

PROBING TIMES

Information for the ENVIRONMENTAL, GEOTECHNICAL, GEOTHERMAL, EXPLORATION, and WATER WELL Industries



3126GT

Advancing the Geotech Industry

- trim time between applications with centerline head side shift
- reduce strain of rotary work with hands-free rotation and feed
- maximize production and rig utilization with power and versatility

NEW FEATURES

- higher torque rotary head
- optional third winch
- lower transportation height mast



Using the 3126GT on a hillside doing 100-foot rock coring where straight holes were imperative for installing instrumentation (see page 4).

www.geoprobe.com

Reaching Greater Rock Coring Depths

Not even five years ago, CATAWBA VALLEY ENGINEERING AND TESTING – a full-service geotechnical engineering, environmental engineering, and materials testing firm in North Carolina – bought their first 7822DT to bring all exploration in-house doing hollow stem auger and SPT drilling. As they've grown to 20 employees the past few years, they added another 7822DT to do work for other companies. So when they had the opportunity to do higher-level rock coring in Virginia they looked to Geoprobe® for the solution.

“We were in Salina getting training on our Geoprobe® seismic CPT and saw the 3126GT. Once we secured the Virginia job, we thought it was a good opportunity to integrate the machine into our fleet of rigs,” David M. LeGrand Jr., P.E., owner, said.

From purchasing their first rig in 2017 to do 15 to 20-foot SPT, to adding a second rig and doing 100-foot SPT, to integrating CPT and Geoprobe® seismic CPT and MC5 Macro Core® sampling, Catawba now has a larger set up for rock coring.

“We really just jumped in feet first and learned as we went. We never thought we'd be in the realm of needing a machine this size,” LeGrand said. “We were doing well with our 7822DTs and hadn't gone down the avenue of anything bigger due to transportation and CDL regulations, but we have a driver with CDL and were able to pull together a new truck and trailer quickly to meet the Virginia project schedule.”

On the exploration job looking for competent bedrock for mineral/aggregate purposes, LeGrand completed seven holes. In total they completed about 1500 feet of rock coring through granite/quartzite. Already LeGrand can see the advantages of the 3126GT.

“We have a 2020 7822DT set up to core confirmation rock core, but the difference between it and the 3126GT is remarkable. We wouldn't be as deep as we are if we were running the 7822DT, it just doesn't have quite as much juice,” LeGrand said. “We're coring rock from 10-feet all the way down to 200-250 feet. Other than weather, we are on schedule.”

The biggest adjustment from the 7822DT to the 3126GT has been how to keep the RPMs above 700. But with the support of the Geoprobe® service team, they identified how to utilize both hydraulic pumps after reaching 200 feet.

“Once we found the way to efficiently keep the bit running at the RPMs needed, we stayed on our goal of at least a foot every five minutes,” LeGrand said. “The coring interface shows RPMs, temperatures, and bit weight in hole versus doing it all by feel, providing visual indicators to show we're doing as much with the machine as we can without forcing things downhole.”

The centerline head side shift and outriggers have also aided their efficiency.



Above: David LeGrand, owner, and drill crew celebrate achieving a 250-foot rock core with the 3126GT. Below: Using their 3126GT, Catawba Valley Engineering and Testing successfully cored through granite/quartzite to depths of 200 to 250 feet.

Weather was the only delay while completing about 1500 feet of rock coring through granite/quartzite with the 3126GT.



“Shifting back and forth between different downhole tools, especially not swinging the auto drop hammer over, has been a huge time saver,” LeGrand said. “Our productivity has increased with the larger machine, larger winch, and ability to pull more rod directly out of the ground with the taller mast.”

Because this client does a lot of these types of explorations, they anticipate being able to send the 3126GT to Virginia to work while still keeping up with the quantity of work in North Carolina by having their two 7822DTs running conventional SPT and CPT work.

“I was going to sell the second 7822DT, but business has been good enough and consistent enough that we are going to keep a fleet of three machines,” LeGrand said.

Based on the level of service and the performance of the machines, LeGrand doesn't anticipate changing rig manufacturers.

“I've only ever run Geoprobe®, but talking to guys I learned to drill from, the service is outstanding compared to other manufacturers. Every time we call up, if they don't have the answer, they do in a short time. I can call a service technician who knows what they're talking about to troubleshoot issues in the field,” LeGrand said. “The relationship is worth just as much as the machine performance to me.”



Spring 2021

NEW

NEW 3100 Series Machine Options: Higher Torque, Third Winch, Lower Height

70% More Torque

While customers are proving the rock coring capabilities of the 4-speed rotary head on the 3126GT (see page 2), some customers have requested more bottom-end torque for their geotech jobs. True to form, Geoprobe® responded by designing the 6-speed GR6.5 rotary head.

"The GR6.5 has 6,800 ft-lbs of torque, which is 2,800 ft-lbs more than the GR4.1 on a typical 7822DT, without sacrificing top-end speed (720 rpm)," Ryan Kejr, machine engineer lead, said. "We also added an additional intermediate-speed range, which further enhances the unit's wet and air rotary capabilities."

The new GR6.5 head is available on both the 3126GT and 3100GT.

Third Winch

Another new option for both 3126GT and 3100GT is a third winch. With 1,100 lbs of line pull this winch is well suited to trip additional tooling out of the hole. Equipped with the Geoprobe® exclusive quick change hook, operators can switch over to wireline coring in seconds.



15-inch Lower Transport Height

Also new in 2021 is the folding winch mast option for the 3126GT for customers who prefer to haul their rig in an enclosed trailer or truck.

"This reduces the transport height of the 3126GT from 114 inches to 99 inches," Kejr said. "We accomplish this with a simple, mechanical ratcheting actuator. This is easily accessible from the ground when the drill mast is in transport position."



Ryan Kejr,
Machine Engineer



Lee Shaw,
Sales

3100 Series Machines Advance Geotech Industry

The 3100 series DNA is rooted in and designed for safe geotechnical drilling for the now and next generation operator.

- **EFFECTIVE:** Multiple revenue streams (DPT, HSA, SPT, CPT, rock coring, mud rotary, air rotary).
- **EFFICIENT:** Centerline head side shift brings all head functions and winches over the hole without moving the drill mast.
- **EFFORTLESS:** Operation is easy with a gentle learning curve for the seasoned driller as well as the newbie.

Expand your service lines with the versatility and ease, even push CPT.

WATCH 3126GT PUSH CPT:
See how you can efficiently do CPT with single anchor.



geoprobe.com/3126CPT

Making Geotech Work Faster, Easier, Safer

The 3100 series rigs are already making their mark on the geotechnical industry and positioned as the next generation of combination rigs. Unfortunately COVID slowed down our treks across the U.S. in 2020, but we're ready to hit the road to demonstrate these latest geotech offerings in a location near you. Witness in person how the 3126GT, 3100GT, and CPT solutions are revolutionizing the geotechnical industry. Don't miss out on the opportunity to position your business for increased production and profit!

Optional third winch with winches all along centerline

CENTERLINE HEAD SIDE SHIFT includes
Four or six-speed rotary Head
GH63 percussion hammer
DH104 hands-free auto drop hammer
CPT push/pull assembly
Rod grip pull system

Hands-free rotation and head feed

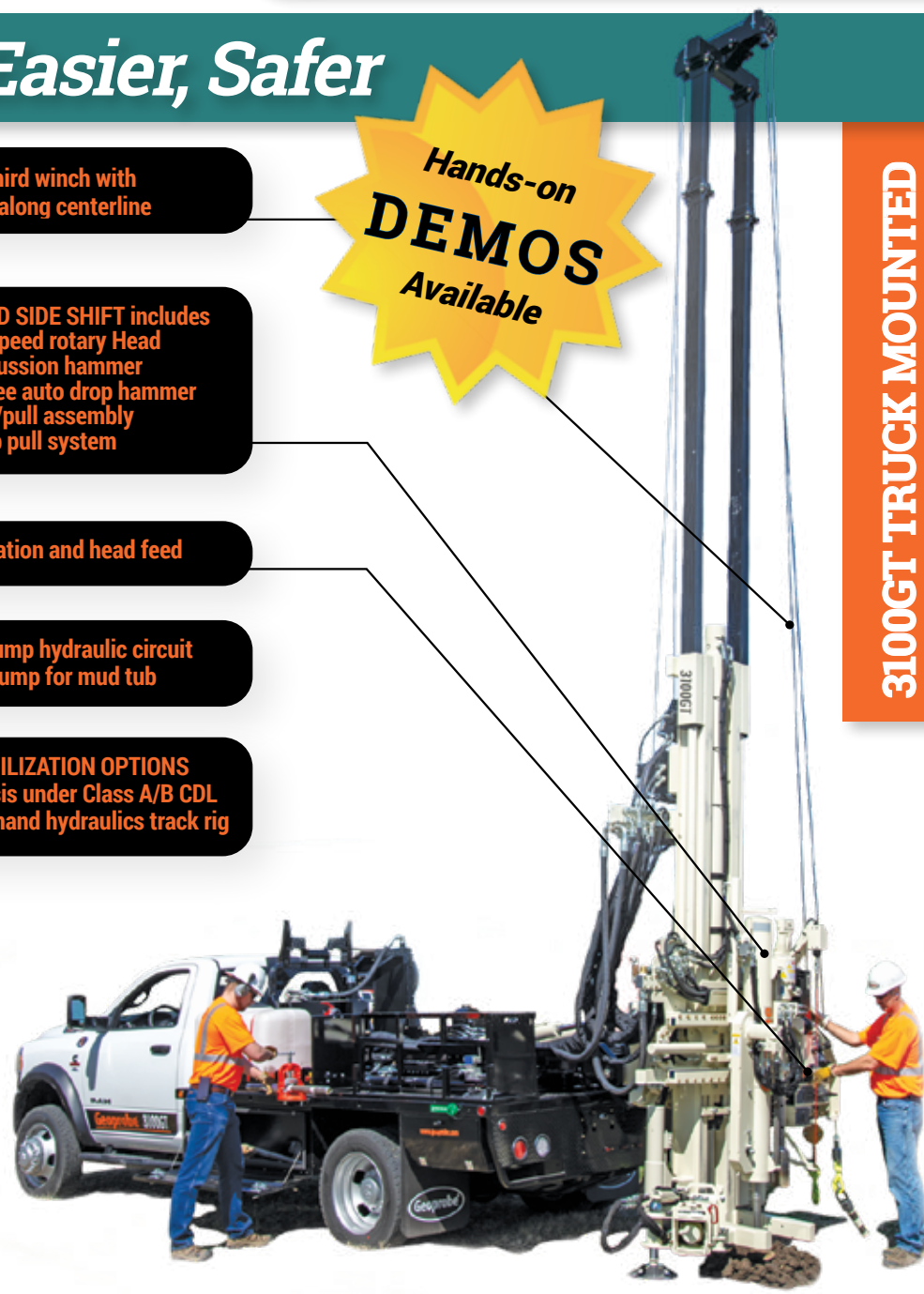
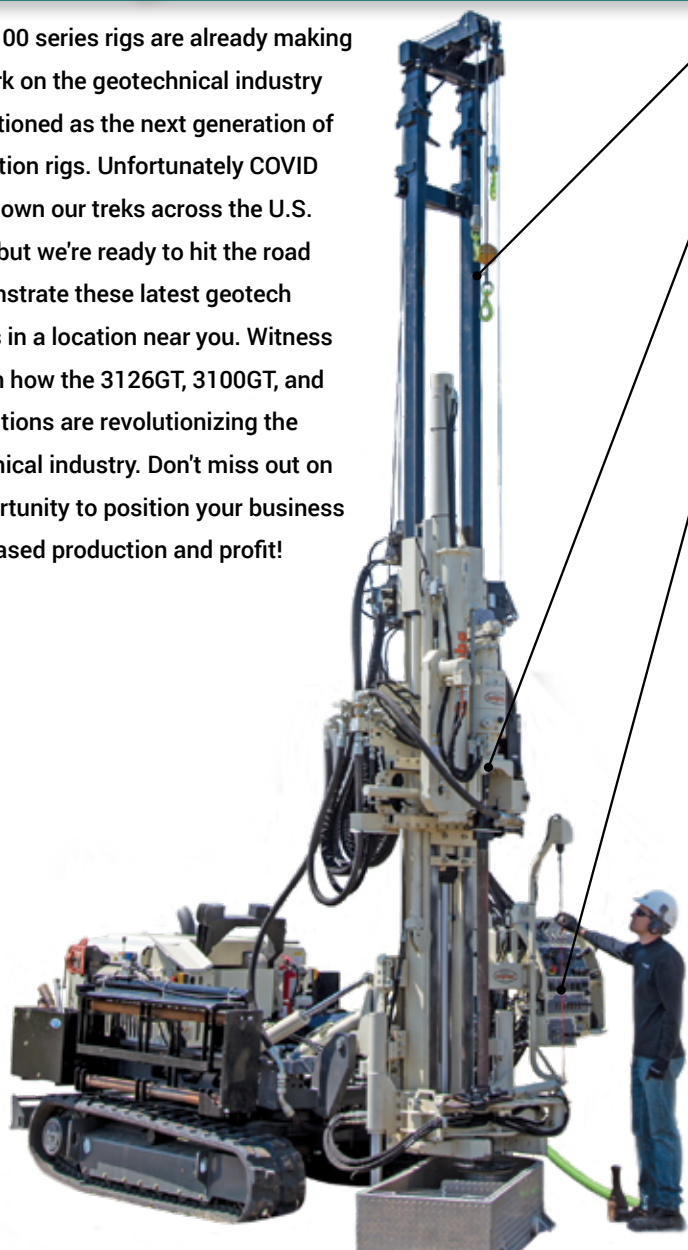
Separate mud pump hydraulic circuit
Extra mast dump for mud tub

EFFICIENT MOBILIZATION OPTIONS
Fuel-sipping chassis under Class A/B CDL
Fuel-saving, on-demand hydraulics track rig

Hands-on
DEMOS
Available

3126GT TRACK MOUNTED

3100GT TRUCK MOUNTED



Troublefree Transitions Plus Added Power

As the oldest materials testing lab in New York, nearly 70 percent of **MUNICIPAL TESTING LABS'** employees are engineers. However, during the past 10 years they've seen a ramp up of geotechnical work, beginning with the Build It Back initiative after Hurricane Sandy. Three years ago they talked Steve Wolf out of retiring to come lead their boring department, growing to six full-time crews.

"We're now doing waterfront jobs, 200 to 220-foot borings consistently, and barge jobs. We're really growing and we've grown with Geoprobe®," John Hicks, vice president, said. "We've really been doing what big-time boring companies do and just as well."

Using their 7822DT combination drill rigs for much of their expanding workload, when they heard about the NEW 3126GT workhorse from Vic Rotonda they seized the opportunity to amplify their production.

"We first added the 3126GT and then wanted a truck that was versatile but still had as much power, so we added the 3100GT," Hicks said. "They're performing so well it keeps our scheduling going. Definitely makes it much easier for guys in the field to work through backlog created by those snowstorms."

Municipal completes work in the five boroughs and tri-state area. From tight urban blocks to mountain tops, the crew appreciates the maneuverability of the 3100 series rigs.

"I was operating an auger rig, now I'm operating the 3100GT and I find the difference to be incredible," Dave Johnson, driller, said. "The ability of the 3100GT to move from site-to-site without a transport truck is exceptional."

While he admits the ergonomics and centerline head side shift took some getting used to, he appreciates the well thought out head and controls.

"The interchangeable operations from drilling to sampling is smooth and efficient with all operations on the same centerline. The head design helps with straight drill hole operations. Less time adjusting the alignment means more time drilling," Johnson said. **"Everything just lines up on the centerline. No swinging hammer over, it is much safer."**

With similar controls from 7822DT to 3100GT to 3126GT, he finds the transition from one machine to another easy while adding versatility and power.

"The 3100 series rigs have more diversity and ability than a conventional rig. The variable speed adjustments don't result in any power loss. The hands-free, automation to control rotation and feed rates are great," Johnson said. **"The lifting power is phenomenal. We send steel into tight conditions where it would typically get stuck, but the lifting ability of the Geoprobe® pulled it right out."**

What's happening downhole is no longer a mystery while using the 3100GT on a rocky moraine area with boulders to 75-80 feet or using the 3126GT on a hillside doing 100-foot rock coring where straight holes were imperative for installing the instrumentation.

