NOAA Hazardous Waste Site Report

Geiger (C&M Oil)(IV-39)
Rantowles, South Carolina
April 13, 1984

Location and Nature of Site:

The Geiger site, previously known as C&M Oil, occupies approximately five acres in the small community of Rantowles, South Carolina, located ten miles west of Charleston, South Carolina (Figure 1). This facility has been closed for the past three or four years. The site is an abandoned waste oil facility consisting of eight irregular-shaped pits separated by dikes. Most of the oil once contained in the pits is now gone.

A large 20,000-gallon tank and a partially dismantled incinerator are also contained on the site. Observations made in 1980 show evidence of past dike failures since significant quantities of waste oil were observed coating the land surface surrounding the site.

Proximity of Chemical Hazard to Marine Resources:

The Geiger site is located 0.7 miles from the Wallace River, which is tidally influenced. The topography of the land around the site indicates that runoff water would terminate in the Wallace River after flowing through hardwood swamps and estuarine marshes. Heavy rains or floods have the potential of picking up contaminants from the oil-soaked soil and carrying them, in low concentrations, to the Wallace River.

The Environmental Protection Agency and the South Carolina Department of Health and Environmental Control conducted sampling on the site in February 1980. Samples were taken from several wells installed around the site, the oil pits, and water/sediment samples from an adjacent pond. Downgradient monitoring wells contained the organic compounds 1,1-dichloroethylene, trichloroethylene, 1,2-dichoroethane, and 1,2-transdichloroethylene, with concentrations from 13 ppb to 351 ppb. Water samples from the pond adjacent to the waste oil pits contained no detectable levels of organic compounds. However, sediment samples from the pond detected metals at the following concentrations: aluminum (2,800 ppm-22,000 ppm), magnesium (90-1,055 ppm), lead (41-140 ppm), and chromium (25-38 ppm).

Marine Resources at Risk:

The Stono River is dominated by extensive fresh and brackish water marshes that serve as nursery habitat for many fish and shellfish species.

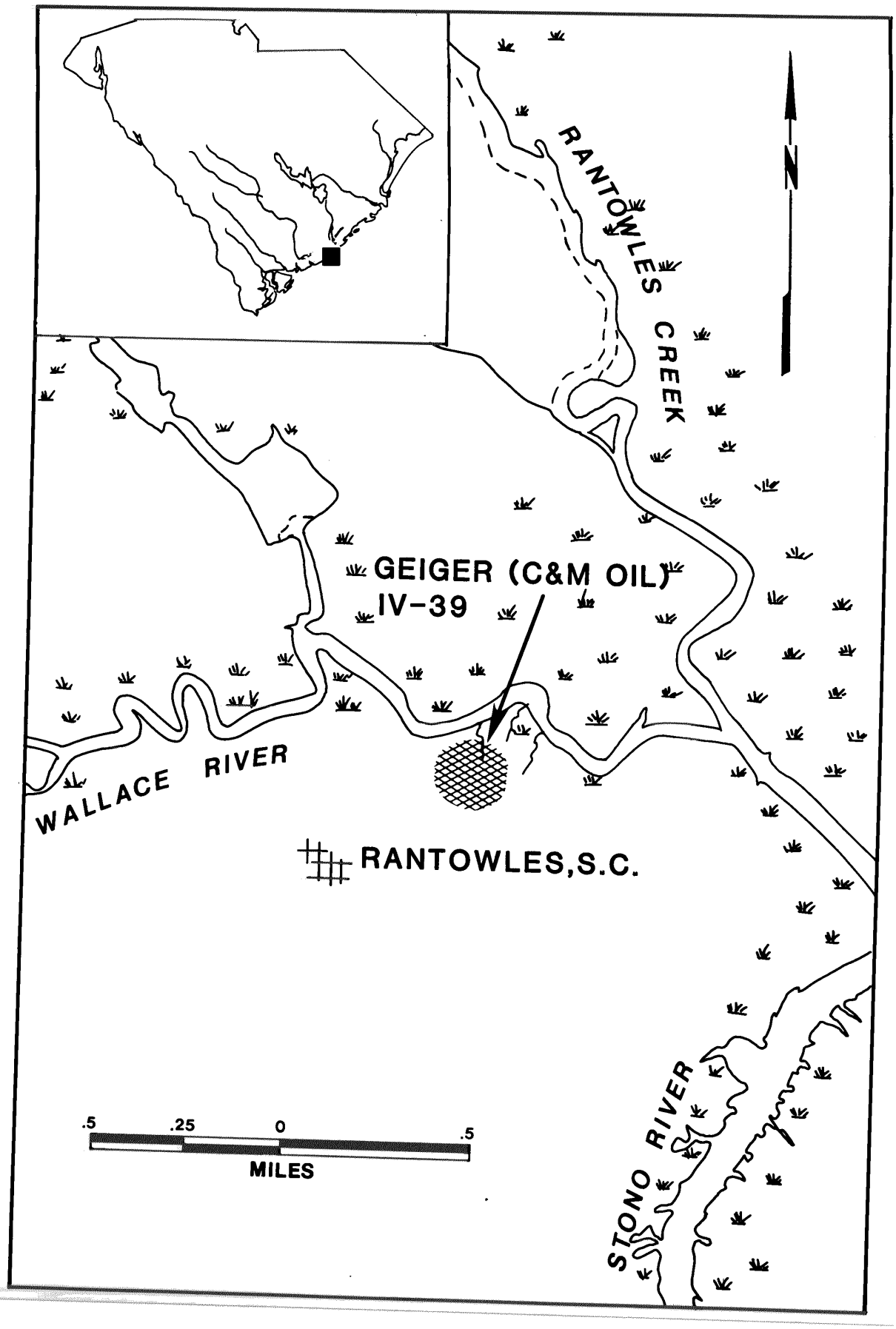

FIGURE 1. Site location.

Table 1. Fishery Resources of the Stono River (1-4)

Finfish Species	Adult Habitat	Spawning Area	Nursery Area	Comm. Fish.	Rec. Fish.	Migr. Route
Anadromous						
Atlantic sturgeon						x
American eel						x
Blueback herring					x	x
Hickory shad					x	x
American shad					x	x
Striped bass					x	x
Non-anadromous						
Seatrout	x	x	x		x	
Spot	x		x		x	
Croaker	x		x		x	
Whiting	x		x		x	
Flounder	x		x		x	
Silver perch	x	x	x		x	x
Bluefish	x				x	x
Mullet	x		x		x	x
Shellfish						
Eastern oyster	x	x	x	x	x	
Hard clam	x	x	x	x	x	
Blue crab	x	x	x	x	x	
White shrimp			x	x	x	
Brown shrimp			x	x	x	

The Stono River supports a popular recreational fishery throughout the year, and many people in this area eat locally-caught fish and shellfish. There are some anadromous fish runs up the Stono River, but it is not a primary spawning or nursery area for anadromous fish (5).

Many wadingbirds, shorebirds, and seabirds are present here all year, as are bottlenose dolphin.

Summary of Site-Related Actions:

The Geiger site is still in the site investigation stage by the U.S. Environmental Protection Agency and the South Carolina Department of Health and Environmental Control. No removal actions have been undertaken.

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References:

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