

OYO GEOSPACE@WORK

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

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Earth, sky, fire and water: field work in Mexico reveals new possibilities for GSR

Sometimes a technology is so innovative that you don't even realize all it can do until you actually put it to work.

As a recent field test near Veracruz, Mexico demonstrated, that's exactly the case with OYO Geospace's new Geospace Seismic Recorder (GSR). The cable-free/radio-free GSR not only proved its mettle under some unusual conditions, it also revealed some unexpected operational talents.

This region of Mexico is intensely agricultural, with farms, small villages and unimproved roads, all of which provide challenges for conventional cabled systems. Getting equipment to the deployment site is the difference between requiring an 18-wheeler for transport vs. a small, agile pickup truck.

Smaller vehicles, smaller crews and shortened timelines are among the many benefits of the GSR. When it comes to deployment flexibility and speed – there's no contest.

"Field work is a great opportunity for us and our customers to learn more about the potential of the GSR," said Cliff Brooks, Manager of Sales, Latin America and Canada.

Going underground

Sugarcane is one of the key crops in this part of Mexico, presenting a unique challenge for seismic operators because sugarcane farmers burn their

fields prior to harvest in order to reduce extraneous vegetation. This means seismic operators must be ready to quickly retrieve their equipment ahead of a burn.

But OYO Geospace's field team wondered if there might be a better way.

They answered the question by burying a single GSR 8 to 10 inches underground and letting a field fire burn over it. Upon retrieval, the interred device had not only operated perfectly, its internal sensors also showed no appreciable increase in temperature.



Aerial view of the Mexico survey area. Note the sugarcane fields burning.

450 GSRs with battery packs were carried and deployed with a one-ton pickup truck.



Burial allowed the GSR units to avoid field fire damage – even buried the GSRs continued to operate perfectly.

GSR in Mexico *continued from page 1*

While system burial is not yet a formally specified deployment technique for the GSR, the potential is huge – especially in areas where theft may be a problem.

Getting airborne

Another exciting discovery made by the team involved a new technique for using the “Line Viewer” technology to collect system status information from the GSRs on the active spread. Previously, this task had been conducted by a technician on foot or driving an ATV. But while in Mexico, the team tried a new vehicle – a customer-leased helicopter. By collecting data from the air, the team discovered they could cover the entire line in just minutes – over any kind of terrain (it even worked for buried GSR units).

Staying afloat

Wet, swampy areas provided yet another intriguing challenge for the Mexico team. While cabled system might have to run thousands of extra meters to circumvent a swampy area, the Mexico field team used locally available small “boats” in which the GSR devices could safely float in wet areas.

The small, locally available “boats” were used in wet areas. The GSR system easily adapts to the survey’s operational needs in the field.

GS-One – simplifying deployment, increasing value

A final piece of interesting information gleaned from this trip was the quantifiable value of deploying OYO Geospace’s GS-One geophone in place of a geophone string.

The GS-One is designed to replace an entire string of geophones (usually six). That six-fold consolidation not only simplifies deployment, troubleshooting and maintenance (with five fewer geophones to install, diagnose and service), it also creates significant logistical cost savings. The Mexico team estimated that the cost savings generated by deploying one GS-One geophone per station versus six conventional geophones more than covered the cost of GS-One itself – essentially negating the cost of the geophone.

What’s next?

This Mexico field work underscored once again how the unprecedented flexibility of the GSR enables users to creatively overcome all kinds of unexpected survey conditions.

“Every deployment is different, and each one will have its own operational and logistical obstacles to contend with,” concluded Cliff Brooks. “The beauty of the GSR in the real world is how easily and efficiently it can be adapted to the user’s needs in the field.”

The helicopter proved to be a rapid, efficient way to collect GSR line status data.



For more about OYO Geospace’s GSR product:

Fall 2008 Newsletter Issue – www.oyogeospace.com/newsletter.htm

GSR Product Page and Video – <http://www.oyogeospace.com/gsr>

PRESIDENT'S PAGE



Gary Owens

Engineering New Solutions For New Challenges

Shortly after our last newsletter was published oil and gas prices collapsed and the global credit markets imploded. The last few months have been characterized by a tremendous amount of upheaval and uncertainty as companies in all industries have struggled to ascertain the best way to operate in this “new normal” business environment. We’ve undertaken several measures to provide financial strength and flexibility going forward. As business conditions continue to evolve we will keep monitoring and evaluating our position and will take steps to capture opportunities and strengthen our operations just as we have in past recessions. We will also continue to do what we do best and what are renowned for: engineering new technologies that dramatically improve efficiencies and reduce operating costs for our customers.

Borehole Tools Receive Strong Interest

In the last oil patch downturn, we began developing a line of borehole tools with unprecedented capabilities. Rated to be productive at up to 480 levels, we have sold numerous systems that routinely employ 100 levels to collect full-capacity, real-time data at ¼ mil sample rate. While other competitors offer borehole systems, none have been proven to match these capabilities. As a result, sales of our borehole line in the 100-130-level range have been strong and are receiving even more interest as companies focus on production and development.

Wireless System Development Continues

Among seismic technologists it is clear that the future of seismic exploration will be wireless. As you have read in this issue, our wireless system continues to set new records for performance under fire – literally and figuratively. For broad acceptance by the contractors to occur, however, there are still more functionalities to be considered. While our cable-free system has demonstrated its advantages in the field, our engineering team is continually evaluating and testing new features for cost-effective and efficient deployment. We are using the breathing space of this tumultuous period to further refine our products so that we can be system of choice when the market regains strength.



Stepping Up for the Fort Bend County Women's Center

In times of economic stress, violence of all kinds – including that against women and children – can increase dramatically. That's exactly the trend seen in 2009 by the Fort Bend County Women's Center, making their services more crucial than ever.

For more than 10 years, OYO Geospace has been a dedicated supporter of the Center and its work. The Center helps survivors of domestic abuse and their children with comprehensive services that help them live violence-free, away from their batterers and abusers.

"Boogie" is one of the Center's annual fundraising events, a lively party that has raised more than \$200,000 to assist victims of domestic violence and sexual assault and their children.

This year's Boogie, held in March, was all sombreros and maracas, taking on a fiesta flair complete with Mariachi music and dancing.

"In good times and bad, the Women's Center's services are provided for free – their doors are always open to women and children who have no safe place to go," says Gary Owens, President of OYO Geospace. "We're proud to be involved with this wonderful organization – at Boogie time and throughout the year."

Besides providing emergency shelter, the Center provides counseling, crisis intervention, advocacy, case management, job training and life skills classes, programs for children, and so much more. Services are made possible primarily through volunteer hours and donations from the community.

"The support we've received from the people at OYO has been phenomenal – I don't know what we'd do without them," says Anne Budill, Director of Development & Public Relations at the Fort Bend County Women's Center. "This summer will likely be extremely difficult for many women in our community, and we're grateful to have organizations like OYO that we can count on to help us meet the need."

If you are interested in supporting the Center or volunteering, call (281) 494-4545.

And for more information, visit <http://www.fortbendwomenscenter.org>.



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