



From Contaminated to Clean

by Kristie Kubovic, Director of Communications, Shale Media Group

Images Provided by Justin Wells, Ohio Soil Recycling

Years ago, if an industry wanted to get rid of waste, they often dumped it in a river or the ground—not really thinking of the consequences. Over the years court cases and movies, like Erin Brockovich, brought some of these ill-fated decisions to light. Now waste disposal is regulated by organizations like the Environmental Protection Agency (EPA).



Ohio Soil Recycling is based in Columbus, Ohio and has been around for 12 years. For years the business centered around remediating contaminated soil. A few years ago, Chris Elliott, President of Ohio Soil Recycling, recognized that the oil and natural gas industry was significantly affecting northeast Ohio.

When oil or natural gas is extracted from the ground, it is obtained by drilling a borehole, which is a deep, narrow hole. The broken pieces of earth that are removed from the borehole are called drill cuttings. These drill cuttings are considered contaminated, but not hazardous.

Jim Samuel, Capitol Integrity Group Founder, explained that in Ohio these cuttings get landfilled. “In terms of waste streams, almost everyone focuses on water. However with drill cuttings, if there is a problem years later at a landfill, the liability could come back on the oil or natural gas company,” explained Samuel.

Elliott realized that the drill cuttings were a ‘good fit’ for his company as they’re similar in nature to the contaminated soil that his company works with. He started running tests on the drill cuttings. Using enhanced bioremediation, the process allows naturally occurring microbes and algae, along with oxygen and nutrients in the soil, to eat away at the contamination through a natural process.



The remediation is done on a pad with a liner. They are able to collect all of the water and recycle it through the process. Elliott explains, “The water collection system associated with our treatment process includes reusing the water for dust control, making our microbe solutions and reapplying it to the cuttings and soil through a spray system that keeps the correct moisture in our treatment piles.”

Elliott started the involved process of getting an Ohio EPA permit about a year and a half ago. This new technology was just recently approved and permitted by the Ohio EPA. Elliott explained, “Companies haven’t been very successful in finding alternative solutions for drill cuttings. Part of proving that we were capable was doing a pilot study. We were able to remediate the worst of the worst horizontal drill cuttings that Chesapeake Energy provided in about five-months. We were one of the first companies to prove this.”

“Until now, a landfill was the only option in Ohio for drill cuttings. This process now provides a green solution and alleviates potential liability for oil and gas producers 20 or 30 years down the line,” replied Elliott. Plus, this eliminates a huge volume of material in a landfill over the course of 10 to 15 years.

A beneficial reuse has also been found for the remediated cuttings. Back in 1970 a landfill in the Columbus area wasn’t capped. Fast forward to today, after the cutting remediation, the end product was used as a modern day cap for that landfill.

Not only is this process more environmentally friendly, but also cheaper. With new technology and proper regulation, projects like this one will create a safer environment for generations to come.

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