



# PROBING TIMES

Information for the ENVIRONMENTAL, GEOTECHNICAL, GEOTHERMAL & EXPLORATION Industries

## 3230DT Power, Versatility a winning combination

A new Geoprobe® 3230DT direct drives 6.0-in. casing with a removable solid point prior to installing a 2.0-in. well. During the well installation process, the operator will use numerous features of the rig including the GH70 percussion hammer, the swing-arm control panel, and hydraulic clamp with 80,000 lbf pull force.



# ADT Increases Production With 7822DTs

Aquifer Drilling & Testing, Inc. (ADT) is currently operating between 8-12 crews gathering information to help design bioswales throughout the five boroughs of New York City as part of the City's Green Infrastructure Plan which was developed to better manage stormwater runoff.

New York City, like other older urban centers, is largely serviced by a combined sewer system where stormwater and wastewater are carried through the same pipes. Even though wastewater treatment plants (WWTPs) are designed to treat and disinfect twice dry weather flow, during heavy storms the system can exceed its capacity. When this happens, the system is designed to discharge a mix of stormwater and wastewater – called combined sewer overflow or CSO – into New York Harbor in order to prevent damage to wastewater treatment plants.

Streets and sidewalks, two top contributors to stormwater runoff, make up approximately 27 percent of land in combined sewer drainage areas of the City. They represent a significant



A completed bioswale in New York City. These green gardens ... bioswales ... consist of deep, wide vegetation pits cut into sidewalks and filled with soil and horticulture designed to absorb stormwater. New York City's antiquated combined sewer system is often overwhelmed by rains that dump billions of gallons of untreated sewage into the city's waterways every year.

opportunity to manage stormwater using source controls. Source controls are systems designed to detain or retain stormwater at the source rather than at the end of pipe. In 2010, New York City released the NYC Green Infrastructure Plan, which called for the construction of source controls throughout the City to manage stormwater from impervious surfaces.

New York City's Green Infrastructure Program is a multi-agency effort led by the Department of Environmental Protection (DEP). DEP and agency partners design, construct, and maintain a variety of sustainable green infrastructure practices such as green roofs, rain gardens, and right-of-way bioswales on City-owned property such as streets, sidewalks, schools, and public housing. Green infrastructure promotes the natural movement of water by collecting and managing stormwater runoff from streets, sidewalks, parking lots, and rooftops, and directing it to engineered systems that typically feature soils, stones, and vegetation. This process prevents stormwater runoff from entering the city's sewer systems. DEP is currently building green infrastructure in compliance with NYS De-

partment of Environmental Conservation (DEC) requirements to reduce combined sewer overflow discharges into New York City's waterbodies.

One of the problems ADT encountered early on was being able to set up on locations with limited access. Bill Poupis, Vice President and General Manager for ADT explained: "Parked cars, trees, narrow sidewalks, all posed problems for truck- and even track-mounted drill rigs. Gathering information such as blow counts and soil permeability required employing 'Drive & Wash' technology to drill at these locations." Because of this, ADT modified two of its Geoprobe® 6620DT units with auto hammers and mud swivels allowing them to drive 4-inch casing into the ground while col-



James Corsitto (left), Helper, and Chris Migliore, Driller, run the ADT 7822DT rig. ADT has outfitted their 7822DT with a Side Port Swivel so they can quickly switch from direct push to wet rotary.



ADT added four new Geoprobe® 7822DTs to their fleet for the NYC Green Infrastructure Plan because of their compact size and easy maneuverability. Chris Migliore, ADT Driller, is at the controls of this rig.

**"We've been able to increase our production by almost 50 percent using the Geoprobe 7822DT's outfitted for 'Drive and Wash' drilling. Parked cars, trees, fire hydrants, light poles and narrow sidewalks are easily navigated with these track units. Our crews love them and our clients request them!"**

**William A. Poupis • Vice President / General Manager  
Aquifer Drilling & Testing, Inc. • Minneola, NY**

lecting split spoon samples for blow count information. Moving over at the same location, 4-inch casing was driven into the ground at two different depths to perform permeability testing.

"With the recent purchase of four new 7822DTs," Bill added, "we're able to utilize up to six Geoprobe® crews for this bioswale project enabling faster and easier access to locations that previously required the coordination of blocking parking spots to allow drill rig access."

ADT has provided environmental and geotechnical site services for over 25 years. "Our goal," Bill added, "is to provide our clients with the highest level of service in a safe and cost-effective manner."





(l to r) Robert Albinger and Adam Sweet use a 7822DT at a UST site in Wisconsin.

"Our overall success is dependent on our client's success. This joint effort with Geoprobe® has resulted in a continued business relationship, multiple projects, and jobs for many hard-working employees. How did it go? Amazing!"

Adam Sweet • Vice President, Owner  
Horizon Construction & Exploration • Fredonia, WI



Daniel Fisher (left) and Robert Albinger, Horizon Construction & Exploration, remove the inner drill string to allow an open and cased hole for easy installation of Cathodic Anode.

# How Did It Go? Amazing!

"It's amazing how a project can start off so small and turn into something much larger so quickly!" That was the conversation starter I used as I greeted Lee Shaw from Geoprobe Systems® when he was here in the lovely State of Wisconsin delivering our new Geoprobe® 7822DT. But I'm getting ahead of myself.

When Protanic, Inc. contacted us to assist them in drilling, concrete coring and cutting activities for their Cathodic Systems for the long-lasting protection of their client's underground storage tank site, we had no idea it would result in the volume of business it has. At first we were cautious about spending a lot of money on something we thought would be short lived. But after the first installation project was completed with relatively good success, the obvious question arose ... "How could this be done faster and more efficient while eliminating any environmental concerns, since about 95% of the gas stations had contaminated soils present?"

So that's what Lee and I discussed before he left Wisconsin. He continued the conversation with Geoprobe® engineers when he got back to Kansas. After the initial discussions were over, the task in front of the engineering team boiled down to: **Can large anodes be installed through the DT60 system using a 7822DT and completely remove the complex problem of handling contaminated soils at every one of these stations?**

Within days of Lee being back in Kansas, the Geoprobe® team was hard at work. I called them a week later and said I'd like to get this tested for a job the following week. **Within a few more days I had a whole bunch of tooling sitting on our door step, some of which I had never seen before! Some of it was existing and some of it was custom made, specifically for these projects. We were absolutely floored at the speed at which this was executed by the Geoprobe® team!**

Not only was Protanic amazed at the brand new 7822DT rig that we just showed up with, but also the fact that we had taken the time to work with Team Geoprobe® to develop new tooling just for them.

Comments by: Adam Sweet, Owner  
Horizon Construction & Exploration  
Fredonia, WI

Because of this, we were then able to install anodes in about 30 minutes, from start to completion, as opposed to the HSA auger method with cleanup that took around 2 hours per anode, not to mention that certain sites required larger anodes and 6.25 in. ID augers for installation. **The time savings has been remarkable! We simply cannot describe the full impact this has had, and will continue to have, on our business.**

After owning the 7822DT for only a week, the power, finesse, and the rig's all-around capabilities have just blown us away! We were so impressed with the Geoprobe® team; they even flew up to Wisconsin and spent the day with us on training.

Our overall success is dependent on our client's success. This joint effort with Geoprobe® resulted in a continued business relationship, multiple projects, and jobs for many hard-working employees. When Lee contacted me later to ask, "Well, how did it go?", all I could say was, "Amazing!"

## Benefits From Using Geoprobe® 7822DT:

1. Concrete coring completed with 7822DT and Geoprobe® coring system with a much smaller diameter core required.
2. No need to switch rig over to auger capabilities.
3. Zero contaminated soil handling.
4. Speed at which borehole depth was reached was outstanding.
5. No need to clean augers ... didn't use them.
6. Minimal concrete patching and cleanup.



