

Timor Gap Joint Authority

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SUMMARY

This paper gives the background to the Timor Gap Treaty negotiations, the establishment of the Joint Authority and an overview of its operations since its inception in 1991. It includes a summary of the provisions of the Treaty relative to the responsibilities of the Ministerial Council, the Joint Authority and the oil companies. It summarises the legal provision applicable in Area A, arrangements for customs, quarantine, immigration and employment in Area A and taxation provisions for individuals and companies working in Area A.

Details are given of petroleum exploration operations in Area A since 1992, including the drilling of 33 exploration wells and the expenditure of over \$400 million.

The paper gives details of the results of all wells drilled and comments on significant petroleum discoveries made to date and the development of these fields leading to the first oil production from the Zone of Co-operation. The paper also looks at the sharing of work between Australia and Indonesia in Area A and comments of the imbalance which has occurred since 1991 and the steps taken to correct this imbalance.

The paper then goes on to summarise the future of petroleum exploration in Area A and the termination of the original production sharing contracts (PSCs) entered into in 1991.

INTRODUCTION

In 1972, Australia and Indonesia agreed on the continental shelf boundary between the two countries in the Timor Sea area based on the 200 metres sea depth and exploitability criteria consistent with the 1958 Geneva Convention on the Law of the Sea.

However, a gap of some 129 miles adjacent to East Timor remained. East Timor was then still a Portuguese colony. Negotiations for the continental shelf delimitation of the Timor Gap commenced in 1979 after Australia recognised Indonesian sovereignty over East Timor earlier that year.

Several arguments were put forward by both sides:

1. The continental shelf extended to the point of maximum ocean depth.
2. It was a common continental shelf and a line equidistant between the outer most shoreline of the two land masses should be the boundary.

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3. The boundary should be 200 nautical miles from the land mass; that is, the Exclusive Economic Zone (EEZ).

Eventually a Zone was defined (see Figure 1). The northern boundary was delineated by the 2,000 metre water depth line; that is, the maximum Australian continental shelf claim. The southern side was delineated by the 200 nautical mile line; that is, the maximum Indonesian EEZ claim. On the eastern and western sides the boundary was delineated by lines extending from the termination points of the previously agreed boundary.

The signing of the Treaty in 1989 established the Zone of Co-operation and its delineation is without prejudice to the respective positions of the two governments on a permanent continental shelf delimitation. Joint efforts to reach agreement on the delimitation of the continental shelf boundaries between the two countries will continue.

