



Shell-Hazira LNG Storage Tanks

Punj Lloyd have completed the 1st Stage Roof Concreting of the tanks, T1001 and T1002, of LNG Storage Tanks for Receiving Terminal for Hazira LNG Pvt. Ltd./Shell Global Solutions Int. BV- high tank pressurisation and continuous concreting, leading to de-pressurisation.

The quantity of concrete used was 910 m³ for each tank; there was continuous concrete pouring with two tower cranes and buckets. Total time taken: 105 hours for each tank. The tank internal pressure was maintained at 400 to 450 mm of water column and each tank was under pressurised conditions for about 163 hours. Initially the pressure was raised with two blowers (2-stage axial flow, dia 1,200 mm, motor 40 HP, RPM 1,440 in series). Pressure was maintained with the use of four 300 cfm compressors (one/two at a time, depending on the thermal variation of volume and air leakage).

Two pressure release valves were designed and fabricated at the site. This concreting was executed under the most stringent Shell and Punj Lloyd Quality & HSE norms. Its successful execution, highlights the dedicated efforts of Team Punj Lloyd.

◆ Amitava Bose



update
completed
first stage
concreting
of tanks

Off Shore **takes off**

When Punj Lloyd bid for a pipeline project of PT Perusahaan Gas Negara (PGN), Indonesia, as an EPC contractor, it was a major leap from being a construction contractor to becoming an international EPC player in the oil and gas field development projects in the world. It called for innovative and efficient performance in a terrain that was a challenging mix of offshore, onshore and swamp.

PGN awarded the contract to Punj Lloyd on an EPC basis with a very demanding timeframe of

12 months. The scope of pipeline work was between Panaran and Pemping Islands, forming one of the key links of the transportation system of natural gas from the Gulf Grissik Corridor to Singapore and ASEAN gas network, commonly known as the Grissik-Sakaran-Batam-Singapore pipeline project.

Our work included the detailed engineering and design for pipeline and fibre optics for two stations, including process, mechanical, piping, electrical and instrumentation engineering; the

procurement of project material, including coated line pipe, full bore valves, piping, electrical instrumentation, cathodic protection and fibre optic cable, and the fabrication, installation, testing and pre-commissioning of the pipeline, fibre optic systems and associated launcher, receiver stations.

The numbers do us proud at Punj Lloyd: 1,000 workmen; 2,000,000 million safe man-hours; 150,000 mangrove saplings planted; six welding spreads deployed in only 10 weeks; pipeline hydrotesting and



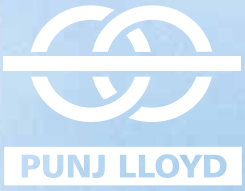
swabbing completed in one section of a length of 30 km and the caliper survey of the pipeline successfully completed with excellent results, re-confirming the integrity of the pipeline system. This project is being talked about as the best shallow water swamp pipeline spread in the region.