(above and right) A cathodic anode is installed through the inside diameter of DT60 casing at a UST site. What was thought to be a single-day project with no return business for Horizon Construction and Exploration, has developed into a weekly cathodic anode installation job at various sites in the midwest.





POWER  
TO  
VERSATILE  
DRILLING

# Versatile Power. Simple to Run.

*As a Rig Owner or Operator, what says 'Value' when looking for a new drill rig? Versatility ... Power ... Support ... Brand ... Creature Comforts ... Performance? Check out the 3230DT: We've got'em all covered!*

The 3230DT may be the most versatile machine Geoprobe Systems® has ever designed and manufactured. Big statement, but we think we've got the facts and feedback to back that up.

The Geoprobe® 3230DT is a mid-sized tracked drill rig combining advanced direct push functionality with traditional geotechnical auger rig and high-speed rotary drilling capabilities. All of the features of the 3230DT come together to create a rig that's

efficient as what it does. You may not use all of the functions on every project, but if you need to auger to bedrock and

then do a confirmation core, it's all there ... in one rig. It transitions from direct push to wet rotary drilling in less than five minutes!

But what good is all that if you can't operate the machine? No problem here. This rig is "simple to run" and "very easy to learn," according to Buford Collier, Senior Project Manager for C&S Consulting in Kilgore, TX. He invited a consultant friend over to a jobsite while he was doing some geotechnical drilling. "This guy had never drilled a day in his life," he said. "After I spent about 15 minutes telling him about the controls, he worked with the machine nearly two hours as I called out instructions while I worked with the tooling. It was like a 'play day' for us! It's fun to run."

Fred McKay, Drilling Division Manager for EnviroTek in Tampa, FL, reports that they've increased their capabilities by five times. "We've been going through a formation that's high in clay, phosphates, and limestone. It's compressed and it's dense," Fred said, "But our 3230DT is going right through it." His field team is enjoying the rig. "We got up-to-speed on it really fast; it's easy to use."

"This is a great rig, and we're really pleased," Buford added, "but no one can beat your [Geoprobe®] support! I knew that going in to this machine purchase. I've run other drill rigs in my life, and no one treats us as good as you guys!"

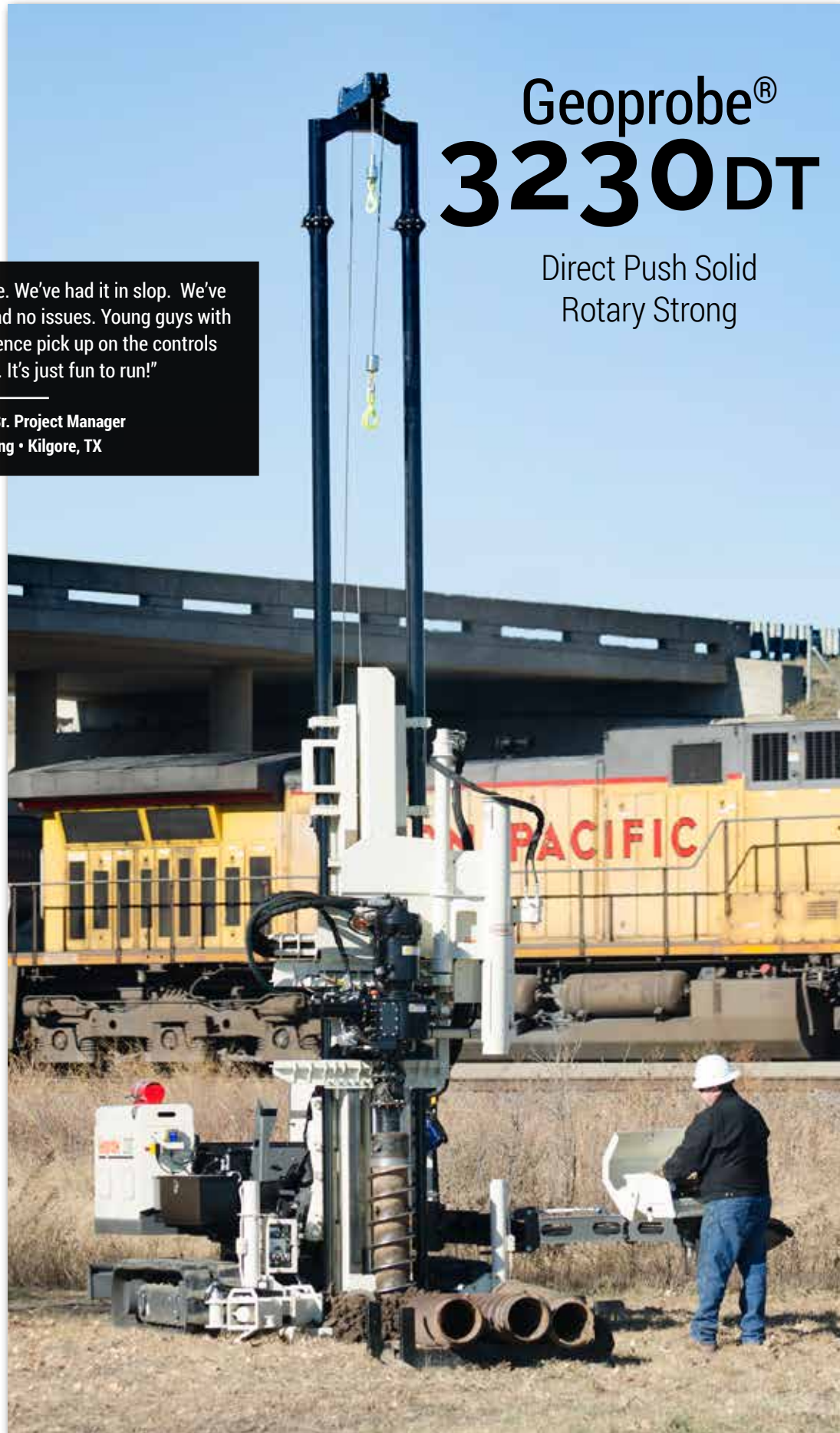
Interested in a demonstration of the 3230DT? Call us today and we'll start planning a road trip!

**"Our 3230DT is so versatile. We've had it in slop. We've had it in rock. And we've had no issues. Young guys with hardly any drilling experience pick up on the controls with no problems. It's just fun to run!"**

**Buford Collier • Sr. Project Manager  
C&S Consulting • Kilgore, TX**

## Geoprobe® 3230DT

Direct Push Solid  
Rotary Strong



**October 7, 2015**  
**3230DT Demo Day**  
**in New Jersey**

(see pg. 16 for details)

**So Many Features.** After running the 3230DT for a short time, you'll be impressed with how easy and conveniently it transitions from driving casing via direct push to wet rotary drilling ... in less than five minutes. The patented CB6 combo head is capable of putting a lot of power into hollow stem augers while also having the control and finesse to run high-speed wireline tools. The telescoping mast, with a maximum height of 23 ft. 10 in., allows for tripping 20-ft. sections of tooling. Oscillation +/- 11 degrees from center means you can easily align the rig over the hole in tight and uneven conditions.





**NEW! Moyno® 3L8 Pump for the 3230DT.** For wet rotary applications requiring more fluid movement, the 3230DT can be equipped with an optional Moyno® 3L8 pump (223766). The kit mounts directly to the 3230DT's frame rail mounting system. Variable flow rate is easily adjusted by the operator at the control panel.

