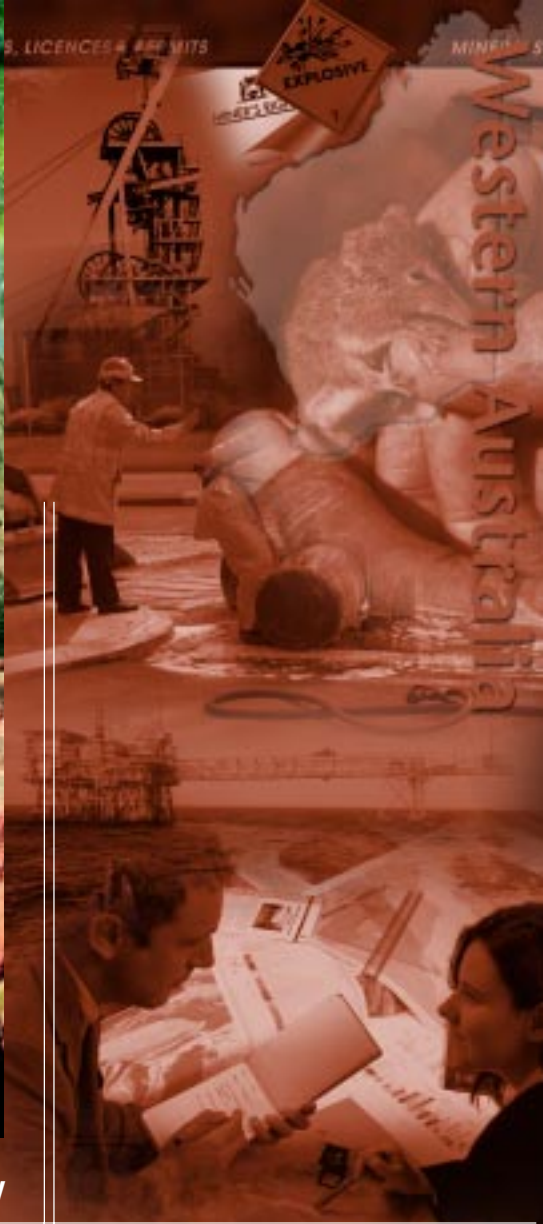




Fossil Stromatolites 3.5 Billion Years Ago

Annual Report 2000

Department of Minerals and Energy Western Australia



Annual Report 2000



"Our Resources • Our People • Our Future"

The Honourable Norman Moore MLC
Minister for Mines
Parliament House
PERTH WA 6000

Dear Minister

In accordance with the Financial Administration and Audit Act 1985 and Section 10 of the Explosives and Dangerous Goods Act 1961, I submit for your information and presentation to Parliament, the Annual Report of the Department of Minerals and Energy of the State of Western Australia, for the year ended 30 June 2000.

The Annual Report is structured according to the Outcome-Output model used in the 1999-2000 Budget Papers, with the Department's activities described by Output. These are set against a background of the mining and petroleum industry in 1999-2000.

Yours sincerely



L C Ranford
DIRECTOR GENERAL
DEPARTMENT OF MINERALS AND ENERGY

Accountable Officer
31 August 2000

WORLD'S OLDEST ECOSYSTEM

3.46 billion years-old fossilised stromatolites - Evidence of the world's earliest ecosystems, found in the State's outback by the Department of Minerals and Energy and now on display in the Western Australian Museum.

INSERT

Department of Minerals and Energy palaeontologist Dr Kath Grey with the University of Montreal's Professor Hans Hofmann, two authors of the scientific paper which fascinated the world with the best evidence so far discovered of early ecosystems on Earth

MINERALS, LICENCES & PERMITS

MINERALS



Western Australia



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After a period of mixed fortunes, improving economic conditions and positive developments in areas such as native title are promising a good start to the new millennium for Western Australia's minerals and energy sector.

Improving occupational safety and health within the minerals and petroleum industries remained a top priority and the Department conducted mine site audits and the ThinkSafe MineSafe campaign, to emphasise to management and employees that focus must be maintained to achieve the aim of a fatality-free industry.

From an economic point of view, the industry experienced a dramatic turn-around in 1999-2000 with sales increasing in value by a massive 28 per cent. The record high of \$21.3 billion was largely due to increased production and prices for petroleum products during the year.

The State Government has attempted to improve the outlook for the exploration industry through amendments to legislation and other initiatives including a proposal, which is currently under consideration, to grant access to exploration licences to prospectors holding a Miner's Right.

The Department's Geological Survey continued to provide the State's exploration and mining industries with quality geoscientific products and tools. At the close of the reporting period, the JH (Joe) Lord Drill Core Library in Kalgoorlie was also completed. This facility will provide industry with an opportunity to examine drill core samples, develop and refine exploration strategies and test new ideas and technologies without having to re-drill areas.

Throughout the industry, the pre-competitive information products of the Geological Survey

The industry experienced a dramatic turn-around in 1999-2000 with sales increasing in value by a massive 28 per cent



One important development was the decision of the Full Federal Court in the Miriung Gajerrong appeal case where it was held that a number of land categories, including enclosed and/or improved pastoral leases, extinguished native title. With roughly 60 per cent of the State's mineral provinces covered by pastoral leases, this decision offers an opportunity for the State to grant some of the 10,000 mining titles applications currently caught up in a native title induced backlog.

