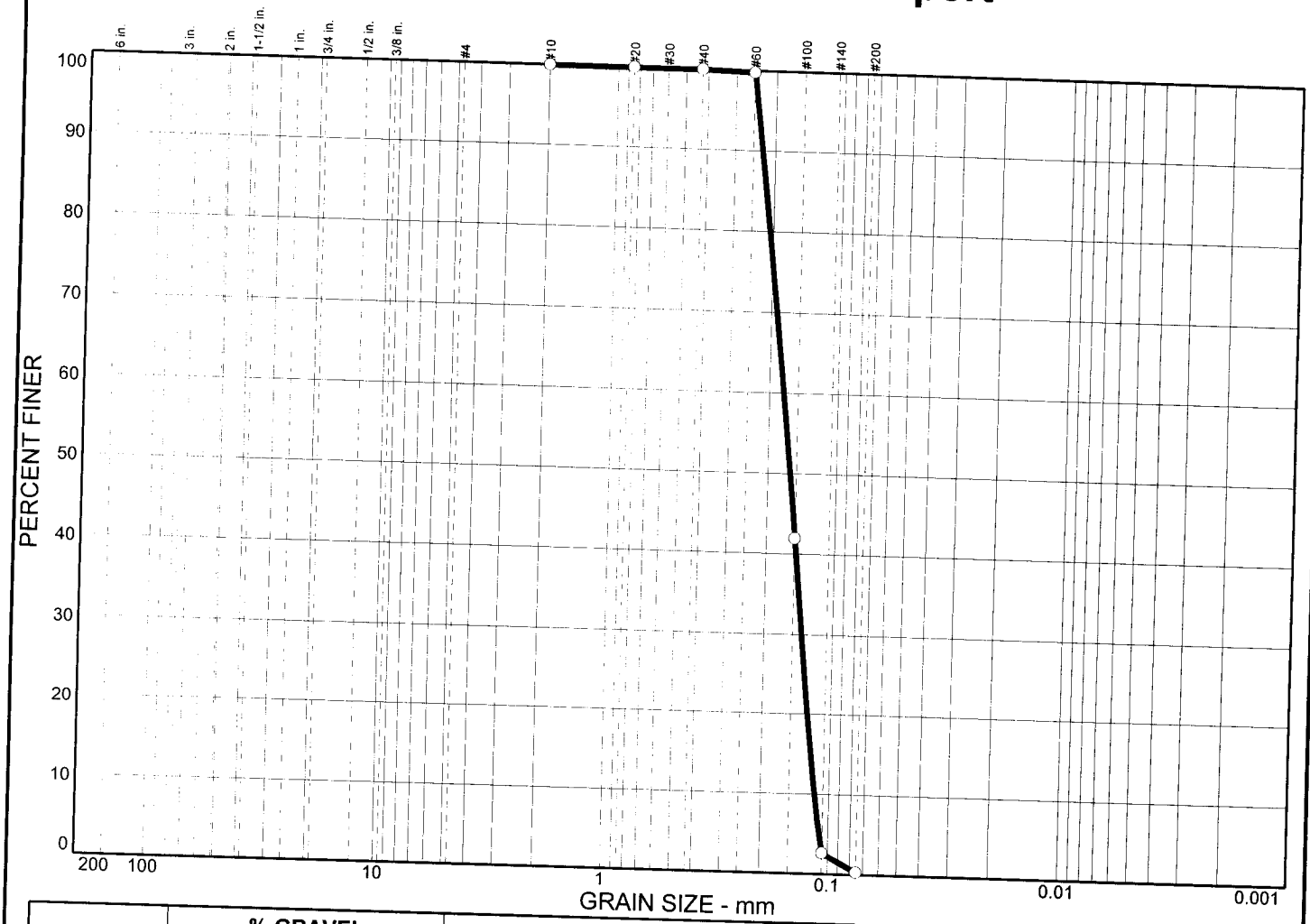
○ **Location:** 232+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
○ Sample GB-600
Moisture content = 25.3%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.0	99.7	0.3	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.199	0.169	0.158	0.139	0.124	0.118	0.96	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 232+64

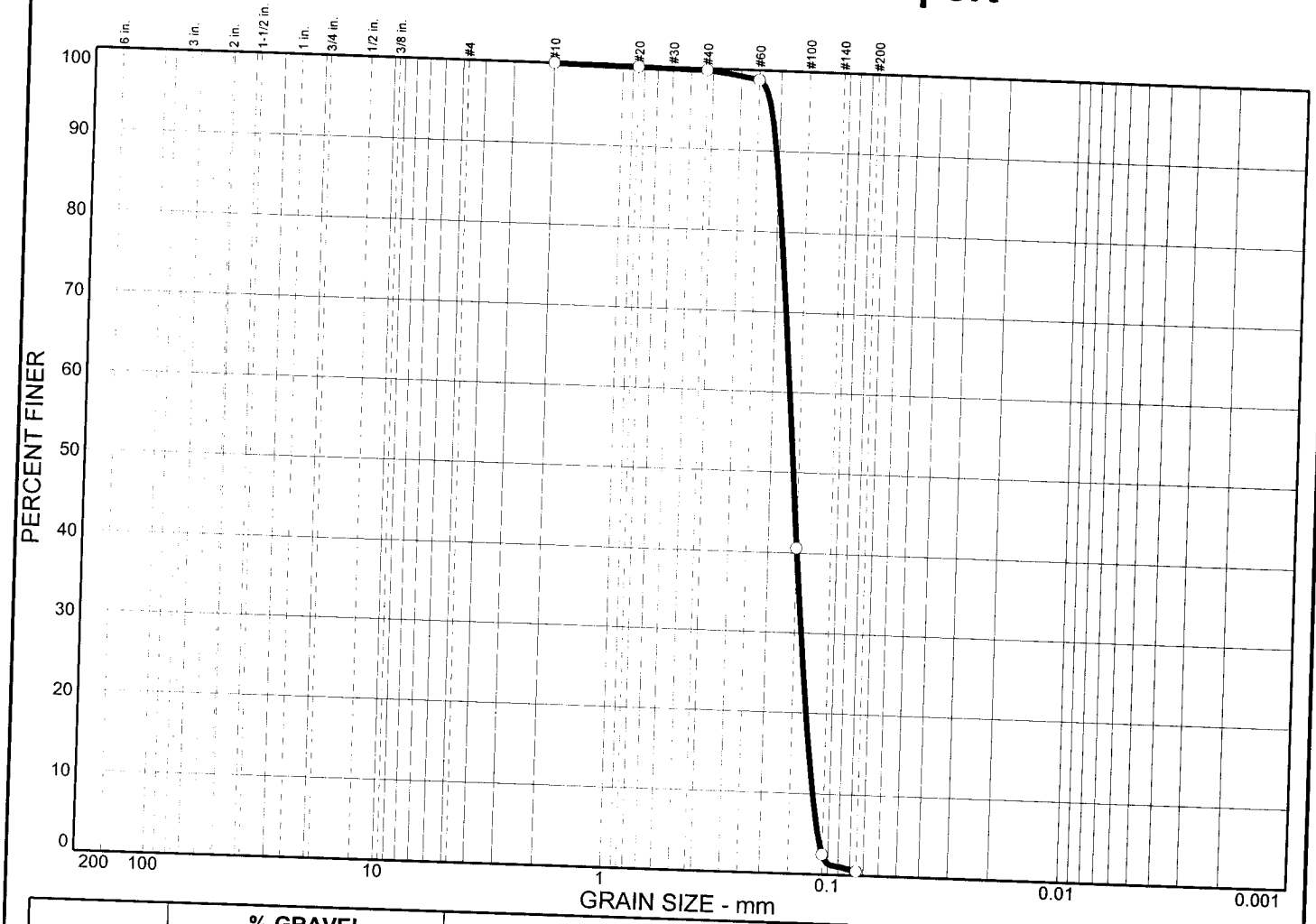
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

Sample HT-590
Moisture content = 26.0%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.2	99.3	0.5	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.198	0.168	0.159	0.140	0.125	0.119	0.98	1.41

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 232+64

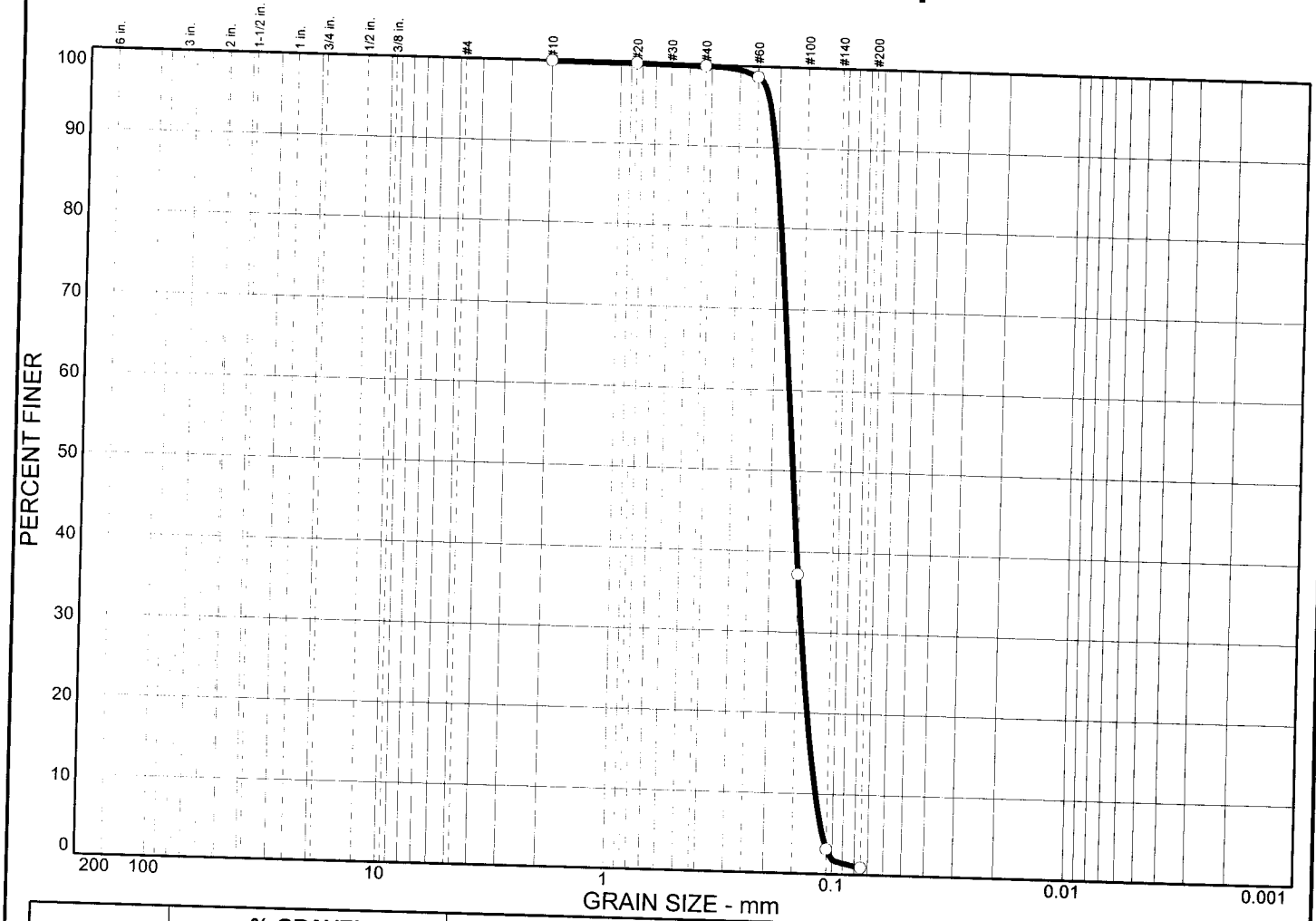
EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:

Sample DT-350
Moisture content = 26.9%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, organic matter

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.0	0.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.199	0.171	0.162	0.143	0.127	0.120	1.00	1.42

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Location:** 232+64

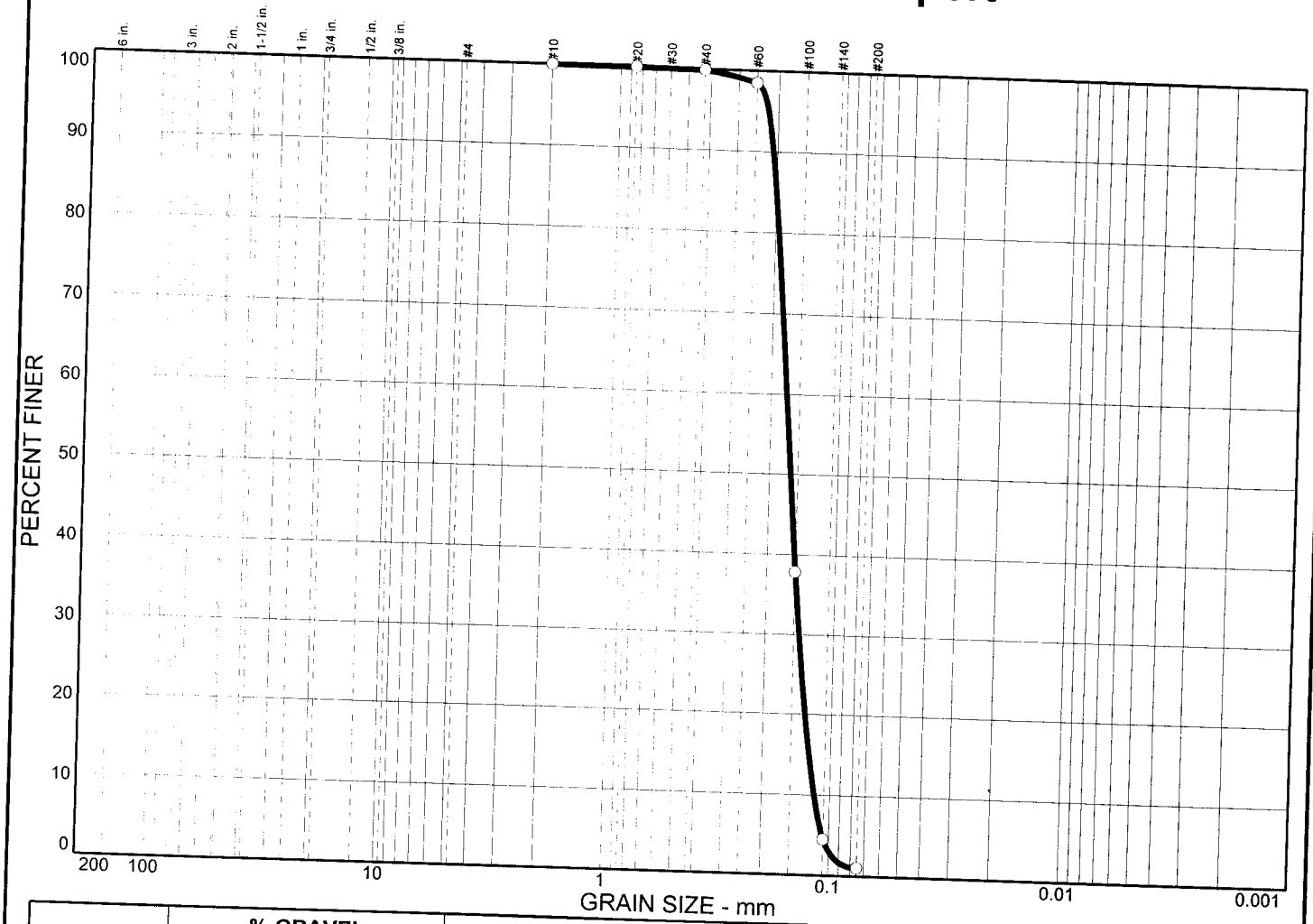
Remarks:

○ Sample Wadding-670
Moisture content = 29.4%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments, organic matter

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Figure

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.0	0.1	98.9	1.0	

LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
		0.200	0.171	0.162	0.142	0.125	0.118	1.01	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

Location: 232+64

EUSTIS ENGINEERING COMPANY, INC.
METAIRIE, LA

Remarks:
Sample LT-640
Moisture content = 27.9%
Estimated Wentworth Classification:
Tan fine to very fine sand with shell fragments

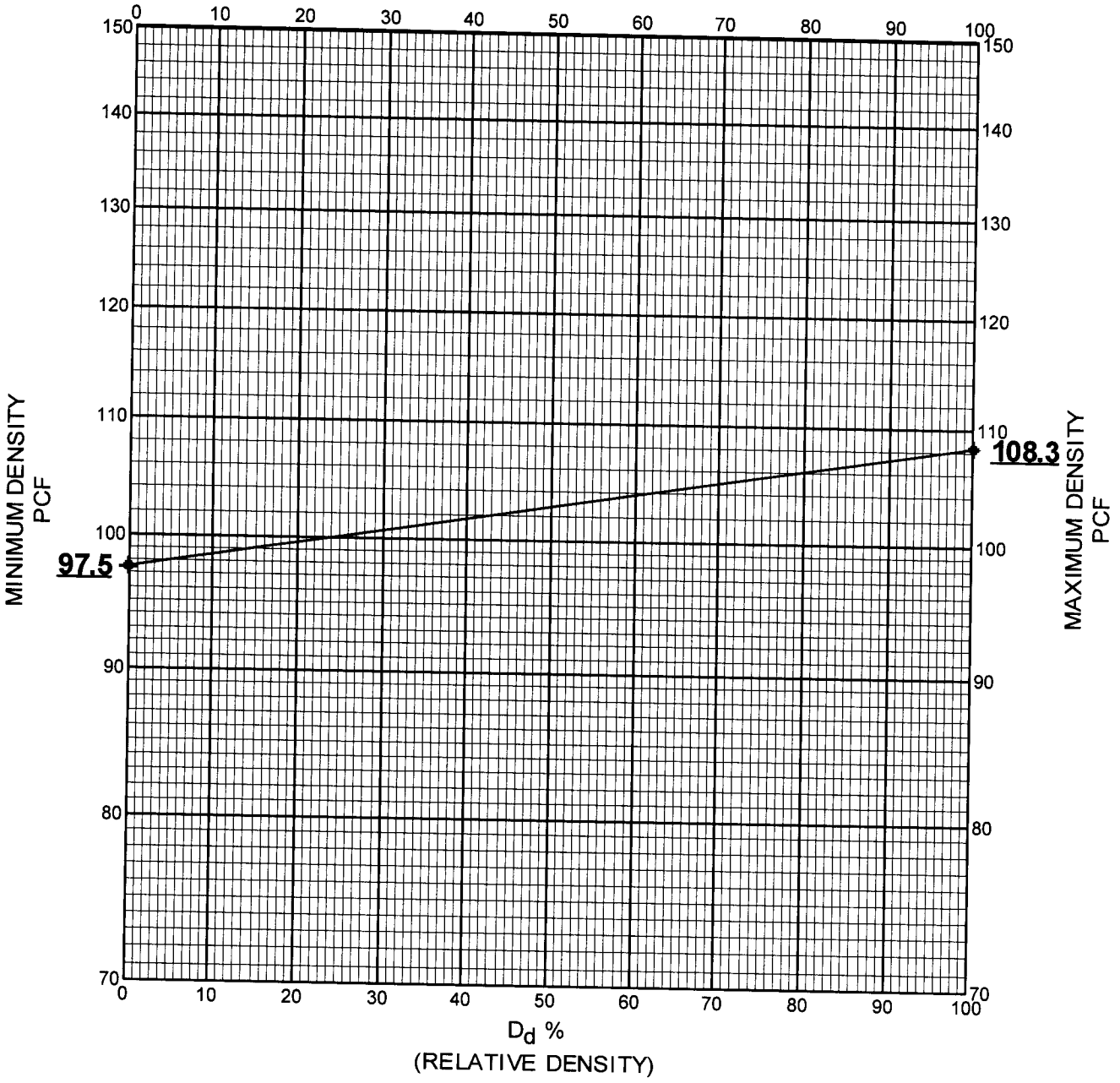
Figure

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DC-300, 232+64	Tan fine sand with shell fragments, roots	97.5 pcf	108.3 pcf

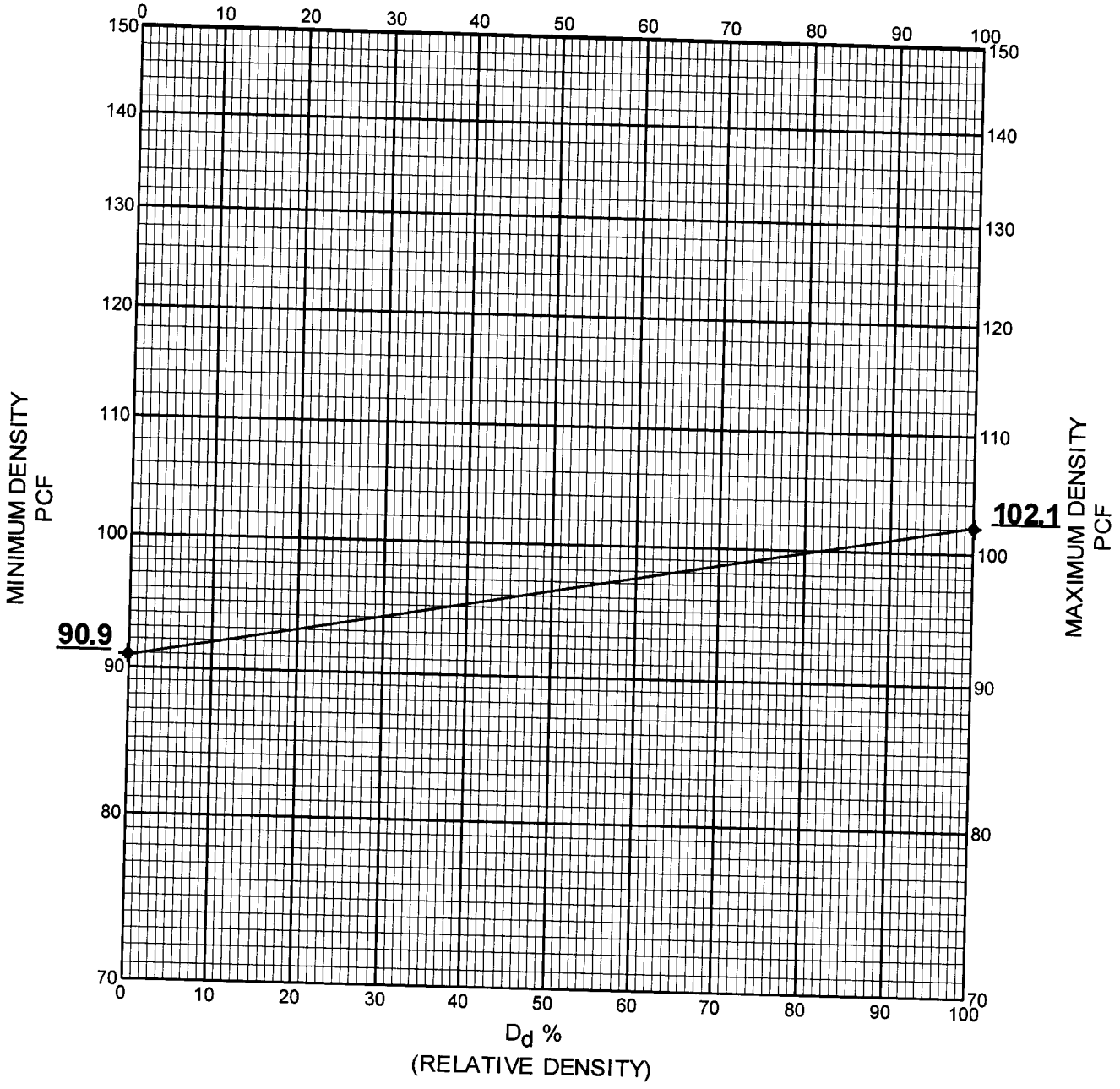
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
GB-600, 232+64	Tan fine sand with shell fragments	90.9 pcf	102.1 pcf

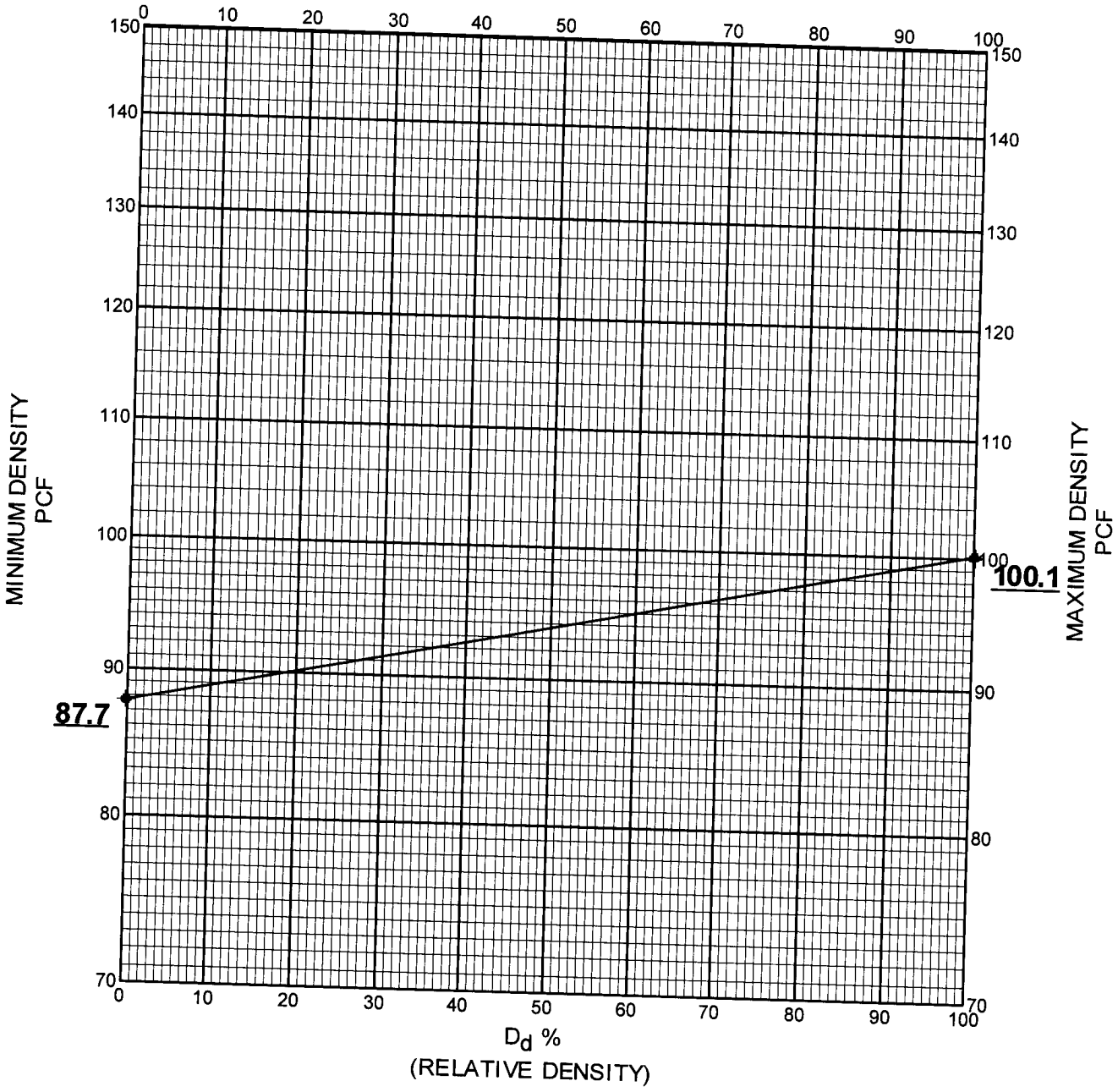
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DC-300, 250+64	Tan fine sand with shell fragments	87.7 pcf	100.1 pcf

EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

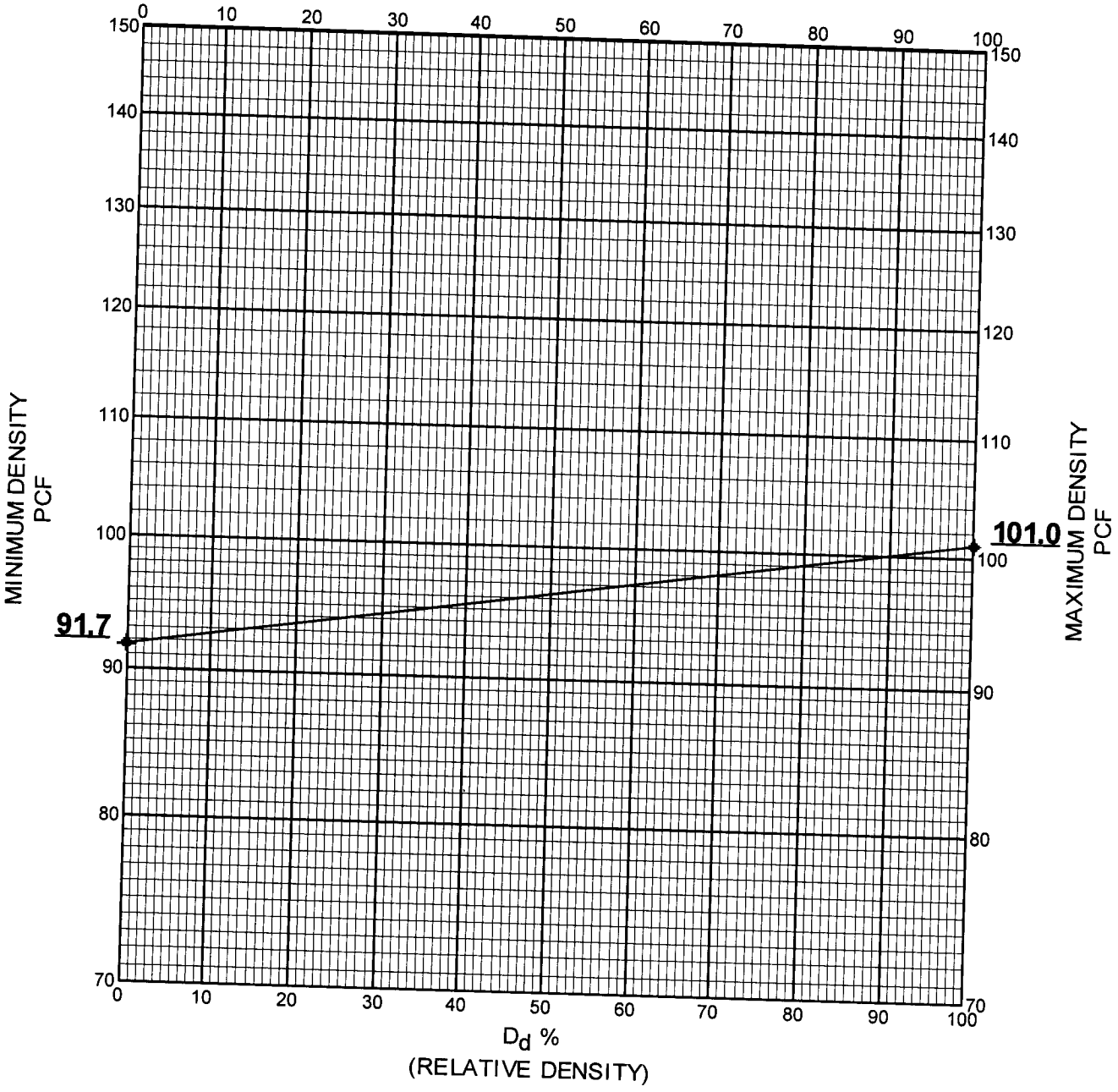
ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.

New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07

Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
GB-600, 250+64	Tan fine sand with shell fragments, roots	91.7 pcf	101.0 pcf

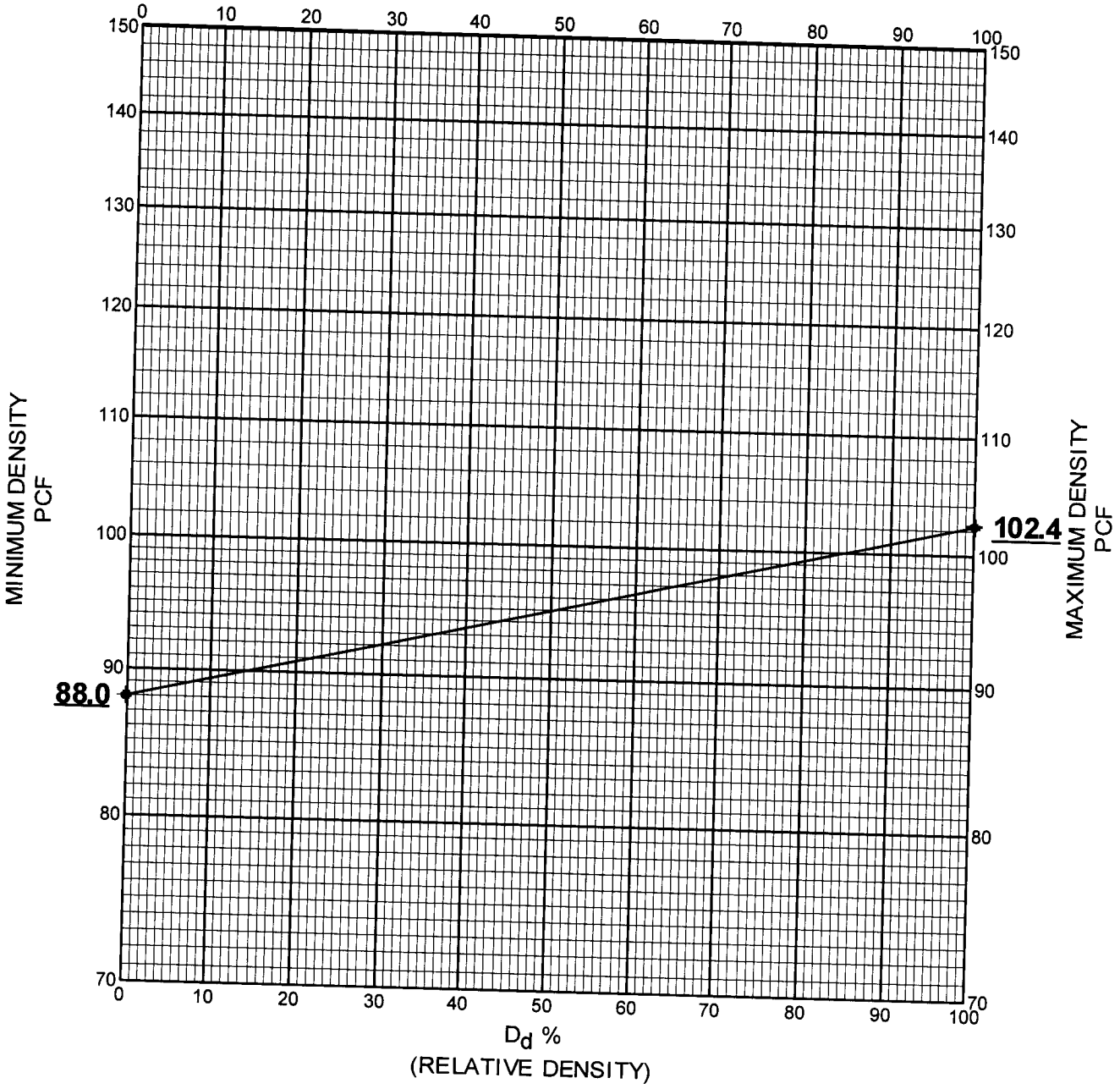
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DC-400, 268+64	Black fine sand with shell fragments, organic matter	88.0 pcf	102.4 pcf

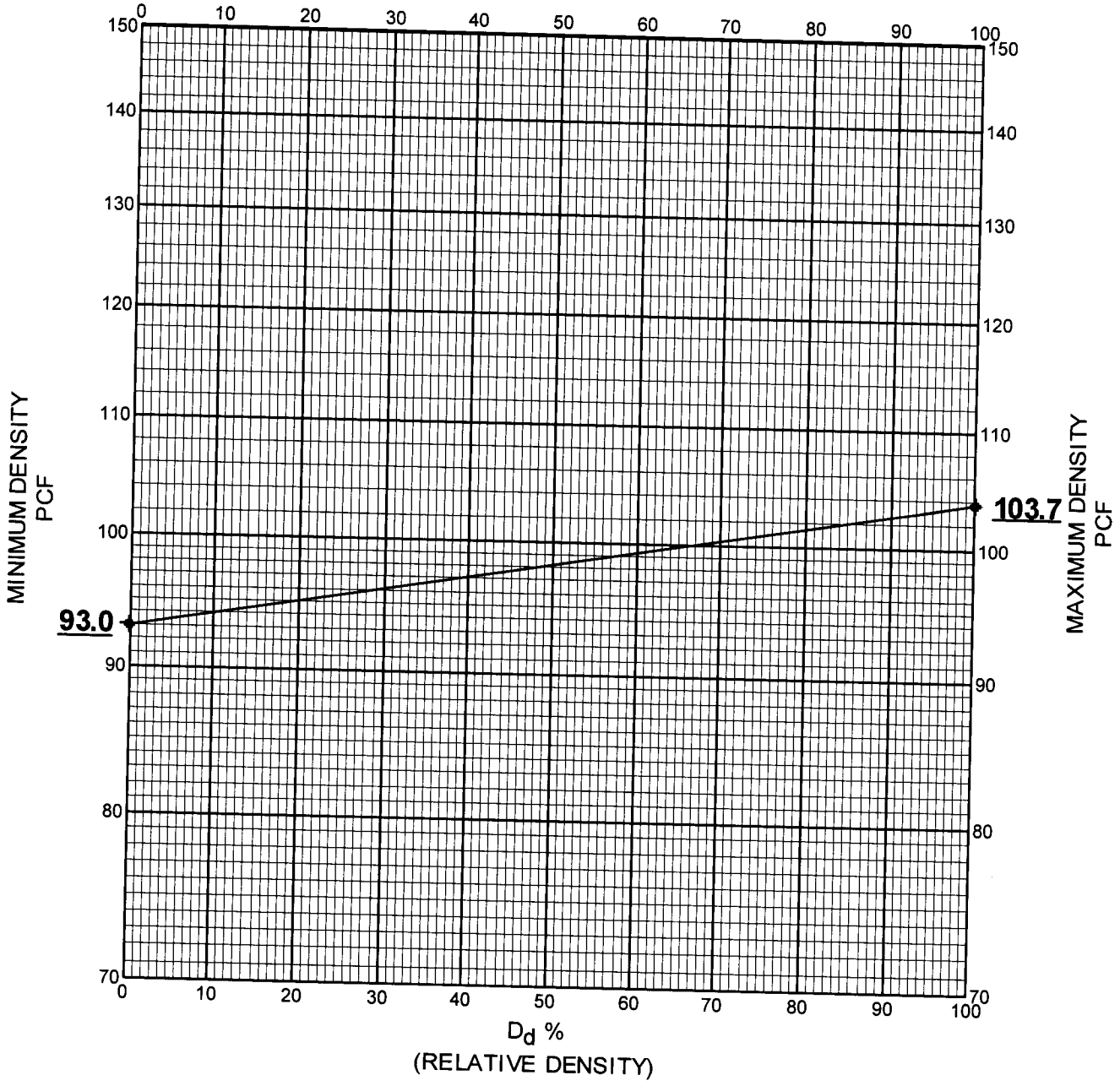
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
GB-600, 268+64	Tan fine sand with shell fragments, roots	93.0 pcf	103.7 pcf

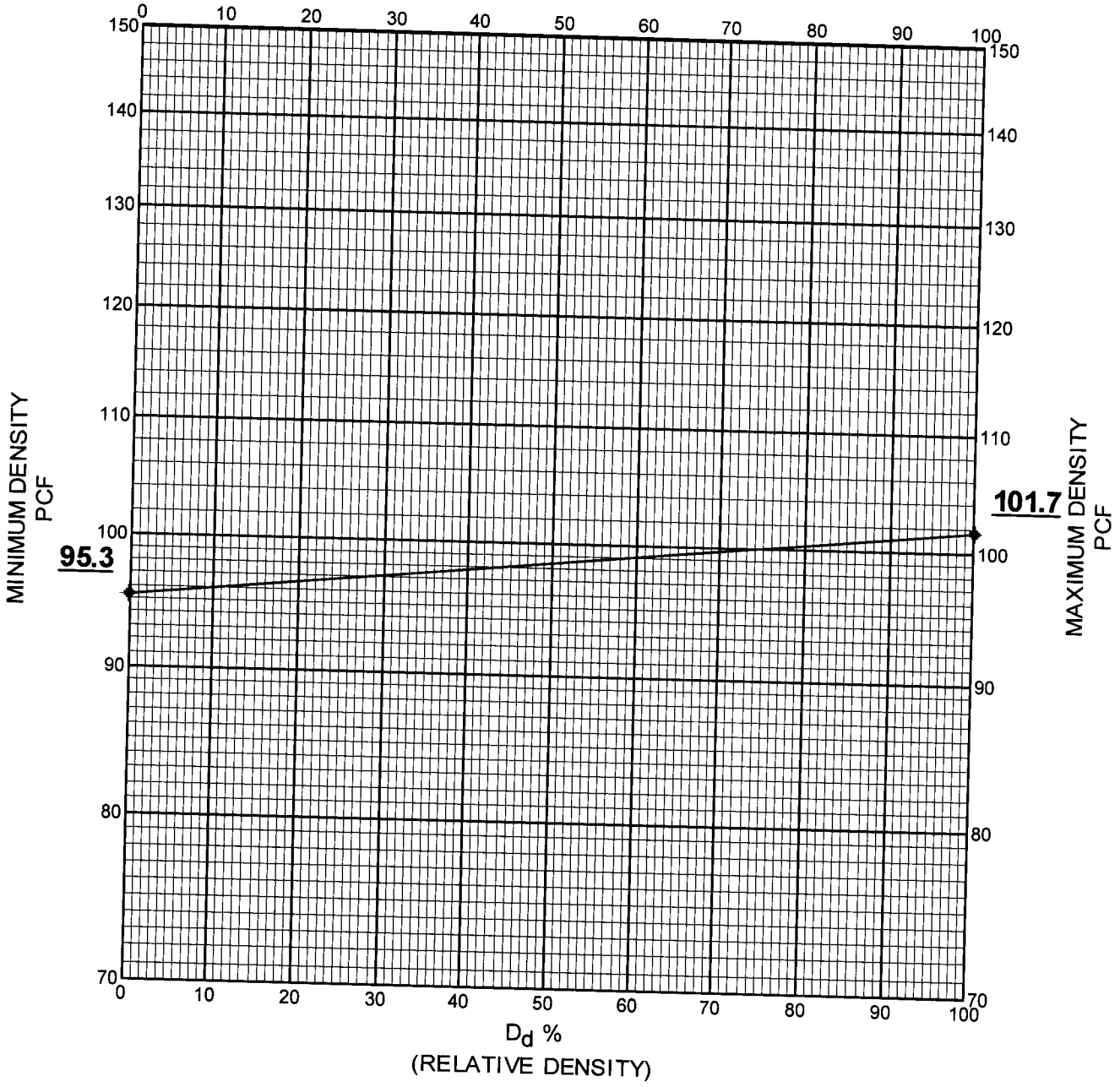
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DC-700, 286+64	Tan fine sand with shell fragments	95.3 pcf	101.7 pcf

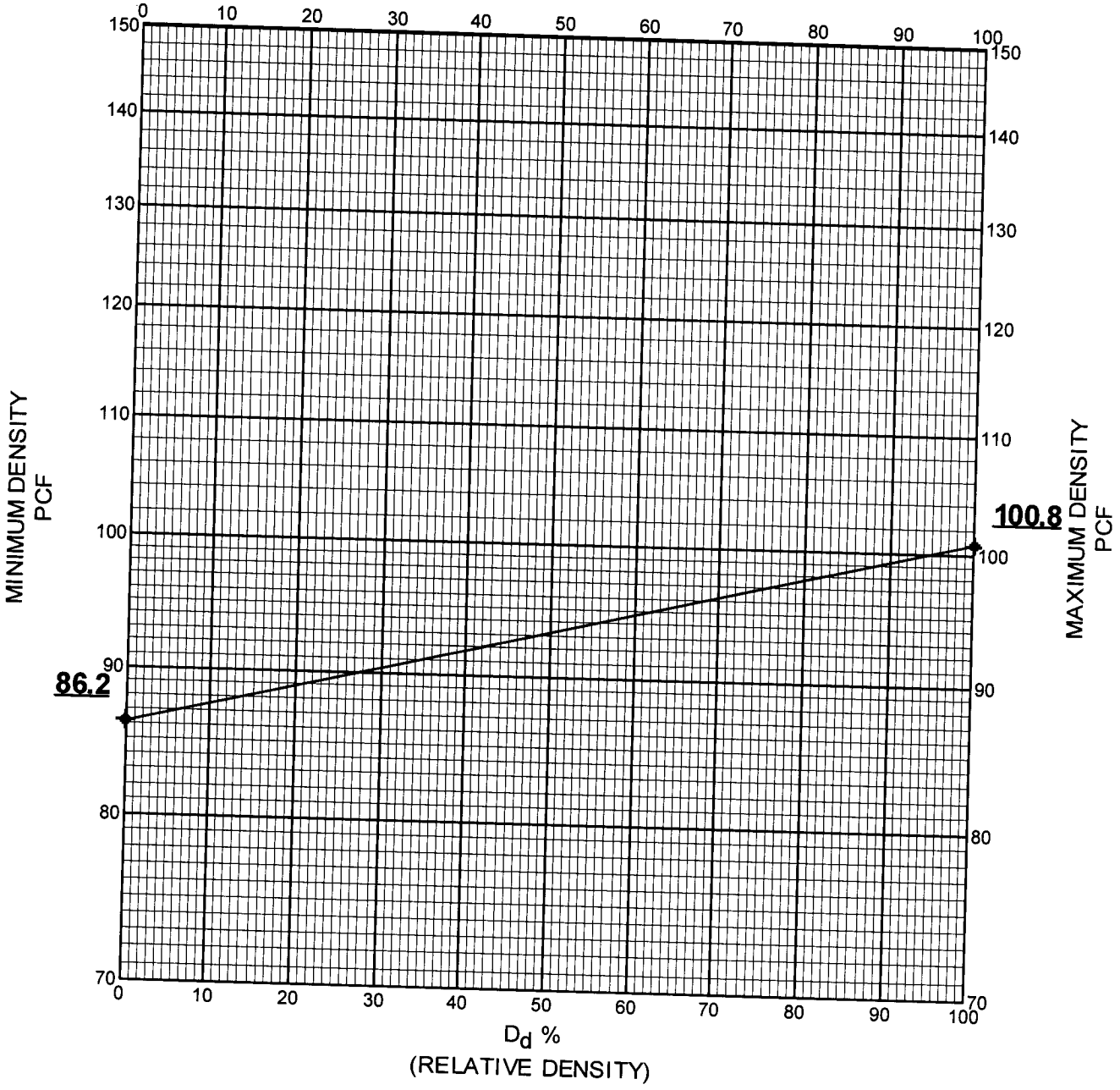
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
GB-1030, 286+64	Tan fine sand with shell fragments	86.2 pcf	100.8 pcf

EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

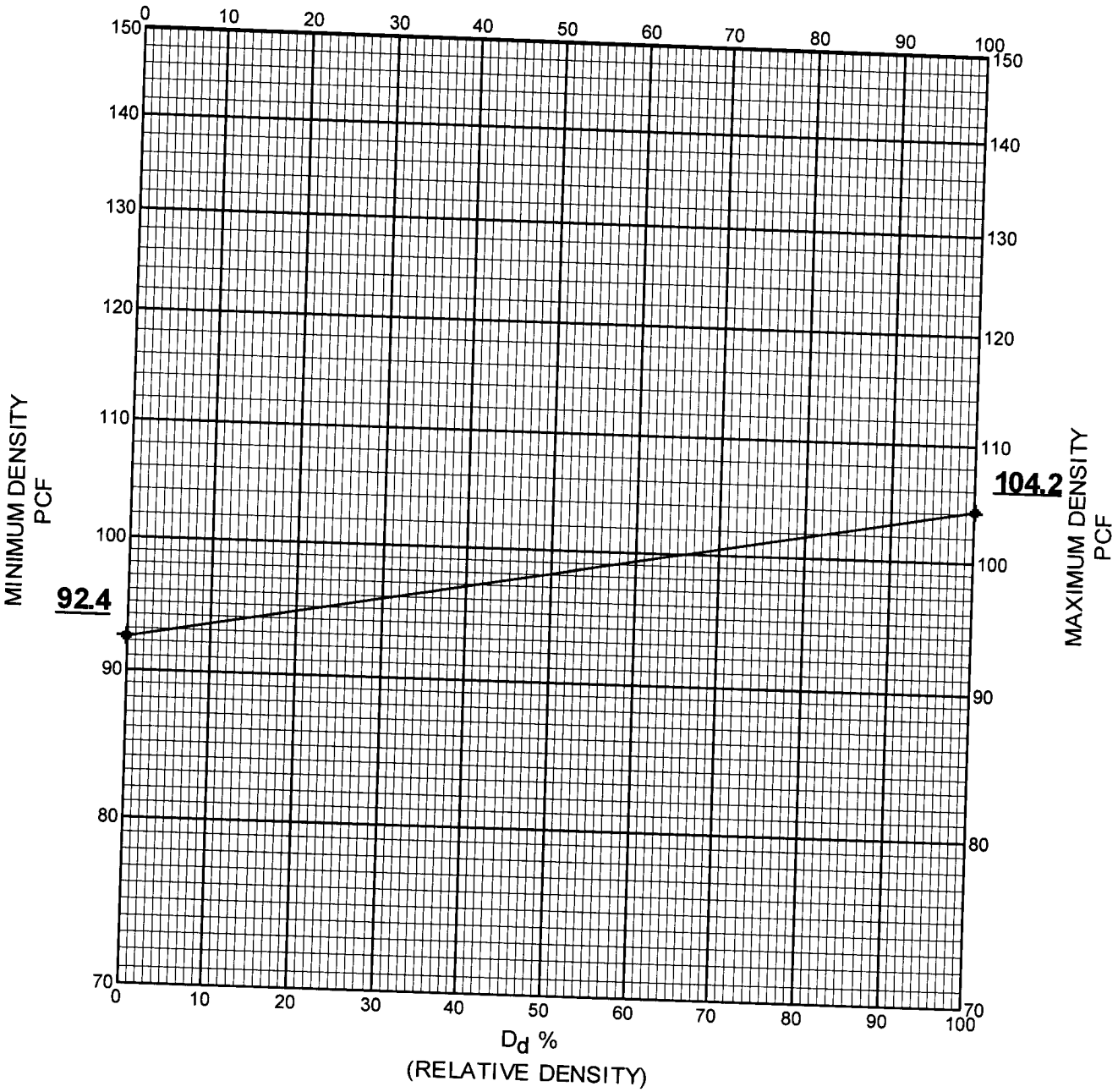
ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.

New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07

Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DC-500, 309+65	Tan fine sand with shell fragments	92.4 pcf	104.2 pcf

EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

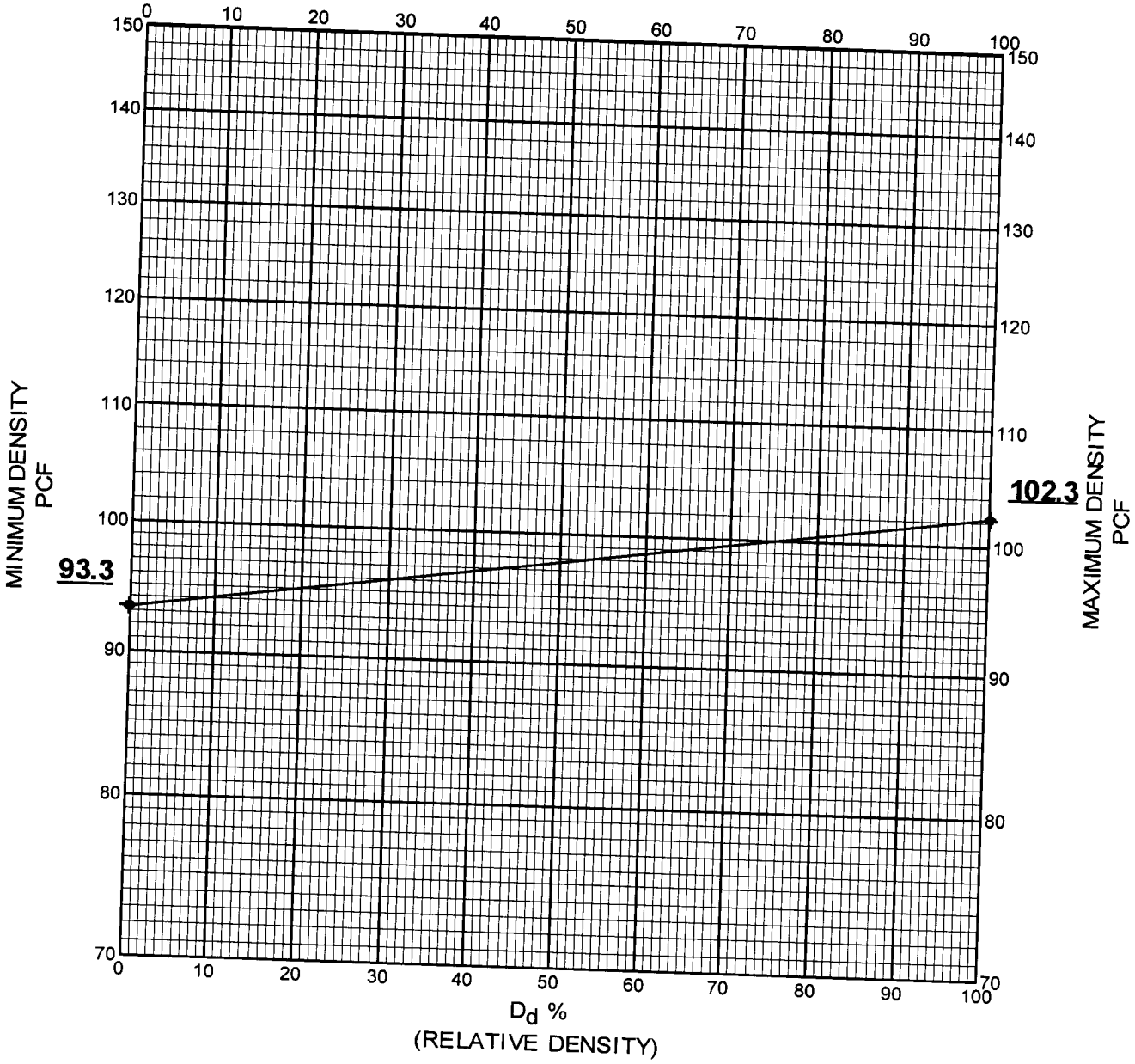
ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.