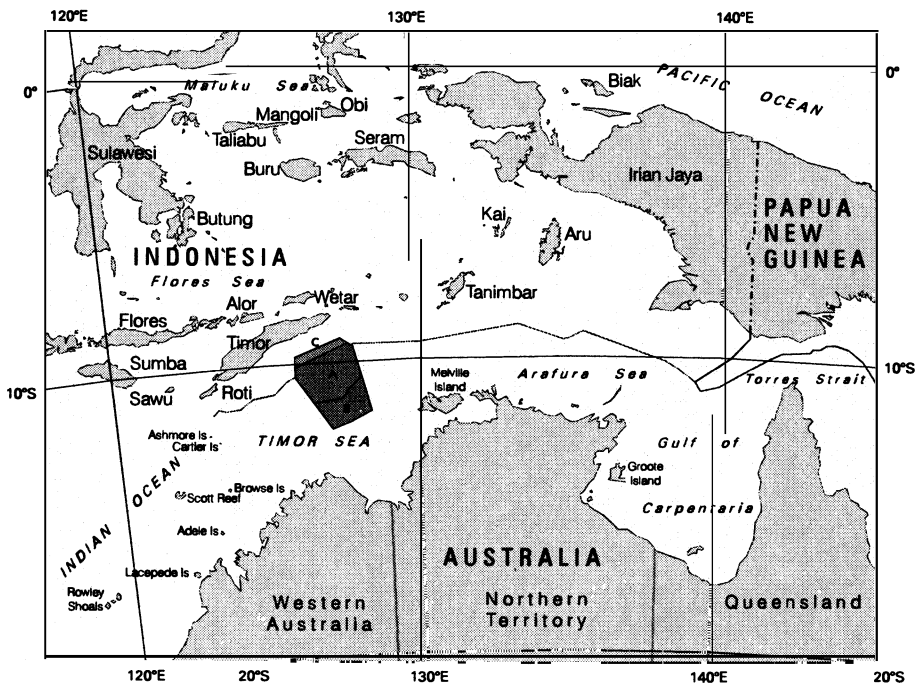


Figure 1: Position of the Zone of Co-operation and areas within the Zone

THE ZONE OF CO-OPERATION

The Treaty established the three areas within the zone (see Figure 2). Area A is subject to joint control and equal sharing in the benefits of petroleum exploitation. Area B is subject to the relevant Australian legal regime and shares with Indonesia part of its tax returns from petroleum exploitation. Area C is subject to the relevant Indonesian legal regime and shares with Australia part of its tax returns from petroleum exploitation.

The Zone of Co-operation covers almost 68,000 square kilometres, of which Area A is approximately half of the total area, about the size of Tasmania, Belgium or The Netherlands.

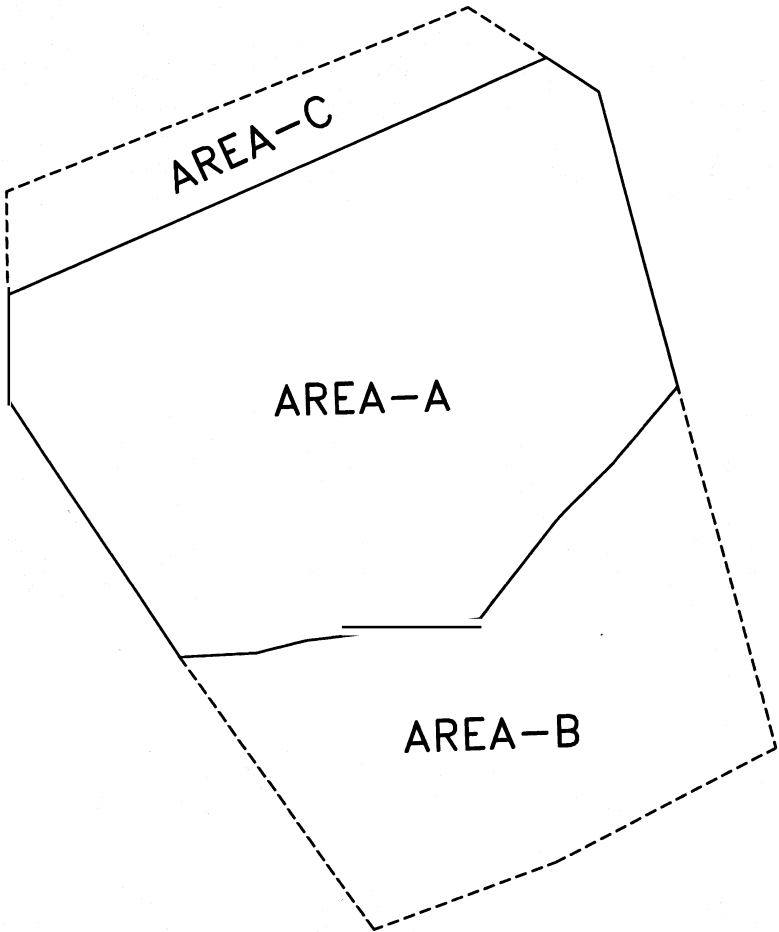


Figure 2: Areas within the Zone of Co-operation

THE TREATY

The Treaty sets out how the management of petroleum activities will be administered in the exploration for and exploitation of petroleum resources. Annexes to the Treaty are the Petroleum Mining Code, the Model Production Sharing Contract and the Taxation Code for the avoidance of double taxation with respect to activities in the joint area.

Under the Treaty a Ministerial Council was established. It has overall responsibility, on behalf of the two contracting states, on all matters relating

to petroleum operations in Area A. It is made up of equal numbers of Australian and Indonesian Ministers. In practice, this has been the two petroleum Ministers, although at its first meeting the Foreign Ministers of both countries, who signed the Treaty, also attended.

The Ministerial Council meets annually, alternating its meetings between Indonesia and Australia. Decisions of the Ministerial Council are arrived at by consensus.

The Treaty also established the Joint Authority, which is responsible to the Ministerial Council and is charged with the administration and management of day-to-day operations relative to the exploration for and exploitation of petroleum resources in Area A. However, the Ministerial Council also makes decisions that might be characterised as major, such as approving production sharing contracts to be entered into between the Joint Authority and companies.

