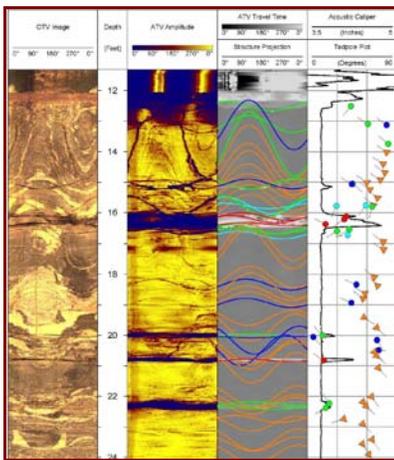


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H-R KNOWS WHAT TEAM & SPIRIT CAN DO TOGETHER!



Typical H-R high resolution optical and acoustic televiewer logs.

CONTENTS

H-R Knows What Team and Spirit Can Do Together! . . .	1
Message from the President . . .	1
True Team Efforts.	2
H-R Teams for International Projects.	2
H-R's New Team Mates.	2
H-R's Geophysical Services. . . .	3
Why We Do What We Do. . . .	3
WBE/DBE Certifications	3

Summertime is a season of team sports. Whether it is the Little League or the Big Leagues, all coaches and teams follow similar practices of planning, training, practice, review, positive reinforcement, enjoying the simple joy of a single good play and, of course, celebrating the big win. Geophysical consulting is not a competitive sport with winners and losers, but the essence of teamwork to achieve mutual goals is very real in our world. Add a generous splash of spirit to the mix, and H-R exemplifies how a whole team of highly talented individuals is indeed greater than the sum of its parts. Splash some of H-R's team spirit on your project or proposal and see what happens. **Call us!**

Message from the President

I admit that I sometimes struggle in my search for a newsletter theme. H-R's landmark 25th Anniversary last year made it pretty easy for our 2009 edition, and, given the state of the US and global economies in 2009, we are extremely grateful to be able to celebrate our 26th year in 2010.

The team theme of this newsletter came surprisingly easily – probably because it came from at least three different directions:

1. H-R has always been proud of its sparkling staff. For some unknown reason, some years the staff mix just seems to blend

better than others. This is one of those years when the H-R team is blessed with a shared spirit of dynamism and can-do optimism.

2. There is nothing more satisfying to H-R than to be an integral part of a larger team working together on a challenging project that is important to public health and welfare. H-R has been working with several incredible client teams (engineering firms and JVs) who in turn are working for public agencies on some complex critical projects for which H-R's geophysical contributions have clearly been a positive component. The projects are technically rich and have involved dynamic interactions with clients, owners, sister agencies, and other stakeholders. I wish I could talk about them more explicitly because I am so proud of H-R's participation and contributions....but I cannot. Some of you receiving this newsletter know some of the project(s) I mean.

3. H-R is always flattered to be invited to join a proposal team, whether for a single project or for some sort of indefinite quantity contract. We think that H-R enhances most teams, although we know that it is really up to the prime consultant to win the contract. If asked to join more than one proposal team, we are scrupulous about maintaining each team's confidentiality.

The major advantage of having H-R on your team from the start is having confidence that you will be able to provide your clients the quality geophysical services they deserve. We certainly respect that some contracts require that geophysical subcontracts must be bid competitively, but when given the choice to bid simply to do a job, or to do the

job *right*, H-R will always bid to do the job right. H-R is hardly ever the low bidder for commoditized geophysics. We've had too many clients say that they found using the low bidder for geophysical services less than satisfactory. We have also been hired more and more often to re-work geophysical data acquired by the 'low bidder.'