New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 1-3-07

Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
GB-900, 309+65	Tan fine sand with shell fragments	93.3 pcf	102.3 pcf

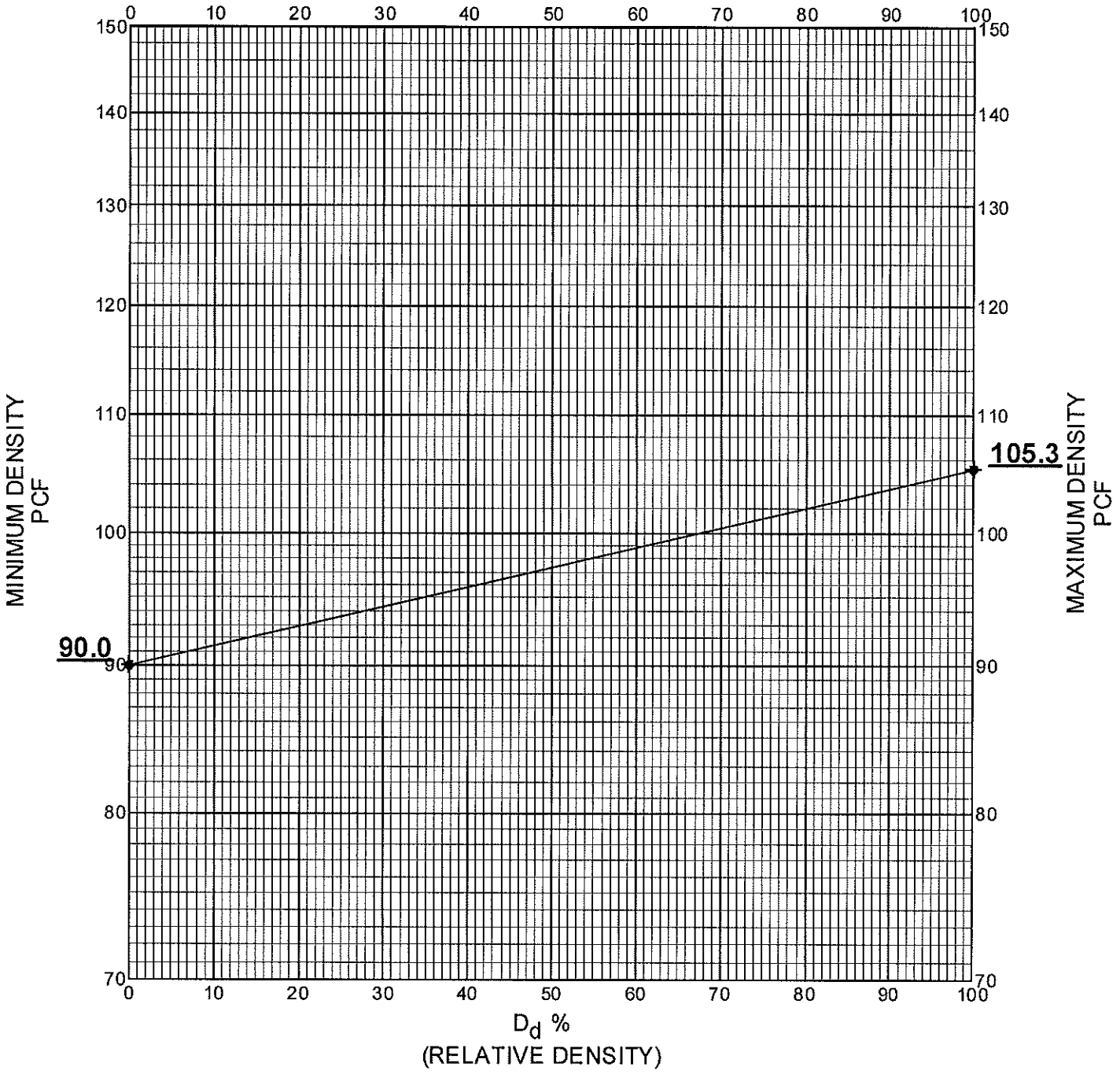
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Gulf Berm, 309+64	Light Gray Fine Sand with Organic Matter	90.0 pcf	105.3 pcf

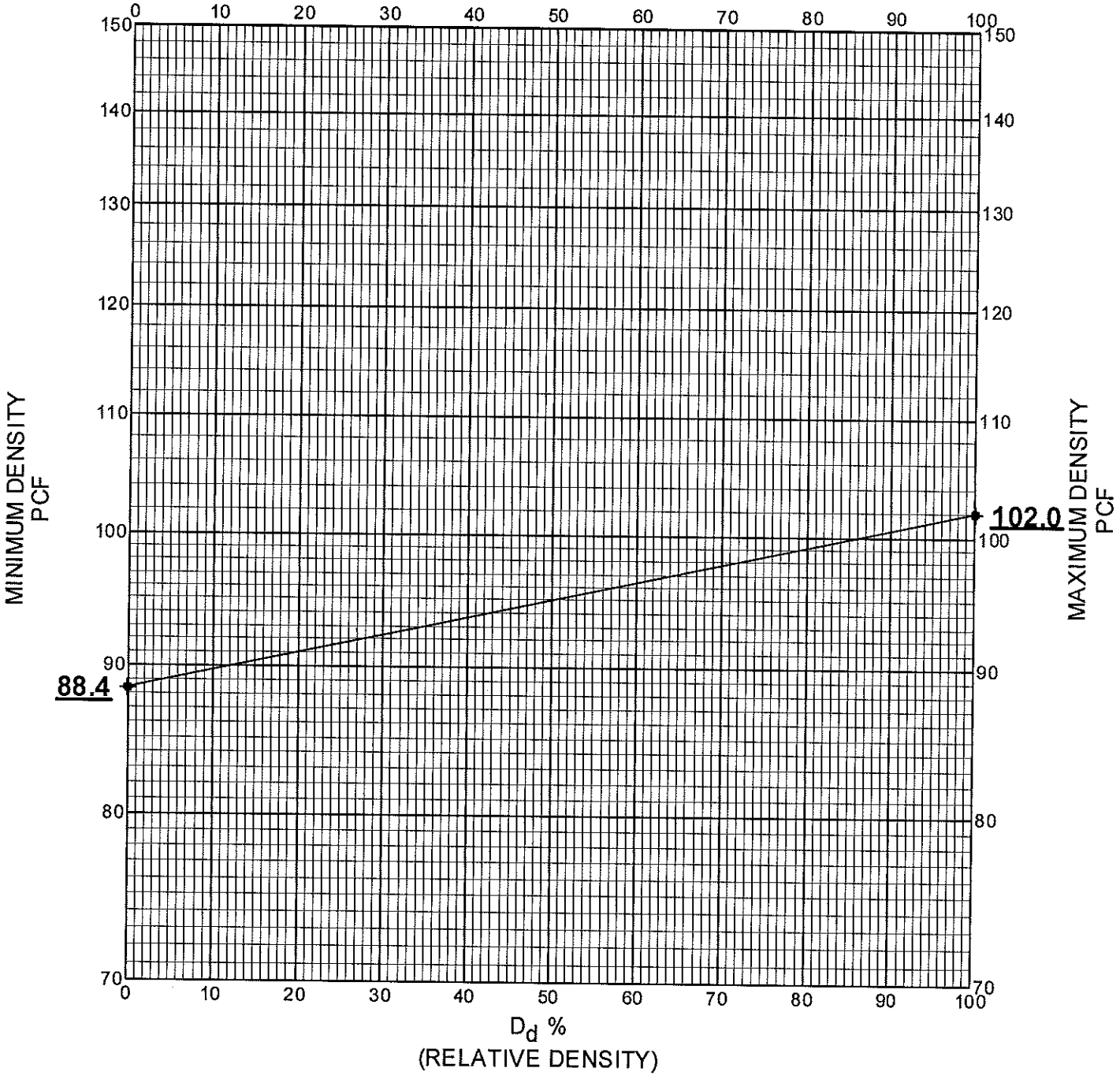
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Dune Crest, 309+64	Tan Fine Sand with Trace Silt, Roots	88.4 pcf	102.0 pcf

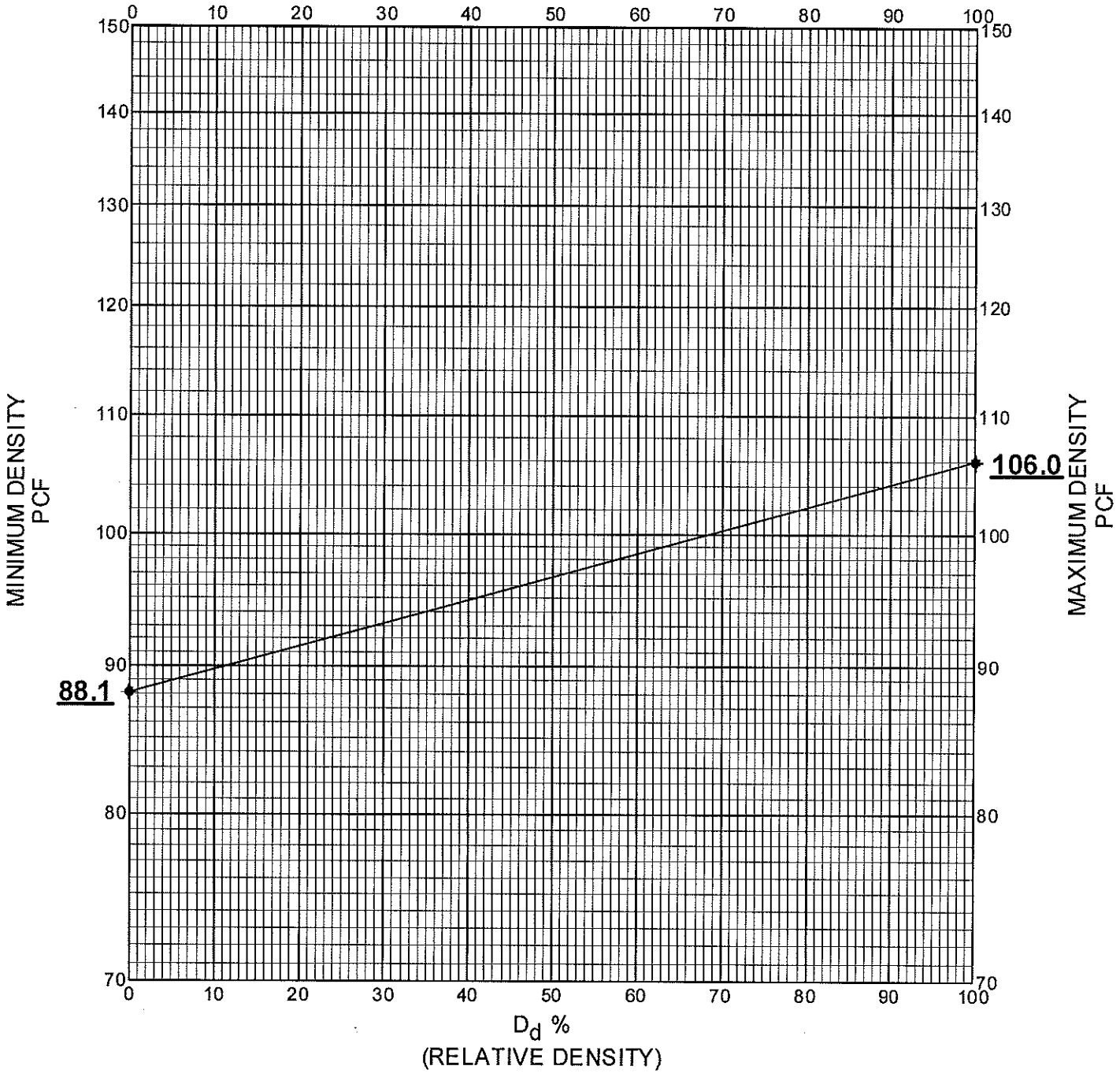
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Gulf Berm, 286+64	Tan Fine Sand with Trace Shell Fragments, Organic Matter	88.1 pcf	106.0 pcf

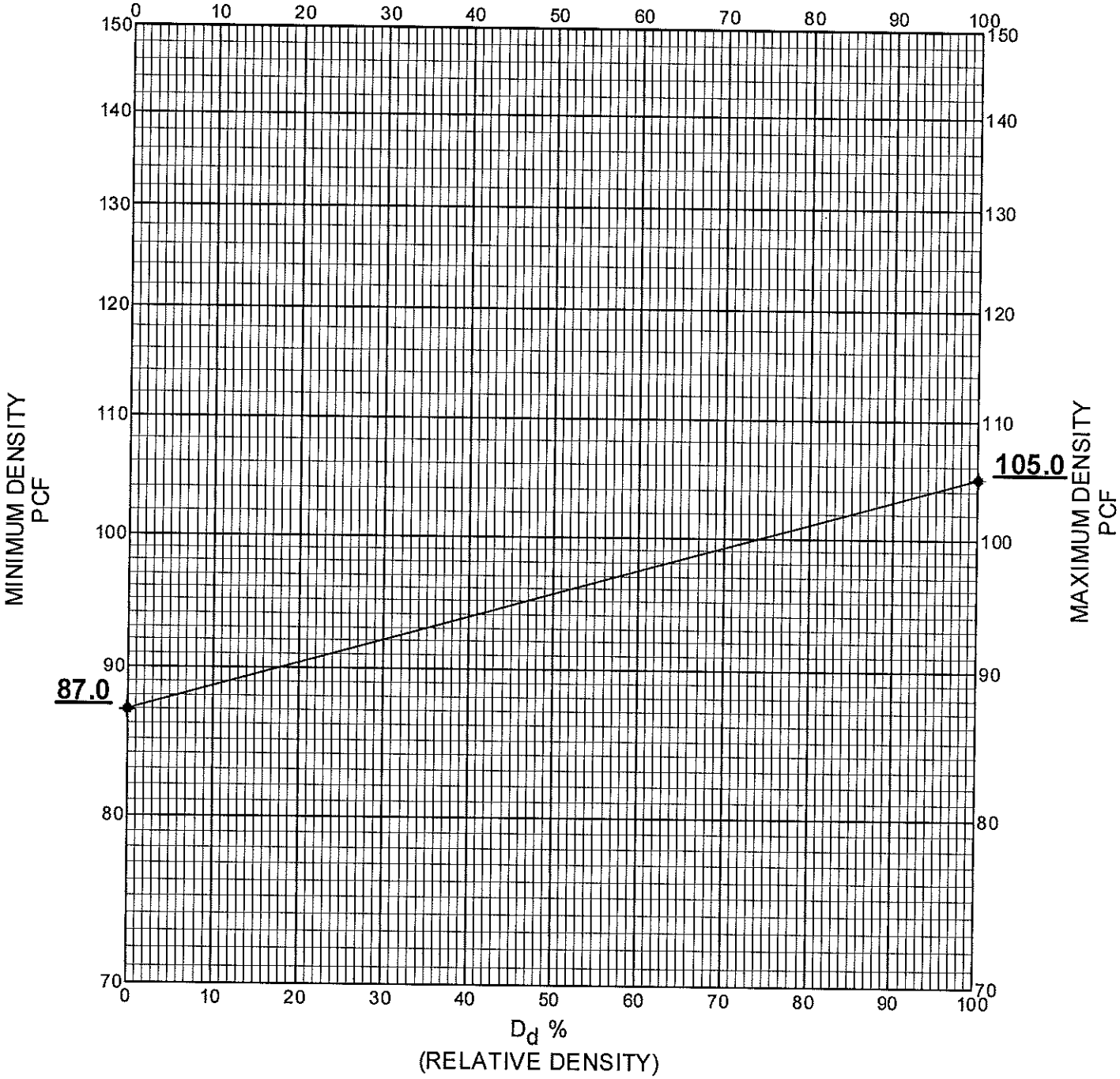
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Dune Crest, 286+64	Tan Fine Sand with Trace Silt, Shell Fragments, Roots	87.0 pcf	105.0 pcf

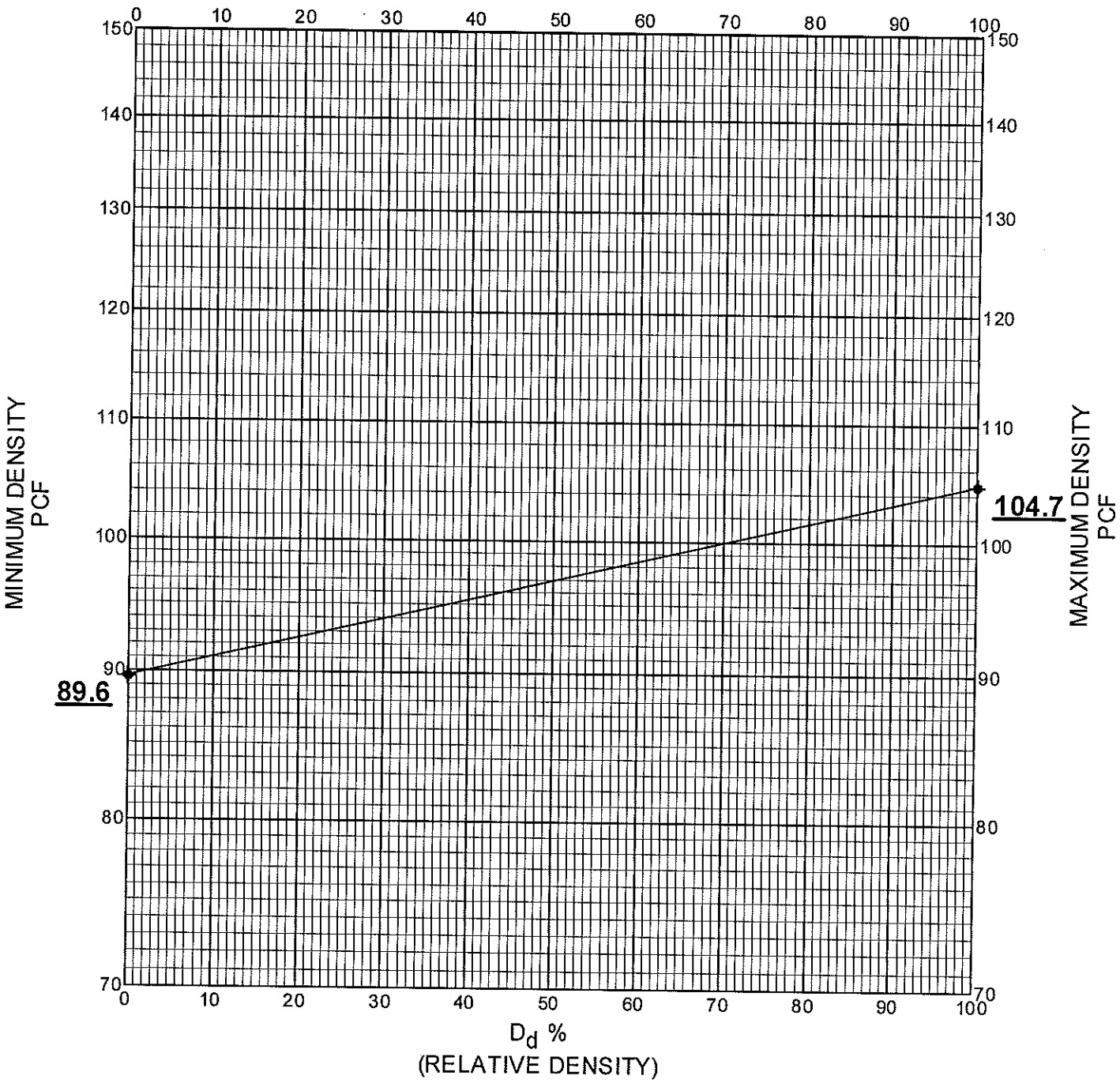
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Gulf Berm, 268+64	Tan Fine Sand	89.6 pcf	104.7 pcf

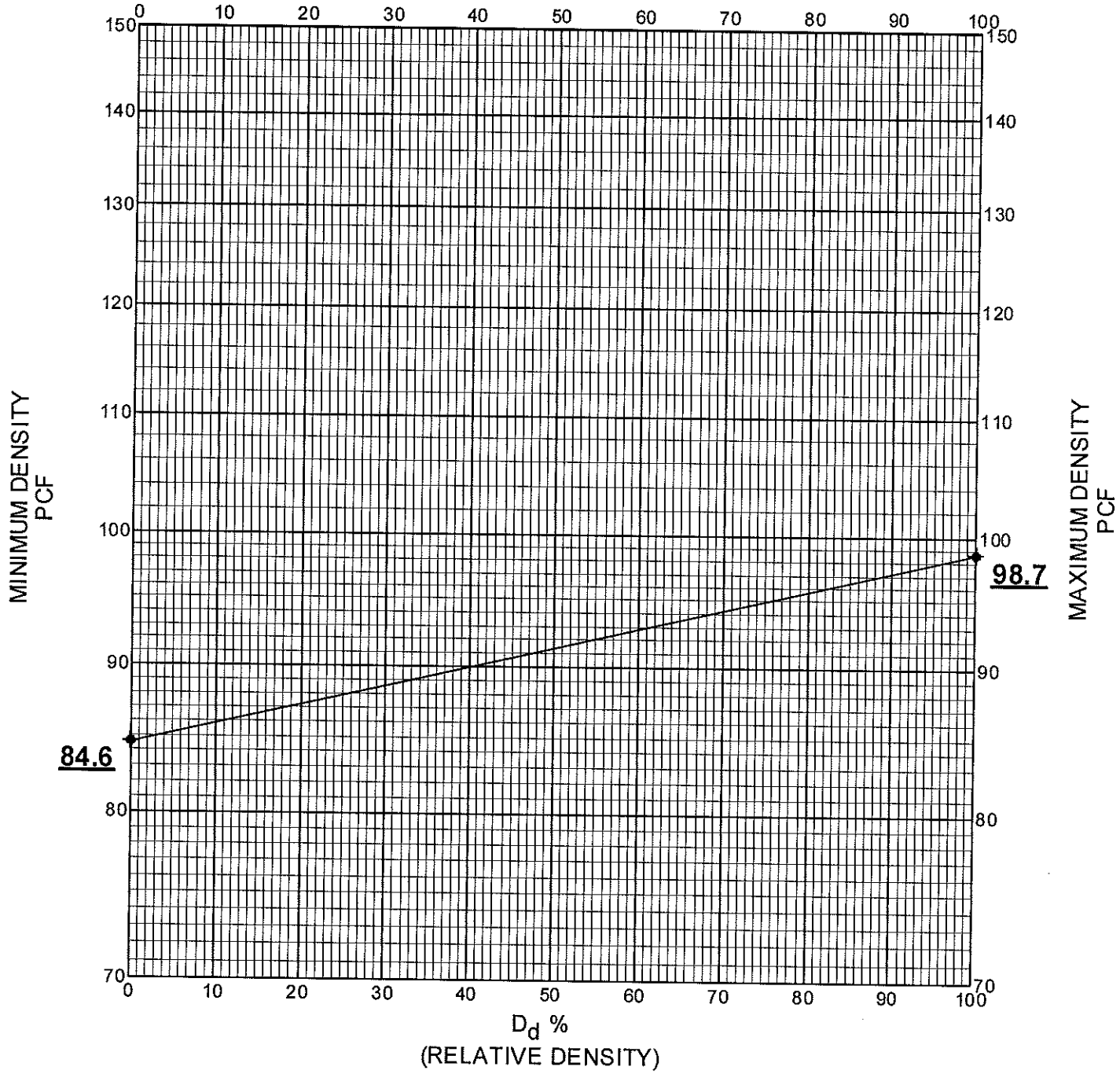
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
DuneCrest, 268+64	Tan Fine Sand with Silt, Trace Shell Fragments	84.6 pcf	98.7 pcf

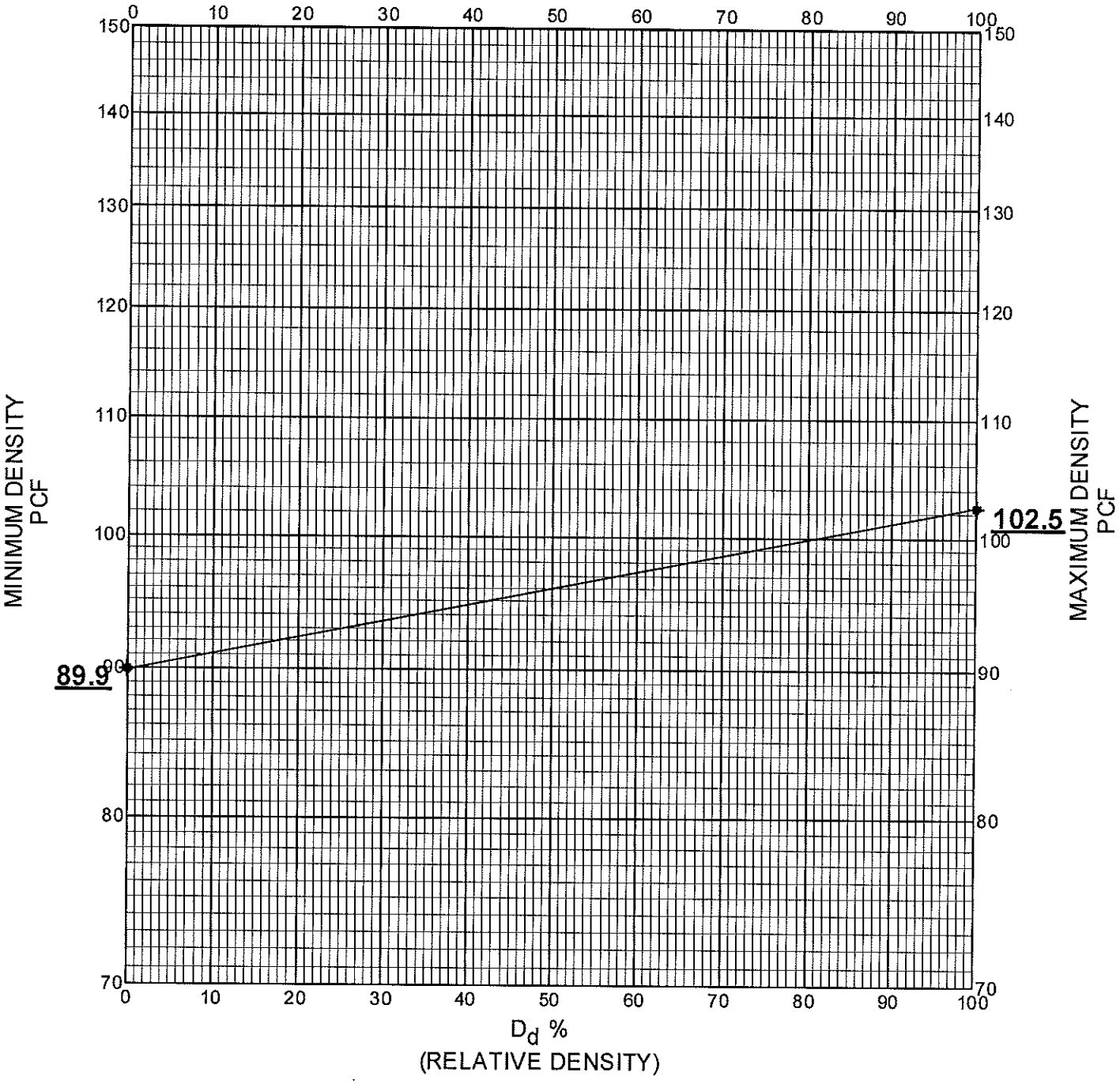
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Gulf Berm, 250+64	Gray Fine Sand with Trace Silt, Shell Fragments	89.9 pcf	102.5 pcf

