



The Business of Cone  
Penetration Testing

## Enter the CPT Business with Confidence.

We find that many people are exposed to CPT (Cone Penetration Testing) in the course of doing their jobs or running their business. Often, professionals on construction job sites such as drillers, site engineers and foundation contractors have seen a CPT rig or have spoken with a CPT technician. CPT can be an attractive way to expand your business in a new, more profitable direction. Let's talk a bit about why that is, but first let's explain what CPT is in case you aren't familiar with some of the details.

## CPT Drives Productivity and Extends Capabilities.

CPT stands for Cone Penetration Testing. There are many reasons why engineers, construction companies, government agencies and geotechnical engineers need the information that only CPT can provide. For engineers and architects, it can be important to know the in situ characteristics underground, such as: what soil behavior types are being encountered and at what depths; location of bearing layers; and the depth of groundwater tables. From this information, they can determine how to design foundations for structures and drainage systems, the best way to improve sediment conditions as required, and many other applications.

Construction companies may need to identify sub-surface soil conditions so that they can estimate the extent of ground improvement needed, or the volumes of different types of soils that may need to be excavated and hauled away. Government agencies and consultants may request a CPT survey of a site to determine the presence of subsurface contamination, the extent of the dispersion through the soil and groundwater, how chemicals might migrate with seasonal water table fluctuations, etc. With this information, they can design plans to reduced applied safety factors in designs for foundations or site improvement, clean up areas, and decide where to put monitoring wells for long term sampling.

Cone Penetration Testing is much what its name sounds like. A cone shaped instrument is hydraulically pushed into the ground by a hydraulic cylinder static push frame generating a great deal of pressure. The applied forces can be enough to penetrate through soils and even small rocks. The amount of pressure that it takes to statically push a cone of a certain form factor (shape and size) at a standard rate of progress downward can help to determine the types of soil conditions present. One aspect of CPT that is difficult to replicate with other soil testing methods is that CPT provides a continuous report of conditions throughout the length of the sounding.



## Connect Data to Meaningful and Measurable Results.

Since CPT is well established as an ASTM standard and practice (D5778), tables are available which can accurately translate the sounding test data into meaningful results for engineers. Rather than extracting samples at different depths and sending them away to a lab for analysis, CPT can provide data quickly and right on the spot, which companies purchasing CPT services find very valuable. We've found at Vertek CPT that virtually anyone who has field machinery or rig experience can learn to do CPT.

One thing that we often hear is that the conditions for performing CPT are more efficient and safer compared to operating other types of field equipment. Professional CPT rigs are labs on wheels, so the testing operation for the most part is done in a clean, conditioned, enclosed space, with your favorite sports team playing on the radio if you want!

From a business perspective, because CPT is more of a niche service, and combines some technician types of skills in addition to operator skills, the daily rates, or the rates per foot that a CPT rig can command are often higher than you can charge with other types of field equipment such as conventional drill or percussion rigs. Adding 'in situ' ("in the situation" or "on site") soil testing can provide an alternative source of revenue that can balance the ups and downs of other related businesses. People can be cross-trained in CPT so that they are able to do either role as your business demands.

## Connect Data to Meaningful and Measurable Results.

Adding CPT can be an attractive business opportunity in the right circumstances. We do know however that it can be a bit intimidating for someone to enter a new business that requires some investment in time and resources and has a learning curve. That's why we at Vertek CPT cater to new industry entrants in their business decisions and help them to turn that business decision into years of successful and profitable growth.

Vertek CPT started out as a field CPT service provider. Many of our original engineers and technicians are still here and can operate any of our rigs. This helps us to provide you with real world advice in a number of areas. For instance, different parts of the country have different types of subsurface challenges that require specific expertise or a certain type of rig in order to build a good business.



## Milestone 1 – Preliminary Rig Selection

Since we're the first rig builder to have built systems strong enough for worldwide geographies, we likely have a rig plan that works best for your needs, including rigs that make sense to start with. Since we specialize in helping our system of operators to be successful, you'll find a rig for every situation.

## Milestone 2 – Market Evaluation

In order to ensure you're maximizing your resources, we recommend that you undertake a market evaluation to get the best estimate on the the level of business possible in your area. We can provide you with a handy punch-list of items to consider, from how far you are willing to travel to and what types of geotechnical and environmental organizations are in your defined service area. From this evaluation, we can help you to refine your ROI calculator to give a more accurate projection of your potential business opportunity.

## Milestone 3 – Equipment or Services Trial

As we shared above, Vertek CPT is the only CPT rig builder to have a rig specifically designed for low-cost, low-risk entry into the business. We also provide an extensive product range that will let you grow your business as far as you want to go. As part of your purchase decision, we offer no cost machine demos and select equipment trials, financing and loaner options. It is possible for you to explore the market by using your contacts to get your first project or two, and Vertek CPT will back you throughout the effort. This will give you a chance to test price levels, your ability to learn to sell the service and to experience a real CPT operation run by seasoned professionals.

## Milestone 4 – Training and Certification

We know from experience that the first part of the CPT learning curve can be perceived as challenging. That's why we offer entry-level training and certification programs that are designed to ensure that you are ready to take on your first jobs and be successful. Vertek CPT offers advanced training that enables you to take on tougher jobs, perform different types of tests, etc. Our goal is to ensure that you are well supported with training, service and support for the life of your business and that you get all of the knowledge that you need to be successful over the long-term.