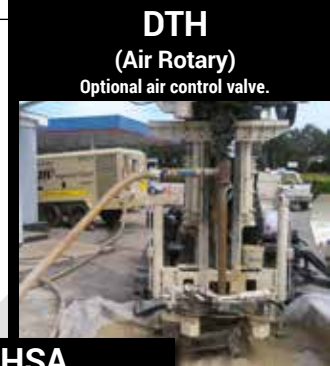


## DT60: Economical System for Direct Push 6-in. Cased Borehole

- Use with 3230DT and 8040DT Rigs
  - 6.0 in. OD Casing
- Collects 4.0 in. Diameter Continuous Cores
- Use to Install 2.0 in. Monitoring Wells
  - Split Sheath (patent pending)
- Layflat Liner System (patent pending)
  - Use With or Without Liner

*Genuine Geoprobe® Tooling is Only Available from Geoprobe Systems®*

view the 3230DT video at [geoprobe.com](http://geoprobe.com)



## Multi-Function Drill Mast

The patented 4-Function CB6 Geoprobe® Combo Head is key to the exceptional performance of the 3230DT. Each function opens up additional services you can offer your customers. Coupled with a 99 hp engine, 50K of downforce, and 80K of pullback, your only response will be ... WOW!

Coming Spring 2016

**NEW! Geoprobe®**  
**3230DT + Truck = 3200**

Mobilization of rigs and tools is an important part of a successful operation. Some customers prefer track rigs while others find truck-mounted rigs a better fit. Coming soon is a new Geoprobe® 3200 truck-mounted combination rig. Same drill mast with all the same 3230DT features. Same impressive power. The 3200 will be powered directly from the truck's diesel engine (increasing useful payload). The truck chassis affords field crews comfort as well as an easy-to-drive automatic transmission. Order now for spring 2016!



Moving Geoprobe® machines is one thing, but that's just the start of what it takes to be successful. Mobilizing the machine, tools, field accessories, consumables, water, sand, cement/bentonite, safety gear, etc. is a bigger challenge. This is an easy and safe way to mobilize to and from projects without the need for a trailer. The truck chassis pictured is equipped with an automatic transmission making it easy for operators to drive. Basic flatbed dimensions: Deck length 21 ft. Dovetail 7 ft. Ramps 7.5 ft.





# 8150LS Full-Size Rotary Sonic

- 50,000 lbf Dynamic Force
- Adjustable Control Panel
  - Side-Shift Drill Mast
- Head Centerline Side-Shift

POWER  
LINE  
SOL  
CE  
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# The 4-Twenty Project

## New Geoprobe® SDT60 Weighted Wire Line System Obtains High-Quality Soil Samples in Less Time

Tim Gallagher, President of Enviroprobe Services in Moorestown, NJ, was recently awarded a project that required a 420-ft soil boring outside of Newark, NJ. Tim was no stranger to Geoprobe® sonic tooling as his crew had already performed several soil borings using the Geoprobe® SDT60 (Sonic Dual Tube system for 6-in. casing). Tim saw the SDT45 Weighted Wireline system (WWL) demonstrated at the Geoprobe® Sonic Field Day in New Jersey last fall, and read about it in the 2015 Spring *Probing Times*, so he asked if Geoprobe® could assist with the project.

Sure enough. The tooling engineers were in the late stages of developing a weighted wireline system for SDT60. "The timing was perfect, and the site conditions couldn't have given us a better test of this new tooling system," Jed Davis, Geoprobe® Tools Engineer, said. "The geology was predominately sedimentary rock throughout the entire 420-ft. boring which made it ideal for the weighted wireline system."

The first 60 feet was mostly unconsolidated so Jason Kuni, Lead Driller for Enviroprobe Services, used a conventional SDT60 system using 2.25-in. center rods. Brian Sweeney and Paul Mancuso were also part of the drilling team. After 60 feet, the formation became more consolidated, so the crew set the 2.25-in. center rods aside and implemented the weighted wireline with the SDT60 system. The crew went on to complete the boring with a total depth of 420 feet, collecting 10-ft. continuous soil cores at each interval. Jed, who was onsite testing the equipment, said, "As the drilling got deeper, the weighted wireline proved its worth." Since the sample barrel and weight assembly are tripped in and out together with only the use of the winch, the speed and efficiency of the system becomes more and more evident the deeper you go. Jed explained: "The winch had a line speed of 130 feet-per-minute, so tripping in and out at, say 250 feet, only took about 2 minutes one way. Just as



Jason Kuni (left), Lead Driller for Enviroprobe Services, and Jed Davis, Geoprobe® Tools Engineer, work at the 420-ft. boring site testing the new Geoprobe® SDT60 (Sonic Dual Tube 6-in. system).

a comparison, it took 14 minutes to trip 250 feet of 2.25-in. center rods out, and in the case of a 4x6 system, it would take about 27 minutes to trip out 250 feet of 4.5-in. rod."

The SDT60 system is extremely versatile since the weighted wireline



**Jed Davis**  
Geoprobe® Tools Engineer

**"The SDT60 WWL is simple to use. It only took one core run for the drill crew to understand the system, and just a few more runs to have it completely mastered. We didn't hit a home run this time; we think it was a grand slam!!"**

**Jed Davis • Geoprobe® Tools Engineer**

option and the 2.25-in. center rods can be used at any point in the boring. The 6-in. casing doesn't have to be pulled, and drilling can proceed with whichever system (WWL or 2.25-in. center rods) the driller thinks is best for his drilling conditions – he can switch back and forth, if needed, depending on the drilling conditions.

According to Jed, the test project was a success. "The tooling system performed flawlessly, and with just a few points of direction, the Enviroprobe Services crew was able to take over and operate this new tooling system on their own with confidence," he said. "It was great to see how well they adapted to it. Everyone at the site was great to work with."

The WWL option for the SDT60 makes a great addition to an already efficient sampling system. The use of the 2.25-in. center rods in the shallower, unconsolidated formation coupled with the WWL at the deeper, more consolidated formations was a great match for this project.

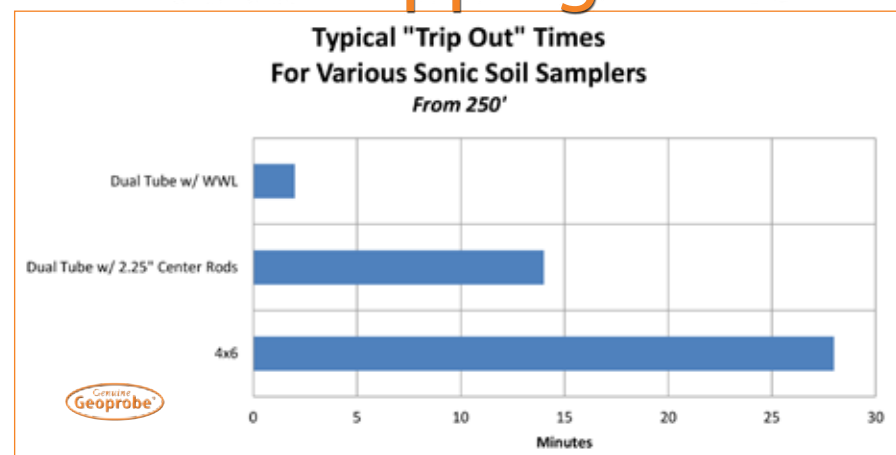
**"We were extremely impressed with the design work that Geoprobe® engineers put into it [6-in. sonic dual tube wireline system]. This wireline system will certainly advance the evolution of sonic drilling, especially for rock coring. The core recovery was, generally, excellent."**

**Tim Gallagher • President**  
Enviroprobe Service, Inc. • Moorestown, NJ

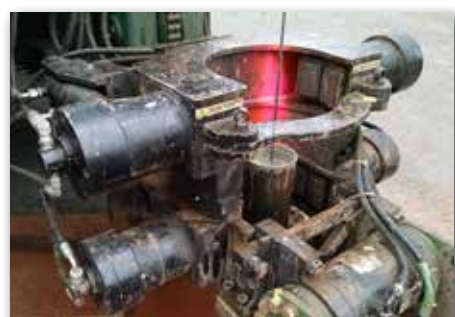


Core section from 190 feet consisting of sedimentary rock with a weathered calcite seam (shown in white).

