

Rented MegaMc Machines Make Short Work of Waste Water Retention System

Little Rock, Arkansas

When Thomas Construction of Rose Bud, Inc. got the job to build a wastewater retention system for Polymer Group Incorporated (PGI) in North Little Rock, Arkansas, they called ISCO Industries LLC of Louisville, Kentucky and their MegaMc fusion machines. The two fusion machines ran \$4,000 a day in rental costs, but were well worth the money according to Cal Rollins, project manager for Thomas Construction.

"ISCO is one of the major distributors of polyethylene pipe in the United States and I have worked with them for several years and have a very good relationship with them," said Rollins.

The project used Sclair pipe, which is a 1600-millimeter or 63-inch diameter pipe, and is manufactured in Canada by KWH Manufacturing. It is basically the only place in the world where it is manufactured. The pipe lengths for the project were 50 feet each and were shipped individually by truck, which took 26 trucks.

The MegaMc machine that was used uses a heat fusion process. Two pieces of pipe are loaded into the machine and a facer-wheel comes down and planes both ends of the pipe at the same time to true them up. Once there is a good solid joint, the facer-wheel is removed and a heater plate is applied to heat both pipe facings to the proper temperature for the proper length of time. The final step involves removing the heater plate and fusing the pipe ends under pressure.

There are only three of these machines in the United States and two of them were utilized on this project. They are capable of handling pipe from 24 inches in diameter up to 65 inches. This project was using the 63-inch pipe.

The four-month long project came in at a cost of approximately \$1.3 million. Wastewater retention system was needed because PGI cannot dump all their wastewater at once so it has to be metered into the North Little Rock system. The system, once in place, will be capable of holding

just slightly less than 400,000 gallons of water.

The MegaMc machines were worth the rental investment since this type of process can not be done any other way. The only other alternative would be to use an extrusion welding process, which would offer almost no strength and would likely lead to a failure of the system by leaking or breaking. Even using mechanical joints would still require fusion of some sort.

Thomas Construction, which is owned by Tommy Keepes, also utilized rental for much of their excavation machinery on this project. Needing to dig significant channels to install the pipe, approximately 6000 cubic yards of dirt was moved out of the site. The channels are 11 feet deep, 12 feet wide and total 1,170 feet in length. Sand will be used to fill under and around the pipe to stabilize the pipe and at the same time allow for shifting and settling.

"We do have a tremendous amount of equipment we own ourselves, but for instance, we have some 14 different jobs going and renting equipment is sometimes easier and more cost effective than bringing it with us," said Rollins. "So we end up renting quite a bit."

As anyone who has worked excavation knows, the weather is vital to the project staying on time, and up until the end of the contract, Thomas Construction enjoyed good weather. The rains came at the end and they lost several days of work.

Without the MegaMc machines, this project may well have lingered on into January and beyond. Renting these machines to speed the process was instrumental to getting the job in on time and beating the weather.