



CASE HISTORY

Refinery company unexpectedly gained \$275,000 from recovered hydrocarbon and saved \$700,000 in disposal costs with chemical cleaning of a large floating roof tank

Project Overview	
Tank Size	240 ft. (73 m) diameter
Tank Design	External Floating Roof
Service	Vacuum Resid
Sludge Volume	14,700 barrels (2,337 m ³)
% Oil Recovered	97.3%
Time Required	4 weeks



Results Achieved

Recovered hydrocarbon liquids provided \$275,000 in unexpected revenue for the client

Saved the client \$700,000 in disposal expenses

Hazardous waste reduced from 1,700 tons to less than 100 tons

A large Gulf Coast petroleum refining company in the United States had a large floating roof tank that required cleaning.

This tank was in heavy vacuum resid (asphalt) service. The asphalt had a melting point of over 204°C (400°F). A serpentine heater coil system that had been fitted in the tank was non-functional due to corrosion. Additionally, the tank floor was also expected to be damaged and leaking. The company had previously cleaned a sister tank of similar size and debris/sludge volume by cutting access doors in the tank shell and excavating the asphalt from the vessel with backhoe equipment, which damaged the tank floor. The solids were disposed by incineration at a fee of \$400 per ton. Approximately 15,000 bbls (2,384 m³) of solid asphalt was expected.

In this case the asphalt removal was completed with side-mounted circulation tools that carried a proprietary product chemical package (FQE® Solvent-H) and cutter stock to facilitate the dissolution of the recoverable solids. Over 97% of the asphalt and diluent volume was salvaged as recoverable hydrocarbon. The tank was then treated with FQE LEL-V degassing product leaving the tank clean and vapor free.

Chemicals Utilized

FQE Solvent-H

FQE LEL-V

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The recovered hydrocarbon liquids were sold directly into the marketplace as marine diesel fuel for \$19.00 per barrel giving the customer over \$275,000 of unexpected revenue. The volume of hazardous waste was reduced from a projected 1,700 tons to less than 100 tons of non-hazardous waste (tank rust) saving the customer an additional \$700,000 in disposal expense.

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Contact us

Head Office**Deer Park, Texas**

4820 Railroad Street
Deer Park, Texas 77536

+1 (281) 476-9249

Calgary, Alberta

Suncor Energy Centre, West Tower
#5100 – 150 6th Ave SW
Calgary, Alberta T2P 3Y7

+1 (403) 538-3050

Perth, Western Australia

14 Cocos Drive
Bibra Lake, Perth, WA 6163

Office: 08 9434 3919

Intl: +61 8 9434 3919