Excavation of Metal Manufacturing Plant Lagoon

Problem: How to prevent free liquid formation during transport of very wet soil?

Shaw Environmental was remediating the lagoon of a Massachusetts plant that produced high pressure valves for nuclear submarines.

The waste was very wet and contained heavy metals & diesel.

Shaw was adding 5000 lbs of Quick Lime to every 8000 lbs of sludge (a 62% weight increase!)

The waste was shipped 100 miles to a landfill but repeated loads were rejected due to free liquids present upon arrival at the landfill.

Metal Plant Lagoon Excavation Project

Very wet soil/sludge.

Clamshell up to tracks in mud.

Despite heavy doses of Lime, Shaw had numerous rejected loads at the landfill for free liquids.

The landfill finally refused any further shipments.

The site still had ± 600 tons of waste to be stabilized and transported.

What to do?

Waste Lock® Polymer Addition

Polymer applied by the bag

Polymer + Mud Mixed w/ Clamshell

Mud with absorbed liquid.

Waste Lock® **was added by the bag to a small mixing pit that held about 8 yards³.**

The waste and polymer were mixed w/ a clamshell.

We demonstrated this new waste stability and were readmitted to the landfill in one day.

Soil (Mud) Processing

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Soil consistency before polymer addition.

Polymer Bags added to clamshell bucket.

Mixing of Polymer & Mud

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Clamshell drops & scatters polymer on mud.

Clamshell mixes polymer & mud.

Completion of Waste Stabilization & Shipping

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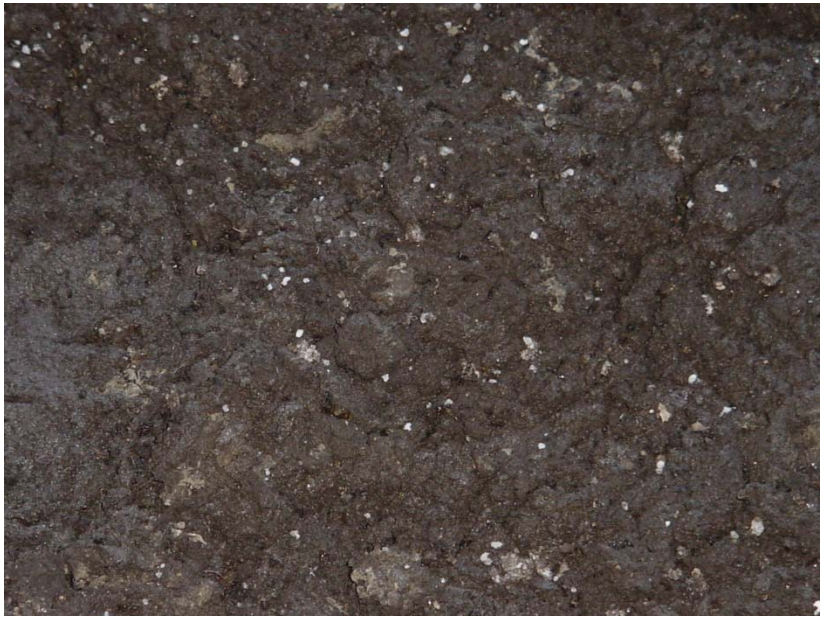

Mud stabilized with ***Waste Lock®***

Using ***Waste Lock ®***, the site stabilized 100 yards³ (5 truckloads) per hour (or ± 120 TPH).

The client was able to complete the job and stabilize and ship 600 tons of wet waste in 10 days after to switching to ***Waste Lock®***.

Their biggest problem was finding enough trucks to haul the waste as quickly as they stabilized it!

Waste Lock® use was 160 lbs per 16,000 – 20,000 lbs mud (0.8% to 1.0%)