

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-12 #1

Analysis Date: 05-30-06

Analyzed By: JF

Easting (ft):

929,594

Northing (ft):

1,073,568

Coordinate System:

Florida State Plane East

Elevation (ft):

-42.7 NAVD 88

USCS:

SW

Munsell:

Wet - 2.5Y-4/1

Dry - 5Y-6/2

Washed - 2.5Y-6/1

Comments:

Dry Weight (g):

81.77

Wash Weight (g):

80.54

Pan Retained (g):

0.04

Sieve Loss (%):

0.00

Fines (%):

#200 - 1.62

#230 - 1.56

Organics (%):

Carbonates (%):

Shell Hash (%):

6

Sieve Number

Sieve Size (Phi)

Sieve Size (Millimeters)

Grams Retained

% Weight Retained

Cum. Grams Retained

C. % Weight Retained

3/4"

-4.25

19.03

0.00

0.00

0.00

0.00

5/8"

-4.00

16.00

0.00

0.00

0.00

0.00

7/16"

-3.50

11.31

0.00

0.00

0.00

0.00

5/16"

-3.00

8.00

1.66

2.03

1.66

2.03

3.5

-2.50

5.66

1.16

1.42

2.82

3.45

4

-2.25

4.76

0.41

0.50

3.23

3.95

5

-2.00

4.00

0.43

0.53

3.66

4.48

7

-1.50

2.83

1.09

1.33

4.75

5.81

10

-1.00

2.00

1.75

2.14

6.50

7.95

14

-0.50

1.41

4.08

4.99

10.58

12.94

18

0.00

1.00

6.75

8.25

17.33

21.19

25

0.50

0.71

12.83

15.69

30.16

36.88

35

1.00

0.50

17.55

21.46

47.71

58.34

45

1.50

0.35

15.71

19.21

63.42

77.55

60

2.00

0.25

9.46

11.57

72.88

89.12

80

2.50

0.18

5.38

6.58

78.26

95.70

120

3.00

0.13

1.55

1.90

79.81

97.60

170

3.50

0.09

0.47

0.57

80.28

98.17

200

3.75

0.07

0.17

0.21

80.45

98.38

230

4.00

0.06

0.05

0.06

80.50

98.44

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

2.45

1.78

1.43

0.81

0.12

-0.31

-1.80

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

0.65

0.64

1.21

-0.99

4.69

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
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Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-12 #2

Analysis Date: 06-23-06

Analyzed By: RS

Easting (ft):

929,594

Northing (ft):

1,073,568

Coordinate System:

Florida State Plane East

Elevation (ft):

-46.7 NAVD 88

USCS:

SW

Munsell:

Wet - 2.5Y-4/1
Dry - 5Y-6/2
Washed - 5Y-6/2

Comments:

Dry Weight (g):

97.26

Wash Weight (g):

95.68

Pan Retained (g):

0.03

Sieve Loss (%):

0.01

Fines (%):

#200 - 1.78
#230 - 1.65

Organics (%):

Carbonates (%):

Shell Hash (%):

4

Sieve Number

Sieve Size
(Phi)

Sieve Size
(Millimeters)

Grams
Retained

% Weight
Retained

Cum. Grams
Retained

C. % Weight
Retained

3/4"

-4.25

19.03

0.00

0.00

0.00

0.00

5/8"

-4.00

16.00

0.00

0.00

0.00

0.00

7/16"

-3.50

11.31

0.25

0.26

0.25

0.26

5/16"