◆ A Rajendra



update 
2,000,000
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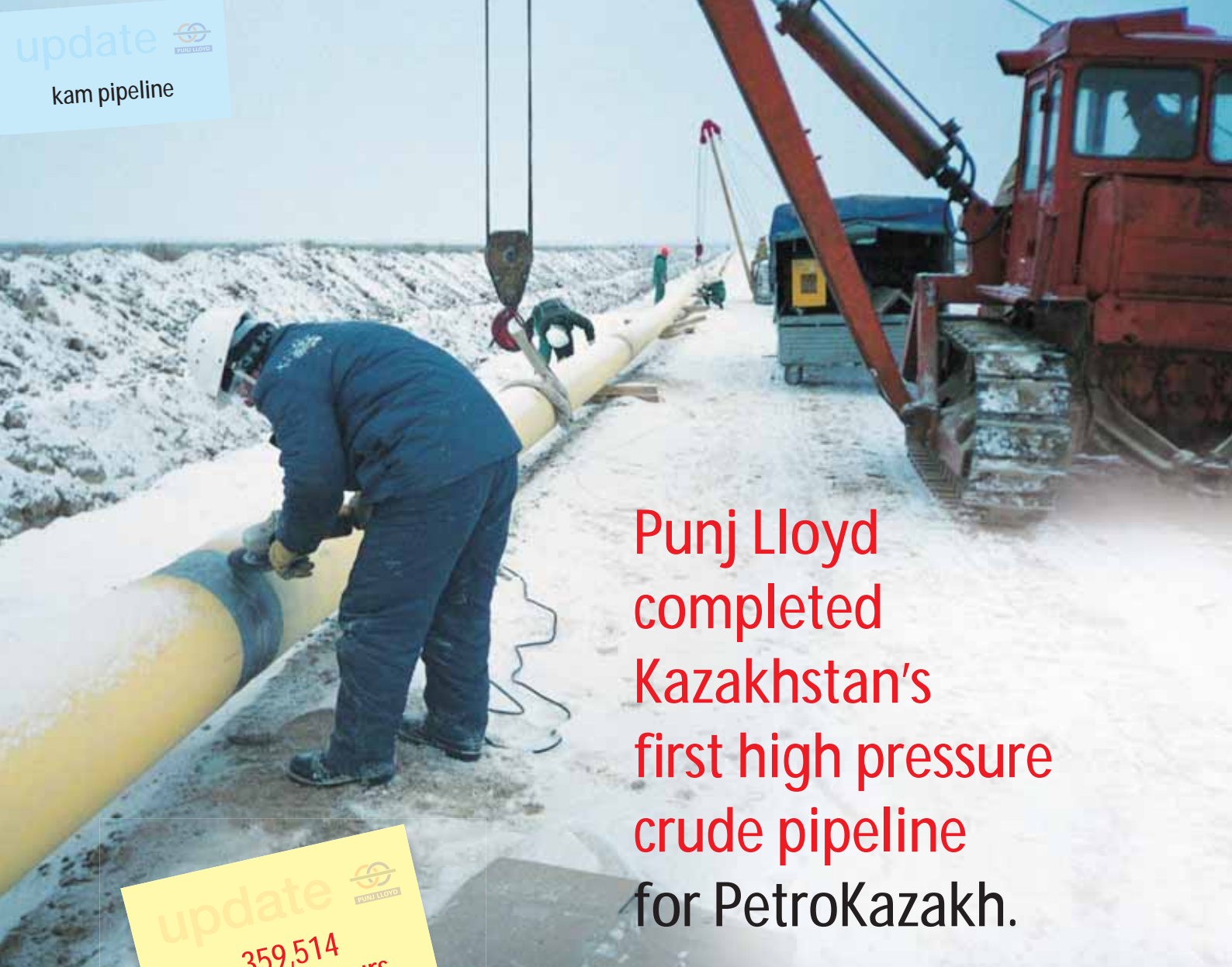
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ARWANA
SAMARA SA



OFFSHORE



Punj Lloyd completed Kazakhstan's first high pressure crude pipeline for PetroKazakh.

update
359,514 safe man-hours
Hydrotesting in winter



Punj Lloyd was awarded the prestigious contract for the KAM Pipeline Project by PetroKazakhstan JSC (formally Hurricane Kumkol Munai). The construction started in winter temperatures touching a low of -35 degrees C in the Kazakh steppes and soaring to +35 degrees C in summer.

Punj Lloyd was contracted to build the 176 km crude oil pipeline from the Kumkol well-head to Dhuzaly via Arysium. We co-opted four local companies for this project which included the construction of block valves, pig launchers and receivers. We brought in only 2 per cent specialist manpower from India. All construction machinery was sourced locally, but for specialist pipeline machinery which was sent from Punj Lloyd's Comprehensive Maintenance Facility, India. 85 per cent local content on the project demonstrates Punj Lloyd's commitment to develop local skill sets.

Once again Punj Lloyd was commended for its safe working and clocked 359,514 safe man-hours. And we successfully completed the project on schedule, executing the Hydrotesting in winter.

The Pipeline of the Century.

The three nation
1,760 km Baku-Tbilisi-Ceyhan crude oil pipeline from Baku on the Caspian in Azerbaijan through Georgia to Ceyhan in Turkey on the Mediterranean, is set to majorly impact the energy economy in the region. British Petroleum awarded the contract to BOTAS Petroleum Pipeline Corporation who appointed Punj Lloyd Limited, in joint venture with Limak Construction Industry & Trade, to construct the 331 km Lot C – the stretch from Sivas to the Ceyhan Marine Terminal. Punj Lloyd's EPC contract is for the construction of 42" dia pipeline

for 207 km in its first segment. And a 34" dia 124 km in the second; from the pumping station near Sivas to the largest terminal of tanks being built on the Mediterranean at Ceyhan. The scope of work includes the pipeline, cathodic protection and 13 block valve stations and commissioning assistance for the pipeline. Punj Lloyd matched BP's stringent, standards-setting HS&E requirement. The pipeline passes through one of the most environmentally sensitive areas in Turkey. Punj Lloyd's experience in ecologically sensitive zones with global majors like TOTAL, Shell, Petronas, Pertamina, ADNOC and Qatar Petroleum was an important consideration

for BOTAS. We have been commended for our HSE & Quality practices by BP – BOTAS. Already on this project we have clocked 2,000,000 man-hours of safe working. In addition we have 4 million mishap-free vehicle kilometers to our credit. About 1,100 personnel are mobilised at the construction site comprising 10% expat Indian and 90% Turkish manpower.

