



Wet oil ponds and lakes remediation for contaminated sites

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Understanding wet oil lakes

Wet oil lakes, often generated by oil spills, historical waste dumping, or illegal disposal, present a significant challenge. The amount of oily sludge in these lakes is significant, but the quality is poor, and the sludge contains solids, salts, water, and heavy hydrocarbon fractions, such as bitumen and tar. The heaviest fractions accumulate in bottom sediments, creating thick layers of bitumen, asphaltene, and other heavy substances. Our remediation methods target these layers, ensuring effective treatment.

Precise pre-remediation actions

Before designing process equipment, we take essential steps:

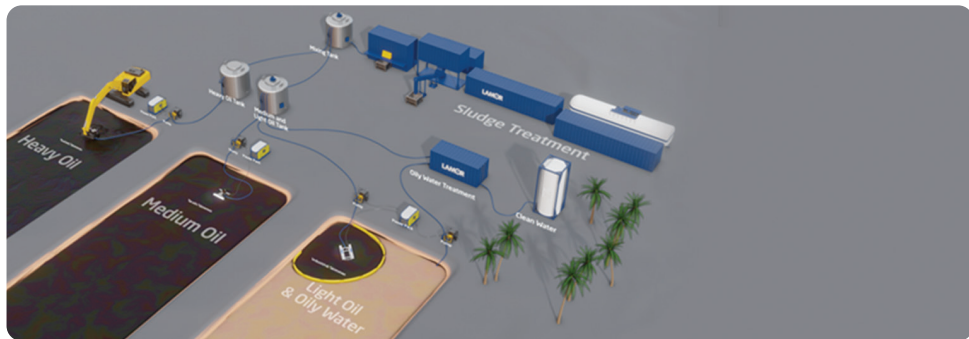
- Site survey: Define the volumes of contaminated soil and liquids through a comprehensive site survey.
- Sample collection: Collect samples of surface oily sludge, water, bottom sediment, and contaminated soil for analysis. Test pits, excavated near the wet oil lake, determine the magnitude and depth of contamination.

Oil sludge treatment: a comprehensive approach

Oil sludge treatment begins with understanding the qualities of the raw material. Lamor employs a meticulous approach, considering the challenges of representative analysis and demanding sample collection. Indirect analysis methods provide insights into pit quality, addressing factors like leaks, historical waste, and refinery proximity.

Crucial indicators in analysis reports

Analysis reports are pivotal in assessing raw material quality, determining risk levels, and guiding the entire process. Material quality and volume analyses cover heavy, medium, and light fractions, solid content, and compliance with off-taker quality requirements.



It is recognized that many waste ponds contain heavily polluted oil fractions, rendering the treated oil product impossible to feed into the refinery process. Additionally, some waste ponds contain toxic and corrosive substances, making treatment too challenging from both a material and technology perspective. For these reasons, pre-information and analysis are crucial.

Process design and principles

The process design starts from the analysis, categorizing raw material into light, medium, and heavy sludge fractions, water, and sediments. Lamor's decades of experience come into play during collection, utilizing specialized skimmers and technology.

The foundation for successful operation lies in effective pond treatment, converting hydrocarbons to a pumpable form by removing solids and adjusting viscosity. Heat and mixing play integral roles, ensuring optimal treatment efficiency.

Tailored solutions for profitability

Recognizing the diverse content of waste ponds, Lamor tailors solutions for light and heavy fractions, optimizing treatment costs and ensuring profitability. Extracted waters from the ponds and from the process can be treated to be eligible for disposal or re-use. Lamor has expertise on remediation of contaminated soil below and around ponds – as part of overall solution. Our commitment to pre-information and analysis ensures effective remediation, even in challenging material and technological landscapes.

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Let's clean the world

Lamor in brief

Lamor is one of the world's leading providers of environmental solutions. For four decades, we have worked to clean up and prevent environmental incidents on land and at sea.

Environmental protection, soil remediation and material recycling: Our innovative technologies, services and tailored solutions, ranging from oil spill response, waste management and water treatment to soil remediation and plastic recycling, benefit customers and environments all over the world.

We are capable of vast and fast operations thanks to our connected ecosystem of local partners, steered by our experts. Lamor's share is listed on the Nasdaq Helsinki (ticker: LAMOR). Further information: www.lamor.com