

WILLOWSTICK™ TECHNOLOGIES



Company Background

Founded in 2004, Willowstick Technologies has used its instruments, algorithms and filtering capabilities to map and model groundwater activity around the world. Willowstick's patented technology is as revolutionary in its software as it is in its ability to efficiently gather massive amounts of data to pinpoint subsurface flow paths. The order of magnitude increases in computing power have made it possible for Willowstick to recognize and amplify faint signals at greater depths than previously possible. Furthermore, the breadth of applications of our technology has expanded from tracking water leaks in dams, to various oil and gas applications, mining and environmental applications, and most recently to leak detection in pipes and tunnels.

Today, Willowstick has completed over 250 groundwater characterization projects all over the world. Willowstick is happy to count as its clients some of the most sophisticated companies and consultants around the world.

How Does it Work?

The Willowstick Technology is a quick and non-intrusive way to identify, map and model preferential groundwater flow paths. Much like an Angiogram that enables medical personnel to "see" flow paths of blood inside the human body, the Willowstick method is able to quickly render 2D or 3D maps and models of groundwater flow paths.

The Willowstick Technology is specifically designed for mapping groundwater flow paths. The technology works by establishing a signature electric circuit within the groundwater of interest. The distribution and flow of subsurface electric

current is then revealed by measuring the signature magnetic field. The measured data is processed and compared to the expected magnetic field to highlight any anomalies.



Figure 1 – One of Willowstick's field crew members on site taking measurements with the Willowstick Instrument

Finally, 2D maps and 3D models are generated and interpreted to provide enhanced definition of preferential groundwater flow paths. The Willowstick method has been ground-proven in hundreds of cases. You can see relevant case studies and more at www.willowstick.com.



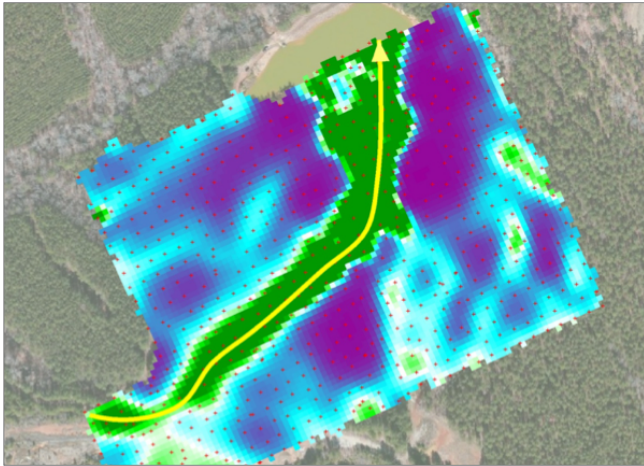


Figure 2 – The results of a Willowstick survey, showing groundwater flow paths at a tailings dam

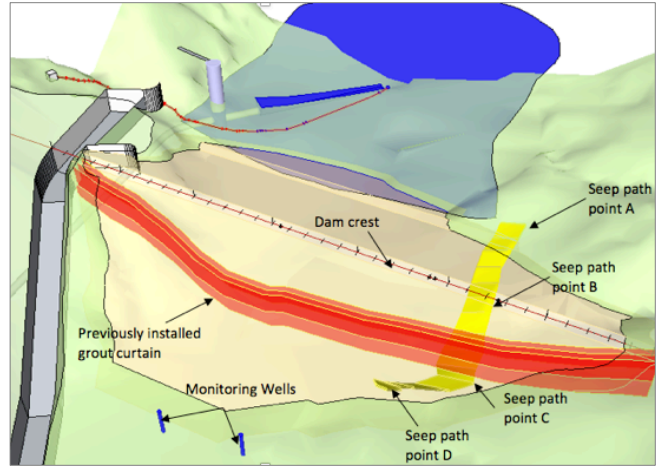


Figure 3 – A 3D model of seepage flow paths identified at a dam in Asia using Willowstick's technology

What's Unique About Willowstick?

Willowstick's technology is fundamentally different from all other geophysical methods. Some of the practical benefits of our patented technology are:

- It was developed specifically to identify, model, and predict subsurface water flow paths in virtually all types of applications
- The Willowstick Instrument measures the signature magnetic field that is created by an electric current injected into subsurface groundwater of interest
- Willowstick's instruments generate tens of thousands data elements, and then we use proprietary software models to take a "deep data dive" that manifests patterns or trends in the subsurface water flow

- It relies on immutable laws of physics that have revolutionized other industries
- It targets the groundwater of interest at specific depths; it is accurate down to 1000 feet
- Willowstick's patented solution is non-invasive
- Willowstick's unique combination of patented hardware and software models enable water flow tracking at levels of acuity previously unattainable
- Willowstick produces Final Reports that include specific coordinates and depths of the flow path(s) to aid in remediation efforts

Ready to Talk?

For more information, please contact us at info@willowstick.com, or 801.984.9850

"What I'm able to give my client is complete clarity about the problem and a way of remediating it."

– Dr. Andy Hughes, Atkins Global

