Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.6	19.4	61.1	18.9	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
Test Pad Backfill G1	G1-1	225.49'	N/A		Red Silty sand	10.8		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: MD Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G1
Sample No.: G1-1
Elev. or Depth: 225.49' **Sample Length(in./cm.):** N/A
Location: G1-1
Description: Red Silty sand
Date: N/A **Natural Moisture:** 10.8
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: MD Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	166.97
Tare =	0.00
Dry sample weight =	166.97

Tare for cumulative weight retained= .00

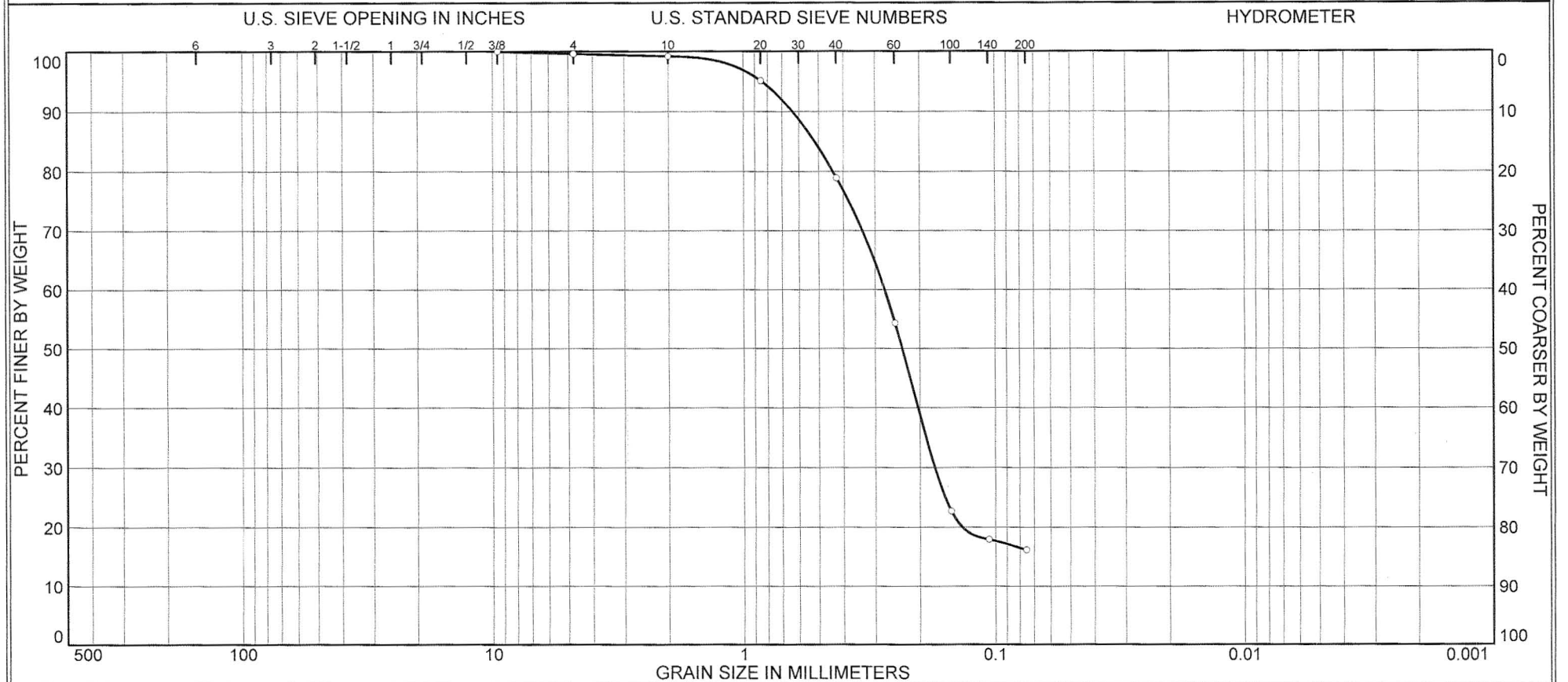
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.97	99.4
# 20	7.78	95.3
# 40	33.35	80.0
# 60	69.93	58.1
# 100	124.99	25.1
# 140	134.46	19.5
# 200	135.46	18.9

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 81.1 (% coarse = 0.6 % medium = 19.4 % fine = 61.1)
% FINES = 18.9

D_{85}= 0.51 D_{60}= 0.26 D_{50}= 0.22
D_{30}= 0.17

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.4	0.4	20.3	62.8	16.1	

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Test Pad Backfill G1	G1-2	225.44'	N/A		Red Silty sand	8.1		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

○ Tested by: MD/SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G1
Sample No.: G1-2
Elev. or Depth: 225.44' **Sample Length(in./cm.):** N/A
Location: G1-2
Description: Red Silty sand
Date: N/A **Natural Moisture:** 8.1
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: MD/SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	206.37
Tare =	64.34
Dry sample weight =	142.03