-3.00

8.00

0.30

0.31

0.55

0.57

3.5

-2.50

5.66

0.58

0.60

1.13

1.17

4

-2.25

4.76

0.56

0.58

1.69

1.75

5

-2.00

4.00

0.67

0.69

2.36

2.44

7

-1.50

2.83

1.12

1.15

3.48

3.59

10

-1.00

2.00

2.00

2.06

5.48

5.65

14

-0.50

1.41

5.29

5.44

10.77

11.09

18

0.00

1.00

7.51

7.72

18.28

18.81

25

0.50

0.71

14.39

14.80

32.67

33.61

35

1.00

0.50

18.57

19.09

51.24

52.70

45

1.50

0.35

17.88

18.38

69.12

71.08

60

2.00

0.25

12.70

13.06

81.82

84.14

80

2.50

0.18

9.09

9.35

90.91

93.49

120

3.00

0.13

3.30

3.39

94.21

96.88

170

3.50

0.09

0.59

0.61

94.80

97.49

200

3.75

0.07

0.71

0.73

95.51

98.22

230

4.00

0.06

0.13

0.13

95.64

98.35

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

2.72

1.99

1.65

0.93

0.21

-0.18

-1.16

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

0.84


0.56

1.15

-0.63

4.15

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

Granularmetric Report Depths and elevations based on measured values				 Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116			
Project Name: St. Lucie Vibracores							
Sample Name: SLVC-06-12 #3							
Analysis Date: 05-30-06							
Analyzed By: RS							
Easting (ft):		Northing (ft):		Coordinate System:		Elevation (ft):	
929,594		1,073,568		Florida State Plane East		-50.7 NAVD 88	
USCS:		Munsell:		Comments:			
SW		Wet - N-4/0 Dry - 5Y-6/2 Washed - 5Y-5/1					
Dry Weight (g):	Wash Weight (g):	Pan Retained (g):	Sieve Loss (%):	Fines (%):	Organics (%):	Carbonates (%):	Shell Hash (%):
86.19	84.61	0.04	0.03	#200 - 2.13 #230 - 1.92			6
Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained	
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00	
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00	
7/16"	-3.50	11.31	0.30	0.35	0.30	0.35	
5/16"	-3.00	8.00	1.83	2.12	2.13	2.47	
3.5	-2.50	5.66	0.83	0.96	2.96	3.43	
4	-2.25	4.76	0.50	0.58	3.46	4.01	
5	-2.00	4.00	0.62	0.72	4.08	4.73	
7	-1.50	2.83	1.39	1.61	5.47	6.34	
10	-1.00	2.00	2.14	2.48	7.61	8.82	
14	-0.50	1.41	3.00	3.48	10.61	12.30	
18	0.00	1.00	3.68	4.27	14.29	16.57	
25	0.50	0.71	6.63	7.69	20.92	24.26	
35	1.00	0.50	12.13	14.07	33.05	38.33	
45	1.50	0.35	18.74	21.74	51.79	60.07	
60	2.00	0.25	18.82	21.84	70.61	81.91	
80	2.50	0.18	9.60	11.14	80.21	93.05	
120	3.00	0.13	3.00	3.48	83.21	96.53	
170	3.50	0.09	0.80	0.93	84.01	97.46	
200	3.75	0.07	0.35	0.41	84.36	97.87	
230	4.00	0.06	0.18	0.21	84.54	98.08	
Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95	
2.78	2.09	1.84	1.27	0.53	-0.07	-1.92	
Moment	Mean Phi	Mean mm	Sorting	Skewness	Kurtosis		
Statistics	0.96	0.51	1.32	-1.3	4.95		

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Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
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Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-12 #4

Analysis Date: 06-17-06

Analyzed By: JF

Easting (ft):

929,594

Northing (ft):

1,073,568

Coordinate System:

Florida State Plane East

Elevation (ft):

-55.7 NAVD 88

USCS:

SW

Munsell:

Wet - 2.5Y-4/1
Dry - 5Y-6/1
Washed - 5Y-6/1

Comments:

Dry Weight (g):

80.89

Wash Weight (g):

78.83

Pan Retained (g):

0.04

Sieve Loss (%):

0.04

Fines (%):

#200 - 2.93
#230 - 2.63

Organics (%):

Carbonates (%):

Shell Hash (%):

6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	1.50	1.85	1.50	1.85
7/16"	-3.50	11.31	1.35	1.67	2.85	3.52
5/16"	-3.00	8.00	0.33	0.41	3.18	3.93
3.5	-2.50	5.66	0.59	0.73	3.77	4.66
4	-2.25	4.76	0.20	0.25	3.97	4.91
5	-2.00	4.00	0.25	0.31	4.22	5.22
7	-1.50	2.83	0.84	1.04	5.06	6.26
10	-1.00	2.00	1.77	2.19	6.83	8.45
14	-0.50	1.41	3.69	4.56	10.52	13.01
18	0.00	1.00	5.73	7.08	16.25	20.09
25	0.50	0.71	11.02	13.62	27.27	33.71
35	1.00	0.50	15.39	19.03	42.66	52.74
45	1.50	0.35	12.99	16.06	55.65	68.80
60	2.00	0.25	8.29	10.25	63.94	79.05
80	2.50	0.18	7.47	9.23	71.41	88.28
120	3.00	0.13	4.87	6.02	76.28	94.30
170	3.50	0.09	1.70	2.10	77.98	96.40
200	3.75	0.07	0.54	0.67	78.52	97.07
230	4.00	0.06	0.24	0.30	78.76	97.37

