



Environmental HDD Draws Interest Of Georgia Contractor

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Brian Dilday's profession takes him to places few other directional boring companies dare to go.

The president and owner of B&W Directional Boring Inc., based in McDonough, GA, has drilled through solid ice, worked on NASCAR speedways, assisted on homeland security projects and tackled several challenging environmental projects.

"We do quite a bit of different types of drilling in situations that some people won't try," Dilday says.

Most recently his crew worked with an environmental company on a state-funded project in Conley, GA, that involved installing pipe needed to help extract gasoline-contaminated water.

Dilday had previously partnered on similar projects with a company that specializes in environmental work. When this state project developed, the company contacted Dilday to gauge his interest and seek his help. Never one to back away from challenges, Dilday accepted the job.

According to Dilday, the project involved removing underground holding tanks for gasoline that had been installed years earlier. Over time, the tanks had started to leak and allowed gas to seep into the ground and water table. After well monitoring began showing high concentrates of gasoline in the soil and water table, the state required that the tanks be removed. The challenge facing Dilday's crew was to install "good"

pipe in the ground for clean, screened wells. This would pave the way for other job partners to pump out the contaminated water, clean it and return the filtered water to the ground water table.

No smoking

Because of the safety hazards associated with gasoline, Dilday's company created a no-smoking perimeter around the job site, and fire extinguishers were stationed nearby. Special environmental roll-off containers were rented and captured mud was later taken to a designated area for testing. An EPA and state inspector oversaw the \$75,000 project, which took Dilday's company two weeks to complete.

Since the project was on a schedule, Dilday initially put six people and two drills on the job. Dilday owns two Vermeer D16x20A Navigator horizontal directional drilling (HDD) machines, and, on this project, ran them both side-by-side.

Dilday says that good soil conditions aided their job efforts. Prior to starting, the environmental company working with B&W tested the soil down to 30 to 35 feet, so his crew knew what to expect.

Interference poses challenge

The crew used a regular four-inch Vermeer drill and three-inch housing. Deep drilling and interference pose the biggest challenge

on this type of job, according to Dilday. "We were about 35 feet deep on these particular wells, and we ran into a lot of interference trying to locate and keep these things on grade," he says.

Telephone lines, old piping, working underneath buildings and gas pumps all contribute to interference, Dilday explained. "It's a broader area that we're picking up and getting a weak signal, so we have to know how to read that locator and do different things with it to pinpoint exactly where our drill was located."

According to Dilday, his crews needed to install deep wells at a 30-foot depth. In order to reach and maintain that depth, they had to set back approximately 120 feet from the point of entry, drill down at an angle, level out and maintain a depth of 30 feet for about 125 feet, and then start at a slight angle up. The angle could not change too severely because they would be pulling back slotted HDPE pipe.

Next, they fused 120 feet of solid four-inch HDPE SDR11 pipe without slots with 125 feet of slotted four-inch HDPE SDR11 with slots cut one inch apart. Then they butt-fused an additional 120 feet of solid four-

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inch HDPE on the end for a total of 365 feet. Once this process was complete, they tied on and pulled the pipe back through the hole.

The crew also installed three shallow wells approximately eight to 10 feet deep. Using sections of the slotted HDPE pipe, water was pumped into the shallow holding wells where a separator was used to filter gas from the water and added chemicals. That cycle, Dilday explains, was repeated as long as necessary.

Dilday says that this project required only one pre-ream. Using a 10-inch spiral packing compaction reamer, the pre-ream helped remove all of the mud from the hole. With the screened pipe, Dilday explains, there must be a really good hole to get all of the cuttings out or it stops up the pipe. "That's why you've got to go a little bit bigger than normal with the reamer," he says.

They had to use soap and water with these wells, Dilday says, because bentonite plugs up the screen.

Part of the job, he says, involves thoroughly cleaning the pipes. "I get somebody like Roto-Rooter to come out and swab the pipes good, and then we cap the ends of

them and set a box around them for future use," he explains. "That way, if they ever stop up, they can simply go back in, pull the cap off and flush the wells, and clean them if necessary." Fluid on this project wasn't a big issue, he says, because they were in good soil that held well.

In his 10 years in the directional drilling business, Dilday has chalked up experience on several Atlanta-area environmental projects. The first one involved drilling 35 feet beneath a mall that had unknowingly been developed on ground contaminated from a filling station that once occupied the land. After the soil contamination was discovered, Dilday was hired to drill under the mall and install screening wells.

More work ahead

Dilday anticipates several more projects of a similar nature. The environmental company he's been working with has been doing this type of work for the last several years and Dilday believes the state appears to be "catching on."

Before founding B&W Directional Boring in 2000, Dilday worked in the industry for nearly four years with partners. Today he

works alongside his eight employees running the machines in the field.

B&W frequently travels outside of Atlanta. Currently, Dilday has crew members on a project installing Amber Alert signs with cameras for the state of Georgia. Meanwhile, he's running his second drill on a job in Mobile, AL.

A recent homeland security project for the North Carolina Port Authorities required the use of his crew for a two-month stretch. One of the company's jobs involved drilling through solid ice under a big meat-packing plant. According to Dilday, older plants with big walk-in freezers eventually freeze the ground, causing the freezer floor to crack. His crew was charged with the task of drilling through ice to help install heaters and electrical lines.

Whether he's drilling through ice, helping with homeland security or being consulted on environmental projects, Dilday enjoys the unusual challenges and diversity of his work in the directional boring field.

FOR MORE INFORMATION:

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