Save yourself some headaches. Put H-R on your project or proposal team and you won't regret it. **Call us!**

Cordially,
Dorothy Richter

True Team Efforts

True team projects take on many forms. For H-R, there are times when the entire firm teams to get a project completed. An example is the level of effort required to perform geophysical surveys at 20 to 35 different sites in as many days, with separate reports submitted for each site within five days of completion of the field work. In fact, H-R did just that in geophysical surveys at gas stations in Maryland, New York, and Connecticut in three stages totaling 77 sites! The client and internal coordination and collaboration were remarkable, and the results speak for themselves. Every single person at H-R contributed to making the work flow smoothly while keeping up with other projects, too!



GPR survey at an East Coast gas station.

A different team effort evolved for a critical infrastructure project. H-R performed multiple surface geophysical surveys initially specified by the client to detect the effects of

certain deep subsurface features. As the project evolved, numerous progress meetings with the client and owner's reps helped focus additional geophysical investigations to fine-tune the interpretation of the target structures. Working iteratively as a team provided a far better interpretation of subsurface conditions than could have been possible individually.

Similarly, H-R started working at a Superfund site by performing relatively routine high resolution borehole geophysical logging last winter. H-R's geophysical logs were so useful to the client that a second round of logging was planned for the spring. In between, H-R was tasked with conducting several surface geophysical surveys (VLF, EM, and earth resistivity imaging - ERI) to detect possible bedrock fracture zones to help constrain the conceptual site model and to help site new bedrock wells. Previous work at the site by others years ago had focused on near surface contamination, but over time, regulators realized that a fractured bedrock investigation was necessary. The second round of borehole geophysical logging, additional ERI data, and the client's pumping tests produced some surprising results, leading the client to ask H-R to develop a 3D model to visualize the surface and borehole geophysical results together with the results of pump tests. That exercise, conducted with collaboration and insights shared by representatives of the client and multiple state and federal agencies, produced a coherent explanation for some complex geological conditions affecting contaminant transport.

Teaming and collaboration for better results come naturally to H-R. If you understand that technical teaming enhances your projects, then you should **call us!**

H-R Teams for International Projects

H-R does not consider itself an international geophysical firm. In our 26 years in business, we have proposed to provide geophysical services for numerous international projects. It is always an intriguing exercise for us to think about

projects abroad, but to be honest, most never seem to materialize. H-R has successfully worked in the Caribbean, and we would be happy to do more work in that region, particularly during the winter months(!)

In the last year, H-R has teamed closely with a client on a few intense international projects outside the western hemisphere. Jeff Reid traveled to a fairly exotic location for some of that work. H-R's geophysical expertise was well received by the client and its clients, and we are hopeful that additional international work will naturally follow.

If your projects take you abroad, consider putting H-R on your geophysical team.

Call us!



GPR survey in a West Coast tunnel.

H-R's New Team Mates

H-R's experience is that our new team members rapidly respond to the stimulation of working on H-R's geophysical projects. It is always a warm pleasure to witness the personal growth and natural evolution of young professionals. H-R is proud to introduce this year's rookies:

Michael Howley, Geologist/Geophysicist. Mike Howley is a practical man. He earned B.S. and M.S. degrees in Geology from the University of New Hampshire. Mike did his undergraduate geology field camp in Alaska with the University of Buffalo and liked it so much that he returned as a Teaching Assistant for the next two summers and had an Alaskan field area for his UNH Master's thesis research. He also worked as a heavy equipment operator and drillers helper for a

well known drilling company for a few years. Mike has quickly become an important element of H-R's New Hampshire geophysical team, tackling 3D integration of surface and borehole geophysical and geological data and participating in all aspects of our field activities.

Anna Hada, Geophysical Intern. Anna has bachelors and masters degrees in Geology from the University of Silesia in Poland. She worked for the Polish environmental ministry for a while and is spending one year with H-R as part of an international training program in Applied Geophysics. Anna had previously worked for two summer seasons on Cape Cod. Now, H-R's metropolitan New Jersey office is not exactly a beach resort, but Anna has made herself at home, indispensable, and instantly integral in our Jersey team.

Mike and Anna won't be rookies for long. Just think how refreshing it would be to work with such talented team mates.

Call us!