"The coring features made it much more efficient and easier," Johnson said. "The display screen assists the driller to know what is happening downhole and with the drill rig itself."

And the extra engineering put into the mud pump system isn't lost on the drillers.

"Now with two hydraulic pumps we're not bleeding pressure from the flow," Johnson said. **"A lot of thought went into the design and the ability to control flow is really beneficial."**

For Municipal Testing drillers, Geoprobe® benefits their jobs – from operation to service.

"Geoprobe® drill rigs are a very user-friendly way to drill. If issues arise, their service department is an excellent resource to keep you up and running," Johnson said.

Hicks sees similar benefits.

"From the service and the way the rigs perform to the people associated with Geoprobe®, it's been nothing but pleasurable," Hicks said.

The centerline head side shift on the 3126GT track rig makes transitioning from drilling to sampling smooth and efficient.



With similar controls and the same powerful head configuration, the 3100GT (left) and 3126GT (right) provide efficient drilling on a variety of jobs.



Two Geotech Tooling Innovations Add Noticeable Ease and Value

1) Spring Assisted Swivel Lift Caps

Watching videos of the Geoprobe® spring assisted swivel lift cap led Duane Reichel, owner of geotechnical engineering firm **SOILS & ENGINEERING SERVICES INC.** in Wisconsin, to try them out on their auger rigs.

“It made sense to reduce the physical strain for the operator and helper, as well as to help the rod threads to stay intact,” Reichel said. “We ordered one NWJ lift cap in 2019 and ordered some AWJ and NWJ lift caps in 2020 to start phasing out the older, non-Geoprobe®, lift caps after the other drillers and helpers had a chance to work with the spring assisted swivel lift caps.”

The crews appreciated the reduced strain and how the Geoprobe® spring assisted swivel lift cap self-adjusts when threading and unthreading rods, eliminating the need for the drill operator to bump the winch cable control up or down.

spring assisted swivel lift cap

Geoprobe® patented 2-inch interlocking split spoon

2) Interlocking Split Spoons

Reichel also took a leap of faith to try the 2-inch interlocking split spoon in 2018. Accustomed to the old style of sampler, this involved a bit of a learning curve, but once they figured it out, it's working better than conventional samplers.

“They're different than what we are used to, and being engineers, we don't really like to try something different,” Reichel said. “One benefit of the Geoprobe® interlocking sampler is that the inside of the barrel, at the top end, is not tapered or otherwise reduced in diameter like other manufacturers' samplers are. The ASTM D1586 standard has a figure showing a constant inside diameter for the entire length of the split barrel. This helps to minimize the potential of wedging the sample inside of the sampler and also makes the barrel easier to clean between samples.”

Other design features on the 2-inch interlocking split spoon improve its function in the field.

“We don't worry about the sampler 'smiling' from overflowing or hitting on hard materials,” Reichel said. “The two halves don't come apart like that thanks to the solid connection for the entire length of the barrel. Also nice that the threads are the same on both ends of the barrel.”

They also find the Geoprobe® shoes to be tougher.

“With the older style, if you hit a cobble, you bend or curl the tip of the shoe whereas the Geoprobe® shoe doesn't curl over and is easier to reshape and reuse while still meeting ASTM specifications,” Reichel said. “The Geoprobe® shoes are more expensive than other manufacturers, but I'm not opposed to spending more money when the product does the work better, faster, or more accurately.”

Quality Innovations

Reichel credits Geoprobe® with quality tools and good quality control. Even when they encountered a defect with the pins not going out far enough on some DT22 detent drive heads, he praises Geoprobe® for resolving the issue quickly, replacing the product.

“We notice that there is a lot of engineering that has gone on behind the tooling that we are using, and attention to detail in the manufacturing of the tooling,” Reichel said. “The tooling is designed for the user rather than following the same design as what's been around for 50 or more years, but still meeting the ASTM or AASHTO standards.”



Top Right: Drill crews appreciate the reduced strain and self-adjusting capabilities when threading and unthreading rods when using the Geoprobe® spring assisted swivel lift cap. Bottom Right: Engineered features of the patented Geoprobe® interlocking split spoon improve field performance and longevity.



NEW Mud Rotary Tool Management: Improved Pans and Racks

Municipal Testing Labs driller Dave Johnson raved about the NEW mud tub design.

“It's so much better thanks to the 8-inch neck, three chambers, handle locations, and drain from the bottom with plugs on the side. It's light and portable – one guy can move it,” Johnson said. “It allows us to control flow rate so cuttings drop in the first chamber versus the third and getting pulled back into the pump. This saves your pumps.”

And you can minimize your mud rotary mobilization woes with the NEW 'Super Rack.' Tote tooling for mud rotary jobs, including hollow stem augers, mud tub, water tank, etc., using your drill rig to do the heavy lifting. Streamline storing and hauling all your field supplies and have the flexibility to place tools within easy access of the front of the rig, saving time and energy when you eliminate trudging around the drill rig to get your tooling.

WATCH SUPER RACK:
See storage capabilities of NEW tooling rack.



geoprobe.com/SUPER

NEW Geoprobe® Seismic CPT: Better Field Performance



A multiple-city-block warehouse began showing cracks two years after construction. Called by a third-party to conduct seismic CPT testing, **HILLIS CARNES** in Maryland ran into issues.

“When using another manufacturer’s seismic CPT, each time we passed through groundwater it would short out and give us a hard time,” Fernando Garcia, in situ testing supervisor, said. “We sent the cone to the manufacturer for review, testing, and calibration. Two thousand dollars later we went back to the site and again could do CPT, but when we’d try to run seismic we would have problems.”

Garcia called Geoprobe® for help. Troy Schmidt, CPT specialist, quickly sent equipment.

“With the Geoprobe® seismic CPT module and Nova Cone we finished the job without any problems. Collecting seismic CPT data has never been as easy as it is now,” Garcia said. “The option to see arrival of the wave and see the wave velocity increasing or decreasing is amazing. So much so, I’ve already asked for pricing to see if I can get it in the budget.”

From previous experience, Garcia believed to get accurate waves required removing an 8-foot section of foundation. However, the client limited concrete removal to the size of the cone. With the software gain option on the Geoprobe® seismic they were able to ensure they got good data.

“With the other manufacturer and no post processing on site, we would have to wait until we got to the office to realize we’re not getting what we’re looking for. Being able to visualize the arrival and the previous arrival is really good,” Garcia said. “The gaining option to make waves more clear is easy. It’s an easy way to operate. You can see the waves, compare with the previous waves, add gain, and kick it again.”

With 17 offices conducting all types of geotechnical engineering and construction testing, Hillis Carnes completes drilling and in situ testing from CPT, to flat plate dilatometer testing (DMT), to pressure meter testing and all associated analysis and modeling.

“DMT was the easy way to collect seismic data, until we tested the Geoprobe® seismic CPT module,” Garcia said. “We’d been pushing clients to get seismic data with DMT, but the Geoprobe® seismic CPT module is a very easy way to get seismic data.”

Having tried to conduct field work with another seismic CPT option, Garcia fully understands it is not always as simple as it may appear.

“It isn’t this easy – collecting waves, software, sensor, trigger all had a hard time – proving the theory that not everything shiny is gold,” Garcia said. “Since then it hasn’t been working and we haven’t been able to do seismic. So we need to solve the seismic CPT problem. If we don’t offer it, we’re going to be in trouble. I anticipate purchasing a Geoprobe® seismic CPT module in the next budget cycle, or sooner if a job requires it.”



Geoprobe® Seismic Cone Penetration Testing Module

Below Left: The FREE software has signal stacking capability for use in high ambient noise locations.

Below Right: Geoprobe® SCPT analysis software allows you to view all the increments at once and use multiple methods of point picking.

Geoprobe® Seismic CPT Benefits Include Support by Technical Experts

Customers confirm the advantages of the NEW Geoprobe® Seismic CPT module, including:

- **LOW COST:** *Lowers the cost of adding shear wave measurement capability to your CPT system.*
- **CONNECTION:** *Remains attached to the 10 or 15 cm² NOVA CPT cone for seismic CPT projects or be replaced with a conventional cable adapter or acoustic signal adapter for conventional (non-seismic) projects or wireless CPT operations.*
- **QUALITY DATA:** *Generates exceptionally clear, low noise, shear wave signals, requiring minimal post log filtering during data analysis.*
- **CABLE:** *Uses the standard light, flexible 1/4-inch (6.35 mm) Geoprobe CPT cable – appreciated by field operators for its convenience – eliminating upsizing to a more costly, larger diameter, cable.*
- **INTUITIVE:** *Collects data using the intuitive Geoprobe® Seismic Acquisition, requiring minimal training, for quick acquisition of seismic waves displayed in entirety as the log is advanced to depth with capability for signal stacking in high ambient noise locations.*
- **FREE SOFTWARE:** *Analyzes shear waves using the FREE Geoprobe® DI Viewer software, picking wave arrival times using three separate automated methods and generating seismic velocity reports.*



Troy Schmidt, CPT Specialist



Cory Harvey, CPT Specialist



Doug Koehler, CPT Specialist

CPT SUPPORT

Beyond the tooling, the impeccable customer service provided by the Geoprobe® team of CPT experts stands out to customers as another advantage.

“Cory and Troy have made efforts to be at our disposal to ask questions. They’ve developed the hardware and software and their response time is exceptional,” Derek Wolfe, engineer with AGECE, said. “Having that kind of customer service is invaluable.”

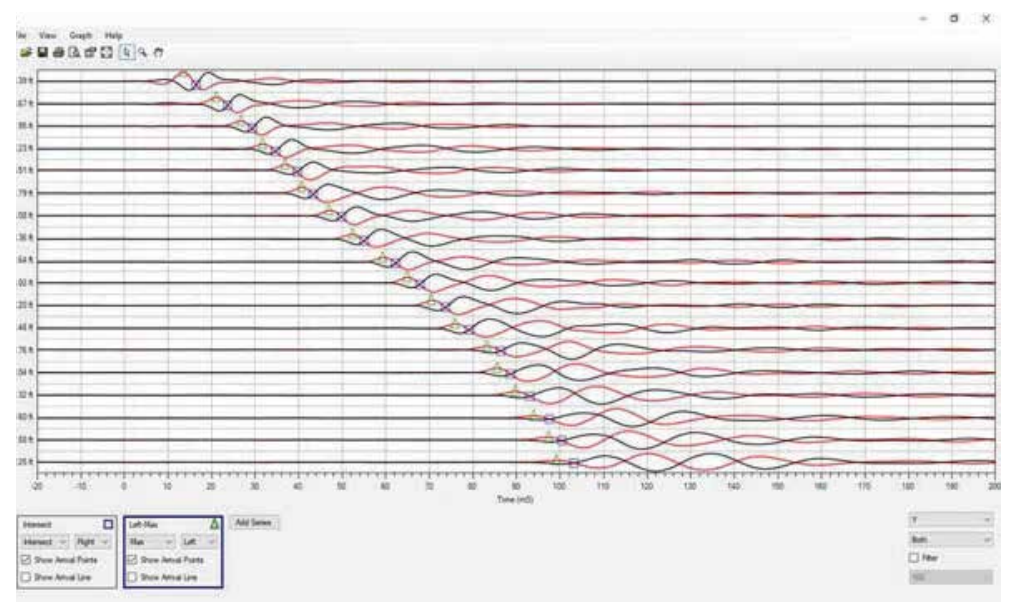
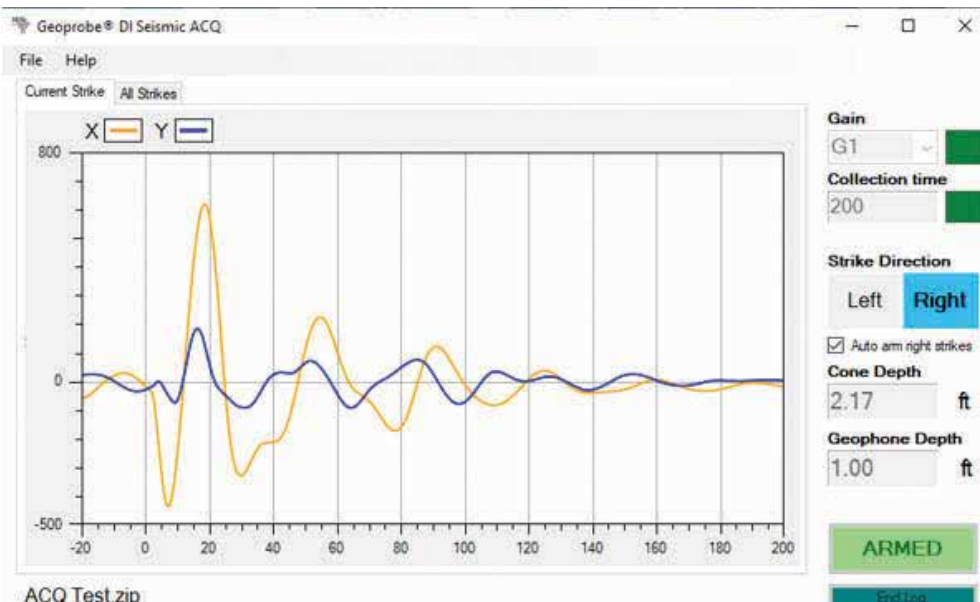
With more than 20 years experience, Geoprobe® has the technical team to offer CPT troubleshooting, spare parts, service, and repairs – including cone calibration.

CALL GEOPROBE®:

for your CPT machine, tooling, training, or support.



785-825-1842



Applied Geotechnical Engineering Consultants (AGEC) employee Tyrell Gwilliam strikes the strike-plate to measure the shear waves at 50 feet using the NEW Geoprobe® Seismic CPT module.



Solid Solution for Shear Wave Data Collection

Focused on completing site investigations and writing soil reports to help clients eliminate risk as they build on a new site, **APPLIED GEOTECHNICAL ENGINEERING CONSULTANTS (AGEC)** relies on their Geoprobe® 3230DT to handle the various soil conditions encountered around their home base in a suburb of Salt Lake City, Utah.

“We love the versatility of the 3230DT and its ability to handle every soil we have – clay, silt, sands, gravel, bedrock,” Derek Wolfe, engineer, said. “It pushes fast in clays and we can take it to the top of a mountain to do granite or sandstone coring.”

The geotechnical consulting firm found themselves increasingly fielding requests for seismic shear wave velocity. To meet the rising demand, Wolfe sought a solution to conveniently produce reliable shear wave data.

“Changes to the international building code require more ground motion hazard analysis and it’s more convenient to use seismic cone penetration testing to measure shear wave response in the upper 100 feet,” Wolfe said.

Geoprobe® CPT specialists Troy Schmidt and Cory Harvey brought the NEW Geoprobe® Seismic CPT (SCPT) module to Utah for Wolfe and crew to examine.

“From the first test, the software and new cone technology was more reliable, easier to use, and provided more confidence we were bringing back good data,” Wolfe said. “With the new program Geoprobe® developed we can look at every wave collected and do a ‘sanity check’ to see if things make sense and be confident we have reliable data that can be analyzed back at the office.”

With the new Geoprobe® SCPT module, Wolfe and crew found the convenience they sought for site investigations. They’re also saving time which equates to cost savings.

“It’s streamlined our ability to collect data and be confident in it. We’re able to create models faster that are more representative of what is in the ground,” Wolfe said. “In the past it would take us three hours to analyze a full set of data. Now it can take 15 minutes. That’s a huge cost savings for us.”

Having completed side-by-side comparisons to what they’ve known to be good data and seeing it match up to the Geoprobe® SCPT data further instilled confidence in the system’s dependability.

“We collected data using refraction microtremor (ReMi) on the same site and compared the data. They’ve agreed quite nicely. However, the Geoprobe® SCPT data has much higher resolution,” Wolfe said.

Being able to assess the raw data in real-time in the field also eliminates the need to remobilize and revisit a site.

“We can look at any of the 24 or 25 strikes while in the field and quickly assess if each wave arrival is happening when we would expect. It becomes apparent out in the field if there is an issue where previously we wouldn’t discover a concern until we were back in the office,” Wolfe said. “Before, on a few occasions, we would have to return to a site to re-push a cone because we doubted the results. Now we are more confident from the get go, which saves the clients bottom line.”

If they do run into an issue, they know they can depend on responsive expert customer service. The level of customer service was apparent from the first visit Troy and Cory made to Utah.