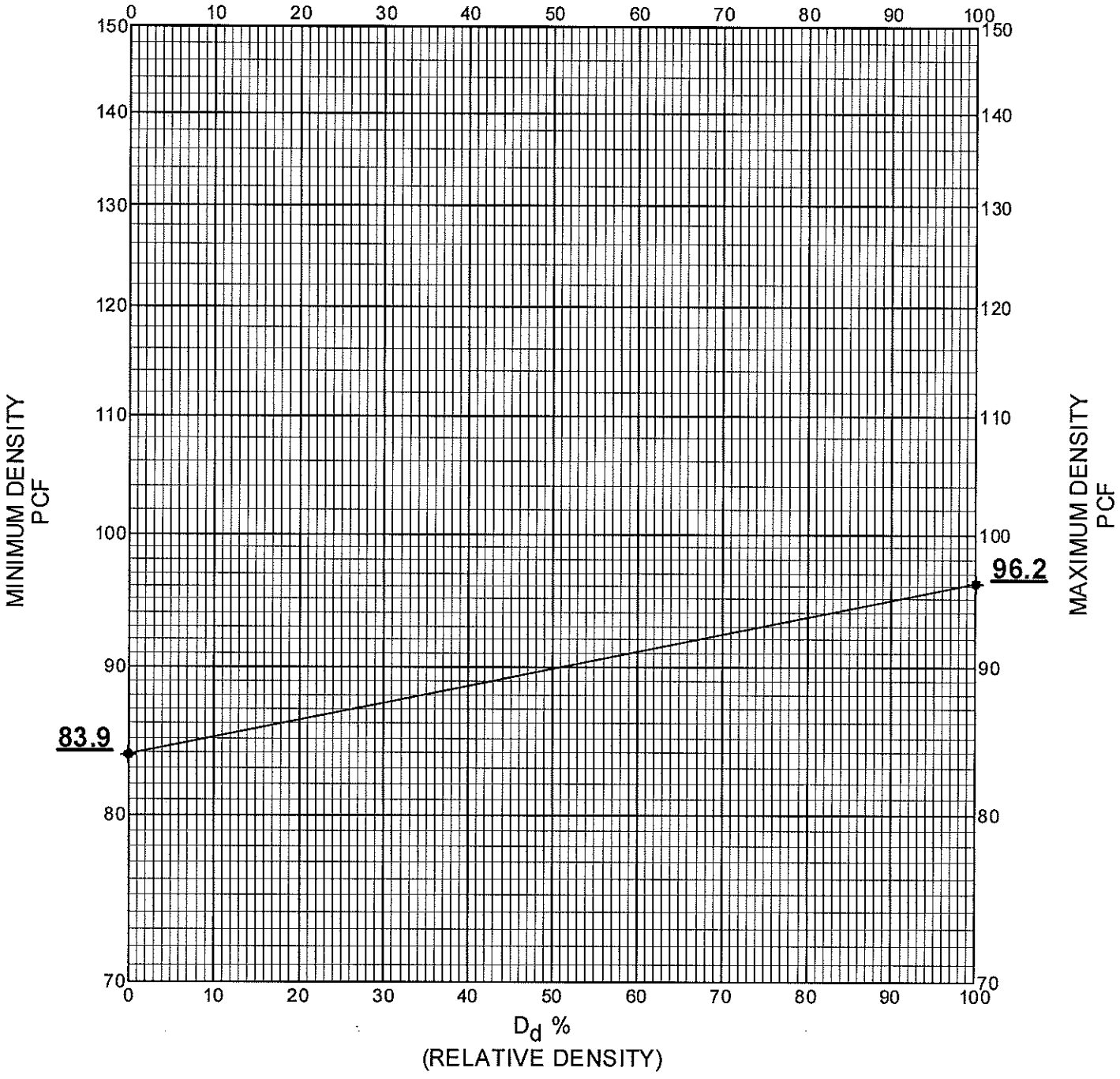
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Dune Crest, 250+64	Light Gray Fine Sand with Silt, Trace Shell Fragments	83.9 pcf	96.2 pcf

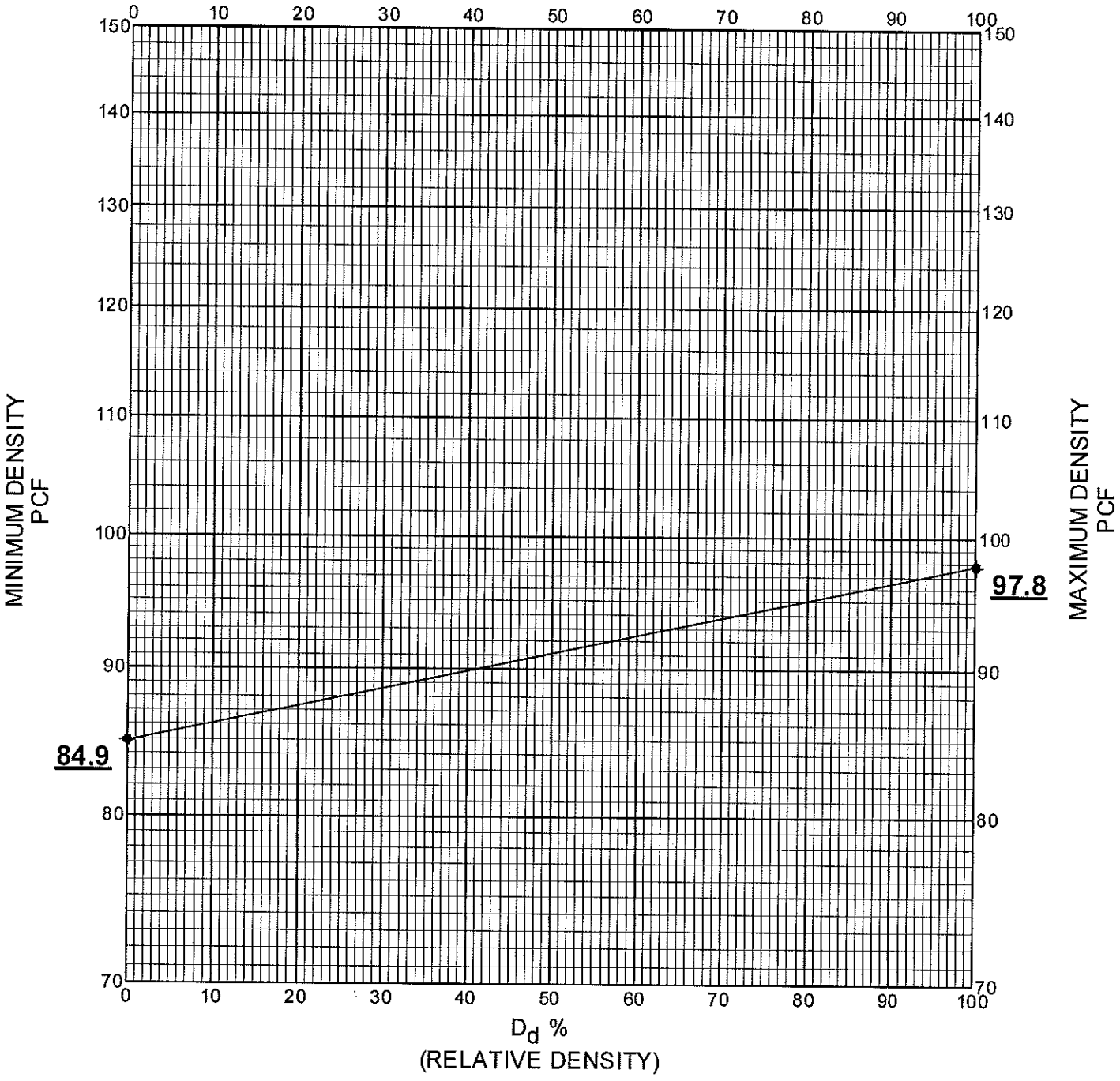
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Gulf Berm, 232+64	Gray Fine Sand with Silt	84.9 pcf	97.8 pcf

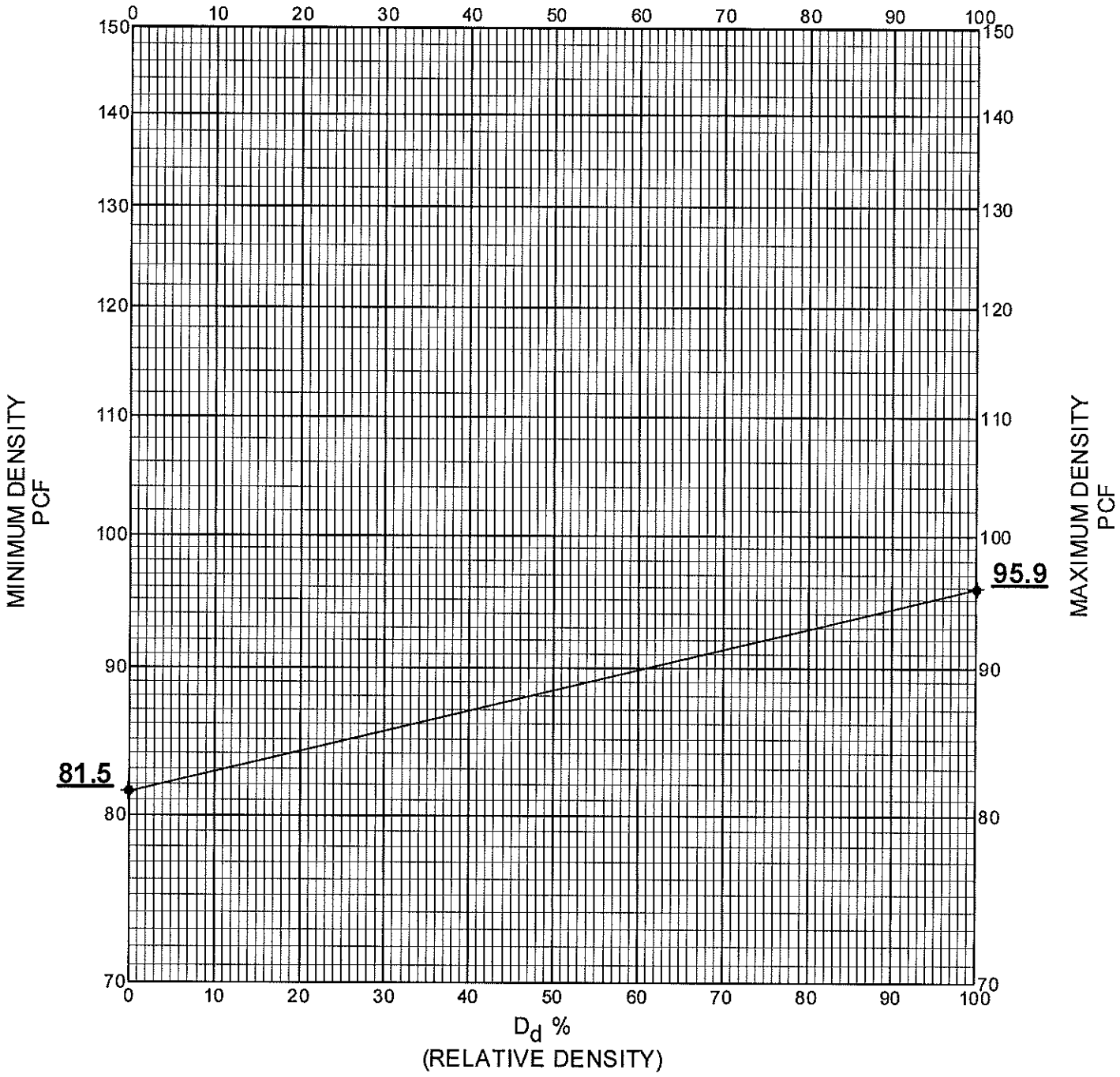
EUSTIS ENGINEERING COMPANY, INC.

RELATIVE DENSITY

ASTM D4253 & D4254

Client / Project: Weeks Marine, Inc.
New Cut Dune/Marsh Restoration (TE-37), Terrebonne Parish, La

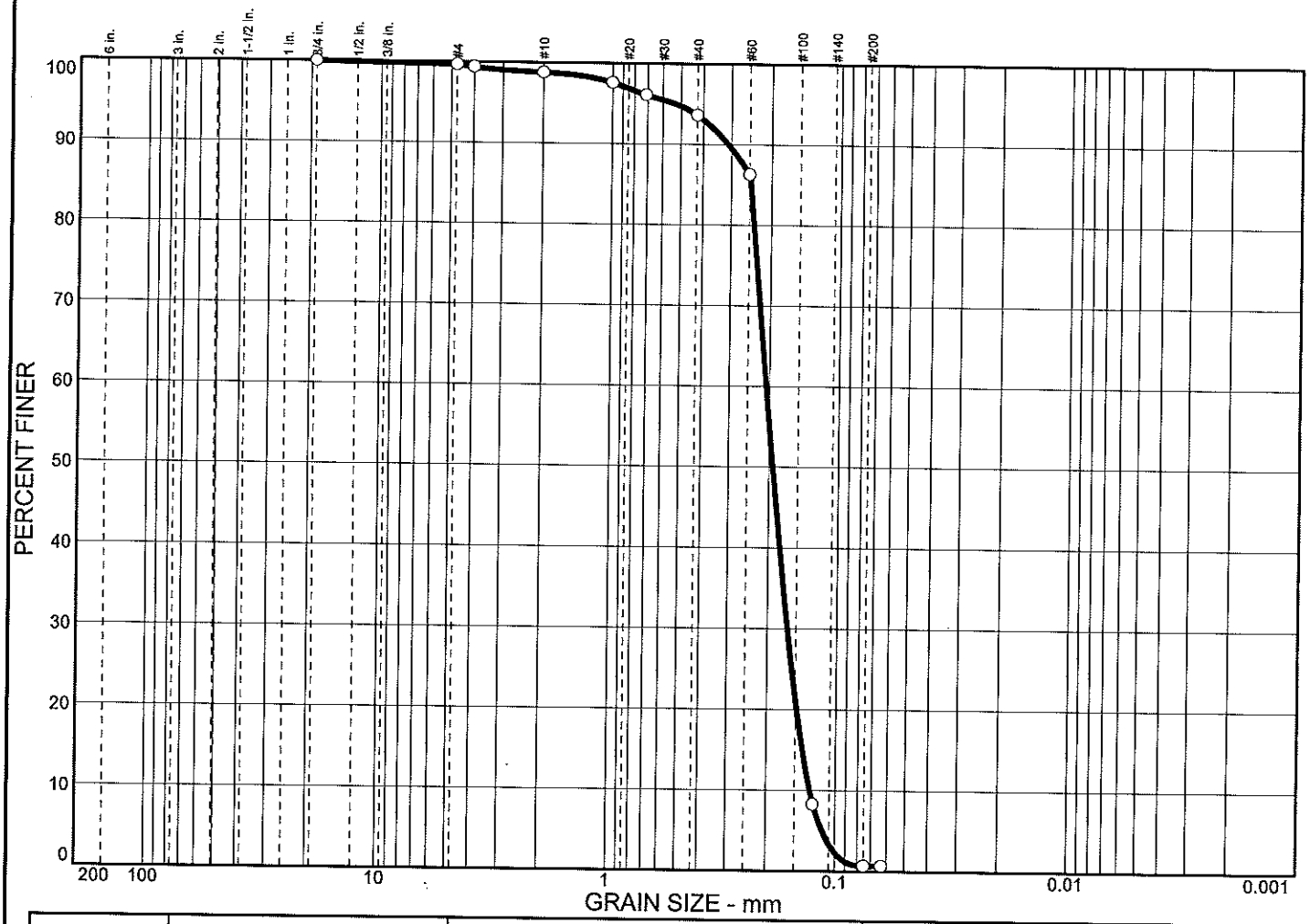
Date: 7-12-07
Job No. 19598



SAMPLE	CLASSIFICATION ASTM D2487 / D2488	MINIMUM DENSITY	MAXIMUM DENSITY
Dune Crest, 232+64	Light Gray Silty Sand	81.5 pcf	95.9 pcf

EUSTIS ENGINEERING COMPANY, INC.

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.3	0.9	5.2	92.9	0.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.248	0.208	0.193	0.164	0.140	0.129	1.00	1.61

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

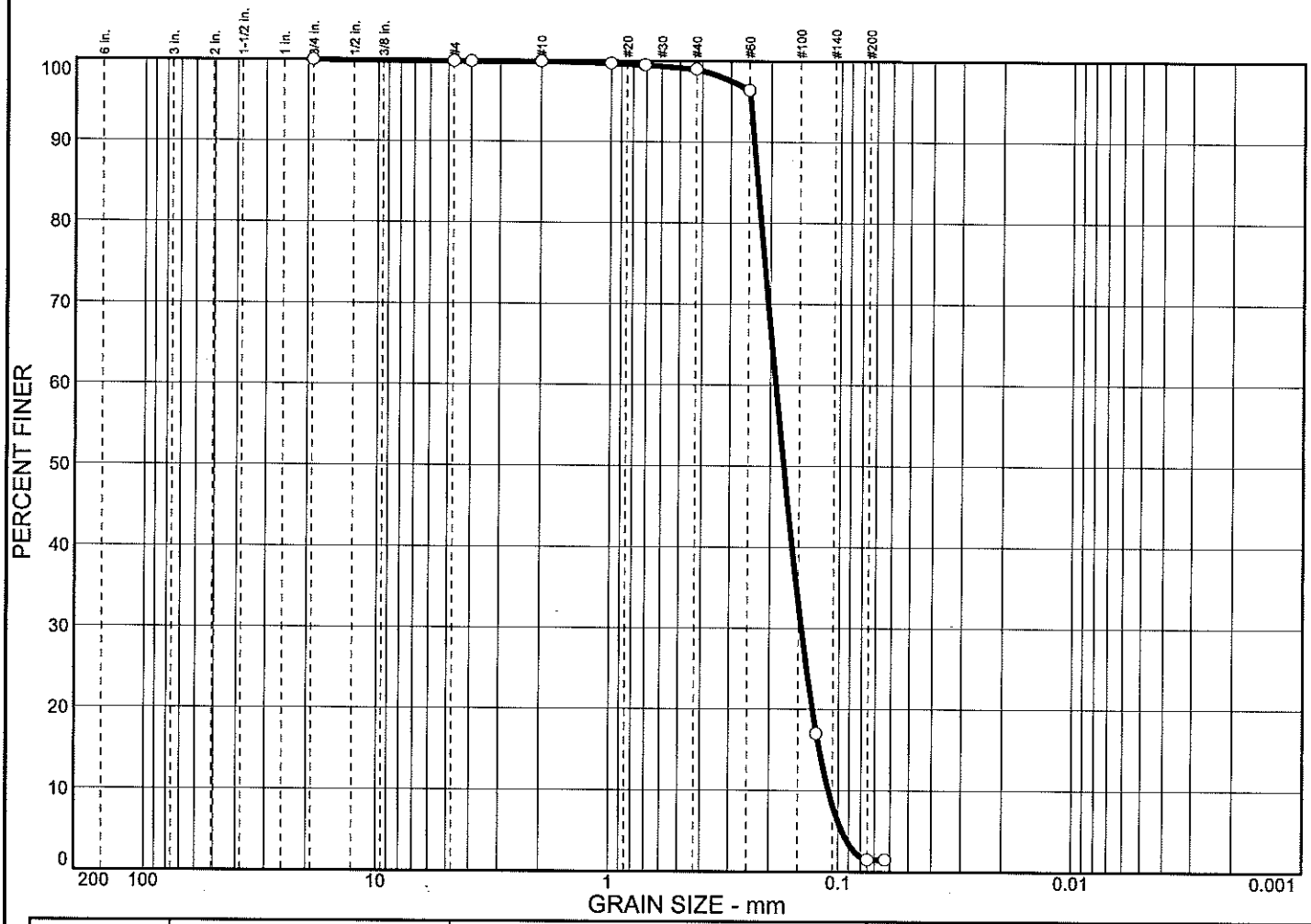
○ **Source:** Station 309+64 **Sample No.:** MEAN HIGH WATER

Remarks:
○ Sample Mean High Water
Moisture content = 22.8%
Wentworth Classification:
Gray fine to very fine sand with shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.1	0.0	0.9	97.5	1.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.230	0.190	0.175	0.146	0.121	0.111	1.01	1.72

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

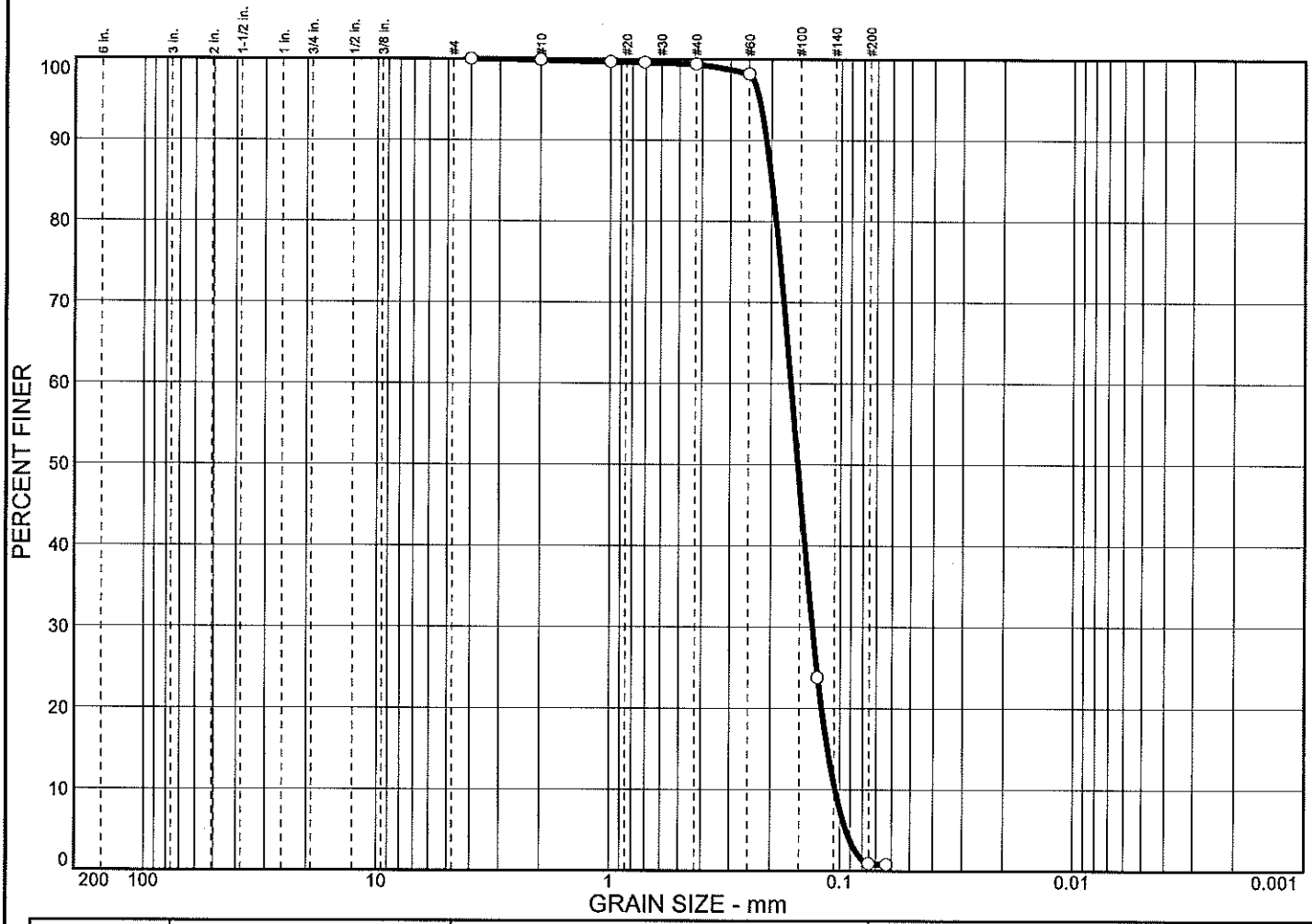
○ **Source:** Station 309+64 **Sample No.:** MEAN LOW WATER

Remarks:
○ Sample Mean Low Water
Water content = 20.5%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.1	0.5	98.5	0.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.200	0.165	0.153	0.132	0.113	0.105	1.01	1.57

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

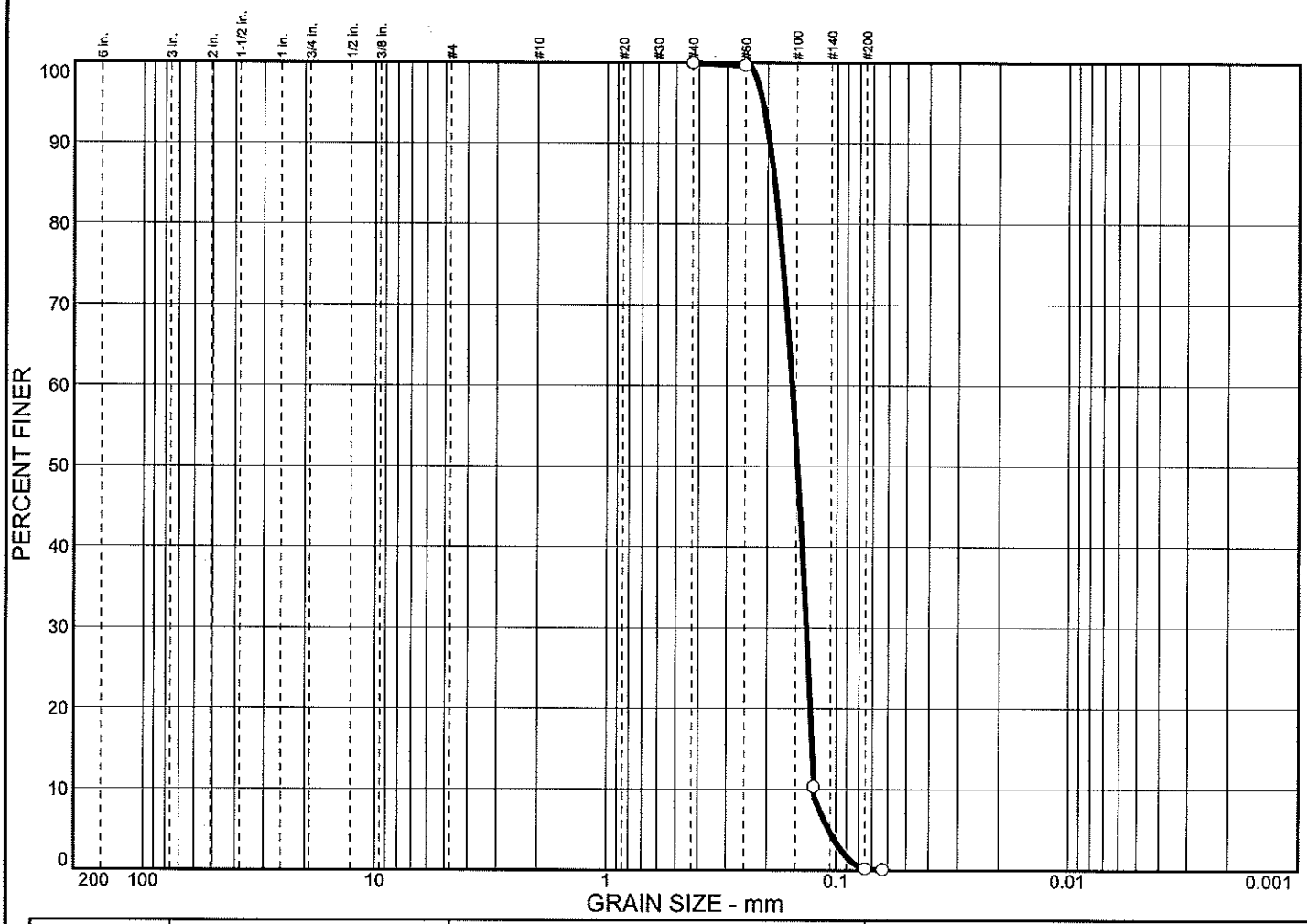
○ **Source:** Station 309+64 **Sample No.:** WADING DEPTH