H-R's Geophysical Services

- **Surface**
 - Seismic Refraction
 - Seismic Reflection
 - Surface Shear Wave Velocity Surveys – Multi-channel Analysis of Surface Waves (MASW) & Passive Shear Wave Velocity Surveys (pVs) or Refraction Microtremors (ReMi)
 - Ground Penetrating Radar (GPR)
 - Electromagnetic Induction (EM31, EM34, EM38, EM61)
 - Earth Resistivity – Imaging & Soundings
 - Magnetics
 - Gravity / Microgravity
 - VLF
 - Blast/Vibration Monitoring
 - Subsurface Utility Detection
- **Borehole**
 - Crosshole Seismic Testing
 - Crosshole Seismic Tomography
 - Borehole Geophysical Logging

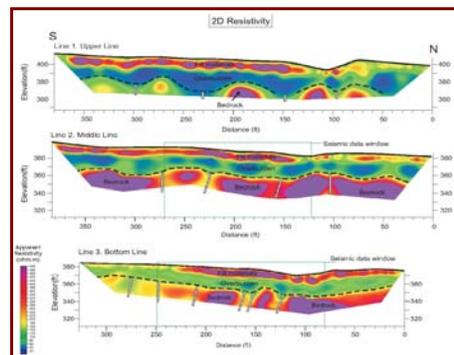
- Acoustic Televiwer (ATV)
- Optical Televiwer (OTV)
- Heat-Pulse Flow Meter (HPFM)
- 3-Arm Caliper
- Fluid Temperature
- Fluid Resistivity
- Natural Gamma Ray
- Spontaneous potential (SP)
- Normal Resistivity
- Single Point Resistance (SPR)
- Electromagnetic Induction (EM)
- Borehole Deviation
- Borehole Video Logging
- Video Logging of Caissons
- Borehole Radar



Borehole televiwer logging through an historic New England dam.

- **Dimension Stone**
 - ASTM Testing
 - Failure Analysis
 - Quarry Evaluations
- **Litigation Support Services**
 - Document Review & Consulting
 - Expert Testimony.

Call us for the things we do well!



Earth resistivity imaging profiles of fractured bedrock.

Why We Do What We Do

Every person at H-R is acutely aware that our surface and borehole geophysical services contribute to protecting the health and safety of the public and to preserving our cultural and natural resources.



MASW survey at Ellis Island National Monument in New York Harbor.

That's probably similar to why you do what you do, too. **Call us!**

WBE/DBE Certifications

- New Hampshire DOT
- Vermont AOT
- Maine DOT
- SOMWBA (Massachusetts)
- Mass Highway, MassPort, MBTA
- Connecticut DOT
- Rhode Island Dept. of Development
- Empire State Development (NY)
- New York State DOT
- Metropolitan Trans. Authority (NY)
- The Port Authority of NY & NJ
- New Jersey Dept. of Commerce
- New Jersey DOT
- New Jersey Transit Authority
- Ohio DOT
- Indiana DOT
- Illinois DOT

H-R TEAM

PRESIDENT	Dorothy Richter, P.G.		
VICE PRESIDENT	Gene Simmons, Ph.D., P.G.		
ADMINISTRATION	Lyn Mercer		
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		Senior Geophysicist	
	Jeffrey Reid, P.G.	Senior Geophysicist	NH
	Steven Grant, P.G.	Senior Geophysicist	NH
	Alexis Martinez	Senior Geophysicist	NJ
	Robert Garfield	Senior Borehole Geophysicist	NJ
	Bryan Carnahan	Geophysicist	NH
	Eric Rickert	Geophysicist	NH
	Michael Howley	Geologist/Geophysicist	NH
	Nicholas DeCristofaro	Geophysical Technician	NJ
	Anna Hada	Geophysical Intern	NJ
DRAFTING/CAD	William Desmarais	CAD Manager	NH
	Kenneth Roginski	CAD Operator	NJ

Visit our **Web Site** — www.hager-richter.com

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