“We provided some suggestions for software commands and within a couple of weeks they incorporated those changes, which were critical for us to process and analyze the data,” Wolfe said. “We feel like they also have our best interests in mind because we have been heard and our opinions have been valued, which is a great advantage over many other companies.”



3230DT performs a variety of tasks in tight locations like backyards (left) or near train tracks (below).

3230DT Safely Expands Scope of Work

Customers have come to appreciate the versatility of the 3230DT to expand their scope of work while also increasing operator safety. Outfitting their offices with the single rig provides capability to complete a range of projects without investing in multiple machines, thereby keeping their overhead down and their service lines diverse. All this while mobilizing in a modest footprint to get into some tight spaces.

A FEW HIGHLIGHTS OF THE 3230DT INCLUDE:

- Perform rotary, static direct push, percussion hammer direct push, and SPT measurement over the same hole without repositioning of the drill.
- Double breakout option combined with the hydraulic head clamp and multiple over hole winch configurations make tool handling safe and efficient.
- Telescoping mast deployed in the up tower position along with multiple viewing angles afforded by the swing design control panel allows increased operator awareness and safety during the tower up task.



John Martinuzzi,
Sales

Geoprobe® Combination Drill Rigs Earn

Versatility Key to Expansion

Ability to complete six or seven drilling techniques in one rig earned the 3230DT the nickname 'Swiss Army Knife' of exploration drill rigs.

Celebrating 75-years in business, **EUSTIS ENGINEERING LLC** is the third oldest continuously operating geotechnical engineering company in the United States.

"Mr. Eustis was a pioneer in soil mechanics starting with the Army Corps of Engineers before starting out on his own," Larry Rome, vice president of operations, said.

Their pioneering spirit thrives as they serve the industrial, commercial, public sector, and government in their ongoing quest to grow. With headquarters outside of New Orleans (Metairie) and offices along the I-10 corridor, Eustis nearly doubled in size following Hurricane Katrina in 2005. When exploring new markets, they sought a way to offer a lot of services without sinking a lot of money into equipment. They found the tooling and exploration potential they were seeking all within a compact unit — the Geoprobe® 3230DT.

"We call it the 'Swiss Army Knife' of exploration rigs," Rome said. "As a company we thought bigger was better, but the 3230DT proved us wrong. It packs a lot of power."

When looking to open their Houston office, Eustis knew they had the right fit with the 3230DT. The user-friendly rig made overcoming the learning curve easier for operators who Rome said have adjusted well. Accustomed to running traditional rigs doing mud rotary and cone penetration with separate pieces of equipment, adding the 3230DT resulted in a gambit of resources in one unit delivering cost savings they've passed along to the client.

"It doesn't even compare to other traditional-style mud rotary or geotechnical drill rigs. The versatility is impressive. We can deploy six or seven different techniques — hollow stem auger, mud rotary, rock coring, CPT, instrument installation," Rome said. **"We've been able to be more efficient. The Geoprobe® rig has allowed us to be more versatile and meet our clients expectations while utilizing a single piece of equipment."**

Beyond versatility and efficiency, the power to size ratio opened opportunities for Eustis.

"We're able to get into tight spots. There are three or four projects we would have had to utilize multiple pieces of equipment instead of just the 3230DT," Rome said.

Eustis utilized the 3230DT at an industrial site roadway project conducting cone penetrometer tests, mud rotary, and instrumentation installation in a tight footprint working with other remediation consultants.

"We successfully completed four different exploration methods within constraints of time and physical space," Rome said. "The unit exceeded our expectations. It's totally efficient."

Eustis first tested the 3230DT in the New Orleans market before transferring it to the new Houston office.

"We used it so much in southeast Louisiana it was hard to let it go to the Houston office," Rome said. "We were pleased with the utilization and versatility of our first unit. To allow for this to be utilized at more than one office, we decided to purchase an additional unit."

At the end of 2020 Eustis added a second 3230DT — this time for Louisiana.

"It's only two years difference in the ages of the rigs, but the improvements are remarkable. Geoprobe® is always innovative," Rome said. **"Geoprobe® takes feedback from the clients and improves the next version, which improves the client, making them more efficient and productive."**

The Geoprobe® commitment to innovation and the 3230DT have fueled Eustis' own pioneering spirit.

"We like to be innovative and we've been able to do that with this unit. We're doing things differently down here. There's nothing we've thrown at the 3230DT it hasn't been able to handle," Rome said. "Geoprobe® has absolutely helped us be innovative in the last four to five years. We are utterly impressed with the whole operation. We've been to Salina, which illustrates the attention we put into the product we purchase — from rigs, to tools, to service after the sale."

Counting on Geoprobe® to provide great service after the sale and to apply what they learn from clients into products, Rome understands why he's never heard anything negative about Geoprobe®. He also now understands Geoprobe® means more than just environmental.

"Initially when we thought Geoprobe® it was 'aww, that's environmental, we don't do environmental,' but they've really found their place in the geotechnical market with their newest products," Rome said. **"We wished for a rig like the 3230DT for years. Geoprobe® definitely delivered. We're super excited to see what more Geoprobe® does."**

Nickname 'Swiss Army Knife' from Geotechnical Firms

Excelling at Both Geotech and Environmental Sampling

Started by Earl Reichel 55 years ago, **SOILS & ENGINEERING SERVICES INC.** bought their first auger drilling rig in 1968 to provide drilling as part of their geotechnical engineering. As the drilling division expanded, they added environmental sampling to the services they provided others.

"During 1980s when environmental sampling was booming in Wisconsin due to state requirements for gas stations to upgrade their underground storage tanks, we used a hydraulic hammer on our auger rigs for direct push sampling," Duane Reichel, owner, said. "All along I followed the progress of Geoprobe® equipment and improvements."

Once his Dad, Earl, retired in 1993, Duane became partner in the company and then sole owner in 2018. He then sold a couple of their auger drill rigs and invested in a 7822DT.

"We weren't really equipped well for environmental direct push sampling and we also had a need for a smaller geotechnical rig," Reichel said. "We looked at auger rigs and typically they are designed more for geotechnical work than environmental. We wanted a rig that could excel at both geotechnical and environmental sampling."

After seeing the website videos and literature, they were sold on getting a Geoprobe®. Further solidifying their decision was their clients asking for "Geoprobe®" rather than "direct push." The name itself was a selling point.

Versatility

"We call it the 'Swiss Army Knife'. Multipurpose – good for direct push, auger, rock coring," Reichel said. "All of our other auger rigs have 8,000 to 14,000 lbf of torque, with the exception of the skid rig which has less than 2,000 lbf of torque. I was looking for something with torque in between those two ranges. I wanted to have a wide range of capabilities in our fleet."



Footprint of 7822DT handles sloped ceilings of bleacher seating at Camp Randall stadium while power permitted completion of mud rotary borings for geotechnical samples.

A lot of their geotechnical and environmental work in Madison and southern Wisconsin has been in developed areas or house additions or new houses on lakefront parcels where there is limited access or limited heights.

"We bought a small skid rig before the 7822DT for working in limited heights, and we are able to use the 7822DT in most areas that the other small rig can go, but we appreciate the higher torque on the 7822DT," Reichel said. "It's nice to have a smaller profile. We can adjust the height of the mast for ceilings, power lines, or tree canopy. It's easier to use the smaller profile rig when doing an auger or rotary boring next to a building rather than struggling to jockey a larger rig into tight spaces or have to locate the boring somewhere other than where the client wants it."

Reichel admits there was an adjustment period, but the benefits are great.

"There's a learning curve for us going from purely auger rigs to Geoprobe®. It's a different set up, but nicer. We can angle the mast to get tooling vertical or adjust the tower to compensate to maintain a vertical hole or to work with a hole that is a bit off vertical," Reichel said. "The engine RPM changes according to demand, making the rig quieter since it's not always running full bore. Combined with the rig engine being smaller than an auger rig, we're saving on fuel costs for operating and transporting it."

Having had previous direct push experience using another manufacturer's rig and tooling, Reichel can clearly see the benefits of the combination 7822DT.

"The other rig and tooling was doing the job but not as efficiently. With Geoprobe® it's all inclusive – from tooling to rig – so it's thought out multiple ways," Reichel said. "There's not a lot to find to complain about. If there are issues with tooling or the rig, the engineering team is willing to look at things and rectify the issue."

Accessibility

They appreciate having a single rig to do multiple things – coring concrete, mud rotary, rock coring, and direct-push environmental sampling and upgraded to do CPT work – and all the places they can use it.

"We can go offroad quite a bit. We don't have to use as much matting as we would with our truck rig or even our low-pressure rubber tire rigs," Reichel said.

When drilling at existing houses where they have failing slopes or where the lake shore property has erosion, they aren't damaging existing lawns.

"We were able to get to sites where we wouldn't have been able to with our larger rigs," Reichel said. "We can sneak in between houses without other equipment, as we would with our skid rig, since the 7822DT is self-contained."

Expanding Market

A recent job took them inside to investigate proposed improvements to the south end zone seating for the University of Wisconsin-Madison Camp Randall stadium. They drilled soil borings below the bleacher seating in the concession area. The footprint of the 7822DT meant they could handle the sloping ceiling above to get the rig closer to the wall with more working height. The rubber tracks meant they weren't marking up the concrete, and because the rig is self-contained, they didn't have a lot of engine exhaust or noise.

"We wouldn't have been able to do the geotechnical sampling if we hadn't had the 7822DT. We mud rotary drilled the borings to allow the use of a pressure meter for testing the soils for soil bearing capacity and settlement," Reichel said. "Our other auger rigs are wider and longer than the 7822DT, and they would have been more difficult to maneuver in the concession area. The 7822DT allows us to turn in place and to get closer to obstructions."

This is just one example of how the versatility and accessibility of the 7822DT has helped Soils and Engineering expand their market.

"We are able to go after more jobs than before or don't have to subcontract some drilling because we can't get on site. We're looking forward to seeing what other challenges we can put the rig up to," Reichel said. "We haven't been on a barge yet with the 7822DT. But the lightweight and small footprint means we won't need as big a barge versus a conventional drill rig, yet we still have direct push, augering and rotary capabilities in a smaller footprint."

Rock coring for geotechnical shallow foundation and bridge investigations poses no problems for the 7822DT.

Power to Solve Problems

"We should have done this years ago!" Mike Walker, operations manager, said.

The 53-year-old, largest engineering firm between St. Louis and Memphis responded to changing market standards and solved the biggest company gripe when they added the 7822DT to their fleet. **SMITH&CO.** in Missouri provides civil engineering, surveying, materials testing, environmental consulting/drilling, and geotechnical drilling services.

"There's been a shift in the environmental field standards where Geoprobe® has really become the standard versus auger rigs. Stakeholders are now wanting wells under gas station canopies or between structures," Heather Slayton, geologist, said. "As far as the science goes, it's better for wells to be closer to the source areas. Auger rig limitations used to be accepted but not anymore."

Doing much of their work in the Mississippi Embayment, they often encounter large amounts of sands and gravels. When combined with shallow groundwater it has always been difficult (if not impossible) to get soil samples from the saturated zones with their auger rigs according to Walker. With their Geoprobe® 7822DT and Macro Core® sampling system, they've resolved those issues.

"During my 21 years in the industry, the big gripe was we couldn't collect samples in saturated soils due to lots of sands and gravel. The Macro Core® samplers allow us to get samples in this zone," Walker said. "Before we would be lucky to get 20 percent recovery of saturated zone samples back."

Seeking one rig to do more things – environmental, direct push, rock coring, and geotech SPT – they've put the rig to the test and been impressed.

"We do a lot of gas station contamination investigations and can do deep water sampling with SP16 – where we couldn't before with our auger rig – without sacrificing other services," Slayton said.

During a deep water investigation at a service station in Lilbourn, Missouri, they completed a job with the 7822DT they would have previously subbed out or not even done.

"We groundwater sampled every 4 feet to 130 feet, advanced 14 soil borings in yards and roads, and installed a monitoring well with augers. The 7822DT did it all," Slayton said. "We beat the proposed timeline for groundwater investigation by five hours. Everyone was happy about that."

The tracks and small footprint also mean they're not tearing up adjacent properties.

"It's opened up doors with property owners. It's easier to get property access because it's not as intimidating," Slayton said. "It's easy to get in and out without damaging yards."

What has surprised them is the ease with which the 7822DT tackles rock coring.

"We do a lot of geotechnical shallow foundation and bridge investigations. The 7822DT has really exceeded our expectations because we didn't expect it to be so multiuse – we can SPT to rock and switch to rock coring. The rock coring capabilities have blown us away at how well it works," Walker said. "We didn't realize it had wireline rock coring capabilities. We thought it was just a direct push, environmental auger rig. The 7822DT is a one-stop-shop."

Their business has benefitted, making operations cheaper without an extra field truck and allowing for multiple capabilities within one mobilization. Having a single rig to do a broader range of things while using Geoprobe® tooling has also improved production.

"The 7822DT has allowed us to be far more efficient than when using bigger rigs. We're able to shrink our fleet on site," Walker said. "We can soil sample faster with dual tube and Macro Core®, which has increased our productivity."

And leveraging the combination drill rig with genuine Geoprobe® tooling means they can advance multiple samples and get on with well installation, which pleases everyone involved.

"Other manufacturers' tooling is temperamental. Geoprobe® tooling is better manufactured, goes together better," Slayton said. "The driller spends less time fighting with the equipment, which makes him happier."

WATCH MACRO CORE®:
See advantage of using Macro Core® for tough geology.



 geoprobe.com/MACROCORE

Geoprobe® Great for Geotech

Accustomed to running their auger rigs with after-market hammers, geotechnical and environmental drilling company **TERRA TESTING**, in southwest Pennsylvania, wanted to take a deeper dive into the direct push market. While their primary purpose for a new machine was direct push sampling, they were also interested in using the rig for auguring, coring, air rotary, down the hole hammer, and SPT sampling.

"We sat down to talk with Geoprobe® and they knew exactly what we were looking for," Eric Hajek, president, said. "Our main focus once we received the 7822DT was to learn all the direct push tooling and methods and market that to our customers."

To ensure they understood the drill, tooling, and capabilities, Vic Rotonda, regional sales representative, came to their facility for a walk through with drillers and staff.

"Vic spent extra time with our new driller who was put in charge of running this drill. Vic gave him his cell phone number and said 'call anytime with any questions or if you need help'," Hajek said. "Our driller and I are very appreciative of the time Geoprobe® has spent with us on the machine."

Their first direct push projects went smoothly and a lot more quickly than with their other direct push tooling.

"The hydraulics when using after-market hammers on auger rigs aren't made to run at the same time, taking away from the feed pressure. You're always having to finesse things throughout the day," Hajek said. "Geoprobe® has all the pressure you need, which makes it more convenient, and results in more power and better samples in stiffer materials."

With a backlog of geotech projects building up, they tried out the 7822DT and discovered a ton of advantages in the geotechnical market as well.

1. **LOW CLEARANCE TOWER:** able to use the rig in power substations, on T-line projects, and road borings along sidewalks and buildings.
2. **MAST OSCILLATION:** able to tram in sideways with the hill and put the tower up vertically with the tracks still on the ground, great for slopes in western Pennsylvania and in West Virginia with the huge numbers of landslides needing drilled.
3. **LIGHTWEIGHT:** able to haul materials to and from the site, great for crossing high pressure gas line right of ways.
4. **TOOLING RACK AND BLADE:** able to clear path for rig by setting the rack down, clearing the brush, and picking up rack to place it where needed.
5. **USER FRIENDLY:** able to make driller's job easier and smoother with all the bells and whistles.

"The fifth is the most important. The driller we put on it had never drilled on anything, and I attribute his success to starting out on the Geoprobe®," Hajek said. "It's a very comfortable machine for new drillers to learn on."

Encountering rock on nearly every job, the 7822DT has done NWL wireline core to 250 feet as well as completed HWL and casing advances.

"Every project we use it on we hit shallow rock, so coring on everything," Hajek said. "The set up for coring is easy."

So while the purpose of purchasing the rig was to get a better grasp on the direct push market, what they found is they use it for about 85 percent rotary geotech and 15 percent environmental direct push.

"The 7822DT just kept showing us all the other advantages it has in addition to direct push drilling," Hajek said. "The 7822DT gives us more capabilities so we can take on more slope drilling and get inside buildings, meaning we have more areas we can get into to work. It's made us the go-to, one-stop shop company. It does 90 percent of our work other than sonic."

