Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 1 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-9.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.90 #230 - 0.89		4.97	7.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.61	0.61
#4	-2.25	4.75	0.06	0.67
#5	-2.00	4.00	0.17	0.84
#7	-1.50	2.80	0.16	1.00
#10	-1.00	2.00	0.25	1.25
#14	-0.50	1.40	0.46	1.71
#18	0.00	1.00	0.36	2.07
#25	0.50	0.71	0.54	2.61
#35	1.00	0.50	0.89	3.50
#45	1.50	0.36	2.72	6.22
#60	2.00	0.25	13.01	19.23
#80	2.50	0.18	57.54	76.77
#120	3.00	0.13	20.30	97.07
#170	3.50	0.09	2.01	99.08
#200	3.75	0.08	0.02	99.10
#230	4.00	0.06	0.01	99.11

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.95	2.68	2.48	2.27	2.05	1.88	1.28

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.18	0.22	2.27	0.21	0.71	-3.95	25.19

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 3 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-11.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.17 #230 - 1.15			8.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	1.24	1.24
#3.5	-2.50	5.60	0.61	1.85
#4	-2.25	4.75	0.04	1.89
#5	-2.00	4.00	0.15	2.04
#7	-1.50	2.80	0.43	2.47
#10	-1.00	2.00	0.63	3.10
#14	-0.50	1.40	0.93	4.03
#18	0.00	1.00	1.11	5.14
#25	0.50	0.71	1.53	6.67
#35	1.00	0.50	2.48	9.15
#45	1.50	0.36	5.06	14.21
#60	2.00	0.25	13.71	27.92
#80	2.50	0.18	46.17	74.09
#120	3.00	0.13	21.79	95.88
#170	3.50	0.09	2.85	98.73
#200	3.75	0.08	0.10	98.83
#230	4.00	0.06	0.02	98.85

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.73	2.52	2.24	1.89	1.57	-0.06

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.99	0.25	2.24	0.21	1.08	-3.11	14.73

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 6 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-14.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 2.85 #230 - 2.77			3.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.02	0.02
#14	-0.50	1.40	0.01	0.03
#18	0.00	1.00	0.02	0.05
#25	0.50	0.71	0.04	0.09
#35	1.00	0.50	0.07	0.16
#45	1.50	0.36	0.25	0.41
#60	2.00	0.25	1.61	2.02
#80	2.50	0.18	54.84	56.86
#120	3.00	0.13	34.24	91.10
#170	3.50	0.09	5.71	96.81
#200	3.75	0.08	0.34	97.15
#230	4.00	0.06	0.08	97.23

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.34	2.90	2.76	2.44	2.21	2.13	2.03

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.48	0.18	2.44	0.18	0.34	-0.06	8.69

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 9 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-17.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.01 #230 - 0.94			11.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.51	0.51
#4	-2.25	4.75	0.03	0.54
#5	-2.00	4.00	0.31	0.85
#7	-1.50	2.80	0.31	1.16
#10	-1.00	2.00	1.02	2.18
#14	-0.50	1.40	1.49	3.67
#18	0.00	1.00	1.58	5.25
#25	0.50	0.71	2.07	7.32
#35	1.00	0.50	3.23	10.55
#45	1.50	0.36	7.63	18.18
#60	2.00	0.25	9.82	28.00
#80	2.50	0.18	33.57	61.57
#120	3.00	0.13	30.66	92.23
#170	3.50	0.09	6.40	98.63
#200	3.75	0.08	0.36	98.99
#230	4.00	0.06	0.07	99.06

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.22	2.87	2.72	2.33	1.85	1.36	-0.08

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.08	0.24	2.33	0.20	1	-2.05	8.28

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 11 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-19.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.14 #230 - 1.04			8.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.47	0.47
#4	-2.25	4.75	0.07	0.54
#5	-2.00	4.00	0.22	0.76
#7	-1.50	2.80	0.27	1.03
#10	-1.00	2.00	0.45	1.48
#14	-0.50	1.40	0.84	2.32
#18	0.00	1.00	0.74	3.06
#25	0.50	0.71	0.91	3.97
#35	1.00	0.50	1.19	5.16
#45	1.50	0.36	2.34	7.50
#60	2.00	0.25	8.75	16.25
#80	2.50	0.18	53.53	69.78
#120	3.00	0.13	23.54	93.32
#170	3.50	0.09	5.23	98.55
#200	3.75	0.08	0.31	98.86
#230	4.00	0.06	0.10	98.96

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.16	2.80	2.61	2.32	2.08	1.99	0.93

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.22	0.21	2.32	0.20	0.8	-3.16	17.08

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-01 @ 13 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,188	2,029,329	State Plane, FLW (U.S. Ft.)	-21.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.51 #230 - 1.43			14.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.22	0.22
#4	-2.25	4.75	0.04	0.26
#5	-2.00	4.00	0.13	0.39
#7	-1.50	2.80	0.36	0.75
#10	-1.00	2.00	0.67	1.42
#14	-0.50	1.40	1.12	2.54
#18	0.00	1.00	1.45	3.99
#25	0.50	0.71	2.33	6.32
#35	1.00	0.50	4.49	10.81
#45	1.50	0.36	10.87	21.68
#60	2.00	0.25	19.27	40.95
#80	2.50	0.18	30.47	71.42
#120	3.00	0.13	20.81	92.23
#170	3.50	0.09	5.93	98.16
#200	3.75	0.08	0.33	98.49
#230	4.00	0.06	0.08	98.57

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.23	2.80	2.59	2.15	1.59	1.24	0.22

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.97	0.26	2.15	0.23	0.91	-1.56	6.96

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 1 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-10.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.92 #230 - 0.90			7.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.16	0.16
#4	-2.25	4.75	0.22	0.38
#5	-2.00	4.00	0.27	0.65
#7	-1.50	2.80	0.40	1.05
#10	-1.00	2.00	0.64	1.69
#14	-0.50	1.40	0.48	2.17
#18	0.00	1.00	0.51	2.68
#25	0.50	0.71	0.49	3.17
#35	1.00	0.50	0.66	3.83
#45	1.50	0.36	1.52	5.35
#60	2.00	0.25	7.15	12.50
#80	2.50	0.18	61.78	74.28
#120	3.00	0.13	21.01	95.29
#170	3.50	0.09	3.61	98.90
#200	3.75	0.08	0.18	99.08
#230	4.00	0.06	0.02	99.10

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.73	2.52	2.30	2.10	2.03	1.38

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.23	0.21	2.30	0.20	0.72	-3.69	21.19

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 3 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-12.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.01 #230 - 0.85		2.14	1.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#25	0.50	0.71	0.00	0.00
#35	1.00	0.50	0.01	0.01
#45	1.50	0.36	0.01	0.02
#60	2.00	0.25	0.16	0.18
#80	2.50	0.18	27.79	27.97
#120	3.00	0.13	57.47	85.44
#170	3.50	0.09	12.56	98.00
#200	3.75	0.08	0.99	98.99
#230	4.00	0.06	0.16	99.15

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.38	2.99	2.91	2.69	2.45	2.28	2.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.68	0.16	2.69	0.15	0.33	0.27	3.13

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 6 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-15.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.98 #230 - 0.93			0

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.02	0.02
#18	0.00	1.00	0.02	0.04
#25	0.50	0.71	0.00	0.04
#35	1.00	0.50	0.01	0.05
#45	1.50	0.36	0.02	0.07
#60	2.00	0.25	0.16	0.23
#80	2.50	0.18	53.45	53.68
#120	3.00	0.13	38.41	92.09
#170	3.50	0.09	6.65	98.74
#200	3.75	0.08	0.28	99.02
#230	4.00	0.06	0.05	99.07

SAND, poorly-graded, mostly fine-grained sand-sized quartz

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.22	2.89	2.78	2.47	2.23	2.15	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.51	0.18	2.47	0.18	0.32	0.42	5.99

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 9 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-18.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.70 #230 - 0.66			3.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.02	0.02
#14	-0.50	1.40	0.02	0.04
#18	0.00	1.00	0.00	0.04
#25	0.50	0.71	0.01	0.05
#35	1.00	0.50	0.02	0.07
#45	1.50	0.36	0.02	0.09
#60	2.00	0.25	0.57	0.66
#80	2.50	0.18	63.69	64.35
#120	3.00	0.13	29.11	93.46
#170	3.50	0.09	5.42	98.88
#200	3.75	0.08	0.42	99.30
#230	4.00	0.06	0.04	99.34

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.14	2.84	2.68	2.39	2.19	2.12	2.03

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.45	0.18	2.39	0.19	0.32	0.51	9.5

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 12 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-21.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 3.81 #230 - 3.47			9.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.54	0.54
#3.5	-2.50	5.60	0.00	0.54
#4	-2.25	4.75	0.12	0.66
#5	-2.00	4.00	0.08	0.74
#7	-1.50	2.80	0.40	1.14
#10	-1.00	2.00	1.12	2.26
#14	-0.50	1.40	1.57	3.83
#18	0.00	1.00	1.88	5.71
#25	0.50	0.71	2.51	8.22
#35	1.00	0.50	3.97	12.19
#45	1.50	0.36	7.51	19.70
#60	2.00	0.25	5.77	25.47
#80	2.50	0.18	41.47	66.94
#120	3.00	0.13	24.61	91.55
#170	3.50	0.09	4.02	95.57
#200	3.75	0.08	0.62	96.19
#230	4.00	0.06	0.34	96.53

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	2.85	2.66	2.30	1.96	1.25	-0.19

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.01	0.25	2.30	0.20	1.04	-2.19	9.53

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-02 @ 13 ft

Analysis Date: 8/31/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,012	2,028,556	State Plane, FLW (U.S. Ft.)	-22.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	5GY 6/1	#200 - 6.01 #230 - 5.86			0.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.02	0.02
#18	0.00	1.00	0.04	0.06
#25	0.50	0.71	0.08	0.14
#35	1.00	0.50	0.26	0.40
#45	1.50	0.36	0.85	1.25
#60	2.00	0.25	5.18	6.43
#80	2.50	0.18	53.92	60.35
#120	3.00	0.13	29.66	90.01
#170	3.50	0.09	3.69	93.70
#200	3.75	0.08	0.29	93.99
#230	4.00	0.06	0.15	94.14

SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	2.90	2.75	2.40	2.17	2.09	1.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.41	0.19	2.40	0.19	0.37	-0.42	7.54

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 1 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-4.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.49 #230 - 0.44			5.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#3.5	-2.50	5.60	0.00	0.00
#4	-2.25	4.75	0.09	0.09
#5	-2.00	4.00	0.00	0.09
#7	-1.50	2.80	0.08	0.17
#10	-1.00	2.00	0.16	0.33
#14	-0.50	1.40	0.47	0.80
#18	0.00	1.00	0.41	1.21
#25	0.50	0.71	0.55	1.76
#35	1.00	0.50	0.67	2.43
#45	1.50	0.36	1.21	3.64
#60	2.00	0.25	4.08	7.72
#80	2.50	0.18	53.11	60.83
#120	3.00	0.13	34.23	95.06
#170	3.50	0.09	4.24	99.30
#200	3.75	0.08	0.21	99.51
#230	4.00	0.06	0.05	99.56

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.00	2.84	2.71	2.40	2.16	2.08	1.67

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.38	0.19	2.40	0.19	0.55	-3.13	20.85

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 3.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-7.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.42 #230 - 1.37			13.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.58	0.58
#4	-2.25	4.75	0.20	0.78
#5	-2.00	4.00	0.22	1.00
#7	-1.50	2.80	0.91	1.91
#10	-1.00	2.00	0.60	2.51
#14	-0.50	1.40	1.65	4.16
#18	0.00	1.00	1.95	6.11
#25	0.50	0.71	2.45	8.56
#35	1.00	0.50	2.94	11.50
#45	1.50	0.36	3.72	15.22
#60	2.00	0.25	4.33	19.55
#80	2.50	0.18	42.04	61.59
#120	3.00	0.13	32.39	93.98
#170	3.50	0.09	4.43	98.41
#200	3.75	0.08	0.17	98.58
#230	4.00	0.06	0.05	98.63

