

BHP BILLITON LTD  
Form 6-K  
October 27, 2005

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**Form 6-K**

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16  
UNDER THE SECURITIES EXCHANGE ACT OF 1934

October

27, 2005

**BHP Billiton**

**Limited**

..... (Translation of registrant's name into English) 180 Lonsdale Street Melbourne VIC 3000 Australia  
.....

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:  Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934:  Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): n/a

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27 October 2005  
43/05

BHP BILLITON QUARTERLY REPORT ON EXPLORATION  
AND DEVELOPMENT ACTIVITIES  
July 2005 - September 2005

This report covers exploration and development activities for the quarter ended 30 September 2005. Unless otherwise stated, BHP Billiton's interest in the projects referred to in this report is 100 per cent, and references to project schedules are based on calendar years.

During the quarter, cost reviews were completed for the Ravensthorpe and Yabulu projects (both Australia). Due to the impact of demand driven tightness in the Australian labour market, rising input costs and a weakening US dollar, an increased capital budget for both of these projects has been approved. Whilst these industry wide conditions continue to challenge other BHP Billiton development projects, all of our projects are tracking in line or ahead of schedule.

Since last reporting, Escondida Norte (Chile) has been successfully commissioned on schedule. Development costs are being finalised, however it is expected the final cost will be below budget in local currency and marginally above budget in US dollars due to the strengthening of the Chilean peso.

During October 2005, the Rapid Growth Project 3 expansion at Western Australia Iron Ore and the Samarco (Brazil) expansion received Board approval. These projects will be included in the December 2005 Exploration and Development report.

## **PETROLEUM DEVELOPMENT**

**Atlantis South Development, Gulf of Mexico, USA (BHP Billiton 44%, non-operated)**

In February 2005, BHP Billiton approved a revised budget of US\$1.1 billion for the development of the Atlantis South oil and gas reserves. The Atlantis South development will have a gross nameplate daily capacity of 200,000 barrels of oil and 180 million cubic feet of natural gas. During the quarter, integration work continued on the Atlantis production facility at construction yards in Texas, USA. The personnel quarters have been installed and other commissioning work is progressing. Despite the hurricane related work interruptions in July and September, the project currently remains on schedule for first production in the third quarter of 2006.

**North West Shelf expansion, Australia (BHP Billiton 16.67%, non-operated)**

In June 2005, BHP Billiton approved an expansion to the liquefied natural gas (LNG) processing facilities at the North West Shelf Project in Western Australia. The project includes the construction of a fifth liquefaction processing train with a gross annual capacity of 4.2 million tonnes, additional processing facilities and associated infrastructure. Engineering and procurement activities are continuing whilst site preparations and the installation of temporary facilities have commenced. BHP Billiton's share of development costs, based on the operator's estimate, is approximately US\$250 million. First production is expected by late 2008.

**Neptune Development, Gulf of Mexico, USA (BHP Billiton 35%, operated)**

In June 2005, BHP Billiton approved the Neptune oil and gas development in the Gulf of Mexico. The project includes the construction, installation and operation of a stand-alone platform and the associated subsea system with seven wells. The facility will have a gross nameplate daily capacity of 50,000 barrels of oil and 50 million cubic feet of gas per day. Design, engineering and manufacturing of the subsea equipment continued during the quarter. Contracts for the design, procurement and construction management of the production platform and for fabrication of the topsides and the hull have been awarded. Orders have been placed for all major equipment and materials. Development costs are estimated at US\$850 million (BHP Billiton share US\$300 million) with first production expected by the end of 2007.

## **MINERALS DEVELOPMENT**

Aluminium

**Worsley Development Capital Projects (DCP), Australia (BHP Billiton 86%)**

The Worsley Alumina DCP were approved in May 2004 with a budget of US\$192 million (US\$165 million BHP Billiton share). The projects will increase alumina capacity by 250,000 tonnes per annum (215,000 tonnes per annum BHP Billiton share) to a capacity of 3.5 million tonnes per annum (3.01 million tonnes per annum BHP Billiton share). Engineering and procurement activities are complete and construction activities are now focused on completing work in preparation for the tie-in of individual components to existing operations.

Commissioning of the DCP are scheduled for the first quarter of 2006.