Tare for cumulative weight retained= .00

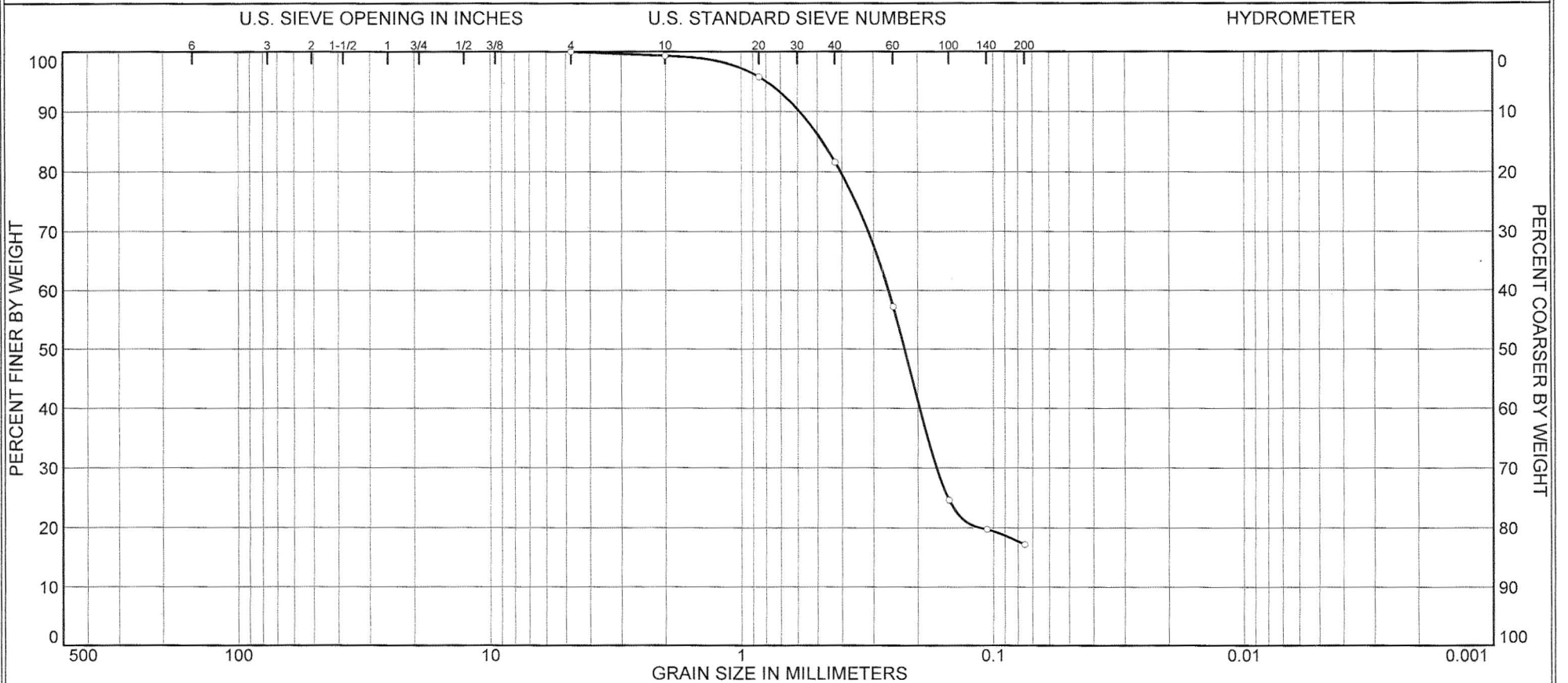
Sieve	Cumul. Wt. retained	Percent finer
.375 inch	0.00	100.0
# 4	0.63	99.6
# 10	1.07	99.2
# 20	6.97	95.1
# 40	30.03	78.9
# 60	64.89	54.3
# 100	109.76	22.7
# 140	116.64	17.9
# 200	119.15	16.1

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = **% GRAVEL** = 0.4 **(% coarse =** **% fine** = 0.4)
% SAND = 83.5 **(% coarse** = 0.4 **% medium** = 20.3 **% fine** = 62.8)
% FINES = 16.1

D_{85}= 0.52 D_{60}= 0.27 D_{50}= 0.23
D_{30}= 0.17

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.7	17.7	64.5	17.1	

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Test Pad Backfill G1	G1-4	225.31'	N/A		Red Silty sand	N/A	NV	NP

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

○ Tested by: SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G1
Sample No.: G1-4
Elev. or Depth: 225.31' **Sample Length(in./cm.):** N/A
Location: G1-4
Description: Red Silty sand
Date: N/A **Natural Moisture:** N/A
Liquid Limit: NV **Plastic Limit:** NP **USCS Class.:**
Testing Remarks: Tested by: SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	199.45
Tare =	64.38
Dry sample weight =	135.07