Hajek concedes he — and he's sure others — only ever thought of Geoprobe® for direct push, not as a geotech drill. He also admits he's been proven wrong.

"I, and others, always believed Geoprobe® is for probe holes, you don't need it for anything else. But Geoprobe® really does everything else — people just need to open their eyes to it," Hajek said. "They're the leader in innovation, putting more stuff on their drills than the competition. From all the different drilling capabilities to how easy it is to teach a new driller to become a good, safe, and productive driller, I am anxious to see all the advancements Geoprobe® makes in the future and look forward to working with them in the years to come."

7822DT proves advantages in the geotechnical market from low clearance tower to mast oscillation.



7822DT Continues to Impress Owners and Operators

Whether you are...

- sampling soil and groundwater with direct push
- constructing monitoring wells with hollow stem augers for environmental projects
- rotary drilling for test borings and coring bedrock for geotechnical projects

...the 7822DT gets the job done.

"Pound for pound – dollar for dollar, there has never been a machine with a greater impact in the drilling industry," Vic Rotonda said.

HERE ARE SOME QUOTES FROM EAST COAST COMPANIES:

"To be able to work effectively on so many different projects with one machine gives us a great advantage. My guys love running the 7822DT."

— Sam Migliaccio, Drilling Manager, All Star Drilling and Probing

"Out of the many drilling machines we own, the 7822DT is the most versatile and most utilized."

— Dan Sponseller, Drilling Manager, Eichelbergers Inc.

"Vic, you told me that if I purchased the 7822DT it would stay busy. You were right, that rig is completely booked."

— Greg Baker, Owner, Allprobe Environmental Inc.



Vic Rotonda,
Sales



NEW 3.75 Tooling: Better for Rock Coring

To improve compatibility with NWL rock coring bits and our 3.75 casing, Geoprobe® has increased the inside diameter overbore to a depth of 5 inches, providing a lip on the back of the ID bore. The changes improve the fit with standard NWL coring bits.



Quarter Century of Success Includes Sonic Drilling

Working alongside long-time employees with his father managing the administrative side of things, the **GLACIER DRILLING LLC** family has grown. Two sons have joined the business as well as a family friend, Sam. With 11 team members, Glacier has evolved as a drilling business during its 25 years serving New England – from Maine to Pennsylvania.

Starting with one auger rig, the company has grown drastically to a fleet of two sonic rigs, five probes, and a couple rotary auger rigs focused primarily on environmental investigations with 25 percent geotechnical. The fleet had competitors commenting on maintenance overhead.

"I tell people if it has a grease fitting or an ignition switch it costs money in maintenance. But I want to set the industry standard for maintenance," Mark Schock, owner, said. "We strive to have our rigs maintained and prepared to do work."

He also strives to have the right tool for the job.

"What sets us apart from competitors is we have what you need to do the job, even if we're not the cheapest," Schock said. "We can enter wetlands, work in closets, or do bedrock investigations."

Understanding the investment in workman's compensation insurance for drillers, Schock also works to stay ahead of the curve on safety standards.

"Evolving means staying up on technology and offering things that are safer. Our safety standards are driven by an Exxon Mobile contract we had years ago. Here we are 15 years later and those safety standards are now the norm," Schock said. "That's why the Geoprobe® rod-handling system and dual-tube systems are not only a better way to do the work, but a safer way to do it. It sets us apart from those not making that kind of investment."

Schock got into sonic in 2008 after watching other contractors.

"Augering is destructive, displacing material with a tool by breaking or pushing it out of the way. Most of our drilling is in terminal marine geology, which is difficult to penetrate and unpredictable," Schock said. "Sonic cores through the geology with the only thing displaced being the core we're collecting that's the size of the bit."

While they considered other overseas sonic manufacturers, they decided to stay local when they entered the market by purchasing a Geoprobe® 8140LS.

"Given the current state of shipping raw goods, we're fortunate we went local," he said.

For Schock, having the rig and tooling designed by one manufacturer is a huge benefit.

"Geoprobe® designs the rigs and tooling systems so it's a comprehensive package. Everything we need is all designed to work together – one phone call, order, and I know it will be compatible," Schock said. "I can't imagine anyone else doing service better. I can pick up the phone and call to annoy Jed Davis, Joel Christy, or Mike Carlin and they're happy to take the call."

As demand for their services grew, they added an 8150LS for its capabilities to go deeper with larger casing thanks to the increased power. They also added the high-speed coring head for multi-use scenarios. Choosing 5-foot tooling sections because of the tight spaces in the city or wooded areas, they prefer the maneuverability it provides. And with the indexing rack and rod handler, they have added safety.

"The rod handler is a necessity as far as I'm concerned. It eliminates heavy lifting and the helper doesn't have to hold tooling onto the head, which is a safety factor," Schock said. "The Geoprobe® 4.5-inch HD rods are much more durable and can really handle a lot more rock, threading together easily."

While Glacier doesn't have to rely solely on sonic given the size of their fleet, sonic drilling has displaced some of the work they used to do with other equipment.

A recent job took them to Johns Island, formerly owned by boxer Gene Tunney and a frequent retreat for John F. Kennedy. Barging the 8150LS over, they drilled a half-dozen water wells easily navigating the wooded, rock areas thanks to the tracks.

"They needed a water supply but didn't want to tap into brackish water, so we did a series of bedrock wells. We drilled 225-foot to install permanent casing in shallow overburden," Schock said. "We used 10-inch casing, then grouted in permanent 8-inch casing. The hydrologist wanted to present cores to the USGS, so we also did 6-inch cores for study."

Several engineering features on the 8150LS stand out to Schock for increasing production and preserving the rig.

"Using the wireline winches to pull inner core barrels expedites production by eliminating breaking down the outer tooling each time we want to empty a core barrel," Schock said.

"The cold-weather, pre-heat option slowly warms hydraulics before it transfers to the sonic head, limiting premature excessive wear on the sonic head."

These features, combined with the user-friendly control panel consistent with the other Geoprobe® rigs they own, have helped their sonic business surge to 50-70 percent of their work. Their confidence in sonic sets them up for another successful 25 years of business.

"The sonic eliminates doubt of completing the borehole. We don't worry about needing an alternate method to advance a borehole. We know we can meet the target," Schock said.

8150LS sonic drilling rig snaked between trees on Johns Island off the coast of Maine to install water well service to the house on site. A hydrologist designed the multi-well system to avoid salt water intrusion. The crew grouted in 8-inch water well casing and cored rock to 225 feet on six holes.

WATCH WEIGHTED WIRELINE SAMPLING:
See advantage of using sonic sampling system.



8150LS provides confidence to run larger diameter casing to deeper depths dry coring through fine, tightly packed hard sands.



Smaller Footprint, Faster Production

Using a range of rigs to complete an array of environmental projects — direct push soil and water sampling, conventional monitoring wells, deep sonic wells, small and large injection projects, and site abandonments — the 35-year-old **DRILLPRO LLC**, better known as Groundwater Protection, once focused on SPT and hollow stem augers on traditional truck-mounted rigs.

“Through the years we transitioned to 7822DT for most of the conventional work, including installation of permanent PVC casings and mud rotary drill outs,” Nick Bishop, purchasing, said. “For deeper projects we use sonic.”

The company, servicing primarily Florida, occasionally sneaks into South Georgia, Alabama, or Mississippi, typically keeping seven to eight of their rigs running. Having been in the sonic game for nearly two decades, Bishop credits the arrival of the Geoprobe® sonic rigs with increased productivity.

“Our site footprint has gotten smaller and our daily production has gotten faster with the arrival of the Geoprobe® track sonic rigs,” Bishop said.

The company sought increased confidence to run larger diameter casing to deeper depths and knew using the 8140 in certain conditions could be challenging. So they traded their older 8140 in and purchased a Geoprobe® 8150LS sonic rig to open up new markets.

“An area where the 8140 struggled — dry coring through fine, tightly packed hard sands — the 8150 just continuously moves forward,” Bishop said. **“We can confidently bid on larger jobs — 200-foot plus wells using 8-10 inch casing. Our limitation isn’t the rig.”**

Recently Billy Moss, driller, set a 2-inch well at 285 feet, dual cased off with 10-inch casing at 220 feet chasing a deep plume in Ocala, Florida. On the site they set numerous deep wells ranging 150-200 feet chasing the same plumes.



Crew celebrates setting a 2-inch well at 285 feet.

“When in the sweet spot of 100-200 feet it performs a lot faster than our truck-mounted sonic rigs, set up time is minimal, and sampling and casing drill times are faster, meaning more footage per day,” Bishop said. “The speed of the head alone makes it quicker, but there are no struggling points. It does what we ask of it. The rig has yet to show us refusal.”

Packed with “nice features,” the 8150LS sonic with its engineering enhancements has surprised Bishop by being easy to service.

“The engineering advances from the 40s to the 50s — small changes like the way the table has been built and the beefier rod handler — help to withstand the abuse the equipment sees in the field. The modern diagnostics have also been helpful on a few occasions,” Bishop said. “With all the advancements I would have thought it would be a burden to maintenance, but servicing the head and preventative maintenance has been very serviceable.”

Described as “dependable,” the rig functionality impresses him.

“We can set angle wells with the 10-foot tooling and effortlessly load pipe. The rig does not vary off angle once it’s set,” Bishop said.

This dependability increased the accuracy of their project bids.

“There are fewer anomalies, which means we can hone in our bid as far as number of days,” Bishop said. “It’s better to tell a client seven days and it takes seven versus going into day eight.”

All the capabilities in a small footprint also pleases clients.

“We have the ability to do deep work with our truck mounted sonic rigs, but have a hard time getting into gas station jobs and tight areas,” Bishop said. “Although the 8150LS is large in size, it gives us the ability to get into tighter locations, helping us meet the client’s needs.”

While there was a learning curve going from the 8140 to the 8150, the change has created greater drilling precision.

“The small details allow us greater ability to dial it in,” Bishop said. “We can accurately dial and play it safe while determining the limiting factor with the feedback the rig gives.”

Geoprobe® support further minimizes issues encountered.

“The feedback provided to drillers by the control panel, with the ability of Geoprobe® to trace anything through the modem, ultimately allows us to make repairs in the field and get back to completing the job. The support is phenomenal when we run into an issue,” Bishop said. “That same support runs throughout the company. We can count on John Martinuzzi’s expert advice when it comes to in-the-field drilling or I can confidently call up Team Geoprobe® and come up with a tooling solution.”

NEW



NEW Sonic Core Catchers: Last Longer

When some Geoprobe® Sonic Core Catchers weren’t lasting as long as they should, a customer called in and suggested a small weld to the core catchers to cover the seam where the fingers meet. Team Geoprobe® immediately acted on the idea, sending revised parts to the customer who praised their performance. Thanks to communication from customers in the field, Team Geoprobe® initiated the revision to all future parts in order to provide the best possible soil drilling equipment.



Geoprobe® Solid Choice for Sonic Drilling

I often get asked, “why choose Geoprobe® sonic?” Seven things quickly come to mind:

- 1. System** — When buying Geoprobe® Sonic you are investing in a “system.” Machine... tooling...training...service...all in one place. Doesn’t matter what you need, one phone call gets you legendary Geoprobe® support.
- 2. Safety** — Our rigs are built to be safe. Proximity switches on rod handler and control panel presence bar eliminate inadvertent movement of the rig. Swing arm control panel gets operator as close or far from the rod string as they need. Hands-free auto drop hammer keeps drillers out of harms way.
- 3. Efficient** — Rod handler and indexing racks eliminate need to muscle large rods into place, reducing crew fatigue and increasing production.
- 4. Peace of Mind** — Two-year unlimited warranty on GV5 Sonic Head and standard Geoprobe® one-year unlimited hour warranty on machine chassis.
- 5. Ease** — Centerline head side shift gives easy access to ID of rod string when building a well. Quickly shift from sonic to auto drop hammer or high speed coring head without moving drill mast.
- 6. Options** — Geoprobe® offers many options to set up the machine to best fit the environment the machine will be running in and the operator’s needs.
- 7. Training** — Purchase of a Geoprobe® Sonic unit includes factory training covering operation and maintenance of the machine.



Doug Koehler, Sales

CALL GEOPROBE®:

for your sonic machine, tooling & training needs.



785-825-1842

APRIL 22, 2021 - SALINA, KANSAS

Geoprobe® OPEN HOUSE ★ DRILLMAX★ INDUSTRY LEADING FIELD EVENT

“.....
I'm looking to expand my business and exploring the possibilities. The drill rigs are very well built, very robust, and versatile. I think they have a good thing going here.
.....
— Rian Humphreys, H1 Drilling, California



We were honored to host numerous new guests and returning members of the Geoprobe® family during our sixth Open House. The day filled with field demonstrations debuted our NEW 6011DT, 3126GT, and tooling offerings for the geotechnical, environmental, exploration, geothermal and water well industries. Guests left excited about the prospect of what they witnessed making their jobs faster, safer and easier. If you missed the event, give us a call to learn more.

Find out more about the NEW products unveiled at Open House: geoprobe.com/OH21



150GT



3100GT



DM450



8150LS





NEW SP19: Screen Point Groundwater Sampler for 1.75 Rods

Geoprobe® Screen Point (SP) Groundwater Samplers are a mainstay of contaminant site investigations. This tool has become standard equipment for direct push operators since its introduction in the 1990s. The magic of the SP system is its ability to deliver a protected sampling screen to depth and then to “open” or expose that screen to the formation.

Now Geoprobe® announces the availability of the NEW SP19 Groundwater Sampler for use with the Geoprobe 1.75 rod system.

“The 1.75-inch rod system is common among Geoprobe® Direct Image® operators who perform MIP, HPT, and OIP logging. The rods are heavier than 1.5’s so they have a much longer life, plus they have dependable O-ring seal at the rod joints,” Tom Christy, director/engineer, said. “1.75’s are a good choice for the continuous driving of groundwater profiling, logging, or sampling”.

The SP19 sheath, as with all SP Groundwater Samplers, is built with a larger diameter, 1.875 inches (48mm), than the rod system. This larger diameter serves as a friction reducer during driving and also seals the hole as the sheath is retracted to expose the SP screen. Screen length for the SP19 (42 inch/1065mm) remains unchanged from the SP16. However the top of the screen is larger to match the SP19 sheath. SP16 drive points and accessory extension rods for holding down the screen are compatible with the SP19.



Tom Christy,
Director/Engineer



The SP19 is equipped with a Latching Sampler System Drive Head (see page 18). The NEW Latching Sampler System allows the user to “latch in” (attach) a mechanically actuated pump (Mechanical Bladder Pump or Mechanical Syringe Pump) directly to the Drive Head of an installed SP19 sampler. This allows collection of high quality groundwater samples from an isolated screen in the subsurface.

Geoprobe® SP19 with
top of screen larger to
match the sheath



Needing New Equipment?

We’re off to a great start, but 2021 presents its own set of challenges. Globally, manufacturers – Geoprobe® included – are struggling to get raw materials and components from vendors in a timely manner to meet consumer demands.

WHAT DOES THIS MEAN TO YOU? We are optimistic the impact to our production schedule will be minimal, but we do expect to experience delays from our vendors resulting in longer machine lead times. Give us a call to discuss your equipment plan for 2021 and 2022. The more information we have the better Team Geoprobe® can work to meet your needs.



Doug Koehler,
Sales

Trade Old Rigs for New Rigs

Trading in your old Geoprobe® – and even non-Geoprobe® – machines toward the purchase of new equipment can have many advantages.

- Reduce amount to be financed.
- Most states only require sales tax be paid on the difference between price of trade-in and new piece of equipment.
- Possible savings in capital gains tax.
- Continue to use your trade-in until the new unit arrives.

To determine a trade-in value, send 4-6 current photos (mast up), current hours, and serial number to: koehlerd@geoprobe.com.

CALL GEOPROBE®:

with your new equipment and trade in questions.



785-825-1842

3100GT on F600: Increased Payload Capacity Under CDL

With 22,000 lb GVWR, enjoy creature comforts of the fuel-sipping chassis with additional payload to haul tooling all while remaining under Class A/B CDL.