Mineral exploration expenditure continued to decline during the year to levels not seen since 1993. Although ailing expenditure can also be attributed to the fall-out from the Asian economic crisis and low gold prices, native title has also had a significant impact on the exploration sector.

are acknowledged as a crucial factor in attracting the large private investment necessary to maintain and enhance our resources sector. In order to determine an appropriate and sustainable level of funding, a review of the Geological Survey was commissioned by Minister Moore, with findings to be reported before the next round of Budget estimates.


The introduction by the Commonwealth of the Environmental Protection and Biodiversity Conservation Act 1999 is considered likely to have serious implications for explorers and developers when it comes into force in July 2000. The Act refers to areas of national environmental significance that are loosely defined and the additional administration processes necessary to

achieve project approval under this legislation are already causing concern and uncertainty.

In its pursuit of its objective to harness the potential of the Internet and computer-based information systems, the Department is now providing information relating to areas from land-use topography to mine safety audits via the Department's website at www.dme.wa.gov.au. With the advent this year of our new electronic bookshop, it is now also possible to purchase Departmental maps and publications from anywhere on earth, with the assistance of a computer and a modem.

During the year, an elected Staff Consultative and Improvement Committee was established to improve communications and facilitate improved productivity within the Department.

characterised by increased complexity. Audited measurements of productivity indicate a more than five per cent increase over the year and this rate of increase has been maintained for the last five years. The staff have shown both dedication and ingenuity in dealing with the issues and I am confident they will continue to provide the high level of effective service necessary to achieve the desired economic benefits for the community from what is the major sector in our economy.



L C Ranford
DIRECTOR GENERAL

During the year, an elected Staff Consultative and Improvement Committee was established to improve communications and facilitate improved productivity within the Department

The Committee is represented at meetings of the Department's corporate executive.

Occupational safety and health within the Department was declared a priority issue during the year and a new position created to develop, implement and coordinate all aspects of the Department's Safety and Health Management Plan, as well as provide technical advice on related matters.

The Department does not rate well in terms of equal opportunity measures and new efforts to improve equal opportunity and diversity have been initiated, recognising it may take many years to achieve our objectives in this area.

The Department has experienced the challenge of dealing with an expanding industry

THE YEAR IN BRIEF

DEPARTMENTAL HIGHLIGHTS

The following is a summary of the year's events as they relate to the five main outcomes which provide the focus for Departmental programs and activities.

Outcome 1: Optimum use of land and resources

Western Australia's minerals and energy sector hit a new high in 1999-2000, with statistics from the Department revealing sales values up 27.7 per cent to nearly \$21.3 billion.

Although mineral exploration investment in Western Australia fell 24 per cent to \$393.6 million, the State still remains the country's paramount destination for explorers. With \$13 billion worth of minerals produced in 1999-2000, the State also remained the nation's major producer of minerals with a rise of about three per cent in the value of sales.

Native title continues to represent a major hurdle for the resources industry. At the time of reporting, more than 10 000 mining title applications were still caught up in the complexities of the Commonwealth Native Title Act 1993. This situation could be eased somewhat following the Full Federal Court decision in the Miriuwung Gajerrong appeal case, which determined that native title had been extinguished by a number of land categories (including previous mining leases and enclosed pastoral leases). With the State Government announcement that it will grant titles in compliance with this decision, there is a real possibility for inroads to be made into the backlog in the near future.

Amendments to the Mining Act have simplified the process of transferring titles, enabled the grant of general purpose leases for areas greater than 10 hectares and increased security provisions for environmental protection and rehabilitation.

Data capture for TENGRAPH® (the Department's computerised tenement mapping system) was completed Statewide and this system is now available via the Internet.

Western Australia continued as the focus of oil and gas activity in Australia this year. The State's \$7.6 billion worth of oil and gas production represented a significant amount of the total Australian production and the State attracted approximately 60 per cent of the investment in exploration for petroleum. Exploration activity was at a high level with an impressive success rate: 13 discoveries from 40 new field wildcat wells.

A key policy issue was resolved this year when changes to the petroleum Work Program Bidding System maintained the guaranteed nature of



Geological Survey's Gary Williams (centre) shows Premier Richard Court (left) and Mines Minister Norman Moore the ease with which drill core samples can be accessed at the new J H (Joe) Lord Drill Core Library in Kalgoorlie. The Library will house up to 250 kilometres of drill core so that the mining industry can examine samples from many areas before starting their own exploration work.

bids, but provided an option for permit holders to transfer unspent commitments to frontier areas rather than default on commitments. The issue arose when the exploration permit holders applied to surrender the titles without completing the work commitments.

Significant legislative amendments were made (separately) to State and Commonwealth petroleum Acts. In the former, the amendments related to clearer processes for access to land and improving the effectiveness of short-term exploration titles. In the latter case, the amendments covered a range of issues including recognition of the impact of new technology by the introduction of new licensing and title provisions for oil and gas developments.

On 30 June 2000, the Department completed construction of WA's first state-of-the-art drill core library in Kalgoorlie. The core library will become a vital resource for the exploration industry.

In 1999, the Department recovered samples of the world's oldest evidence of early life-forms from the Pilbara region. The 4.5 billion-year-old stromatolites attracted wide international interest and samples are now safely housed in the WA Museum.

