

**Perdido Key, FL
Feasibility Study for Beach Restoration**

Sand Search Investigation

**Sediment Vibracore Core Boring Logs, Photographs,
and Grain Size Distribution Analyses**

January 2006

Prepared for:

Escambia County, FL
&
Florida Department of Environmental Protection
Bureau of Beaches and Coastal Systems

Prepared By:

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Sediment Vibracores Collected By:

Alpine Ocean Seismic Survey, Inc.
Norwood, NJ

Core Boring Logs and Analyses Prepared By:

Dr. Gary Zarillo
Scientific Environmental Applications, Inc.
Melbourne, FL

DRILLING LOG		DIVISION	INSTALLATION	SHEET 1 OF 1 SHEETS
1. PROJECT Geotechnical Sand Search for Beach Restoration Perdido Key, FL - Escambia County			9. SIZE AND TYPE OF BIT 4.0 In.	
2. BORING DESIGNATION PK-56			10. COORDINATE SYSTEM/DATUM Florida State Plane North	
LOCATION COORDINATES X = 1,044,660 Y = 477,517			HORIZONTAL NAD 1983	
3. DRILLING AGENCY Olsen Associates, Inc			11. MANUFACTURER'S DESIGNATION OF DRILL <input type="checkbox"/> AUTO HAMMER Pneumatic <input type="checkbox"/> MANUAL HAMMER	
CONTRACTOR FILE NO.			12. TOTAL SAMPLES 4	
4. NAME OF DRILLER Alpine Ocean Seismic Survey Inc			13. TOTAL NUMBER CORE BOXES 2	
5. DIRECTION OF BORING <input checked="" type="checkbox"/> VERTICAL <input type="checkbox"/> INCLINED			14. ELEVATION GROUND WATER	
DEG. FROM VERTICAL			15. DATE BORING 05-11-05	
BEARING			COMPLETED 05-11-05	
6. THICKNESS OF OVERBURDEN 0.0 Ft.			16. ELEVATION TOP OF BORING -22.2 Ft.	
7. DEPTH DRILLED INTO ROCK 0.0 Ft.			17. TOTAL RECOVERY FOR BORING 20.2 Ft.	
8. TOTAL DEPTH OF BORING 18.8 Ft.			18. SIGNATURE AND TITLE OF INSPECTOR Gary Zarillo, PG SEA, Inc	

ELEV. (ft)	DEPTH (ft)	LEGEND	CLASSIFICATION OF MATERIALS Depths and elevations based on measured values	% REC.	BOX OR SAMPLE	REMARKS
-22.2	0.0					
			White medium to fine quartz sand, scattered tan and gray shell fragments in fine to coarse gravel range, scattered inclusions of gray silt in burrow linings, (10YR-8.5/1), (SP).		1.0	Sample #1.0, Depth = 1.0'
					7.0	Sample #7.0, Depth = 7.0'
-33.5	11.3					
			White to light gray medium to fine quartz sand, scattered inclusions of gray silt in collapsed burrows, (10YR-8.5/1), (SP).		14.0	Sample #14.0, Depth = 14.0'
-37.8	15.6				Comp	Sample #Comp, Depth = 15.0'
			Gray medium to fine sand, inclusions of black decayed organic matter, (10YR-7.5/1), (SP).			Comp (0-15.0')
-41.3	19.1					
-41.4	19.2		Tan shell fragments and quartz sand, (10YR-7.5/2), (SW).			
-42.4	20.2		Gray silt, some sand, gray (10YR-6/1), (ML).			
			End of Boring			

