

Site Review And Update

MIAMI DRUM SERVICES

MIAMI, DADE COUNTY, FLORIDA

CERCLIS NO. FLD076027820

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Agency for Toxic Substances and Disease Registry

Division of Health Assessment and Consultation

Atlanta, Georgia 30333

Site Review and Update: A Note of Explanation

The purpose of the Site Review and Update is to discuss the current status of a hazardous waste site and to identify future ATSDR activities planned for the site. The SRU is generally reserved to update activities for those sites for which public health assessments have been previously prepared (it is not intended to be an addendum to a public health assessment). The SRU, in conjunction with the ATSDR Site Ranking Scheme, will be used to determine relative priorities for future ATSDR public health actions.

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Prepared by

Florida Department of Health and Rehabilitative Services
Under a Cooperative Agreement With
The Agency for Toxic Substances and Disease Registry

SUMMARY OF BACKGROUND AND HISTORY

From 1966 to 1981, Miami Drum Services operated a drum recycling business on this 1-acre site in an industrial area of Miami, Dade County, Florida (Figure 1). Drums were washed with a caustic cleaning solution that, along with drum residues, was disposed of on site. At one time, Miami Drum Services stored as many as 5,000 drums containing corrosives, solvents, and phenols. At the site, the Biscayne aquifer, the sole source of drinking water for the city of Miami, is about 1 to 3 feet below land surface. Three nearby well fields (Medley, Miami Springs, and Hialeah) supply water to more than 1 million Miami residents. Early in 1981, the Dade County Department of Environmental Resource Management (DERM) and the Florida Department of Environmental Regulation (DER) found on-site soils and groundwater contaminated with volatile organic chemicals (VOCs), phenols, metals, and pesticides. Later in 1981, Dade County obtained a court order closing Miami Drum Services. Dade County stopped pumping from the Medley well field, approximately 750 feet west of the site, and restricted use of that well field to emergencies. Dade County then mixed uncontaminated groundwater from distant wells with water from area wells to meet drinking water standards.

In October 1981, the Environmental Protection Agency (EPA) proposed combining Miami Drum Services, N.W. 58th Street Landfill, and the Varsol Spill (as the Biscayne Aquifer Sites) on the National Priorities List (NPL). Eventually, EPA listed Miami Drum Services as a separate site. In 1982, EPA signed a record of decision (ROD) selecting removal of contaminated soil and treatment of the groundwater encountered during soil removal as the preferred alternative. EPA proposed to address area-wide groundwater contamination in a later ROD. In 1982, Dade County removed the contaminated soil to a hazardous waste disposal site in Emelle, Alabama, and treated the on-site contaminated groundwater. The site then became part of the Dade County mass transit system maintenance facility. In a 1983 remedial investigation, Florida DER found that removal of the contaminated soil and treatment of contaminated groundwater had minimized migration of contaminants into the Biscayne aquifer. Although low-level contamination remained, Florida DER could not delineate or identify a "plume" of contaminated groundwater. Florida DER theorized that the remaining contamination was the result of widespread aquifer contamination or a result of dilution of contaminated groundwater following the initial remediation.

In an October 1983 health assessment, the Agency for Toxic Substances and Disease Registry (ATSDR) reviewed the EPA Biscayne aquifer study and the Florida DER remedial investigation. ATSDR questioned the comprehensiveness of the groundwater investigations and suggested further work to identify and eliminate the sources of contamination. Although the health assessment did not specifically identify pathways or contaminants of concern, contamination of the

water supply with low levels of VOCs has been the major public health concern.

In a 1985 ROD, EPA addressed area-wide groundwater contamination by selecting treatment at the Hialeah Water Treatment Plant. Residents expressed concerns that emissions from the treatment (air strippers) would affect their health. EPA estimated that emissions from the air strippers would meet all state air quality standards.

CURRENT SITE CONDITIONS

Randy Merchant, Florida Department of Health and Rehabilitative Services (Florida HRS), and Walter Livingstone, Dade County Public Health Unit; visited the site on July 8, 1992. They found no evidence of the existence of Miami Drum Services. The Miami Drum Services site is now a county mass-transit railroad maintenance yard. The area around the site is industrial; there are no houses within a quarter of a mile. All area businesses are supplied with municipal water.

Groundwater investigations subsequent to the 1983 ATSDR health assessment found low-level contamination throughout the Biscayne aquifer. EPA and Florida DER theorize that high recharge rates (abundant rainfall and porous surface sands), coupled with rapid groundwater flow through a highly porous aquifer, dilute and disperse groundwater contaminants. Therefore, further investigations to identify and eliminate other sources of contamination, as recommended in the 1983 health assessment, are not warranted.

CURRENT ISSUES

Low-level contamination of the public water supply is the remaining public health concern. To meet drinking water standards, Dade County is mixing water from area wells with water from distant, uncontaminated wells. Because the source of contamination has been removed and the remaining contaminants have dispersed throughout the Biscayne aquifer, Dade County is treating the contaminated groundwater before pumping it to consumers.

