

REMEDIATION OF LEAD-CONTAMINATED SOIL

FORMER PAPER MANUFACTURER—LAKE PLACID, FL

Terra was contracted to remediate soil contaminated with lead resulting from lead-based dyes once used in the printing industry before being banned. The affected area was approximately 600 feet long by 100 feet wide and varied in depth from 2 feet to 5 feet and was located behind a former paper plant adjacent to the railway. The engineering plant determined that the safest and most economical way to approach treating the contaminated area was to stabilize the soil in place, taking special care with soil in close proximity to railway ties.

A five-man Terra crew went to work using two PC200 excavators. One excavator was used to stockpile contaminated soil while the other was used to stabilize the soil by mixing it in batches with Portland cement. When the batches were completed, they were returned to the excavation where they were graded and compacted. As a precaution against possible erosion intensified by vibration from nearby rail lines, Terra constructed a Jersey wall consisting of 3-foot by 3-foot interlocking concrete blocks. The area was backfilled and capped with two feet of sand and then seeded and mulched.



The area around the railroad ties provided a special challenge. Terra crews had to coordinate their work with railroad officials, ensuring that removed soil would be replaced by the end of the day to eliminate the risk of a possible train derailment. Terra determined that the best way to remove soil in proximity to the rail ties was to use a Vactor, replacing it with clean soil and ballast followed by compaction within a strict time frame.



As Terra crews worked, the Florida DEP visited the site for inspection. An interesting side note to the project was that inspectors were armed with M-16s and side arms—not intended for Terra crews, of course, but because their other duties involved busting meth labs and overseeing the ensuing chemical cleanup.

The project went smoothly, with crews finishing on time and on budget. The client was saved a significant additional expense: The State of Florida determined that the quality of work was so exceptional, it did not mandate the usual 2-year aftercare program, typical for such projects.



Terra's performance on this project received the Governor's Award for Environmental Excellence by the Florida Department of Environmental Protection.