FLORIDA DEP ROSS PERDIDO KEY G.P.I. FL DEP ROSS, GDT 9/30/05

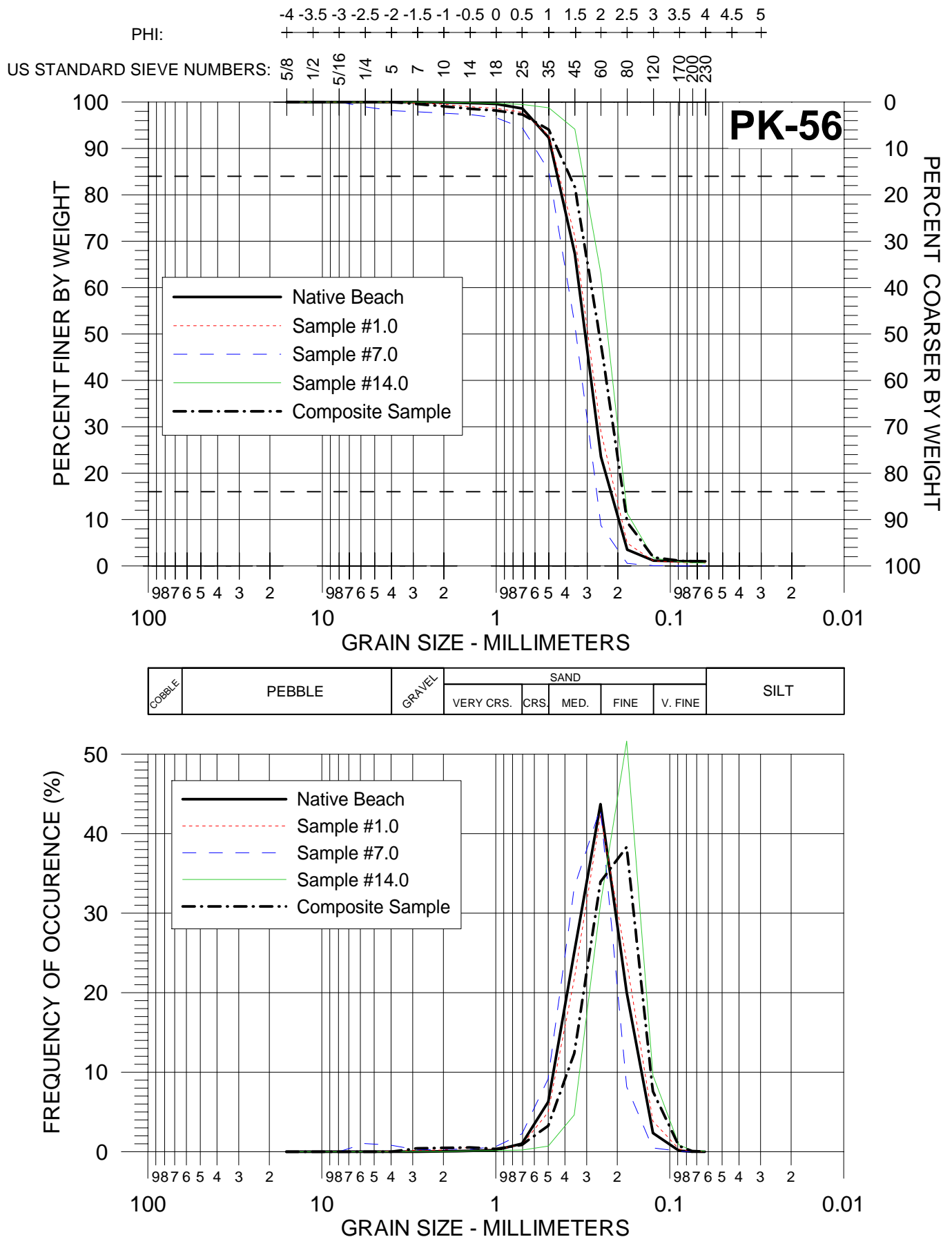
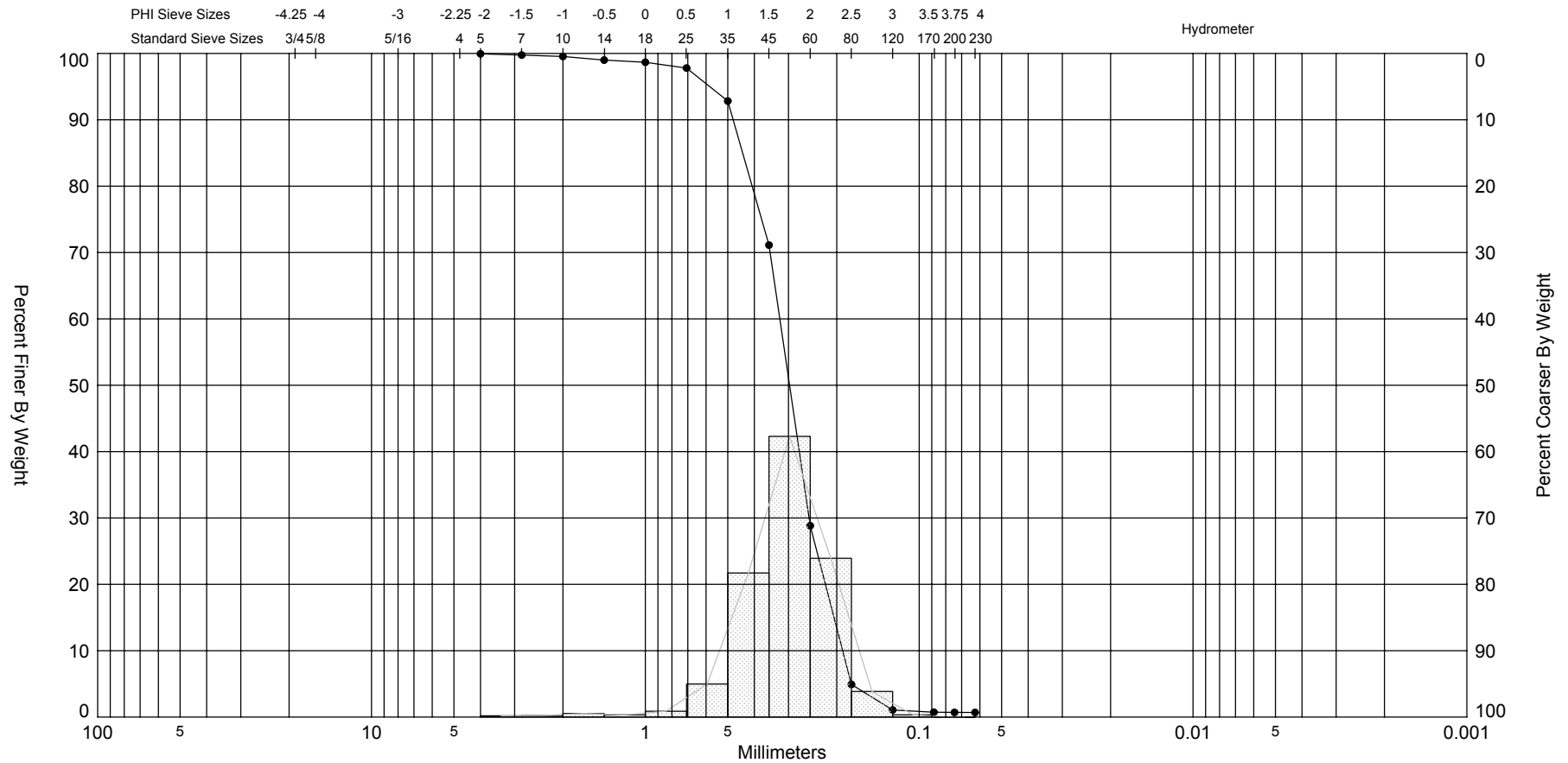