Tare for cumulative weight retained= .00

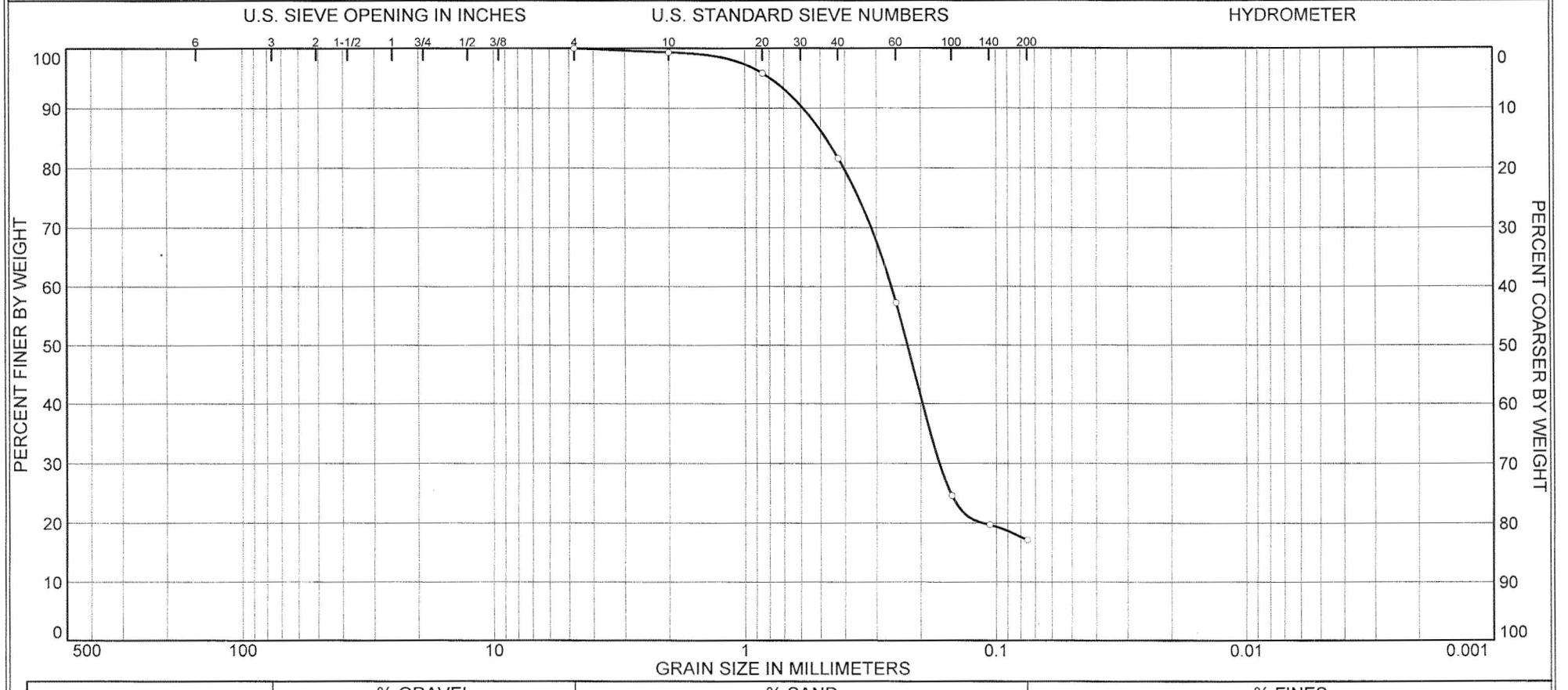
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.88	99.3
# 20	5.68	95.8
# 40	24.92	81.6
# 60	57.85	57.2
# 100	101.83	24.6
# 140	108.43	19.7
# 200	111.91	17.1

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 82.9 (% coarse = 0.7 % medium = 17.7 % fine = 64.5)
% FINES = 17.1

D_{85}= 0.48 D_{60}= 0.26 D_{50}= 0.23
D_{30}= 0.17

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.7	17.7	64.5	17.1	

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Test Pad Backfill G1	G1-4	225.31'	N/A		Red Silty sand	N/A	NV	NP

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

○ Tested by: SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G1
Sample No.: G1-4
Elev. or Depth: 225.31' **Sample Length(in./cm.):** N/A
Location: G1-4
Description: Red Silty sand
Date: N/A **Natural Moisture:** N/A
Liquid Limit: NV **Plastic Limit:** NP **USCS Class.:**
Testing Remarks: Tested by: SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	199.45
Tare =	64.38
Dry sample weight =	135.07

Tare for cumulative weight retained= .00

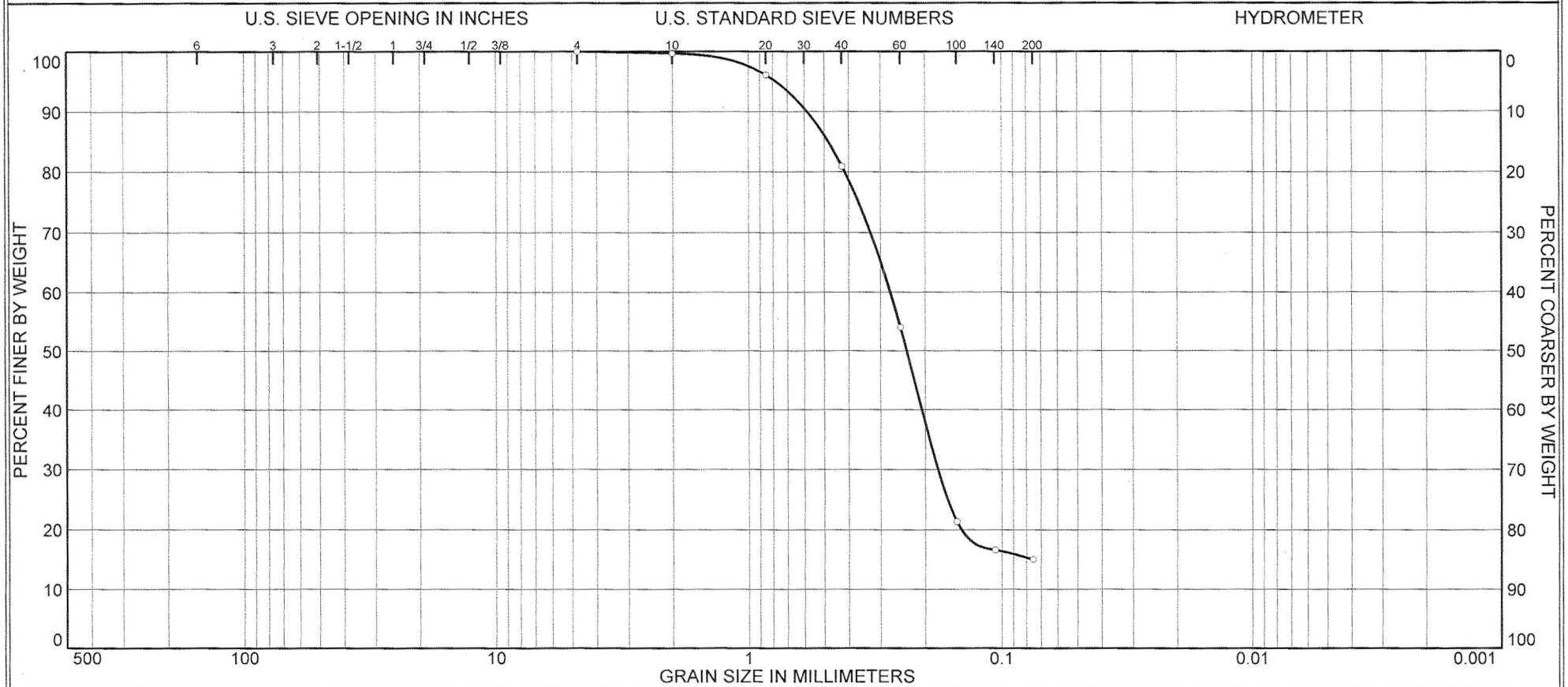
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.88	99.3
# 20	5.68	95.8
# 40	24.92	81.6
# 60	57.85	57.2
# 100	101.83	24.6
# 140	108.43	19.7
# 200	111.91	17.1

