

Pluto Pulse

Pluto LNG Project | Newsletter | January 2010

the **energy** that's building

www.woodside.com.au/pluto

Pluto platform in place



▲ *The assembled Pluto Platform.*

When the 90m long flare boom for the Pluto offshore platform was successfully lifted into place in December it represented the last piece of the construction puzzle for the platform transport and installation team.

Located about 180km north west of Karratha, the platform stands at 211 metres above the seabed – more than twice the height of the Statue of Liberty in New York.

Woodside platform delivery manager Morgan Harland said the installation of the flare boom marked the

culmination of years of planning, design and construction for the Pluto team and offshore contractors.

“The platform substructure (or jacket) was constructed in China over 18 months. After sailing from China, the 9000 tonne structure was launched into the ocean about 180km north west of Karratha in October,” he said.

“Once the jacket was secured to the seabed, the two topside modules which were built in Malaysia, were carefully lifted into place, followed by the flare boom.”



▲ *A topside module is lifted onto the jacket.*



▲ *Topsides arrive from Malaysia.*

While the platform will not normally be manned during operations, about 60 people will be calling it home for the first half of 2010 during hook-up and completion works.

To house the crew for these works, AGC constructed the 620 tonne, 48-bed temporary living quarters at the Australian Marine Complex in Perth. The completed structure was loaded out in late December 2009 and lifted onto the platform in late January.

Pluto scoops Sustainability Awards

The Pluto LNG Project had great success at Woodside's 2009 Sustainability Awards late last year, scooping three of the six award categories in addition to the coveted Chairman's Award. The annual awards recognise outstanding sustainability performance by Woodside employees.

The Pluto team fabricating the onshore LNG production train modules in Thailand won the Health and Safety Award for its customised approach to health and safety to suit the Thai cultural environment.

The Leadership and Capability Award went to Pluto assurance framework - a process to manage due diligence prior to Woodside's final investment decision on Pluto, recognising the significant value of Woodside's investment in the project.

Finally, the sustainable approach shown during Pluto pipeline dredging

was not only recognised with the Environment Award, but selected by Woodside Chairman Michael Chaney for the prestigious Chairman's Award.

The dredging, which made way for the trunkline that will carry gas from the platform to the onshore plant, was a delicate task. To protect the nearby coral habitat from turbidity and sedimentation, intensive water quality and coral health monitoring was conducted, works were scheduled to avoid the annual coral spawning event and the dredging technique was adjusted to minimise the size of the plume.

The award recognised the multidisciplinary approach that saw successful completion of the trunkline dredging within budget, on schedule, and with no impact on coral health



▲ An award winning effort: Marine monitoring conducted in Mermaid Sound for the dredging program.



▲ Pluto pipeline dredging team Soolim Carney, Nick Jones and Hosi Sabavala.



▲ A night landing operation in action.

Night vision

Three pilots for the Pluto LNG Project's helicopter service, put their skills to the test late last year, by landing on the DB30 installation barge servicing the platform installation and hook-up team in the darkness of night.

With up to six flights a day to and from Pluto's offshore operations, the pilots from HNZ Cougar Helicopters are well practiced in landing and taking off from various offshore vessels, but these flights are restricted to daylight hours.

HNZ Cougar Helicopters manager offshore operations Claude Alviani said in the event of a safety emergency, such as a medical or cyclone evacuation, the pilots need to be ready to land and take off from any offshore facility at night.

"It takes great skill to land a helicopter on an offshore barge or vessel, as pilots not only have to take account of wind speed but also sea conditions that can move them around," he said.

"Landing on a barge or vessel at night is even more challenging, so the night landing operation enabled the pilots to hone their skills by each completing three landings."

Woodside senior health and safety adviser Craig Petzke added that the night landing operation also involved the crew on the DB30.

"It was a valuable exercise for the helicopter landing officers and fire monitors on the DB30" he said.

"The crew were able to familiarise themselves with night operations and identified issues with lighting and equipment that can be improved for any future night time helicopter operations."

Six million trees and counting

More than six million mallee eucalypt trees have been planted in Australia over the past two years as part of the carbon offset program for the Pluto LNG Project.

CO2 Australia carried out the plantings over more than 4500 hectares of land in New South Wales and Western Australia - an area equivalent to some 2000 Australian Rules football fields.

In late 2007 Woodside entered into the initial \$25 million agreement with CO2 Australia for two planting seasons in 2008 and 2009.

Woodside vice president sustainable development Vanessa Guthrie explained that in June last year, we executed a final agreement for CO2 Australia to undertake an additional \$75m worth of forest carbon sink plantings over three years.

"The total \$100 million Woodside is investing in the project represents Australia's biggest commercial emissions offset program based on dedicated forest carbon sink plantings," she said.

"When combined with technology and efficiencies, this will make the Pluto LNG Project one of the most environmentally efficient LNG plants in the world.

"The program has made great progress in the past two years and we look forward to focusing the planting program in WA for the next three years.

CO2 Australia CEO Andrew Grant said the environmental benefits of the program go beyond carbon sequestration.

"The plantings reduce the effects of soil erosion and loss of valuable topsoil, mitigate water logging and dry land salinity, and have positive impacts on water quality.

"It is also benefiting the local communities near the planting sites by generating jobs for everything from site preparation and planting to the ongoing monitoring of the program."

The services provided by CO2 Australia cover a period of 50 years, and over this time it is estimated that 9.2 million tonnes of carbon emissions will be sequestered within the trees planted on behalf of the Pluto LNG Project.



How does sequestration work?