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.12	2.85	2.71	2.36	2.06	1.59	-0.28

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.10	0.23	2.36	0.19	1.03	-2.34	9.05

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 7 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-10.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.34 #230 - 1.28		6.93	8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.33	0.33
#4	-2.25	4.75	0.02	0.35
#5	-2.00	4.00	0.12	0.47
#7	-1.50	2.80	0.26	0.73
#10	-1.00	2.00	0.21	0.94
#14	-0.50	1.40	0.28	1.22
#18	0.00	1.00	0.38	1.60
#25	0.50	0.71	0.66	2.26
#35	1.00	0.50	1.31	3.57
#45	1.50	0.36	4.58	8.15
#60	2.00	0.25	15.85	24.00
#80	2.50	0.18	47.64	71.64
#120	3.00	0.13	23.67	95.31
#170	3.50	0.09	3.24	98.55
#200	3.75	0.08	0.11	98.66
#230	4.00	0.06	0.06	98.72

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.76	2.57	2.27	2.01	1.75	1.16

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.19	0.22	2.27	0.21	0.68	-3.04	19.31

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 10.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-14.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 2.11 #230 - 2.02			2.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.01	0.01
#10	-1.00	2.00	0.01	0.02
#14	-0.50	1.40	0.01	0.03
#18	0.00	1.00	0.05	0.08
#25	0.50	0.71	0.08	0.16
#35	1.00	0.50	0.22	0.38
#45	1.50	0.36	0.42	0.80
#60	2.00	0.25	2.68	3.48
#80	2.50	0.18	42.97	46.45
#120	3.00	0.13	42.63	89.08
#170	3.50	0.09	8.41	97.49
#200	3.75	0.08	0.40	97.89
#230	4.00	0.06	0.09	97.98

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.35	2.94	2.83	2.54	2.25	2.15	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.54	0.17	2.54	0.17	0.39	-0.69	8.91

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 14 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-17.6 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.69 #230 - 0.56			5.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#3.5	-2.50	5.60	0.00	0.00
#4	-2.25	4.75	0.17	0.17
#5	-2.00	4.00	0.15	0.32
#7	-1.50	2.80	0.14	0.46
#10	-1.00	2.00	0.27	0.73
#14	-0.50	1.40	0.34	1.07
#18	0.00	1.00	0.34	1.41
#25	0.50	0.71	0.46	1.87
#35	1.00	0.50	0.72	2.59
#45	1.50	0.36	1.34	3.93
#60	2.00	0.25	5.14	9.07
#80	2.50	0.18	48.41	57.48
#120	3.00	0.13	32.87	90.35
#170	3.50	0.09	8.47	98.82
#200	3.75	0.08	0.49	99.31
#230	4.00	0.06	0.13	99.44

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.27	2.90	2.77	2.42	2.16	2.07	1.60

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.40	0.19	2.42	0.19	0.63	-3.12	20.69

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-03 @ 15.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,860	2,028,905	State Plane, FLW (U.S. Ft.)	-19.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.88 #230 - 0.83			5.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.12	0.12
#4	-2.25	4.75	0.00	0.12
#5	-2.00	4.00	0.26	0.38
#7	-1.50	2.80	0.23	0.61
#10	-1.00	2.00	0.25	0.86
#14	-0.50	1.40	0.32	1.18
#18	0.00	1.00	0.44	1.62
#25	0.50	0.71	0.59	2.21
#35	1.00	0.50	0.94	3.15
#45	1.50	0.36	6.45	9.60
#60	2.00	0.25	57.31	66.91
#80	2.50	0.18	27.03	93.94
#120	3.00	0.13	4.93	98.87
#170	3.50	0.09	0.20	99.07
#200	3.75	0.08	0.05	99.12
#230	4.00	0.06	0.05	99.17

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.61	2.32	2.15	1.85	1.63	1.56	1.14

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.84	0.28	1.85	0.28	0.56	-3.17	22.87

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 1 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-12.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 2.75 #230 - 2.74			23.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	1.89	1.89
#4	-2.25	4.75	0.88	2.77
#5	-2.00	4.00	0.70	3.47
#7	-1.50	2.80	2.60	6.07
#10	-1.00	2.00	2.87	8.94
#14	-0.50	1.40	3.58	12.52
#18	0.00	1.00	3.09	15.61
#25	0.50	0.71	2.95	18.56
#35	1.00	0.50	2.90	21.46
#45	1.50	0.36	3.76	25.22
#60	2.00	0.25	5.58	30.80
#80	2.50	0.18	38.34	69.14
#120	3.00	0.13	23.54	92.68
#170	3.50	0.09	4.55	97.23
#200	3.75	0.08	0.02	97.25
#230	4.00	0.06	0.01	97.26

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.25	2.82	2.62	2.25	1.47	0.07	-1.71

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.67	0.31	2.25	0.21	1.48	-1.53	4.34

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 3 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-14.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.51 #230 - 0.50			4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.02	0.02
#14	-0.50	1.40	0.03	0.05
#18	0.00	1.00	0.05	0.10
#25	0.50	0.71	0.07	0.17
#35	1.00	0.50	0.13	0.30
#45	1.50	0.36	0.36	0.66
#60	2.00	0.25	2.85	3.51
#80	2.50	0.18	64.05	67.56
#120	3.00	0.13	26.37	93.93
#170	3.50	0.09	5.39	99.32
#200	3.75	0.08	0.17	99.49
#230	4.00	0.06	0.01	99.50

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.10	2.81	2.64	2.36	2.17	2.10	2.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.42	0.19	2.36	0.19	0.35	-0.34	11.1

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 6 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-17.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.25 #230 - 0.23			20.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.39	0.39
#3.5	-2.50	5.60	0.44	0.83
#4	-2.25	4.75	0.27	1.10
#5	-2.00	4.00	0.51	1.61
#7	-1.50	2.80	1.16	2.77
#10	-1.00	2.00	2.13	4.90
#14	-0.50	1.40	2.95	7.85
#18	0.00	1.00	3.01	10.86
#25	0.50	0.71	3.48	14.34
#35	1.00	0.50	3.96	18.30
#45	1.50	0.36	6.15	24.45
#60	2.00	0.25	6.96	31.41
#80	2.50	0.18	45.57	76.98
#120	3.00	0.13	19.15	96.13
#170	3.50	0.09	3.41	99.54
#200	3.75	0.08	0.21	99.75
#230	4.00	0.06	0.02	99.77

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.97	2.68	2.48	2.20	1.54	0.71	-0.98

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.79	0.29	2.20	0.22	1.22	-1.81	6.15

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 9 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-20.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.99 #230 - 0.94		1.14	0.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.01	0.01
#18	0.00	1.00	0.01	0.02
#25	0.50	0.71	0.03	0.05
#35	1.00	0.50	0.04	0.09
#45	1.50	0.36	0.06	0.15
#60	2.00	0.25	0.35	0.50
#80	2.50	0.18	61.05	61.55
#120	3.00	0.13	31.73	93.28
#170	3.50	0.09	5.43	98.71
#200	3.75	0.08	0.30	99.01
#230	4.00	0.06	0.05	99.06

SAND, poorly-graded, mostly fine-grained sand-sized quartz

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.16	2.85	2.71	2.41	2.20	2.13	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.47	0.18	2.41	0.19	0.32	0.65	6.03

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 12 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-23.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.75 #230 - 0.59			2.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.15	0.15
#4	-2.25	4.75	0.15	0.30
#5	-2.00	4.00	0.06	0.36
#7	-1.50	2.80	0.18	0.54
#10	-1.00	2.00	0.24	0.78
#14	-0.50	1.40	0.35	1.13
#18	0.00	1.00	0.32	1.45
#25	0.50	0.71	0.33	1.78
#35	1.00	0.50	0.42	2.20
#45	1.50	0.36	0.73	2.93
#60	2.00	0.25	2.85	5.78
#80	2.50	0.18	59.58	65.36
#120	3.00	0.13	28.25	93.61
#170	3.50	0.09	5.39	99.00
#200	3.75	0.08	0.25	99.25
#230	4.00	0.06	0.16	99.41

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.13	2.83	2.67	2.37	2.16	2.09	1.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.37	0.19	2.37	0.19	0.59	-4.03	30.09

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-04 @ 13.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,203	2,027,886	State Plane, FLW (U.S. Ft.)	-25.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 4.72 #230 - 4.39			17.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	1.87	1.87
#4	-2.25	4.75	0.47	2.34
#5	-2.00	4.00	0.53	2.87
#7	-1.50	2.80	0.85	3.72
#10	-1.00	2.00	1.43	5.15
#14	-0.50	1.40	1.90	7.05
#18	0.00	1.00	1.85	8.90
#25	0.50	0.71	2.36	11.26
#35	1.00	0.50	3.69	14.95
#45	1.50	0.36	8.67	23.62
#60	2.00	0.25	17.82	41.44
#80	2.50	0.18	23.89	65.33
#120	3.00	0.13	20.69	86.02
#170	3.50	0.09	8.41	94.43
#200	3.75	0.08	0.85	95.28
#230	4.00	0.06	0.33	95.61

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.67	2.95	2.73	2.18	1.54	1.06	-1.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.83	0.28	2.18	0.22	1.29	-1.75	6.29

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-05 @ 3 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,533	2,027,998	State Plane, FLW (U.S. Ft.)	-14.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.97 #230 - 0.89			16.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.69	0.69
#3.5	-2.50	5.60	1.26	1.95
#4	-2.25	4.75	0.87	2.82
#5	-2.00	4.00	0.58	3.40
#7	-1.50	2.80	1.01	4.41
#10	-1.00	2.00	1.73	6.14
#14	-0.50	1.40	2.58	8.72
#18	0.00	1.00	2.43	11.15
#25	0.50	0.71	2.71	13.86
#35	1.00	0.50	2.59	16.45
#45	1.50	0.36	3.09	19.54
#60	2.00	0.25	5.66	25.20
#80	2.50	0.18	35.35	60.55
#120	3.00	0.13	32.35	92.90
#170	3.50	0.09	5.91	98.81
#200	3.75	0.08	0.22	99.03
#230	4.00	0.06	0.08	99.11

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.18	2.86	2.72	2.35	1.98	0.91	-1.33

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.91	0.27	2.35	0.20	1.38	-2.04	6.79

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-05 @ 6 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,533	2,027,998	State Plane, FLW (U.S. Ft.)	-17.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.99 #230 - 0.95			8.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.07	0.07
#4	-2.25	4.75	0.01	0.08
#5	-2.00	4.00	0.00	0.08
#7	-1.50	2.80	0.06	0.14
#10	-1.00	2.00	0.05	0.19
#14	-0.50	1.40	0.19	0.38
#18	0.00	1.00	0.30	0.68
#25	0.50	0.71	0.45	1.13
#35	1.00	0.50	1.15	2.28
#45	1.50	0.36	4.46	6.74
#60	2.00	0.25	26.50	33.24
#80	2.50	0.18	44.10	77.34
#120	3.00	0.13	17.92	95.26
#170	3.50	0.09	3.59	98.85
#200	3.75	0.08	0.16	99.01
#230	4.00	0.06	0.04	99.05

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.69	2.47	2.19	1.84	1.67	1.30

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.15	0.23	2.19	0.22	0.55	-1.57	12.54

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-05 @ 9 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,533	2,027,998	State Plane, FLW (U.S. Ft.)	-20.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.54 #230 - 1.54			6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.16	0.16
#3.5	-2.50	5.60	0.21	0.37
#4	-2.25	4.75	0.10	0.47
#5	-2.00	4.00	0.07	0.54
#7	-1.50	2.80	0.36	0.90
#10	-1.00	2.00	0.39	1.29
#14	-0.50	1.40	0.81	2.10
#18	0.00	1.00	0.80	2.90
#25	0.50	0.71	1.01	3.91
#35	1.00	0.50	1.51	5.42
#45	1.50	0.36	3.26	8.68
#60	2.00	0.25	7.92	16.60
#80	2.50	0.18	49.11	65.71
#120	3.00	0.13	28.19	93.90
#170	3.50	0.09	4.33	98.23
#200	3.75	0.08	0.23	98.46
#230	4.00	0.06	0.00	98.46