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = **% GRAVEL =**
% SAND = 82.9 **(% coarse =** 0.7 **% medium =** 17.7 **% fine =** 64.5**)**
% FINES = 17.1

D_{85}= 0.48 D_{60}= 0.26 D_{50}= 0.23
D_{30}= 0.17

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.3	18.8	65.9	15.0	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
Test Pad Backfill G2	G2-1	225.98'	N/A		Red Silty sand	5.8		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by:SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G2
Sample No.: G2-1
Elev. or Depth: 225.98' **Sample Length(in./cm.):** N/A
Location: G2-1
Description: Red Silty sand
Date: N/A **Natural Moisture:** 5.8
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by:SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	238.74
Tare =	83.72
Dry sample weight =	155.02

Tare for cumulative weight retained= .00

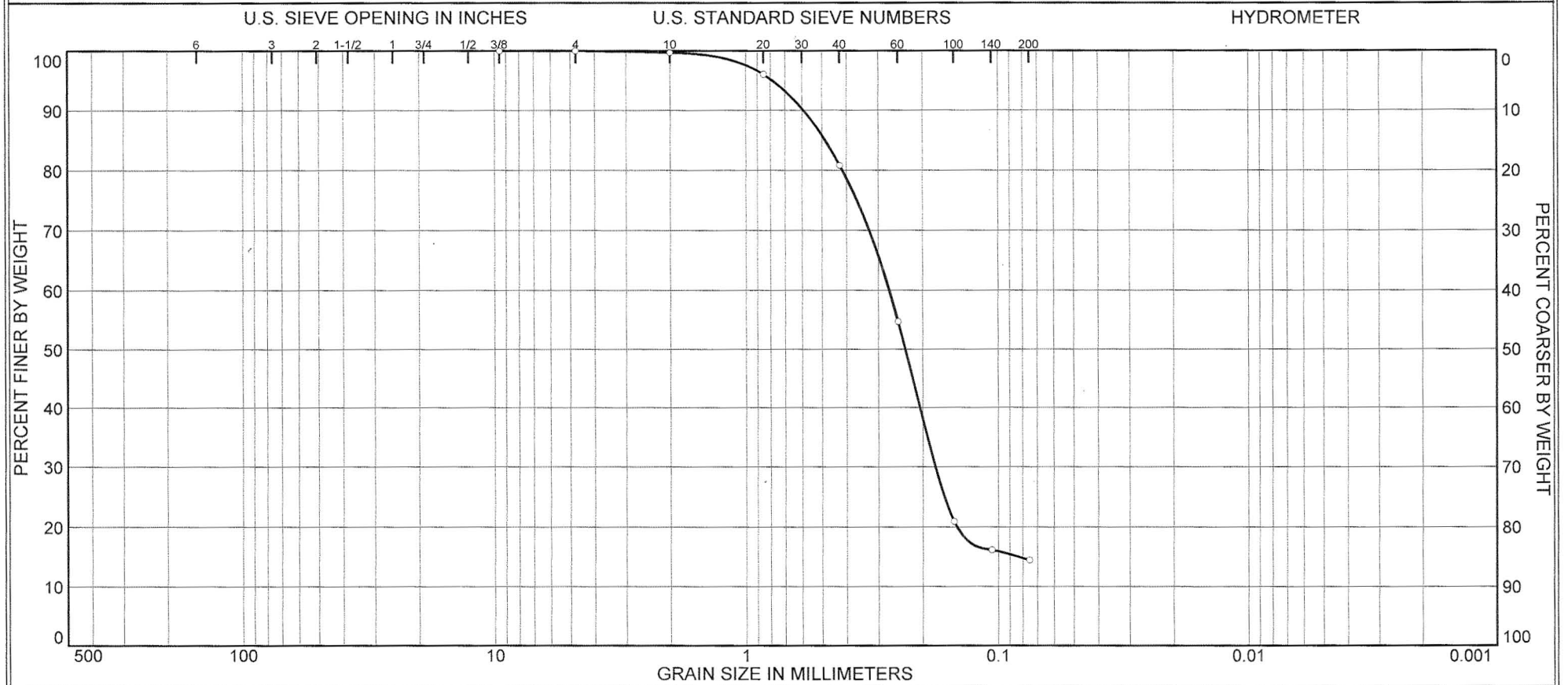
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.40	99.7
# 20	6.02	96.1
# 40	29.65	80.9
# 60	71.30	54.0
# 100	122.04	21.3
# 140	129.26	16.6
# 200	131.74	15.0