Officers of the Department also discovered Australia's largest meteorite impact crater (and the world's fourth largest). It is thought to have been formed by a five-kilometre-wide asteroid that struck Earth near Shark Bay between 200 and 360 million years ago.

Outcome 2: Safe and healthy mineral and petroleum workforces

There is a decade-long improvement trend in the safety performance of the industry with lost-time injury and serious injury rates falling. In spite of this promising trend, the Department conducted investigations into 32 serious accidents and four fatalities.

In 1999, the Department launched the ThinkSafe MineSafe campaign in Bunbury to improve the industry's safety culture. MineSafe Days have been held in Kalgoorlie and Perth. The message

has been conveyed to the workforce via radio and print advertisements, posters and pamphlets.

The Mining Operations Audit Management System (MODAMS) was launched and will electronically service many industry safety needs. MODAMS is designed to hold, analyse and disseminate safety information collated from mining industry safety audits.

New safety legislation for the State's petroleum industry was drafted during the year. The WA Petroleum Safety Act which received Royal assent in June 1999 will apply the Safety Case regime, currently applying to petroleum facilities and operations in State and Commonwealth waters, to State onshore petroleum sites and activities. Regulations for the Commonwealth Petroleum (Submerged Lands) Act 1967 were also drafted to cover pipeline and diving operations.

An external review of the administration of safety in the Commonwealth offshore adjacent areas by all relevant State/Territory authorities (including the Department) was carried out in February-March 2000. No deficiencies were identified in the administration of safety. However, recommendations were made to obtain consistency in the administration of safety in the Commonwealth offshore areas.

A draft Offshore Petroleum Operations (Exploration and Production) Emergency Management Plan for the State Emergency Management Advisory Committee (SEMAC) was prepared by the Department.

No fatalities in the oil and gas exploration and production industry occurred during the year. The last offshore fatality was in 1994 and the last onshore fatality was in 1996.

Outcome 3: Acceptable environmental standards for mineral and petroleum exploration, development, production and project completion

To ensure adequate funds are always available to cover costs of mine site rehabilitation, the Department requires unconditional, bank-guaranteed performance bonds from the mining

THE YEAR IN BRIEF

industry. By June 2000, the Department held 2 452 bonds totalling \$240 million.

Two mining companies and one petroleum company were awarded Golden Gecko Awards for Environmental Excellence by the Department.

A project to identify and develop an inventory of all abandoned mine sites in Western Australia commenced. Information about almost 9 000 features relating to located abandoned mine sites has now been collated in a special database.

The new Commonwealth Environment Protection and Biodiversity Conservation Act 1999 was assented to in July 1999. When it comes into effect on 16 July 2000, legal onus will be placed on the proponent of any developmental activity which may result in a significant impact on a matter of national environmental significance to refer their proposals to the Commonwealth Minister for the Environment. This will affect a number of mineral and petroleum projects until the State processes are accredited by the Commonwealth.

The Commonwealth Petroleum (Submerged Lands) (Management of Environment) Regulations came into effect on 1 October 1999. This enables one Environment Plan to cover activities previously covered by several Environment Management Plans.

During the year, there were two substantial and a small number of minor hydrocarbon spills. The total volume of oil, diesel and synthetic drilling fluids spilt during the year came to less than that required to fill three average domestic swimming pools.

The Department of Minerals and Energy provided representatives on Technical Panels which provided input into the State response to the National Greenhouse Strategy and are currently involved in developments in the WA Greenhouse Strategy and Implementation Plan. Western Australia has a large stake in the outcomes of both the international processes and how Australia deals with these outcomes and has put a large effort to ensure its views are well developed and represented in Australia's greenhouse responses.

Outcome 4: Appropriate returns to the community for the exploitation of its mineral and petroleum resources.

Royalties totalling \$954.3 million were collected for the year, comprising \$431.8 million for minerals and \$522.5 million for petroleum. From this, \$190.6 million was paid to the Commonwealth Government under petroleum royalty-sharing arrangements.

A new award to recognise driver professionalism in the dangerous goods transport industry has been initiated by the Department of Minerals and Energy. Assisted by Ms Sandy Harvey, Director of the Department's Explosives and Dangerous Goods Division, Ken Price, (left) presents Andrew Dickson of Kleenheat Gas with the award.



During the year, Government adopted a Goods and Services Tax (GST) exclusive approach to royalty calculations to simplify compliance by industry.

An in-depth review of base metal royalty arrangements resulted in changes as it was found the previous single rate system distorted competition and did not provide an incentive for base metal producers to value-add to their products in Western Australia. To allow producers time to adjust to the changes, a transitional period of five years will apply before they are obliged to adopt the new system.

Outcome 5: A community confident that it is safe from hazards associated with the storage, handling and transport of dangerous goods.

A consultation process on a new Dangerous Goods Bill was conducted throughout the year. The Bill will have two major features: a general duty of care and provisions to give legal status to Codes of Practice as non-mandatory documents. At June 2000, the Department was awaiting Cabinet approval to draft the Bill.

In line with practice around Australia, the Department banned placarded loads of explosives and dangerous goods from the new Graham Farmer Tunnel.

There was an improvement in accident rates in most categories of explosives and dangerous goods administered by the Department. The largest improvement was in storage accidents which fell from 22 the previous year to eight, while explosives accidents also dropped from four to one during the same time span. However, the number of transport accidents increased by two to 26, including three petrol tanker roll-overs.