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.13	2.82	2.66	2.34	2.09	1.96	0.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.22	0.21	2.34	0.20	0.79	-3.18	17.62

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-05 @ 12 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,533	2,027,998	State Plane, FLW (U.S. Ft.)	-23.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.60 #230 - 0.55			50.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	3.09	3.09
#3.5	-2.50	5.60	6.09	9.18
#4	-2.25	4.75	2.13	11.31
#5	-2.00	4.00	2.36	13.67
#7	-1.50	2.80	3.86	17.53
#10	-1.00	2.00	6.05	23.58
#14	-0.50	1.40	7.04	30.62
#18	0.00	1.00	6.50	37.12
#25	0.50	0.71	6.39	43.51
#35	1.00	0.50	6.42	49.93
#45	1.50	0.36	7.12	57.05
#60	2.00	0.25	9.33	66.38
#80	2.50	0.18	20.33	86.71
#120	3.00	0.13	10.85	97.56
#170	3.50	0.09	1.70	99.26
#200	3.75	0.08	0.14	99.40
#230	4.00	0.06	0.05	99.45

SAND, poorly-graded, mostly sand to gravel-sized shell, some fine to medium-grained sand-sized quartz

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.88	2.43	2.21	1.00	-0.90	-1.70	-3.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.53	0.69	1.00	0.50	1.91	-0.57	2.18

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-05 @ 14 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,533	2,027,998	State Plane, FLW (U.S. Ft.)	-25.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.40 #230 - 1.28		2.98	2.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.04	0.04
#10	-1.00	2.00	0.11	0.15
#14	-0.50	1.40	0.39	0.54
#18	0.00	1.00	0.32	0.86
#25	0.50	0.71	0.40	1.26
#35	1.00	0.50	0.52	1.78
#45	1.50	0.36	1.18	2.96
#60	2.00	0.25	3.60	6.56
#80	2.50	0.18	50.32	56.88
#120	3.00	0.13	33.60	90.48
#170	3.50	0.09	7.62	98.10
#200	3.75	0.08	0.50	98.60
#230	4.00	0.06	0.12	98.72

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.30	2.90	2.77	2.43	2.18	2.09	1.78

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.43	0.19	2.43	0.19	0.52	-2.28	15.88

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 1 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-13.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.56 #230 - 1.53			9.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#3.5	-2.50	5.60	0.00	0.00
#4	-2.25	4.75	0.16	0.16
#5	-2.00	4.00	0.17	0.33
#7	-1.50	2.80	0.45	0.78
#10	-1.00	2.00	0.49	1.27
#14	-0.50	1.40	0.92	2.19
#18	0.00	1.00	0.90	3.09
#25	0.50	0.71	1.03	4.12
#35	1.00	0.50	1.39	5.51
#45	1.50	0.36	2.75	8.26
#60	2.00	0.25	9.29	17.55
#80	2.50	0.18	56.43	73.98
#120	3.00	0.13	20.39	94.37
#170	3.50	0.09	3.88	98.25
#200	3.75	0.08	0.19	98.44
#230	4.00	0.06	0.03	98.47

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.08	2.75	2.53	2.29	2.07	1.92	0.82

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.18	0.22	2.29	0.20	0.75	-2.83	14.03

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 3 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-15.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.79 #230 - 1.79			26.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	1.29	1.29
#3.5	-2.50	5.60	2.69	3.98
#4	-2.25	4.75	0.77	4.75
#5	-2.00	4.00	2.07	6.82
#7	-1.50	2.80	3.41	10.23
#10	-1.00	2.00	3.86	14.09
#14	-0.50	1.40	4.23	18.32
#18	0.00	1.00	3.27	21.59
#25	0.50	0.71	2.65	24.24
#35	1.00	0.50	2.22	26.46
#45	1.50	0.36	3.32	29.78
#60	2.00	0.25	6.94	36.72
#80	2.50	0.18	38.19	74.91
#120	3.00	0.13	19.63	94.54
#170	3.50	0.09	3.54	98.08
#200	3.75	0.08	0.13	98.21
#230	4.00	0.06	0.00	98.21

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.06	2.73	2.50	2.17	0.67	-0.77	-2.22

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.39	0.38	2.17	0.22	1.72	-1.31	3.53

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 6 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-18.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 0.81 #230 - 0.75			22

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.12	0.12
#3.5	-2.50	5.60	2.33	2.45
#4	-2.25	4.75	0.49	2.94
#5	-2.00	4.00	0.91	3.85
#7	-1.50	2.80	1.25	5.10
#10	-1.00	2.00	2.47	7.57
#14	-0.50	1.40	2.75	10.32
#18	0.00	1.00	2.40	12.72
#25	0.50	0.71	2.75	15.47
#35	1.00	0.50	3.20	18.67
#45	1.50	0.36	6.67	25.34
#60	2.00	0.25	19.08	44.42
#80	2.50	0.18	33.49	77.91
#120	3.00	0.13	17.66	95.57
#170	3.50	0.09	3.48	99.05
#200	3.75	0.08	0.14	99.19
#230	4.00	0.06	0.06	99.25

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.67	2.46	2.08	1.47	0.58	-1.54

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.64	0.32	2.08	0.24	1.36	-1.74	5.57

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 8 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-20.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	2.5Y 6/1	#200 - 0.98 #230 - 0.94			41.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	3.31	3.31
#3.5	-2.50	5.60	3.41	6.72
#4	-2.25	4.75	1.41	8.13
#5	-2.00	4.00	1.77	9.90
#7	-1.50	2.80	3.83	13.73
#10	-1.00	2.00	5.84	19.57
#14	-0.50	1.40	6.57	26.14
#18	0.00	1.00	5.62	31.76
#25	0.50	0.71	5.23	36.99
#35	1.00	0.50	5.65	42.64
#45	1.50	0.36	8.93	51.57
#60	2.00	0.25	13.39	64.96
#80	2.50	0.18	19.78	84.74
#120	3.00	0.13	11.72	96.46
#170	3.50	0.09	2.38	98.84
#200	3.75	0.08	0.18	99.02
#230	4.00	0.06	0.04	99.06

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.94	2.48	2.25	1.41	-0.59	-1.31	-2.88

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.76	0.59	1.41	0.38	1.83	-0.79	2.61

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 9 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-21.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 2.09 #230 - 2.07			1.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.06	0.06
#14	-0.50	1.40	0.10	0.16
#18	0.00	1.00	0.16	0.32
#25	0.50	0.71	0.25	0.57
#35	1.00	0.50	0.33	0.90
#45	1.50	0.36	0.75	1.65
#60	2.00	0.25	3.25	4.90
#80	2.50	0.18	60.44	65.34
#120	3.00	0.13	26.95	92.29
#170	3.50	0.09	5.27	97.56
#200	3.75	0.08	0.35	97.91
#230	4.00	0.06	0.02	97.93

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.26	2.85	2.68	2.37	2.17	2.09	2.00

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.40	0.19	2.37	0.19	0.41	-1.53	15.44

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 11.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-24.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.54 #230 - 0.52		10.73	11.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.25	0.25
#4	-2.25	4.75	0.18	0.43
#5	-2.00	4.00	0.29	0.72
#7	-1.50	2.80	0.25	0.97
#10	-1.00	2.00	1.28	2.25
#14	-0.50	1.40	1.18	3.43
#18	0.00	1.00	1.21	4.64
#25	0.50	0.71	1.48	6.12
#35	1.00	0.50	2.23	8.35
#45	1.50	0.36	4.69	13.04
#60	2.00	0.25	12.64	25.68
#80	2.50	0.18	49.63	75.31
#120	3.00	0.13	20.72	96.03
#170	3.50	0.09	3.27	99.30
#200	3.75	0.08	0.16	99.46
#230	4.00	0.06	0.02	99.48

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.71	2.50	2.25	1.97	1.62	0.12

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.06	0.24	2.25	0.21	0.88	-2.49	10.81

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-06 @ 14 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,517	2,027,367	State Plane, FLW (U.S. Ft.)	-26.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.62 #230 - 1.49			9.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.23	0.23
#3.5	-2.50	5.60	0.09	0.32
#4	-2.25	4.75	0.54	0.86
#5	-2.00	4.00	0.44	1.30
#7	-1.50	2.80	0.58	1.88
#10	-1.00	2.00	1.30	3.18
#14	-0.50	1.40	1.40	4.58
#18	0.00	1.00	1.03	5.61
#25	0.50	0.71	0.96	6.57
#35	1.00	0.50	0.89	7.46
#45	1.50	0.36	1.27	8.73
#60	2.00	0.25	4.08	12.81
#80	2.50	0.18	43.29	56.10
#120	3.00	0.13	33.36	89.46
#170	3.50	0.09	8.24	97.70
#200	3.75	0.08	0.68	98.38
#230	4.00	0.06	0.13	98.51

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.34	2.92	2.78	2.43	2.14	2.04	-0.30

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.25	0.21	2.43	0.19	1.01	-2.88	12.46

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 1 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-15.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.44 #230 - 1.35		14.83	16.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.65	0.65
#4	-2.25	4.75	0.18	0.83
#5	-2.00	4.00	0.18	1.01
#7	-1.50	2.80	0.78	1.79
#10	-1.00	2.00	1.43	3.22
#14	-0.50	1.40	2.12	5.34
#18	0.00	1.00	2.27	7.61
#25	0.50	0.71	2.74	10.35
#35	1.00	0.50	2.98	13.33
#45	1.50	0.36	4.77	18.10
#60	2.00	0.25	14.51	32.61
#80	2.50	0.18	40.55	73.16
#120	3.00	0.13	21.60	94.76
#170	3.50	0.09	3.65	98.41
#200	3.75	0.08	0.15	98.56
#230	4.00	0.06	0.09	98.65

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.03	2.75	2.54	2.21	1.74	1.28	-0.58

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.92	0.26	2.21	0.22	1.07	-2.01	7.4

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 3 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-17.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.59 #230 - 0.51			19.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	1.41	1.41
#4	-2.25	4.75	0.84	2.25
#5	-2.00	4.00	0.90	3.15
#7	-1.50	2.80	1.30	4.45
#10	-1.00	2.00	1.76	6.21
#14	-0.50	1.40	2.59	8.80
#18	0.00	1.00	2.37	11.17
#25	0.50	0.71	2.38	13.55
#35	1.00	0.50	2.53	16.08
#45	1.50	0.36	3.94	20.02
#60	2.00	0.25	13.88	33.90
#80	2.50	0.18	41.28	75.18
#120	3.00	0.13	20.83	96.01
#170	3.50	0.09	3.27	99.28
#200	3.75	0.08	0.13	99.41
#230	4.00	0.06	0.08	99.49

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.71	2.50	2.20	1.68	0.98	-1.34

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.79	0.29	2.20	0.22	1.28	-1.94	6.31

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 6 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-20.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 3.11 #230 - 2.69			1.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.01	0.01
#14	-0.50	1.40	0.01	0.02
#18	0.00	1.00	0.01	0.03
#25	0.50	0.71	0.05	0.08
#35	1.00	0.50	0.11	0.19
#45	1.50	0.36	0.24	0.43
#60	2.00	0.25	0.98	1.41
#80	2.50	0.18	29.62	31.03
#120	3.00	0.13	44.72	75.75
#170	3.50	0.09	18.80	94.55
#200	3.75	0.08	2.34	96.89
#230	4.00	0.06	0.42	97.31

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.55	3.22	2.99	2.71	2.40	2.25	2.06

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.70	0.15	2.71	0.15	0.42	-0.22	5.25

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 7.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-22.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.88 #230 - 0.81			5.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.01	0.01
#4	-2.25	4.75	0.03	0.04
#5	-2.00	4.00	0.00	0.04
#7	-1.50	2.80	0.05	0.09
#10	-1.00	2.00	0.06	0.15
#14	-0.50	1.40	0.01	0.16
#18	0.00	1.00	0.09	0.25
#25	0.50	0.71	0.16	0.41
#35	1.00	0.50	0.40	0.81
#45	1.50	0.36	1.85	2.66
#60	2.00	0.25	14.42	17.08
#80	2.50	0.18	59.31	76.39
#120	3.00	0.13	19.32	95.71
#170	3.50	0.09	3.27	98.98
#200	3.75	0.08	0.14	99.12
#230	4.00	0.06	0.07	99.19