The Joint Authority has its head office in Jakarta and its operational office in Darwin. Each office is headed by an Executive Director who is appointed by the Ministerial Council. The Joint Authority is staffed by persons nominated by the Australian and Indonesian governments (see Figure 3).

The Treaty covers details relative to surveillance, security measures, search and rescue, seismic surveys, marine scientific research, protection of the marine environment and the construction of facilities in Area A. These are all dealt with in terms of co-operation and co-ordination between Australia and Indonesia. The Treaty also covers, relative to Area A, applicable law, customs, quarantine, immigration, wage levels and employment conditions, criminal and civil law and taxation law.

A single legal system applies across the whole of Area A, but this system is not based solely on Australian law or Indonesian law and hence is sovereignty neutral. Since the Treaty is without prejudice to final delimitation of the border, arrangements were avoided which on their face might imply that one country or the other had a better right to control the Area.

Criminal jurisdiction is based primarily on nationality; that is, Australians will be subject to Australian law and Indonesians will be subject to Indonesian law. Nationals of third countries will be subject to the criminal law jurisdiction of both Australia and Indonesia subject to consultation between the two countries and the avoidance of double jeopardy.

The criminal law of the flag state shall apply on vessels and aircraft.

The Treaty allows for both countries, subject to prior consultation, to apply their customs, immigration and quarantine laws to Area A. Persons and equipment will only be allowed to enter Area A via Australia or Indonesia and the Joint Authority is charged with the control of the movement of persons and equipment into, out of and through Area A. Customs duty will not apply to goods imported into Area A.

The Treaty also sets out conditions relative to employment in Area A in order to ensure equality of opportunity for both Australians and Indonesians and, so that one country is not advantaged over another, terms and conditions apply which are no less favourable than those which prevail in both countries.

**Joint Authority for
the Timor Gap Zone of Co-operation organisation chart**

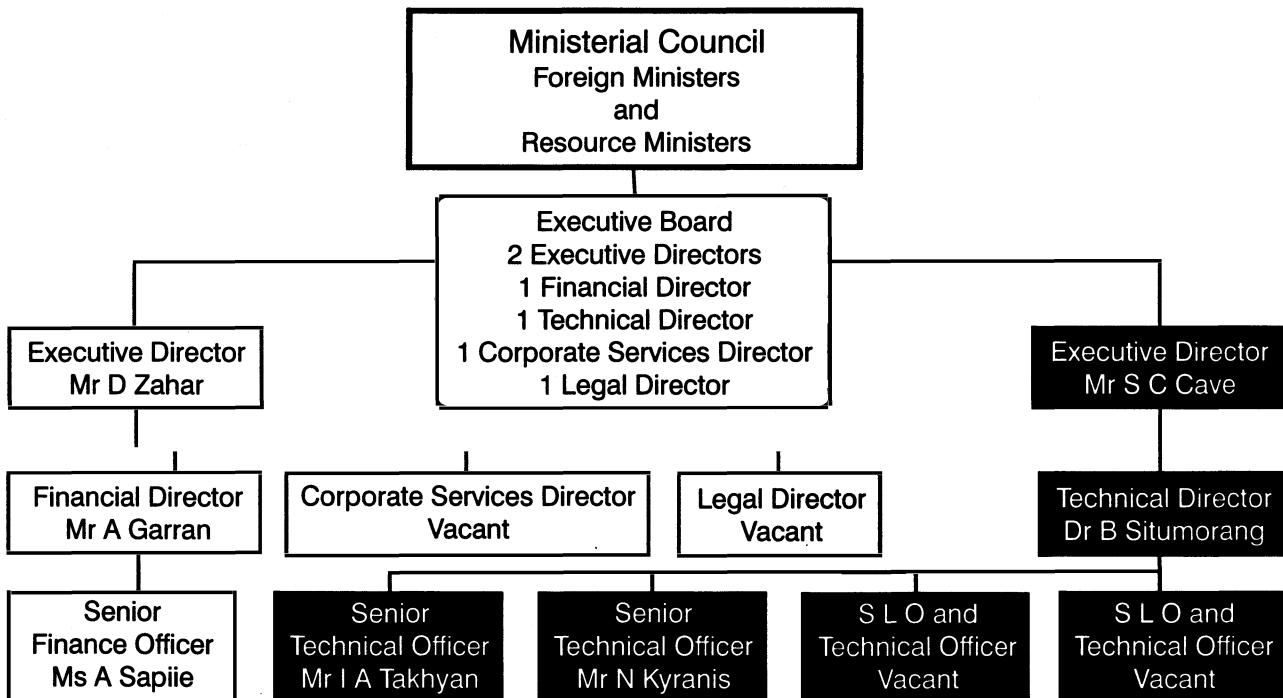


Figure 3: Joint Authority for the Timor Gap Zone of Co-operation organisation chart