◆ Atul Jain

update
2,000,000
safe man-hours
4,000,000
mishap-free
vehicle km



update
5,000,000 m³ of
earthwork in soil &
rock excavation and
embankment

The Road Well-travelled

Never before has a project of such magnitude been undertaken in India; providing road connectivity of a high order across the country. The most pivotal parts are what is known as the Golden Quadrilateral. In the building of these economic and socially relevant lifelines Punj Lloyd has a major presence; 347 km of highways under construction in seven projects throughout India.

It is one of the most important EPC contracts for the upgradation of the Belgaum-Maharashtra

border section of the NH-4 in Western India awarded to us by the North Karnataka Expressway Ltd. With a completion period of 30 months, the countdown began on March 1, 2002.

The project involves the widening and strengthening of 77 km of the existing two-lane road to four-lane and

the construction of service roads on either side. The work also includes the construction of 5 km of new alignment, 7 grade separators, 18 major/minor bridges, 26 cattle underpasses, 6 vehicles underpasses, 1 subway and 120 cross drainage structures.

In about one year of operation, 5,000,000 m³ of earthwork in soil/rock excavation and embankment/sub-grade was completed.

The progress haulage in terms of Return-Tonne-Km done in 12 months was 134 Million RT-Km out of a total 175 Million RT-Km. Thus 76.50 per cent of physical progress and a total of 66 km PQC is complete. 1,850,000 MT of boulder has been mined over 10 months. Another project that Punj Lloyd can look at with pride and satisfaction.

◆ Subhash Sachdeva

update
17.45 million
safe man-hours
347 km of highways,
7 projects in India



update
**Maximum Value of
 Contracts Secured
 Maximum Foreign
 Business Secured in
 New Areas**

TWO OCCI AWARDS



Working towards a presence internationally has long been a Punj Lloyd priority. Over the years we developed our performance in line with delivery schedules, safety practices and ever more demanding ecological considerations. These are fundamental to our international successes.

This effort has been acknowledged and recognised. The Overseas Construction Council of India, now renamed Project Exports Promotion Council of India, awarded Punj Lloyd the prize for Maximum Value of Contracts Secured 2002-03. Punj Lloyd also received the award for the Maximum Foreign Business Secured in New Areas 2002-03.

Currently Punj Lloyd

has projects in 8 different locations in South East Asia, the Middle East and the Caspian, among them are offshore pipelines and a first high pressure crude oil pipeline in the region. The Caspian region is a pioneering development by an Indian company which led OCCI to award the Maximum Foreign Business Secured in New Areas 2002-03 to Punj Lloyd. ♦



The awards were received by Director Finance & CFO Mr. Luv Chhabra.

ERNST & YOUNG 5TH ENTREPRENEUR OF THE YEAR AWARD 2003



A speech at the Ernst & Young 5th Entrepreneur of the Year Awards 2003 ceremony captured it all. "Entrepreneurs are the lifeblood of this country. As we look back over the award's past five years in India, it gives us great pride and satisfaction that the nominations have been of such consistently high quality. It is surely an indicator that the award programme has fired the imagination of Indian entrepreneurs."

Punj Lloyd Chairman Mr Atul Punj was amongst 25 nominees – bankers, infrastructure, service providers, IT persons and communications professionals.

They all met on Wednesday, 29 October to celebrate the triumph of Indian entrepreneurship for a ceremony that lasted a good part of the day as the 25 finalists and the 7 jury members debated and defined their idea of a successful entrepreneur at a round table.

It was an important moment for Punj Lloyd and for the Chairman who led the company to markets in cross country Pipelines, Tankage & Terminals, Highways & Civil Construction and Telecom. Globally taking the company into areas where no other Indian company had ventured. ♦

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 OHSAS 18001 : 1999 OHSMS