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

3.17

2.27

1.80

0.93

0.18

-0.29

-2.18

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

0.77

0.59

1.49

-1.13

5.14

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

Granularmetric Report

Depths and elevations based on measured values



Coastal Planning & Engineering
2481 NW Boca Raton Blvd, Boca Raton
FL 33431
ph (561) 391-8102
fax (561) 391-9116

Project Name: St. Lucie Vibracores

Sample Name: SLVC-06-12 #5

Analysis Date: 05-30-06

Analyzed By: RS

Easting (ft):

929,594

Northing (ft):

1,073,568

Coordinate System:

Florida State Plane East

Elevation (ft):

-58.7 NAVD 88

USCS:

SM

Munsell:

Wet - 5Y-4/1

Dry - 5Y-6/1

Washed - 5Y-6/1

Comments:

Dry Weight (g):

84.35

Wash Weight (g):

71.67

Pan Retained (g):

0.55

Sieve Loss (%):

0.24

Fines (%):

#200 - 18.64

#230 - 15.93

Organics (%):

Carbonates (%):

Shell Hash (%):

1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	Grams Retained	% Weight Retained	Cum. Grams Retained	C. % Weight Retained
3/4"	-4.25	19.03	0.00	0.00	0.00	0.00
5/8"	-4.00	16.00	0.00	0.00	0.00	0.00
7/16"	-3.50	11.31	0.00	0.00	0.00	0.00
5/16"	-3.00	8.00	0.00	0.00	0.00	0.00
3.5	-2.50	5.66	0.12	0.14	0.12	0.14
4	-2.25	4.76	0.28	0.33	0.40	0.47
5	-2.00	4.00	0.01	0.01	0.41	0.48
7	-1.50	2.83	0.40	0.47	0.81	0.95
10	-1.00	2.00	0.76	0.90	1.57	1.85
14	-0.50	1.41	1.09	1.29	2.66	3.14
18	0.00	1.00	1.11	1.32	3.77	4.46
25	0.50	0.71	1.89	2.24	5.66	6.70
35	1.00	0.50	2.75	3.26	8.41	9.96
45	1.50	0.35	3.67	4.35	12.08	14.31
60	2.00	0.25	4.46	5.29	16.54	19.60
80	2.50	0.18	9.63	11.42	26.17	31.02
120	3.00	0.13	21.38	25.35	47.55	56.37
170	3.50	0.09	14.60	17.31	62.15	73.68
200	3.75	0.07	6.48	7.68	68.63	81.36
230	4.00	0.06	2.29	2.71	70.92	84.07