Figure A-54: Comparison of borrow area (PK-56) and native beach grain size distributions, Perdido Key, FL.

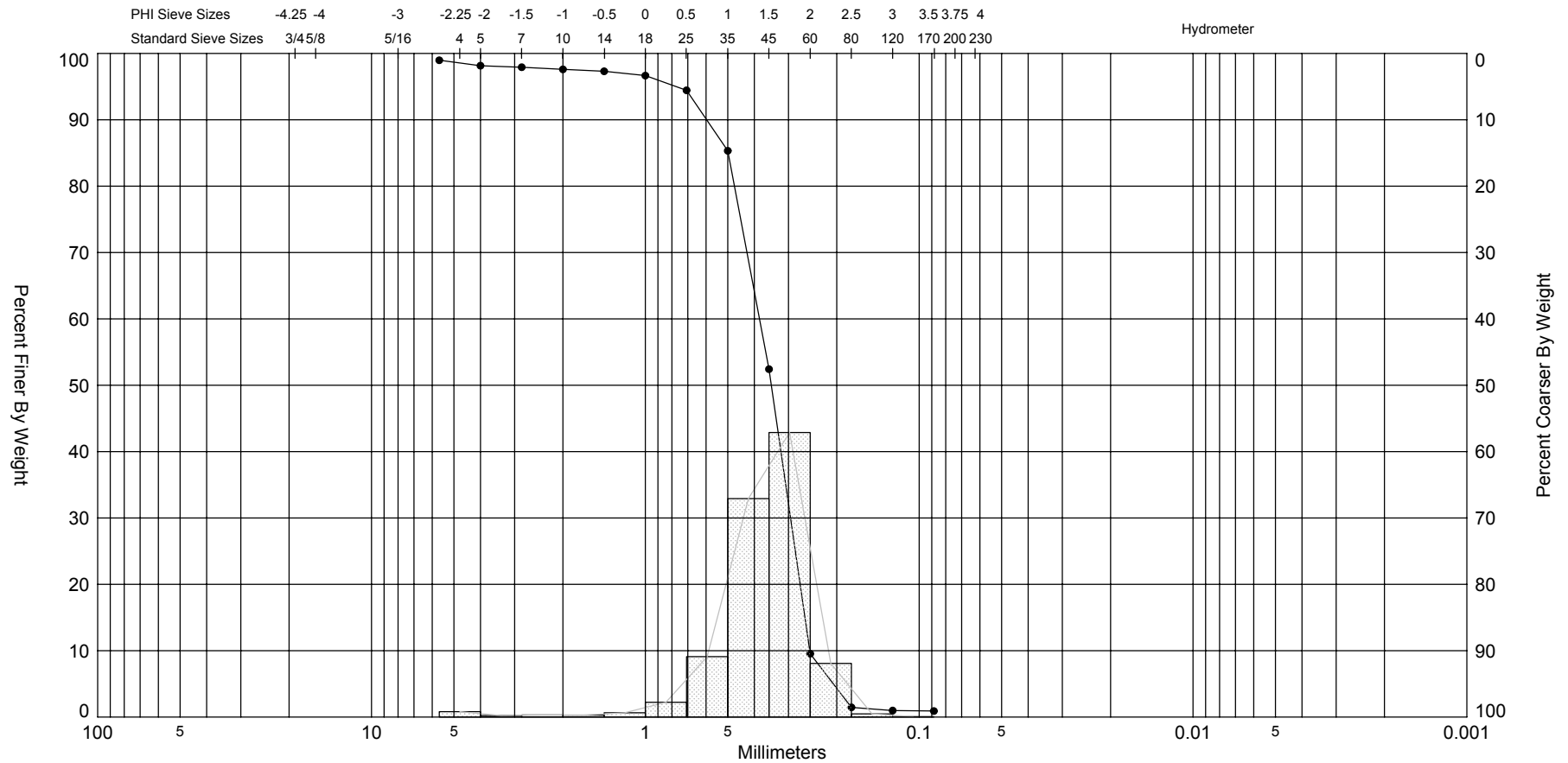
SIEVE ANALYSIS: PERDIDO KEY, GPJ, FL DEP ROSS.GDT 9/28/05