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 85.0 (% coarse = 0.3 % medium = 18.8 % fine = 65.9)
% FINES = 15.0

D_{85}= 0.48 D_{60}= 0.27 D_{50}= 0.24
D_{30}= 0.18 D_{15}= 0.08

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.3	18.9	66.4	14.4	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
Test Pad Backfill G2	G2-2	225.77'	N/A		Red Silty sand	5.6		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: SW/MD Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G2
Sample No.: G2-2
Elev. or Depth: 225.77' **Sample Length(in./cm.):** N/A
Location: G2-2
Description: Red Silty sand
Date: N/A **Natural Moisture:** 5.6
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: SW/MD Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	199.75
Tare =	64.35
Dry sample weight =	135.40

Tare for cumulative weight retained= .00

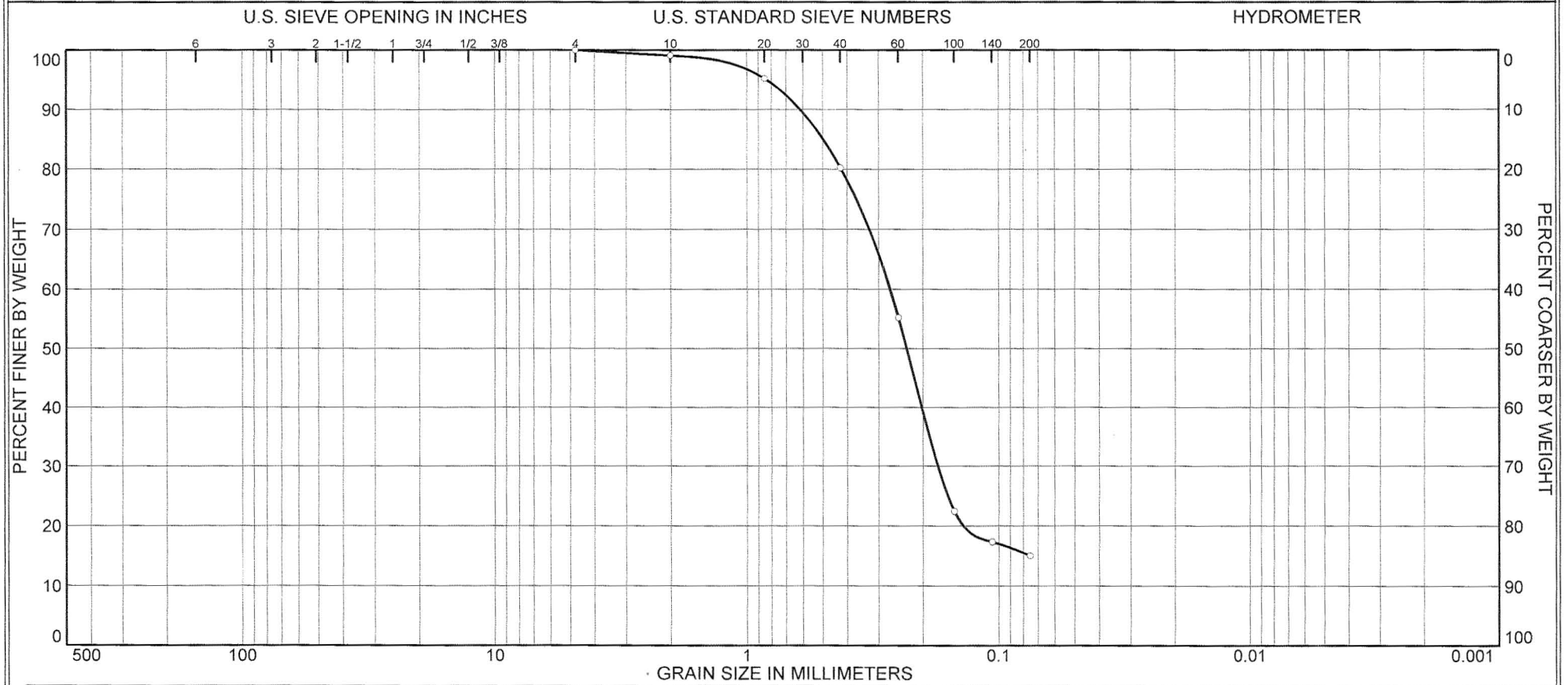
Sieve	Cumul. Wt. retained	Percent finer
.375 inch	0.00	100.0
# 4	0.00	100.0
# 10	0.46	99.7
# 20	5.46	96.0
# 40	25.94	80.8
# 60	61.33	54.7
# 100	107.11	20.9
# 140	113.58	16.1
# 200	115.87	14.4