Co-agency Agreements have been signed with the Environmental Protection Agency and WorkSafe WA to guide the management of accidents, incidents and enforcement issues of common interest, and to optimise service delivery in areas of potential overlap.

Corporate Governance

The Department has reinforced its commitment to occupational safety and health by improving its risk management and safety systems and by employing an Occupational Safety and Health Coordinator.

A Staff Consultative and Improvement Committee (SCIC) was also established and is now operating as an integral part of the Department, providing an alternative view to management on many issues that will benefit staff and customers.

The physical security system in Minerals House was upgraded during the year and the Warden's court was relocated to the Central Law Courts. The library was relocated to the public area on the first floor to provide improved access.

Regions

The Department has maintained a strong focus on and commitment to regional areas through operating 13 regional offices throughout the State to service the industry and public. During 1999-2000 the Department's regional-based activities included:

- Upgrading the Karratha office to better service the Pilbara region
- Providing Internet access to the key information systems (such as TENGRAPH®)
- Providing a Telecentre in Sandstone with access to Departmental systems to support prospectors in the region
- Establishing the new JH (Joe) Lord Drill core Library in Kalgoorlie and developing the concept for a DME regional complex.
- Continuing geological mapping programs focusing on onshore petroleum reserves and identifying several geological features creating increased world interest in regional areas
- Commencing an inventory of abandoned mine sites to enable regional safety and rehabilitation issues to be addressed

OVERVIEW OF INDUSTRY

Mineral and Petroleum Industry Projects and Production

In 1999-2000, the State's minerals and energy sector set a new record with the value of sales rising by 27.7 per cent to nearly \$21.3 billion. This compares very positively with the decade average annual growth rate of 6.4 per cent.

While most of the State's minerals and energy industries recorded growth in sales quantities, the overall rise in production value for 1999-2000 is mainly attributed to a general and sustained improvement in commodity prices, in addition to better than anticipated results for the petroleum sector. Throughout the year, world economic conditions progressively improved and became the underlying catalyst for higher commodity price outcomes. The Australian dollar appreciated marginally in 1999-2000.

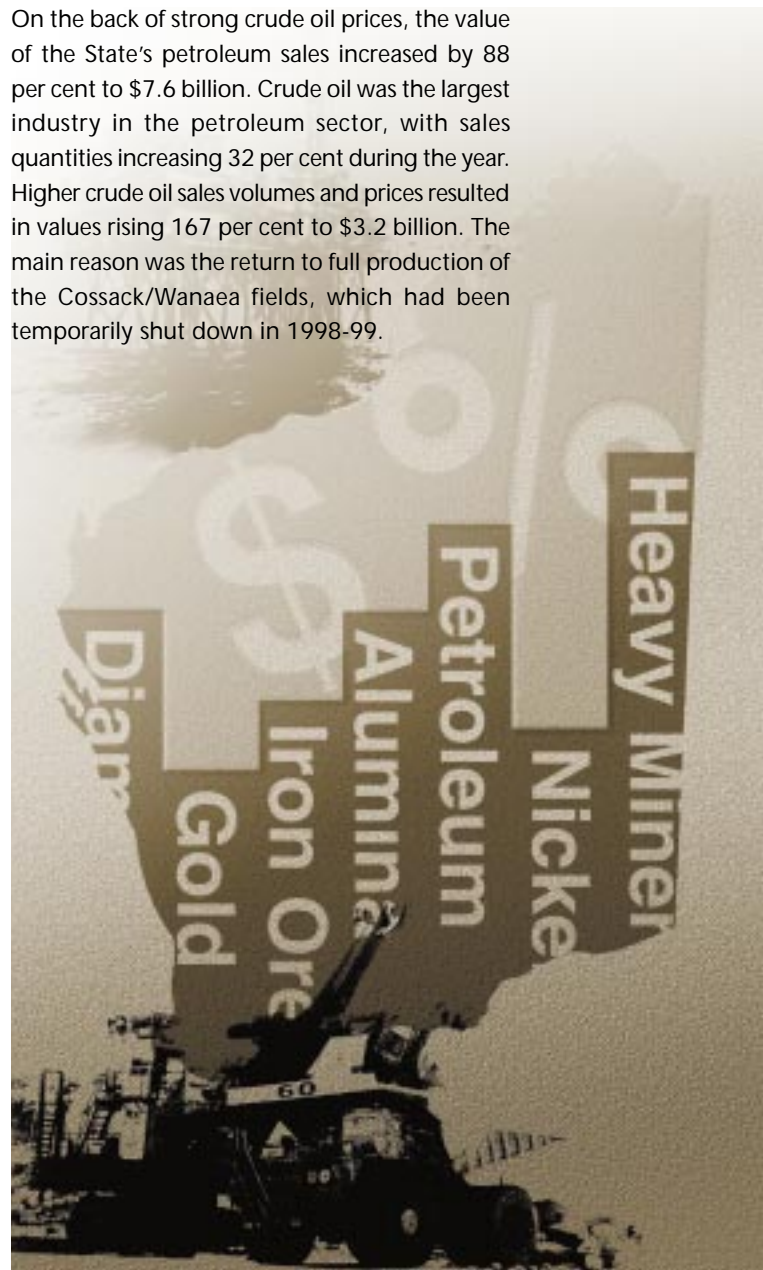
The results for petroleum are impressive and further entrenches its position as the State's leading resource industry. In 1999-2000, the value of petroleum sales increased by 88 per cent, or about \$3.6 billion to \$7.6 billion. During the year, petroleum's share of total production value increased to 36 per cent. The next best sector, iron ore, which sold \$3.7 billion worth of output in 1999-2000, has seen its share of total production value fall from 22 per cent to 18 per cent over the corresponding period.