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.70	2.49	2.28	2.07	1.96	1.58

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.27	0.21	2.28	0.21	0.43	-1.62	17.46

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 10.5 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-25.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.30 #230 - 1.21			5.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#3.5	-2.50	5.60	0.00	0.00
#4	-2.25	4.75	0.14	0.14
#5	-2.00	4.00	0.12	0.26
#7	-1.50	2.80	0.17	0.43
#10	-1.00	2.00	0.19	0.62
#14	-0.50	1.40	0.34	0.96
#18	0.00	1.00	0.25	1.21
#25	0.50	0.71	0.24	1.45
#35	1.00	0.50	0.35	1.80
#45	1.50	0.36	0.84	2.64
#60	2.00	0.25	5.76	8.40
#80	2.50	0.18	54.35	62.75
#120	3.00	0.13	30.82	93.57
#170	3.50	0.09	4.89	98.46
#200	3.75	0.08	0.24	98.70
#230	4.00	0.06	0.09	98.79

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.15	2.84	2.70	2.38	2.15	2.07	1.70

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.37	0.19	2.38	0.19	0.56	-3.61	26.97

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-07 @ 14 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,327	2,027,407	State Plane, FLW (U.S. Ft.)	-28.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.83 #230 - 1.53			27.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	1.08	1.08
#3.5	-2.50	5.60	2.69	3.77
#4	-2.25	4.75	0.79	4.56
#5	-2.00	4.00	2.75	7.31
#7	-1.50	2.80	2.88	10.19
#10	-1.00	2.00	3.84	14.03
#14	-0.50	1.40	4.37	18.40
#18	0.00	1.00	3.14	21.54
#25	0.50	0.71	2.70	24.24
#35	1.00	0.50	2.33	26.57
#45	1.50	0.36	3.15	29.72
#60	2.00	0.25	5.58	35.30
#80	2.50	0.18	26.92	62.22
#120	3.00	0.13	28.28	90.50
#170	3.50	0.09	7.15	97.65
#200	3.75	0.08	0.52	98.17
#230	4.00	0.06	0.30	98.47

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.31	2.89	2.73	2.27	0.66	-0.77	-2.21

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.50	0.35	2.27	0.21	1.78	-1.25	3.35

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 1 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-8.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 8/2	#200 - 1.14 #230 - 1.10			0.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.02	0.02
#14	-0.50	1.40	0.02	0.04
#18	0.00	1.00	0.02	0.06
#25	0.50	0.71	0.04	0.10
#35	1.00	0.50	0.05	0.15
#45	1.50	0.36	0.17	0.32
#60	2.00	0.25	2.44	2.76
#80	2.50	0.18	62.44	65.20
#120	3.00	0.13	28.51	93.71
#170	3.50	0.09	4.97	98.68
#200	3.75	0.08	0.18	98.86
#230	4.00	0.06	0.04	98.90

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.13	2.83	2.67	2.38	2.18	2.11	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.43	0.19	2.38	0.19	0.33	0	9.96

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 3 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-10.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 8/2	#200 - 0.59 #230 - 0.54		1.57	3.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.01	0.01
#14	-0.50	1.40	0.02	0.03
#18	0.00	1.00	0.01	0.04
#25	0.50	0.71	0.03	0.07
#35	1.00	0.50	0.05	0.12
#45	1.50	0.36	0.17	0.29
#60	2.00	0.25	2.38	2.67
#80	2.50	0.18	61.54	64.21
#120	3.00	0.13	29.71	93.92
#170	3.50	0.09	5.25	99.17
#200	3.75	0.08	0.24	99.41
#230	4.00	0.06	0.05	99.46

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.10	2.83	2.68	2.38	2.18	2.11	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.44	0.18	2.38	0.19	0.33	0.23	7.95

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 6 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-13.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 8/2	#200 - 1.76 #230 - 1.66			3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.01	0.01
#10	-1.00	2.00	0.01	0.02
#14	-0.50	1.40	0.02	0.04
#18	0.00	1.00	0.00	0.04
#25	0.50	0.71	0.03	0.07
#35	1.00	0.50	0.06	0.13
#45	1.50	0.36	0.15	0.28
#60	2.00	0.25	1.32	1.60
#80	2.50	0.18	51.70	53.30
#120	3.00	0.13	36.60	89.90
#170	3.50	0.09	7.88	97.78
#200	3.75	0.08	0.46	98.24
#230	4.00	0.06	0.10	98.34

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.32	2.92	2.80	2.47	2.23	2.14	2.03

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.51	0.18	2.47	0.18	0.36	0	8.43

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 9 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-16.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 0.82 #230 - 0.77			11

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.07	0.07
#10	-1.00	2.00	0.10	0.17
#14	-0.50	1.40	0.13	0.30
#18	0.00	1.00	0.13	0.43
#25	0.50	0.71	0.36	0.79
#35	1.00	0.50	0.80	1.59
#45	1.50	0.36	2.80	4.39
#60	2.00	0.25	15.05	19.44
#80	2.50	0.18	54.67	74.11
#120	3.00	0.13	20.37	94.48
#170	3.50	0.09	4.42	98.90
#200	3.75	0.08	0.28	99.18
#230	4.00	0.06	0.05	99.23

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.06	2.74	2.52	2.28	2.05	1.89	1.52

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.26	0.21	2.28	0.21	0.49	-1.48	11.81

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 12 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-19.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 8/2	#200 - 3.13 #230 - 3.09			0.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.01	0.01
#18	0.00	1.00	0.01	0.02
#25	0.50	0.71	0.01	0.03
#35	1.00	0.50	0.05	0.08
#45	1.50	0.36	0.21	0.29
#60	2.00	0.25	4.17	4.46
#80	2.50	0.18	66.09	70.55
#120	3.00	0.13	22.54	93.09
#170	3.50	0.09	3.61	96.70
#200	3.75	0.08	0.17	96.87
#230	4.00	0.06	0.04	96.91

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.26	2.80	2.60	2.34	2.16	2.09	2.00

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.38	0.19	2.34	0.20	0.31	0.55	6.48

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-08 @ 15 ft

Analysis Date: 9/3/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,444	2,027,645	State Plane, FLW (U.S. Ft.)	-22.1 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	2.5Y 8/2	#200 - 0.83 #230 - 0.75			37.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	4.05	4.05
#3.5	-2.50	5.60	3.13	7.18
#4	-2.25	4.75	2.02	9.20
#5	-2.00	4.00	1.63	10.83
#7	-1.50	2.80	4.01	14.84
#10	-1.00	2.00	4.40	19.24
#14	-0.50	1.40	5.20	24.44
#18	0.00	1.00	4.26	28.70
#25	0.50	0.71	3.88	32.58
#35	1.00	0.50	3.36	35.94
#45	1.50	0.36	4.13	40.07
#60	2.00	0.25	8.41	48.48
#80	2.50	0.18	30.95	79.43
#120	3.00	0.13	17.56	96.99
#170	3.50	0.09	2.06	99.05
#200	3.75	0.08	0.12	99.17
#230	4.00	0.06	0.08	99.25

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.94	2.63	2.43	2.02	-0.43	-1.37	-3.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.00	0.50	2.02	0.25	1.94	-1	2.76

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-9.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.33 #230 - 1.32			35.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	5.93	5.93
#3.5	-2.50	5.60	3.15	9.08
#4	-2.25	4.75	1.16	10.24
#5	-2.00	4.00	1.36	11.60
#7	-1.50	2.80	3.32	14.92
#10	-1.00	2.00	4.57	19.49
#14	-0.50	1.40	5.13	24.62
#18	0.00	1.00	4.25	28.87
#25	0.50	0.71	4.05	32.92
#35	1.00	0.50	4.14	37.06
#45	1.50	0.36	4.63	41.69
#60	2.00	0.25	6.06	47.75
#80	2.50	0.18	25.84	73.59
#120	3.00	0.13	21.03	94.62
#170	3.50	0.09	3.90	98.52
#200	3.75	0.08	0.15	98.67
#230	4.00	0.06	0.01	98.68

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

	Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.05	2.75	2.53	2.04	-0.46	-1.38	-3.41

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.98	0.51	2.04	0.24	2.04	-0.98	2.74

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 3.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-11.5 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	10GY 4/1	#200 - 18.05 #230 - 17.48			4.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.09	0.09
#4	-2.25	4.75	0.07	0.16
#5	-2.00	4.00	0.00	0.16
#7	-1.50	2.80	0.21	0.37
#10	-1.00	2.00	0.42	0.79
#14	-0.50	1.40	0.64	1.43
#18	0.00	1.00	0.66	2.09
#25	0.50	0.71	0.75	2.84
#35	1.00	0.50	0.88	3.72
#45	1.50	0.36	1.23	4.95
#60	2.00	0.25	2.34	7.29
#80	2.50	0.18	21.08	28.37
#120	3.00	0.13	40.55	68.92
#170	3.50	0.09	11.29	80.21
#200	3.75	0.08	1.74	81.95
#230	4.00	0.06	0.57	82.52

SAND, silty, mostly fine-grained sand-sized quartz, little silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
		3.27	2.77	2.42	2.21	1.51

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.53	0.17	2.77	0.15	0.77	-2.87	14.77

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 4.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-12.5 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	10GY 4/1	#200 - 4.25 #230 - 4.00		25.73	24.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.60	0.60
#3.5	-2.50	5.60	3.42	4.02
#4	-2.25	4.75	1.20	5.22
#5	-2.00	4.00	1.33	6.55
#7	-1.50	2.80	2.88	9.43
#10	-1.00	2.00	3.44	12.87
#14	-0.50	1.40	3.21	16.08
#18	0.00	1.00	2.49	18.57
#25	0.50	0.71	2.33	20.90
#35	1.00	0.50	2.18	23.08
#45	1.50	0.36	3.28	26.36
#60	2.00	0.25	7.16	33.52
#80	2.50	0.18	22.62	56.14
#120	3.00	0.13	29.92	86.06
#170	3.50	0.09	8.93	94.99
#200	3.75	0.08	0.76	95.75
#230	4.00	0.06	0.25	96.00

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.50	2.97	2.82	2.36	1.29	-0.51	-2.30

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.61	0.33	2.36	0.19	1.75	-1.37	3.69

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-14.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.34 #230 - 1.23			21.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	4.13	4.13
#3.5	-2.50	5.60	2.80	6.93
#4	-2.25	4.75	0.44	7.37
#5	-2.00	4.00	0.95	8.32
#7	-1.50	2.80	1.71	10.03
#10	-1.00	2.00	1.99	12.02
#14	-0.50	1.40	2.00	14.02
#18	0.00	1.00	1.57	15.59
#25	0.50	0.71	1.57	17.16
#35	1.00	0.50	2.00	19.16
#45	1.50	0.36	3.82	22.98
#60	2.00	0.25	10.75	33.73
#80	2.50	0.18	29.95	63.68
#120	3.00	0.13	27.65	91.33
#170	3.50	0.09	7.00	98.33
#200	3.75	0.08	0.33	98.66
#230	4.00	0.06	0.11	98.77

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.26	2.87	2.70	2.27	1.59	0.13	-3.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.61	0.33	2.27	0.21	1.8	-1.79	5.16

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-17.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.24 #230 - 1.16			13.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.35	0.35
#4	-2.25	4.75	0.54	0.89
#5	-2.00	4.00	0.65	1.54
#7	-1.50	2.80	0.90	2.44
#10	-1.00	2.00	1.51	3.95
#14	-0.50	1.40	1.62	5.57
#18	0.00	1.00	1.69	7.26
#25	0.50	0.71	2.11	9.37
#35	1.00	0.50	2.64	12.01
#45	1.50	0.36	4.20	16.21
#60	2.00	0.25	7.11	23.32
#80	2.50	0.18	34.60	57.92
#120	3.00	0.13	33.90	91.82
#170	3.50	0.09	6.52	98.34
#200	3.75	0.08	0.42	98.76
#230	4.00	0.06	0.08	98.84