Base Metals

Escondida Norte, Chile (BHP Billiton 57.5%)

The development of the Escondida Norte pit, located approximately 5 kilometres north of the existing Escondida mining operations, was approved in June 2003. Pre-mine waste stripping continued during the quarter, with total material movement of 236 million tonnes to the end of September 2005. On 1 October, 2005, Escondida Norte ore was successfully integrated on schedule into the existing mineral distribution system. Development costs are in the process of being finalised. However, before foreign exchange variation, development costs are expected to be 3 per cent below the originally approved budget of US\$400M (BHP Billiton share US\$230M). Including the impact of the stronger Chilean peso, the project is expected to be approximately 8 per cent higher than the budgeted amount.

As the project has successfully been commissioned, it will no longer be included in this report.

Escondida Sulphide Leach, Chile (BHP Billiton 57.5%)

The Escondida Sulphide Leach Project was approved in April 2004. The project will produce 180,000 tonnes (103,500 tonnes BHP Billiton share) of copper cathode per annum, utilising a bacterially assisted leaching process on low-grade run-of-mine ore from both the Escondida and Escondida Norte pits. The resulting solutions will then be treated in conventional solvent extraction and electrowinning plants. During the quarter, ore stacking continued with approximately 11 million tonnes of ore being delivered to the pad. Construction activities transitioned from mainly civil works to structural steel erection and piping and mechanical installation in the solvent extraction, electrowinning and desalination plants. A project budget of US\$870 million (US\$500 million BHP Billiton share) was approved by the Board and production is scheduled to begin during the second half of 2006.

Spence, Chile

The Spence Project, approved in October 2004, will be a new open cut mine with associated plant facilities capable of producing 200,000 tonnes per annum of copper cathode through a combination of chemical and bacterial leaching. Major equipment and bulk materials continue to arrive on site and mine pre-strip operations have commenced. Permanent electrical power is now available on site and construction of the mine and administration infrastructure and the major earthworks are almost complete. Concrete work in all areas of the process plant has commenced and the liner placement contract for the heaps and ponds has been awarded and is underway. All major construction contracts have been bid and are currently being evaluated. A project budget of US\$990 million was approved by the Board and production is scheduled to begin during the last quarter of 2006.

Carbon Steel Materials

Rapid Growth Project 2,

**Australia (BHP Billiton 85%)**

The Rapid Growth Project 2 (RGP2) was approved in October 2004. The project comprises increases in mine, rail and port capacity through the development of Ore Body 18, purchase of additional rolling stock and a new car dumper at Finucane Island. Site activities continue to proceed to schedule with construction now focused on preparation for initial commissioning activities. The project will increase installed capacity at Western Australian Iron Ore by 8 million tonnes per annum by the second half of 2006 (this will be offset by an 8 million tonnes per annum reduction in capacity due to the suspension of the Goldsworthy ship loading operations at Finucane Island in the third quarter of 2006 to allow for the replacement of ageing berth and production infrastructure as part of the RGP3 expansion). Development costs are estimated at US\$575 million (BHP Billiton share US\$489 million).

Stainless Steel Materials**Ravensthorpe Nickel Project, Australia**

The Ravensthorpe Nickel Project was approved in March 2004. The project includes the development of a mine, treatment plant and associated infrastructure near Ravensthorpe in Western Australia. The Ravensthorpe processing plant will produce a mixed nickel-cobalt hydroxide intermediate product (MHP). Engineering and procurement activities continue to proceed to schedule. Earthworks in the process plant and mine maintenance areas are now complete with concrete works in all areas well advanced and structural steel and tank erection accelerating. Off site fabrication and infrastructure works are proceeding to schedule. Following a review of project costs completed in August 2005, a revised budget of US\$1,340 million has been approved. This is 28 per cent above the originally approved budget. The first shipment of MHP remains on schedule for the second quarter of 2007.

**Yabulu Extension Project, Australia**

The Yabulu Extension Project was approved in March 2004. The metal refining section of the Yabulu refinery near Townsville in Queensland is being expanded to process up to 220,000 tonnes of MHP. This additional processing capacity will increase refinery production to 76,000 tonnes of nickel and 3,500 tonnes of cobalt. Engineering and procurement activities are proceeding to schedule and the project team has now fully relocated to site. Infrastructure, access roads and earthworks are progressing and piling activity is underway. Detailed tie-in planning is continuing. Following a review of project costs completed in August 2005, a revised budget of US\$460 million has been approved. This is 31 per cent above the originally approved budget. First nickel metal production from the expanded Yabulu refinery is on schedule for the third quarter of 2007.