Overall, it is anticipated that Western Australia will be able to maintain its prominence on the international minerals scene well into the 21st century. The latest data (1999) shows that the State supplied (by quantity) around 18 per cent of the world's alumina, 43 per cent (mainly industrial grade) of its diamonds, 8 per cent of its gold, 25 per cent of its ilmenite, 14 per cent of iron ore, nine per cent (world trade) of liquefied natural gas (LNG), 12 per cent of nickel, 24 per cent of rutile and 31 per cent of zircon.

Petroleum

Following a substantial decline in crude oil prices in 1998-99, prices rebounded by 86 per cent in the following year averaging US\$25.31 per barrel. The recent sustained recovery in crude oil prices has been remarkable, with prices rising from a low of US\$9.50 in February 1999, to a peak of US\$31.74 per barrel by June 2000. This price rise has been principally due to OPEC member nations restricting crude oil supply and adhering to their assigned production quotas. This adherence to defined quotas and its impact on crude oil prices has surprised world oil markets, given that past OPEC attempts to influence crude oil prices invariably collapsed due to its inability to enforce production quotas on individual member countries.

On the back of strong crude oil prices, the value of the State's petroleum sales increased by 88 per cent to \$7.6 billion. Crude oil was the largest industry in the petroleum sector, with sales quantities increasing 32 per cent during the year. Higher crude oil sales volumes and prices resulted in values rising 167 per cent to \$3.2 billion. The main reason was the return to full production of the Cossack/Wanaea fields, which had been temporarily shut down in 1998-99.



The value of liquefied natural gas (LNG) sales increased 37 per cent to \$2.0 billion in 1999-2000, with sales quantities rising 0.4 per cent. The value of condensate sales rose 113 per cent to \$1.6 billion, while sales quantities rose 14 per cent. Increased condensate production was mainly due to increased production from the North Rankin and Goodwyn projects.

Increased contract volumes resulted in natural gas sales volumes rising by two per cent in 1999-2000. However, lower contract prices resulted in more moderate growth with the value of sales rising by five per cent to \$579 million. Liquefied petroleum gas sales quantities increased by 20 per cent to 777 000 tonnes, with the corresponding production value rising 128 per cent to \$335 million.

Iron Ore

Despite iron ore sales volumes increasing by just over seven per cent in 1999-2000, the value of sales fell five per cent to \$3.7 billion.

The overwhelming reason for the fall was the outcome of the February 1999 iron ore price negotiations with Japan. For the Japanese fiscal year (April 1999 to March 2000), the State's three major producers accepted lower US\$ prices. BHP and Hamersley received an 11 per cent and 10.2 per cent cut respectively in the price received for lump ore and fine ore. North Limited's Robe River operations accepted a 13.4 per cent cut. These price-cuts stemmed from lacklustre conditions in world steel and pig iron markets operating at that time. Since then, the turnaround in world economic activity to more favourable levels has helped the State's iron ore producers secure higher prices in the latest negotiations with Japan, with those prices applying for the period April 2000 to March 2001.

In 1999-2000, technical difficulties plagued BHP's Hot Briquetted Iron plant in Port Hedland, the State's first and only value-adding iron ore project. The difficulties have put the long-term future of the operation under scrutiny and this is likely to result in investor caution when

examining the feasibility of the host of iron ore further processing projects currently under consideration in this State.

Gold

In 1999-2000, the quantity of gold sold fell by seven per cent to 204 tonnes, mainly caused by extreme wet weather in the March quarter, in addition to the closure of some projects due to depleted reserves and/or high operating costs. However, Western Australia continues to produce about three-quarters of Australia's gold output. Overall, lower sales volumes and gold prices saw the value of output fall by nine per cent to \$2.9 billion.

In recent years, low gold prices have resulted in gold mining industry rationalisation. This has included tenement/lease rationalisation, closures and consolidation of operations, improvements in plant efficiencies and processing capabilities, and also the expansion of some mining companies via corporate takeovers and acquisitions. Many strategies are aimed at improving economies of scale to reduce costs.

Alumina

Both sales value and sales volume records were broken by the State's alumina industry in 1999-2000 with an increase of six per cent to 9.4 million tonnes. Higher prices saw sales value increase by 12 per cent to \$2.7 billion.

In June 2000, the Worsley refinery expansion was completed, increasing Worsley's alumina production from 1.8 million tonnes per year to 3.1 million tonnes. Worsley also expects to reduce its operating costs, consolidating its position as one of the world's lowest cost alumina producers.

The State's other alumina producer, Alcoa, completed work on its Wagerup refinery expansion in October 1999, raising capacity from 1.75 million tonnes a year to 2.2 million tonnes, and is the first stage in eventually increasing capacity to 3.3 million tonnes per annum.

Nickel

The quantity of nickel sold grew 14 per cent to approximately 143 000 tonnes of contained nickel metal in 1999-2000. Substantial average nickel price rises combined with higher output, led to a 103 per cent increase in the value of sales to \$1.8 billion, with Western Australia accounting for almost all of Australia's nickel production.