- **TORQUE:** higher torque 6-speed rotary head option adds 70% more torque compared to 4-speed
- **PERCUSSION:** GH63 percussion hammer
- **FLEXIBILITY:** third winch option with Geoprobe® quick change hook
- **SPEED:** trim time between applications with all head functions and winches along the centerline head side shift, eliminating need to move the drill mast and keeping driller out of harms way
- **SAFE:** reduce strain with hands-free auto drop hammer for SPT work and hands-free rotation and feed for rotary work
- **EASY:** promote new drillers quickly with easy operation
- **POWER:** create stable hydraulic flow for multiple functions simultaneously with a separate mud pump hydraulic circuit

3100GT ON F600 CHASSIS

LEARN MORE:
for details on the 3100GT F600 chassis.

geoprobe.com/3100GT





NEW 6011DT Limited Access Rig: Big Power, Small Package

Drillers seeking a small footprint, but big direct push power, choose the 6011DT to efficiently track into tight spots or through tough terrain. The rig features a proven GH63 percussion hammer while still being sized to slip into small spaces. Easily mobilize the lightweight rig to your direct push jobs with confidence to complete sampling.

- 48-inches wide
- 4,800 lb direct push only platform
- 44 horsepower engine
- GH63 percussion hammer
- Uses 5-foot tooling
- Rear stabilizer blade works with Geoprobe® drop racks
- Load-sense hydraulics reduce fuel consumption
- Optional low clearance cylinder
- Affordable price point
- Suited for Direct Image® logging tools and CPT
- International configuration with engine for lesser regulated countries
- Tier 4/Stage V engine available by end of 2021



Narrow 48-inch footprint of 6011DT easily sneaks between side of building and property fence for direct push sampling.

LEARN MORE:
for details on the 6011DT Limited Access Rig.

geoprobe.com/6011DT

6011DT LIMITED ACCESS RIG



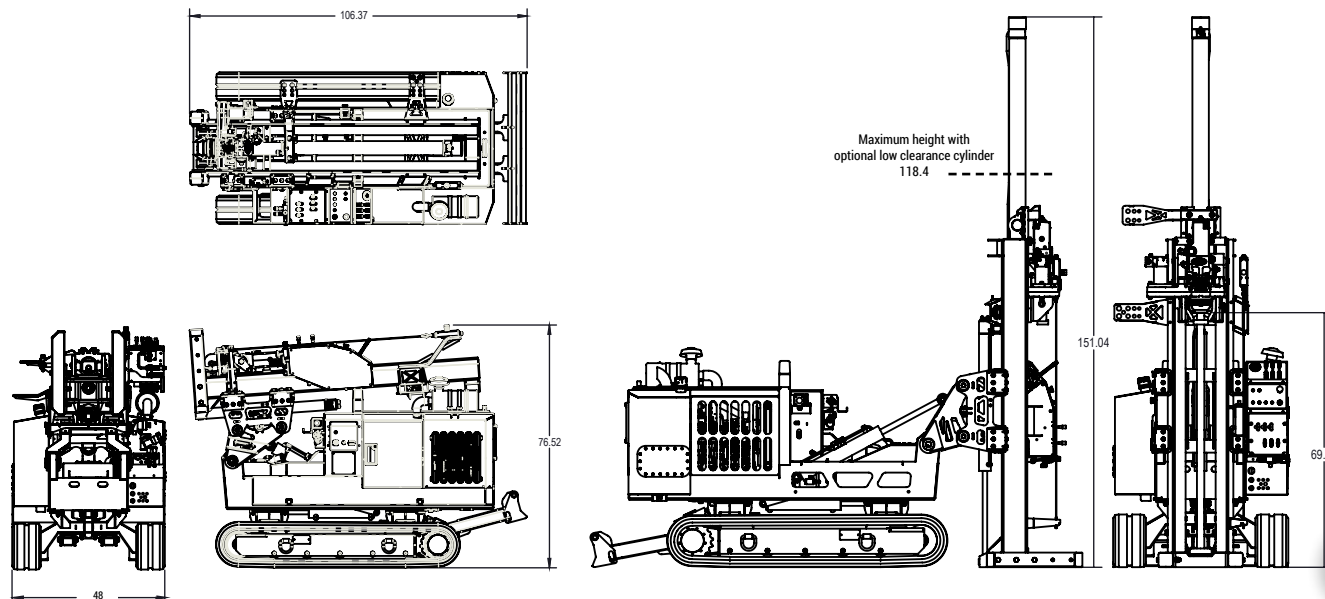
Great for indoor spaces available with low-clearance cylinder option.



Efficiently track to job site with 4,800-lb direct push platform.



Tight spaces are no match for the 6011DT. Use 5-foot tooling and GH63 hammer to core through concrete on industrial sites.



WATCH 6011DT:
See NEW direct push rig with power of GH63.



geoprobe.com/6011DT

Perfect Equipment for PFAS Investigation

Circumstance led Jeff Grant to drilling in August 1990 when a good friend became a driller and asked him to work with him after he served in the military. Then in 2016, Grant struck out on his own with a 5410 and a focus on direct push services.

So when **JG DRILLING** was selected by a consulting firm to drill multiple PFAS sites in Georgia, North Carolina, Alabama, and Virginia, the prospect of expanding the company's capabilities made the purchase of a new 6712DT an easy decision to make.

"In order to complete the projects in a timely and cost-effective manner for my client, I knew I needed the power and versatility of the 6712DT," Grant said.

Grant was excited to purchase a rig allowing him to keep GVWR under 26,000 lbs.

6712DT Power for PFAs Investigation

He's been pleased with the power of the machine on such a light platform. Grant recently used his 6712DT to investigate sites where the environment has been impacted by PFAS. The consulting firm identified the main areas of concern, and then Grant collected soil and groundwater samples to determine the extent of contamination.

"Everything has to be clean and you're constantly changing out gloves. You have to be very detail oriented and realize that many products we use or wear may have PFAS in it – you need to be very aware of cross contamination," Grant said.

With the new 6712DT, Grant kept or exceeded scheduling expectations on each site.

"The winch and portable rod clamp have saved me so much time and effort. I may not use them on a daily basis but when you need them, they become invaluable," Grant said.

"With the track rig I can get into tight spaces I can't reach with the truck, like wet areas and wooded areas. The rubber tracks allow me to use it on any surface."

Not only did the 6712DT afford great success on each PFAS site, but it has also expanded service offerings for their direct push clients.

Adding the 6712DT has provided capability to install 2-inch prepack well screens.

"The power on the machine has opened up a whole new market installing 2-inch prepack well screens. I can take on deeper, harder drilling projects and complete them quickly and cost efficiently," Grant said. "I'm now drilling sites for my clients that I previously would not have been hired to drill because of the geological subsurface site conditions."



Leveraging the power and versatility of the 6712DT to complete a multi-state PFAS investigation.

Genuine Geoprobe® Tooling Advantage

For his work Grant relies on the longevity of Genuine Geoprobe® tooling, noting how far it has come from when he started in the mid-90s.

"Geoprobe® tooling lasts longer than any other brand I have ever used," Grant said. "They are always innovating and coming out with new products such as the DT22 detent drive head – it's so much faster and easier."

Southeast Service Center Assistance

When it comes to equipping his business, Grant knows he can depend on Geoprobe® even when things don't go quite right. The main feed ram cylinder was leaking on his 6712DT, requiring warranty work at the Southeast Service Center – a repair he was initially told would take a day and a half.

"I dropped it off Wednesday morning and they called at 11:30 a.m. that same day. Not only did they complete the warranty work, they diagnosed and found another issue with an O-ring to my hammer and resolved it as well," Grant said. "They felt bad I was having problems with the machine and put everyone on it to solve the problem. They saved me time and money with travel and food costs, and not having an extra night in the hotel."

Contact Geoprobe® for PFAS Sampling Tools

NEW GW Screen Point Latching Samplers: Isolate Sampler to Assure Integrity

Improving field performance, particularly when sampling for PFAS, Geoprobe® has developed groundwater screen point (SP) latching samplers. These enhancements to the time-tested Geoprobe® SP groundwater sampling system provide a secure seal within the zone you're pumping, allowing you to use a mechanical bladder pump or other sample line to obtain a higher-quality sample. Options available in three sizes, including the NEW SP19 (see page 16).

Latching SP16

The latching sampler allows the user to connect a pump, or other sample line, directly to the top of the downhole SP sampler. This isolates the SP sampler from water in the rod string above the sampler, thereby assuring sample integrity.

Latching SP19

The NEW SP19 with a modified drive head has 59% more area included in the sheath head making it stronger and more durable. Utilizing the latching sampler, connect a pump or other sample line directly to the top of the SP19, isolating the SP19 from water in the rod string above to assure sample integrity.

Isolated SP22

Saving time when doing a lot of testing, the isolated SP22 securely holds the mechanical syringe pump or mechanical bladder pump, sealing the outer string.



GW Screen Point Latching Sampler and SP16

NEW

OIP Refines Conceptual Site Model In Brazil

Contributed by Mateus Evald, Finkler Ambiental, São Paulo, Brazil

One of the most important factors for the success of remediation activities is the knowledge of the subsurface characteristics.

FINKLER AMBIENTAL, a company based in Vinhedo in the state of São Paulo, Brazil, is using high resolution tools such as Membrane Interface Hydraulic Profiling Tool (MiHPT) and Optical Image Profiler (OIP) to provide more complete data for the characterization of complex sites. A feedback and research relationship with the Geoprobe® research and development team is maintained to improve the application of these tools in an environment with the much different geotechnical characteristics found in Brazil.

In one project, a well-known site underwent a high-resolution pilot project. The site is a storage plant for different fuels and has more than 300 monitoring wells. Despite many years of characterization, remediation, and pressure from the local environmental regulatory agency, there were uncertainties in its conceptual site model about the source and state of the recurrent free phase product.

One area of interest was selected for a pilot project to demonstrate the capabilities of the OIP and HPT systems. Nine OIP logs and one HPT log were completed to identify subsurface characteristics to determine target areas of future remediation efforts.

Once the logs were completed, a confining low-permeability layer was characterized. This zone is placed among two layers with higher permeability values. Even though this low-permeability layer was visually similar to its surroundings, its permeability was lower than the other two. The previous works conducted in the site described the layers as homogeneous and did not detect its lower permeability properties.

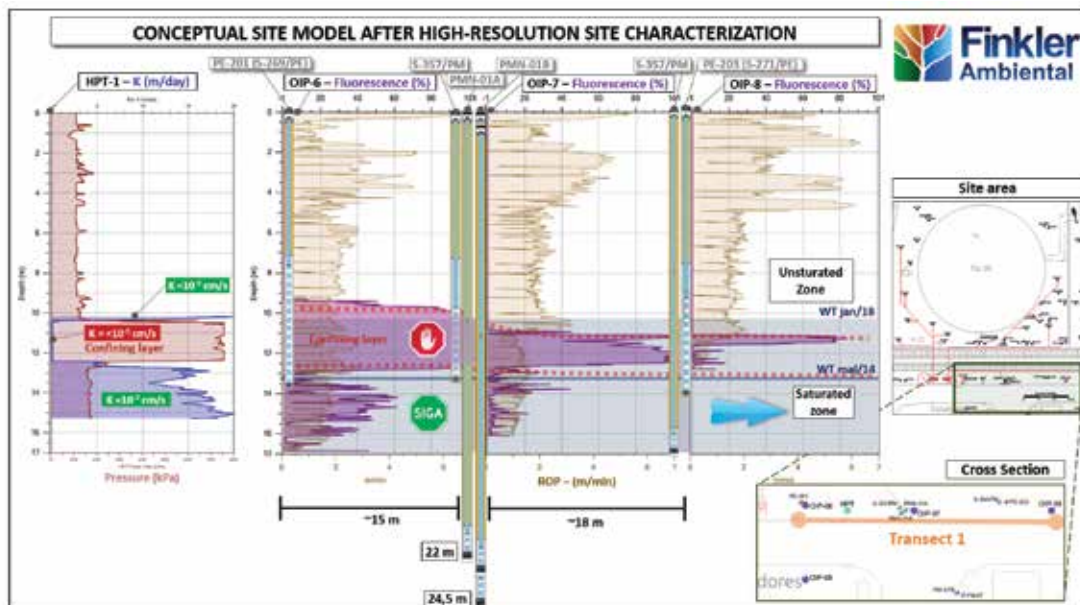
Historically, the monitoring wells were placed above or below this layer, thus creating high pumping rates of water but low oil recovery rate. Therefore, the remediation efforts were never conclusive until this point.

“Once there is a clear understanding and interpretation of the results it is possible to optimize the remediation efforts. The client did not know the technologies, OIP and HPT, but after the concluding results of the pilot project the whole area will undergo a high-resolution approach for future work. There won't be any other installation of wells or sampling campaigns before more high-resolution work is done,” said Cesar Malta, Finkler high-resolution investigations manager.

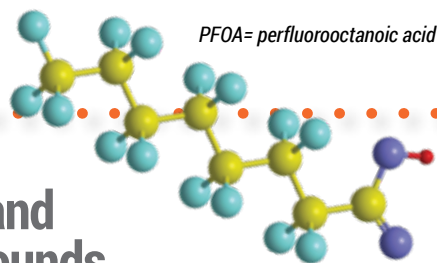
Despite the limited number of OIP and HPT logs, there was a great acceptance by the client and local environmental agency once the information was gathered and the results presented. These tools bring more agility and precision to current and future remediation efforts.



Finkler Ambiental uses their Geoprobe® 6712DT in conjunction with Direct Image® MiHPT and OIP systems at a project site that serves as a storage plant for various fuels with more than 300 monitoring wells.



Left: Conceptual Site Model after High Resolution Site Characterization. The figure shows the combination of HPT (brown) and OIP (purple) data emphasizing the identification of a confining layer. This confining layer (shown in red signs) controls the fate and storage of contaminants in the site.

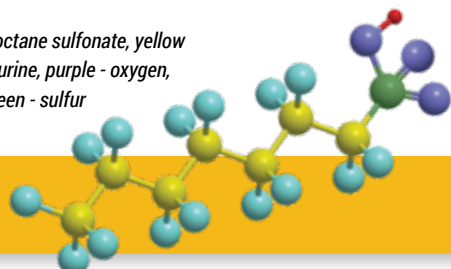


Geoprobe® Groundwater Sampling Tools and Liners Tested Nondetect for PFAS Compounds

Geoprobe® tested groundwater sampling tools and systems, including the Hydraulic Profiling Tool (HPT) system, the 175GWP groundwater profiling system, the Screenpoint16 (SP16) and Screenpoint22 (SP22) groundwater samplers, and the prepacked screens used in many direct push installed monitoring wells. All of the systems tested were found to be nondetect for each of the 36 PFAS compounds on the Wisconsin PFAS analyte list. PFAS Technical Bulletins providing a detailed review of the equipment tested, procedures used, and lab report can be downloaded from our website.

Geoprobe® also submitted samples of our clear PVC soil liners, to Jennifer Field, Ph.D., at Oregon State University and her research team. Field's team analyzed the Geoprobe® soil liners for 52 PFAS compounds, including PFOS and PFOA. The PVC liners tested nondetect for all 52 compounds. The research concluded that field sampling materials are an unlikely source of contamination for Perfluoroalkyl and Polyfluoroalkyl substances in field samples.

PFOS = perfluorooctane sulfonate, yellow
- carbon, teal - fluorine, purple - oxygen,
red - hydrogen, green - sulfur



LEARN MORE:
about results of PFAS compound testing.

geoprobe.com/pfas

'Old Faithful' of Drill Rigs

Geoprobe® continues to grow and adapt to customers demands for different machine needs and applications throughout the years. However, the original essence of the “Geoprobe way” lives on through the 6712DT as a truly multi-functional rig on a small platform.

The 6712DT ought to be named “Old Faithful” as it has proven itself to be one of our most productive and trustworthy rigs. I am always impressed as I hear what types of projects guys are able to complete with the 6712DT. Day-in and day-out, you can count on this machine to perform!



Adam McMath,
Sales

RIG HIGHLIGHTS INCLUDE:

- GH60 series hammer and GA2500 rotary head.
- Heavy duty tracks plus a rear blade for tooling transport.
- Straight forward control panel layout. Great for new operators!
- Simplistic hydraulic design and ease of access to key components for service or maintenance.
- Options for an SPT drop hammer, mast & winch, pumps, and more!



High Resolution Business Takes Flight

At 18, Frank Stolfi joined the marines as a helicopter gunner on a CH46, learning everything about flying and repairing a helicopter.

"We're basically a flying mechanic but also manned the gun," Stolfi said.