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.24	2.88	2.75	2.39	2.02	1.48	-0.68

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.08	0.24	2.39	0.19	1.12	-2.15	7.73

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-09 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,843	2,027,137	State Plane, FLW (U.S. Ft.)	-20.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	2.5Y 5/1	#200 - 2.33 #230 - 2.17			6.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.97	0.97
#4	-2.25	4.75	0.58	1.55
#5	-2.00	4.00	0.49	2.04
#7	-1.50	2.80	0.51	2.55
#10	-1.00	2.00	0.56	3.11
#14	-0.50	1.40	0.47	3.58
#18	0.00	1.00	0.41	3.99
#25	0.50	0.71	0.46	4.45
#35	1.00	0.50	0.45	4.90
#45	1.50	0.36	1.01	5.91
#60	2.00	0.25	4.26	10.17
#80	2.50	0.18	29.99	40.16
#120	3.00	0.13	46.23	86.39
#170	3.50	0.09	10.58	96.97
#200	3.75	0.08	0.70	97.67
#230	4.00	0.06	0.16	97.83

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.41	2.97	2.88	2.61	2.25	2.10	1.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.39	0.19	2.61	0.16	0.99	-3.52	16.91

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-10 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,602	2,026,201	State Plane, FLW (U.S. Ft.)	-11.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 5/1	#200 - 0.37 #230 - 0.34			45.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	2.01	2.01
#3.5	-2.50	5.60	4.67	6.68
#4	-2.25	4.75	1.55	8.23
#5	-2.00	4.00	1.84	10.07
#7	-1.50	2.80	3.38	13.45
#10	-1.00	2.00	4.63	18.08
#14	-0.50	1.40	6.88	24.96
#18	0.00	1.00	6.95	31.91
#25	0.50	0.71	7.71	39.62
#35	1.00	0.50	8.51	48.13
#45	1.50	0.36	10.18	58.31
#60	2.00	0.25	11.05	69.36
#80	2.50	0.18	19.04	88.40
#120	3.00	0.13	9.51	97.91
#170	3.50	0.09	1.64	99.55
#200	3.75	0.08	0.08	99.63
#230	4.00	0.06	0.03	99.66

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.85	2.38	2.15	1.09	-0.50	-1.22	-2.77

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.68	0.62	1.09	0.47	1.74	-0.71	2.6

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-10 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,602	2,026,201	State Plane, FLW (U.S. Ft.)	-14.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.64 #230 - 1.56			4.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.27	0.27
#4	-2.25	4.75	0.00	0.27
#5	-2.00	4.00	0.00	0.27
#7	-1.50	2.80	0.02	0.29
#10	-1.00	2.00	0.05	0.34
#14	-0.50	1.40	0.15	0.49
#18	0.00	1.00	0.23	0.72
#25	0.50	0.71	0.41	1.13
#35	1.00	0.50	0.56	1.69
#45	1.50	0.36	1.64	3.33
#60	2.00	0.25	5.01	8.34
#80	2.50	0.18	42.49	50.83
#120	3.00	0.13	35.18	86.01
#170	3.50	0.09	11.18	97.19
#200	3.75	0.08	1.17	98.36
#230	4.00	0.06	0.08	98.44

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.40	2.97	2.84	2.49	2.20	2.09	1.67

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.47	0.18	2.49	0.18	0.59	-2.99	24.82

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-10 @ 7.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,602	2,026,201	State Plane, FLW (U.S. Ft.)	-15.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.01 #230 - 1.01			6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.05	0.05
#4	-2.25	4.75	0.00	0.05
#5	-2.00	4.00	0.00	0.05
#7	-1.50	2.80	0.06	0.11
#10	-1.00	2.00	0.09	0.20
#14	-0.50	1.40	0.19	0.39
#18	0.00	1.00	0.38	0.77
#25	0.50	0.71	0.56	1.33
#35	1.00	0.50	0.89	2.22
#45	1.50	0.36	2.49	4.71
#60	2.00	0.25	8.88	13.59
#80	2.50	0.18	55.28	68.87
#120	3.00	0.13	25.28	94.15
#170	3.50	0.09	4.63	98.78
#200	3.75	0.08	0.21	98.99
#230	4.00	0.06	0.00	98.99

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.09	2.80	2.62	2.33	2.10	2.02	1.52

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.31	0.20	2.33	0.20	0.53	-2.3	16.37

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-10 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,602	2,026,201	State Plane, FLW (U.S. Ft.)	-17.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 7/1	#200 - 0.89 #230 - 0.88		43.65	45.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	9.53	9.53
3/8"	-3.25	9.50	0.80	10.33
#3.5	-2.50	5.60	2.77	13.10
#4	-2.25	4.75	0.88	13.98
#5	-2.00	4.00	1.39	15.37
#7	-1.50	2.80	2.40	17.77
#10	-1.00	2.00	4.60	22.37
#14	-0.50	1.40	5.60	27.97
#18	0.00	1.00	4.74	32.71
#25	0.50	0.71	4.93	37.64
#35	1.00	0.50	5.34	42.98
#45	1.50	0.36	9.14	52.12
#60	2.00	0.25	17.25	69.37
#80	2.50	0.18	21.24	90.61
#120	3.00	0.13	7.45	98.06
#170	3.50	0.09	0.97	99.03
#200	3.75	0.08	0.08	99.11
#230	4.00	0.06	0.01	99.12

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.79	2.34	2.13	1.38	-0.77	-1.87	

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.42	0.75	1.38	0.38	1.59	0.09	2.15

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-10 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,602	2,026,201	State Plane, FLW (U.S. Ft.)	-20.2 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.51 #230 - 1.26			2.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#10	-1.00	2.00	0.00	0.00
#14	-0.50	1.40	0.01	0.01
#18	0.00	1.00	0.02	0.03
#25	0.50	0.71	0.01	0.04
#35	1.00	0.50	0.02	0.06
#45	1.50	0.36	0.06	0.12
#60	2.00	0.25	0.55	0.67
#80	2.50	0.18	46.35	47.02
#120	3.00	0.13	42.41	89.43
#170	3.50	0.09	8.25	97.68
#200	3.75	0.08	0.81	98.49
#230	4.00	0.06	0.25	98.74

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.34	2.94	2.83	2.54	2.26	2.17	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.56	0.17	2.54	0.17	0.35	0.41	5.05

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-7.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 2.91 #230 - 2.66			15.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	2.07	2.07
#3.5	-2.50	5.60	2.16	4.23
#4	-2.25	4.75	1.11	5.34
#5	-2.00	4.00	0.68	6.02
#7	-1.50	2.80	1.49	7.51
#10	-1.00	2.00	1.77	9.28
#14	-0.50	1.40	1.60	10.88
#18	0.00	1.00	1.08	11.96
#25	0.50	0.71	0.94	12.90
#35	1.00	0.50	1.04	13.94
#45	1.50	0.36	1.58	15.52
#60	2.00	0.25	3.15	18.67
#80	2.50	0.18	26.54	45.21
#120	3.00	0.13	39.52	84.73
#170	3.50	0.09	11.37	96.10
#200	3.75	0.08	0.99	97.09
#230	4.00	0.06	0.25	97.34

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.45	2.99	2.88	2.56	2.12	1.58	-2.33

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.99	0.25	2.56	0.17	1.64	-2.17	6.79

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-9.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.74 #230 - 1.55			5.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.30	0.30
#3.5	-2.50	5.60	0.53	0.83
#4	-2.25	4.75	0.05	0.88
#5	-2.00	4.00	0.02	0.90
#7	-1.50	2.80	0.10	1.00
#10	-1.00	2.00	0.21	1.21
#14	-0.50	1.40	0.31	1.52
#18	0.00	1.00	0.32	1.84
#25	0.50	0.71	0.35	2.19
#35	1.00	0.50	0.49	2.68
#45	1.50	0.36	1.00	3.68
#60	2.00	0.25	3.68	7.36
#80	2.50	0.18	42.83	50.19
#120	3.00	0.13	38.78	88.97
#170	3.50	0.09	8.69	97.66
#200	3.75	0.08	0.60	98.26
#230	4.00	0.06	0.19	98.45

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.35	2.94	2.82	2.50	2.21	2.10	1.68

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.43	0.19	2.50	0.18	0.76	-4.47	31.61

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-12.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 0.99 #230 - 0.95			39.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	3.23	3.23
#3.5	-2.50	5.60	5.02	8.25
#4	-2.25	4.75	1.28	9.53
#5	-2.00	4.00	1.88	11.41
#7	-1.50	2.80	2.37	13.78
#10	-1.00	2.00	4.23	18.01
#14	-0.50	1.40	5.38	23.39
#18	0.00	1.00	4.98	28.37
#25	0.50	0.71	5.10	33.47
#35	1.00	0.50	5.36	38.83
#45	1.50	0.36	7.69	46.52
#60	2.00	0.25	10.60	57.12
#80	2.50	0.18	23.01	80.13
#120	3.00	0.13	15.18	95.31
#170	3.50	0.09	3.46	98.77
#200	3.75	0.08	0.24	99.01
#230	4.00	0.06	0.04	99.05

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.63	2.39	1.66	-0.34	-1.24	-2.99

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.92	0.53	1.66	0.32	1.9	-0.92	2.75

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-15.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.21 #230 - 1.17			31.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	2.73	2.73
#3.5	-2.50	5.60	3.32	6.05
#4	-2.25	4.75	0.84	6.89
#5	-2.00	4.00	0.96	7.85
#7	-1.50	2.80	1.76	9.61
#10	-1.00	2.00	3.62	13.23
#14	-0.50	1.40	4.51	17.74
#18	0.00	1.00	4.15	21.89
#25	0.50	0.71	4.25	26.14
#35	1.00	0.50	4.20	30.34
#45	1.50	0.36	5.31	35.65
#60	2.00	0.25	10.77	46.42
#80	2.50	0.18	30.56	76.98
#120	3.00	0.13	18.73	95.71
#170	3.50	0.09	2.99	98.70
#200	3.75	0.08	0.09	98.79
#230	4.00	0.06	0.04	98.83

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.69	2.47	2.06	0.37	-0.69	-2.74

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.26	0.42	2.06	0.24	1.76	-1.29	3.71

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-18.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.27 #230 - 1.24		48.66	48.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.37	0.37
#3.5	-2.50	5.60	1.40	1.77
#4	-2.25	4.75	0.82	2.59
#5	-2.00	4.00	0.86	3.45
#7	-1.50	2.80	2.63	6.08
#10	-1.00	2.00	5.46	11.54
#14	-0.50	1.40	8.72	20.26
#18	0.00	1.00	9.03	29.29
#25	0.50	0.71	9.87	39.16
#35	1.00	0.50	9.92	49.08
#45	1.50	0.36	11.30	60.38
#60	2.00	0.25	10.57	70.95
#80	2.50	0.18	15.90	86.85
#120	3.00	0.13	10.17	97.02
#170	3.50	0.09	1.61	98.63
#200	3.75	0.08	0.10	98.73
#230	4.00	0.06	0.03	98.76

SAND, poorly-graded, some fine to medium-grained sand-sized quartz, some medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.90	2.41	2.13	1.04	-0.24	-0.74	-1.71

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.84	0.56	1.04	0.49	1.46	-0.49	2.54

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-11 @ 13.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,270	2,025,679	State Plane, FLW (U.S. Ft.)	-20.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.01 #230 - 1.85			23.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.44	0.44
#3.5	-2.50	5.60	2.06	2.50
#4	-2.25	4.75	0.85	3.35
#5	-2.00	4.00	1.06	4.41
#7	-1.50	2.80	2.11	6.52
#10	-1.00	2.00	3.28	9.80
#14	-0.50	1.40	4.32	14.12
#18	0.00	1.00	3.60	17.72
#25	0.50	0.71	3.10	20.82
#35	1.00	0.50	2.48	23.30
#45	1.50	0.36	1.73	25.03
#60	2.00	0.25	1.09	26.12
#80	2.50	0.18	20.65	46.77
#120	3.00	0.13	40.98	87.75
#170	3.50	0.09	9.58	97.33
#200	3.75	0.08	0.66	97.99
#230	4.00	0.06	0.16	98.15