In the longer term, the State's nickel production is expected to be boosted by new laterite projects (Cawse, Murrin Murrin and Bulong) reaching full capacity and their proposed expansions proceeding. These projects have experienced technical difficulties in reaching full production, but are expected to do so in 2000-01.

Heavy Mineral Sands

The performance of the State's mineral sands industry sector was relatively mixed. In sales value terms, the heavy mineral sands industry increased by eight per cent with overall sales of \$732 million.

The largest sector by value of the State's mineral sands industry is upgraded ilmenite (synthetic rutile). In 1999-2000, strong synthetic rutile prices saw sales rise 19 per cent to \$327 million, despite a 29 per cent drop in sales volume. Sales quantities of ilmenite fell 11 per cent in 1999-2000. The fall in volume was slightly moderated by higher prices, but overall the value of ilmenite sales dropped by four per cent to \$153 million.

The rutile sector also experienced adverse market conditions this year with sales volumes falling 18 per cent to 98 000 tonnes, and value falling 20 per cent to \$72 million. Zircon sales volumes increased 21 per cent in 1999-2000, but lower prices led to an 11 per cent increase to reach \$151 million.

Following the merger of RGC and Westralian Sands to create Iluka Resources in December 1998, Western Australia's heavy mineral sands industry has undergone major consolidation with

Iluka Resources expected to dominate. In August 1999, the company announced it would bring forward the closure of RGC's South Capel mine and synthetic rutile plant from mid-2000 to October 1999. The closure was primarily due to depleted reserves and deterioration of the plant. The company decided against upgrading the synthetic rutile plant as production could be maintained using Westralian Sands' more efficient adjacent plant in addition to the Narngulu plant near Geraldton.

Diamonds

In 1999-2000, the value of diamond sales rose 15 per cent to \$704 million, breaking the previous year's record. This was achieved despite a 0.5 per cent drop in sales volume to 51 million carats. The Argyle joint venture project (partners Rio Tinto and Ashton Mining) is the State's sole diamond producer.

In November 1999, Ashton Mining announced it would re-examine the potential for an underground mine at Argyle after discovering an extension of the AK1 diamond pipe to the south of the existing orebody. Indications are the new resource could sustain diamond production beyond 2006, once open-pit mining ceases.

Other Minerals

The value of base metal sales (copper, lead and zinc) increased 43 per cent to \$332 million. Higher sales quantities, in addition to stronger copper and zinc prices, were the catalyst.

Salt increased sales quantities by three per cent in 1999-2000, but lower prices resulted in the value falling by seven per cent to \$185 million.

While the amount of coal sold increased by 12 per cent, lower contract prices led to the value of sales rising only six per cent to \$272 million.

REPORT ON OPERATIONS

ROLE AND STRUCTURE OF THE DEPARTMENT

The Department of Minerals and Energy is responsible to the Minister for Mines, currently the Honourable Norman Moore, for administration of State Acts that regulate the mineral, petroleum and dangerous goods industries in Western Australia (see page 135). The Department also co-administers petroleum-related Commonwealth Acts for which the State and Commonwealth Ministers form a Joint Authority.

The Department structure has two distinct components:

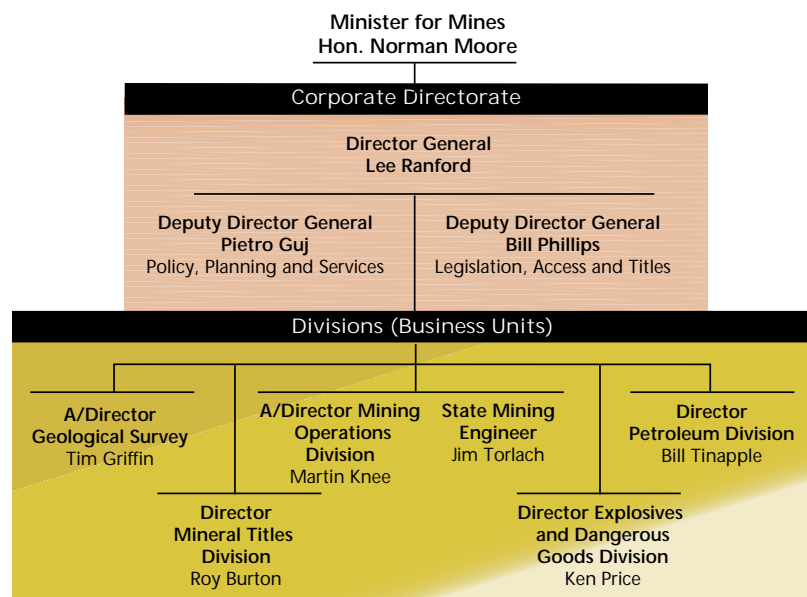
- A Corporate Directorate
- Five independent Divisions or business units

The Corporate Directorate, headed up by the Director General (Mr Lee Ranford) and two Deputy Directors General (Dr Pietro Guj and Mr Bill Phillips), is responsible for the corporate policy direction, planning, governance, coordination and communication and marketing of Departmental activities. It also provides the necessary corporate services and administers mineral and petroleum royalties and land access matters.

The five operating Divisions are industry-focused, independent business units that are primarily responsible for the provision of Departmental products and services in both the industry support and regulatory roles of the Department. Each Division is therefore responsible for one or more of the Departmental Outcomes and Outputs.



