TENCATE

Geotube®

Application Story

PROJECT	STELLA MARIS, ECUADOR	Location	Stella Maris, Ecuador
Product	Geotube® Marine Structures Technology	Installation	2003
Application	Jetties		

The Challenge:

The Stella Maris Nautical Club at Casa Blanca planned to build a marina that would provide marine and nautical activities for their members and guests. Jetties would be constructed to form the marina at this vacation resort. As this area did not have a nearby source of stone, alternative methods were needed for the jetty project.

The Solution:

Geotube® marine containment technology was selected as a cost-effective construction method to build two jetty cores on the Pacific coast of Ecuador. More than 19,600 cubic yards of sand was dredged from the navigation channel to fill 6,000 linear feet of 45' circumference Geotube® units [photo 1]. The containers were stacked (up to 3 high) in a pyramid method to build up the cores of both jetties.

As the Geotube® core structure lengthened, the containers were protected with a heavy, non-woven polypropylene fabric to minimize construction damage. Then the jetty was covered with rock so that construction could advance from the shoreline out into the Pacific Ocean [photo 2]. The Geotube® units were strong enough to allow heavy construction machinery on the top of the jetties as the structures were being built [photo 3].

The Results:

The jetty structures for the marina were successful. They have experienced several storms and large waves since the installation, and the jetties did not sustain any damage.

Contact Information:

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