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

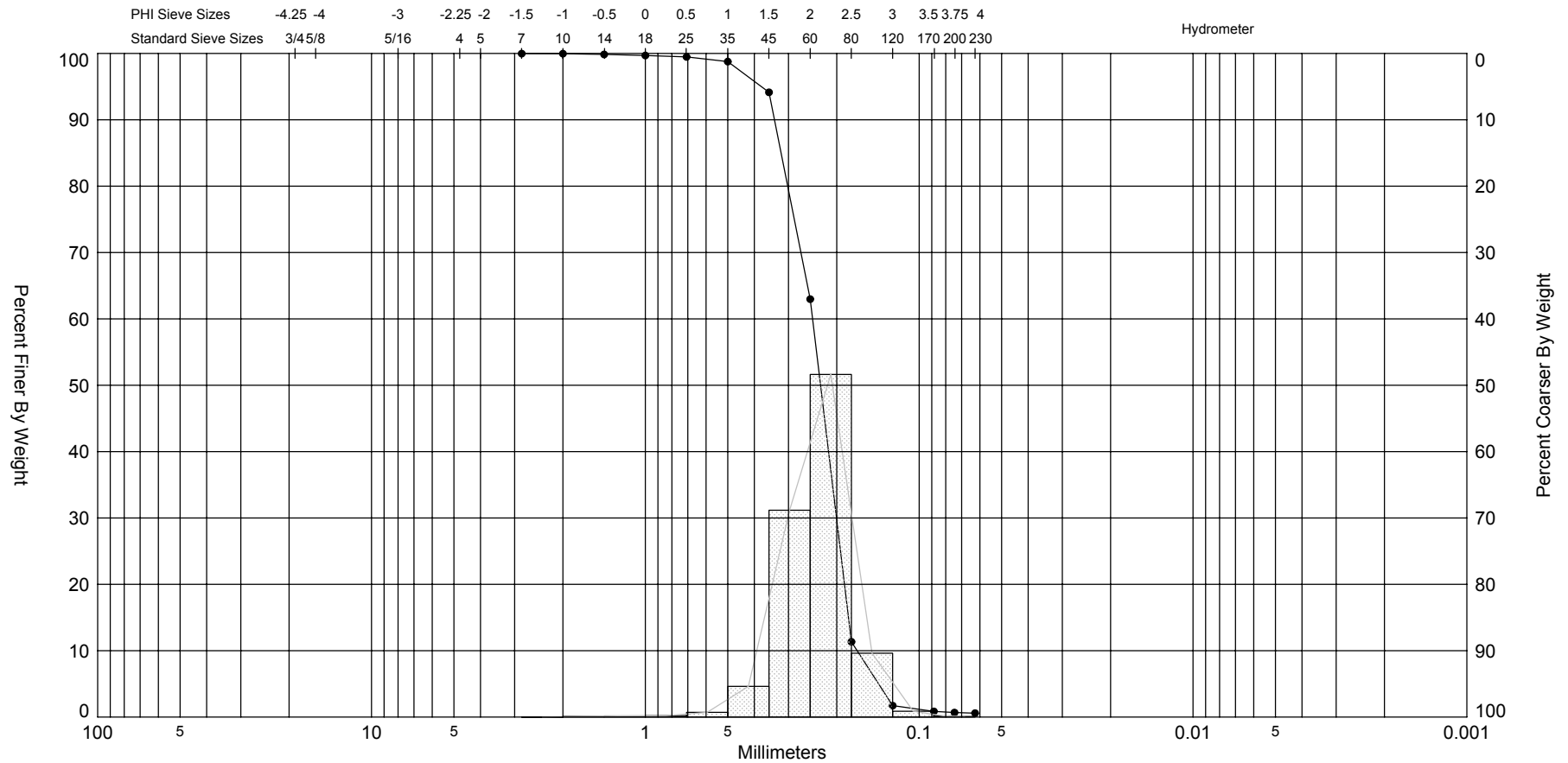
Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
PK-56 #1.0	—●—	-23.2	SP	#200 - 0.70 #230 - 0.69			1.75	1.71	-1.28	8.39	0.57	Project Name:	Escambia County, FL Sand Search 05
Comments:												Analysis Date:	09-17-05
Depths and elevations based on measured values												Analyzed By:	SEA Inc.
						Scientific Environmental Applications						Easting (X, ft):	1,044,660
						5575 Willoughby Drive						Northing (Y, ft):	477,517
						Melbourne, FL 32934						Horizontal System:	NAD 1983
						ph 321 254-2708						Vertical System:	NAVD 88
						fax 321 254-2708							