Preference is to be given to employment of nationals or permanent residents of both countries and contract operators are required to employ Australians and Indonesians in equivalent numbers over the term of a contract, but with due regard to safe and efficient operations and good oil-field practice.

Australia and Indonesia will apply their tax legislation to companies operating, and individuals working, in Area A:

1. Companies are liable to lodge income tax returns in both countries.
2. In each country, a 50 per cent tax rebate will be given.
3. Individuals resident in Australia will be subject to Australian tax.
4. Individuals resident in Indonesia will be subject to Indonesian tax.
5. Other individuals will be subject to both Australian and Indonesian tax and each country will give a 50 per cent rebate.

The Treaty will remain in force for 40 years but will be extended for successive 20-year terms unless there is agreement between Australia and Indonesia on permanent continental shelf delimitation.

The Treaty entered into force when amendment of existing legislation in both countries had been made so that arrangements provided for in the Treaty could be carried out in accordance with Australian and Indonesian Law.

THE PETROLEUM MINING CODE

Coupled with the provisions contained in the body of the Treaty, the Petroleum Mining Code, which is Annex B to the Treaty, sets out how petroleum operations will be administered and the rights and responsibilities of the Joint Authority and the companies holding contracts.

PRODUCTION SHARING CONTRACT

The PSCs, which are Annex C to the Treaty, are based on the Indonesian PSCs but are modified to encompass the concepts of exploration permits, production licences and Rent Resource Tax (RRT), which are used in Australia.

The basic principle set out by the Treaty and encompassed by the PSC is that the Joint Authority owns all petroleum on behalf of the two contracting states and the contractor's share passes to the contractor at the point of tanker loading. The Joint Authority receives revenue from the sale of its share of production on behalf of the contracting states, and this revenue is equally distributed between them.

The PSC gives contractors the right to explore and produce petroleum. In return, contractors will receive a share of the petroleum produced. The PSC specifies an initial six-year exploration term, which at the contractor's option can be extended to 10 years.

After three years, 25 per cent of the contract area must be relinquished. Another 25 per cent must be relinquished after the sixth year if the contractor elects to extend the term of the contract to 10 years.

If a discovery is made, the contract term automatically extends to 30 years, and may be extended beyond year 30 if production continues. Only blocks covering discoveries may be retained in the contract area after year 10.

The contractor's share of petroleum is calculated according to the following formula:

1. In the first five years of production, 10 per cent of production (known as "First Tranche Petroleum") will be shared between the contractor and the Joint Authority according to the production rate sharing formula.
2. Thereafter, First Tranche Petroleum is 20 per cent of production.
3. From the remaining production, contractors will be allowed to recover production equal to investment credits of 127 per cent for exploration and capital costs.
4. In addition, contractors will be able to recover all exploration and operating costs and depreciation (20 per cent straight line) of capital costs.

After recovery of investment credits and all costs, the remaining quantity of crude oil production is shared according to the following production rate sharing formula:

<u>Production rate</u>	<u>Contractor share</u>	<u>Joint Authority share</u>
0 - 50,000 bpd	50%	50%
50,001 - 150,000 bpd	40%	60%
over 150,001 bpd	30%	70%

Perhaps predictably, the sharing formula provides a level of incentive to exploration and development somewhere between Australia's RRT and Indonesian's PSC arrangements.

TAXATION

The taxation of profits derived from Area A are set out in the Taxation Code, which is Annex D to the Treaty, and the basic intent of this Code is the avoidance of double taxation, which is achieved by requiring companies and individuals to file tax returns in both countries, with a 50 per cent deduction allowable in each country.

IMPLEMENTATION

From the signing of the Treaty in December 1989 up to the inaugural meeting of the Ministerial Council in February 1991, officials from both governments worked to prepare the internal procedures covering Joint Authority operations.

