Oil and Gas



One oil tanker (foreground) anchored in Conception Bay while another heads offshore

Offshore Production

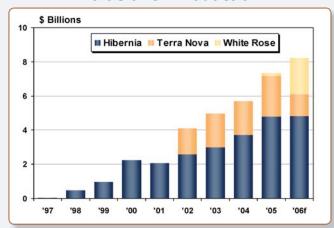
Oil production is expected to reach 112.9 million barrels in 2006^2 , representing growth of 1.4% over 2005. While production growth in 2006 is positive, it is lower than the 17.5% increase which had been expected earlier in the year as a result of extended downtime at Terra Nova and lower than expected production at Hibernia.

Despite the rather marginal volume increase, the rise in production value was quite significant (see chart). The value of oil production is forecast to increase by 12.0% to \$8.2 billion primarily as a result of higher crude prices. The price of Brent crude is expected to average US\$64.75 in 2006 in comparison to US\$54.47 in 2005.

Hibernia

In June 2006, the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) increased its

Value of Oil Production



Department of Finance; f: forecast

reserve estimates for the Hibernia field. Total reserves are now estimated at 1,244 million barrels, representing an increase of 379 million barrels over the previous estimate. The upward revision is the result of increased oil-in-place potential, primarily in the southern area of the Hibernia reservoir, and higher recovery efficiencies in all areas. The C-NLOPB received an application from Hibernia Management and Development Company in May (supplementary information received in July) to develop the southern area of the reservoir—a decision on the application is expected before year end.

The Hibernia platform has a design capacity of approximately 230,000 barrels of crude oil production per day (bpd)—the maximum annual production rate for the platform under C-NLOPB regulations is 220,000 bpd. However, 2006 production is being constrained by existing water and gas handling capacities. In the first nine months of this year, production averaged 177,041 bpd representing a 10.1% decline from 196,903 bpd for the same period in 2005. As a result, the estimated annual 2006 production from Hibernia has been revised down to 66.0 million barrels from expectations of 70.5 million barrels held earlier in the year.

Cumulative production at Hibernia, from first oil in November 1997 up to the end of September 2006, was 504 million barrels—leaving approximately 740 million barrels of reserves yet to be extracted.

Terra Nova

The Terra Nova FPSO suspended production in early May, six weeks before a scheduled 90-day retrofit, after a mechanical failure of the gearbox on its second main power generator—its other main power generator experienced similar difficulties in February. Most of the retrofit work, which is now complete, took place at the Keppel Verolme shipyard in Rotterdam.

² All 2006 annual oil production estimates are Department of Finance forecasts.

The \$225 million FPSO retrofit included:

- 1. installation of a 40-bed Additional Living Quarters (ALQ) module to enable future monitoring and maintenance to be done on an on-going basis;
- 2. repair of the gear boxes attached to the two main power generators;
- 3. cleaning, inspection, and recoating of the hull with anti-fouling paint to prevent marine growth;
- 4. inspection of vessel thrusters;
- 5. improvement of gas compression system;
- 6. modification of ship side valves; and
- 7. regulatory inspections.

Work completed locally included construction of the ALQ module at Bull Arm and fabrication of a 185 tonne lower turret cover plate in Marystown. In addition, approximately 160 local engineering, technical support and other service personnel accompanied the FPSO to Rotterdam to perform maintenance and modifications while en route.

The FPSO arrived back at the field on September 25 and, at the time of writing, the process of reconnecting the vessel to the subsea equipment was underway. Production is expected to re-start in early November and it is expected to take up to two months to reach maximum production targets of 110,000 to 120,000 barrels per day. As a result of the extended downtime, anticipated 2006 production is now 17.6 million barrels, significantly lower than the 26.7 million barrels that was expected at the beginning of the year. The work undertaken is expected to improve reliability to the 90% range on a sustained basis, up from its previous level of around 80%.

Cumulative production at Terra Nova, from first oil in January 2002 up to the end of September 2006, was 173 million barrels—leaving approximately 181 million barrels to be extracted.

White Rose

Production from the White Rose field totalled 21.9 million barrels in the first nine months of this year and annual production is now expected to total 29.3 million barrels in 2006, its first full-year of operation. A sixth production well, which is expected to come on stream at the end of this year, is expected to increase reservoir production capacity to 125,000 bpd. Husky Energy, the project operator, announced in October 2006 that plans are being put in place to improve FPSO efficiency and increase throughput capacity to 140,000 bpd during a scheduled turnaround next summer. The current approved annual average production rate is 100,000 bpd and any annual production increase in excess of



Additional Living Quarters and the Starboard Lifeboat Enclosure loaded onto a barge in Bull Arm

this amount is subject to regulatory approval by the C-NLOPB.

Hebron

Negotiations between the provincial government and the Hebron consortium reached an impasse in early April 2006. Chevron Canada is the designated project operator and has a 28% stake in the project; ExxonMobil Canada has the greatest ownership stake at 37.9%; Petro-Canada has 23.9%; and Norsk Hydro Canada Oil & Gas 10.2%.

The C-NLOPB upwardly revised its reserve estimates for the Hebron complex in June 2006. The Hebron complex, which includes the Hebron, Ben Nevis, and West Ben Nevis fields, is now estimated to have 731 million barrels of proven and probable oil resources based on the Board's latest geologic, petrophysical and reservoir simulation studies—this represents an increase of 317 million barrels over the previous estimate making it the province's second largest field.

EXPLORATION HIGHLIGHTS

- > \$798 million in outstanding exploration commitments
- average of 2-3 wells per year expected over the next five years
- C-NLOPB issued three separate Calls for Bids in 2006
 - 3 parcels in the Jeanne d'Arc Basin (area of current oil production)
 - 5 parcels in the Western Newfoundland and Labrador offshore region
 - 3 parcels in the Sydney Basin (off the province's Southwest Coast)*
- * This is the 1st time that lands have been available for bidding in the Sydney Basin following the resolution of the land claims dispute between Newfoundland and Labrador and Nova Scotia in April 2002.