Through two deployments – to the Middle East and to Somalia – Stolfi also learned he can go further than his initial instincts.

"I never tell myself I can't do or learn something. I went back to college in my mid-30s for computer programming with four kids, going to school at night," Stolfi said. "Everything you do in life is a learning opportunity. You should never feel something is too minimal for you."

As he was finishing his stint in the Marines, Stolfi's staff sergeant asked if he wanted a job, launching his drilling career in 1996. Within 10 years he was building the company's Membrane Interface Probe (MIP) program doing presentations and corings, which snowballed into doing lots of MIP out of the Maryland, Colorado, and California offices. After 20 years, the company was purchased and rather than stay with a larger organization, he moved to a different company. Two years later this second drilling company was purchased by a larger corporation.

"I didn't like the increased corporate culture of the company," Stolfi said. "My wife and I were going to leave California, but I wanted to try and build by own company. So in November 2019 I started **VETERAN DRILLING**, beginning fieldwork in April 2020."

Building the Dream

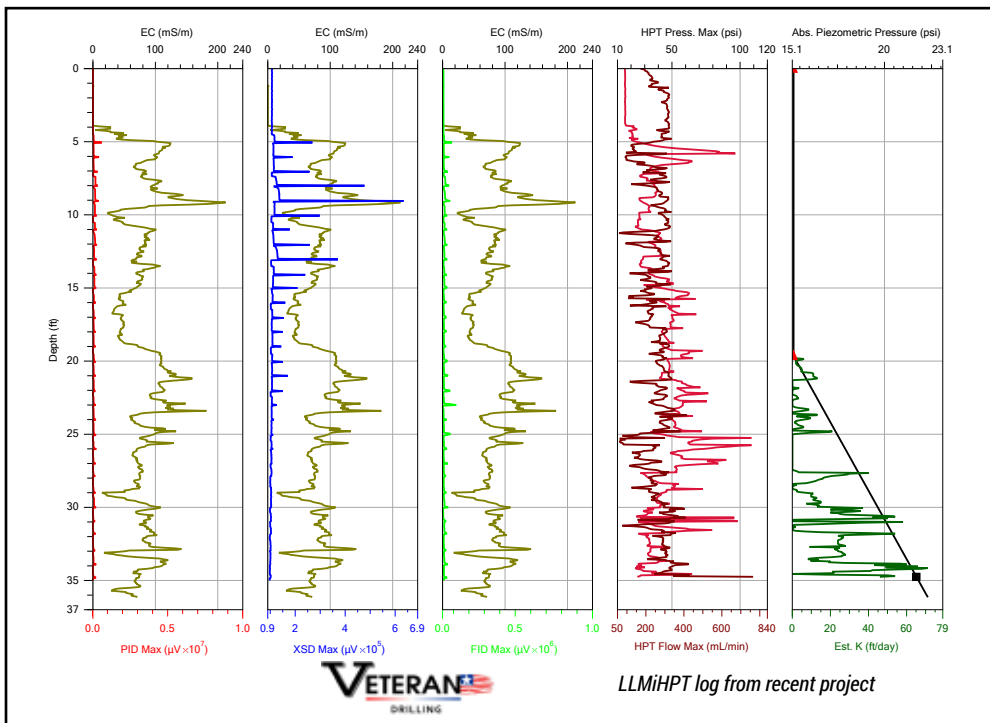
Leaning on the can-do lessons of his Marine training and the small-company culture he cherished during his first drilling job, Stolfi focuses on his biggest asset – his employees Randy Lopez, Bruce Ashmore, and his son Frankie Stolfi.

"You need quality people willing to wake up at 4 a.m. and put in 12-13 hour days," Stolfi said. "I'm going to take care of a handful of guys who go above and beyond to build a company. I want it to be 'our' company and be a job they enjoy and feel like they have skin in the game. Clients can see when a guy enjoys the work. With employees, if you take care of them, they'll take care of you."

His 25 years in the industry have led him to focus on California high resolution business using the gamut of Geoprobe® Direct Image® tools – Membrane Interface Hydraulic Profiling Tool (MiHPT), Low Level Membrane Interface Probe (LL MIP), Cone Penetration Testing (CPT), and Groundwater Profiler.

"Looking at the industry, you can make a lot of money being diverse with your technologies. You can also go through a lot of money and run into problems of having capital to grow," Stolfi said. "I'm going to focus on one aspect so when people in California think high resolution they think of us."

Collecting the data, Stolfi develops a model to show clients how and where the contamination is moving. He tries to help clients understand the advantages of high-resolution logging and finds during the past two decades it has become more accepted.



"Clients now have a better understanding of what high resolution data can provide, so they're more willing to expand their approach to data collection in order to save money on remediation. Ultimately, regulators drive the industry and are now strongly encouraging in situ testing," Stolfi said. "Clients are willing to pay for a guy with a lot of understanding of technology working with them as a team versus as a vendor. I can provide insight from extensive experience."

In an industry that started data collection by auger sampling every five feet, using the Geoprobe® suite of Direct Image® tools he efficiently collects continuous data without cuttings to gain a thorough understanding of the subsurface.

"As I did MIP work, I saw the industry grow. What people realized was you can train people to understand how to push buttons in the right order, but it's another thing to understand what the data is telling us or what is going wrong," Stolfi said. "So many people got out of high resolution. But what I like to do and enjoy doing is helping clients understand what the data means."

Pushing Ahead

To be the most value to his clients and relying on his personal drive to keep looking forward, Stolfi uses Geoprobe® Direct Image® combination logging tools like CPT with MiHPT to efficiently gather the most pertinent information.

"Electrical Conductivity (EC) varies on what site you're on, it's really site specific. CPT consistently logs soil behavior type versus just looking at EC of it," Stolfi said. "I use combination logging tools to identify contamination relative to lithology. MIP gets chemical, HPT porosity, and CPT soil behavior type. In undisturbed sandy, dense clay, dry clay you get more information in one advancement."

On a job in Anaheim, California, they pushed MIP to 100-foot plus to identify a small transmissive zone – just a couple of feet – where contamination was migrating through.

"MIP found exactly where the contamination was coming from. We could do a handful of probes to determine where contamination may be, then can do a strategic approach to soil and groundwater sampling to determine how much is there," Stolfi said. "MIP identifies the target area versus guessing where it might be. It's changed the industry and how sites are assessed. Clients may have no idea where the trickle of TCE they're still getting in the well is coming from or may kind of know. MIP really helps narrow down where."

On a job close to the beach, he encountered coarse material where contamination was moving across the city. In order to understand what elevation the contamination was mobilizing, he chose the Geoprobe® Groundwater Profiler.

"The client liked the idea of technology but because of coarse, homogeneous material was concerned about cross contamination," Stolfi said. "Using the profiler continuously presented no risk of cross contamination versus interval samples and provided a really good representation of the groundwater."

As Stolfi continues building his business, he relies on Geoprobe® Direct Image® tooling to collect the high density of data because "they are the best at what they do." He credits Geoprobe® for fewer problems and less downtime during the past 15 years, which means more productivity for his start-up.

"I'm in business to have a good life and enjoy where I work," Stolfi said. "Hopefully in the future I can hire more veterans. We're definitely a different breed, especially Marines. I want to give them somewhere they can work, where they can be themselves and don't have to feel pressure to be perfect."



Bruce Ashmore joined Veteran Drilling December 2020. When not working and fabricating for owner Frank Stolfi, he's racing dirt bikes every weekend at age 62.



NEW
36mm x 1m
CPT Rod:
Save
Time

FASTER IN THE FIELD: Geoprobe® manufactured industry standard "premium" CPT rods come in 1 meter lengths and feature a rope thread minimizing the number of rotations required to connect a joint.

CONVENIENT WHEN CASING: The convenient size fits inside the Geoprobe® 2.25-inch rod often used as a conductor casing when pushing CPT in loose soils.



Rigs for Efficient CPT Production

Mike Basha, operations manager, with **TERRACON** in South Carolina, preferred running another manufacturer's rigs for 20-plus years. At least until he ran the Geoprobe® 20CPT Press mounted to the 6712DT (6712CPT).

"I'd been talking with Geoprobe® CPT guys for many years, and they finally built a rig that would suit my needs – production oriented, place to mount electronics permanently, and a place to carry rods without using the rack," Basha said. "The big draw was the service department – if I have an issue, I can talk to someone well versed with the machine and get back up and running."

Providing Basha quick answers to service questions and quick access to parts pushed him to try the 6712CPT. Its abilities have exceeded his expectations.

"I like the power and it anchors fast," Basha said. "Saves time putting in anchors, allowing us to get more footage, which is what it's all about."

The lightweight 6712DT has a low ground pressure, meaning it doesn't get stuck easily. The ability to easily mobilize is a plus in Basha's book.

"I've had it climbing stairs, driving up concrete stairs on the outside of a building," Basha said. "Can pick it up with a front end loader to put it in a building or over a barrier."

Basha also utilizes a 20CPT Press on a skid steer, appreciating the ease of detaching the CPT press to put other attachments onto the skid steer to outfit the skid steer to serve multiple functions.

"Occasionally on some sites I don't have to subcontract to clear the way for the rig. Just put on the attachments to clear a path then do the work with one rig," Basha said.

He finds the 20CPT Press on skid steer preferable for solar farms with their test locations spread so far apart.

"The skid steer is fast, but track mounted, so can go off road into agricultural fields where most solar farms are located," Basha said.

What continues to impress Basha is the support from Geoprobe® CPT experts and service technicians.

"I can't overstate it – Troy Schmidt is amazing to deal with. He answers quickly. If there's something I don't like or that wears out faster than I think it should, the team dives into it to figure out a solution to save me money and downtime. Generally we can figure out problems in the field so don't have to shut down. I can fix it on the spot if I don't need a part. You can't put a price on that," Basha said.

"Geoprobe® is open to listening and taking my advice – cause I'm working with the machine every day – to make work more efficient, which is the name of the game."

Need a Rental Machine?

From time-to-time you may find yourself with more work than rigs in your fleet. Or perhaps you have a rig in for repairs. Whatever the reason, we'll do our best to keep you on track with a rental. From grout pumps to sonic rigs, availability is first-come, first-serve and reserved for our track-mounted and limited access units – like our 20CPT Press on skid steer.

CALL GEOPROBE®:

with your new equipment rental questions.



785-825-1842

Numerous Advantages to 20CPT Press

Companies seeking a dedicated CPT platform have flexibility to choose their carrier when selecting a 20CPT Press. Tailor the rig to your business model by choosing to mount the press on a 6712DT or skid steer. Either option provides power and performance to succeed in pushing CPT in the field.

20CPT PRESS MOUNTED ON 6712DT

- 6712DT with proven power and performance
- 3-speed wireless track drive control for reasonable relocating to the next hole
- Ample storage options on the rear blade and side rails for rods, electronics, and tools
- CPT ready with storage for cone tools and standard feed/retraction controller for performing CPT pushes

20CPT PRESS MOUNTED ON SKID STEER

- Cost effective "start-up" 20-ton press for doing cone penetration testing
- Flexible and expandable – can be installed then removed in two minutes to carry on other task
- Versatile and mobile for remote applications with reasonable relocating to next hole
- Simple setup, operation, and front drop rack for rods makes it easy for one person to learn and operate
- Integrated anchoring for rapid deployment with option of additional anchor extension
- Feed and retraction control and two hydraulic clamps, one for pushing and one for rod catching
- Hydraulic leveling jacks and fold features using bucket function of skid steer to aid in leveling



Troy Schmidt,
 CPT Specialist

WATCH 20CPT PRESS:

See versatility of 20CPT Press on skid steer or 6712DT.



geoprobe.com/20CPT

Profit Boosting Water Wells

With an affinity for big machines and a legacy of work in oil fields, Lance Gleich and brother Clayton began **LG DRILLING** six years ago. The past couple of years brought rapid growth — from one rig to three and from two employees to six.

"We've experienced success thanks to reliable employees," Lance said. "The market is growing quickly near Interstate 25 and 80 where we're located. Our competition is older and unwilling to put in 12-16 hour days, so that helps."

With business booming they were ready to replace their 70-year-old rig. Having run **DRILLMAX®** rigs in the past, driller Wade Weaver suggested if they were going to spend the money they should check them out. Drawn to the **DRILLMAX® DM450** for its simplicity, they've since discovered numerous other benefits.

"It's safer with lots of hands-free capabilities so not spinning pipe by hand," Wade said. "You're pulling levers versus having hands on parts. It's quieter and virtually maintenance free."

Clayton sees this as a benefit to the operator.

"We're not beating guys up and not beating equipment up thanks to the hydraulics and fewer moving parts," Clayton said. "It requires less physical labor so we're not as worn out and tired at the end of the day. It's much safer."

The rig's ease and efficiency have also benefitted their production rate.

"The tophead drive has enabled us to cut out a full day off of well installation," Clayton said. "It's really efficient."

The business boost is quickly offsetting the cost of a new rig.

"Overall we've had a profit jump. We took on a payment, but increased production saves 52 days a year, so we can drill another five to six holes per year," Lance said.

Wade sees the improvements in the new **DRILLMAX®** compared to the legacy one he'd run previously to complete 10-14 inch holes 500-feet deep for cathodic protection, doing a lot of mud rotary and air percussion.

"I like this rig because they improved a lot of things, beefed things up — sandline, winch line, top of derrick, motor for winch — just improved a lot of little things," Wade said. **"The table design, improved pulley system, improved rod loader — overall it's a pretty handy rig."**

Legacy DRILLMAX® Owner Chooses New DM250 for Next 125 Years

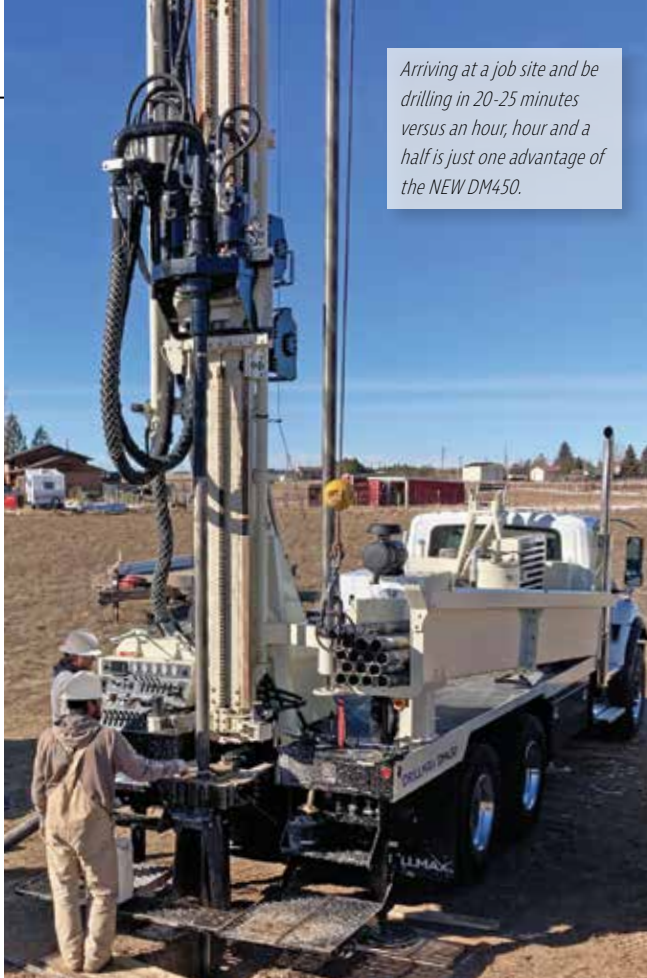
In business for more than 125 years, **PARTRIDGE WELL DRILLING COMPANY INC** is in it for the long haul, serving Northeast Florida completing residential, monitoring, and municipal wells. Giving customers the best product possible and keeping them pleased rests on a fleet of six to eight rigs running daily. For six generations of Partridge family members, they've come to depend on **DRILLMAX®**. So when it came time to upgrade an aging 2004 model, they didn't look too far.

"That rig did 90 percent of our work, so we wanted to keep the same footprint," Lance Partridge, partner, said. "We briefly considered others, but they couldn't compare. They didn't have the features and muscle that the **DM250** has."

With the new **DM250** they found the footprint they sought, but a much-improved drill rig overall.

"The new DM250 is similar but much different in all the best possible ways. You can definitely see the improvement just by looking at it — from fit, finish, and design details — let alone running it. It's faster and stronger than the previous model," Partridge said.