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 85.6 (% coarse = 0.3 % medium = 18.9 % fine = 66.4)
% FINES = 14.4

D_{85}= 0.49 D_{60}= 0.27 D_{50}= 0.23
D_{30}= 0.18 D_{15}= 0.08

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.9	18.9	65.2	15.0	

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Test Pad Backfill G2	G2-3	225.94'	N/A	SM	Red Silty sand	4.3	NV	NP

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

○ Tested by: SW/MD Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G2
Sample No.: G2-3
Elev. or Depth: 225.94' **Sample Length(in./cm.):** N/A
Location: G2-3
Description: Red Silty sand
Date: N/A **Natural Moisture:** 4.3
Liquid Limit: NV **Plastic Limit:** NP **USCS Class.:** SM
Testing Remarks: Tested by: SW/MD Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	200.81
Tare =	64.14
Dry sample weight =	136.67

Tare for cumulative weight retained= .00

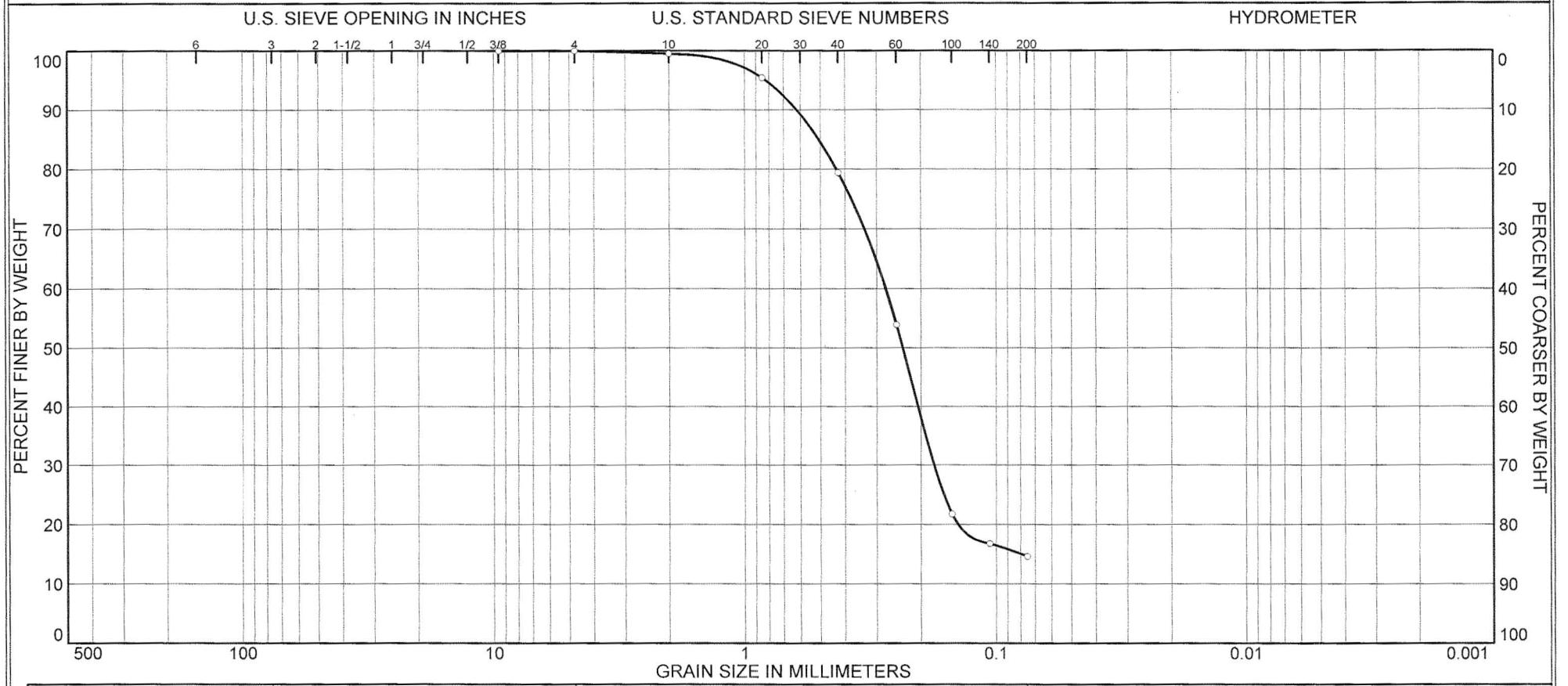
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	1.24	99.1
# 20	6.53	95.2
# 40	27.12	80.2
# 60	61.28	55.2
# 100	106.03	22.4
# 140	113.09	17.3
# 200	116.21	15.0

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 85.0 (% coarse = 0.9 % medium = 18.9 % fine = 65.2)
% FINES = 15.0

D_{85}= 0.50 D_{60}= 0.27 D_{50}= 0.23
D_{30}= 0.17 D_{15}= 0.08

Particle Size Distribution Report



	% COBBLES	% GRAVEL		% SAND			% FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
○	0.0	0.0	0.0	0.5	20.1	64.8	14.6	

	SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
○	Test Pad Backfill G2	G2-4	225.98'	N/A		Red Silty sand	5.9		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

○ Tested by: SW/MD Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G2
Sample No.: G2-4
Elev. or Depth: 225.98' **Sample Length(in./cm.):** N/A
Location: G2-4
Description: Red Silty sand
Date: N/A **Natural Moisture:** 5.9
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: SW/MD Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	204.90
Tare =	70.17
Dry sample weight =	134.73