## –Faster Tripping Times–

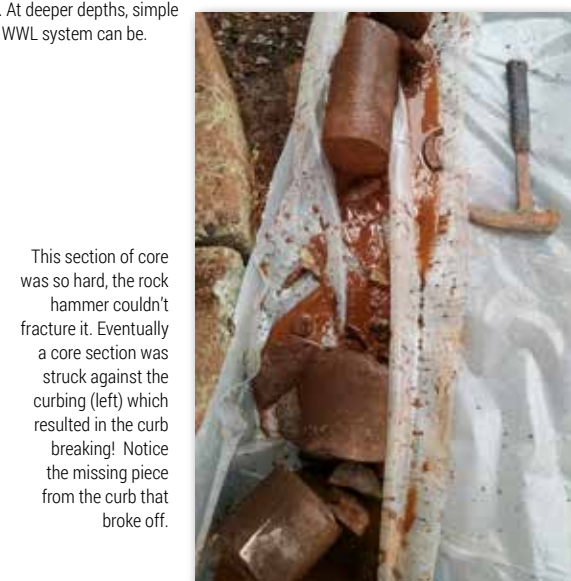


This graph was created by analyzing thousands of feet of various sonic drilling data collected by Geoprobe® engineers. At deeper depths, simple math indicates how much faster the dual tube WWL system can be.



Winch line tripping out SDT60 sample from 290 feet. At this depth it took about 2.5 min. to bring the sampler to the surface. Equipment used was a Dando SDC375 sonic rig with a Sonic Drill Corp. 50K sonic head, Geoprobe® SDT60 (Sonic Dual Tube 6-in. system) that recovers continuous core samples approximately 4-in. in diameter. Typical penetration rates were 4 minutes per 10 feet.

took about 2 minutes one way. Just as



This section of core was so hard, the rock hammer couldn't fracture it. Eventually a core section was struck against the curbing (left) which resulted in the curb breaking! Notice the missing piece from the curb that broke off.



# Cascade Drilling's Elite

## Cascade Drilling Initiates ELITE Driller Program

Recognizing that a company thrives with dedicated, talented employees, Cascade Drilling, LP, recently inducted their first class of ELITES into the CDLP Hall of Fame. Based on the company's core values of Performance, Safety, Skill, Leadership, and Accountability, an Induction Committee selected Todd Schmalfeldt, Josh Sigler, Jon Weeks, and David Wilcox from 54 nominees as the Class of 2015 ELITE Drillers.

"It's a great honor to be nominated by co-workers, managers, and supervisors," said Gary Crueger, Vice President of Cascade

Drilling. "The qualifications required to be considered for this program are extensive. Achieving the status of ELITE Driller is a tremendous accomplishment and is equally regarded and rewarded."

Cascade Drilling's core values hold true in the development of this program and through the selection process. "Our company is very fortunate to have so many experienced, skillful drillers," Gary added, "who are willing to go out of their way to ensure the job gets done safely and exceeds the expectations of our clients."

Cascade Drilling, LP, provides Environmental and Geotechnical Drilling, Mining and Exploration, Direct Push, Chemical Injection, and Subsurface Profiling from over 35 locations across the U.S.



**Todd Schmalfeldt**  
Senior Driller  
30 years experience  
Schofield, WI



**Josh Sigler**  
Senior Driller  
21 years experience  
Marietta, OH



**Jon Weeks**  
Senior Driller  
30 years experience  
Schofield, WI



**David Wilcox**  
Senior Driller  
20 years experience  
Aiken, SC

"Our goal with this program is to recognize talent at the highest level of our organization, with an emphasis on 'talent'. Because drilling is known as a trade, we want to elevate the perception of being a driller and help promote pride in an individual's work. Our company is very fortunate to have these experienced, skillful drillers who are willing to go out of their way to ensure the job gets done safely and exceeds the expectations of our clients."

**Gary Crueger • Vice President**  
Cascade Drilling, LP



Sonic Machine Demonstrations

Team Geoprobe® recently welcomed representatives from Cascade Drilling, LP as they toured the Geoprobe® campuses and checked out new tooling and machines while in Kansas.



Sonic Tooling Discussion



Machine Assembly Tour



You gotta take the group photo! (G = Team Geoprobe and CD = Cascade Drilling) [l to r] Joel Christy (G), Jed Davis (G), Mel Kejr (G), Lee Shaw (G), Tom Christy (G), Paul Fleischmann (CD/ZEBRA Environmental Technical Services), Ryan Kejr (G), Mike Carlin (G), Doug Koehler (G), Gary Crueger (CD Vice President), Steve White (G), Tom Omli (G), Glen Dillman (CD), Tim Cechini (CD) Todd Courbot (G), Todd Hanna (CD/Vironex Technical Services), Ken Allen (CD), and Larry Kejr (G).





"I am grateful for the opportunities that the Geoprobe® and this country, have afforded me. I've been blessed with a beautiful family, a comfortable home, and a job where I'm my own boss. I truly believe my experience has been the American Dream."

**Rob McAllister • Owner**  
**Northeast Probe • Newark, DE**

# Living the American Dream

As a young man out of high school, Rob McAllister wasn't sure what he wanted to do with his life. That's something a lot of people can relate to. So when something sparks your interest and makes you feel good, you just roll with it to see where it takes you. And maybe, with a lot of hard work and dedication, you can experience the 'American Dream'. In a nutshell, that's what happened to Rob.

His interests were outdoorsy-type activities. He was the neighborhood lawn boy, and didn't mind getting his hands dirty, but never thought of a **career** working outdoors. He went to trade school to become an electronics technician like his father, but quickly lost interest. "I sold my possessions and traveled around the country in an old Ford pickup with a friend," Rob said. "When the truck ran out of gas I was in Eugene, OR, with no money and no job!" A short stint in a sawmill got him enough cash to get home. Back in Delaware, his sister got him a job at a bank. He said there were lots of great people to work with ... but sitting in a cubicle with a phone attached to his head wasn't his idea of fun!

In 1993, a friend told Rob about a job opening for 'environmental work'. "I didn't know what that was," Rob said, "but figured I'd give it a chance." Dave Colegrove (remember him from early Geoprobe® days?) was looking for a technician to run a machine called a 'Geoprobe®'. Dave wanted someone that liked to work, didn't mind a little travel, and would show up on time. At 20 years old, Rob certainly had nothing to lose. He said it turned out to be



Rob and his father, Bob McAllister, spend some get-acquainted time in Geoprobe® Assembly with the new 5410 unit that will be installed in Rob's new Silver Ford F350.

exciting...and fun... and **interesting!**" Rob stayed for a couple of years and built up some experience and a clientele.

One day, someone asked him, "Why don't you just get a rig and go out on your own?" Lightbulb! It seemed like a crazy idea, but it left a knot in his gut that wouldn't go away, and **this** is where his story really begins. It was 1996. He was 23 years old and \$80,000 in debt with no work. He was determined to make it happen. He purchased a used Geoprobe® 5400 truck rig and a set of 1-in. tools, mostly with borrowed money and credit. Rob made postcards on the computer and sent them to environmental consulting companies all down the east coast advertising his business. After about three months, he got his first job in Washington, D.C. "It was a simple day of **Macro-Core® soil collection,**" Rob recalled, "but I remember how proud I felt on the

**drive home."** After that the phone started ringing. He took jobs from New England to Florida...whatever was necessary to pay the bills. Word spread and business was good. After about three years, he was completely out of debt, and his little company was running like a well-oiled machine. Tooling was getting better, more versatile, and he was taking on bigger projects and expanding his business with injection work and monitoring well installations.

In 2002, Rob purchased a new truck rig. Geoprobe® was producing the 5410, and Ford's Powerstroke was at its pinnacle with the 7.3 L engine. He eventually bought a 54DT, in addition to the truck rig, and has never slowed down with these smaller direct push machines.

