

OYO GEOSPACE @ WORK

PRODUCTS AND SERVICES **AT WORK** IN THE WORLD

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GSR supports surveys “one green step at a time”

For Charles Bundrant, president of Green World Geophysical (GWG), nodal technology was the breakthrough he was waiting for. He and the company’s executive advisor Jim Gallant had a vision for how things could be done in the seismic industry – a “green way” that was more efficient, nimble and environmentally intelligent than what was possible 12 years ago when they were last involved in the geophysical industry. In fact, Bundrant thought he’d never come back to oil and gas. But then came the GSR – and a different way to collect seismic data.

Today, the GSR is helping Bundrant and GWG pursue their mission of acquiring the best data for clients with the smallest environmental footprint possible.

“We couldn’t do business the way we really wanted to until the GSR,” says Bundrant. “We can now work three times as fast, without climbing these hills loaded down with cables and with far fewer HSE risks.” The hills he’s referring to cap the Marcellus shale region in New York, where the company recently completed a 388-channel survey covering hilly farms, woodlands and swamps.

Leave only footprints

In this region, controversy over the impacts of fracturing practices makes environmentally sensitive operations especially important. As with all its projects, GWG wanted to conduct its survey as unobtrusively and ecologically as possible. No flags. No stakes. No heavy equipment crashing through the woodlands.

To minimize vehicle traffic, crews walk in as much equipment as possible. The light weight and compact size of the GSR makes this approach practical. Indeed, a GWG crew looks more like a group of day hikers than a seismic crew, with each crew member able to carry between six to 12 complete stations (comprising GSR units, GSR battery packs and GS-One Geophones) in a backpack. They can trek through the survey area with virtually no disruption, leaving fences intact and flora undisturbed.

New room for innovation

“The GSR lets us implement ideas we couldn’t in the past,” adds Bundrant. “It gives us more freedom to be the company we want to be.”

Two examples of such innovative ideas include ATV-mounted control consoles and a solar- and wind-powered equipment trailer now under construction.

The mobile control console packages all triggering equipment required for a shoot into a man-portable pelican case that can be hand carried anywhere the ATV can’t travel. This contrasts to the huge pickup-mounted “doghouse” type stations required with cabled systems. “I think we may be the only company in the business that can shoot off the back of a four-wheeler,” Bundrant notes.

In addition, GWG’s customized solar- and wind-powered instrument trailer will house the GSR Mobile System Manager (where GSR scripts are uploaded and recorded data is downloaded), battery charging stations and other equipment. The trailer will be outfitted with solar panels and telescoping, self-anchoring wind turbines to generate up to 50% of the unit’s daily power needs, further reducing the company’s environmental impact.

For companies like GWG, GSR nodal technology is truly a game-changing innovation – enabling them to conduct business in a way that is safer, greener and more cost-efficient than ever.



The ATV-mounted mobile control console can also be hand carried and avoids large “doghouses” needed for cabled systems.

GWG crews walk as much as possible during the survey to minimize environmental impact.





Viking enlarging Turkish operations with GSR

After a very successful first implementation, Viking Geophysical Services (VGS) recently deployed its second 3,000-channel vibroseis crew using OYO GSR autonomous nodal technology in Turkey.

The new crew will be conducting 2D and 3D surveys throughout Southeast Turkey for TransAtlantic Petroleum and other interested oil and gas companies. The cost-efficiency and success it has experienced using the GSR is one reason the company is now making its crews available to third parties on a contract basis.

VGS will be operating on some lands where the data quality previously collected was of poor quality and hopes the new technologies it will be applying for acquisition and data processing, including the GSR, will improve illumination of the subsurface. In addition, the flexibility to layout recording equipment in any pattern or density will help the company optimize data quality. VGS will also be able to minimize costs by reducing vehicles, personnel and maintenance time required by a typical cable crew.

Good luck to Viking in this next phase of its activities in Turkey.

Smaller crews = lower costs.

Viking's 3,000-channel GSR system with five vibrators and 14 Toyota Hilux trucks requires a crew of approximately 38 people, including surveyors, compared to a typical crew of 65 required for a similar-sized cabled system.

No-footprint seismic

Canada's Eagle Canada, Inc., now part of Tidelands Geophysical Company, is another provider of seismic data acquisition services committed to "no-footprint seismic." Their focus is acquiring data in technically complex, logistically difficult and environmentally sensitive areas – precisely the terrain where the GSR can provide the greatest value. Eagle recently contracted to rent 1,000 GSR stations for use in its Canadian operations. Its parent company Tidelands has also purchased a 3,000-station system for use in Alabama.

The compact size and light weight of the GSR system and GS-One geophones provide huge advantages from an HSE perspective. For "low-footprint" companies like Green World Geophysical and Eagle Canada Inc., the ability for crews to carry systems safely in a backpack is crucial. And the simple fact of reducing vehicles and head counts required for a project can dramatically reduce the potential for safety incidents.



The GSR's minimal seismic footprint is particularly well suited for logistically complex or environmentally sensitive field situations.