Remarks:
○ Sample Wading Depth
Moisture content = 22.3%
Wentworth Classification:
Gray fine to very fine sand with shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.8	0.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.187	0.157	0.148	0.135	0.127	0.125	0.94	1.25

MATERIAL DESCRIPTION	USCS	AASHTO
○ Light gray fine sand with trace organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 309+64 **Sample No.:** GULF BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:

○ Sample Gulf Berm

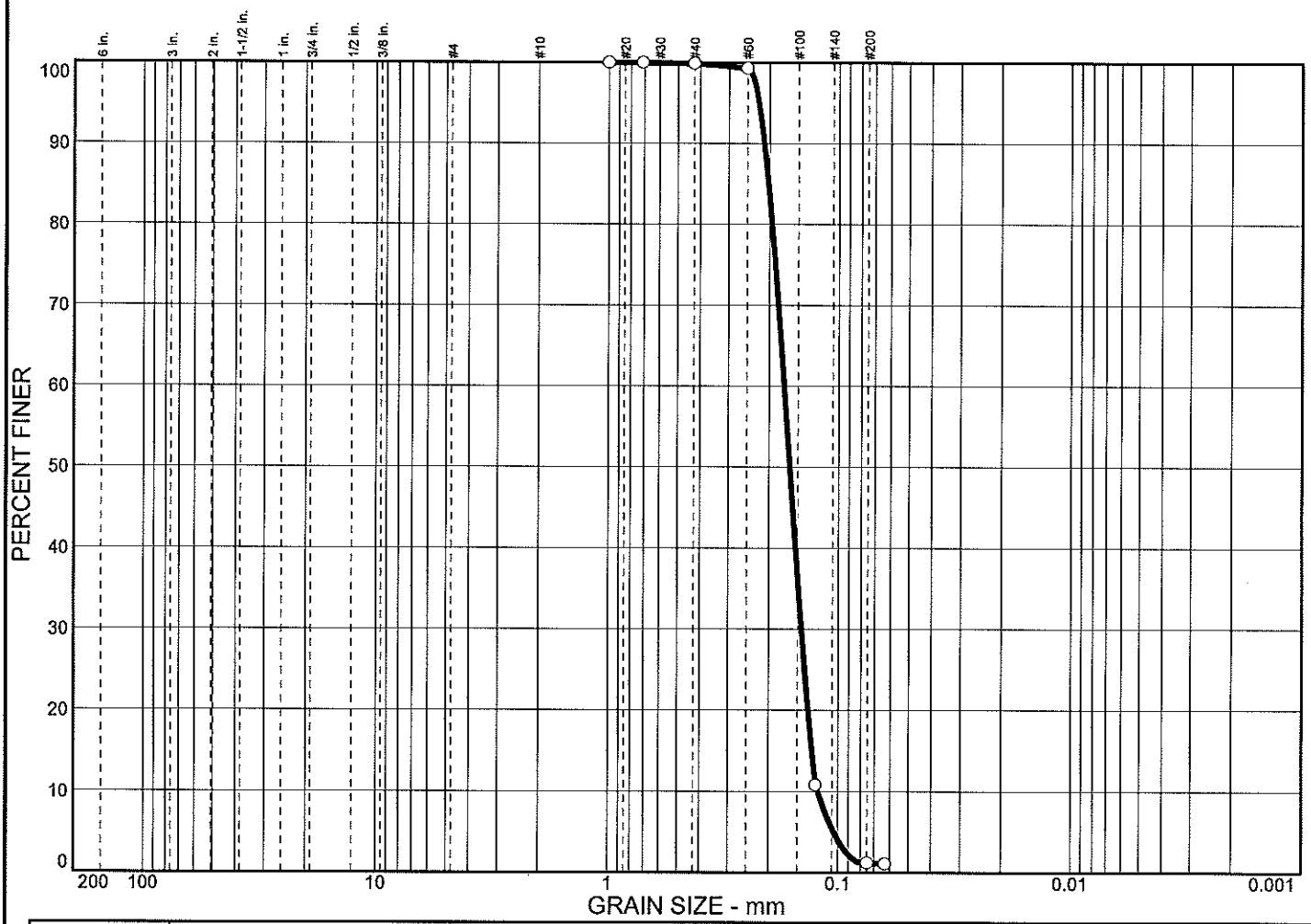
Moisture content = 7.1%

Wentworth Classification:

Light gray fine to very fine sand with trace organic matter

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	98.7	1.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.203	0.173	0.163	0.145	0.130	0.122	0.99	1.41

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

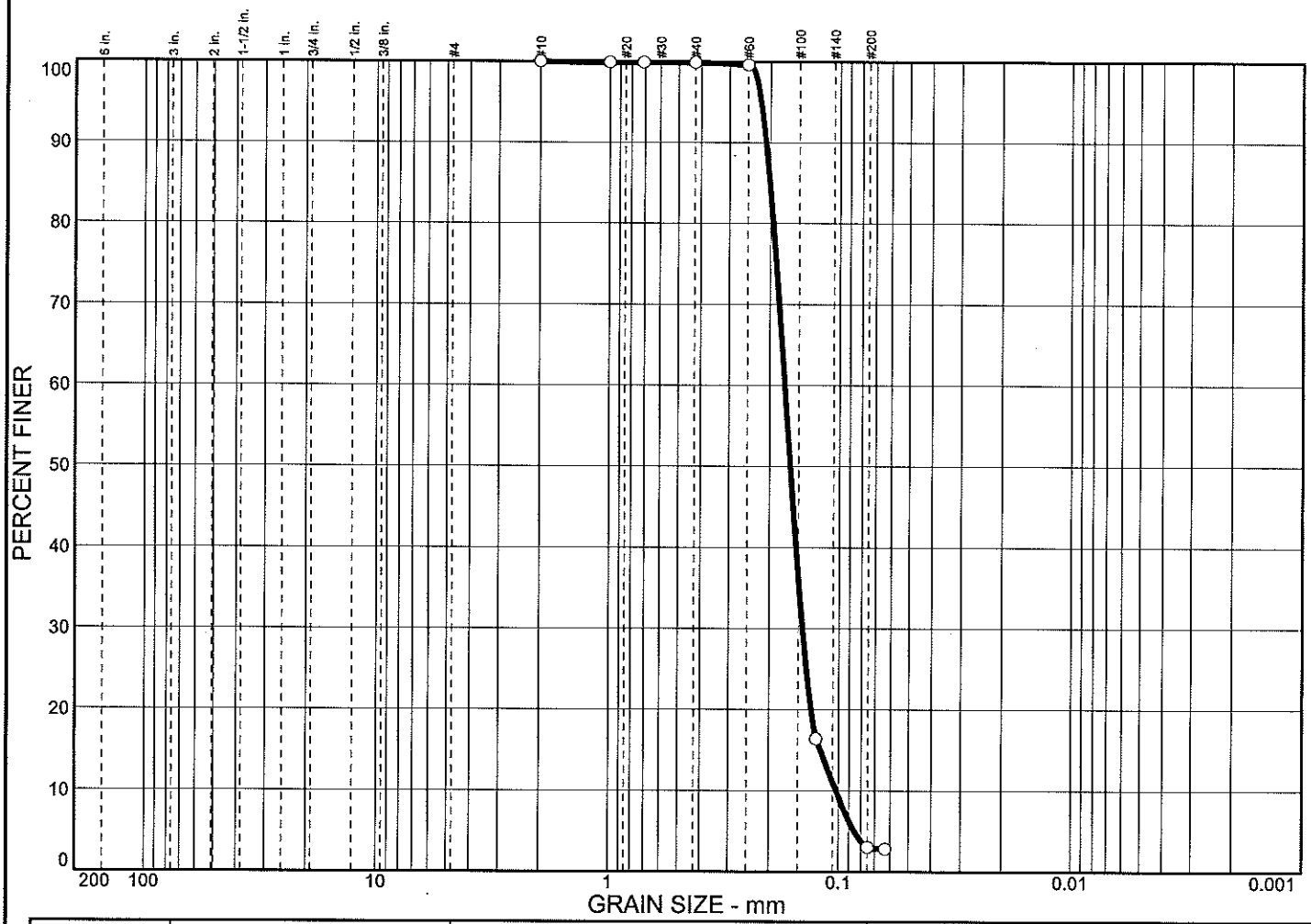
○ **Source:** Station 309+64 **Sample No.:** DUNE TOE

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Dune Toe
Moisture content = 18.6%
Wentworth Classification:
Tan fine to very fine sand with trace shell fragments, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	96.9	3.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.202	0.173	0.163	0.144	0.120	0.103	1.17	1.68

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace silt, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

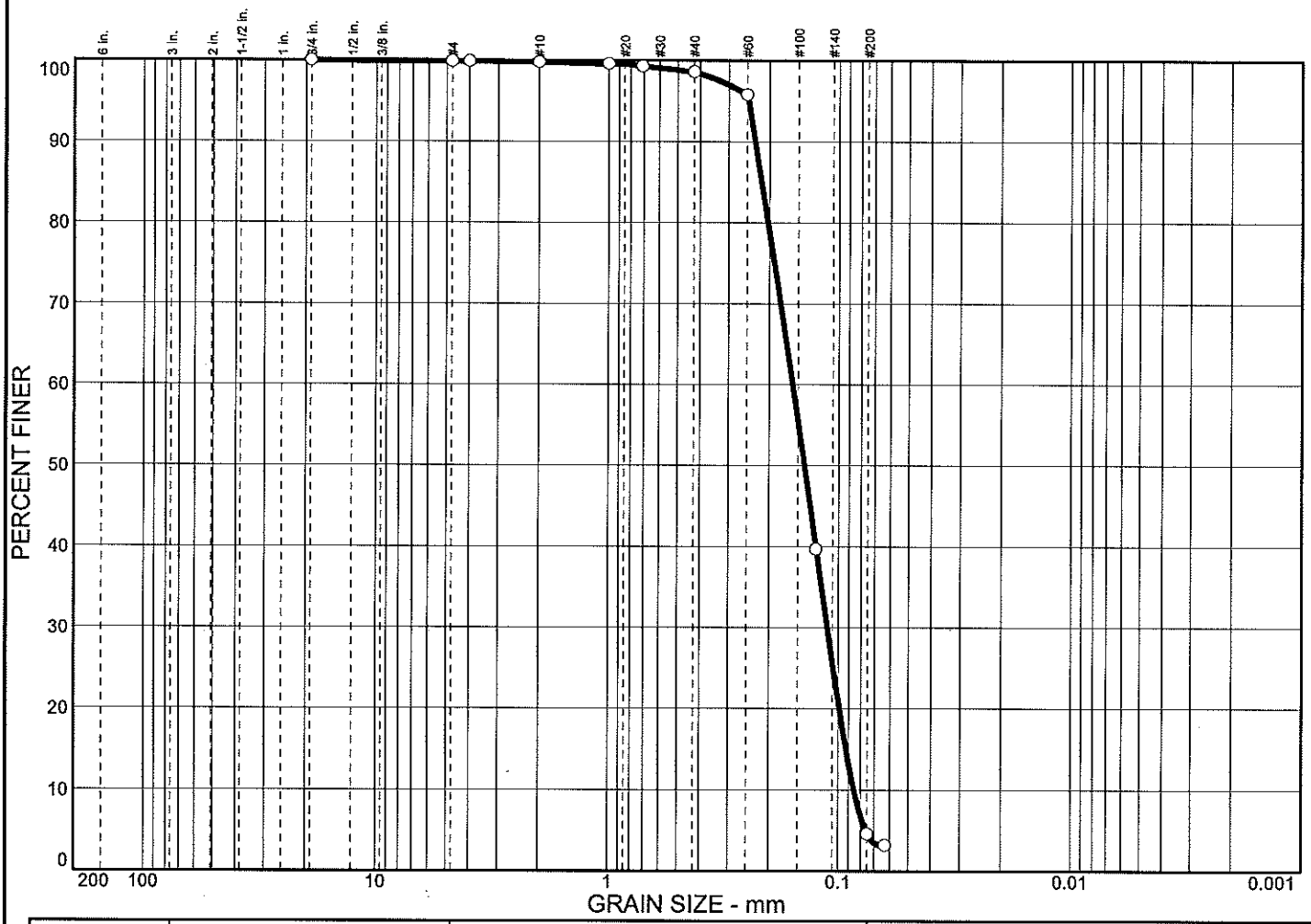
○ **Source:** Station 309+64 **Sample No.:** DUNE CREST

Remarks:
○ Sample Dune Crest
Moisture content = 19.6%
Wentworth Classification :
Tan fine to very fine sand with trace silt, roots

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.1	0.1	1.2	94.0	4.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.217	0.159	0.141	0.112	0.0928	0.0857	0.92	1.85

MATERIAL DESCRIPTION	USCS	AASHTO
○ Light gray fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

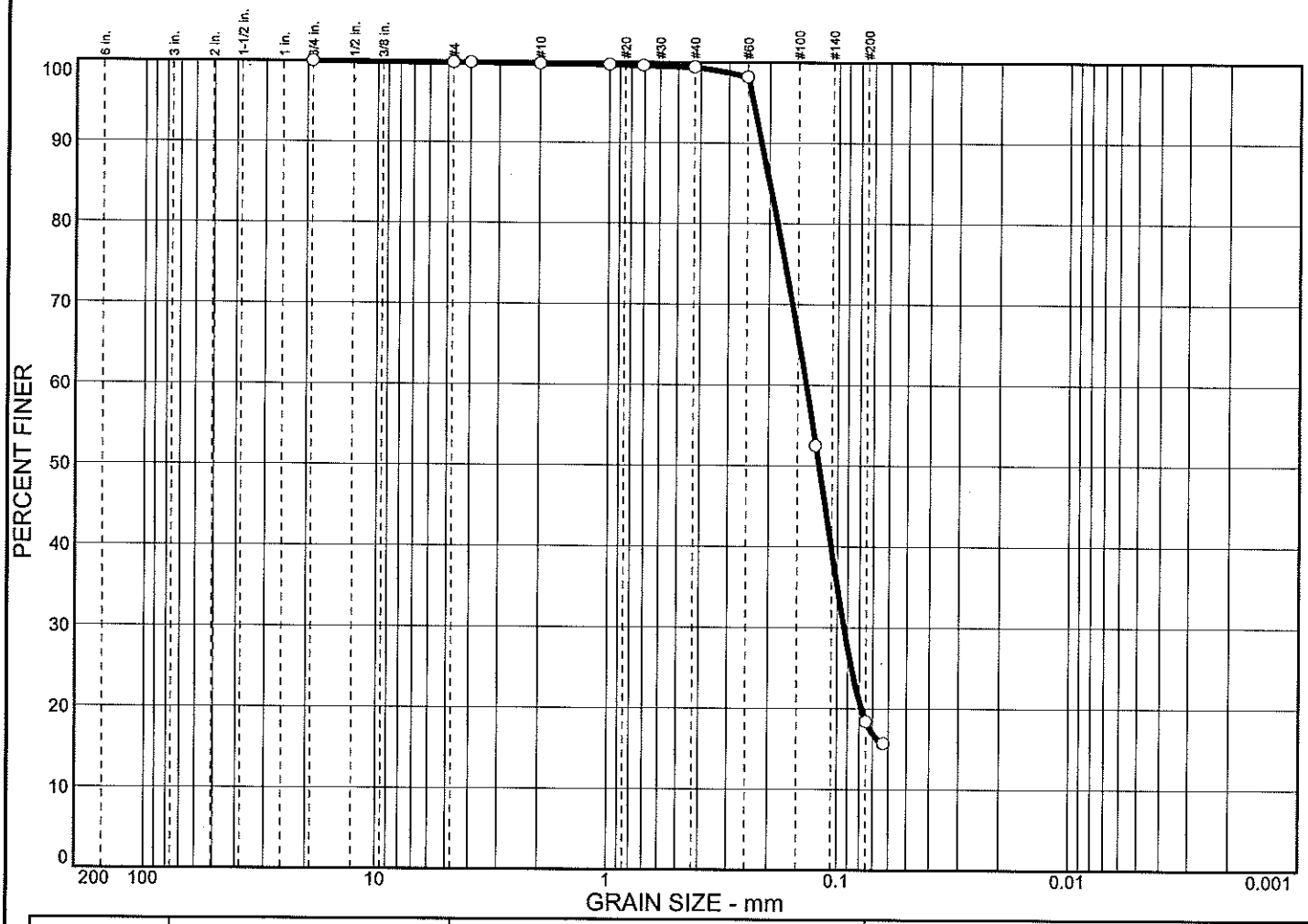
○ **Source:** Station 309+64 **Sample No.:** BACK BAY BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Back Bay Berm
Moisture content = 24.1%
Wentworth Classification:
Light gray fine to very fine sand with trace silt, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.1	0.1	0.4	81.0	18.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.185	0.136	0.122	0.0947				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray clayey sand with trace shell fragments, clay pockets	SC	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

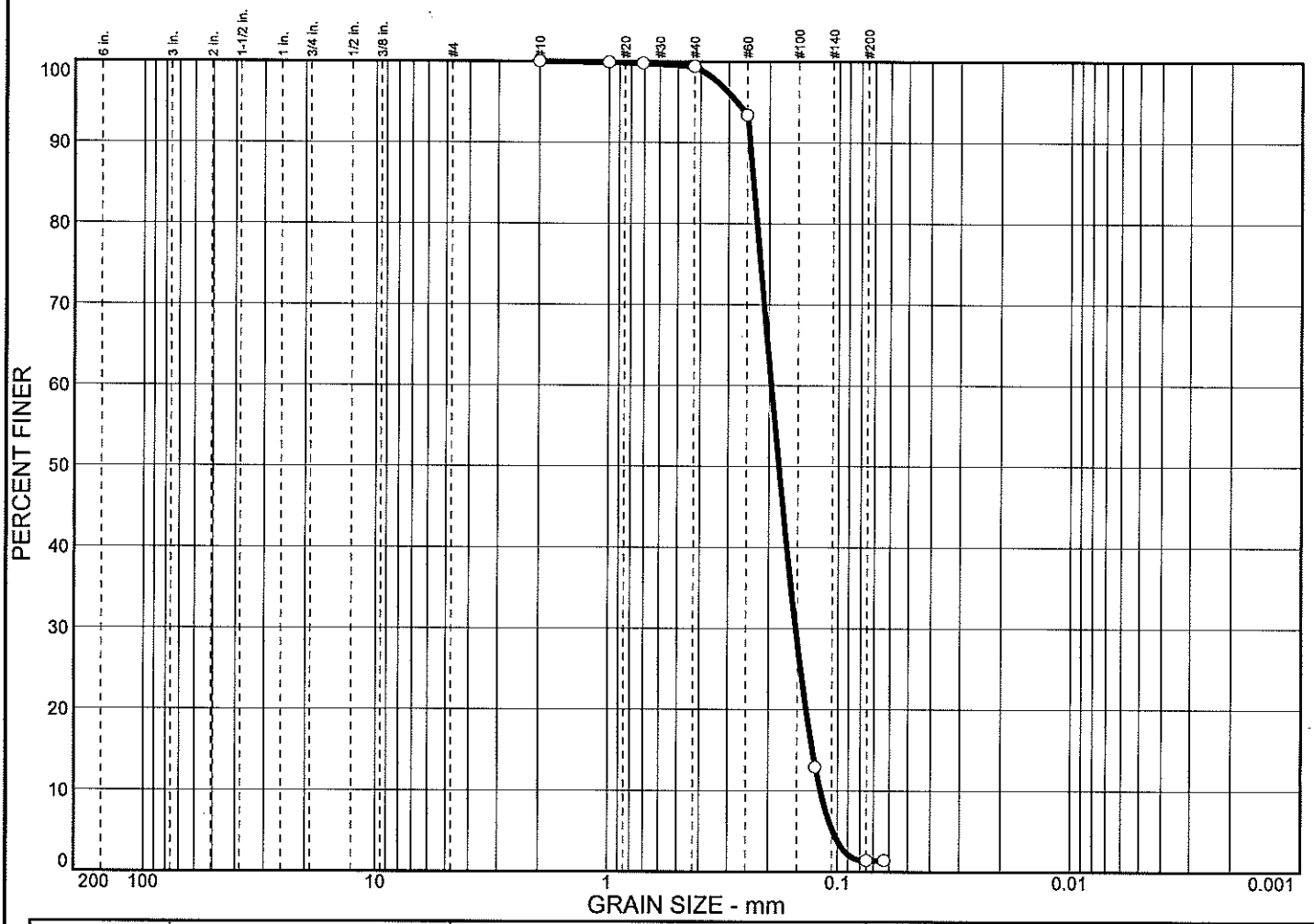
○ **Source:** Station 309+64 **Sample No.:** MARSH PLATFORM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Marsh Platform
Moisture content = 21.4%
Wentworth Classification:
Gray clayey sand with trace shell fragments, clay pockets

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.6	98.0	1.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.235	0.196	0.182	0.153	0.129	0.119	1.00	1.65

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

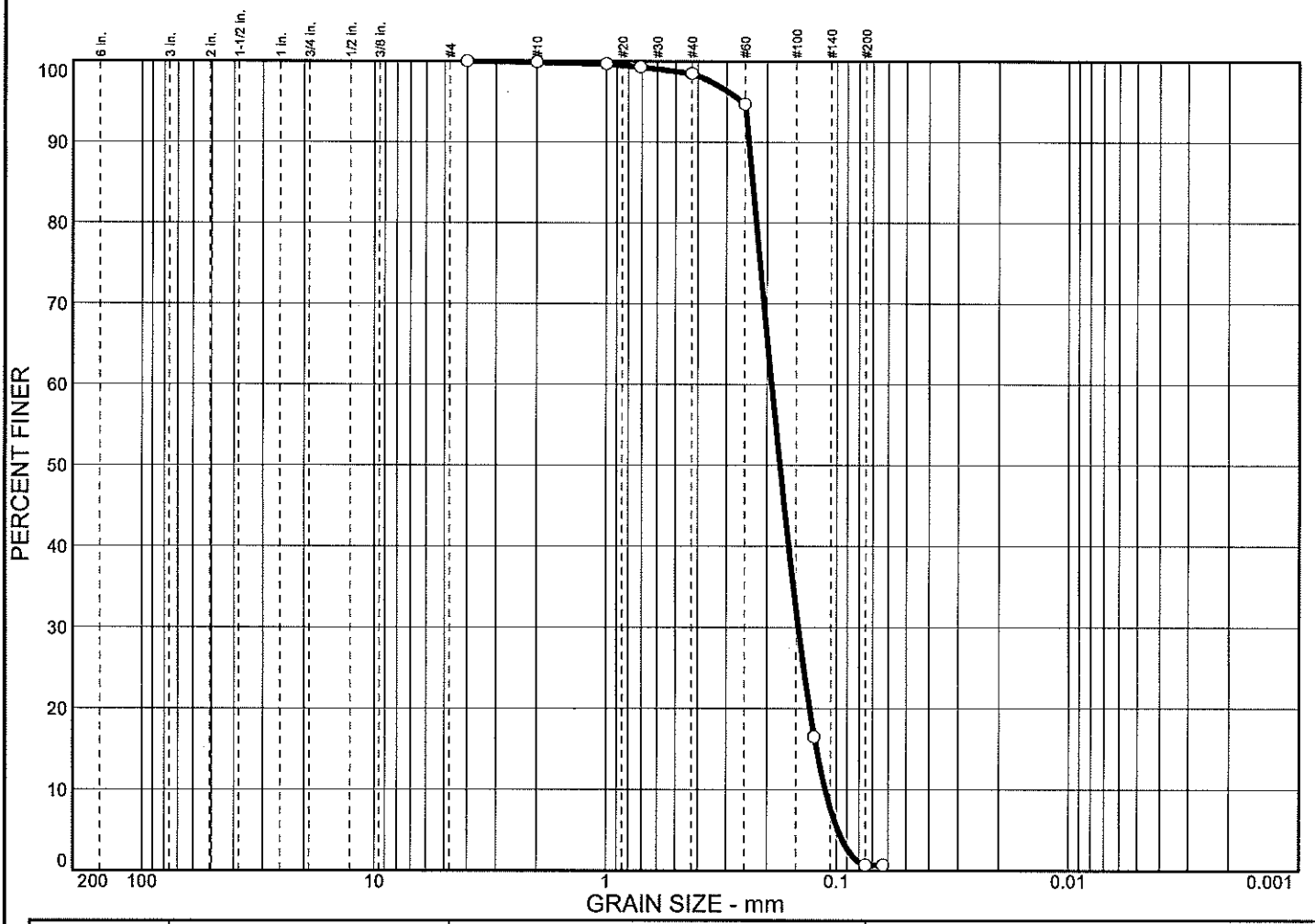
○ **Source:** Station 286+64 **Sample No.:** MEAN HIGH WATER

Remarks:
○ Sample Mean High Water
Moisture content = 21.5%
Wentworth Classification:
Tan fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.1	1.4	97.8	0.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.232	0.192	0.177	0.147	0.122	0.112	1.01	1.71