SIEVE ANALYSIS: PERDIDO KEY, GPJ, FL DEP ROSS.GDT 9/28/05



Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
PK-56 #7.0	—●—	-29.2	SP				1.53	1.39	-2.29	13.76	0.62	Project Name:	Escambia County, FL Sand Search 05
Comments:												Analysis Date:	09-17-05
Depths and elevations based on measured values												Analyzed By:	SEA Inc.
						Scientific Environmental Applications						Easting (X, ft):	1,044,660
						5575 Willoughby Drive						Northing (Y, ft):	477,517
						Melbourne, FL 32934						Horizontal System:	NAD 1983
						ph 321 254-2708						Vertical System:	NAVD 88
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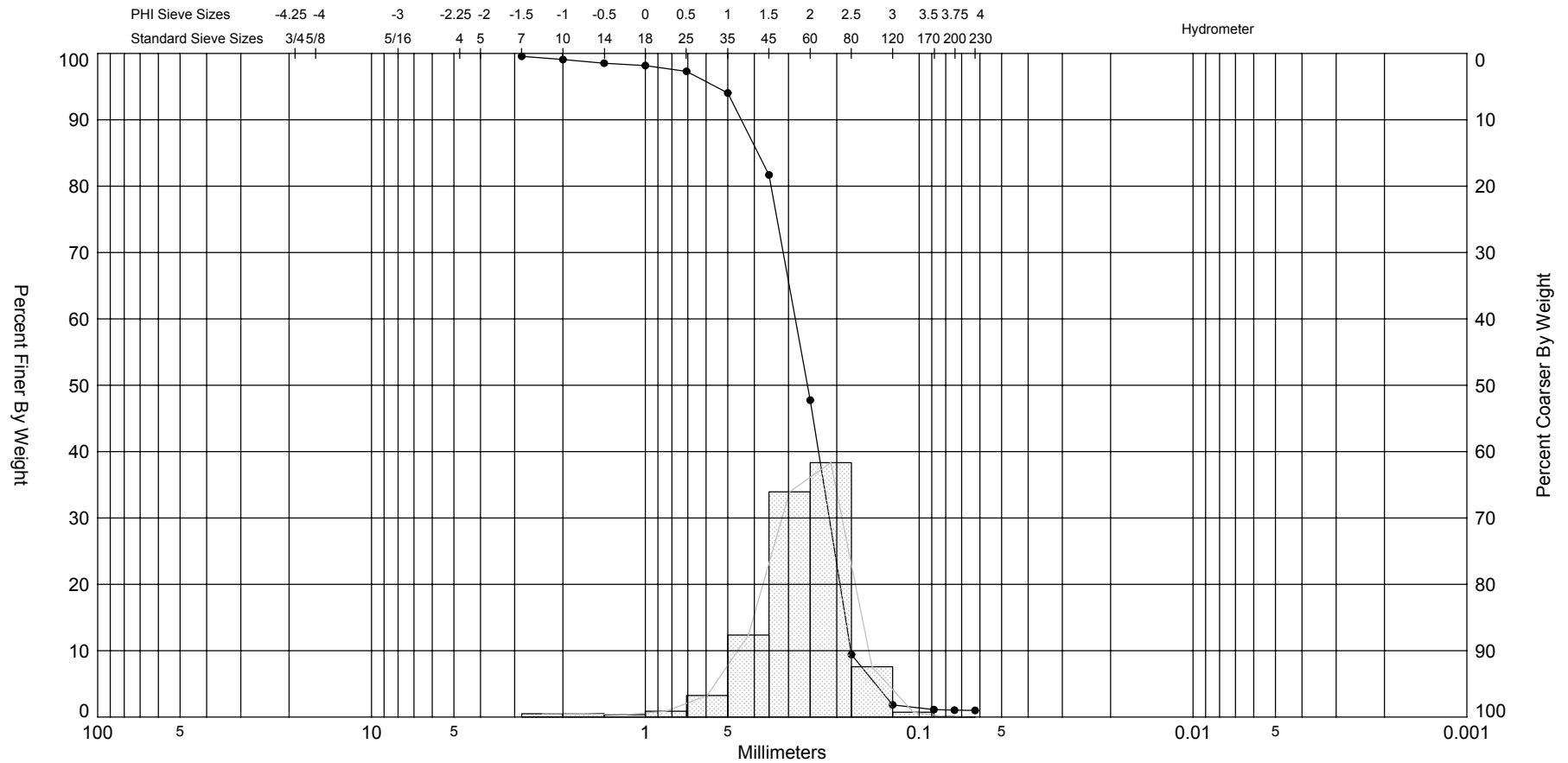
SIEVE ANALYSIS: PERDIDO KEY, GPJ, FL DEP ROSS.GDT 9/28/05



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
PK-56 #14.0	—●—	-36.2	SP	#200 - 0.68 #230 - 0.59			2.13	2.08	-0.8	7.85	0.43	Project Name:	Escambia County, FL Sand Search 05
Comments:												Analysis Date:	09-17-05
Depths and elevations based on measured values												Analyzed By:	SEA Inc.
						Scientific Environmental Applications						Easting (X, ft):	1,044,660
						5575 Willoughby Drive						Northing (Y, ft):	477,517
						Melbourne, FL 32934						Horizontal System:	NAD 1983
						ph 321 254-2708						Vertical System:	NAVD 88
						fax 321 254-2708							

SIEVE ANALYSIS: PERDIDO KEY, GPJ, FL DEP ROSS.GDT 9/28/05



Gravel		Sand			Silt and Clay
Coarse	Fine	Coarse	Medium	Fine	

Sample	Symbol	Elev. (ft)	USCS	% Fines	% Organics	% Carbonates	Median	Mean	Skew	Kurt	Sort	Sample Information	
PK-56 #Comp	—●—	-37.2	SP	#200 - 1.04 #230 - 1.00		3.58	1.97	1.87	-1.44	8.29	0.59	Project Name:	Escambia County, FL Sand Search 05
Comments:												Analysis Date:	07-30-05
Depths and elevations based on measured values												Analyzed By:	SEA Inc.
						Scientific Environmental Applications 5575 Willoughby Drive Melbourne, FL 32934 ph 321 254-2708 fax 321 254-2708						Easting (X, ft):	1,044,660
												Northing (Y, ft):	477,517
												Horizontal System:	NAD 1983
												Vertical System:	NAVD 88