Rob shared that his exit strategy from field work begins around age 50, so the idea of buying new equipment at this stage of his career was a tough decision. "I believe a new machine will make life easier for my remaining time," he said. So in August, he purchased a new 5410 to replace his 2002 rig. With Geoprobe Systems® offering such a variety of machines, he was asked, "why another 5410?". Rob responded, "Well, it's a workhorse. It's not all-terrain, but it has 4-wheel drive. It's entirely enclosed, and carries everything needed for a job, and at the same time pulls a trailer with my 54DT. It has the static weight advantage for pushing. Height is not a big issue, and four-foot tooling is very manageable. The water system is insulated for winter, and most importantly – it has air conditioning and it looks good! Sometimes 'old-school' just works!"

For Rob, the 5410 has not lost its luster ... "It's still very useful

and **profitable.** Sometimes you just don't mess with a good thing, and if that means keeping things simple, then so be it!" Rob has remained a one-man company since the beginning, and 2015 marked NE Probe's 20th year serving the environmental consulting industry. Rob said his customers that have kept him going all these years have helped make this business fun and successful. "Many of them have been faithful to me since 1996," he said. "It's these people, and many more, that keep me busy, and we enjoy doing what we do best."

Wikipedia states, "The American Dream is a national ethos of the United States, a set of ideals in which freedom includes the opportunity for prosperity and success, and an upward social mobility for the family and children, achieved through hard work in a society with few barriers." When Rob looks back on his career and to his future, he feels proud. "I'm grateful for the opportunities that Geoprobe® and this country have afforded me. I've been blessed with a beautiful family, a comfortable home, and a job where I'm my own boss," he added. "I truly believe my experience has been the American Dream."



Darin Garmin, Geoprobe® Assembly Technician, puts the finishing touches on Rob's 5410 before it heads to Delaware.



Victor Rotonda, Geoprobe® Sales, unloads Rob's new 5410 from the transport truck in Delaware. According to Vic, "Rob has enjoyed much success in his business because he truly cares about his clients. Rob's name in the industry is synonymous with reliability."



Rob's family: (l to r) Aubrey, 4 years old; Rob; Julia, 9 years old; and wife, Tracey, an elementary school teacher. (family & fleet photos courtesy of RH Photography)



# A Real Game Changer: 2.0 in. Slim Prepicks and 3.75 in. Rods

With an inside diameter of 3.0 in., the 3.75 in. Probe Rods have an optimal casing combining ease of use for 2.0-in. Slim Prepack monitoring well installation, minimal borehole size to maintain reasonable penetration rates, and a robust thread design.

This combo was designed specifically for use with the 78 Series machines from Geoprobe Systems®.

According to John Martinuzzi, Geoprobe® Sales, this is "a great system that allows you to properly install 2.0 in. prepicks with your 7822DT." Previously, the largest size prepicks you could install was 1.5 in. OD. "The 3.0 in. ID of the rods leaves enough annular space to properly grout back the well," John added.

"I wish we would have had this system a long time ago," reports Dana Booth, Driller for SCS Environmental Contracting in Fort Wayne, IN. "How different things would have been!"

Other customers are pleased with the new dynamic duo also. "We were tasked with setting a double-cased well inside a building with space restrictions that would have made entry of traditional rigs impossible," explained Phil Palsgrove, Owner of GeoServe in Woodstock, IL. "We used our 7822DT and our new 3.75-in. rods to set a 2-in. slim prepack. The new tooling was the perfect solution for our job, and it worked flawlessly!"

And it's not just about installing 2.0-in. slim prepicks! The 3.75-in. rods can also be used with the DT37 dual tube system as well as for conducting standard penetration tests (SPT). DT37 dual tube sampling is available with expendable cutting shoes, as well, so 2.0-in. slim prepack monitoring wells can be installed in conjunction with collecting continuous soil cores.

Got SPT? In this case, there's a drive shoe and retractable point combination that keeps the casing closed off during advancement, but can be retracted at anytime so a split spoon sampler can be advanced ahead of the 3.75-in. system with the appropriate automatic drop hammer.

*"Lee, this was slicker than you know what!  
Worked like a charm!"*

**Curt Luebbert • Operations Manager  
SCS Environmental Contracting • Fort Wayne, IN**

*"Working alone, I set three wells to 18 feet in one hour using  
the slim prepicks and 3.75-in. tooling with my 7822DT.  
Today, my helper and I had the five remaining wells installed  
by 10 am. I wish we would have had this system a long time  
ago! How different things would have been!"*

**Dana Booth • Driller  
SCS Environmental Contracting • Fort Wayne, IN**



"Installing 2.0-in. prepicks with direct push methods is a game changer! We've not only designed the right machine ... the 7822DT ... and the right tooling ... slim prepicks and 3.75 in. tools ... we've got a team of All-Stars to help you win in the field as well!"

**Lee Shaw • Geoprobe® Sales**

## Geoprobe® Source Book

The new Geoprobe® 2015 Source Book is available with an extensive OEM tools listing. Call 785-825-1842 for your free copy.



Installing 2.0 in. Slim Prepicks with 3.75 in. Rods and 7822DT.



# Dual Winch System Saves Time and Money



An optional 3-ft. winch mast extension gives the added reach needed to easily clear the top of the tool string when retrieving the overshot and core barrel.

One of our most versatile machines just got an efficiency boost! A true dual winch option is now available for the 7822DT. With the primary winch providing 2,600 pounds of pull and the secondary winch operating at 220 ft/min, drillers now have access to the speed and depth capacity of a wireline without losing the pullback of the main line.

Operators of machines set up for extended rock coring will immediately recognize the benefits of a secondary winch dedicated to wireline work. However, a dual winch arrangement is also beneficial for multi-purpose machines that may not core rock every day. Victor Rotonda, Geoprobe® Sales, identified one of the biggest assets of the dual winch kit. "The drilling industry is accustomed to having two winches on a rig," he said. "When some drillers see a machine with only one winch, they say, 'This is going to be a chore. I have to change out the wire rope if I get a geotech job.' Now they have the option of adding the secondary winch when purchasing the machine and are ready if a geotech job comes up."

Cory Walker, of CORTEK Drilling in Nashville, TN, chose the dual winch setup for his new 7822DT machine as he starts his new company. Cory explained: "The decision to purchase the secondary winch was based on the geologic conditions present in our area. Shallow refusal can be common. That, coupled with a high potential for voids and karst activity within the bedrock, warrants the need for confirmatory rock coring. Having a dedicated wireline winch will allow us to core efficiently, saving both time and money for our clients."

7822DT Dual Winch System	
<b>Primary Winch</b>	
Winch Rating	2,600 lbf
Winch Speed	0-125 fpm
Line Capacity	75 ft
Cable Diameter	5/16 in.
End Connection	Swivel Hook
<b>Secondary Winch</b>	
Winch Rating	1,100 lbf
Winch Speed	0-220 fpm
Line Capacity	250 ft
Cable Diameter	3/16 in.
End Connection	Quick Change Swivel Hook & Overshot Clevis

## Quick Change Hook and Overshot Clevis

Perhaps the handiest feature of the dual winch kit is the method of attaching accessories to the wire rope of the secondary winch. When ready to switch to coring, simply swap out the quick change swivel hook for the overshot, and continue working. It's quick, it's simple, and can all be done by hand.

"I chose Geoprobe® and the 7822DT based on my initial visit to Kansas and saw that this was a First Class company. I decided that's the direction I wanted to go. The decision to purchase the secondary winch ... will allow us to core efficiently, saving both time and money for our clients."

Cory Walker • Owner  
CORTEK Drilling • Nashville, TN

## 3-foot Winch Mast Extension

For maximum efficiency when coring, outfit your new 7822DT machine with the optional 3-foot mast extension to complement the dual winch setup. The winch mast extension gives the added reach needed to easily clear the top of the tool string when retrieving the overshot and core barrel.