Tare for cumulative weight retained= .00

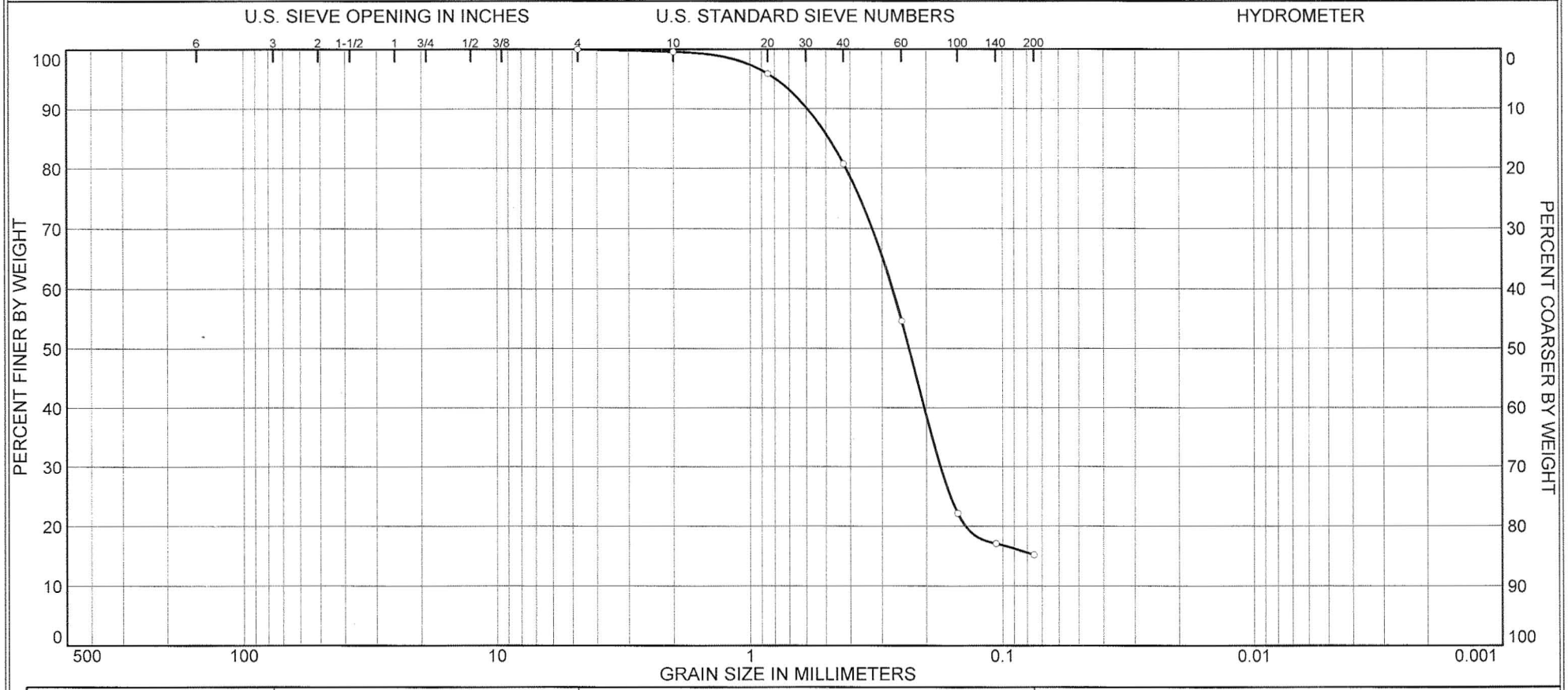
Sieve	Cumul. Wt. retained	Percent finer
.375 inch	0.00	100.0
# 4	0.00	100.0
# 10	0.62	99.5
# 20	6.15	95.4
# 40	27.69	79.4
# 60	62.10	53.9
# 100	105.55	21.7
# 140	112.28	16.7
# 200	115.11	14.6

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = **% GRAVEL =**
% SAND = 85.4 **(% coarse =** 0.5 **% medium =** 20.1 **% fine =** 64.8**)**
% FINES = 14.6

D_{85}= 0.51 D_{60}= 0.28 D_{50}= 0.24
D_{30}= 0.18 D_{15}= 0.08

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.4	18.9	65.6	15.1	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
Test Pad Backfill G3	G3-1	226.32'	N/A		Red Silty sand	4.4		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G3
Sample No.: G3-1
Elev. or Depth: 226.32' **Sample Length(in./cm.):** N/A
Location: G3-1
Description: Red Silty sand
Date: N/A **Natural Moisture:** 4.4
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	199.20
Tare =	64.38
Dry sample weight =	134.82