At the first meeting of the Ministerial Council the Executive Directors were appointed, thus initiating the provisions of the Treaty. The Executive Directors then appointed the nominated officers and the Joint Authority proceeded with its tasks.

Under the Petroleum Mining Code, the Joint Authority was required to divide Area A into a number of contract areas. Fourteen areas were agreed upon (see Figure 4) and invitations were invited for work program bids for these areas. Bids closed on 7 October 1991 and the Ministerial Council approved the award of 11 PSCs at its Cairns meeting in December 1991. The Joint Authority had entered into these 11 contracts with seven companies by early 1992 and exploration activities commenced in the first quarter of 1992.

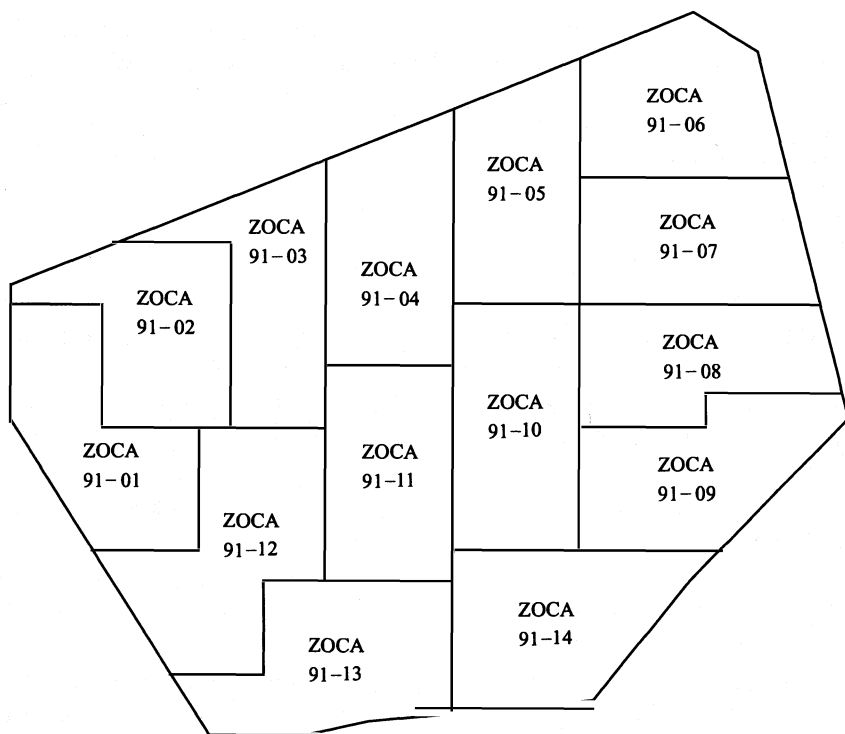


Figure 4: Contract areas within Area A

The industry's view of the exploration potential in Area A has been varied. The early euphoria of the billion barrel Kelp structure no doubt resulted in 11 of the 14 blocks receiving work program bids in 1991. The three early wells by Marathon were disappointing, and after the dry Kelp

well in early 1994 interest waned until late in 1994 when the Elang discovery well was drilled. The subsequent Elang and adjacent Kakatua wells were encouraging but this field remains a marginal commercial discovery.

Marathon withdrew from its two contract areas in 1995 and many operators appeared hesitant about the drilling of commitment wells. Woodside surrendered one of their two blocks and other wells drilled in 1994 and 1995 did nothing to encourage the expenditure of scarce exploration dollars in this area.

In late 1994 Phillips and its co-venturers, after much agonising, drilled the Bayu-1 well, which was the discovery well for the large, if not giant, Bayu-Undan field. Subsequent drilling has proven up reserves of gas and condensate to the point that development of a condensate recycling project and maybe an LNG project in the not too distant future.

In early 1995 Shell bid for, and was awarded, a contract covering the north-east corner of Area A. When additional areas made up of relinquished and surrendered acreage were released in 1995 all six areas were contracted and for the first time all blocks in Area A were under active exploration programs.

Since the end of 1996 contracts covering two blocks have been surrendered and 13 contracts are in place.

