



The Discovery Drilling drill crew is treated to a nice day while drilling with the 6712DT in remote northern Alaska.

“We’ve sure been busy.”

Drilling in the Alaskan wilderness is not for the faint of heart. Limited accessibility. Remote sites. Temperature extremes. But Discovery Drilling in Anchorage is using three of their Geoprobe® machines to face the situations head-on and overcome the obstacles with great results. The following is a recap of Geoprobe® fleet performance written by DJ Wardwell, Operations Manager for Discovery Drilling.

We’re sure busy here at Discovery Drilling, in spite of the logistically challenging projects we have scattered around Alaska. We realized early on that we had to think smart when planning our work, and to make sure we had the right equipment when and where we needed it. Sending large drilling platforms to secluded sites, which are only accessible by air (many have no overland access), for a handful of 10- or 15-ft. soil borings was wasteful. Our Geoprobe® 54LT was the solution to this. It fits in smaller aircraft, is self-propelled, and has enough power to provide quality MC5 soil samples at shallow depths. It has saved our clients a lot of money, and saved us a lot of logistical headaches.

6712DT Does Not Disappoint

When the 6712DT was introduced, we instantly saw its potential. Our older 66DT and 6610DT had certainly made their rounds over

this vast state, but they were just a little too big to fit in the smaller aircraft that we use to fly our equipment into remote Alaskan communities. We had to strip the feet from the tower, along with the augerhead, winch mast, and percussion hammer, in order for the machine to fit in the aircraft. Continually disconnecting and reassembling the parts added wear to the equipment, not to men-



They’ve also completed some pretty impressive drilling feats with the 6712DT. They’ve advanced multiple boreholes to 100 feet through ice-rich frozen gravels using 3.25 in. hollow stem augers in northern Alaska. They’ve set a groundwater monitoring well to 75 feet using 4.25 in. hollow stem augers in southern Alaska. They keep pushing it to new limits, and it has yet to fail us.

tion the added stress it placed on the drill crew. I have first-hand experience putting a drill rig together when it was -10F and the wind was howling at 30 mph. It’s a less-than-fun experience! Because the 6712DT was designed to ‘de-construct’ into three separate components, we saw it as the solution.

We’ve added a winch to the rear of the 6712DT and constructed a ‘sled’ for the tower component. We basically separate the tower from the rest of the machine and attach the sled to the back of the tower when it is still upright. We then use the winch and 6712DT power unit to lay the tower on its back while it rests on the sled. This allows the tower to be easily pulled in and out of the aircraft for transport. When it arrives at the job site, the 6712DT power unit simply stands its own tower upright again. Two bolts and a few quick connects later and we’re ready to drill. Our drillers, clients, and even the air logistic companies love it.

Geoprobe® Heli-portability Another Plus

What has really made the 6712DT shine is its ability to be picked and placed with a helicopter. I’ve gotten a lot of free helicopter rides over the last couple of years thanks to the 6712DT! It seems like

comments from ...
DJ Wardwell • Operations Manager
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the more our clients find out that we have a very capable drill rig that is self-propelled, equipped with a powerful percussion hammer, augerhead, and auto drop hammer ... and is also heli-portable ... the more use it gets. It’s been flying around all over the state!

2014 Geoprobe® Open House

Last year, I attended the Geoprobe® Open House. It was awesome! And it was great sharing war stories with drillers from all over the world. The one thing that was apparent after talking to them was that we needed a 7822DT. Everyone spoke very highly of it, and the general consensus was that ‘if you don’t have one, you need one’.

Our 7822DT was delivered a couple months later! We get a lot of work that requires a track-mounted drill, much of which exceeds the reasonable capacity of our smaller Geoprobe® rigs. With the



Discovery drillers love the 7822DT. They think it’s actually spoiled some of them! It has plenty of stroke, power, and amenities, like the oscillating tower, which just makes life easier. They’ve also added the expansion kit to our auto drop hammer to accommodate a 340 lb. slug to drive 3-in. split spoons, which are frequently used for geotechnical projects in Alaska.

7822DT, we no longer send out large drill rigs which require a large truck and trailer for transport plus a CDL for the truck driver. In certain situations, the larger rig would also require a substantial amount of tree clearing. We mobilize the 7822DT with a 1-ton truck and small trailer. It has enough power to accomplish the more challenging jobs, and it moves through the underbrush with ease.

We’ve been keeping the rig busy in the field, and it has already proven to be a great purchase. We’re excited to see what applications we can use it for in the future.



With so many remote communities in Alaska, cell phone towers are a big deal and are being constructed on mountain tops all over the state to provide communications to those living in secluded areas. Working with Remote Site Services Inc. (RSSI) we used the 54LT to efficiently install foundation anchors for the towers. A Bell 204 helicopter placed the 54LT on a mountain near Seldovia, AK, and they used tooling to advance 16 holes into bedrock at depths ranging between 9- and 15-ft. deep. These holes were used to cement in anchors for the towers. Using a button-bit and introducing air into the toolstring, we easily blasted through the bedrock. An adjustable valve on the GH42 Hammer, that allows you to control the rotation-to-percussion ratio, was key. As they adjusted the valve the drill bit would slowly rotate while the hammer provided continuous percussion. It worked phenomenally! According to Wardwell, the bedrock seemed to melt away.



Derek Dell, Driller for Discovery Drilling, advances 3.25-in. hollow stem augers using the GA2500 auger on the 6712DT.



Jarath Kantor (left) and DJ Wardwell encountered an exceptionally filthy day. Here they were crossing a makeshift bridge with the 7822DT after walking the rig almost 4 miles that day.