The GSR System provides maximum flexibility in difficult environments.



BP expanding GSR surveys in Libya

BP has been conducting 3D test surveys in the Ghadames region of Libya. They initially purchased 1,000 GSR units for their first field trial designed to assess reliability of the GSR's recording, battery life and positioning capabilities. The autonomous nodal system met all these requirements due to its built-in GPS capability, long-life batteries and 4 GB flash memory. The system also proved its flexibility, as receivers could be laid at any spacing. In addition, the autonomous nodal system is very low power, in part because it uses a minimum amount of low-power radio communications (for status checking). A total of 1,225 receiver stations were occupied using the cable-less system during the field trial.

As a result of the test, BP purchased another 1,000 GSR units and plans on increasing the number of GSRs on the ground and upgrading their central system facilities to accommodate the additional equipment.

PRESIDENT'S PAGE



Gary Owens

As I draft my comments for this issue of *OYOGeospace@Work* the eyes of the nation are riveted on the Gulf Coast and BP's efforts to "top kill" the runaway well and the oil spewing into the Gulf of Mexico. The tragic dimensions of this accident are staggering and ongoing. In all likelihood, it will probably be years before its full ramifications are known. Our hearts are with all those affected and we hope that solutions will be found quickly and the environment remediated immediately.

I believe I can speak for the industry, however, when I say that we are all horrified at what we are watching. And no matter how our industry has been painted by the press, none of us entered the professions we did without a sincere desire to find oil and gas the best way we could – while doing the least damage possible. "First do no harm" not only applies to physicians, but has been at the forefront of our thinking for a very long time.

For many of us, our careers with the industry have caused us to log more miles in more exotic places than most people can imagine. We've worked under dense jungle canopies, across searing desert dunes; in marshes teeming with wildlife; in extreme freezing temperatures or in nearly unbearable heat and humidity. We've seen the beauty of this world first hand and have only wanted to leave it as undisturbed as possible for our children and their children to enjoy.

I believe I can safely say that most geologists and geophysicists enter their professions because of a fascination with the earth and engineers for the excitement of solving its challenges and presenting winning solutions. Our desire is to find better ways to accomplish the tasks before us. As technology has improved this has enabled us to leave smaller and smaller footprints. Today, in many instances it is now impossible to know that we have come, done our work, and gone.

In this issue you read about the capabilities offered by our new GSR. It's a very "green" solution to seismic challenges that we have faced for most of our careers and is born out of our experiences first hand with the operating environments that our clients, the geophysical contractors, encounter day-in, day-out. We are proud of this new contribution and hope to keep providing solutions that enable our clients to identify hydrocarbon resources (for we still are a hydrocarbon-based society), without any visible impact on our environment.



OYO GEOSPACE *in the* COMMUNITY

Blue Suede Shoes step up for the Fort Bend County Women's Center



Elvis (left) and Gary Owens

The King would have celebrated his 75th birthday this past January. In tribute, the Fort Bend County Women's Center's annual "Boogie" fundraiser in March was all about Elvis-era music, sequins and fun. Elvis himself (a.k.a. tribute artist Ralph Elizondo) was of course in the building, and the dazzling cover trio Rotel & the Hot Tomatoes teased up their biggest hairdos to keep the dance floor packed late into the night.

"We've been so fortunate for the past 12 years to have OYO supporting us, and not just with Boogie - but with all our events," says Liz Moreno, manager of development and public relations at the Center. "Chris and Gary, Mike and Cindy - they are true friends who always step up to the plate for us."

Boogie, the Center's annual 50s and 60s party, has raised hundreds of thousands of dollars to assist victims of domestic violence and sexual assault and their children. All proceeds go toward providing free and confidential emergency shelter, counseling, crisis intervention and other supportive services. The event's ever-popular silent auction got even better this year with the addition of two grab-bag events featuring hundreds of funky and fabulous women's purses and fine wines by the bottle. These activities alone raised \$42,000 for the Center's clients.

"The stresses on families in times of high unemployment often lead to increased violence against women and children," says Gary Owens, President of OYO Geospace. "The Women's Center's doors are always open, and their services are always free. We'll support them as long as they need us to."

If you are interested in supporting the Center or volunteering, call (281) 344-5750. For more information, visit www.fortbendwomenscenter.org.

It's a repeat! Team OYO Geospace is tops again at the Making Strides walk against breast cancer

For the second year in a row, the 50+ employees, families and friends of OYO Geospace who participated in the American Cancer Society's Making Strides walk were the event's top money-raisers - collecting nearly \$13,000 to fight breast cancer.

"I am really proud of my fellow employees in all they do for the community," says Shirley Presley, organizer of OYO's team and the top individual money raiser for 2010. "There isn't one of us that cancer hasn't touched in some way."

Held on May 1 at Wheeler/Cullen park, Making Strides Houston is an annual noncompetitive walk that unites people of all ages with a common goal to fight breast cancer and save lives.

You can learn more about this fun, free walk and the lifesaving work of the American Cancer Society at www.cancer.org.



Congratulations to Team OYO Geospace!

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