At the end of 1997 the seven active contracts from the initial award in 1991 must relinquish 25 per cent of the remaining area and this relinquished acreage, together with the two blocks not under contract, will be divided into new blocks and released for bids, probably 1998.

At the time of writing 37 wells have been drilled in Area A (see Table 1). New wells being drilled will be watched with great interest.

There have also been several exciting oil discoveries made just outside the western boundary of Area A in Australian waters. Laminaria is under development by Woodside.

Buffalo, discovered in 1997, is thought to extend across the boundary into Area A and Jahal, a non-commercial discovery in Area A, probably extends into Australian waters.

Wells are planned for the north-eastern corner of Area A, chasing possible extensions to the Sunrise, Troubador and Loxton Shoals gas discoveries.

A total of US\$500 million has been spent on exploration in Area A since 1992; a further US\$91 million will be spent between 1998 and 2002.

SUMMARY OF WELLS DRILLED IN AREA "A"

Status : 30 September 1997

No.	WELL NAME	TOTAL DEPTH (mRT)	SEABED (mRT)	DATE OF SPUD	DATE OF COMPLETN	STATUS	REMARKS	ZOGA	CONTRACT OPERATOR
1	HYDRA-1	2685	121.1	12/7/92	1/8/93	P & A	Dry hole	91-11	MARATHON
2	BASILISK-1/1A	3030	106.0	1/10/93	2/26/93	P & A	Residual HC Column	91-10	MARATHON
3	NAGA-1	3137	97.6	2/26/93	4/5/93	P & A	Residual HC Column	91-11	MARATHON
4	ELANG-1	3182	104.0	1/8/94	2/22/94	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
5	MISTRAL-1	3231	96.0	1/9/94	2/14/94	P & A	Non-commercial gas disc.	91-13	PHILLIPS
6	KELP-1	2712	346.0	2/17/94	3/23/94	P & A	Dry hole	91-04	WOODSIDE
7	MANDAR-1	3172	114.0	2/23/94	3/26/94	P & A	Residual HC Column	91-12	BHPP
8	SOULLA-1	3499	130.8	3/27/94	5/4/94	P & A	Residual HC Column	91-01	BHPP
9	NABARLEK-1	3157	90.0	3/28/94	5/10/94	P & A	Dry hole	91-14	ENTERPRISE
10	MINOTAUR-1	3406	94.0	5/5/94	7/17/94	P & A	Non-commercial Oil Dis.	91-11	MARATHON
11	FOHN-1	3614	103.0	5/11/94	8/5/94	P & A	Non-commercial Gas Disc.	91-13	PHILLIPS
12	ELANG-2	3200	101.0	9/24/94	22/11/94	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
13	SKATANK-1	3100	95.0	30/10/94	16/12/94	P & A	Dry hole	91-06	SAGASCO
14	KAKATUA-1	3290	116.0	23/11/94	12/21/94	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
15	BAYU-1	3205	93.0	18/12/94	3/3/95	P & A	Comm. Gas & Cond. Disc.	91-13	PHILLIPS
16	BARNACLE-1	3614	551.0	26/12/94	2/3/95	P & A	Dry hole	91-01	BHPP
17	Elang West-1	3166	112	2/9/95	4/13/95	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
18	Elang -3	3162	80	5/10/95	6/13/95	P & A	Dry hole	91-12	BHPP
19	UNDAN-1	3322	80	6/15/95	8/13/95	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
20	Sandang-1	3300	87.3	8/14/95	9/12/95	P & A	Residual HC Column	91-12	BHPP
21	Undan-2	3407	87	16/10/95	25/11/95	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
22	Undan-3	3235	75	26/11/95	25/12/95	Suspended	Commercial Oil Discovery/ Potential Production Well	91-12	BHPP
23	BAYU-2	3250	89	26/12/95	2/11/96	P & A	Comm. Gas & Cond. Disc.	91-13	Phillips
24	Wallaroo-1	3084	75	3/5/96	13/04/96	P & A	No shows	91-14	Enterprise
25	BAYU-3	3174.6	112	3/23/96	4/21/96	P & A	Comm. Gas & Cond. Disc.	91-13	Phillips
26	Jahai-1	3440	405	23/04/96	10/05/96	P & A	Undrilled Oil Discovery	91-01	BHPP
26 a	Jahai-1/ST			5/10/96	6/3/96	P & A			
27	Undan-4	3095	87	5/5/96	6/6/96	P & A	Comm. Gas & Cond. Disc.	91-12	BHPP
28	BAYU-4	3250	110	6/4/96	7/14/96	P & A	Comm. Gas & Cond. Disc.	91-13	Phillips
29	Trulek-1	3265	94	11/12/96	11/30/96	Suspended	Comm. Gas & Cond. Disc.	91-12	BHPP
30	BAYU-5	3300	74	12/21/96	1/19/97	Suspended	Comm. Gas & Cond. Disc.	91-13	Phillips
31	Kakatus North-1A	3315	95	1/21/97	2/20/97	Suspended	Commercial Oil Discovery	91-12	BHPP
32	Thornton-1	4,000	480	2/28/97	4/16/97	P & A	Residual HC Column	91-02	SHELL
33	Kelp Deep-1	4823	223	4/19/97			In Progress	95-18	MOBIL
34	Hinglip-1	3305	97	6/7/97	6/29/97	Suspended	Gas/Condensate Discovery	91-12	BHPP
35	Krik-1	3640	268	6/30/97	7/27/97	P & A	Non-commercial Oil Discovery	91-01	BHPP
36	Layang-1	3353	101.5	7/29/97	9/22/97	P & A	Residual Oil Column	91-12	BHPP
37	Sunset-1	2400	238	9/22/97			In Progress	95-19	SHELL

