

Case Study  
Soil Stabilization / Rotary Kiln / Virginia USA



Challenge Faced

A Virginia, USA limestone mine needed to move a large rotary kiln. However, the construction of the new pad necessitated cutting into the ground underneath the existing location of the kiln. The ground was a compacted blend of gravels, clay and sedimentary rock.

About the Project

Sub-Technical, using extensions, injected a single component urethane in a pattern reaching approximately half way underneath the kiln. Upon completion, the rock and soil were joined in a monolithic structure, holding the strata together. Excavators were then able to cut away the required section of the hillside, allowing for the preparation of the new pad.

Summary

Urethane stabilized and strengthened the substrate beneath the kiln, allowing for the safe excavation of the new kiln pad.

Key Benefits

- Although compacted, the polyurethane retains flexibility, unlike concrete which is very rigid and brittle
- Cure times for urethanes are measured in minutes, versus days for concrete
- Our HyperFlex urethane formulation is NSF 61 approved for contact with potable water, allowing for its safe use near streams, lakes and rivers