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.38	2.95	2.84	2.54	1.49	-0.24	-1.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.80	0.29	2.54	0.17	1.64	-1.47	4.02

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-8.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.24 #230 - 1.23			43

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.74	0.74
#3.5	-2.50	5.60	4.32	5.06
#4	-2.25	4.75	2.99	8.05
#5	-2.00	4.00	1.65	9.70
#7	-1.50	2.80	3.90	13.60
#10	-1.00	2.00	5.24	18.84
#14	-0.50	1.40	6.45	25.29
#18	0.00	1.00	5.67	30.96
#25	0.50	0.71	5.56	36.52
#35	1.00	0.50	5.84	42.36
#45	1.50	0.36	7.53	49.89
#60	2.00	0.25	9.68	59.57
#80	2.50	0.18	22.07	81.64
#120	3.00	0.13	13.88	95.52
#170	3.50	0.09	2.98	98.50
#200	3.75	0.08	0.26	98.76
#230	4.00	0.06	0.01	98.77

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.59	2.35	1.51	-0.52	-1.27	-2.51

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.86	0.55	1.51	0.35	1.79	-0.69	2.3

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-10.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	2.5Y 6/2	#200 - 1.11 #230 - 1.06			17.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.75	0.75
#3.5	-2.50	5.60	2.24	2.99
#4	-2.25	4.75	0.77	3.76
#5	-2.00	4.00	0.65	4.41
#7	-1.50	2.80	1.20	5.61
#10	-1.00	2.00	2.09	7.70
#14	-0.50	1.40	1.88	9.58
#18	0.00	1.00	1.66	11.24
#25	0.50	0.71	1.63	12.87
#35	1.00	0.50	1.84	14.71
#45	1.50	0.36	2.92	17.63
#60	2.00	0.25	7.83	25.46
#80	2.50	0.18	51.70	77.16
#120	3.00	0.13	17.61	94.77
#170	3.50	0.09	3.82	98.59
#200	3.75	0.08	0.30	98.89
#230	4.00	0.06	0.05	98.94

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.03	2.69	2.48	2.24	1.97	1.22	-1.75

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.81	0.29	2.24	0.21	1.39	-2.21	7.3

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-13.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 6/2	#200 - 0.91 #230 - 0.87			65.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	13.27	13.27
3/8"	-3.25	9.50	3.59	16.86
#3.5	-2.50	5.60	4.24	21.10
#4	-2.25	4.75	1.65	22.75
#5	-2.00	4.00	2.00	24.75
#7	-1.50	2.80	4.59	29.34
#10	-1.00	2.00	6.61	35.95
#14	-0.50	1.40	8.71	44.66
#18	0.00	1.00	7.70	52.36
#25	0.50	0.71	7.05	59.41
#35	1.00	0.50	6.79	66.20
#45	1.50	0.36	7.60	73.80
#60	2.00	0.25	6.47	80.27
#80	2.50	0.18	7.72	87.99
#120	3.00	0.13	8.42	96.41
#170	3.50	0.09	2.54	98.95
#200	3.75	0.08	0.14	99.09
#230	4.00	0.06	0.04	99.13

SAND, poorly-graded, mostly sand to gravel-sized shell, some fine to medium-grained sand-sized quartz

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.92	2.24	1.59	-0.15	-1.97	-3.49	

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	-0.45	1.37			1.84	0.75	2.36

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-16.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.10 #230 - 1.08			66.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	2.77	2.77
#3.5	-2.50	5.60	6.08	8.85
#4	-2.25	4.75	2.90	11.75
#5	-2.00	4.00	2.51	14.26
#7	-1.50	2.80	4.34	18.60
#10	-1.00	2.00	8.39	26.99
#14	-0.50	1.40	11.42	38.41
#18	0.00	1.00	10.74	49.15
#25	0.50	0.71	10.69	59.84
#35	1.00	0.50	9.55	69.39
#45	1.50	0.36	8.45	77.84
#60	2.00	0.25	5.36	83.20
#80	2.50	0.18	7.08	90.28
#120	3.00	0.13	7.37	97.65
#170	3.50	0.09	1.19	98.84
#200	3.75	0.08	0.06	98.90
#230	4.00	0.06	0.02	98.92

SAND, poorly-graded, mostly sand to gravel-sized shell, some fine to medium-grained sand-sized quartz, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.82	2.06	1.33	0.04	-1.12	-1.80	-2.97

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.01	0.99	0.04	0.97	1.72	-0.15	2.33

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 11 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-18.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 5/1	#200 - 4.67 #230 - 4.14			2.6

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.14	0.14
#4	-2.25	4.75	0.11	0.25
#5	-2.00	4.00	0.02	0.27
#7	-1.50	2.80	0.04	0.31
#10	-1.00	2.00	0.11	0.42
#14	-0.50	1.40	0.38	0.80
#18	0.00	1.00	0.57	1.37
#25	0.50	0.71	0.70	2.07
#35	1.00	0.50	0.81	2.88
#45	1.50	0.36	1.07	3.95
#60	2.00	0.25	1.50	5.45
#80	2.50	0.18	14.59	20.04
#120	3.00	0.13	58.45	78.49
#170	3.50	0.09	15.05	93.54
#200	3.75	0.08	1.79	95.33
#230	4.00	0.06	0.53	95.86

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.70	3.18	2.97	2.76	2.54	2.36	1.85

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.76	0.15	0.65	-3.58	22.97

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-12 @ 13 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
877,388	2,025,584	State Plane, FLW (U.S. Ft.)	-20.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 4/1	#200 - 10.94 #230 - 10.37		2.02	2.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.08	0.08
#10	-1.00	2.00	0.02	0.10
#14	-0.50	1.40	0.04	0.14
#18	0.00	1.00	0.04	0.18
#25	0.50	0.71	0.06	0.24
#35	1.00	0.50	0.05	0.29
#45	1.50	0.36	0.41	0.70
#60	2.00	0.25	3.87	4.57
#80	2.50	0.18	28.73	33.30
#120	3.00	0.13	41.22	74.52
#170	3.50	0.09	12.79	87.31
#200	3.75	0.08	1.75	89.06
#230	4.00	0.06	0.57	89.63

SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.37	3.02	2.70	2.36	2.20	2.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.62	0.16	2.70	0.15	0.46	-1.19	13.06

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-7.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.99 #230 - 2.86		30.93	30.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.78	0.78
#3.5	-2.50	5.60	2.37	3.15
#4	-2.25	4.75	1.56	4.71
#5	-2.00	4.00	1.43	6.14
#7	-1.50	2.80	3.34	9.48
#10	-1.00	2.00	4.83	14.31
#14	-0.50	1.40	5.66	19.97
#18	0.00	1.00	4.07	24.04
#25	0.50	0.71	3.17	27.21
#35	1.00	0.50	2.67	29.88
#45	1.50	0.36	3.47	33.35
#60	2.00	0.25	5.52	38.87
#80	2.50	0.18	18.74	57.61
#120	3.00	0.13	29.45	87.06
#170	3.50	0.09	9.25	96.31
#200	3.75	0.08	0.70	97.01
#230	4.00	0.06	0.13	97.14

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	2.95	2.80	2.30	0.15	-0.85	-2.20

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.44	0.37	2.30	0.20	1.81	-1.03	2.82

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-9.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SW	2.5Y 6/1	#200 - 1.27 #230 - 1.23			25.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.40	0.40
#3.5	-2.50	5.60	1.03	1.43
#4	-2.25	4.75	0.62	2.05
#5	-2.00	4.00	0.88	2.93
#7	-1.50	2.80	2.13	5.06
#10	-1.00	2.00	2.00	7.06
#14	-0.50	1.40	3.56	10.62
#18	0.00	1.00	3.53	14.15
#25	0.50	0.71	4.12	18.27
#35	1.00	0.50	5.04	23.31
#45	1.50	0.36	7.92	31.23
#60	2.00	0.25	13.68	44.91
#80	2.50	0.18	33.12	78.03
#120	3.00	0.13	17.13	95.16
#170	3.50	0.09	3.42	98.58
#200	3.75	0.08	0.15	98.73
#230	4.00	0.06	0.04	98.77

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.00	2.67	2.45	2.08	1.11	0.22	-1.51

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.56	0.34	2.08	0.24	1.37	-1.48	4.73

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 5.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-12.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 7/2	#200 - 1.26 #230 - 1.26			48.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	6.01	6.01
3/8"	-3.25	9.50	8.52	14.53
#3.5	-2.50	5.60	2.33	16.86
#4	-2.25	4.75	1.83	18.69
#5	-2.00	4.00	2.20	20.89
#7	-1.50	2.80	3.66	24.55
#10	-1.00	2.00	5.96	30.51
#14	-0.50	1.40	6.02	36.53
#18	0.00	1.00	4.34	40.87
#25	0.50	0.71	3.69	44.56
#35	1.00	0.50	3.71	48.27
#45	1.50	0.36	4.70	52.97
#60	2.00	0.25	7.83	60.80
#80	2.50	0.18	24.57	85.37
#120	3.00	0.13	11.57	96.94
#170	3.50	0.09	1.72	98.66
#200	3.75	0.08	0.08	98.74
#230	4.00	0.06	0.00	98.74

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.92	2.47	2.29	1.18	-1.46	-2.78	

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.21	0.86	1.18	0.44	2.09	-0.25	1.93

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 8.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-15.4 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.48 #230 - 1.43			14.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.88	0.88
#4	-2.25	4.75	0.31	1.19
#5	-2.00	4.00	0.42	1.61
#7	-1.50	2.80	0.85	2.46
#10	-1.00	2.00	1.09	3.55
#14	-0.50	1.40	1.23	4.78
#18	0.00	1.00	1.36	6.14
#25	0.50	0.71	1.97	8.11
#35	1.00	0.50	3.41	11.52
#45	1.50	0.36	7.35	18.87
#60	2.00	0.25	11.54	30.41
#80	2.50	0.18	39.87	70.28
#120	3.00	0.13	23.41	93.69
#170	3.50	0.09	4.63	98.32
#200	3.75	0.08	0.20	98.52
#230	4.00	0.06	0.05	98.57

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.14	2.79	2.60	2.25	1.77	1.30	-0.42

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.97	0.26	2.25	0.21	1.07	-2.22	8.78

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 10 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-16.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.35 #230 - 2.34			9.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.11	0.11
#4	-2.25	4.75	0.12	0.23
#5	-2.00	4.00	0.15	0.38
#7	-1.50	2.80	0.54	0.92
#10	-1.00	2.00	0.60	1.52
#14	-0.50	1.40	0.83	2.35
#18	0.00	1.00	0.99	3.34
#25	0.50	0.71	1.13	4.47
#35	1.00	0.50	1.39	5.86
#45	1.50	0.36	2.57	8.43
#60	2.00	0.25	7.70	16.13
#80	2.50	0.18	52.81	68.94
#120	3.00	0.13	24.08	93.02
#170	3.50	0.09	4.35	97.37
#200	3.75	0.08	0.28	97.65
#230	4.00	0.06	0.01	97.66

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.23	2.81	2.63	2.32	2.08	1.99	0.69

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.20	0.22	2.32	0.20	0.79	-2.86	13.9

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-13 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,466	2,025,092	State Plane, FLW (U.S. Ft.)	-18.9 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 5/1	#200 - 3.19 #230 - 2.95			6.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#3.5	-2.50	5.60	0.00	0.00
#4	-2.25	4.75	0.03	0.03
#5	-2.00	4.00	0.00	0.03
#7	-1.50	2.80	0.04	0.07
#10	-1.00	2.00	0.03	0.10
#14	-0.50	1.40	0.10	0.20
#18	0.00	1.00	0.08	0.28
#25	0.50	0.71	0.10	0.38
#35	1.00	0.50	0.16	0.54
#45	1.50	0.36	0.31	0.85
#60	2.00	0.25	0.81	1.66
#80	2.50	0.18	40.21	41.87
#120	3.00	0.13	45.81	87.68
#170	3.50	0.09	8.29	95.97
#200	3.75	0.08	0.84	96.81
#230	4.00	0.06	0.24	97.05

