

**Remtech VacuJet™ Process Removes Heavy Oil Sands from Railyard Wastewater Sewer**  
**Location: Central Georgia**  
**Client: Major Railroad**  
**Contract Amount: Confidential**

## PROBLEM

Remtech was engaged to clean heavy oily sand deposits from an engine terminal wastewater sewer. Sand and lube oil had accumulated in 1,000 ft of a 24-inch ductile iron pipe over a decade. Deposit depths ranged from 4" to over 18-inches

## SOLUTION

Initial attempts to clean the sewer via conventional jetting techniques proved non-productive due to the weight of deposits, long fluidization distances between manholes, and sag points in the line.

Two additional manholes were installed to shorten cleaning distances to 300 ft. A 90° elbow clog point (without a manhole) was removed). Remtech developed a proprietary horizontal hydroexcavation technique *VacuJet™*. *VacuJet™* is a combination jetter/cutter head attached to a four-inch vacuum line to fluidize and evacuate solids over long distances.

A hose glide system was attached to manholes and pipe/manhole penetrations to negotiate 90 degree directional transitions to minimize friction and maintain solids flow. A winch with a high tensile strength synthetic line dragged the cutter head and vacuum hose through 300 ft sewer sections. An estimated 11,750 gallons of solids were removed using this method.

## COST/BENEFITS

1. Conventional jetting cleaned approximately 200 ft of 24" sewer in 15 days.
2. *VacuJet™* (developed on this project by Remtech) cleaned 800 ft of sewer in four (4) days. This method should substantially reduce sewer cleaning costs for heavy solids, long distances between manholes, and inadequate sewer slopes.



VacuJet At Vacuum & Jetter Hose Feed at Lead Manhole



Solids in Sewer Prior to Cleaning



VacuJet™ Cleaning Process  
Evacuates Solids from 300 ft  
Sewer Sections

