

THE OHANET DEVELOPMENT ALGERIA



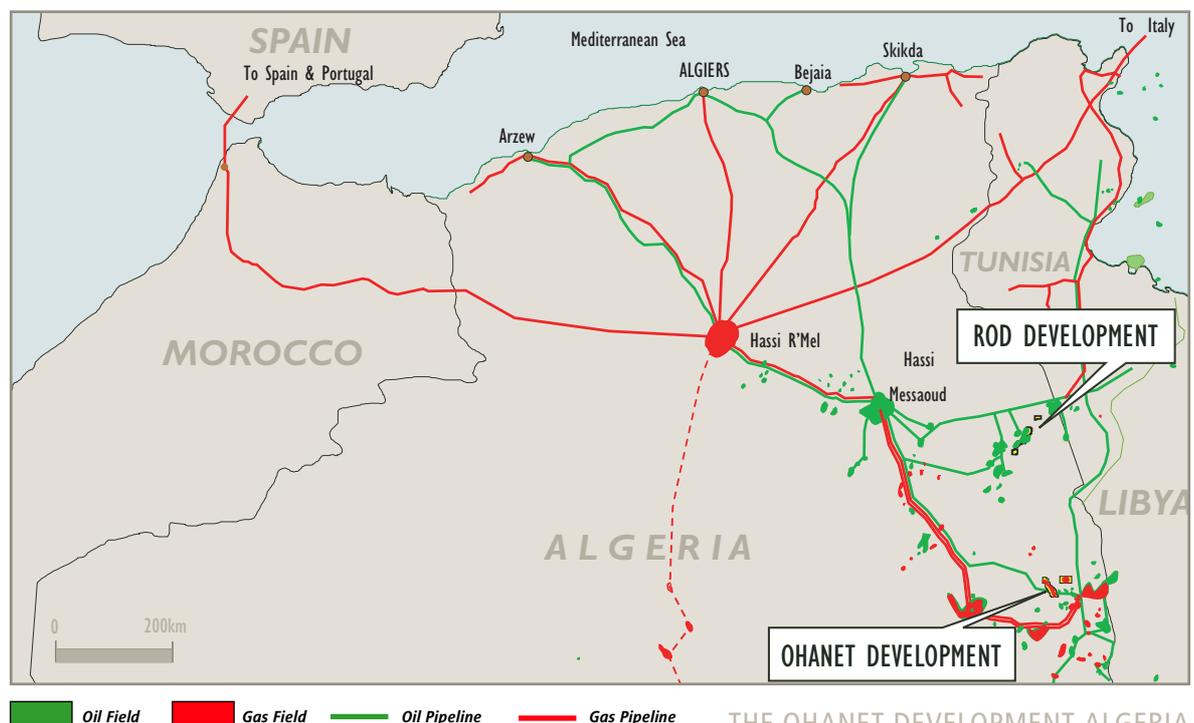
OVERVIEW

- In October 2003, BHP Billiton announced first gas production from the jointly operated BHP Billiton / SONATRACH wet gas development at Ohanet, southern Algeria. The new facility was commissioned on schedule and within the original US\$1 billion budget (US\$464 million net to BHP Billiton).
- The new processing facility will treat around 710 million standard cubic feet per day (MMscf/d) of gas and produce a maximum of 30,000 barrels per day (bbl/d) of condensate and 26,000 bbl/d of Liquefied Petroleum Gas (LPG), together with a stream of dry pipeline sales quality gas for SONATRACH.
- The development comprises all the major fluid handling and processing systems, including two gas processing trains, fed by 47 production wells.
- A total of 28 new wells have been drilled and completed and 15 existing wells re-completed. The last four new wells as required under the Risk Service Contract have been deferred to allow three to four years of production history to be gathered.
- With the ROD Integrated Development (80,000 barrels per day gross) due on-stream in 2004, BHP Billiton Petroleum (Petroleum) is well placed to develop further growth opportunities in Algeria, a country with vast hydrocarbon resources.
- BHP Billiton holds a 45% equity interest in Ohanet, with joint venture partners Japan Ohanet Oil & Gas Co., Ltd., 30%, Woodside Energy (Algeria) Pty. Ltd., 15%, and Petrofac Resources (Ohanet) LLC, 10%.

STRATEGIC CONTEXT

The Ohanet development, completed in just over three years, is an example of project delivery within one of Petroleum's business focus areas – securing access to discovered but undeveloped resources. Other focus areas include high margin oil exploration and production and gas commercialisation.

The development also provides an important balance to other projects in the Petroleum portfolio, being a relatively stable earnings and cash flow generator which is protected against downside arising from a low oil price environment.



The Ohanet development represents our first commercial production in Algeria. With the completion of the ROD Integrated Development in 2004 we will have an excellent platform in the country on which to build.

BACKGROUND

In 1997 SONATRACH invited foreign companies to bid to undertake the capital investment necessary to develop the four gas condensate reservoirs comprising the Ohanet Development.

Petroleum lodged an expression of interest in May 1997 for participation in the project and submitted a final bid in joint venture with ITOCHU Oil Exploration Co., Ltd. in August 1998. Shortly afterwards, Petrofac Resources International Ltd was invited by BHP (as it was then) and ITOCHU to take an interest in the joint venture.

During the course of negotiations, BHP and its Joint Venture partners carried out a comprehensive evaluation of the reservoir geology and field deliverability. Available well log and core data was used to construct geological descriptions of the four reservoirs. Detailed petrophysical analyses of 18 wells was also conducted and all available seismic data was interpreted, prior to undertaking comprehensive reservoir modelling.

