



United Kingdom

**A comprehensive treatment solution during a production shutdown**

*Chemical cleaning followed by effluent treatment using a physico-chemical unit with lamellar settling: Clearflow®, combined with a Geofloc® dewatering process*

## A comprehensive treatment solution during a production shutdown

A major UK player in the O&G asked CTP environment to perform specific work during a maintenance shutdown:

- Neutralisation of a high-grade sulfuric acid storage tank.
- Cleaning of a hydrocarbon wastewater collection tank.
- Treatment of 1350 m<sup>3</sup> (1765 yd<sup>3</sup>) of wastewater used for pigging offshore gas pipeline



CTP environment combined all its expertise to provide suitable mobile, compact and energy-self-sufficient solutions, which were operated on-site by skilled technicians, in order to comply with the site's safety and environmental requirements and perform these various operations safely.

- A unit including pipes, pumps, an online measurement kit and a temporary heat exchanger was set up and connected to a rotating nozzle into the sulfuric acid storage tank. A sodium carbonate solution was used to neutralise any remaining acid. At the end of the procedure, pH of 8.5 was assessed in the whole circulation loop and in the tank, which allowed the client's inspection team to access the inside of the tank after having discharged the spent chemical solution.



- A system with pipes, pumps, a buffer tank, a temporary heat exchanger and an oil-fired boiler was set up and connected to a hydrocarbon storage tank. A hot chemical solution was then circulated through this equipment to get rid of any remaining hydrocarbons compounds. The solution reduced the various parameters used as pollution indicators to a gas free entry level, allowing the client to safely dispose of the vessel.
- A Clearflow® mobile unit was connected to the equipment to treat the effluent at a flow rate of 20 to 30 m<sup>3</sup>/h (88 to 132 gpm). A total amount of 1350 m<sup>3</sup> (1765 yd<sup>3</sup>) of effluent was treated and, following approval from the client's laboratory, was discharged within the consent limit into the client sewer system. The sludge created in the process was collected in a geotextile membrane (10 m<sup>3</sup> or 13 yd<sup>3</sup>)