Director General Lee Ranford (seated) supported by (from left) Tim Griffin, Bill Tinapple, Martin Knee, Roy Burton, Jim Torlach, Ken Price and Pietro Guj. (Bill Phillips absent from photograph)



REPORT ON OPERATIONS

OUR MISSION

To provide a legislative framework, information systems, and administrative processes for the mineral, petroleum and dangerous goods industries in order to:

- Promote the potential for resource exploration
- Facilitate access to land and provide secure title for resource exploration and development
- Meet community standards for environmental management and health and safety
- Ensure the community receives appropriate royalties

OUR VISION

To achieve economic benefits for all Western Australians through the discovery and development of the State's mineral and petroleum resources whilst meeting the community's standards for safety, health and environmental management.

OUTCOME AND OUTPUT STRUCTURE

The Department is funded within an Output Based Management structure, prescribing five Outcomes desired by Government for the community and ten¹ Outputs provided by the Department to contribute to the achievement of those outcomes.

Outcome 1: Optimum² use of land and resources

- Output 1: A system for the grant and maintenance of titles to explore for and mine minerals
- Output 2: A system for the grant and maintenance of titles to explore for and produce petroleum
- Output 3: A geological framework of the State and its resources
- Output 4: An archive of geoscientific and resource exploration data
- Output 5: Discontinued¹

Outcome 2: Safe and healthy mineral and petroleum industry workforces

- Output 6: A system for regulating and promoting health and safety in the mineral industry
- Output 7: A system for regulating and promoting health and safety in the petroleum industry

Outcome 3: Acceptable environmental standards for mineral and petroleum exploration, development, production and project completion

- Output 8: A system for regulating and promoting environmental management in the mineral industry
- Output 9: A system for regulating and promoting environmental management in the petroleum industry

Outcome 4: Appropriate returns to the community for the exploitation of its mineral and petroleum resources

- Output 10: A system to establish royalty rates and ensure appropriate royalties are paid when due

Outcome 5: A community confident that it is safe from hazards associated with the storage, handling and transport of dangerous goods

- Output 11: A system for regulating the storage, handling and transport of dangerous goods

¹ Note: Output 5 was discontinued with the transfer of the Mineral Processing Laboratory to CSIRO in 1998. The Department therefore has ten Outputs. However, the original numbering (1-11) has been retained in this report to maintain consistency with Treasury Budget Statements.

² See glossary for definition of optimum

DEPARTMENTAL FUNCTIONS AND RESPONSIBILITIES

The Department's Divisions and Branches can be separated into either an industry **regulation** (management) or **support** function. The distinction between the two segments is crucial to understanding the way the Department is managed.

The regulatory Divisions' objectives are aimed at attaining and maintaining a robust standard of regulation for the wellbeing of the industry and community.

The support Divisions and Branches aim at attracting investment and increasing the levels of exploration, mining and petroleum extraction in the State. For example, the Geological Survey provides basic geological data and promotes the potential of the State's resources.

The **Mineral Titles Division** receives applications and allocates titles that give legal rights to explore for and mine minerals in Western Australia under the Mining Act. A computer-based public plan system (TENGRAPH®) and legal title registry are maintained, and dealings creating legal interests are registered. A survey-based title certification service is provided under a 'user pays' survey system and compliance with expenditure commitments is monitored to ensure land is being actively explored or made available to others.

Mineral Titles Division is primarily responsible for Output 1 (see page 22).

The **Mining Operations Division** administers mine safety legislation through the Mines Safety and Inspection Act to safeguard and promote the safety and health of those working in the industry. It provides advice to the Government and industry on mining engineering matters including underground mining, open-cut mining, quarrying, drilling and mining related environmental and rehabilitation matters.

The Division also administers the environmental management and rehabilitation requirements

through conditions applied under the Mining Act on the authority of the Minister.

Mining Operations Division is responsible for Output 6 (see page 52) and Output 8 (see page 66).

The **Petroleum Division** facilitates the undertaking by industry of exploration and development of geophysical and drilling programs for the discovery, delineation and exploitation of oil and gas accumulations. It ensures sound engineering principles and standards are applied to the design and construction of exploration and production facilities and that safety and environmental management systems are in place to secure the occupational health, safety and welfare of the workforce and protection of the environment. It also maintains an effective title allocation and registration system, and monitors, advises and interprets State and Commonwealth petroleum legislation.

Petroleum Division is responsible for Output 2 (see page 28), Output 7 (see page 58) and Output 9 (see page 70).

The **Geological Survey Division** systematically records and interprets the geology of the State and provides this information to Government, industry and the general public in order to enhance the prospectivity of Western Australia and assist the exploration, development and conservation of the State's mineral and petroleum resources.

It evaluates mineral and petroleum resources as a basis for policy formulation and decision-making by Government and assists and advises on a variety of community needs, including urban planning and land-use issues.

The Geological Survey Division is also the custodian and disseminator of a vast range of geoscientific data and information including tens of thousands of mineral and petroleum exploration reports submitted by private companies in compliance with legislation.

REPORT ON OPERATIONS

The Geological Survey Division is responsible for Output 3 (see page 34) and Output 4 (see page 38).