Table 1: Summary of wells drilled in Area A (Status: 30 September 1997)

SHARING OF WORK

The Treaty defines how preference should be given to Australian and Indonesian personnel and companies but states that the overriding requirement is for all contracts awarded and the employment of personnel to be in accordance with good oilfield practice and safe and efficient operations. The Treaty also requires that preference be given to goods and services which are produced in Australia or Indonesia, provided they are offered on competitive terms and conditions compared with those available from other countries. It further states that the preference given in employment of Australians and Indonesians in Area A shall be in equivalent numbers over the life of the PSC.

The above provisions could give rise to an expectation that the two contracting states would equally share the provision of labour and contracts for activities in Area A.

However, this has not been the case and work activities have been shared as follows (see Figures 5 and 6):

	Contracts	Employment
Australia	88.7%	53%
Indonesia	11.2%	29%
Other countries	0.1%	18%

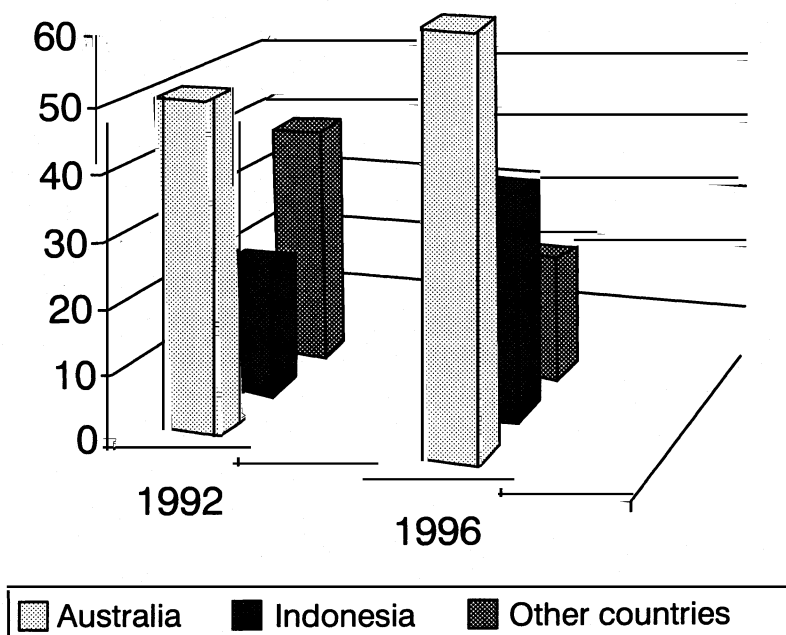


Figure 5: Sharing of work — employment

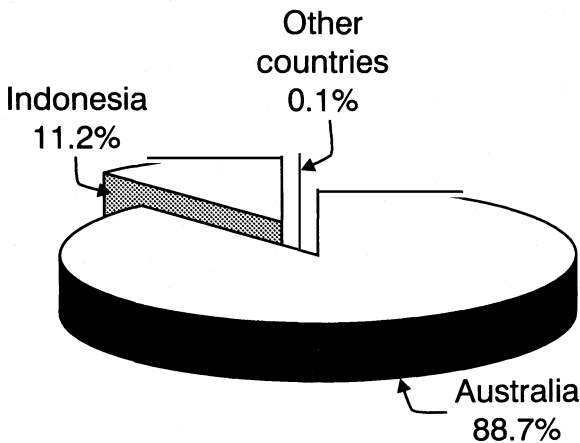


Figure 6: Sharing of work — contracts

Many factors affect how the work is shared but it would appear that of most importance is the location of a major centre in proximity to the area where the work is carried out. Both Australia and Indonesia have a significant urban centre in close proximity to Area A.

Darwin in Australia and Kupang in Indonesia, at the western end of the island of Timor, are both located about the same distance from the centre of Area A. Darwin has a population of 80,000. Kupang has a population of 350,000. Darwin has a much more developed infrastructure than Kupang and has state-of-the-art electronic communications facilities.

Darwin airport has the longest runway in the southern hemisphere and sees 46 international flights per week. Kupang airport can handle up to Boeing 737 aircraft and the only international connection is to Darwin.

Both are port cities. Darwin has one of the largest natural harbours in the world and has served as a supply base for the Australian offshore oil industry for over 25 years. Some very large ships have entered Darwin Harbour, including the *QE2* and the nuclear aircraft carrier *USS Independence*. State-of-the-art container handling facilities are available and there is a new commercial port under construction which is to incorporate modern oil supply storage and handling facilities. Kupang port facilities are limited.

Darwin has had two offshore supply and storage bases for over 10 years and a number of major oil industry service companies have warehouse facilities and service personnel based in Darwin.

The Joint Authority, under the Treaty, has the responsibility for controlling the entry, exit and passage through Area A of all vessels, aircraft and personnel engaged in petroleum operations. Individual approvals are given to enable the Joint Authority to monitor obligations relative to employment of Australian and Indonesian nationals and the Joint Authority has not been backward in reminding operators of their obligations where it is evident that these are not being achieved or are being ignored.