Phi 5

Phi 16

Phi 25

Phi 50

Phi 75

Phi 84

Phi 95

3.99

3.54

2.87

2.24

1.66

0.12

Moment

Mean Phi

Mean mm

Sorting

Skewness

Kurtosis

Statistics

2.42

0.19

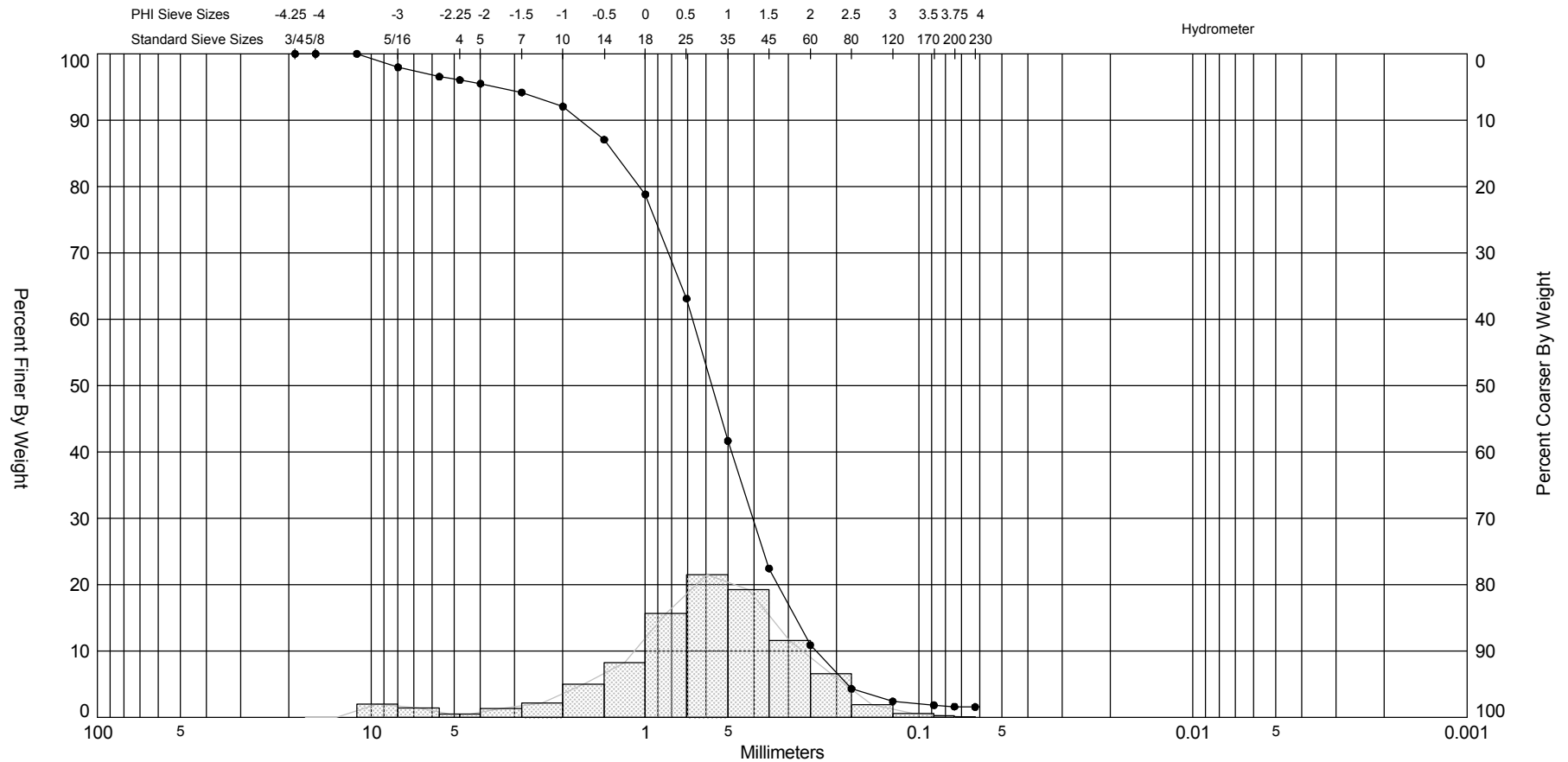
1.17

-1.62


5.82

GRANULARMETRIC REPORT ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06

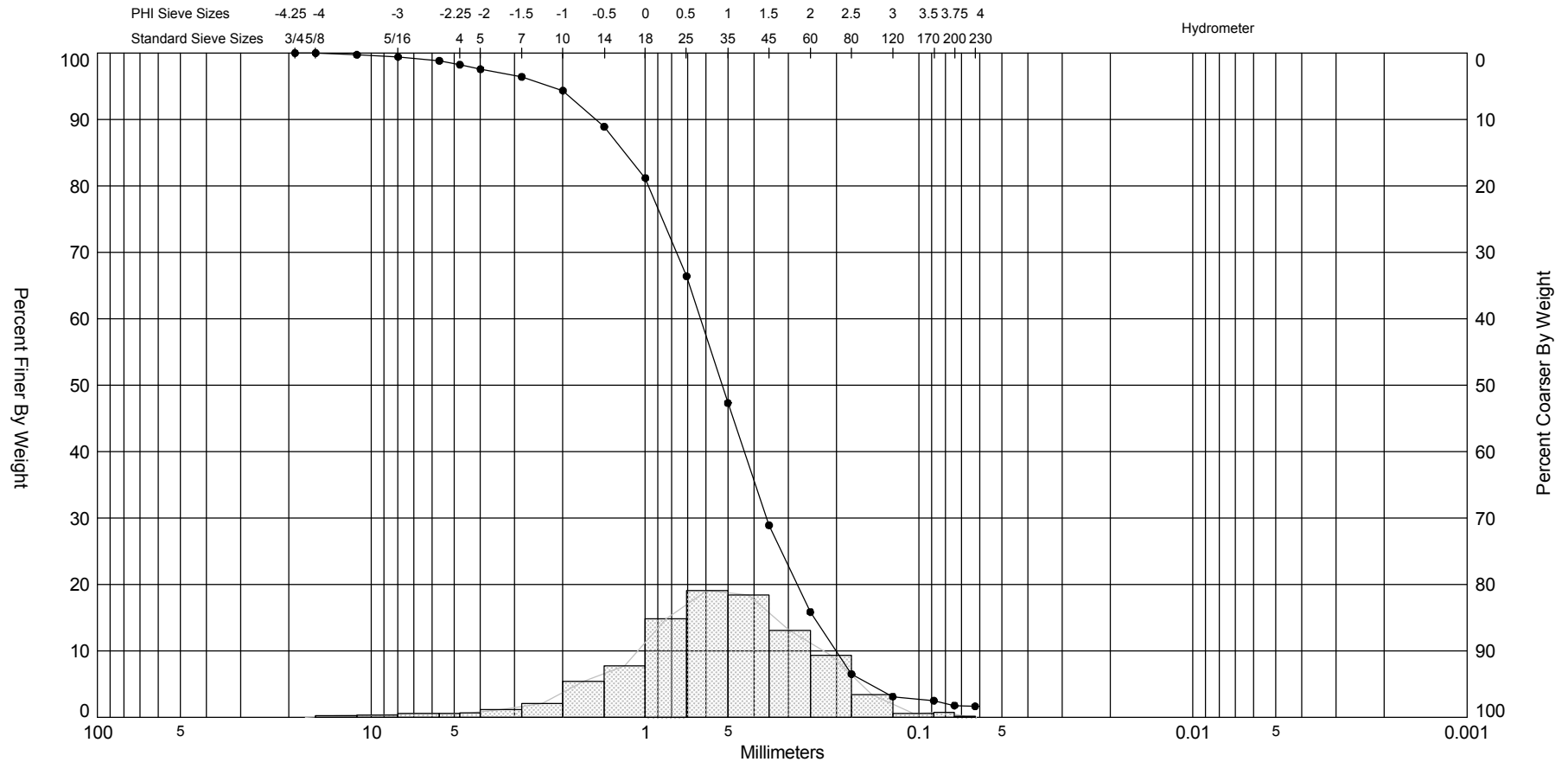
SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06




Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
SLVC-06-12 #1	—●—	-42.7	SW	#200 - 1.62 #230 - 1.56			0.81	0.65	-0.99	4.69	1.21	Project Name:	St. Lucie Vibracores
Comments:												Analysis Date:	05-30-06
Depths and elevations based on measured values												Analyzed By:	JF
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	929,594
												Northing (Y, ft):	1,073,568
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88