For Partridge, the impressive tophead speed is complimented by a host of features for easier operation and maintenance. The control panel set up and helper controls on the passenger side for the rod loader makes the rig user friendly. Smoother rollers on the mast require less maintenance and repair. The plumbing



Arriving at a job site and be drilling in 20-25 minutes versus an hour, hour and a half is just one advantage of the **NEW DM450**.

Once they arrive on the job site they feel more professional and confident in their ability to quickly complete the work.

"We can pull up to a job site and be drilling in 20-25 minutes versus an hour, hour and half with the older rig," Lance said.

Clayton believes the rig will drill through anything they put it on in Wyoming.

"There's no downtime between drilling, chasing, grouting. With the other rig it's 20 minutes to set up for different aspects of the job," Clayton said.

And with the new rig Wade feels confident taking on more challenging work.

"We can do more mountain work because we can run air percussion," Wade said. "The tophead is drill bit friendly. With the older rigs we couldn't run certain style bits without tearing them up, but we can use them with this rig."

When it comes down to it, it's the customer service that has impressed them the most.

"With our old rig we couldn't just call in and ask what part number I need," Clayton said. **"DRILLMAX®** even has a book that lists parts. They have everything."



With a similar footprint, the new **DM250** is faster and stronger than previous models.

and valves on the mud pump make it easier to operate while also lasting longer without as much maintenance.

"The centrifugal pump means we can drill out of a tub rather than in a pit like we used to. This saves time, money, and energy. It keeps the site cleaner and we don't have to haul a tractor to dig the pit," Partridge said. **"It's increased production efficiency — faster, cleaner, safer."**

With their oldest **DRILLMAX®** rig approaching 21 years old, Partridge knows he can rely on excellent customer service when they need parts or repairs.

"There's no problem getting parts. Simply pick-up the phone to call and get parts immediately," Partridge said. **"DRILLMAX®** makes a good quality product that lasts a long, long time."



DRILLMAX® rigs offer a long list of options in order to tailor the rig to your geography and business needs. **NEW** options released during the April 22 Open House:



DM250 outfitted with carousel, centralizer tray, 4X3 centrifugal pump, and 125 CFM compressor

DM250:

OPTIONAL CAROUSEL AND SMALL ROD BOX

Carry eight, 3-inch rods with additional five in box

ON-BOARD GROUT MIXER



DM450:

OPTIONAL CAROUSEL AND ROD BOX

Carry 240-feet of 3.5-inch rods with additional 300 feet in box, using winch and jib to back feed carousel. Head shifts left or right before it reaches the top.

MUD CLEANING SYSTEM

When ready to talk through best options for your needs, contact our product experts:



Donnie Wood
352-854-1566
woodd@drillmaxrigs.com



Dillon Sickler
484-467-1587
sicklerd@drillmaxrigs.com

For more information on drill rigs and tooling for water well, geothermal, cathodic protection and dewatering wells visit our website:

DRILLMAX®

drillmaxrigs.com

Versatility of Geoprobe® tooling and support of Team Geoprobe® provides key to success on environmental investigation.



Tooling Spells Sampling Success

Environmental consultants and engineers seek out **ODYSSEY ENVIRONMENTAL SERVICES INC.** for diverse projects, including petroleum retail, property transfers, brownfields, industrial manufacturing, highway work, and dry cleaning sites with the occasional residential site. Building the business in Pennsylvania during the past 16 years, they've seen the industry and its equipment mature.

"Odyssey evolves with the client's needs and their demands. The mindset used to be a lot of production work, get the job done as fast as you can, and move on to the next. Over time the thought process and industry has changed to the collection of good, solid data and relying on safety as the upmost importance," Jason Miller, vice president and co-owner, said. "Geoprobe® has done a great job developing machines that do both."

Relying predominantly on Geoprobe® to specialize in soil and groundwater remediation services, Miller reminisces regarding the development of the product lines.

"The Geoprobe® industry has completely evolved over the years since the early days with a 420U out of the back of a van to what it is today. Then with the Geoprobe® R&D program, it has taken machines and tooling a step higher year-after-year. Geoprobe® has provided us with the ability to provide clients turnkey service – soil and groundwater sampling, installing wells with augers and mud, to running air rotary into rock to obtain groundwater and set monitoring wells," Miller said. "This allows us to serve our clients' needs with their diverse projects.

The new and larger machines with options have allowed us to use one machine for the entire project as where years ago we needed two machines, if not three sometimes, to complete a project. Also running a Geoprobe® has reduced the rig footprint size."

Relying on Geoprobe® goes beyond just equipment. Prepping for a job on a former manufactured gas plant site, Miller formulated a plan to run multiple tooling strings to case off certain formations to prevent cross contamination between aquifers as required by the Department of Environment. With the methodology he was considering, he anticipated requesting Geoprobe® manufacture a special shoe or retrofit an existing shoe.

"I called Vic and asked him his thoughts and what to do to make this work. Instead of retrofitting or manufacturing something special, we just jumped up a rod size. He helped us put together the right tool strings and the right shoes to complete this project," Miller said. "Geoprobe® provides phenomenal support. Vic and Geoprobe® have the resources to provide unlimited support. With Geoprobe® we can extend our network of resources to gain ideas with no conflict of interest to help figure out how to get specialty jobs done."

The job in Washington D.C. ran on schedule even as additional scope of work, labor, and equipment was required to collect sample data due to changing subsurface conditions. They pushed approximately 35 feet with the 3.75 rods and then ran DT22 out continuously from 35 to approximately 75 feet. At some locations augers were spun and air rotary drilled to break up concrete pads and construction debris so direct push tooling could be run below. They accomplished the job using just their 7822DT.

"We used the 3.75 rods to seat into the upper clay layer and case off so contamination wouldn't be drawn down into a deeper aquifer, preventing cross contamination when advancing the DT22 50-75 feet to the top of the next clay layer," Miller said. "Silty sand between clay layers may or may not have been contaminated, so when we pulled the inner DT22 tool string, tremie pipe was installed to grout while the tool string was pulled."

While Miller rarely sees the final results on most projects like this, he knows he has a pleased client at the end of the project when they collected quality samples.

"The tooling flexibility and various diameters were key to the project," Miller said. "The versatility of the tooling is incredible. Geoprobe® listens to customers and operators who run the machines everyday to develop new machines, machine options, and tooling."

He attributes open communication with customers for allowing Geoprobe® tooling to advance in the industry.

"Over the years Geoprobe® is always on the leading edge of development to make everything work easier. They keep working on the thread pattern. Now the rope pattern makes tools thread together and break apart much easier," Miller said. "Geoprobe® is proactive toward operator use and ease, making tooling easier for people running the machine and their helpers. It's all based on insight coming from field feedback."



NEW Pricing: DT22 Drive Bumpers

SAVE NEARLY 50%!

In our ongoing effort to provide high-quality products at a fair price, we've reformatted our DT22 Drive Bumpers, saving you money while maintaining field performance.



Genuine Geoprobe® Tools and Consumables

Save time and money with tooling and consumables engineered for ease and durability.

Genuine Tooling

Look for the Geoprobe® logo on genuine expendable points and expendable cutting shoes.



CALL GEOPROBE®:
for a quote to see how we can help your bottom line.

 **785-825-1842**



NEW 3.25 OTE Setup: Faster, Easier Samples

Out-the-end (OTE) SPT has gained favor with drillers and engineers. The ability to collect continuous soil samples more quickly – pushing the casing versus completing traditional geotechnical drive and wash – has created business advantages for companies utilizing the OTE system.

"Under certain soil conditions it (OTE and dual tube) can be twice as fast as drive and wash," said John Clark, general manager SAGE Envirotech Drilling Services. "Twice as much data. Twice as many borings. Twice as much vertical feet in a day, putting us on par with traditional auger rigs and then some."



OTE Sampling with the 7822DT.

For **SAGE ENVIROTECH** in Rhode Island, they were able to complete nearly a year's worth of work in a week, gaining them additional work from very pleased new clients. Similarly, **PLATFORM ENVIRONMENTAL DRILLING AND REMEDIATION** in Vermont impressed a very particular engineer with the ease and effectiveness of OTE sampling.

"He was shocked by how fast we got downhole and how we retrieved a continuous sample from the deeper portion, getting reading inbetween where we would typically be doing split spoon samples," Michael Jordan, owner, said.

Recognizing a preponderance of customers already use 3.25 tooling, Geoprobe® looked to help them expand their market and increase their efficiency doing OTE SPT.

"We're opening the door to those folks to do SPT with just the addition of a few parts to their 3.25 tooling lineup," Kyle Reidel, tools group manager, said.



Kyle Reidel,
Tools Group Manager



Todd Courbot,
Sales

Geoprobe® Tooling Continues to Change Industries

Occasionally, something comes along that totally changes how people do business.

Geoprobe Systems® is one of those companies. Direct push drilling (percussion hammer driven) machines and tools were introduced to the market in 1987. This technology totally changed the way environmental site investigations were done. Geoprobe® machines and tooling offer some unique aspects to them:

- An industry changing product line (DPT Technology Innovation)
- Innovative tools and consumables for environmental site investigations
- They are highly engineered products
- Field tested and proven over time (30 plus years)
- Made site investigations fast, efficient, and cost effective

Today, Geoprobe® continues to add innovative products into other drilling markets such as geotechnical, water well, exploration, geothermal, and environmental. Providing innovative products is what Geoprobe® excels at, including:

- Geoprobe® patented Interlocking Split Spoon for the geotechnical market
- Spring Assisted Swivel Lift Caps for water well, geotechnical, and environmental industries
- DT22 Detent Drive Heads for environmental sampling markets

Geoprobe® is known for taking on tough challenges and providing industry solutions. We are problem solvers. Customer feedback and information is vital to the next generation of products we look to build.

Your partnership with Geoprobe® helps us to provide industry leading products and services such as:

- Research & development of future industry products
- Unmatched customer service for tooling and machines
- Expanding machine service locations
- Market research on emerging contaminants (Example: PFOS)

The next time you need supplies for your job site, service parts for your rig, or technical advice, we encourage you to call us direct here at Geoprobe Systems®. Your support of the Geoprobe® brand product is appreciated!

CALL GEOPROBE®:
with your tooling questions or needs.

785-825-1842

The sampling system designed to work as one with the 3.25 rods includes the NEW Geoprobe® manufactured AWJ drill rods (see below).

Much lighterweight when compared to 3.75, the tooling system collects quality samples much more quickly when compared to using the 375 OTE system. The tooling system also works better under a smaller class hammer.

"We've tested the system and it works great," Reidel said. "During our testing, comparatively there was less tendency to overfill the sample. We're excited to hear whether customers have the same experience."

ADVANTAGES OF DT325 OTE DRIVEN CASING SPT:

- lightweight
- fast
- provides a continuous sample
- does not require drilling fluid

PARTS REQUIRED TO USE YOUR DT325 TO DO SPT:

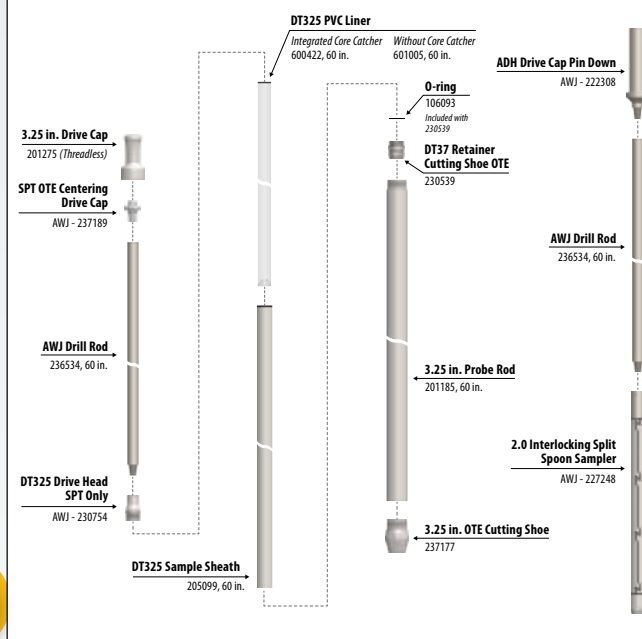
- SPT OTE Centering Drive Cap
- 3.25-inch OTE Cutting Shoe
- DT325 Drive Head SPT Only
- DT37 Retainer Cutting Shoe OTE
- ADH Drive Cap Pin Down
- AWJ Drill Rod
- 2.0 Interlocking Split Spoon Sampler

WATCH OTE SAMPLING:

See how out-the-end sampling increases efficiency.



DT325 OTE Driven Casing SPT



NEW AWJ Rods: Quality Products

Geoprobe® manufactured AWJ drill rods ensure consistent, high-quality parts for geotech drilling with the convenience of one-stop shopping.



- Tool joints designed with rotary and direct push drilling in mind.
- Blunt start threads make it easier and faster to start thread joints by helping align threads and preventing cross threading.

geoprobe.com/OTE





NEW Customer Portal: Facts at Your Fingertips

Our NEW customer portal, Centerpoint Connected, places information at your fingertips with access to your machine and order records. Using the secure portal not only saves you time, but you'll also have the ability to add your own service notes and update contact information. Simplify your day-in, day-out tasks with this tool, providing you details to curb operation costs.

Signing up for portal access puts you on the leading edge of this new tool so you're able to take advantage of additional features added in the future. Simply complete the form at geoprobe.com/CP to receive your temporary password and account access. You'll then be able to create your own password.

Just one more way we're working to provide top service to our customers.

ADVANTAGES OF SIGNING UP FOR CENTERPOINT CONNECTED:

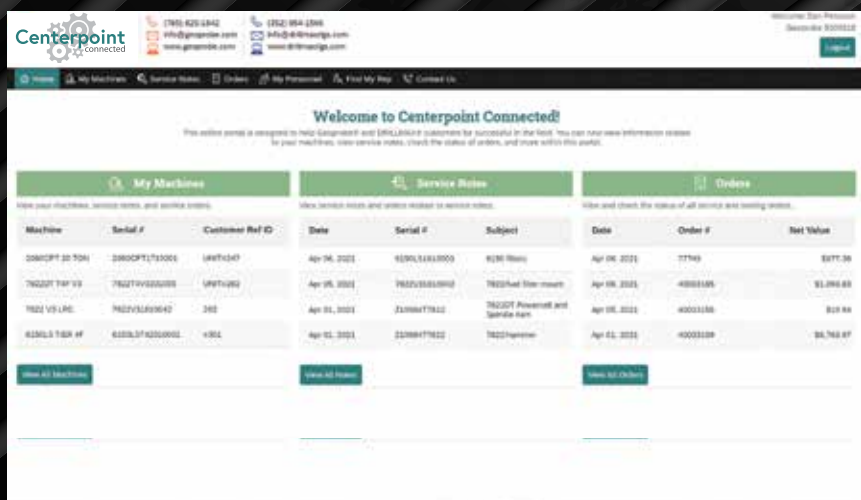
- **Find information and facts – quickly and easily – related to your:**
 - Machine records
 - Service notes
 - Tooling/service orders
- Store your own machine service records
- Be the first to know when new Centerpoint Connected features are added



SIGN UP FOR CUSTOMER PORTAL:
for FREE access to Centerpoint Connected to view your machine and order records.

geoprobe.com/CP

WATCH NEW CENTERPOINT CONNECTED:
See all the advantages of signing up for the NEW customer portal.



Geoprobe® Rigs Never Say Die

Contributed by Dirk Berry, Cisco Geotechnical, Connecticut



Goonie's and old Geoprobe® rigs never say die. The Geoprobe® rigs just need to go back for a factory Repair and Paint from time to time.

Cisco Geotechnical in Connecticut has a fleet of probes from as small as a 54LT all the way up to the 3230DT rigs and from time to time the rigs start to get a little tired and lose some of the reliability they had when brand new. That is when we know its time to send them back home to Salina for a refresh.

The rigs are all maintained regularly but still have a tough life probing in New England. The glacial till geology in Connecticut creates quite a challenge for the probes with a mix of everything from sand and gravel to monster boulders all on the same site.

If the probe has relatively low engine hours, it is usually a candidate for a Repair and Paint. Cisco

Geotechnical recently had a 2011 version one 7822DT go through the process and the operators are thrilled with the outcome. No more phone calls to customer service due to gremlins. The machine looks and performs like it did in when new. The Repair and Paint includes new paint, new wiring harnesses, new slides and hoses, switches, worn valves, and decals replaced. The machine is gone through from top to bottom.