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

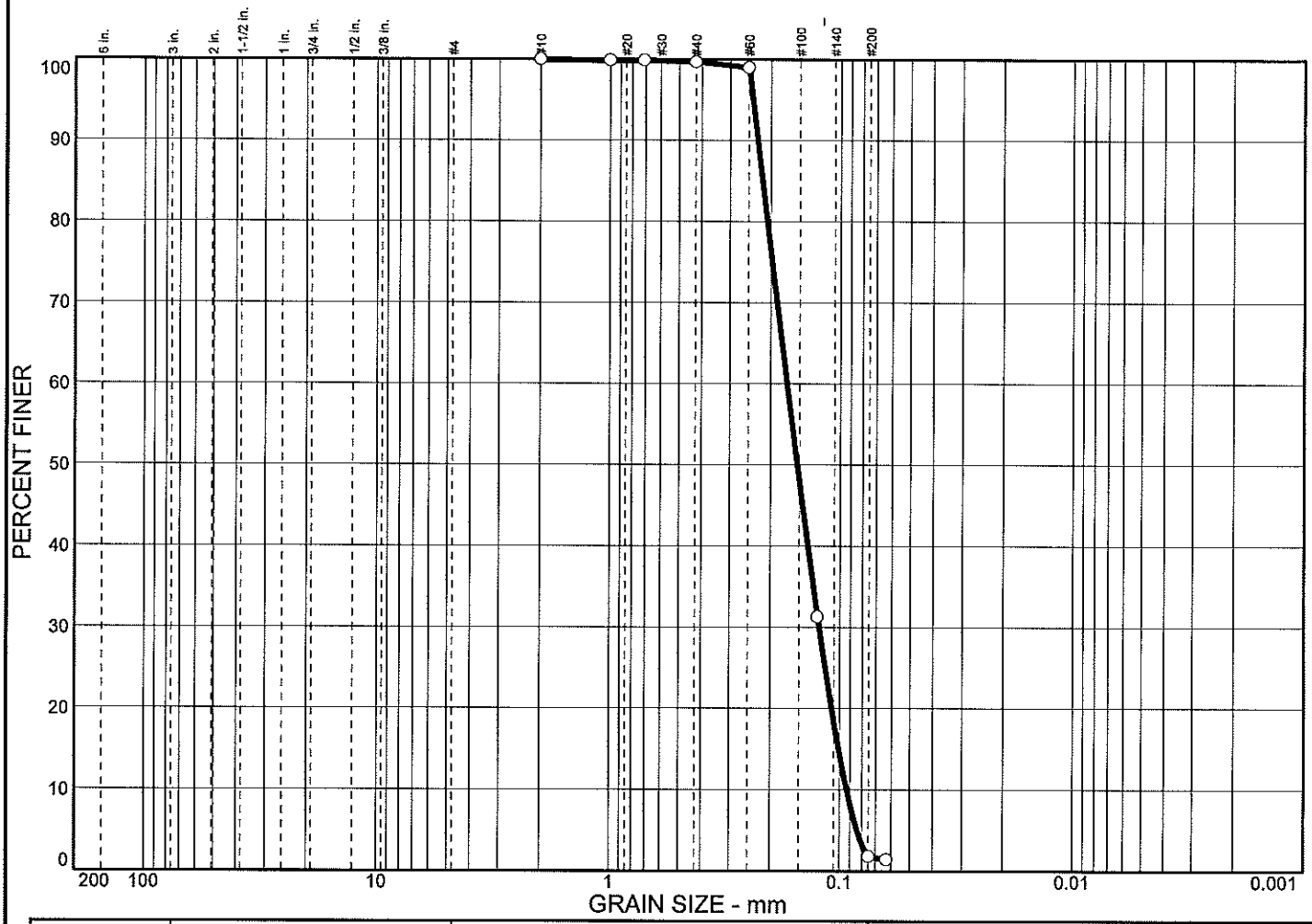
○ **Source:** Station 286+64 **Sample No.:** MEAN LOW WATER

Remarks:
○ Sample Mean Low Water
Moisture content = 28.3%
Wentworth Classification:
Gray fine to very fine sand with trace shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.3	97.9	1.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.208	0.166	0.151	0.123	0.102	0.0940	0.97	1.77

MATERIAL DESCRIPTION	USCS	AASHTO
○ Brownish gray fine sand with trace silt, shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 286+64 **Sample No.:** WADING DEPTH

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:

○ Sample Wading Depth
Moisture content = 26.9%
Wentworth Classification:
Brownish gray fine to very fine sand with trace silt, shell fragments, organic matter

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	99.5	0.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.190	0.158	0.149	0.136	0.128	0.125	0.93	1.26

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 286+64 **Sample No.:** GULF BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:

○ Sample Gulf Berm

Moisture content = 13.3%

Wentworth Classification :

Tan fine to very fine sand with trace of shell fragments, organic matter

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.6	0.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.216	0.186	0.174	0.151	0.131	0.121	1.01	1.53

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace shell fragments, organic matter	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

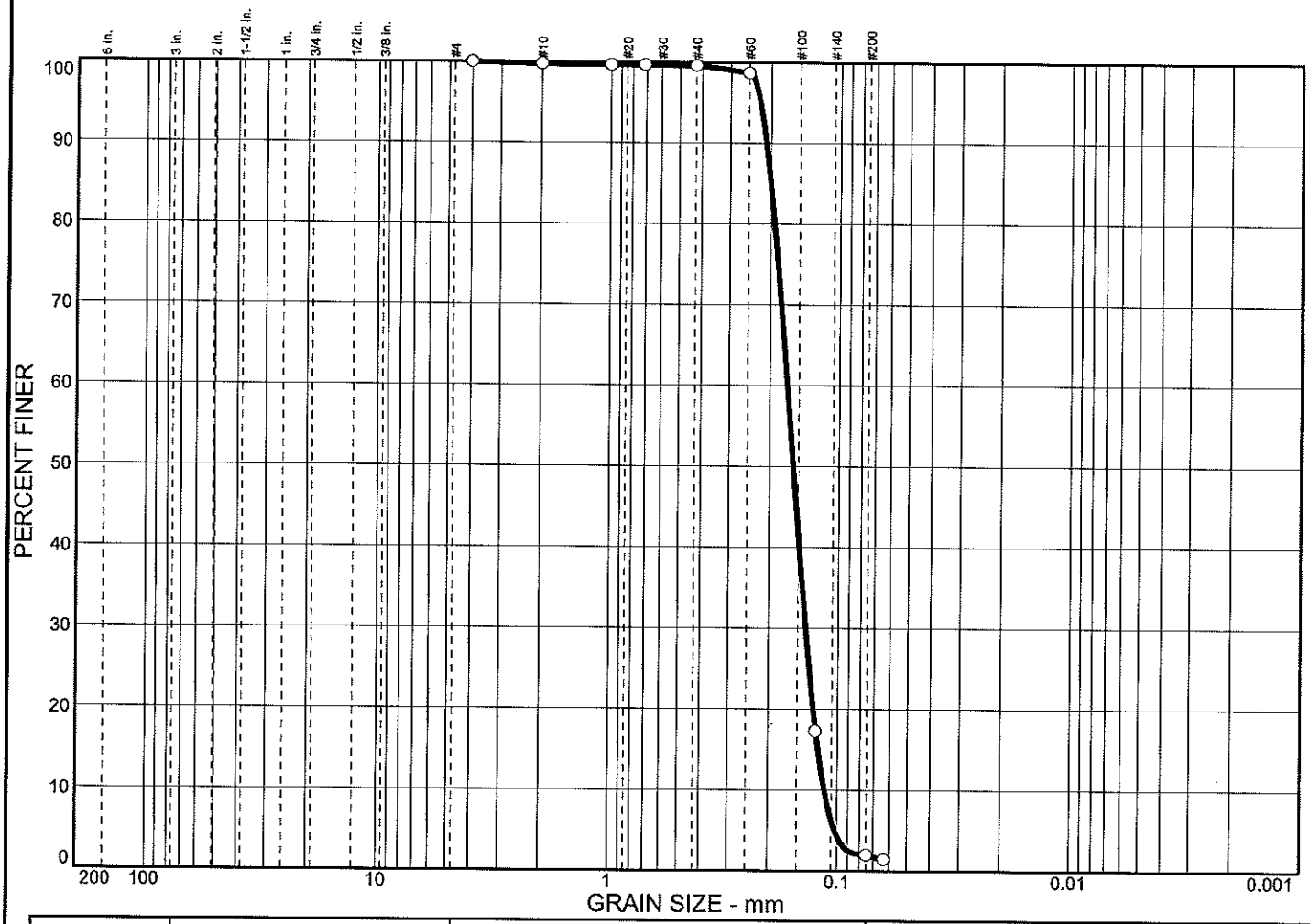
○ **Source:** Station 286+64 **Sample No.:** DUNE TOE

Remarks:
○ Sample Dune Toe
Moisture content = 7.7%
Wentworth Classification:
Tan fine to very fine sand with trace shell fragments,organic matter

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.2	0.2	97.6	2.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.201	0.169	0.158	0.139	0.122	0.114	1.00	1.48

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace silt, shell fragments, roots	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 286+64 **Sample No.:** DUNE CREST

Remarks:
○ Sample Dune Crest
Moisture content = 7.2%
Wentworth Classification:
Tan fine to very fine sand with trace silt, shell fragments, roots

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.2	0.4	98.1	1.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.199	0.162	0.151	0.129	0.109	0.101	1.01	1.61

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 286+64 **Sample No.:** BACK BAY BERM

Remarks:
○ Sample Back Bay Berm
Moisture content = 10.9%
Wentworth Classification:
Tan fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	3.4	1.3	4.9	89.9	0.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.309	0.217	0.201	0.171	0.146	0.136	0.99	1.60

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 286+64 **Sample No.:** MARSH PLATFORM

Remarks:

○ Sample Marsh Platform

Moisture content = 3.7%

Wentworth Classification:

Tan fine to very fine sand with shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.9	98.3	0.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.229	0.186	0.170	0.139	0.114	0.104	1.00	1.78

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 268+64 **Sample No.:** MEAN HIGH WATER

Remarks:
○ Sample Mean High Water
Moisture content = 21.1%
Wentworth Classification:
Gray fine to very fine sand with trace shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.8	94.3	4.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.215	0.173	0.161	0.136	0.114	0.103	1.03	1.68

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 268+64 **Sample No.:** MEAN LOW WATER

Remarks:
○ Sample Mean Low Water
Moisture content = 27.7%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.3	0.2	4.6	94.6	0.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.246	0.202	0.187	0.156	0.131	0.121	0.99	1.68

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 268+64 **Sample No.:** WADING DEPTH

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Wading Depth
Moisture content = 27.7%
Wentworth Classification:
Gray fine to very fine sand with shell fragments

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	99.5	0.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.202	0.173	0.163	0.145	0.131	0.125	0.98	1.38

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 268+64 **Sample No.:** GULF BERM

Remarks:

○ Sample Gulf Berm

Moisture content = 7.7%

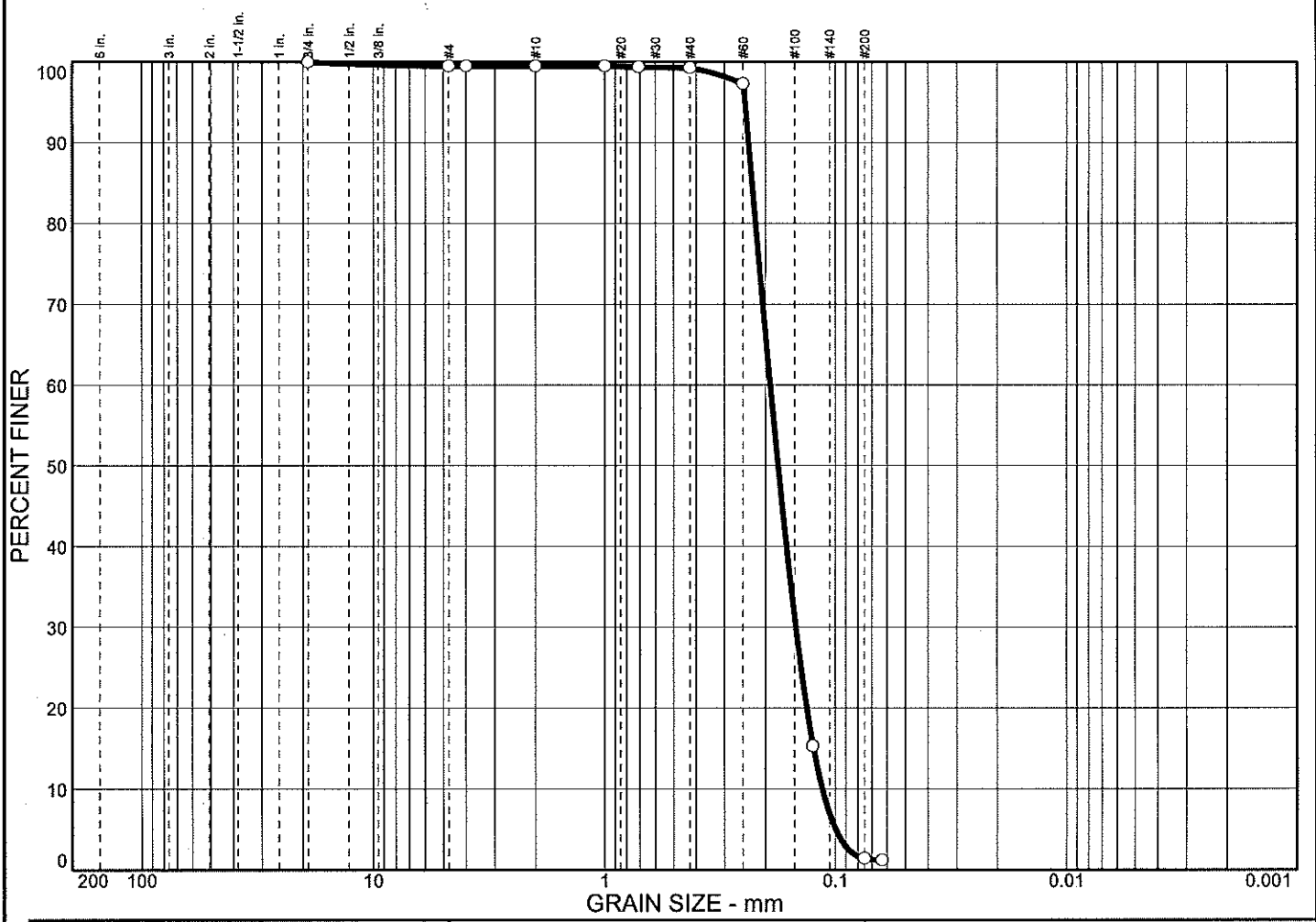
Wentworth Classification:

Tan fine to very fine sand

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.5	0.0	0.2	97.9	1.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.229	0.191	0.177	0.149	0.124	0.114	1.01	1.68

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

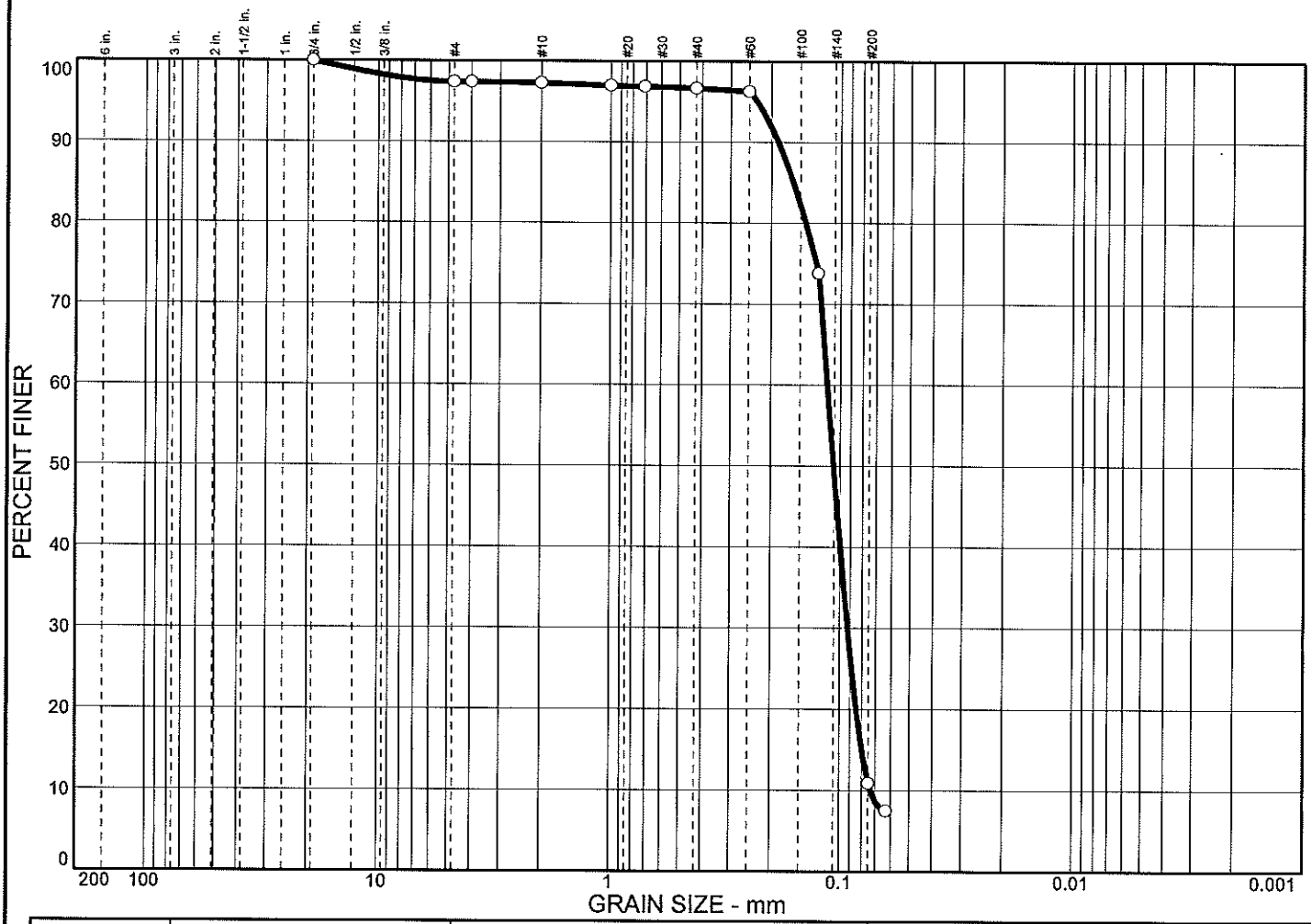
○ **Source:** Station 268+64 **Sample No.:** DUNE TOE

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Dune Toe
Moisture content = 10.3%
Wentworth Classification:
Tan fine to very fine sand with trace silt, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	2.6	0.1	0.6	85.8	10.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.142	0.112	0.105	0.0909	0.0795	0.0736	1.00	1.52

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

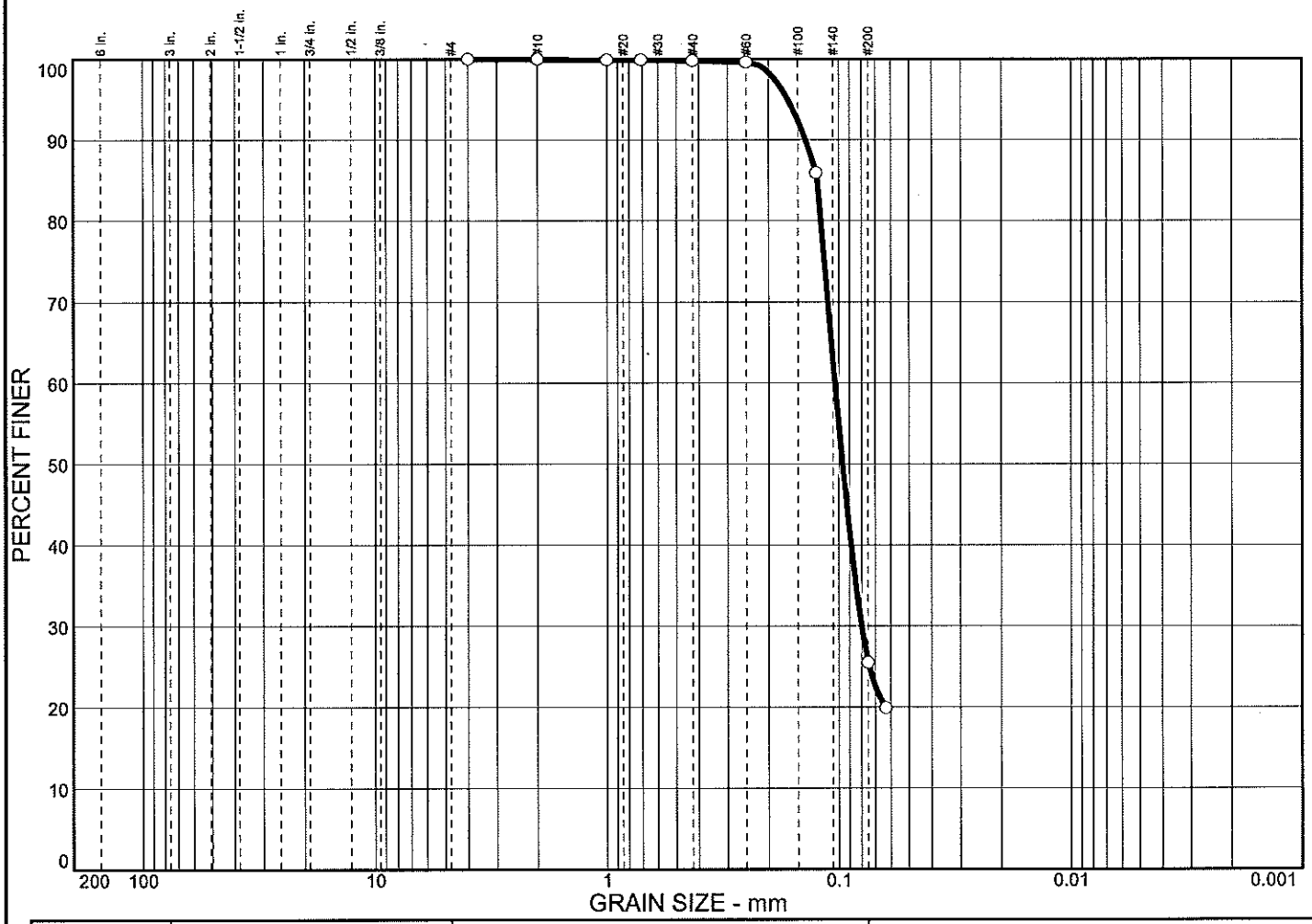
○ **Source:** Station 268+64 **Sample No.:** DUNE CREST

Remarks:
○ Sample Dune Crest
Moisture content = 7.4%
Wentworth Classification:
Tan fine to very fine sand with silt, trace shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	74.3	25.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.124	0.104	0.0967	0.0801				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray silty sand with trace shell fragments, roots	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 268+64 **Sample No.:** BACK BAY BERM

Remarks:
○ Sample Back Bay Berm
Moisture content = 19.6%
Wentworth Classification:
Gray silty sand with trace shell fragments, roots

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.1	0.2	0.8	68.3	30.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.175	0.123	0.108	0.0732				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Dark Gray clayey sand with silt, trace shell fragments, roots	SC	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

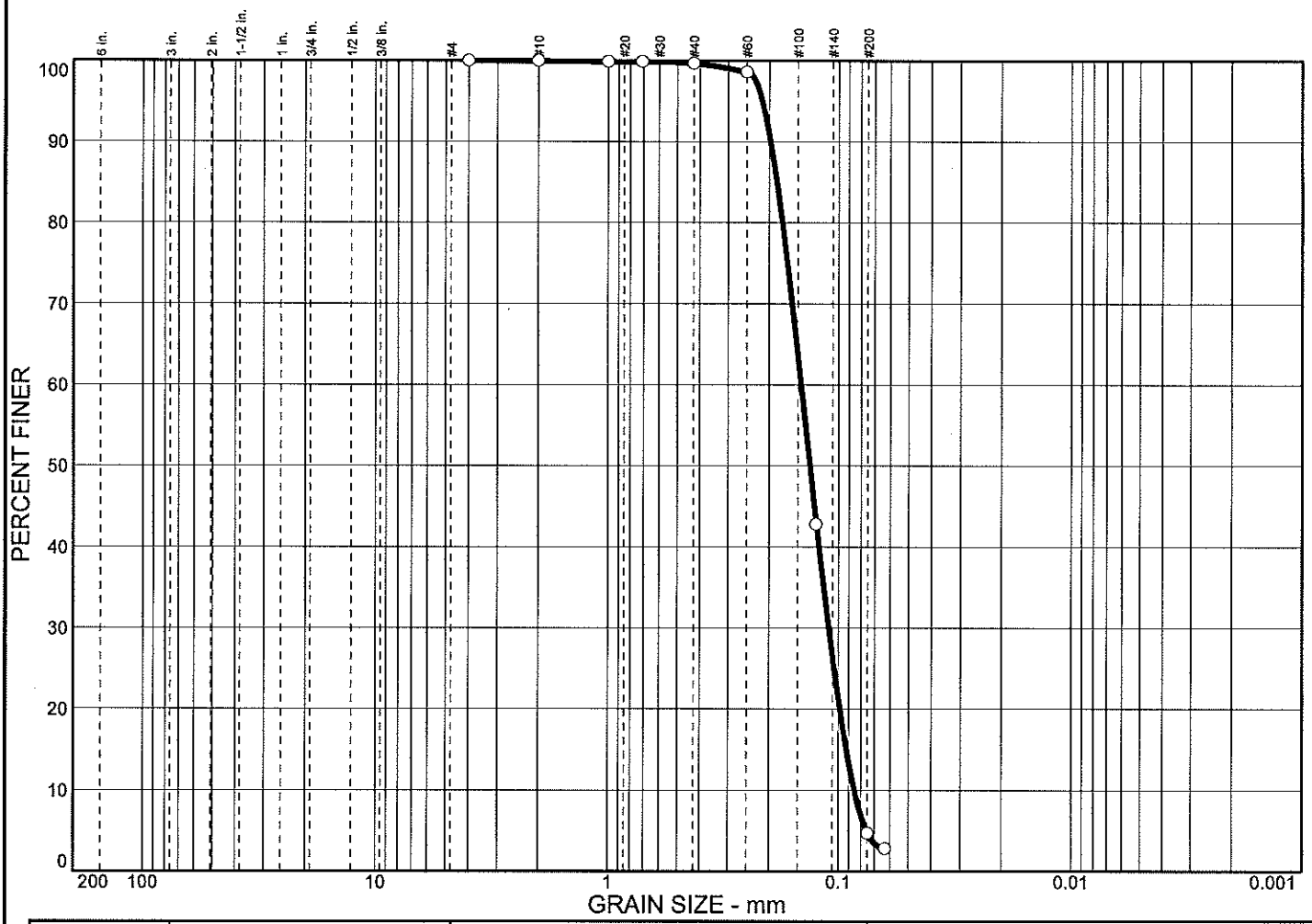
○ **Source:** Station 268+64 **Sample No.:** MARSH PLATFORM

Remarks:
○ Sample Marsh Platform
Moisture content = 48.1%
Wentworth Classification:
Dark gray clayey sand with silt, trace shell fragments, roots

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.3	95.0	4.7	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.186	0.146	0.133	0.110	0.0925	0.0854	0.98	1.70