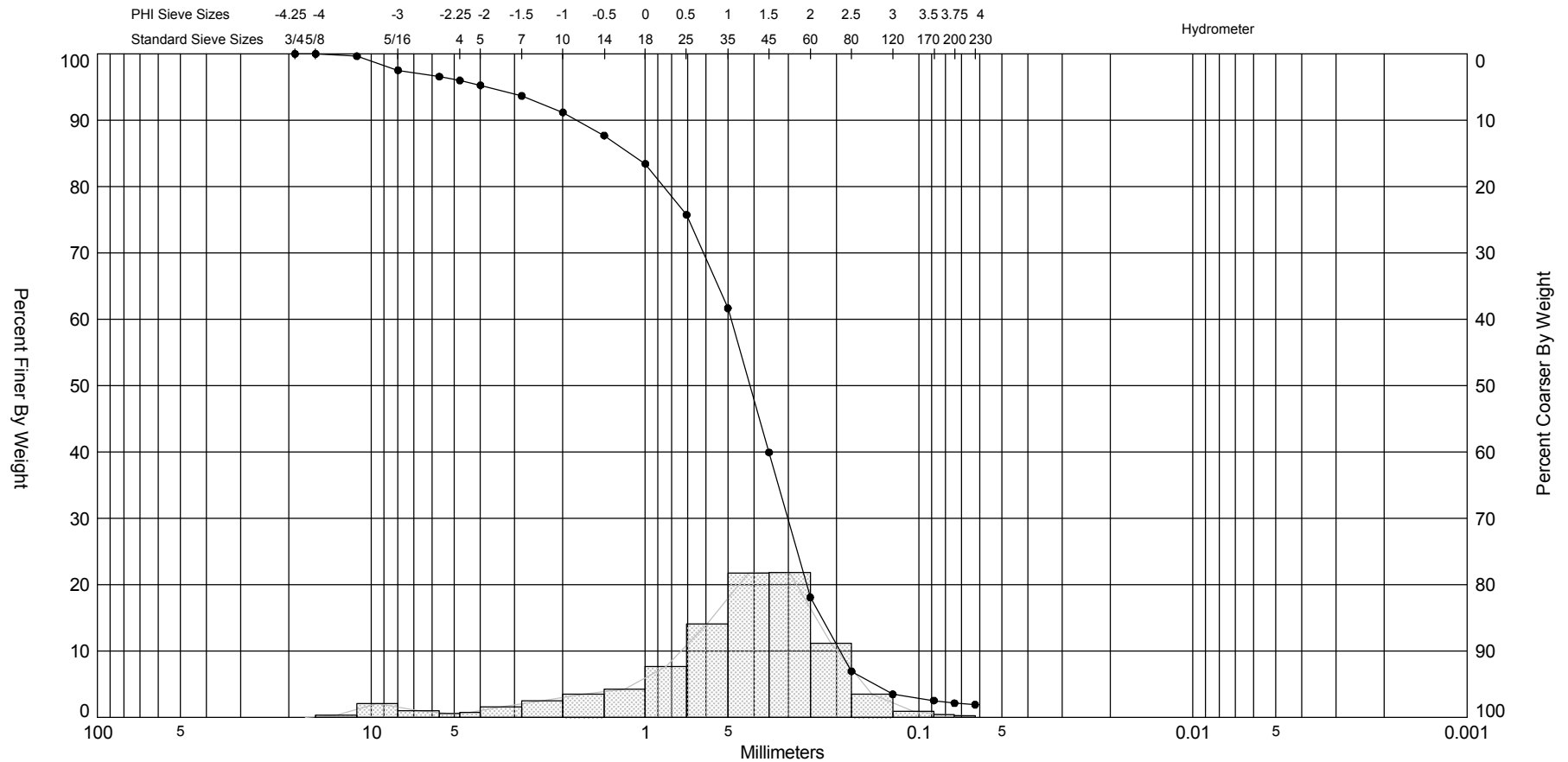
SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06




Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
SLVC-06-12 #2	—●—	-46.7	SW	#200 - 1.78 #230 - 1.65			0.93	0.84	-0.63	4.15	1.15	Project Name:	St. Lucie Vibracores
Comments:												Analysis Date:	06-23-06
Depths and elevations based on measured values												Analyzed By:	RS
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	929,594
												Northing (Y, ft):	1,073,568
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88

