6712DT Takes Flight in Alaska

Multiple drill sites spread over 200 square miles of rugged, impassable terrain in Alaska. Multiple borings required at each site in a relatively small area. Find a self-propelled, sling-ready rig to use with a helicopter long-line system that can move itself to multiple boring locations within each drill site. It was a project perfect for the new Geoprobe® 6712DT. And the result: the savings of a massive amount of valuable helicopter time and a substantial cost savings to the client.

The 6712DT, when used in remote areas, easily disassembles into three separate parts ... drill mast, tracks, and power unit ... and can be re-assembled in about 15 minutes. Only four bolts are needed to connect the engine to the tracks, as well as connecting a series of quick connect hydraulic fittings. Adding the mast required two bolts to be tightened and another series of quick connects.

Steve Rowland, President and Owner of RECON LLC, based in Palmer, AK, purchased the 6712DT specifically for this remote drilling project in Alaska. Utilizing a Eurocopter AS350B3 helicopter, the rig's three separate sections were picked and placed individually. According to Steve, the entire process was very user friendly; not only for the drill crew, but the helicopter pilot as well. Once the individual pieces were placed, the drill crew could begin to advance the first sample in as little as 15 minutes.

Samples were collected with a combination of MC5 and MC7 tooling. The new MC7 tooling was used in areas containing larger gravels or when frozen core samples were required for lab testing and characterization of ice content and structure. The MC7's larger inner diameter provided substantially better results than a smaller sampling system."The MC7 is by no means a replacement for the MC5 system," Steve said. "However, having both options on the rig, the driller could choose the right tool for the job. The MC7 worked great and we were able to collect large, gravelly material, as well as achieve 90-100 percent recovery on most runs. It's a great sampling system."

While RECON was finalizing their project, Discovery Drilling, based in Anchorage, was working on a separate project in the same location. Their scope of work also required the installation of groundwater monitoring wells to pre-bedrock depths, something they thought the 6712DT would be well suited for. "We have our own Geoprobe® rigs and are well aware of their capabilities," DJ Wardwell, Assistant Operations Manager for Discovery Drilling said, "so we asked to borrow the 6712DT since it was already at the site!"

"I was the lucky one from Discovery who got to try out the rig after it was mobilized to our project site," DJ added. He used a mix of direct push drilling and hollow stem auger drilling with the GA2500 two-speed augerhead to complete their project. A series of 15-ft. groundwater monitoring wells were installed using the MC7 system to collect three 5-ft. samples to 15 feet. He used a wood-plug in the bit of the 4.25 in. hollow stem augers, quickly re-drilled the hole, and installed the well. "It was a fast and efficient process," DJ said, "and our client was very pleased with the samples we provided."

According to DJ, multiple groundwater monitoring wells were installed in a fraction of the time it would have taken a larger drill rig. "I really like the machine, he said. "It's powerful, has so many options, and is very user friendly. You can easily access all of the electrical and hydraulic components, and the new MC7 system is also a real winner. It works just like the MC5, except with a larger sampler. It's perfect for larger, gravely materials. No matter how hard I drove that sampler, the liner always came out smooth, and we came to expect great recovery on every run."

Since purchasing the 6712DT, Discovery Drilling has already used it for various projects around Anchorage and further north in Fairbanks. "It's a great addition to our growing fleet," said DJ. "We're really excited about all the possible applications that the 6712DT brings to the table."

(above left) First the drill mast section of the 6712DT is mobilized to the site via helicopter. (above center) Then the tracks are lowered to the site. (above right) And finally, using a helicopter long-line system, the power unit of the 6712DT joins the other two sections on the ground. (below right) The power unit attaches to the tracks by tightening four bolts and connecting a series of quick connect hydraulic fittings. The drill mast connects to the power unit with two bolts and another series of quick connects. Assembly takes approximately 15 minutes, then the rig is ready to roll.

Ben Gerwig, Engineering Technician with RECON LLC and a student at LeTourneau University in Texas, walks a 6712DT off the tarmac after unloading it from the cargo aircraft in Alaska.

DJ Wardwell, Assistant Operations Manager/Driller, and Scott Bombard, Driller's Helper, both with Discovery Drilling, advance 4.25 in. hollow stem augers to install 2.0 in. groundwater monitoring wells with the 6712DT.

There were no clouds in the sky during the flight to the drill site. The 'clouds' were actually smoke from various forest fires buring at the time in the Alaskan interior.

Two RECON field team members apply mosquito repellant after they have the 6712DT assembled and ready for work. (Mosquitos are known as Alaska's national bird.) RECON specializes in remote route reconnaissance, infrastructure development, and project management in arctic and subarctic regions. After the RECON project was completed, Discovery Drilling purchased the 6712DT for environmental sampling work around Anchorage and further north in Fairbanks.