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

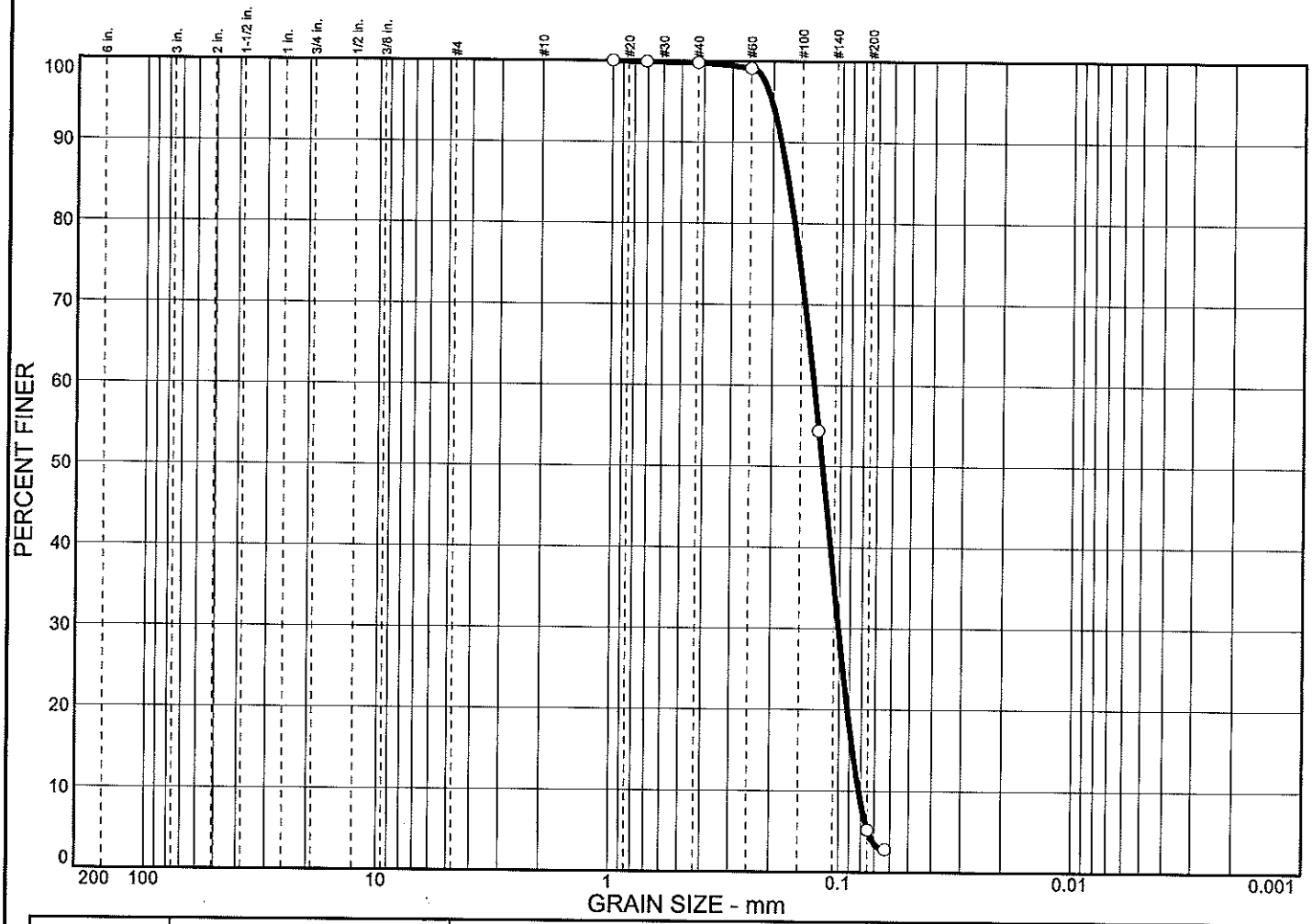
○ **Source:** Station 250+64 **Sample No.:** MEAN HIGH WATER

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Mean High Water Moisture content = 24.5%
Wentworth Classification: Gray fine to very fine sand with trace silt, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	94.6	5.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.172	0.131	0.120	0.102	0.0875	0.0821	0.96	1.60

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

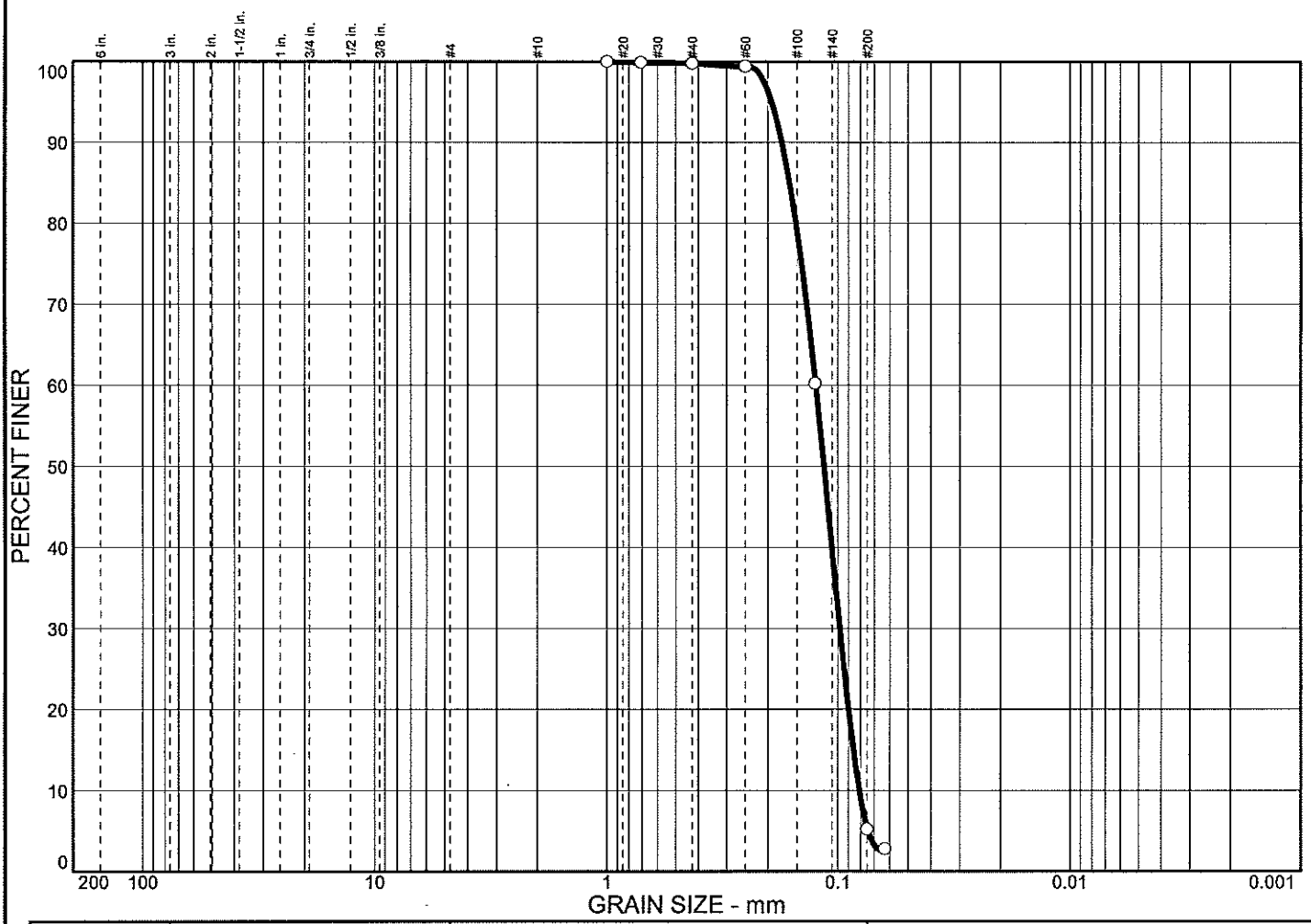
○ **Source:** Station 250+64 **Sample No.:** MEAN LOW WATER

Remarks:
○ Sample Mean Low Water
Moisture content = 26.2%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	94.6	5.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.162	0.125	0.115	0.0984	0.0860	0.0812	0.96	1.54

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

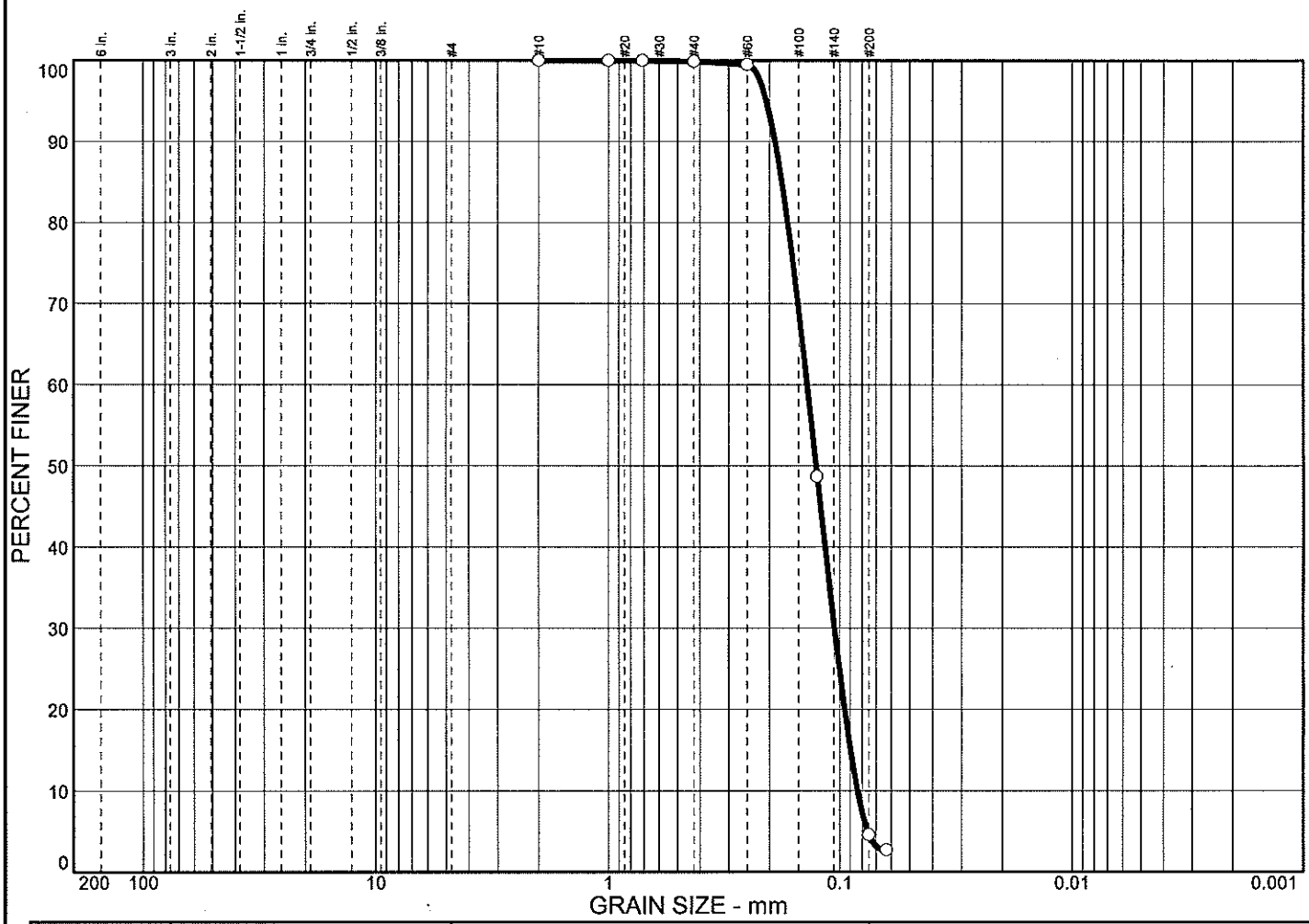
○ **Source:** Station 250+64 **Sample No.:** WADING DEPTH

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Wading Depth
Moisture content = 27.1%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	95.3	4.6	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.178	0.138	0.126	0.106	0.0900	0.0840	0.96	1.65

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with trace silt, shell fragments	SP	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 250+64 **Sample No.:** GULF BERM

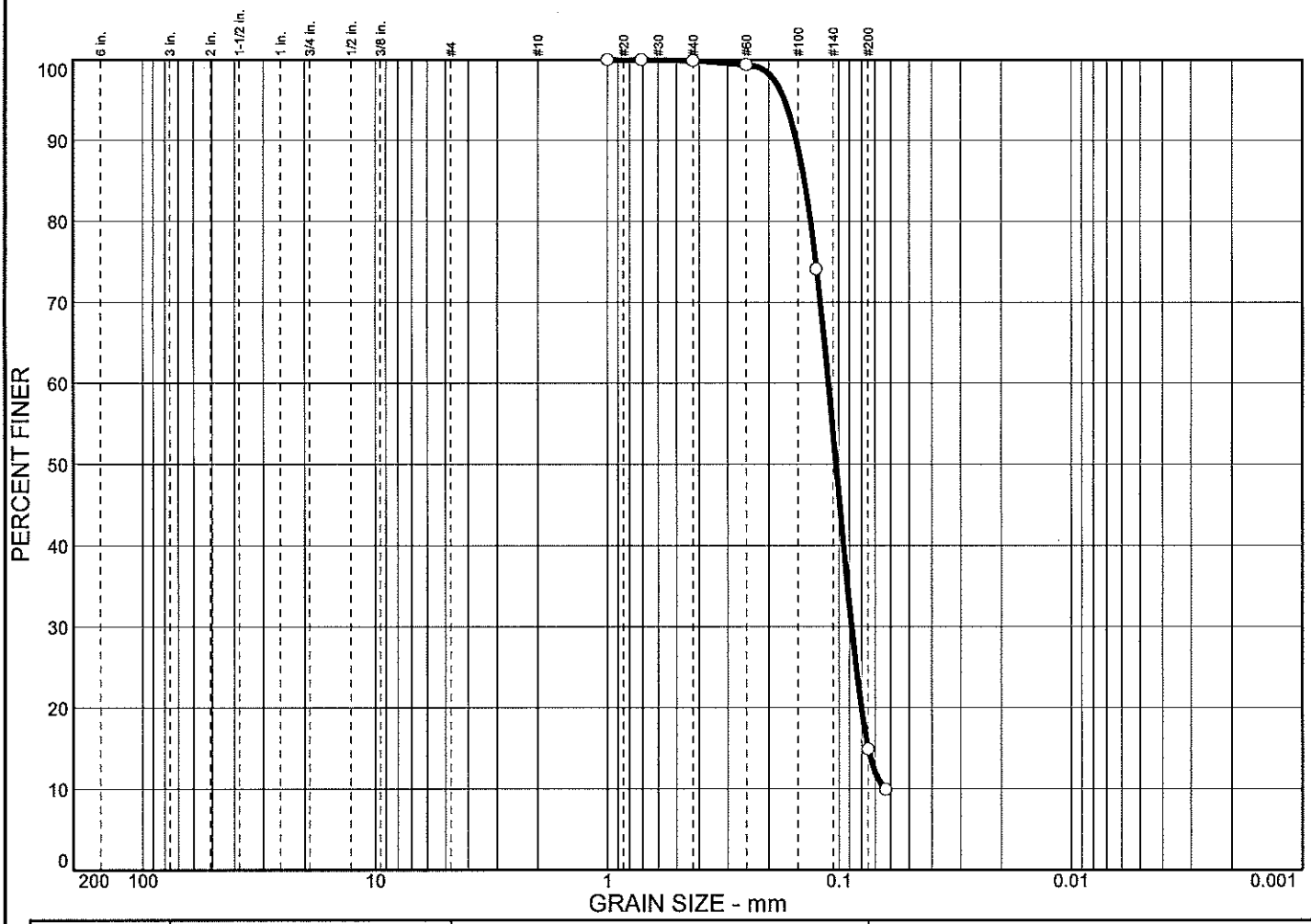
EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:

○ Sample Gulf Berm
Moisture content = 25.3%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	85.0	14.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.141	0.111	0.103	0.0885	0.0751	0.0634	1.11	1.75

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray silty sand with trace shell fragments	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

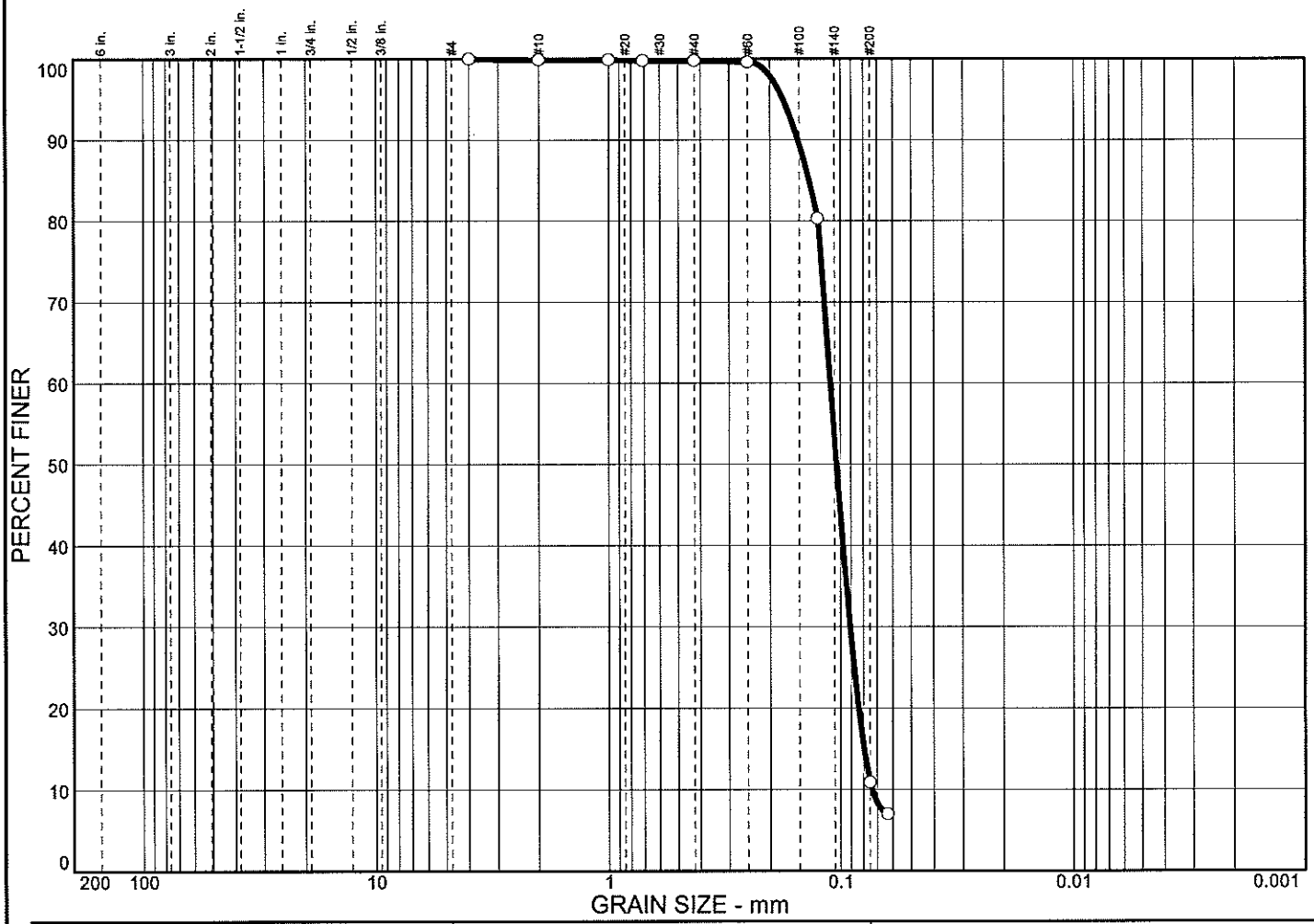
○ **Source:** Station 250+64 **Sample No.:** DUNE TOE

Remarks:
○ Sample Dune Toe
Moisture content = 24.0%
Wentworth Classification:
Gray silty sand with trace shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.1	0.1	88.9	10.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.136	0.111	0.104	0.0913	0.0796	0.0736	1.02	1.51

MATERIAL DESCRIPTION	USCS	AASHTO
○ Light gray fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

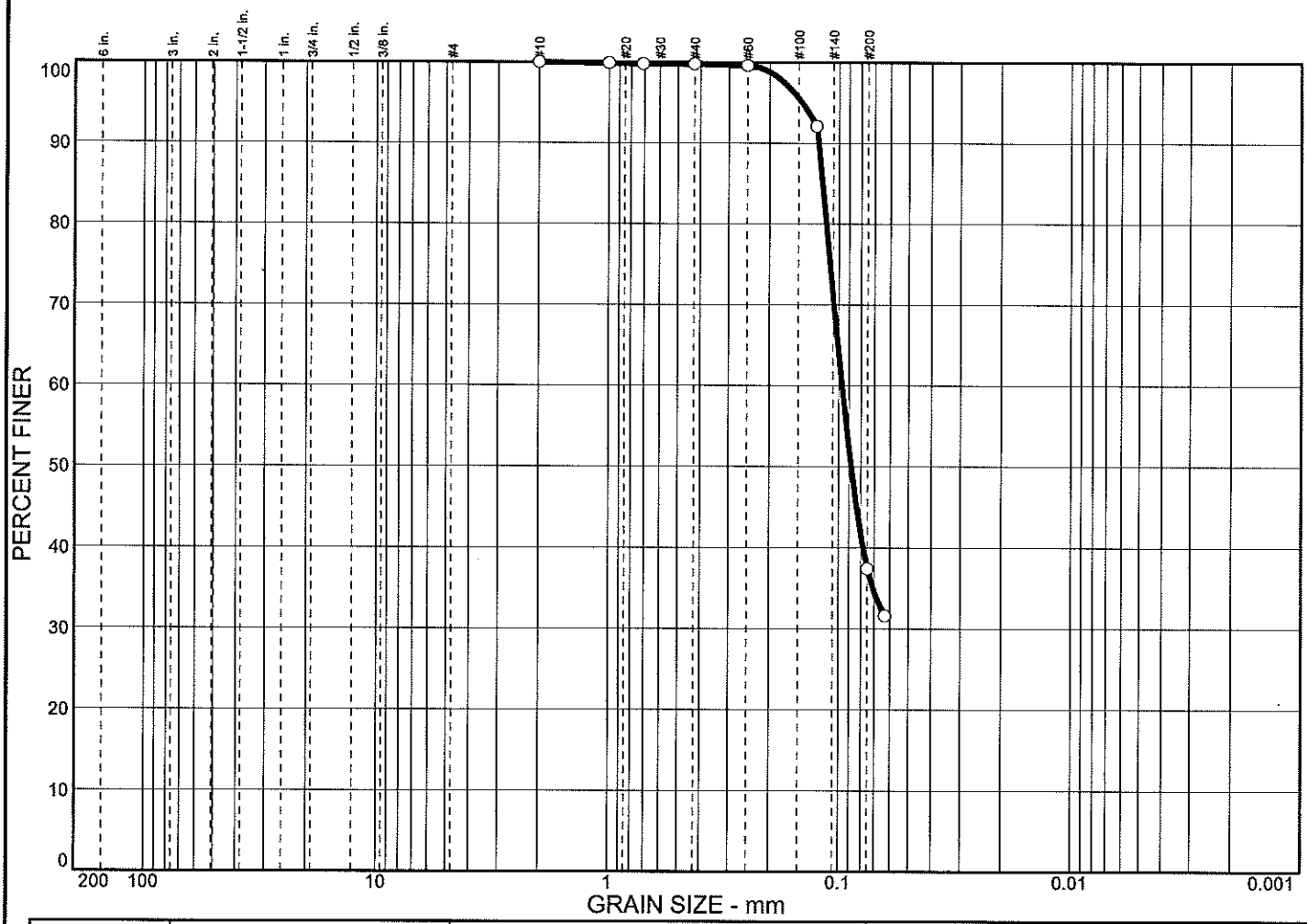
○ **Source:** Station 250+64 **Sample No.:** DUNE CREST

Remarks:
○ Sample Dune Crest
Moisture content = 6.2%
Wentworth Classification:
Light gray fine to very fine sand with silt, trace shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	62.4	37.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.118	0.0970	0.0883					

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray silty sand with clay, trace organic matter, shell fragments	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 250+64 **Sample No.:** BACK BAY BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Back Bay Berm
Moisture content = 26.8%
Wentworth Classification:
Gray silty sand with clay, trace organic matter, shell fragments

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.6	1.1	92.2	6.1	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.236	0.197	0.183	0.154	0.126	0.109	1.10	1.81

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan fine sand with silt, trace cemented sand, shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

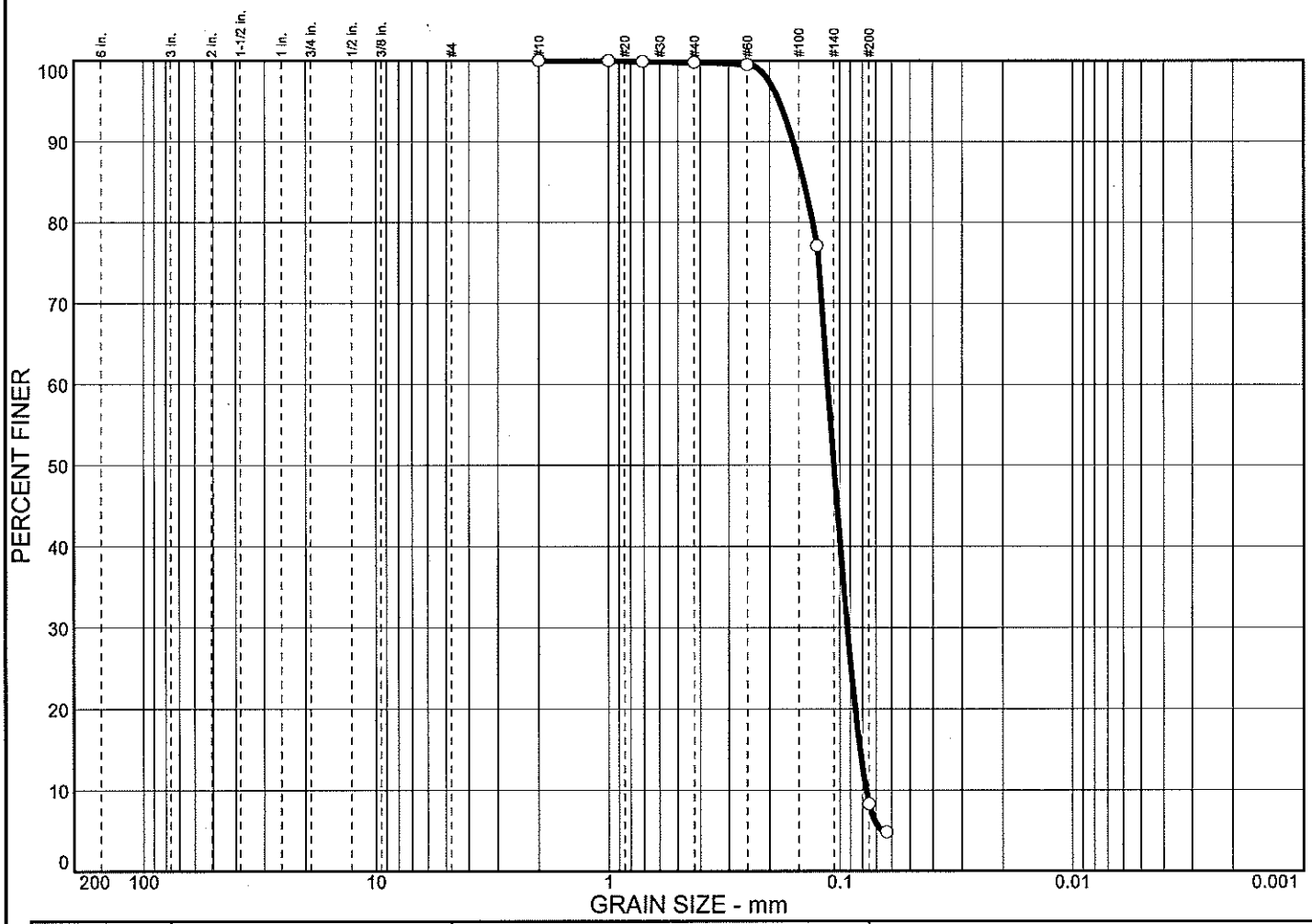
○ **Source:** Station 250+64 **Sample No.:** MARSH PLATFORM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Marsh Platform
Moisture content = 23.0%
Wentworth Classification:
Tan fine to very fine sand with silt, trace cemented sand, shell fragments