Tare for cumulative weight retained= .00

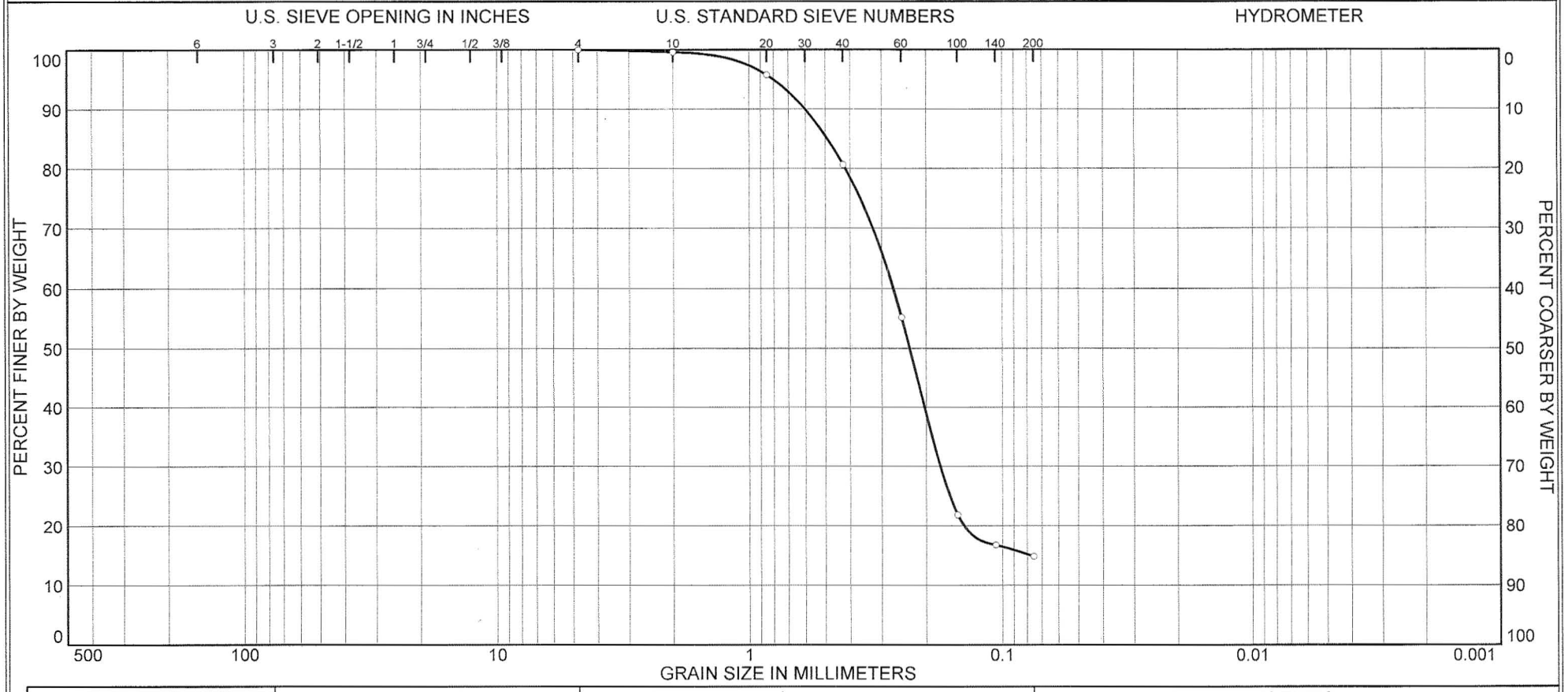
Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.57	99.6
# 20	5.53	95.9
# 40	26.01	80.7
# 60	61.16	54.6
# 100	105.07	22.1
# 140	111.91	17.0
# 200	114.42	15.1

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 84.9 (% coarse = 0.4 % medium = 18.9 % fine = 65.6)
% FINES = 15.1

D_{85}= 0.49 D_{60}= 0.27 D_{50}= 0.23
D_{30}= 0.18

Particle Size Distribution Report



% COBBLES	% GRAVEL		% SAND			% FINES	
	COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
0.0	0.0	0.0	0.4	19.0	65.8	14.8	

SOURCE	SAMPLE #	DEPTH/ELEV.	DATE SAMPLED	USCS	MATERIAL DESCRIPTION	NM %	LL	PL
Test Pad Backfill G3	G3-2	226.34'	N/A		Red Silty sand	5.1		

Client GPC c/o SNOC

Project Vogtle Units 3 & 4 Test Pad Project

Project No. 6141-06-0286.54

MACTEC ENGINEERING AND CONSULTING, INC.

Tested by: MD/SW Reviewed by: MC

GRAIN SIZE DISTRIBUTION TEST DATA

Client: GPC c/o SNOC
Project: Vogtle Units 3 & 4 Test Pad Project
Project Number: 6141-06-0286.54

Sample Data

Source: Test Pad Backfill G3
Sample No.: G3-2
Elev. or Depth: 226.34' **Sample Length(in./cm.):** N/A
Location: G3-2
Description: Red Silty sand
Date: N/A **Natural Moisture:** 5.1
Liquid Limit: **Plastic Limit:** **USCS Class.:**
Testing Remarks: Tested by: MD/SW Reviewed by: MC

Mechanical Analysis Data

	Initial
Dry sample and tare=	198.49
Tare =	64.18
Dry sample weight =	134.31

Tare for cumulative weight retained= .00

Sieve	Cumul. Wt. retained	Percent finer
# 4	0.00	100.0
# 10	0.52	99.6
# 20	5.67	95.8
# 40	26.08	80.6
# 60	60.23	55.2
# 100	105.06	21.8
# 140	111.85	16.7
# 200	114.45	14.8

Fractional Components

Gravel/Sand based on #4
Sand/Fines based on #200
% COBBLES = % GRAVEL =
% SAND = 85.2 (% coarse = 0.4 % medium = 19.0 % fine = 65.8)
% FINES = 14.8

D_{85}= 0.49 D_{60}= 0.27 D_{50}= 0.23
D_{30}= 0.18 D_{15}= 0.08