Call us for more information!



The new dual winch kit for the 7822DT consists of one winch containing 75 feet of 5/16-in. wire rope, and a second winch containing 250 feet of 3/16-in. wire rope.

The quick change hook and overshot clevis assembly adds to the multipurpose function of the dual winch kit. Equipped with the swivel hook, the faster feed rate of the secondary winch can be used for quick retrieval of the inner tool string with a swivel pull cap when soil sampling. Or maximize efficiency by utilizing both winches. Simply pull the first gang of inner rods with the primary winch and hang to the side while continuing to pull rods with the second winch.

## Quick Change Hook and Overshot Clevis



Both winches leave the factory equipped with swivel hooks. But while the swivel hook of the primary winch is permanently affixed, the wire rope of the secondary winch incorporates a quick-change mechanism that allows switching between the swivel hook and a supplied overshot clevis – no tools required. Simply unthread the retainer cap, move the end of the wire rope from the slot in the quick change swivel hook to the slot in the quick change overshot clevis, and retighten the retainer cap.



Cory Walker is starting up his own company, CORTEK Drilling in Nashville, TN, with a Geoprobe® 7822DT. Cory, his wife, Lindsey, and the handsome 3-1/2-year-old German Shorthair, Buddy, stopped in Kansas to see their new machine before it was delivered. He and his driller returned two weeks later for machine and maintenance training.



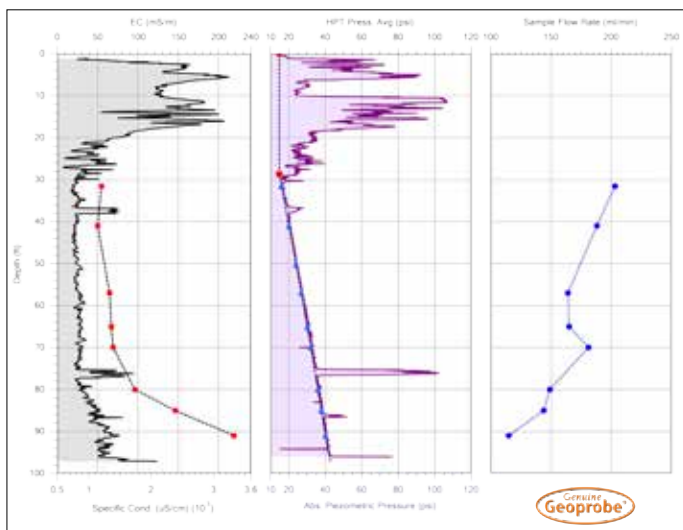


HPT-GW Sampler,  
KS8050

## Testing Underway For New 20-Port HPT Groundwater Sampler

The Direct Image® Team introduces a new 20-port HPT-GWS (Hydraulic Profiling Tool - Groundwater Sampler). This new design replaces the 4-port configuration of the original HPT-GWS tool in response to feedback from clients who want to extend the sampling range of this groundwater profiling tool.

Wes McCall, Geoprobe® Environmental Geologist, says the tool is designed for use on 2.25-in. rods. "Groundwater is sampled through 20 ports on four sides of the tool," he said. "An EC [electrical conductivity] dipole is located on the tool drive point."



HPT-GWS log showing (left to right): EC log and specific conductance of pumped groundwater samples, HPT log, and flow rate for the 8 sampled intervals.

Groundwater may be sampled using a peristaltic pump in shallow water table conditions or with the Geoprobe®

Mechanical Bladder Pump in deeper water table settings. "A log of both HPT injection pressure and EC are made as the tool is advanced to depth," Wes explained, "allowing the user to evaluate the formation for sample yield." The HPT-GWS tool is used to perform groundwater profiling; collection of samples at multiple levels at a single location.

Typical sampling time on the log, shown on the left, is about 30 minutes per interval. Samples are taken when stability is observed in water quality parameters with specific conductivity of the pumped sample being easy to monitor.

Wes has prepared a guide for use of the HPT-GWS based on his field experience with the tool. Copies of this guide may be obtained by emailing [info@geoprobe.com](mailto:info@geoprobe.com) and requesting "HPT-GWS Field User's Guide."



Wes McCall, P.G.

Geoprobe® Env. Geologist  
[mccallw@geoprobe.com](mailto:mccallw@geoprobe.com)

## Direct Push Training in Beijing

The Probing Times writers caught up with Geoprobe® V.P., Tom Christy, to ask about his recent visit to China. Tom is the Director of the Direct Image® group within Geoprobe Systems®.

PT: We hear you've traveled to East Asia lately. Can you bring us up-to-date on your activities?

TMC: Sure. I was in China in June. That was my second trip over and this one was really Wes McCall's fault. Wes held a seminar on Direct Push Groundwater Sampling Methods in Beijing back in April. One of the groups attending the seminar asked if we could come back and offer HPT training. Since Wes has been piling on the air miles lately, I took the assignment.

PT: That's a bit far to go for HPT training, isn't it?

TMC: Well, yes. But we have two distributors in China now, and I was able to spend time with each of them. I was

also able to review a site for another Direct Push Groundwater Sampling Seminar that Wes will be teaching in October, this time in Shanghai.

PT: How did the training go?

TMC: Really well. I mean it takes longer due to the language barrier. But the group I did the HPT training with were really great to work with. They were a couple of scientists from the China Research Academy of Environmental

Sciences in Beijing. Really knowledgeable guys. Besides, HPT training is kind of fun.

PT: Fun?

TMC: Yeah. If you have a group of guys that are really interested in the subsurface and have the geologic background, it's a fun tool to learn. It's actually a simple tool so you know going in that these guys will succeed. Plus, the information yield is high so there is a bit of a wow factor as they get out and start making logs and see how well the log describes the geology and how much they can learn from one log.

PT: Do you adjust the training to overcome the language gap?

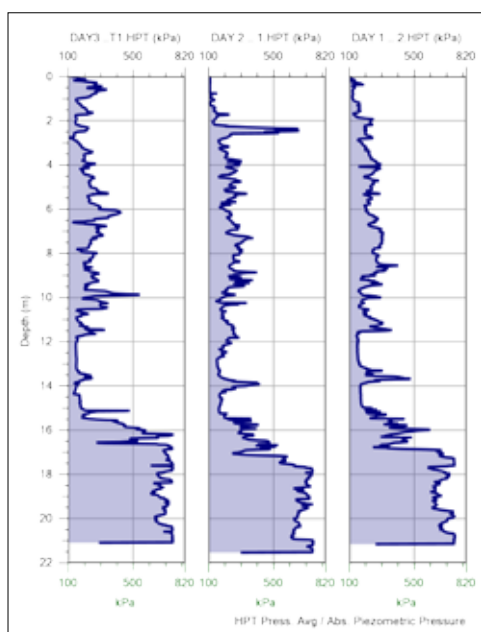
TMC: I do. I really do. The first thing I communicate is that our objective on the first day is to put the HPT tool into the ground and make a log. These are guys with a million questions about the technology and I let them know right off that we won't answer those questions on the first day. We go hook up the instruments and get outside to make an HPT log.

PT: And then?

TMC: Then everyone inherently understands the process and relaxes. The classroom portion of the training really smoothes out after that.

PT: Plans to go back?

TMC: Sure. As I said, we have two really good distributors there, so I expect that China will be a regular stop for me. They spend a lot of time with us here in Kansas as well.

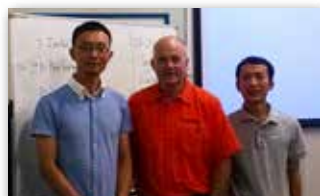


Cross Section of HPT logs generated during the CRAES training in Beijing. This cross section covers horizontal distance of 80 m (262 ft). The highly-permeable aquifer materials can be seen at 12 to 15.5 m (39 to 51 ft) on the logs.



Tom Christy, P.E.