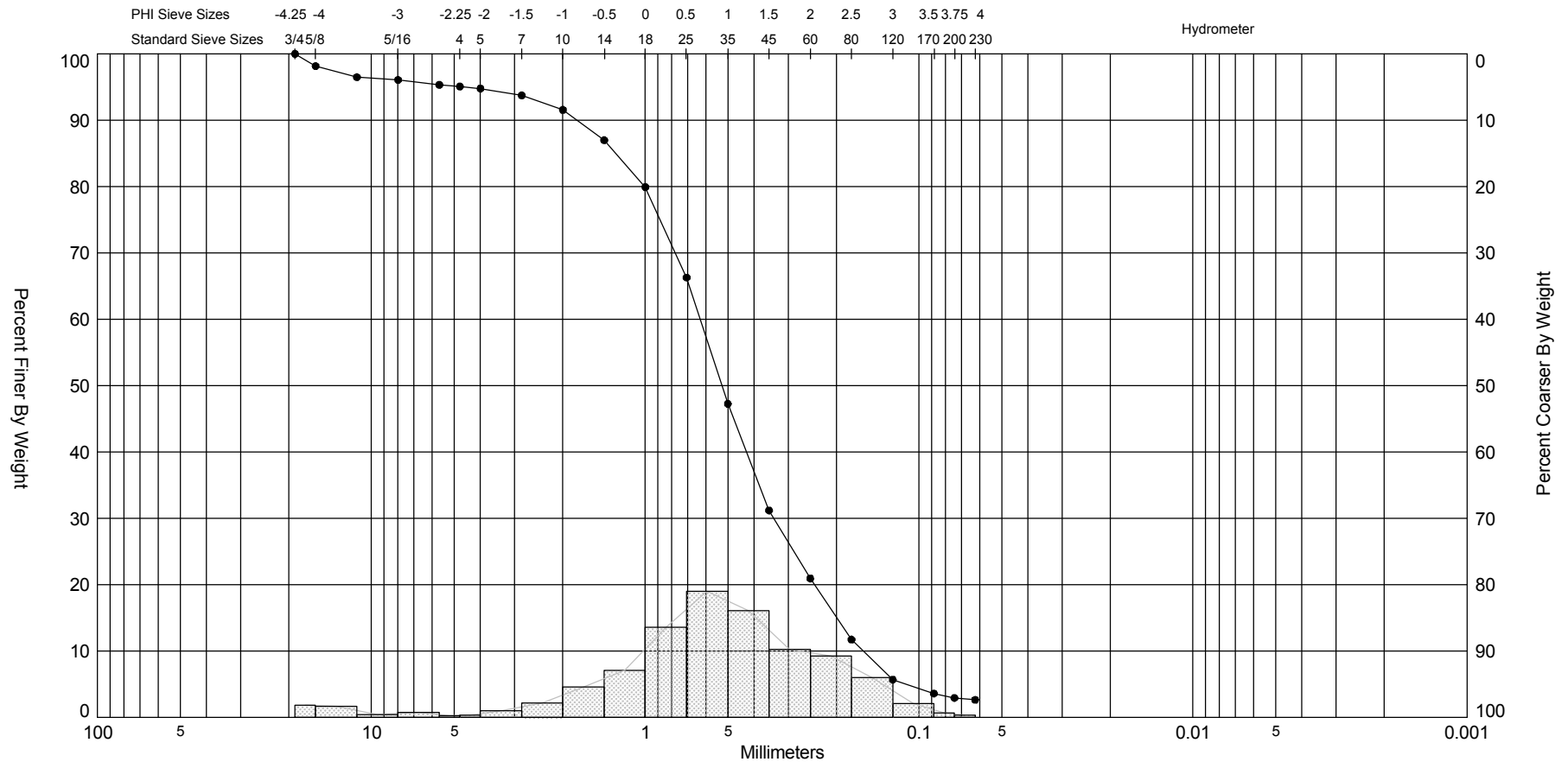
SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06




Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
SLVC-06-12 #3	—●—	-50.7	SW	#200 - 2.13 #230 - 1.92			1.27	0.96	-1.3	4.95	1.32	Project Name:	St. Lucie Vibracores
Comments:												Analysis Date:	05-30-06
Depths and elevations based on measured values												Analyzed By:	RS
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	929,594
												Northing (Y, ft):	1,073,568
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88



SIEVE ANALYSIS ST LUCIE VC.GPJ FL DEP ROSS.GDT 6/28/06



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
SLVC-06-12 #4	—●—	-55.7	SW	#200 - 2.93 #230 - 2.63			0.93	0.77	-1.13	5.14	1.49	Project Name:	St. Lucie Vibracores
Comments:												Analysis Date:	06-17-06
Depths and elevations based on measured values												Analyzed By:	JF
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	929,594
												Northing (Y, ft):	1,073,568
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
SLVC-06-12 #5		-58.7	SM	#200 - 18.64 #230 - 15.93			2.87	2.42	-1.62	5.82	1.17	Project Name:	St. Lucie Vibracores
Comments:												Analysis Date:	05-30-06
Depths and elevations based on measured values												Analyzed By:	RS
						Coastal Planning & Engineering 2481 NW Boca Raton Blvd, Boca Raton FL 33431 ph (561) 391-8102 fax (561) 391-9116						Easting (X, ft):	929,594
												Northing (Y, ft):	1,073,568
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88