

ABSTRACT

Mitigating the Environmental Impacts of Oil Discharges in a Crude Oil Storage Facility.

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In Trinidad and Tobago water pollution is the most common form of petroleum pollution, especially in the rivers in south-western Trinidad, where oil is produced from onshore oilfields. This study examines the operation of a crude oil tank farm, with the intention of mitigating the environmental impacts caused by oil discharges arising out of tank bleeding activities.

A waste audit was conducted to identify the deficient areas of the operation. It was discovered that the volume of tank bleed water emanating from the tank farm operation could not be reduced, as the water was co-produced with the crude oil.

Sampling and testing revealed the presence of oil in the form of a stable emulsion, as well as a high amount of suspended solids, in the tank farm effluent. Particle size distribution analysis proved to be a useful tool in determining the stages of wastewater treatment required and the most applicable separation technologies to remove the oil and suspended solids from the tank bleed water.

Keywords: Shane J. Baccus; Water Pollution; Environmental Impacts; Wastewater Treatment.