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.44	2.96	2.86	2.59	2.29	2.18	2.04

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.57	0.17	2.59	0.17	0.41	-2.05	23

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-8.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.70 #230 - 1.66			40

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	1.97	1.97
#3.5	-2.50	5.60	5.66	7.63
#4	-2.25	4.75	1.84	9.47
#5	-2.00	4.00	2.92	12.39
#7	-1.50	2.80	4.39	16.78
#10	-1.00	2.00	5.47	22.25
#14	-0.50	1.40	5.15	27.40
#18	0.00	1.00	4.01	31.41
#25	0.50	0.71	3.60	35.01
#35	1.00	0.50	3.65	38.66
#45	1.50	0.36	5.74	44.40
#60	2.00	0.25	9.97	54.37
#80	2.50	0.18	21.21	75.58
#120	3.00	0.13	18.70	94.28
#170	3.50	0.09	3.84	98.12
#200	3.75	0.08	0.18	98.30
#230	4.00	0.06	0.04	98.34

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.09	2.73	2.49	1.78	-0.73	-1.59	-2.85

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.89	0.54	1.78	0.29	1.97	-0.76	2.24

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-10.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.39 #230 - 1.28		19.02	19.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	2.95	2.95
#3.5	-2.50	5.60	1.16	4.11
#4	-2.25	4.75	0.26	4.37
#5	-2.00	4.00	0.53	4.90
#7	-1.50	2.80	1.02	5.92
#10	-1.00	2.00	1.71	7.63
#14	-0.50	1.40	1.84	9.47
#18	0.00	1.00	1.68	11.15
#25	0.50	0.71	2.12	13.27
#35	1.00	0.50	3.04	16.31
#45	1.50	0.36	6.76	23.07
#60	2.00	0.25	15.28	38.35
#80	2.50	0.18	31.46	69.81
#120	3.00	0.13	23.10	92.91
#170	3.50	0.09	5.39	98.30
#200	3.75	0.08	0.31	98.61
#230	4.00	0.06	0.11	98.72

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.19	2.81	2.61	2.19	1.56	0.95	-1.95

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.72	0.30	2.19	0.22	1.52	-2.12	7.29

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 6.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-13.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.03 #230 - 1.01			44.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	3.65	3.65
#3.5	-2.50	5.60	6.41	10.06
#4	-2.25	4.75	2.43	12.49
#5	-2.00	4.00	2.79	15.28
#7	-1.50	2.80	3.85	19.13
#10	-1.00	2.00	5.28	24.41
#14	-0.50	1.40	5.25	29.66
#18	0.00	1.00	4.30	33.96
#25	0.50	0.71	4.01	37.97
#35	1.00	0.50	4.29	42.26
#45	1.50	0.36	7.11	49.37
#60	2.00	0.25	15.85	65.22
#80	2.50	0.18	20.79	86.01
#120	3.00	0.13	10.58	96.59
#170	3.50	0.09	2.23	98.82
#200	3.75	0.08	0.15	98.97
#230	4.00	0.06	0.02	98.99

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.92	2.45	2.24	1.52	-0.94	-1.91	-3.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.63	0.65	1.52	0.35	1.98	-0.72	2.23

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-16.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 6/1	#200 - 1.32 #230 - 1.28			22

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	1.96	1.96
3/8"	-3.25	9.50	0.45	2.41
#3.5	-2.50	5.60	2.02	4.43
#4	-2.25	4.75	0.42	4.85
#5	-2.00	4.00	0.65	5.50
#7	-1.50	2.80	1.04	6.54
#10	-1.00	2.00	1.70	8.24
#14	-0.50	1.40	2.05	10.29
#18	0.00	1.00	1.92	12.21
#25	0.50	0.71	2.72	14.93
#35	1.00	0.50	3.72	18.65
#45	1.50	0.36	7.96	26.61
#60	2.00	0.25	17.34	43.95
#80	2.50	0.18	29.69	73.64
#120	3.00	0.13	20.32	93.96
#170	3.50	0.09	4.56	98.52
#200	3.75	0.08	0.16	98.68
#230	4.00	0.06	0.04	98.72

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.11	2.75	2.53	2.10	1.40	0.64	-2.19

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.59	0.33	2.10	0.23	1.33	-1.59	5.88

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 10.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-17.8 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.48 #230 - 2.30			2.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.02	0.02
#10	-1.00	2.00	0.05	0.07
#14	-0.50	1.40	0.15	0.22
#18	0.00	1.00	0.12	0.34
#25	0.50	0.71	0.20	0.54
#35	1.00	0.50	0.31	0.85
#45	1.50	0.36	0.73	1.58
#60	2.00	0.25	1.93	3.51
#80	2.50	0.18	38.65	42.16
#120	3.00	0.13	45.97	88.13
#170	3.50	0.09	8.73	96.86
#200	3.75	0.08	0.66	97.52
#230	4.00	0.06	0.18	97.70

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.39	2.96	2.86	2.59	2.28	2.16	2.02

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.55	0.17	2.59	0.17	0.44	-1.89	15.94

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-19.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.35 #230 - 1.19			1.7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.01	0.01
#14	-0.50	1.40	0.01	0.02
#18	0.00	1.00	0.04	0.06
#25	0.50	0.71	0.02	0.08
#35	1.00	0.50	0.04	0.12
#45	1.50	0.36	0.13	0.25
#60	2.00	0.25	0.59	0.84
#80	2.50	0.18	28.95	29.79
#120	3.00	0.13	57.00	86.79
#170	3.50	0.09	11.11	97.90
#200	3.75	0.08	0.75	98.65
#230	4.00	0.06	0.16	98.81

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.37	2.98	2.90	2.68	2.42	2.26	2.07

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.66	0.16	2.68	0.16	0.34	-0.48	8.47

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-14 @ 14 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
876,019	2,024,781	State Plane, FLW (U.S. Ft.)	-21.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.80 #230 - 1.68			14.3

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.85	0.85
#3.5	-2.50	5.60	1.41	2.26
#4	-2.25	4.75	0.28	2.54
#5	-2.00	4.00	0.62	3.16
#7	-1.50	2.80	0.73	3.89
#10	-1.00	2.00	1.68	5.57
#14	-0.50	1.40	1.91	7.48
#18	0.00	1.00	1.46	8.94
#25	0.50	0.71	1.58	10.52
#35	1.00	0.50	2.06	12.58
#45	1.50	0.36	2.74	15.32
#60	2.00	0.25	4.26	19.58
#80	2.50	0.18	36.25	55.83
#120	3.00	0.13	35.14	90.97
#170	3.50	0.09	6.89	97.86
#200	3.75	0.08	0.34	98.20
#230	4.00	0.06	0.12	98.32

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.29	2.90	2.77	2.42	2.07	1.58	-1.17

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.04	0.24	2.42	0.19	1.32	-2.43	8.82

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 1 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-7.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.05 #230 - 1.87			9.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.28	0.28
#3.5	-2.50	5.60	0.00	0.28
#4	-2.25	4.75	0.08	0.36
#5	-2.00	4.00	0.18	0.54
#7	-1.50	2.80	0.20	0.74
#10	-1.00	2.00	0.39	1.13
#14	-0.50	1.40	0.89	2.02
#18	0.00	1.00	1.15	3.17
#25	0.50	0.71	1.59	4.76
#35	1.00	0.50	2.16	6.92
#45	1.50	0.36	3.81	10.73
#60	2.00	0.25	9.13	19.86
#80	2.50	0.18	30.81	50.67
#120	3.00	0.13	36.80	87.47
#170	3.50	0.09	9.67	97.14
#200	3.75	0.08	0.81	97.95
#230	4.00	0.06	0.18	98.13

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.39	2.95	2.83	2.49	2.08	1.79	0.56

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.29	0.20	2.49	0.18	0.88	-2.56	13.06

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 3 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-9.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.46 #230 - 2.15			2.37

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.10	0.10
#10	-1.00	2.00	0.07	0.17
#14	-0.50	1.40	0.09	0.26
#18	0.00	1.00	0.22	0.48
#25	0.50	0.71	0.20	0.68
#35	1.00	0.50	0.21	0.89
#45	1.50	0.36	0.30	1.19
#60	2.00	0.25	10.26	11.45
#80	2.50	0.18	10.38	21.83
#120	3.00	0.13	59.10	80.93
#170	3.50	0.09	15.21	96.14
#200	3.75	0.08	1.40	97.54
#230	4.00	0.06	0.31	97.85

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.46	3.10	2.95	2.74	2.53	2.22	1.69

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.65	0.16	2.74	0.15	0.52	-2.2	14.69

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-12.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.86 #230 - 1.73		6.17	7

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.06	0.06
#4	-2.25	4.75	0.06	0.12
#5	-2.00	4.00	0.09	0.21
#7	-1.50	2.80	0.41	0.62
#10	-1.00	2.00	0.59	1.21
#14	-0.50	1.40	0.83	2.04
#18	0.00	1.00	0.77	2.81
#25	0.50	0.71	0.93	3.74
#35	1.00	0.50	1.22	4.96
#45	1.50	0.36	1.84	6.80
#60	2.00	0.25	4.37	11.17
#80	2.50	0.18	37.43	48.60
#120	3.00	0.13	40.87	89.47
#170	3.50	0.09	8.26	97.73
#200	3.75	0.08	0.41	98.14
#230	4.00	0.06	0.13	98.27

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.33	2.93	2.82	2.52	2.18	2.06	1.01

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.38	0.19	2.52	0.17	0.77	-2.9	14.3

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-15.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 1.71 #230 - 1.70			12.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.49	0.49
#4	-2.25	4.75	0.40	0.89
#5	-2.00	4.00	0.32	1.21
#7	-1.50	2.80	0.50	1.71
#10	-1.00	2.00	0.73	2.44
#14	-0.50	1.40	1.05	3.49
#18	0.00	1.00	1.16	4.65
#25	0.50	0.71	1.42	6.07
#35	1.00	0.50	2.01	8.08
#45	1.50	0.36	4.23	12.31
#60	2.00	0.25	18.28	30.59
#80	2.50	0.18	53.60	84.19
#120	3.00	0.13	11.55	95.74
#170	3.50	0.09	2.39	98.13
#200	3.75	0.08	0.16	98.29
#230	4.00	0.06	0.01	98.30

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.97	2.50	2.41	2.18	1.85	1.60	0.12

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.97	0.26	2.18	0.22	0.89	-2.8	12.76

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 12 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-18.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 1.27 #230 - 1.21			15.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	1.18	1.18
#4	-2.25	4.75	0.48	1.66
#5	-2.00	4.00	0.28	1.94
#7	-1.50	2.80	0.76	2.70
#10	-1.00	2.00	0.92	3.62
#14	-0.50	1.40	1.28	4.90
#18	0.00	1.00	1.35	6.25
#25	0.50	0.71	1.71	7.96
#35	1.00	0.50	2.73	10.69
#45	1.50	0.36	7.51	18.20
#60	2.00	0.25	19.53	37.73
#80	2.50	0.18	41.68	79.41
#120	3.00	0.13	15.99	95.40
#170	3.50	0.09	3.16	98.56
#200	3.75	0.08	0.17	98.73
#230	4.00	0.06	0.06	98.79

SAND, poorly-graded, mostly fine-grained sand-sized quartz, little medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.99	2.64	2.45	2.15	1.67	1.35	-0.46

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.88	0.27	2.15	0.23	1.05	-2.38	9.74