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	91.5	8.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_C	C_U
○			0.143	0.113	0.106	0.0932	0.0821	0.0772	1.00	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

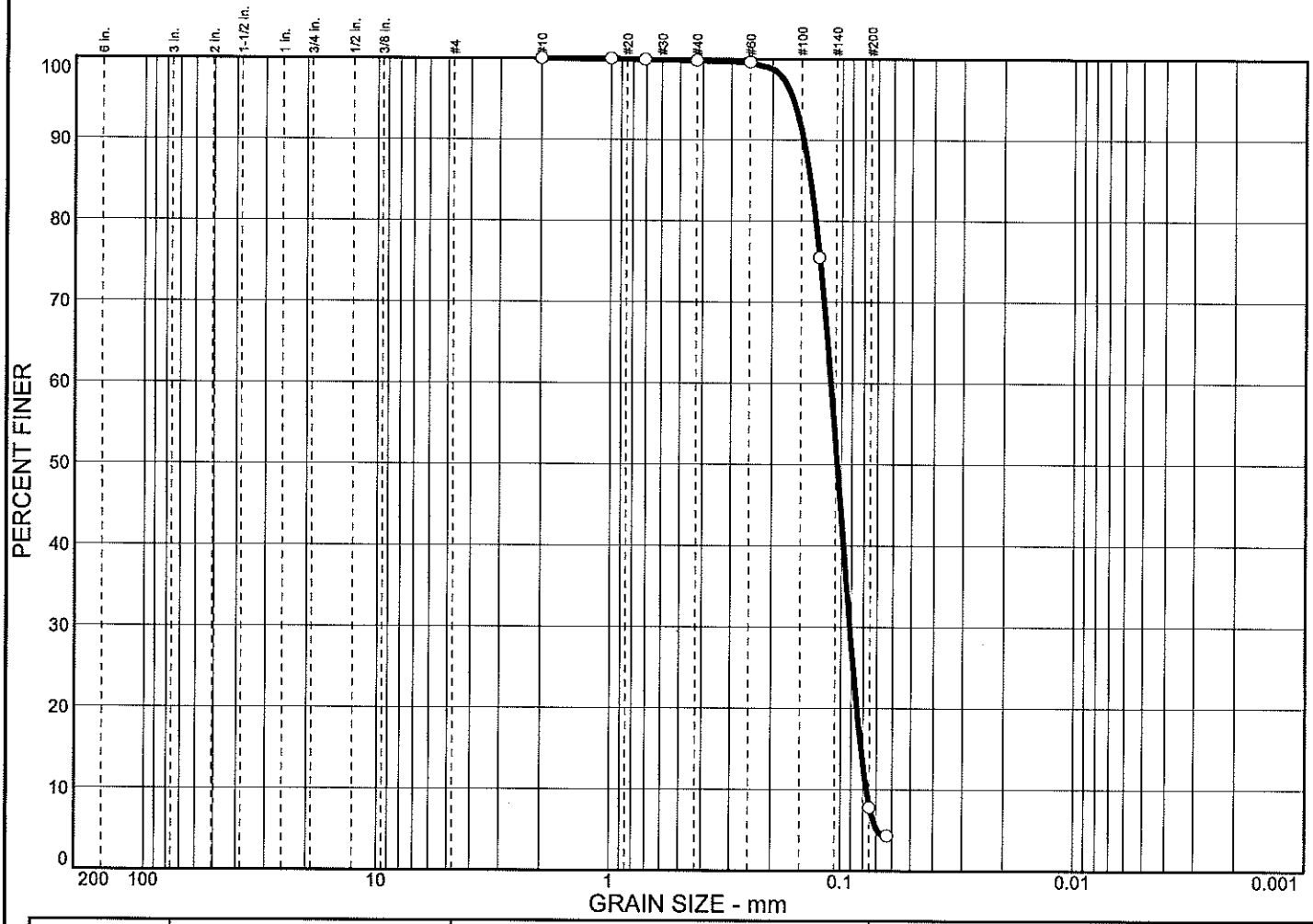
○ **Source:** Station 232+64 **Sample No.:** MEAN HIGH WATER

Remarks:
○ Sample Mean High Water
Moisture content = 22.5%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.2	92.0	7.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.137	0.112	0.105	0.0920	0.0818	0.0775	0.98	1.44

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

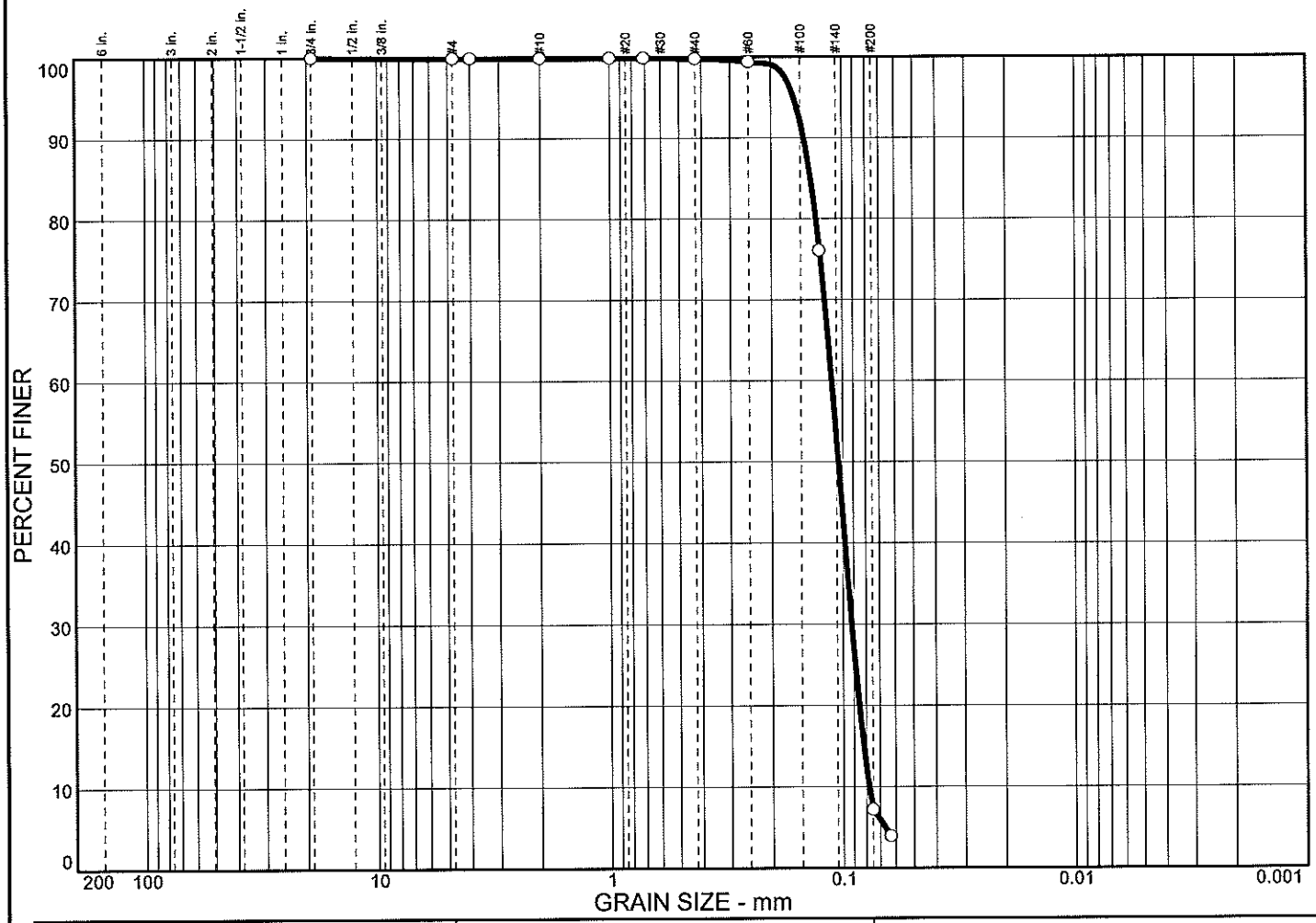
○ **Source:** Station 232+64 **Sample No.:** MEAN LOW WATER

Remarks:
○ Sample Mean Low Water
Moisture content = 30.4
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.1	0.0	0.1	92.6	7.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.136	0.111	0.105	0.0921	0.0822	0.0781	0.98	1.43

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, trace shell fragments	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 232+64 **Sample No.:** WADING DEPTH

Remarks:
○ Sample Wading Depth
Moisture content = 27.7%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report

	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.0	90.6	9.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.134	0.111	0.104	0.0916	0.0807	0.0758	1.00	1.46

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)

Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 232+64 **Sample No.:** GULF BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:

○ Sample Gulf Berm

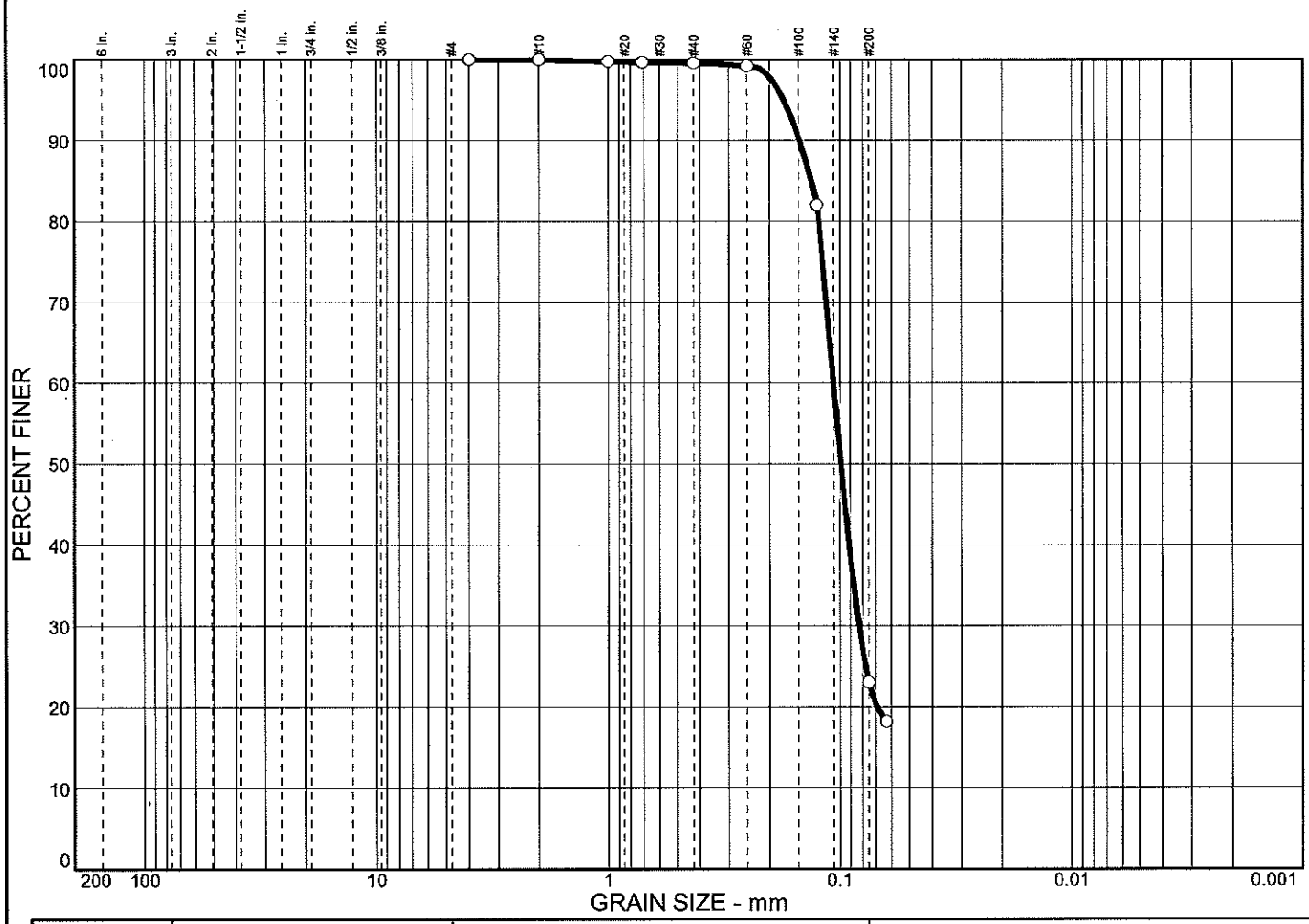
Moisture content = 24.4%

Wentworth Classification:

Tan fine to very fine sand with trace silt

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.4	76.6	23.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.133	0.107	0.0991	0.0828				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray silty sand with trace shell fragments, organic matter	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

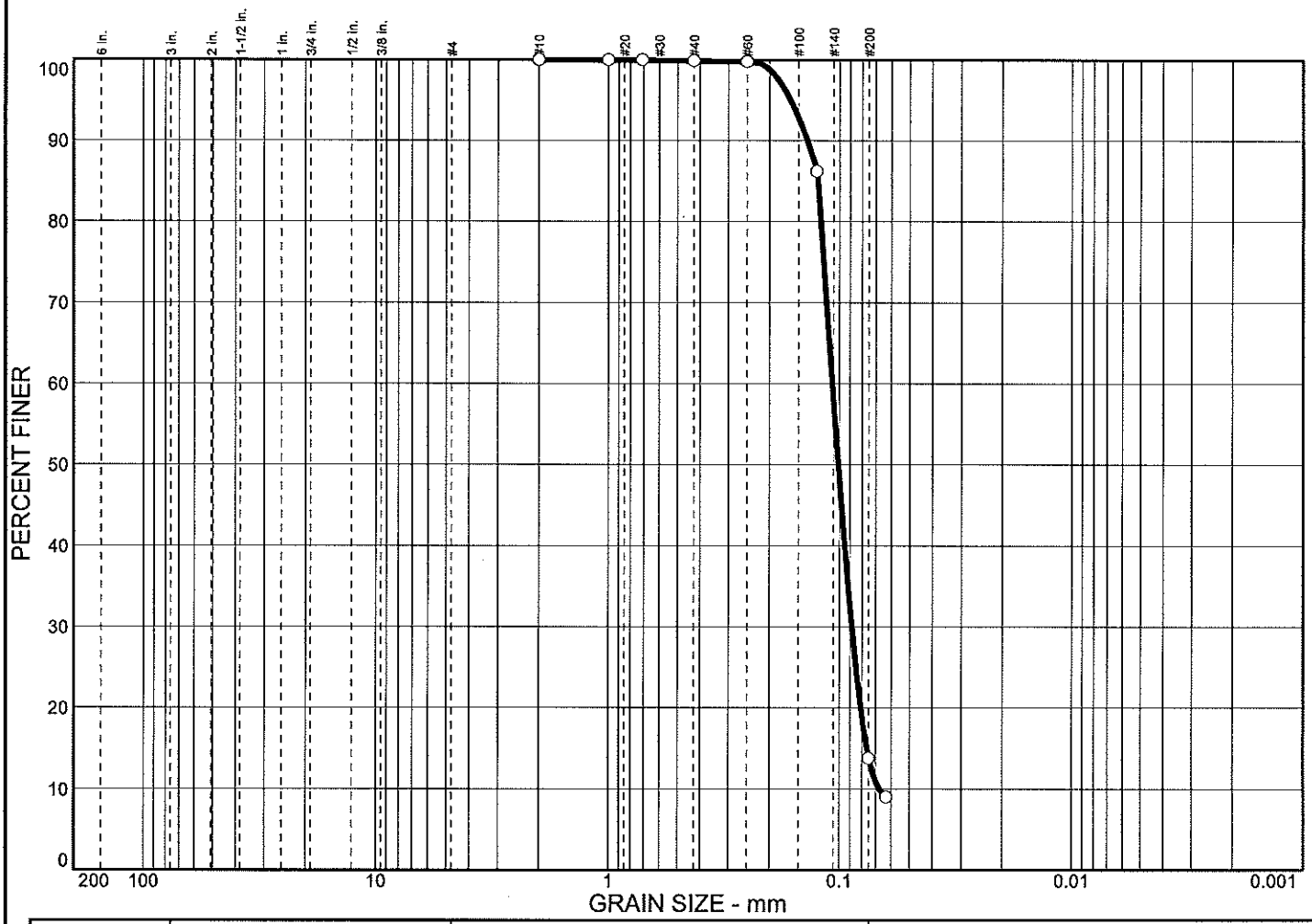
○ **Source:** Station 232+64 **Sample No.:** DUNE TOE

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Dune Toe
Moisture content = 25.1
Wentworth Classification:
Gray silty sand with trace shell fragments, organic matter

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.0	0.1	86.1	13.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.124	0.108	0.101	0.0887	0.0764	0.0675	1.08	1.60

MATERIAL DESCRIPTION	USCS	AASHTO
○ Light gray silty sand	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

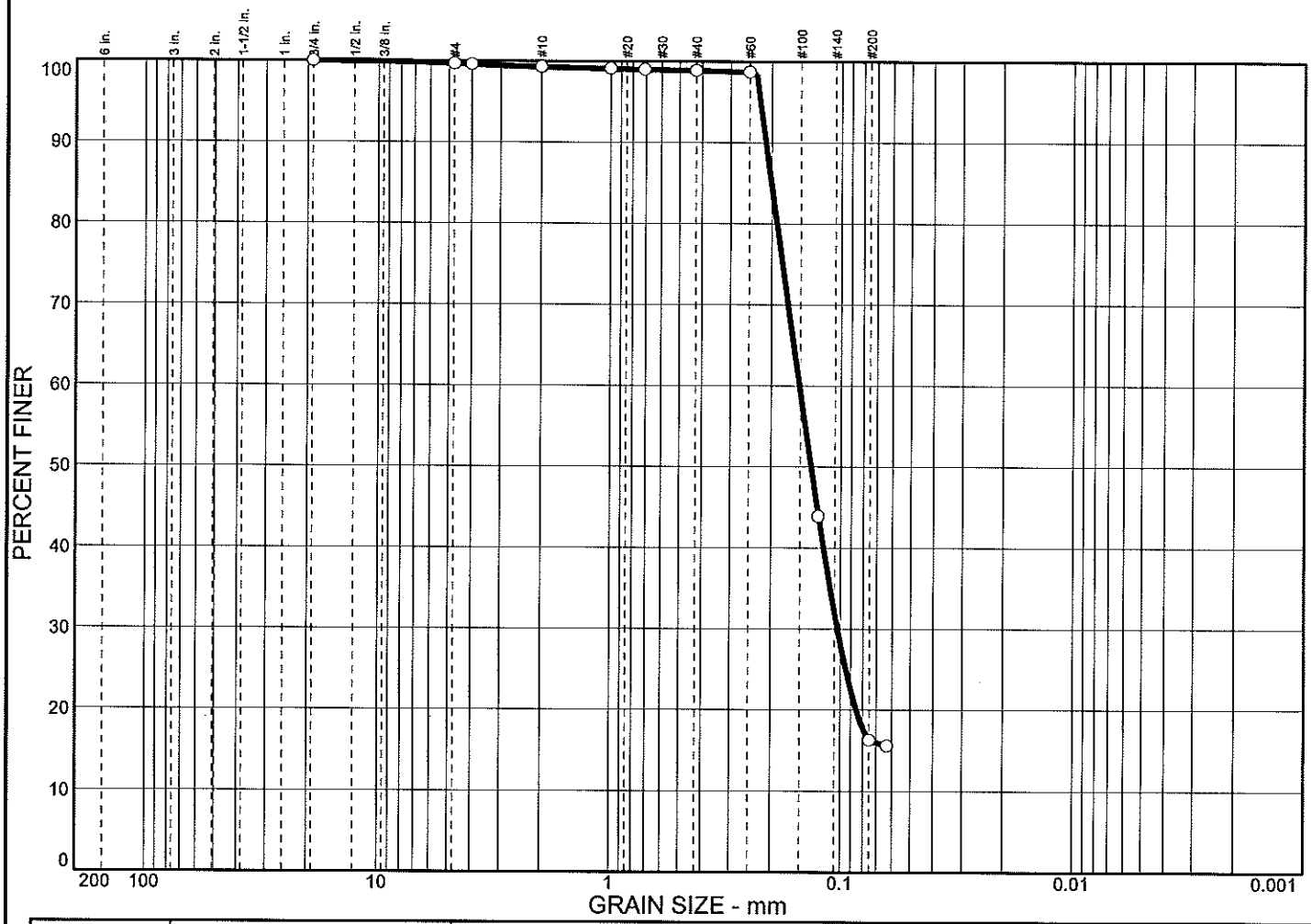
○ **Source:** Station 232+64 **Sample No.:** DUNE CREST

Remarks:
○ Sample Dune Crest
Moisture content = 12.5%
Wentworth Classification:
Light gray fine to very fine sand with silt

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.3	0.4	0.4	82.6	16.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.201	0.152	0.135	0.103				

MATERIAL DESCRIPTION	USCS	AASHTO
○ Tan silty sand with trace cemented sand, roots	SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

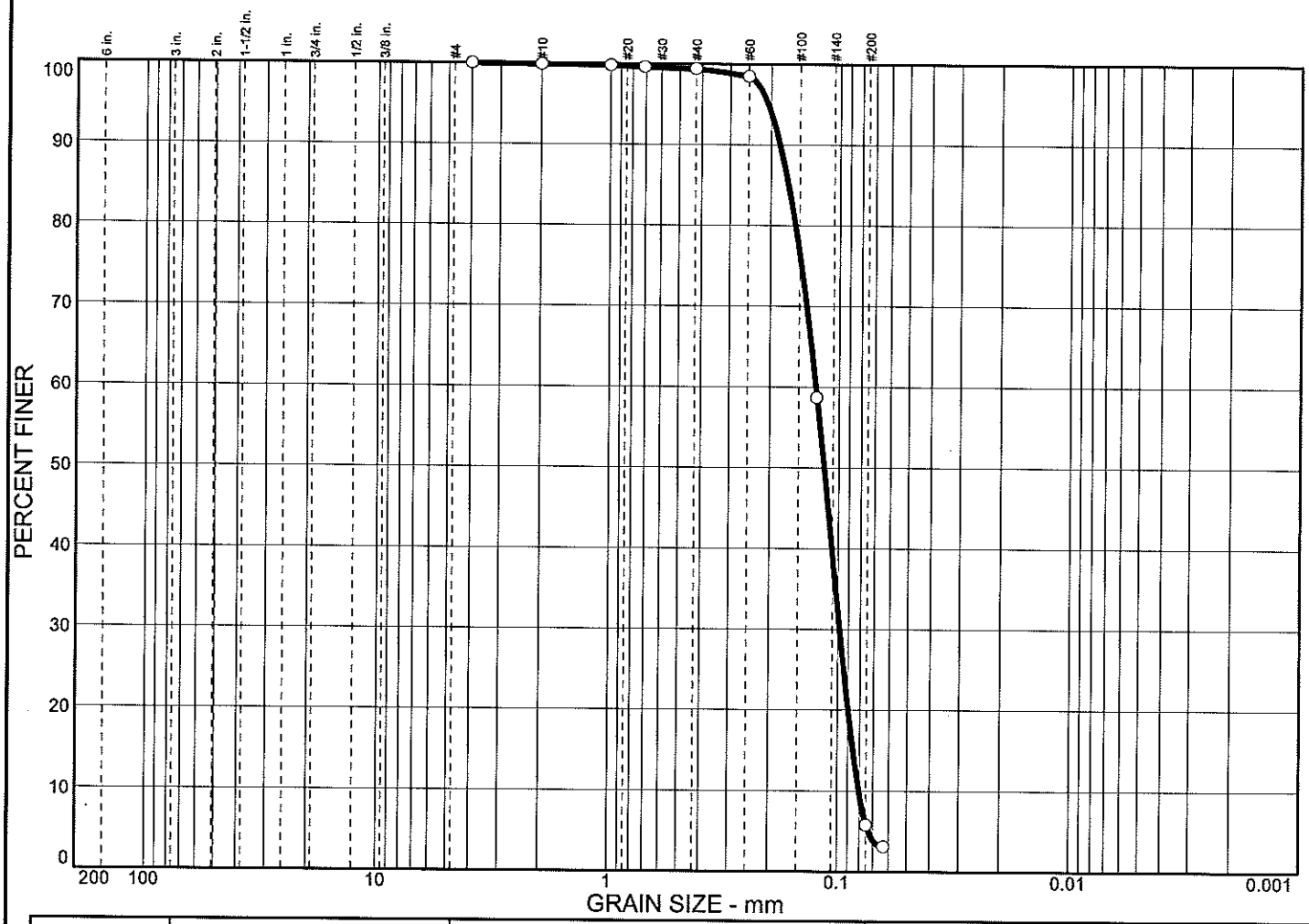
○ **Source:** Station 232+64 **Sample No.:** BACK BAY BERM

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Remarks:
○ Sample Back Bay Berm
Moisture content = 23.2%
Wentworth Classification:
Tan silty sand with trace cemented sand, roots

Figure

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		CRS.	FINE	CRS.	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.1	0.5	93.6	5.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○			0.168	0.126	0.116	0.0988	0.0858	0.0807	0.96	1.57

MATERIAL DESCRIPTION	USCS	AASHTO
○ Gray fine sand with silt, trace shell fragments, roots	SP-SM	

Project No. 19598 **Client:** Weeks Marine, INC., Covington, Louisiana

Project: State of Louisiana - New Cut Dune/Marsh Restoration (TE-37)
Terrebonne Parish, Louisiana, Purchase Order No. 125146

○ **Source:** Station 232+64 **Sample No.:** MARSH PLATFORM

Remarks:
○ Sample Marsh Platform
Moisture content = 13.0%
Wentworth Classification:
Gray fine to very fine sand with trace silt, shell fragments, roots

EUSTIS
Metairie, Louisiana
Lafayette, Louisiana
Gulfport, Mississippi

Figure