## Milestone 5 – Rig Supplier Evaluation

As you are evaluating your purchase, we recommend that you explore the service offerings of your CPT equipment supplier. A successful CPT business runs on a basis of teamwork among your company and with the team that is supporting you. Vertek CPT is the only U.S. based CPT manufacturer. During this evaluation, people often find that domestic support leads to much faster answers to questions, troubleshooting of problems and quick-turn on spare parts and service.

We recommend that you speak with experienced operators of the various brands of equipment to determine what a day to day business relationship is like. We can put you in touch with some of the service providers that we supply. Your goal is to be prepared to hit the ground running as a start-up and to profitably grow as far as you want to go. This is our goal too.

## Milestone 6 – Equipment Purchase or Lease

As you get ready to make your first investment in equipment, Vertek CPT is your partner in CPT success. We provide CPT service providers with the easiest and surest path into the business, the tools and training you need to get started and the product range and support to thrive as your business scales as far as you want to go.

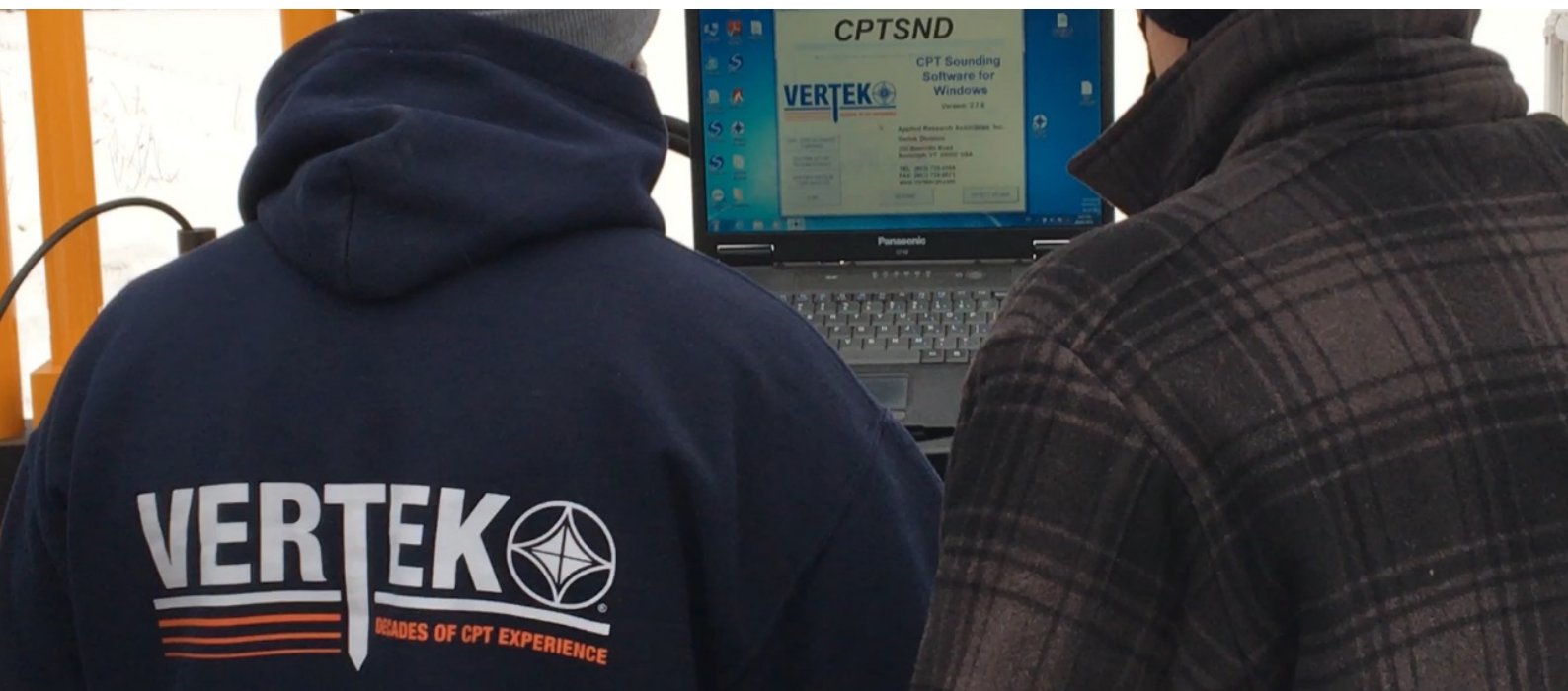
By following this solution brief, you can maximize the profit and minimize the risk when entering the CPT business. We're proud of the fact that "There's more than a million feet of sounding experience built into every machine."

You probably have questions at this point and we're here to help. Feel free to contact us at [sales@vertেকcpt.com](mailto:sales@vertেকcpt.com) or 802-728-4588.



# Our Commitment

When you purchase a piece of Vertek CPT equipment, you become part of Team Vertek. We provide every customer with unparalleled customer service and unlimited technical support. From helping you choose the best solution for your business to training and field support, we will be by your side and always just a phone call away.



Contact us today.

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