The Joint Authority has also been able to monitor the division of work between the two states and in the case of personnel has been able to reduce the employment of nationals from countries other than Australia and Indonesia from 35 per cent in 1992 to 18 per cent today, resulting in an increase in the employment of Australians from 48 per cent (1992) to 53 per cent (1996) and Indonesians from 17 per cent (1992) to 29 per cent (1996).

It is in the interests of both governments to ensure that the cost of exploration and development is carried out in a cost-effective manner as this maximises their returns under the PSC. For this reason it is also a requirement of the PSC that all work carried out must be competitively tendered. Consequently there is an incentive for the lowest bids to be accepted. It would not be prudent to direct that contracts be placed in a particular country to correct an imbalance as this would reduce the revenue of both governments.

CONCLUSION

Exploration for petroleum resources in Area A will continue for many years to come. Contracts entered into in 1996 will run until at least 2002 and probably 2006.

The remaining 1991 contracts, able to be terminated by the operators at the end of 1997, are expected that they will not exercise this option and the contracts will continue until expiry in 2001.

Labour utilisation of Australians and Indonesians should reach equivalence in the not too distant future. This will be helped by the fact that the production phase is about to commence. During this phase labour requirements can be forecast and planned to a much greater degree than during the drilling phase. Current forecasts are that production manning levels for the Elang/Kakatua development will see 70 per cent of the positions being filled by Indonesians until such time as the current imbalance has been brought back to the equivalence level required by the Treaty.

On the other hand the sharing of contracts between Australia and Indonesia is very dependent on the capability and cost structure of industry in the two countries. A development of the Bayu/Undan field could see the utilisation of Indonesian facilities for jacket and platform fabrication, facilities probably not available in Australia. Nevertheless the objective is to achieve equivalence in this area as well.

A lot has been achieved since the Treaty was signed in 1989. These achievements would not have been possible without the operators and the Joint Authority being able to work together in a spirit of co-operation. The Timor Gap Treaty must be a good example of resolving conflicting territorial claims to the benefit of both parties. In spite of the diverse cultural differences of the people charged with the responsibility to administer the Treaty it has been successful in bringing stability to the area and opening the way for the Timor Sea to become a large and successful petroleum province.