Geoprobe® Vice President  
[christyt@geoprobe.com](mailto:christyt@geoprobe.com)



Tom Christy (center) with Zhao Long (left) and Qin Xiaopeng of the China Research Academy of Environmental Sciences at a recent HPT training seminar in Beijing.



(left) HPT Training in China. We start making HPT logs on the first day; it gets us over the language barrier.





# Scrum. Maul. Ruck. Let's Get Ready For Rugby!

*America's fastest growing sport is Rugby. It's highly popular in Nevada, and internationally, rugby is ranked ninth as the most popular sport. It's definitely something to set your radar on for a fast-paced, exciting 80 minutes of action.*

**Dustin Fross.** By day, he operates a CNC plasma machine and is a press brake operator. He's our 'number one guy' for cutting parts and keeping sheet metal stocked for the fabrication team for our manufacturing processes. It's been that way since he started in 2003. But when 5 pm rolls around and the welders and lathes fall silent, Dustin leaves his day-life at Geoprobe® and starts a workout regime that keeps him in shape for rugby.

Rugby? In Kansas? Can't be.

Dustin's been a member, for six seasons, of the Wichita (Kansas) Barbarians, a men's outdoor rugby team, that plays throughout the midwest (Heart of America region).



Dustin, carrying the ball, played Strong Safety during football under Friday Night Lights. He said football is tougher on the body, even with helmets and pads. In rugby you use proper form when tackling, otherwise you quickly learn that it hurts when tackling incorrectly.

### Championship Medal

This past June, Dustin scored the winning goal on the last play of the game in the USA Men's Division III Club National Rugby Championship game in Glendale, CO! The Barbarians won the West Coast Nationals in San Francisco that got them into the finals.

"The only thing I could think about was not letting my team down," Dustin recalled. "I asked God and my deceased father for a little help on that kick! I knew my father was watching, and knew how proud he would be of me, even if I missed."

Dustin's dad, Steve, was a long-time member of our Geoprobe® team until he died from cancer in 2003.

One of Dustin's teammates, Stephen Wright, said after the championship game: "Dustin Fross, he's the guy you want kicking at the end. He's such a calm person, nothing rattles him. I knew when we chose to kick it, he would kick it. That's what he does."

### Talk Story ... a Rugby Tradition

Dustin really enjoys the social aspect of rugby. After the game, the home team hosts the away team and coaches, and gives them food and drink, and they share stories about the game and life in general. (Quite the reverse of emotions displayed during the game!) The tradition is called Talk Story. "I have never played a sport that has this much camaraderie," he said. "I have made some great friends. Alumni and current players as well as fans all hang out together, even during the offseason."

So, get out your dictionary and learn some rugby terms: Lineout, Maul, and Ruck. It looks like the game will be coming soon to a venue near you. And for sure you don't want to get caught in a Scrum if you're not prepared!



**Dustin Fross**  
Geoprobe® CNC Plasma/  
Press Brake Operator



Dustin Fross, one of two centers on the team, readies for a kick. Sprints, jogging, kicks, push-ups, and sit-ups ... plus two practices per week is part of his fitness routine. "But no matter how good of shape you're in," Dustin said, "you're never in good enough shape for rugby! You must rely on the player next to you to do his job and know when not to exert too much energy."



Dustin Fross.  
The trophy.  
The medal.  
Congratulations,  
Dustin!



**Game-winning kick!** "The only thing I could think about was not letting my team down," Dustin recalled. "I cleared my head and said a quick prayer, and then just did what I have practiced time and time again. I also asked God and my deceased father for a little help on that kick! I knew my father was watching, and knew how proud he would be of me, even if I missed."



Wichita Barbarians, USA Men's Division III National Championship Rugby Team ... lawyers, engineers, construction workers, accountants, general managers, policemen, firefighters, machinists ... and more! Head Coach is Kevin Moloney (center), Assistant Coach is Paul Energen (far left). Wichita Barbarians beat the Tri-City Barbarians at Infinity Park in Glendale, CO, for the title in June.



# Service Training, Part of the Package

*"I firmly believe the best way to learn about any piece of equipment is directly through manufacturer training. Typically, training is more in-depth at the manufacturer's facility since the customer has greater access to engineers and customer service reps who usually can't be involved with 'on-site' training at the company's place of business."*

Brad Carr, Geologist, University of Wyoming in Laramie.

Many Geoprobe® owners agree with Brad, who was in Kansas after the University of Wyoming purchased a new 7822DT. In recent years, Geoprobe® has seen an influx of people who want to know more about the machines they are operating and how to better care for them. That makes us happy! Their goal, and ours, is to protect their investment and keep operations running smoothly.

"We know that sending employees to Kansas is a considerable investment on their part," said Darren Stanley, Geoprobe® Service Manager, "so we want to make it a valuable experience. Most importantly, we want to develop a relationship with them that helps with communication down the road."

## Singles and Groups

Brad came to Kansas solo, wanting to learn how to run Geoprobe® tooling and the ins and outs of the University's new 7822DT. Sometimes owners send their entire operations team comprised of different experience levels ranging from years of time pulling levers to those with just a few weeks at the controls.

BYK Additives from Gonzales, TX, led by Charlie Smith, Operations Manager, brought two people with him to Kansas. He and two of his operators spent a couple days learning about their 8140LS sonic machine purchase.

According to Charlie, "Part of what we like about Geoprobe® is that they want to form a relationship with you, not just sell you something and let you go."

Tacho Carrizales, an experienced driller with BYK, said, "Everyone here was very comfortable to work with, and I was happy we could bring a new guy along, like Chris Brown."

## Most Popular Time to Visit

A new machine purchase is one of the most popular times to visit Geoprobe® headquarters. Machine owners come in to work with the Geoprobe® team running tools in the ground, and time is set aside to go over the nuts and bolts (literally) of the machine and talk about care and maintenance.

"Todd went over the entire rig with us" said Tacho, speaking of Todd Ewing, Geoprobe® Service Representative.

The Geoprobe® Team explains simple repairs and routine care for your machine, but they also share insight into the machine design. Information about machine design travels directly back and forth between the service team and engineers ... often face-to-face. Engineers receive immediate feedback about how equipment performs from the service team. Likewise, the service team receives quick answers to machine design questions.



Bryan Lorenson (far right), uses his 25-plus years of Geoprobe® experience to explain fuses and relays on an 8140 rotary sonic during a training session. Training can also include how to charge a hammer, identify locations of grease points, how to replace a sonic head, how to change packing in a water swivel, and a review of the wire harness display. Training is thorough ... and there's usually snacks for the afternoon!



Brad Carr, Geologist, University of Wyoming at Laramie.

## Why Come to Kansas for Service Training with the Pros at Geoprobe®?

- 1 Develop a relationship between the Geoprobe® Service Team and the machine operators.
- 2 Share knowledge of how, what, and when to service all items on their Geoprobe® rig to protect their investment.
- 3 Build confidence in an operator's ability to service their own rig.



(left to right) Chris Brown, BYK Additives in Gonzales, TX; Joel Christy, Geoprobe® Licensed Driller; Charlie Smith, BYK Additives; Steve White, Geoprobe® Sales; and Tacho Carrizales, BYK Additives.

Brad confirmed that he also got a taste of the team atmosphere while in Kansas. He spent an entire morning with Brian Rogers, Geoprobe® Service Technician, learning the ins and outs of his new 7822DT. He also mentioned spending "face-to-face" time with several members of the Geoprobe® engineering team that never could have happened had he not come to Kansas for a visit.

Roman Burrows, also on the Geoprobe® Service Team, agrees. "Many of the people we've trained are very good at what they do," he said. "We've formed a lot of partnerships and friendships over the years across the U.S. and around the world."