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-15 @ 15 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,076	2,025,103	State Plane, FLW (U.S. Ft.)	-21.7 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/2	#200 - 2.44 #230 - 2.32			6.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.02	0.02
#10	-1.00	2.00	0.01	0.03
#14	-0.50	1.40	0.05	0.08
#18	0.00	1.00	0.12	0.20
#25	0.50	0.71	0.30	0.50
#35	1.00	0.50	0.57	1.07
#45	1.50	0.36	2.25	3.32
#60	2.00	0.25	12.28	15.60
#80	2.50	0.18	56.82	72.42
#120	3.00	0.13	20.59	93.01
#170	3.50	0.09	4.21	97.22
#200	3.75	0.08	0.34	97.56
#230	4.00	0.06	0.12	97.68

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few fine-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.24	2.78	2.56	2.30	2.08	2.00	1.57

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.30	0.20	2.30	0.20	0.45	-0.88	8.92

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-16 @ 2 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,748	2,025,465	State Plane, FLW (U.S. Ft.)	-9.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 2.01 #230 - 1.95			2.2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.04	0.04
#14	-0.50	1.40	0.07	0.11
#18	0.00	1.00	0.05	0.16
#25	0.50	0.71	0.05	0.21
#35	1.00	0.50	0.12	0.33
#45	1.50	0.36	0.24	0.57
#60	2.00	0.25	1.15	1.72
#80	2.50	0.18	35.88	37.60
#120	3.00	0.13	48.79	86.39
#170	3.50	0.09	10.80	97.19
#200	3.75	0.08	0.80	97.99
#230	4.00	0.06	0.06	98.05

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.40	2.98	2.88	2.63	2.32	2.20	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.61	0.16	2.63	0.16	0.39	-1.13	13.05

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-16 @ 4 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,748	2,025,465	State Plane, FLW (U.S. Ft.)	-11.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/1	#200 - 2.39 #230 - 2.19			6.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.43	0.43
#4	-2.25	4.75	0.04	0.47
#5	-2.00	4.00	0.03	0.50
#7	-1.50	2.80	0.24	0.74
#10	-1.00	2.00	0.58	1.32
#14	-0.50	1.40	0.91	2.23
#18	0.00	1.00	0.95	3.18
#25	0.50	0.71	0.99	4.17
#35	1.00	0.50	1.14	5.31
#45	1.50	0.36	1.81	7.12
#60	2.00	0.25	3.53	10.65
#80	2.50	0.18	37.69	48.34
#120	3.00	0.13	37.59	85.93
#170	3.50	0.09	10.63	96.56
#200	3.75	0.08	1.05	97.61
#230	4.00	0.06	0.20	97.81

SAND, poorly-graded, mostly fine-grained sand-sized quartz, few medium-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.43	2.97	2.85	2.52	2.19	2.07	0.86

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.39	0.19	2.52	0.17	0.83	-2.96	15.14

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-16 @ 7 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,748	2,025,465	State Plane, FLW (U.S. Ft.)	-14.0 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.26 #230 - 1.22			46.8

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	4.77	4.77
#3.5	-2.50	5.60	3.42	8.19
#4	-2.25	4.75	1.77	9.96
#5	-2.00	4.00	2.23	12.19
#7	-1.50	2.80	3.84	16.03
#10	-1.00	2.00	5.78	21.81
#14	-0.50	1.40	7.03	28.84
#18	0.00	1.00	5.95	34.79
#25	0.50	0.71	5.50	40.29
#35	1.00	0.50	5.47	45.76
#45	1.50	0.36	8.34	54.10
#60	2.00	0.25	12.42	66.52
#80	2.50	0.18	17.28	83.80
#120	3.00	0.13	11.74	95.54
#170	3.50	0.09	3.03	98.57
#200	3.75	0.08	0.17	98.74
#230	4.00	0.06	0.04	98.78

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.98	2.51	2.25	1.25	-0.77	-1.50	-3.20

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	0.63	0.65	1.25	0.42	1.93	-0.69	2.42

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-16 @ 9.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,748	2,025,465	State Plane, FLW (U.S. Ft.)	-16.5 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 4/1	#200 - 4.58 #230 - 4.15		28.90	27.54

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	0.59	0.59
#3.5	-2.50	5.60	2.51	3.10
#4	-2.25	4.75	1.41	4.51
#5	-2.00	4.00	1.34	5.85
#7	-1.50	2.80	2.62	8.47
#10	-1.00	2.00	3.74	12.21
#14	-0.50	1.40	3.88	16.09
#18	0.00	1.00	3.29	19.38
#25	0.50	0.71	3.39	22.77
#35	1.00	0.50	3.55	26.32
#45	1.50	0.36	5.25	31.57
#60	2.00	0.25	8.28	39.85
#80	2.50	0.18	17.16	57.01
#120	3.00	0.13	25.34	82.35
#170	3.50	0.09	11.73	94.08
#200	3.75	0.08	1.34	95.42
#230	4.00	0.06	0.43	95.85

SAND, poorly-graded, mostly fine-grained sand-sized quartz, some medium to coarse-grained sand-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.67	3.07	2.85	2.30	0.81	-0.51	-2.16

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.55	0.34	2.30	0.20	1.74	-1.16	3.3

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-16 @ 12.5 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
878,748	2,025,465	State Plane, FLW (U.S. Ft.)	-19.5 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 7/1	#200 - 1.06 #230 - 1.05			37

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/4"	-4.25	19.00	0.00	0.00
3/8"	-3.25	9.50	1.40	1.40
#3.5	-2.50	5.60	3.35	4.75
#4	-2.25	4.75	1.22	5.97
#5	-2.00	4.00	1.23	7.20
#7	-1.50	2.80	2.46	9.66
#10	-1.00	2.00	4.05	13.71
#14	-0.50	1.40	5.53	19.24
#18	0.00	1.00	5.03	24.27
#25	0.50	0.71	5.41	29.68
#35	1.00	0.50	5.66	35.34
#45	1.50	0.36	8.44	43.78
#60	2.00	0.25	9.98	53.76
#80	2.50	0.18	28.29	82.05
#120	3.00	0.13	14.49	96.54
#170	3.50	0.09	2.31	98.85
#200	3.75	0.08	0.09	98.94
#230	4.00	0.06	0.01	98.95

SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some sand to gravel-sized shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
2.95	2.57	2.38	1.81	0.07	-0.79	-2.45

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	1.11	0.46	1.81	0.29	1.69	-1.05	3.16

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-17 @ 2 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
879,622	2,025,763	State Plane, FLW (U.S. Ft.)	-8.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 2.44 #230 - 2.09			2.5

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#7	-1.50	2.80	0.00	0.00
#10	-1.00	2.00	0.03	0.03
#14	-0.50	1.40	0.02	0.05
#18	0.00	1.00	0.02	0.07
#25	0.50	0.71	0.04	0.11
#35	1.00	0.50	0.04	0.15
#45	1.50	0.36	0.11	0.26
#60	2.00	0.25	0.55	0.81
#80	2.50	0.18	44.36	45.17
#120	3.00	0.13	41.03	86.20
#170	3.50	0.09	10.39	96.59
#200	3.75	0.08	0.97	97.56
#230	4.00	0.06	0.35	97.91

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.42	2.97	2.86	2.56	2.27	2.17	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.58	0.17	2.56	0.17	0.38	-0.09	8.51

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-17 @ 4 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
879,622	2,025,763	State Plane, FLW (U.S. Ft.)	-10.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 5/1	#200 - 6.07 #230 - 6.07			1.1

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.08	0.08
#4	-2.25	4.75	0.01	0.09
#5	-2.00	4.00	0.00	0.09
#7	-1.50	2.80	0.02	0.11
#10	-1.00	2.00	0.02	0.13
#14	-0.50	1.40	0.03	0.16
#18	0.00	1.00	0.06	0.22
#25	0.50	0.71	0.09	0.31
#35	1.00	0.50	0.13	0.44
#45	1.50	0.36	0.34	0.78
#60	2.00	0.25	16.98	17.76
#80	2.50	0.18	56.71	74.47
#120	3.00	0.13	16.23	90.70
#170	3.50	0.09	2.57	93.27
#200	3.75	0.08	0.66	93.93
#230	4.00	0.06	0.00	93.93

SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	2.79	2.52	2.28	2.06	1.95	1.62

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.27	0.21	2.28	0.21	0.42	-1.97	28.24

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-17 @ 6 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
879,622	2,025,763	State Plane, FLW (U.S. Ft.)	-12.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
SP	2.5Y 6/2	#200 - 1.67 #230 - 1.56			2.4

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#14	-0.50	1.40	0.00	0.00
#18	0.00	1.00	0.04	0.04
#25	0.50	0.71	0.04	0.08
#35	1.00	0.50	0.03	0.11
#45	1.50	0.36	0.08	0.19
#60	2.00	0.25	0.49	0.68
#80	2.50	0.18	43.01	43.69
#120	3.00	0.13	44.00	87.69
#170	3.50	0.09	9.79	97.48
#200	3.75	0.08	0.85	98.33
#230	4.00	0.06	0.11	98.44

SAND, poorly-graded, mostly fine-grained sand-sized quartz, trace shell, trace silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
3.37	2.96	2.86	2.57	2.28	2.18	2.05

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.58	0.17	2.57	0.17	0.36	0.16	5.23

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-17 @ 8 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
879,622	2,025,763	State Plane, FLW (U.S. Ft.)	-14.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	2.5Y 6/2	#200 - 7.61 #230 - 6.78			0.9

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
#5	-2.00	4.00	0.00	0.00
#7	-1.50	2.80	0.08	0.08
#10	-1.00	2.00	0.05	0.13
#14	-0.50	1.40	0.13	0.26
#18	0.00	1.00	0.15	0.41
#25	0.50	0.71	0.33	0.74
#35	1.00	0.50	0.50	1.24
#45	1.50	0.36	0.75	1.99
#60	2.00	0.25	1.25	3.24
#80	2.50	0.18	10.20	13.44
#120	3.00	0.13	56.66	70.10
#170	3.50	0.09	19.63	89.73
#200	3.75	0.08	2.66	92.39
#230	4.00	0.06	0.83	93.22

SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
	3.35	3.12	2.82	2.60	2.52	2.09

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.77	0.15	2.82	0.14	0.5	-2.71	19.8

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15

Granularmetric Report

Project Name: St Augustine Inlet Flood Shoal

Sample Name: VB-SAFS15-17 @ 9 ft

Analysis Date: 9/4/2015

US Army Corps of Engineers
Jacksonville District

Easting (ft):	Northing (ft):	Coordinate System:	Elevation (ft):
879,622	2,025,763	State Plane, FLW (U.S. Ft.)	-15.3 NAVD88

USCS:	Munsell:	Fines (%):	Organics (%):	Carbonates (%):	Shells (%):
	N 4/	#200 - 23.71 #230 - 22.81		4.45	2

Sieve Number	Sieve Size (Phi)	Sieve Size (Millimeters)	% Weight Retained	C. % Weight Retained
3/8"	-3.25	9.50	0.00	0.00
#3.5	-2.50	5.60	0.20	0.20
#4	-2.25	4.75	0.08	0.28
#5	-2.00	4.00	0.10	0.38
#7	-1.50	2.80	0.18	0.56
#10	-1.00	2.00	0.19	0.75
#14	-0.50	1.40	0.20	0.95
#18	0.00	1.00	0.22	1.17
#25	0.50	0.71	0.17	1.34
#35	1.00	0.50	0.25	1.59
#45	1.50	0.36	0.24	1.83
#60	2.00	0.25	0.71	2.54
#80	2.50	0.18	8.50	11.04
#120	3.00	0.13	42.48	53.52
#170	3.50	0.09	20.05	73.57
#200	3.75	0.08	2.72	76.29
#230	4.00	0.06	0.90	77.19

SAND, silty, mostly fine-grained sand-sized quartz, little silt, trace shell

Phi 5	Phi 16	Phi 25	Phi 50	Phi 75	Phi 84	Phi 95
		3.63	2.96	2.66	2.56	2.14

Moment	Mean Phi	Mean mm	Median Phi	Median mm	Sorting	Skewness	Kurtosis
Statistics	2.78	0.15	2.96	0.13	0.68	-4.39	31.28

GRANULARMETRIC REPORT % SJC_FLOOD_SHOAL_VC2015.GPJ CESAJ3.GDT 9/10/15