We have a 6620DT running through the same program and can't wait for it to be finished.

The Repair and Paint has a green approach as well. Refreshing an older machine can save on natural resources that would have gone into producing a brand-new unit. We reduced our environmental impact and saved a few green backs.



NEW Service Option: Reduce Costs

In our ongoing effort to provide the best equipment service support in the drilling industry, we've launched a new service option – Repair and Paint. This process significantly decreases

the labor cost because the unit is not torn all the way down and sandblasted and painted. Perhaps more importantly, project time is decreased when compared to a complete Geoprobe® Factory Refurbish, returning your rig to you and the field more quickly.

PROCESS:

- Unit evaluated and worklist agreed upon before work begins.
- Painting happens while the unit is completely assembled.
- Repairs are made to the machine after painting.
- Electrical and hydraulic hoses can still be changed if needed.

FACTORS TO CONSIDER:

- Unit is mechanically sound but needs paint and a few repairs to look good when it shows up in the field.
- Regular maintenance has been done but trying to improve unit appearance.
- When timing is tight, a Repair and Paint typically takes 30 days less than a Geoprobe® Factory Refurbish, depending on timing at the paint shop.
- When budget prohibits doing a complete Geoprobe® Factory Refurbish.

On a 6620DT or 7822DT machine, you will save approximately 25-30 percent from a Geoprobe® Factory Refurbish and sometimes more depending on needed repairs. The final product looks good, is mechanically sound, and ready to return to work when you are.

CALL GEOPROBE®: with questions or if you need assistance.



Darren Stanley,
Service Director

geoprobe.com/CP

785-825-1842



New Service Location: East Coast Service Center



The East Coast Service Center team in front of a drill rig refurbish project.

Providing top rig service is one of nine objectives guiding Geoprobe® / DRILLMAX®. With a reputation within the industry of providing incomparable service, we continually look for ways to take it up a notch. As we move into the next decade, we're seeking ways to make our service technicians and tools more accessible.

To meet this goal, customers along the east coast now have a new location for rig service in Oxford, Pennsylvania. The team of nine service technicians brings extensive experience working on and rebuilding water well and air rotary rigs. We're excited to provide this new service location for our customers. Give us a call to schedule your rig.

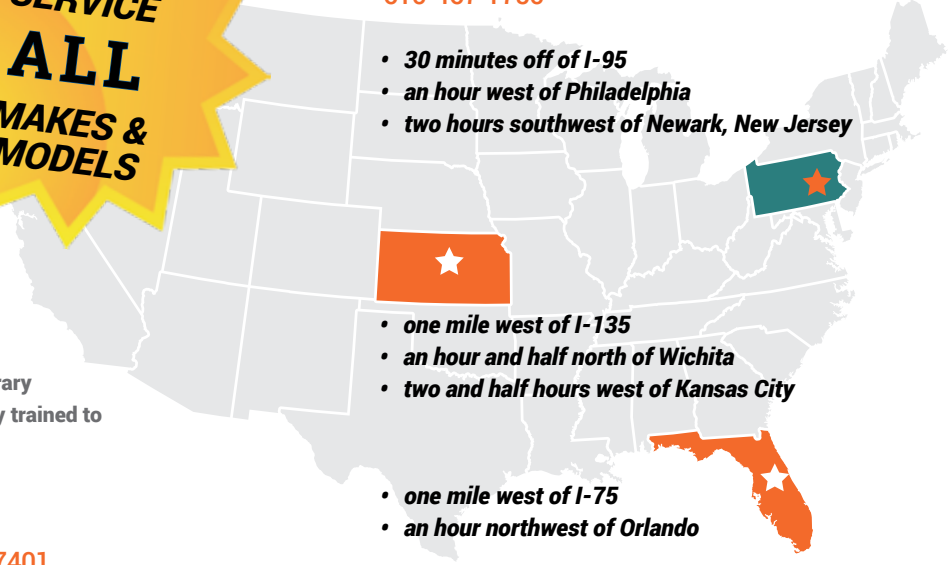
“ I've never experienced service that can even compete with the service I have received at Geoprobe®! Their service department is always happy to help with any questions, give advice on specific repairs, and share tips on how to make things easier! Geoprobe® has set the bar, and set it high!

— Kurt Ballerstein, Supervisor, Trec Environmental, New York



EAST COAST SERVICE CENTER
468 Limestone Rd, Oxford, Pennsylvania, 19363
610-467-1750

- 30 minutes off of I-95
- an hour west of Philadelphia
- two hours southwest of Newark, New Jersey



- one mile west of I-135
- an hour and half north of Wichita
- two and half hours west of Kansas City
- one mile west of I-75
- an hour northwest of Orlando

Multiple Convenient Service Locations

Breakdowns are never convenient, but you can depend on our fully trained and experienced service technicians to service, repair, and restore your drilling rigs – no matter the brand. Our service team is supported by our team of engineers to find the solution to your problems, not just a temporary fix. And with multiple shop locations, choose the one most convenient for you. Call and talk to a live person highly trained to help you with your needs.

SOUTHEAST SERVICE CENTER
5801 SW 6th Place, Ocala, Florida, 34474
352-854-1780

FACTORY SERVICE CENTER
1835 Wall Street, Salina, Kansas, 67401
785-825-1842



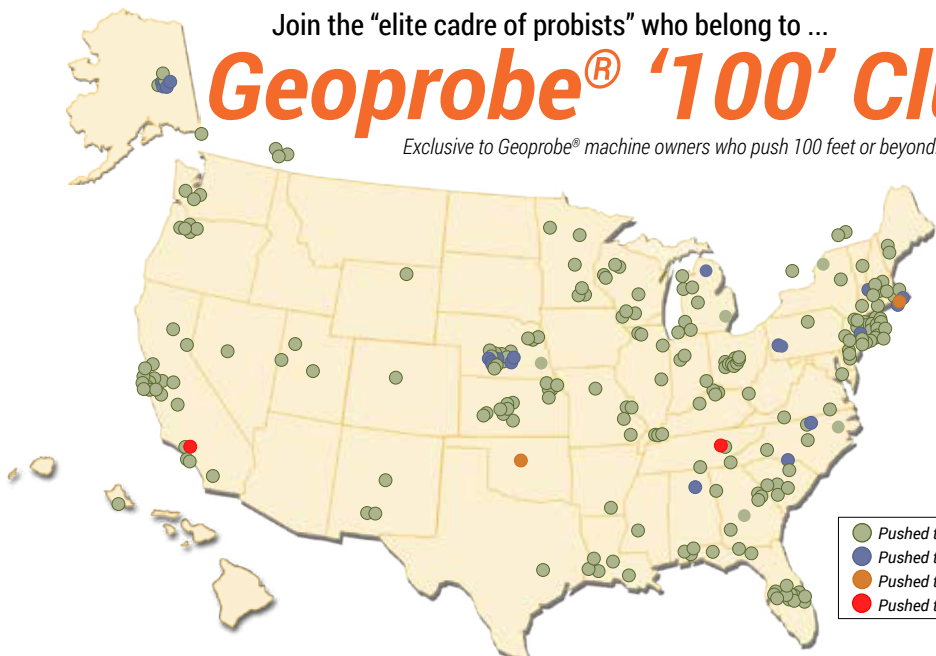
Same Day Shipping

Most replacement and critical parts are kept on the shelves at all times. And if you call before 3 p.m. CT, we can ship most the same day.

Join the "elite cadre of probists" who belong to ...

Geoprobe® '100' Club

Exclusive to Geoprobe® machine owners who push 100 feet or beyond!



109.7 feet

City of Los Angeles - California
Field Team: Daniel Alvarez, Morgan Wang, Johnathan Hartzell, Paull Lee, & Max Pop
Field Site: Reseda, CA
Depth/Date: 109.7 feet / Sep. 1, 2020
Field Data: NOVA CPT, 6600

105 feet
Drillpro LLC - Florida
Field Team: Brendan Shutts & Christian Dodd
Field Site: UCPM landfill
Depth/Date: 105 feet / Sep. 9, 2020
Field Data: SP15 and MC5 borings, 7822DT



100 feet
Geo Lab Drilling - Georgia
Field Team: Tootie Etheridge & Phillip Ricker
Field Site: Rome, GA
Depth/Date: 100 feet / April 27, 2020
Field Data: SPT sampling through 2.25" HSA, 7822DT



285 feet
Drillpro LLC - Florida
Field Team: Sean Nkomo, Billy Moss, & Joel Aponte
Field Site: Ocala, FL
Depth/Date: 285 feet / Sep. 9, 2020
Field Data: 2" SCH 80 monitoring well with 270' of 9 5/8" override casing, 8150LS



110 feet
MLA Geotechnical-Texas
Field Team: Timothy Reed, Duane Clark, Ricky Sullivan, & Shauna Strehler
Field Site: Thrall, TX
Depth/Date: 110 feet / June 28, 2020
Field Data: boring systems, 3100GT



100 feet
Drillpro LLC - Florida
Field Team: Mickey Ritter & Terry Winstead
Field Site: Cape Canaveral Air Force Station
Depth/Date: 100 feet / Nov. 11, 2020
Field Data: SP16 groundwater sampling, 7822DT



156 feet
HAD Inc - Ohio
Field Team: Scott Heiser (pictured), Brandon Hailey & Tony Mizer (not pictured)
Field Site: Genesee, PA
Depth/Date: 156 feet / Sep. 3, 2020
Field Data: 4.25" hollow stem augers to 15' then 4" DTH on 3.5" drill rods to 156' using a 400CFM/200PSI air compressor then set a 2" PVC monitoring well to depth, 7822DT

105 feet
Betts Environmental Recovery Inc - Georgia
Field Team: Joshua Hawke & Palmer Betts
Field Site: Cape Canaveral, FL
Depth/Date: 105 feet / Oct. 30, 2020
Field Data: MC5 with lightweight center rods, 7822DT



125 feet
Strata Earth Services
Field Team: Billy McCarthy, Scott Komen, & Zack Pickering
Field Site: West Loop, Chicago, IL
Depth/Date: 125 feet / June 1, 2020
Field Data: SPT sampling, Vane Shear testing, Pressure Meter testing, & Rock Coring, 7822DT

100 feet
Environmental Works Inc - Missouri
Field Team: Sara Rick
Field Site: Kansas City, KS
Depth/Date: 100 feet / Sep. 1, 2020
Field Data: SP16 groundwater sampling, 7822DT



NEW Geoprobe® Website: Sell Your Used Rig

Providing mobile-friendly access to expanded information, the Geoprobe® website received a fresh look and navigation this spring. Check out all the updated information, including details on all the NEW rig and tooling releases debuted at Open House April 22.

Post Your Used Rig on NEW Website: geoprobe.com/used

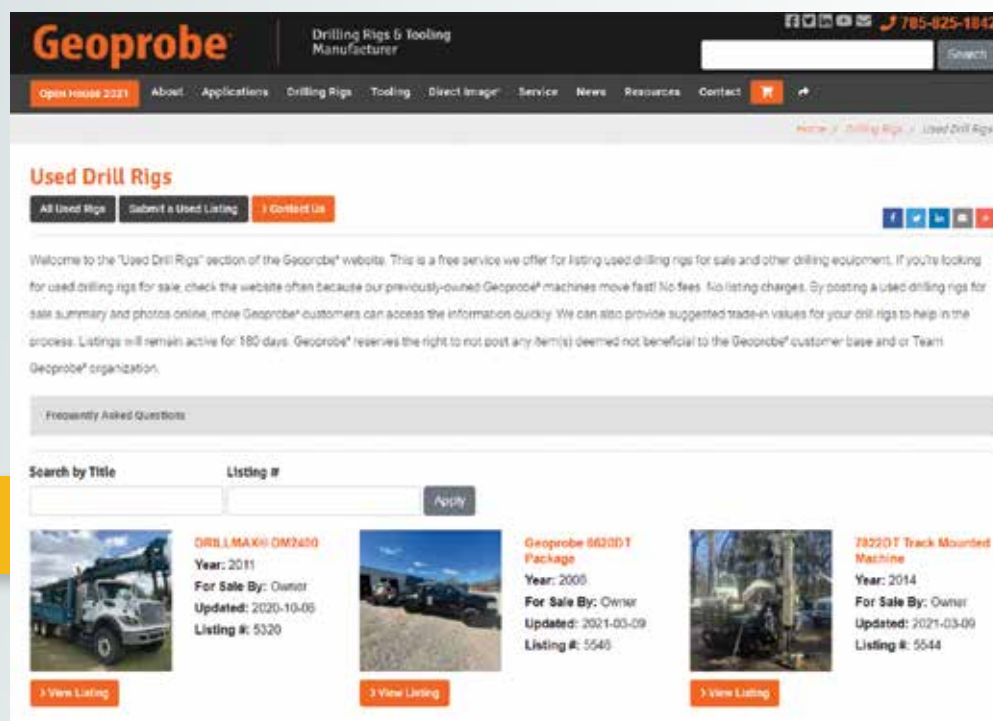
Ready to clear out some older equipment? Let Geoprobe® help by listing your equipment on the Used Drill Rigs page of our website.

Hundreds of pairs of eyes daily – from all over the world – look for used machines and other drilling-related equipment on our website. Check out the site to see all brands and types of equipment listed.

ADD YOUR LISTING:
 for FREE as a service to our customers.

geoprobe.com/used

1. BROWSE USED MACHINE PAGE
2. CLICK: "Add a New Listing"
3. COMPLETE: required information



Greetings from our team at Geoprobe®. We hope your 2021 year is starting off strong.

At Geoprobe® we are active. Very busy. Exceptionally blessed with so much to get done. The goal of *PROBING TIMES* is to give you a glimpse into the life of our customers and a view into the future.

Recently I've appreciated how our collective team continues to work together to live out our company STATEMENT OF OBJECTIVES that were penned by our founders in 1987. These objectives have remained steady for more than 30 years despite many challenges that have come our way; the latest being the turmoil and related uncertainty of the COVID pandemic. It is a blessing to participate on a team that has steady objectives in an ever- changing world. Here are the nine objectives. They are not in order of importance.

- **To produce the best possible soil probing and drilling equipment.**
- **To create a work environment which allows employees to grow in knowledge, capability and market value.**
- **To provide top service, both for sales and repair.**
- **To be an asset to our clients.**
- **To be honest in all our business.**
- **To be a horizontal organization.**
- **To be an organization our employees are proud to work for.**
- **To glorify God in all we do. Restated: To be pleasing to God in all our actions. This is His business.**
- **To have an atmosphere of innovation.**

So why share these objectives today? As I read these objectives they focus me and our team towards what is important. The basics of what we are about. Notice how they point our team outward; focusing on customer needs; challenging our team to do things the right way; striving for excellence. There are many things you will see in this Spring 2021 *PROBING TIMES* that I'm real excited about. As you read, take the time to consider how our latest offerings link with our STATEMENT OF OBJECTIVES. I think you will see the connections.

Thanks for the opportunity to serve you. Be well.

Tom



Tom Oml,
President

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Open House 2021 included field demonstrations of the complete Geoprobe® lineup of rigs, including (from L to R) the NEW 6011DT, 7822DT, 3100GT, and 3126GT.



Innovations Revealed During Open House April 22, 2021

MACHINES

- NEW 3126GT and 3100GT Higher Torque Rotary Head Option
- NEW 3126GT and 3100GT Third Winch Option
- NEW 3126GT Lower Transportation Height Option
- NEW 3100GT on F600 Chassis
- NEW 6011DT Limited Access Rig
- NEW DM450 Options
- NEW DM250 Options

TOOLS

- Improved 3.75 Tooling for Easier Rock Coring
- Improved Sonic Core Catchers
- NEW AWJ Drill Rods
- NEW 325 OTE Tooling Setup
- NEW Mud Pans and Racks
- NEW DT22 Drive Bumper Pricing
- NEW Geoprobe® Seismic CPT
- NEW 36 mm X 1m CPT Rod
- NEW SP19
- NEW GW Screen Point Latching Samplers

SERVICE

- NEW Customer Portal – Centerpoint Connected
- NEW Repair with Paint Service Option
- NEW East Coast Service Center

Learn More Inside!

Stay up-to-date with **Geoprobe®** and **DRILLMAX®**
Follow us on social media!



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For more information on what you have read in this issue, contact us at

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