## It's Not Always About a Service Issue

After their trip to Kansas, the relationship a customer develops with the Geoprobe® Service Team may have nothing to do with a machine and its parts. "Sometimes, guys just call us in the morning to say 'hi', and talk about the weekend's football game, a fishing or hunting trip, or just spend a few minutes talking about family," Darren added.

The only place to receive true, expert, Geoprobe® service is by working directly with the Geoprobe® Service Team.

The winter months may be a good time for you to think about a Kansas visit or to schedule your machine for a check-up. Call us for details.

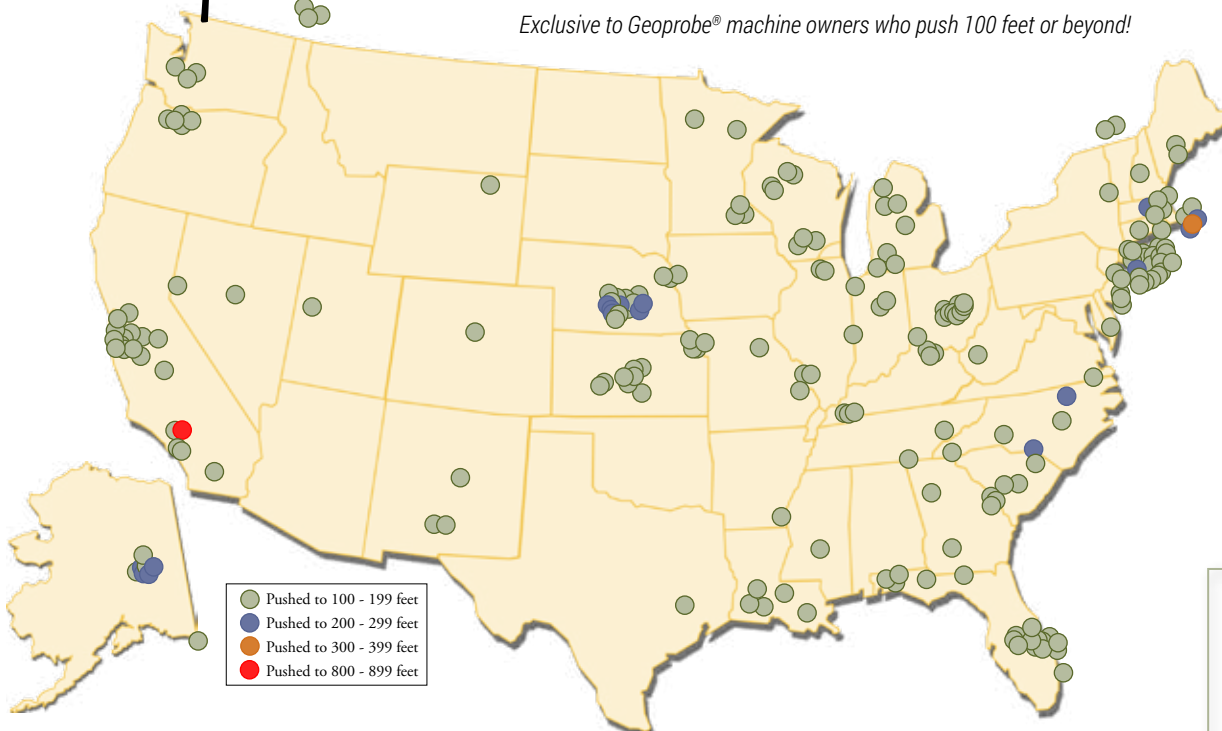
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Join the "elite cadre of probists" who belong to ...

# Geoprobe® '100' Club

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



## 137 ft.

**ABLE Environmental – New York**

*FIELD NOTES*

**Field Team:** Tim Kelly  
**Depth/Date:** 137 feet / Jan. 19, 2015  
**Geoprobe® Owner:** ABLE Environmental • Bohemia, NY  
**Field Data:** Model 7822DT.

## 102 ft.

**AWT Environmental Svcs – New Jersey**

*FIELD NOTES*

**Field Team:** John Dixon  
**Field Site:** Clifton, NJ  
**Depth/Date:** 102 feet / Nov 21 2014  
**Geoprobe® Owner:** AWT Env Services • Sayerville, NJ  
**Field Data:** Model 7822DT. 2-in. discrete sampling with 1.0-in. lightweight inner rods.



## 107 ft.

**Geo Lab - Georgia – Georgia**

*FIELD NOTES*

**Field Team:** (l to r) Phillip Ricker & Ravi Sital and Kayla Andrews with Arcadis  
**Field Site:** Albany, GA  
**Depth/Date:** 107 feet / May 4-6, 2015  
**Geoprobe® Owner:** Geo Lab - Georgia • Winder, GA  
**Field Data:** Model 7822DT. Advanced 3.25 in HSA and collected split spoons every 5 ft using DH103 Auto Drop Hammer for a geotechnical sampling project. Boreholes pressure tremie grouted using onboard Moyno® positive displacement pump upon completion of sampling.



## 136 ft.

**Roberts Environmental Drilling – Illinois**

*FIELD NOTES*

**Field Team:** (l to r) Maury Vaeth and Eric Wetzel  
**Field Site:** Labadie, MO  
**Depth/Date:** 104 and 136 feet / Feb, 2015  
**Geoprobe® Owner:** Roberts Environmental Drilling • Millstadt, IL  
**Field Data:** Model 6620DT. Using DT22 to hit 104 ft. Using 1.25 in. mill-slot sampler to reach 136 ft.

## 80 ft.

**Enprob – California**

## Honorable Mention

(because it was in Nevada!)

*FIELD NOTES*

**Field Team:** Joshua Zwemke (driller) and Shaun Love (helper)  
**Field Site:** Carson City, NV  
**Depth/Date:** 80 feet / August, 2015  
**Geoprobe® Owner:** Enprobe Environmental Drilling Services • Oroville, CA  
**Field Data:** Model 6600. Sie investigation for a property transaction. Used DT21 to continuous soil sample to 80 ft. near underground hydraulic lifts. The soil was tight silt/gravels and cemented silts and a lot of compacted sands.



## 100 ft.

**Drillpro LLC – Florida**

*FIELD NOTES*

**Field Team:** (l to r) Kyle Degler (lead hand) & Daniel Curtin (driller)  
**Field Site:** Casselberry, FL  
**Depth/Date:** 100 feet / June, 2015  
**Geoprobe® Owner:** Drillpro LLC • Orlando, FL  
**Field Data:** Model 6620DT. Vertical and horizontal delineation of a plume of D (naple) using MIP/HPT with 1.5 in. rods.

The Probing Times is the official newsletter of Geoprobe Systems®. Suggestions for future newsletter articles or submission of 100 Club information are encouraged. Call Gayle Lacey at 1-800-436-7762 or email laceyg@geoprobe.com.

An online version of the newsletter is available at [geoprobe.com](http://geoprobe.com)

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# Team Geoprobe® says ... “Customers & Guests Always Welcome”

What you might see and experience when you're here:

- Discussions about your immediate equipment needs and what you need to be successful
  - New ideas we're working on
  - New things for your Wish List
    - Hands-on equipment use
    - Facility tours
  - Outdoor demonstrations
- Great conversation and food

**Come to Kansas!**

**Call us at 1-785-825-1842 to set the date!**



National EWP customers were our special guests on a chilly day in March. (l to r) Bryan Cook, Woodland CA; Chris Tatum, Richmond CA; Justin Weber, Woodland CA; David Palumbo, Gilbert AZ; Jim Wright, Shawnee KS; with Tom Omli, Geoprobe® Director of Sales and Marketing. It's always great to greet and speak with our customers face-to-face, and to meet the new members of their work teams. Building relationships and improving customer service is what Team Geoprobe® is all about.

# geoprobe.com

Manufacturer's of Soil, Water and Rock Sampling Machines and Tooling for the Technical Driller.

**Geoprobe® Systems**  
1835 Wall Street • Salina, Kansas 67401