PETROLEUM EXPLORATION

Exploration and appraisal wells drilled during the quarter or in the process of drilling as at 30 September 2005.

WELL	LOCATION	BHP BILLITON EQUITY	STATUS
Mustang	Gulf of Mexico, West Cameron 77 OCS-G-9387 #2	43.66% BHP Billiton and operator	Hydrocarbons encountered. Temporarily plugged and abandoned.
Little Burn	Gulf of Mexico, Green Canyon 282	60% BHP Billiton and operator	Hydrocarbons encountered. Temporarily plugged and abandoned.

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Mad Dog Deep	Gulf of Mexico, Green Canyon 826	23.9% BHP Billiton; BP operator	At target depth. Running Logs.
Blackbeard West	Gulf of Mexico, South Timbalier Block 168	5% BHP Billiton; Exxon operator	Drilling ahead.
Cascade-2	Gulf of Mexico, Walker Ridge 206	50% BHP Billiton and operator	Hydrocarbons encountered. Temporarily plugged and abandoned. Sidetrack drilling ahead.
Knotty Head	Gulf of Mexico, Green Canyon 512	25% BHP Billiton; Unocal operator	Hydrocarbons encountered. Drilling ahead.
Bonsai	Gulf of Mexico, Atwater Valley 398	34% BHP Billiton; BP operator	Drilling ahead.
Puma-2	Gulf of Mexico, Green Canyon 206	33.3% BHP Billiton; BP operator	Top hole drilled, temporarily suspended. Rig currently in shipyard for repairs.
Everest	Gulf of Mexico, Atwater Valley 272	34% BHP Billiton; BP operator	Top hole drilled, temporarily suspended. Rig redeployed to finish logging Mad Dog Deep.
Gypsy-1	Trinidad Block 2(c) REA	39.3% BHP Billiton and operator	Dry hole. Plugged and abandoned.
Brecknock-2	Western Australia Browse Basin WA-32-R	8.33% BHP Billiton Woodside operator	At total depth. Completed logging. Well testing ongoing.
North Wirrah-1	Victoria, Australia Gippsland Basin Vic / L2	50% BHP Billiton; Esso operator	Dry hole. Plugged and abandoned.
Maliri-1	Sindh Province Pakistan Jhangara E.L.	37.5% BHP Billiton; Premier operator	Dry hole. Plugged and abandoned.
Davan-1	UK North Sea Block 9 / 5a-4	35% BHP Billiton; Total operator	Drilling ahead.

Following several hurricanes, exploration and development drilling in the Gulf of Mexico was temporarily suspended

during the quarter. Exploration and drilling activity has since resumed, however as a result of the disruptions, all well schedules in the Gulf of Mexico have been delayed by 4 to 6 weeks.

### MINERALS EXPLORATION

The Minerals Exploration group of BHP Billiton continued to pursue global exploration opportunities for key commodities of interest utilising both in-house capabilities and the Junior Alliance Programme.

Exploration continued on diamond targets in Canada, Angola and Botswana; and on porphyry copper targets in Chile, Peru and the Democratic Republic of Congo. Exploration for iron ore, coal and bauxite was undertaken in a number of regions including Australia, Brazil and West Africa. The integration of WMC's exploration activities was completed with a corresponding increase in nickel exploration activities in Western Australia.

### EXPLORATION EXPENDITURE

During the quarter, BHP Billiton spent US\$39 million on minerals exploration, of which US\$39 million was expensed, and US\$127 million on petroleum exploration, of which US\$56 million was expensed.

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Further information on BHP Billiton can be found on our Internet site:

<http://www.bhpbilliton.com>

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Registered in Australia  
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BHP Billiton Plc Registration number 3196209

Registered in England and Wales  
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The BHP Billiton Group is headquartered in Australia









## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BHP Billiton Limited

Date: 27 October 2005

By: Karen Wood

Name: Karen Wood

Title: Company Secretary