People living near the proposed air strippers are concerned about possible health effects from inhalation of the volatile organic chemicals. EPA estimates that emissions from the air strippers will meet all state air quality standards.

CONCLUSIONS

Given the wide-spread, low-level contamination of the Biscayne aquifer near the site, the 1983 health assessment recommendation that other sources of contamination be identified and eliminated is

no longer valid. Because the site has been remediated, the only remaining public health issues are treatment of area-wide groundwater contamination before use, and the resulting air emissions. Dade County is mixing uncontaminated groundwater from distant wells with groundwater from area wells to meet drinking water standards; that water will be monitored according to state and federal regulations. Dade County is also installing air stripping towers at the Hialeah Water Treatment Plant to treat contaminated groundwater. EPA estimates that emissions from the air strippers will meet all state air quality standards. However, monitoring data on the emissions should be evaluated.

RECOMMENDATIONS

Florida HRS does not recommend further health assessment activities at Miami Drum Services. Florida HRS recommends that air emissions from the proposed air strippers at the Hialeah Water Treatment Plant be reviewed in the upcoming N.W. 58th Street Landfill public health assessment; that assessment will address the groundwater treatment system for the area.

The data and information developed in this site review and update have been evaluated to determine if follow-up actions may be indicated. No further public health actions are indicated at this time.

DOCUMENTS REVIEWED

Florida HRS reviewed the following documents during development of this summary:

1. Geophysical and Hydrogeological Investigation of the Miami Drum Site. Technos Inc. for Florida DER. February 1983.
2. Health Assessment for Miami Drum Services. ATSDR, October 1983.
3. November 16, 1983, memo from Georgi A. Jones, Chief, Superfund Implementation Group, CDC, to Chuck Pietrosewicz, ATSDR Region IV Public Health Advisor.
4. Remedial Investigation for Miami Drum Services Site, Florida. Florida DER, November 1983.
5. Record of Decision for Miami Drum. EPA, September 1985.

Preparer of the report: E. Randall Merchant, M. S., Florida Department of Health and Rehabilitative Services

