

ERT in Peru

August 2006 saw the start of ERT's first project in Peru, when we were awarded a contract to develop marine environmental monitoring, communication and training programmes in support of a major new liquefied natural gas project. ERT has a three-year contract with Peru LNG as its international contractor, and is working with Lima-based subcontractor Knight Piésold Consulting.

The objective of the work is to monitor the impacts on the marine environment and fisheries from the construction of the new marine export terminal being built at Pampa Melchorita, approximately 125 km south of Lima. Here long stretches of sandy beach, exposed to the Pacific swell and backed by 140 m cliffs, are fished by artisan fishermen from the local communities of Chincha and Cañete.



Abundant bird life on Melchorita beach

Surveys and monitoring

Quarterly environmental surveys are being conducted to provide information on seasonal changes in this highly productive marine ecosystem. We have now completed a full year of surveys – from the spring survey in September 2006 to the winter survey in July 2007 - which will be used to describe the baseline conditions in the area before the construction of the marine facilities. Studies of the sea water and seabed sediments and of the plankton, fish and invertebrate communities will continue throughout the construction phase. Data are also being compiled on artisan fishing effort and catch.

The work is focused in shallow waters up to 16 m deep in the gently shelving coastal zone. As no marine infrastructure is yet in place at the site, subtidal sampling activities are being conducted from small boats mobilised each day from Tambo de Mora and Paracas up to 100 km to the south.



High speed transit to survey area in summer survey

Communication and training

An important aspect of the project is to involve all parties with an interest in the marine monitoring, and ERT is providing training to enable stakeholders to participate fully. This kicked off with a marine monitoring training workshop in Lima in September 2006, attended by representatives of the local artisanal fishing communities, environmental agencies and academic institutions. With the emphasis on communication and information exchange, topics covered included marine ecology, impacts from industrial activities, the design and implementation of monitoring surveys, sample analysis and interpretation of results.

Participants in the training workshop have since had the opportunity to take part in the marine sampling activities and observe the work first-hand, and a further workshop held in Chincha in July was designed specifically to assist the fishermen in understanding the results of the monitoring.

ERT presented the early findings of the surveys to PLNG, the Peruvian authorities and other stakeholders at a workshop in April, and is presently preparing a fully interpretative report based on the data from the first year of monitoring.



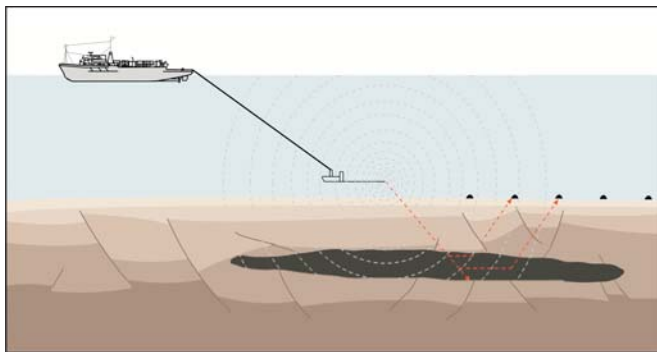
Workshop participants during laboratory visit

Since this article was prepared, the part of Peru in which the project is based suffered a major earthquake and the towns mentioned have suffered significant damage and loss of life. Our sympathies and thoughts are with all those affected.

ERT provides support to new E&P survey technology

In recent months ERT has successfully acquired contracts to complete the environmental permitting required by the Department of Business, Energy and Regulatory Reform (BERR) to conduct oil and gas surveys for a number of clients. ERT routinely completes work of this nature, however, in this instance there is a new and potentially revolutionary twist to the surveys involved. Historically, surveys conducted to search for oil and gas reserves use seismic survey techniques. This usually involves a survey vessel towing an array of air guns which send vibrations into the seabed. The energy is reflected in different ways by different substances; these reflections are used to build up a picture of the formations beneath the surface. The new techniques applied work in a similar fashion but with one key difference: they use electromagnetic (EM) energy instead of seismic.

The key to these techniques is that, if the signal passes through a water-filled reservoir, it will dissipate rapidly and not be returned to the surface but, if the sediments bear hydrocarbons, they are more resistant to the passage of EM energy and the returned signal is much stronger. Seismic can only determine the presence of a fluid beneath the surface; EM can actually determine whether the fluid is water or oil. The extra information from EM surveys can greatly reduce the risk of drilling dry wells.



Typical electromagnetic survey set-up

ERT has completed the environment assessments required by BERR for several surveys that have utilised this new technique. This has required a clear understanding of the technique and its potential impacts allied to ERT's existing familiarity with the UK marine environment. EM surveys are expected to become a vital tool for hydrocarbon exploration and ERT is now well placed to continue in its tradition of providing comprehensive support to the companies involved.

Farewell to Inge

ERT (Scotland) Director, Ingeborg McNicoll has decided to resign from her duties within the Company as she has chosen to take up the opportunity of a challenging new post in the land of her birth, Malaysia.



Through her 19 years with ERT she has seen a number of changes to both the company and its location. Ultimately she leaves behind a company with a legacy of providing high quality marine environmental services based on Heriot-Watt University's Edinburgh campus (from which she graduated in marine biology in 1979).

We thank her for her direction, particularly through the management buy-out to ERT (Scotland), and are sure she will be checking the website as well as regularly reading our newsletter, to see which way we are heading without her.

Everyone at ERT wishes Inge, her husband Allan, and daughter Ellen all the best for the future.

New staff at ERT

Alessandro Icardi has taken up the position of Assistant Environmental Consultant. He moved from Italy after finishing high school to start University in Edinburgh. Alessandro graduated in Applied Marine Biology from Heriot-Watt University in July 2006 and was given the opportunity to do his final project on the macrobenthos of the Galapagos Islands.

Richard Wilson joins us as an Assistant Marine Biologist in our busy Biology Laboratory. He completed an MSc in Marine Resource Development & Protection at Heriot-Watt University in 2006 and had been working on a temporary basis for SEPA. He has a keen interest in all things marine - especially fishing!

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