

Bass Strait: Long history, bright future

Celebrating 40 years of oil and gas production



2009 marks the 40th anniversary of Bass Strait oil and gas production – a significant milestone in Australia's history.

For 40 years, oil and gas from Bass Strait has provided a great deal of the energy that allows Australians to go about their day – fuelling their cars, powering industry, heating homes, and supplying the chemical feedstocks used to make everyday products such as food wraps, plastics, inks, shampoo bottles, medicines and colouring pencils.

Since the first well was drilled in Bass Strait, almost 4 billion barrels of crude oil and 7 trillion cubic feet of natural gas have been produced.

The discoveries in Bass Strait led to significant changes to Australia's industry and economy.

In the beginning...

Two veteran ExxonMobil oil explorers, Lewis G. Weeks and Al Caan, played pivotal roles in the discovery of the Bass Strait fields.

Lewis G. Weeks



March 1960: Lewis G. Weeks, engaged as consultant to the Broken Hill Proprietary Company Ltd (BHP), recommends exploring in the continental shelf, Bass Strait.

17 September 1961: Major aerial magnetometer survey of Bass Strait titles held by BHP subsidiary Haematite begins. It outlines Bass Strait for first time.

June 1962: Marine seismic survey for BHP begins in the Gippsland Basin – the first marine seismic survey in Australian waters.

April 1964: A new company, Esso Exploration Australia Inc, forms a joint venture with BHP, with Esso as operator for oil and gas exploration off Victoria's Gippsland coast.

27 December 1964: Australia's first offshore wildcat well, Barracouta-1, is spudded by Glomar III.

Following his retirement as Exxon's Chief Geologist, Weeks was retained as a consultant to advise the Broken Hill Proprietary Company Limited (today BHP Billiton) in its efforts to explore for oil in 1960. Weeks pointed BHP Billiton towards Bass Strait.

Meanwhile, Caan was heading up Esso's own oil exploration activities in Australia. Like Weeks, he had a keen interest in, and understanding of, the Gippsland Basin. In 1963 Caan recommended that Esso pursue

negotiations with BHP Billiton over its exploration acreage in Bass Strait. This finally resulted in the formation of a 50:50 joint-venture partnership in 1964 with Esso as the operator – a successful relationship that continues today.

In December 1964 an exploratory drilling program commenced on the Gippsland Shelf, using the Glomar III. In January 1965 the first discovery was made in the Barracouta 1 well ... but it wasn't oil, it was natural gas.

Achieving such a feat – in the first well in a new region – defied all the odds in exploration. Success continued with the discovery of the Marlin field – the largest gas field in south eastern Australia.

The big prize eluded the explorers until 1967 when they discovered the huge Kingfish field, which is the largest oil field ever discovered in Australia.

These Bass Strait discoveries, and the others that followed, transformed Australia's oil supply situation from one of almost complete dependence on imports to one of substantial self-sufficiency.

A steel network

But the job certainly was not over just because oil and gas had been found in commercial quantities. To support the production of this vital oil and gas, onshore facilities were required, offshore platforms had to be constructed and hundreds of kilometres of pipeline laid to connect it all together. Marine and helicopter services were also sourced to service the offshore facilities.

In 1966, work commenced at Barry Beach in Corner Inlet, about 190km south east of Melbourne, to build a marine terminal.

It was at this site that the fabrication of the Barracouta and Marlin platform jackets and decks began in 1967.

Further platforms were installed throughout the 70s, 80s and into the 90s, and the Joint Venture's Bass Strait operations now has 21 offshore facilities.

Back on land, the first gas production plant, Gas Plant 1, was constructed at Longford in 1969, and the Crude Oil Stabilisation Plant came on line in 1970. As the market for natural gas increased, Gas Plant 2 was added in 1976 and Gas Plant 3 went into operation in 1983.

At Hastings, construction of the Long Island Point Plant got underway, with the Fractionation Plant commissioned in March 1970. The plant was officially opened on 21 September 1970, by the then Prime Minister of Australia, the Right Honourable J.G. Gorton.



18 February 1965: First hydrocarbons encountered in an offshore well in Australian waters, and the next day Esso/BHP announce natural gas has been discovered in Barracouta-1.

14 and 15 March 1966: First oil flows from an offshore Australian well during production testing of Marlin-1.

May 1967: Discovery of Australia's first major oil field, Kingfish.

16 March 1969: First Barracouta gas leaves Longford into the pipeline to Melbourne.

14 April 1969: Supply of natural gas to Melbourne consumers begins.

29 April 1969: Gippsland Gas Processing and Crude Oil Stabilisation Plant officially opened by Sir Arthur Rylah, Deputy Premier of Victoria.





First gas to Melbourne!

Gas flowed ashore from Barracouta in March 1969 and first processed gas was sent from Longford to Melbourne on 16 March. Melbourne consumers received their first supplies from the distribution network on 14 April.

In November 1969, Sale became the first country Victorian town to be connected to natural gas.

And then there was oil...

First production of oil began a few months after gas. The Barracouta field held an estimated 7 million barrels of recoverable crude oil. On 8 October 1969, this crude began flowing to Longford. The first oil from offshore reached Long Island Point on 10 December 1969 through the 28-inch pipeline.

A platform for prosperity

When the first well was drilled in 1964, little did anyone know the enormous impact that Bass Strait would have on Australia and its economy.

In 2006, Esso commissioned economic modelling research, which examined the economic impact of the Gippsland Basin Joint Venture's operations on the national, state and local economies since 1969.