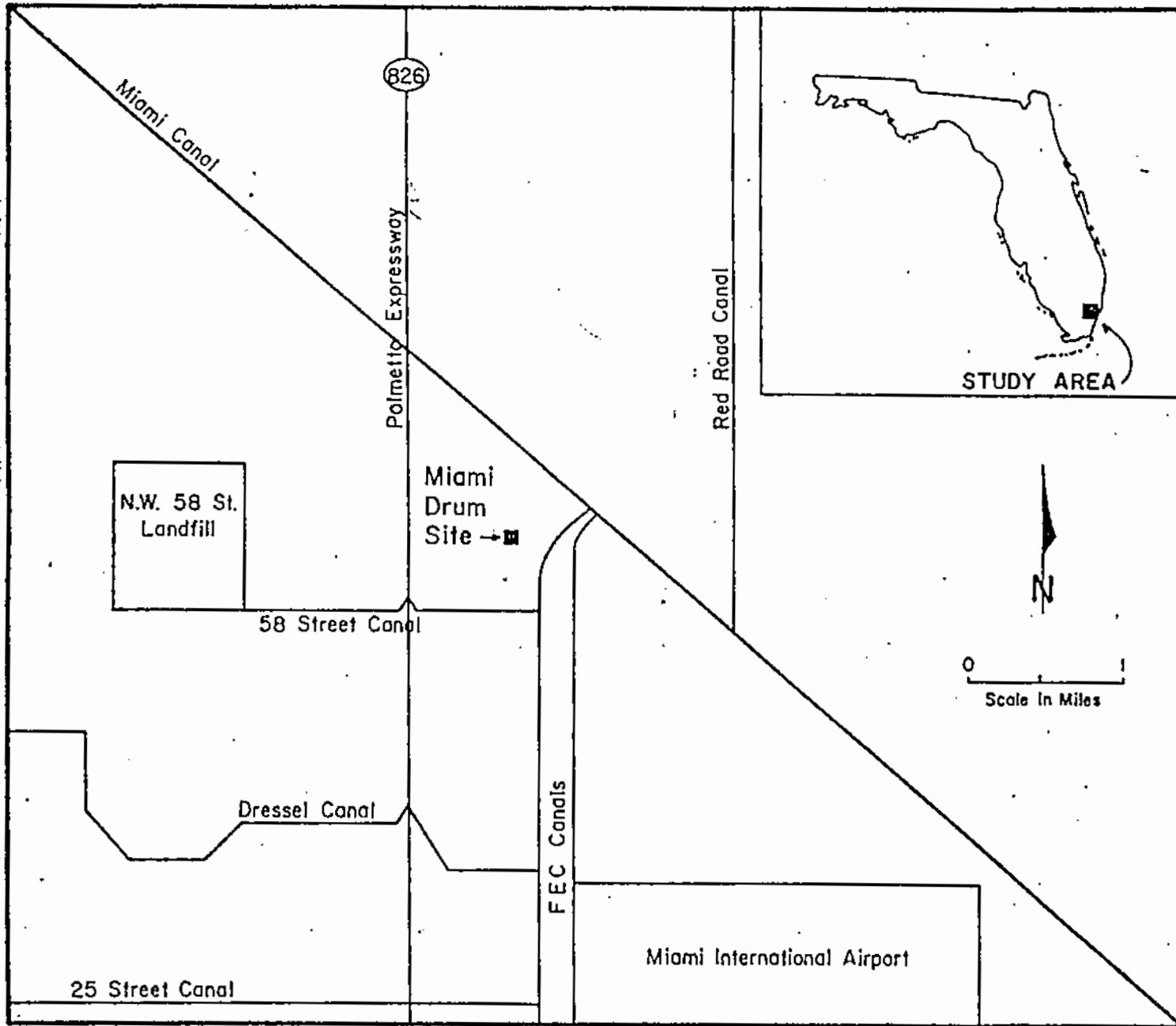


FIGURE 1: General Location Map

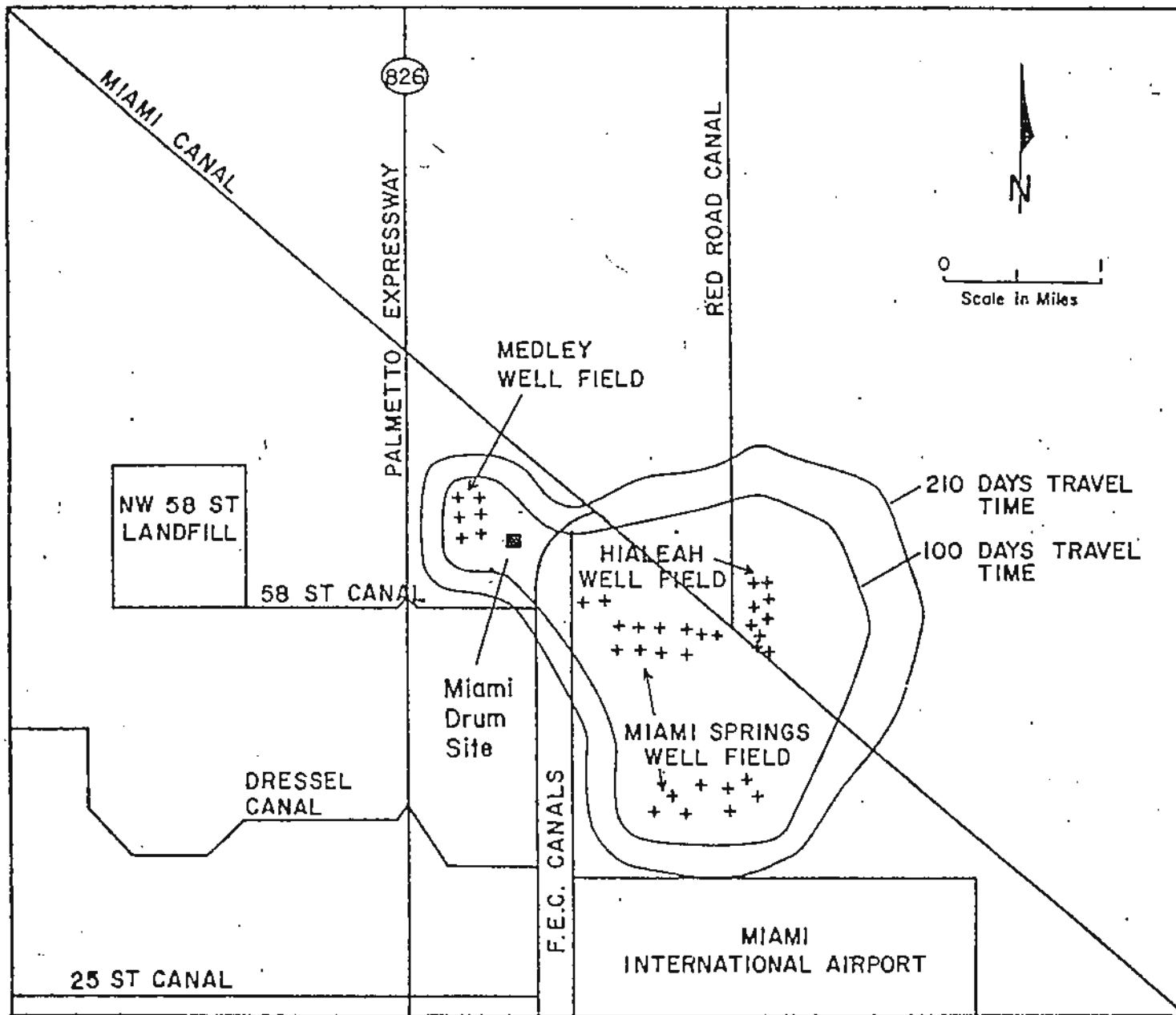


FIGURE 2: Map Showing Miami Springs - Hialeah Medley Wellfield Cone of Influence (DERM, April 1980).