

NEW SYSTEM IMPROVES SAFETY AND COST



The peak national body representing Australia's oil and gas exploration and production industry has recognised Coffey Geotechnics for developing an innovative geo-marine barge positioning system that dramatically improves the safety and project cost of geotechnical sea-bed surveys. Mitigating some of the risk associated with positioning jack-up barges, the new system is set to have worldwide application.

The Australian Petroleum Production and Exploration Association (APPEA) has awarded Coffey Geotechnics with this year's Contractor Safety Innovation Award for its geo-marine survey technology which dramatically improves safety of sea-bed investigations.

APPEA chief executive Belinda Robinson said only companies with the best safety performance and innovative approaches were short listed for APPEA's Safety Performance Award.

"The overall winner was chosen on the basis of an initiative or innovation that has led to a significant improvement in injury rates.

"I commend Coffey Geotechnics for its innovative use of technology in substantially reducing risk during the positioning of jack-up barges."

Before Coffey Geotechnics developed the technology,

positioning exploratory jack-up barges and self-elevating work platforms for major oil and gas projects had often been a dangerous and expensive process.

"Small jack-up barges had historically been very difficult to position with any accuracy as tow vessel masters are at the mercy of strong currents, strong winds and wave action and often have no identifiable navigation aids, such as a defined coast line, to refer to," explained Sebastian Norris, Coffey Geotechnics senior engineering geologist.

"Limited reference points and the influence of tide, wind and waves made it easy to lose track of a barge's location in relation to hazards in the investigation area, including coral reefs, live pipelines or cables, and even ship wrecks with unexploded ordinances.

"With six people on a barge weighing in the vicinity of 130 tonnes, the last thing you want is for it to become unstable in any way," Sebastian said.

Coffey Geotechnics' new system allows a tow vessel master to have visibility of both the barge and its position on the tow vessel navigation screen as well as geospatial information about the seabed hazards in the investigation area.

"In geo-marine surveys you are often moving a barge to up to 70 different locations, with each move taking around one hour. It used to be that if you were operating in bad weather the whole process could be extended by days.

"If you didn't accurately place your barge, you'd have to go around in a circle and try again, with some moves could take up to five hours to get right."

Sebastian said the new technology had already provided clients with substantial cost savings.