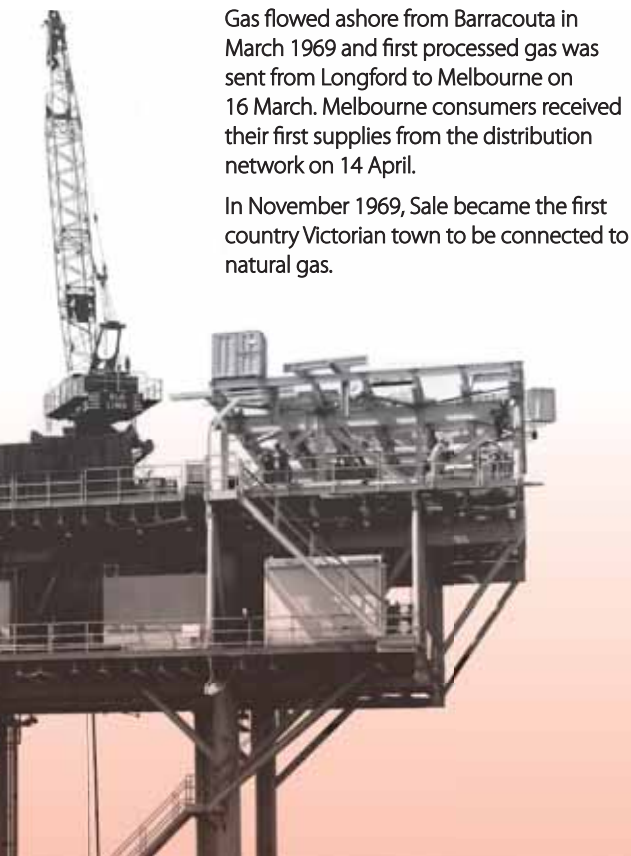
The results showed that Bass Strait has been a critical building block underpinning the economic growth of this nation – producing almost two-thirds of Australia's cumulative oil production to date and 30 per cent of Australia's gas production.

The importance of Bass Strait is underlined by the fact that the flow-on effects from oil

and gas production have contributed over A\$200 billion to Australia's Gross Domestic Product (GDP) over the last four decades. Operations have been responsible for generating approximately A\$300 billion in Federal Government revenues in real terms (2.1 per cent of all government revenues collected in the period).

Esso and BHP Billiton's Gippsland operations have also had an important and positive impact on employment and living standards. Approximately 50,000 direct and indirect jobs have been created in Victoria, with 14,000 of these in regional Gippsland alone.

The local community has also benefited significantly, with many millions of dollars contributed to schools, emergency services, hospitals and other community groups.



8 October 1969:

Production of oil begins from Barracouta (first offshore oil).

10 December 1969:

First oil from offshore reaches Long Island Point through the 28-inch pipeline.

21 March 1970:

Long Island Point Fractionation Plant commissioned.

24 March 1970:

A and B trains in the Longford Crude Oil Stabilisation Plant fully commissioned.

24 March 1970:

First cargo of crude oil leaves Long Island Point bound for Adelaide.

21 September 1970:

Long Island Point Fractionation Plant officially opened by the Prime Minister of Australia, The Rt. Hon. J.G. Gorton.



April 1993: Esso and BHP announce \$750 million to build the West Tuna platform, Australia's first concrete-gravity-based platform.

January 1994: The joint venturers announce \$230 million to build the Bream B platform, also a concrete-gravity structure.

Bass Strait's bright future

Bass Strait has had a long history, but still has a very bright future.

There is significant oil supply and approximately 7 trillion cubic feet of gas remaining in the basin, which will see Bass Strait continue to supply vital energy to Australians for more than 30 years.

In 2001, the Joint Venture commissioned the largest 3D survey ever recorded in Bass Strait – a 3,900 square kilometre seismic blanket over the northern oil and gas fields, which delivered a massive flow of information into the Gippsland geoscience dataset, and resulted in a series of successful field drilling programs that continue today. Since this seismic survey, approximately 1 trillion cubic feet of gas has been added to existing resources in Gippsland.

New oil and gas projects continue to be developed. The Kipper and Turrum projects together hold enough energy to power a city of a million people for 35 years, with production expected to begin in 2011. The newest platform in 10 years – Marlin B – will be installed in 2010, heralding a new era in the history of Bass Strait.

A Joint Venture

The Bass Strait oil and gas fields and associated production and processing facilities are owned by Esso Australia Resources and BHP Billiton in a 50:50 joint venture arrangement. Esso is operator and, as such, has responsibility for the day-to-day management decisions and the operation of the production and processing facilities.



December 1996: Esso/BHP announce plans to invest \$220 million to develop Australia's deepest water oil and gas project, Blackback.

2001: The Joint Venture (Esso and the newly formed BHP Billiton) commissions the largest 3D survey ever recorded in Bass Strait – a 3,900 square kilometre seismic survey of the northern oil and gas fields. This provided an enormous amount of data, and resulted in a series of successful field drilling programs that continue today.



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July and August 2007: The Joint Venture announces approximately 30,000 barrels have been added to liquid production since 2005, and a further 300 billion cubic feet of gas identified, on top of 700 million cubic feet of gas announced in 2005.

19 December 2007: Kipper venture participants (Esso Australia, BHP Billiton and Santos Limited) announce full funding of \$1.3 billion Kipper Gas Project.

25 July 2008: The Gippsland Basin Joint Venture (Esso Australia and BHP Billiton) announces full funding of \$1.4 billion Turrum oil and gas project.

April 2009: The Joint Venture celebrates 40 years of oil and gas production from Bass Strait.