BHP and its JV partners signed the Risk Service Contract (RSC) with SONATRACH on 2 July 2000. The RSC was approved by the Algerian government on 12 November 2000.

In December 2000, BHP sold 15% of its interest in the Ohanet Development to Woodside Energy (Algeria) Pty. Ltd., a subsidiary of Woodside Petroleum Ltd. BHP had always intended to reduce its equity exposure in the development following Algerian government approval of the RSC.

BHP Billiton holds a 45% equity interest in Ohanet with other partners Japan Ohanet Oil & Gas Co., Ltd., 30%, Woodside Energy (Algeria) Pty. Ltd., 15%; and Petrofac Resources (Ohanet) LLC, 10%.

THE OHANET FIELDS

Ohanet is located in the Illizi province of Algeria, approximately 1300 km south east of Algiers and 100 km west of the country's border with Libya.

Included in the development are four separate hydrocarbon reservoirs, originally discovered in the late 1950s and early 1960s. Three of the reservoirs are Devonian, lying at depths of between 2300 and 2700 metres. The fourth is Ordovician at approximately 2900 metres. SONATRACH drilled more than 65 wells to appraise and delineate the fields.



Ohanet will be the seventh wet gas field development in the area southeast of Hassi R'Mel complex in Algeria.

THE RISK SERVICE CONTRACT

Under the terms of the RSC the total production from the fields is the property of SONATRACH. The foreign participants in the venture bear the total cost of developing the Ohanet reservoirs, and in return we will recover our investment, together with an agreed fixed profit margin, from hydrocarbon liquids production over a target eight year period (from the start of production). The monetary entitlement will be translated into volumes of condensate, butane and propane that will be lifted from export ports on the Algerian coast. These volumes will be determined based on prices posted by SONATRACH. Under the terms of the RSC, we and our joint venture partners are not entitled to any of the pipeline sales gas or the associated revenue. This gas will be utilised by SONATRACH to meet its long term Mediterranean pipeline gas and LNG sales requirements.

THE DEVELOPMENT PHASE

The development comprises all the major fluid handling and processing systems, including a two train 710 MMscf/d gas treatment facility (the Central Processing Facility, or CPF), fed by 47 production wells, of which 32 will be new and 15 are re-completions of existing oil producers.

A total of 28 new wells have been drilled and completed and 15 existing wells re-completed. The last four new wells have been

deferred to allow three to four years of production history to be gathered. Three of the new wells were drilled as horizontal, underbalanced wells, the first time this technology has been used in the Algerian hydrocarbons industry.

The Ohanet sub-surface and drilling campaign involved two seismic acquisition crews and three rigs operating in the field. Simultaneously, the EPC (Engineer/Procure/Construct) contractor supervised some 25 subcontractor companies erecting 4,500 tonnes of steel, pouring 13,000 cubic metres of concrete and installing 288 items of equipment. The CPF is fed by a gas gathering system comprising more than 150 kilometres of flowlines that connect the 47 wells. The EPC subcontractors included a significant number of Algerian companies together with overseas companies (notably from Syria and Thailand) – wherever possible, Algerian subcontractors and suppliers have been used in order to maximise local content.

All the materials for the development and everything to support the people (more than 3,000 at peak activity) working at site were brought in by road, a distance of some 1300 kilometres from the coast.

HEALTH, SAFETY AND ENVIRONMENT

The sheer size and scope of the Ohanet development poses a wide variety of safety challenges. From the outset, there was senior

management commitment from all parties to applying effective safety processes and training and involving the whole workforce — with outstanding results. As the project has moved into the start-up phase, safety has remained at the top of the agenda.

A safety improvement plan was used that focused on:

- raising safety awareness by ensuring safety is at the top of all agendas
- improving communication through regular safety meetings and multi-language communications, such as posters
- planning for risk mitigation by identifying and assessing risks and devising control measures and safe systems
- targeting training and refresher training
- audit and inspection programs that enable management to ensure that policy is being translated into practice
- disciplinary procedures for non-compliance balanced with safety incentives to encourage safer behaviour and improve performance.

The results of the safety programme have set a new standard for the industry in Algeria, attracting interest from many other companies working in the country. The lessons learnt on the Ohanet development have been carried across to the ROD integrated oil development with the aim of achieving a further improvement in safety performance.





A key to the success of the safety programme has been establishing a common safety culture not only amongst the development workforce (which is largely sub-contracted) but also within the combined BHP Billiton and SONATRACH workforce which comprises the joint operating organization (OOC – see below).

Some of the key safety achievements and milestones include:

- A total of some 20 million workhours have been expended on the project with an overall Lost Time Incident (LTI) frequency rate of 0.85 per million workhours – an excellent performance given the remote location and the harsh working environment
- Some 9 million workhours was completed by the EPC workforce without an LTI between October 2001 and November 2002
- Completion of the entire 424-day campaign of re-completions of 15 old oil wells without a single LTI by the workover rig operated by the Algerian company, ENTP
- Periods of two years and one year LTI free by the rigless operations crew and the drilling civils crew respectively



OPERATORSHIP

During 2002 a new SONATRACH / BHP Billiton joint operating organisation - the Organe d'Operating Conjoint (OOC) – was created. The OOC, staffed with secondees from both organisations, is responsible for the day-to-day operations in country (including execution of both the Ohanet and ROD integrated oil developments and the operation of the Ohanet development). It functions as a standalone operating company (although it is not a legally incorporated entity). A Management Committee comprising representatives of SONATRACH, BHP Billiton and its joint venture partners directs the OOC in respect of each development.

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