As trees grow, they absorb carbon dioxide from the air via photosynthesis and store carbon within their leaves, stem, wood, bark and roots. This removal and storage of carbon dioxide is called "carbon sequestration".

Mallee eucalypts are particularly good at carbon sequestration because they are quick growing and have a very thick root system which allows for large, protected, underground carbon storage. Native to Australia, mallees are also ideally suited to our hot and dry conditions, using little water to survive.

Pluto quarantine facility sets new benchmark



▲ (L to R) Ian Jamieson with QAP Manager Chris Nugent (FVW), and AQIS Approved Person Peter Montebello (RCRFM) check and treat a sea container.



▲ A sea container is opened for inspection at the Pluto QAP.

Faced with more than 1000 imported sea containers of equipment for the Pluto LNG Project, the Pluto logistics team was concerned that bottlenecks in quarantine inspections could delay the availability of critical construction inventory.

To help fast track the process, Woodside worked with the Australian Quarantine Inspection Service (AQIS) to create its own Quarantine Approved Premises (QAP) to protect the Burrup Peninsula from the introduction of exotic pests and diseases.

Woodside logistics and shipping manager Ian Jamieson said the idea became a reality in September last year as Woodside was granted the license to operate the newly-created QAP at the Pluto LNG Park.

"In addition to creating the new facility, Woodside employees and contractors were trained to carry out inspections and cleaning in line with State and Federal regulations," he said.

"This enabled us to quickly clear sea containers through the quarantine process and keep congestion to a minimum."

In addition to sea containers, the QAP is now also being used to inspect larger equipment and machinery which would otherwise have to be processed in Fremantle or Darwin.

At the opening ceremony for the QAP, Wayne Cross from AQIS commended Woodside for contributing to the national effort to maintain Australia's biodiversity and biosecurity.

"The Pluto QAP represents the first approval of a facility of this type outside the Perth metropolitan area and its design and procedures have set a new industry standard which will be replicated by other regional operations," he said.

At the ceremony, the QAP was dedicated to the memory of the late Woodside employee Mike Olliffe who was instrumental in its design and construction.

RAG overcomes robbery to steal the show

Despite a rocky start, the second annual Roebourne Art Group (RAG) exhibition held at Woodside Plaza in November was a resounding success.

The day before the opening of the exhibition, more than 50 original paintings to be included in the exhibition went missing from the Art Group's storage facility in Perth.

Senior Indigenous affairs advisor Brian Hayes said the incident was a blow to the exhibition and the artists who lost their work.

"We couldn't believe our luck when just a day later, the police told us they had found most of the missing pieces. We were overjoyed," he said.

Deputy Premier Kim Hames officially opened the exhibition that was attended by Western Australian Premier Colin Barnett.

The exhibition raised more than \$70,000 through artwork sales, with all proceeds going to the artists and Roebourne Art Group.



▲ Artist Jill Churnside explains one of her artworks to Premier Barnett and Minister Hames.

Sharing stories of the Burrup

The Western Australian branch of the National Trust of Australia has been hard at work recording the stories of Indigenous people on the Burrup Peninsula in the Pilbara in recent months.

Funded under the Woodside Conservation Agreement, the Trust's Burrup Stories project is focused on capturing the life stories of Indigenous people living on or near the Burrup Peninsula.

National Trust special projects historian, Kate Gregory said interest and support for the project has been very exciting.

"Traditionally Indigenous elders share stories of life and beliefs about creation to teach younger generations about aboriginal history, culture and law," she said.

"To ensure these stories are permanently recorded as an important part of Australian history, we videotaped interviews with four Roebourne residents last year, with each interview resulting in two to three hours of footage - a really fantastic result."

Further interviews are being conducted early this year and a film screening evening will be held in Roebourne in March to showcase the oral histories.

The National Trust is also coordinating a tour for representatives from Indigenous groups in Roebourne to visit archival collections in Perth, Adelaide and Canberra in February.

The tour will give community members the chance to view photographs, artefacts, documents, sound and film recordings relevant to the Burrup and also learn about archival standards and collection management.



◀ National Trust CEO, Tom Perrigo, Joy Lefroy and Kate Gregory in Roebourne.



◀ Roebourne resident Tootsie Daniels telling her story.

Pluto customers sign on for integrated shipping

Senior executives from Kansai Electric and Tokyo Gas visited Perth in October 2009 to sign revised sales and purchase agreements for the foundation Pluto LNG Project.

Woodside signed initial 15-year sales contracts for up to 3.75 million tonnes of Pluto LNG a year with Kansai Electric and Tokyo Gas in 2007. Both foundation customers acquired 5% equity in the project in 2008.

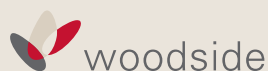
The revised sales and purchase agreements feature the first integrated shipping terms for Pluto LNG cargos, where both Woodside and the customers will charter LNG carriers to ship the LNG to Japan.



▲ (L to R) Kansai Electric Managing Director Fossil Fuel Yoichi Mukae, Woodside CEO Don Voelte and Tokyo Gas Senior Executive Officer and Chief Executive of Energy Resources Tsutomu Oya sign the revised agreements, overseen by Woodside Manager LNG Marketing and Trading Maté Parentich and Tokyo Gas Manager LNG Contracts Atsushi Saiganji.



▲ The team involved in the revised SPAs celebrate at the signing ceremony.



Woodside Energy Ltd

240 St Georges Terrace, Perth Western Australia 6000

Pluto Information Line: 1800 634 988 T: +61 8 9 348 4000 F: +61 8 9214 2777 E: pluto.info@woodside.com.au