The **Explosives and Dangerous Goods Division** is working towards having a community confident that measures are in place to keep it safe from hazards associated with the storage, handling and transport of dangerous goods. The Division reviews, formulates and administers laws, regulations and policies aimed at the safe manufacture, storage, handling and transport of explosives and dangerous goods. It also provides safety advice on these matters and on the control of major hazard facilities.

Explosives and Dangerous Goods Division is responsible for Output 11 (see page 84).

The **Corporate Directorate** incorporates a number of Branches covering policy, planning and services with roles including:

- Developing mineral and petroleum royalty policies, which are fair and equitable, and ensuring that the State's royalties are collected in a timely manner (see Output 10, page 77)
- Providing economic advice on mining and petroleum industry issues
- Collecting and disseminating statistics and assisting in the development and coordination of general Departmental policies
- Informing staff, industry and the public about the role of the Department and the importance of the mining and petroleum industry
- Ensuring the widest possible access to areas for mineral and petroleum exploration and development (taking into consideration Native Title claims, conservation and urban planning and development issues) (see Output 1, page 22)
- Providing various corporate services for the Department while responding to the requirements of Government and central agencies. These services include building

and purchasing services, information technology, records management, telecommunications, finance, employee relations and auditing activities

NOTE: The majority of the Corporate Group activities fall under the Corporate Governance section (see page 92).

PERFORMANCE MEASURES

Performance measures provide accountability to Parliament and the community for expenditure of public money and to assist in the management of the Department. These performance measures are published in accordance with the Financial Administration and Audit Act 1985 (FAAA) and the associated Treasurer's Instruction Number 904 (TI904).

The FAAA requires that the Department disclose audited key effectiveness and efficiency indicators ('key performance indicators') that:

- Are relevant, free from bias and quantifiable
- Encompass the operations of the Department
- Are reproduced within the elements of the report on operations to which they relate

TI904 defines key performance indicators, this way:

- *Effectiveness* indicators provide information on the extent to which outcomes have been achieved through the funding and production of agreed outputs

- *Efficiency* indicators relate outputs to the level of resource inputs required to produce them

TI904 also requires disclosure of Output performance measure results against estimates published in the 1999-2000 Budget Papers.


This report contains audited key performance indicators and Output measures, together with certification of the key performance indicators by the Director General of the Department of Minerals and Energy and the opinion of the Auditor General.

Key performance indicators are located after the operations report for each Outcome and its related Outputs. An index to these indicators is provided on pages 16-17.

All reported efficiency measures reflect the full cost of service reported in the financial statements. The Output performance measures for all Outputs are located immediately before the financial statements. No measures are provided for Output 5 (see note page 14).

CERTIFICATION OF KEY PERFORMANCE INDICATORS

I hereby certify that the key performance indicators are based on proper records and fairly represent the performance of the Department of Minerals and Energy for the year ended 30 June 2000.



L C Ranford
Accountable Officer
14 August 2000

REPORT ON OPERATIONS

Index to Audited Key Performance Indicators

Outcome 1: Optimum use of land and resources

Effectiveness

| | |
|---|----|
| 1.1 Timeliness of titles systems | 41 |
| 1.2 Timeliness of 1:100 000 geological maps | 42 |
| 1.3 Ratings by customer representatives of interpretative geological products and data services | 43 |
| 1.4 Investment in exploration | 44 |
| 1.5 Resources inventory - mining | 47 |
| 1.6 Resources inventory - petroleum | 48 |

Efficiency

| | |
|--|----|
| Average cost per hectare of land under title of the mineral title system | 49 |
| Average cost of mineral title services | 49 |
| Average cost per title of the petroleum title system | 49 |
| Average cost per unit of published geological product | 50 |
| Average cost per (weighted) exploration data transaction unit | 50 |

Outcome 2: Safe and healthy mineral and petroleum industry workforces

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| 2.2 Injury frequency rates | 63 |
| 2.3 Comparative safety: Workers' Compensation Insurance premium rates | 64 |

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| | |
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| Average cost per unit of petroleum safety services | 64 |

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Effectiveness

| | |
|---|----|
| 3.1 Community satisfaction with the mineral industry's environmental management as measured by an annual survey | 73 |
| 3.2 Annual Environmental Review assessment scores for mine sites | 74 |
| 3.3 Compliance with the Department's environmental management criteria for petroleum operations | 74 |

Efficiency

| | |
|--|----|
| Average cost per mine site of annual environmental performance reviews | 75 |
| Total Environmental bond score in relation to the cost of environmental services | 75 |
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Outcome 4: Appropriate returns to the community for the exploitation of its mineral and petroleum resources

Effectiveness

| | |
|---|----|
| 4.1 Average royalty rate | 81 |
| 4.2 Percentage of royalty due and paid by the required date | 82 |

Efficiency

| | |
|---|----|
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Outcome 5: A community confident that it is safe from hazards associated with the storage, handling and transport of dangerous goods

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| | |
|--------------------------------------|----|
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Efficiency

| | |
|--|----|
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|--|----|



Auditor General

To the Parliament of Western Australia

DEPARTMENT OF MINERALS AND ENERGY PERFORMANCE INDICATORS FOR THE YEAR ENDED JUNE 30, 2000

Scope

I have audited the key effectiveness and efficiency performance indicators of the Department of Minerals and Energy for the year ended June 30, 2000 under the provisions of the Financial Administration and Audit Act 1985.

The Director General is responsible for developing and maintaining proper records and systems for preparing and presenting performance indicators. I have conducted an audit of the key performance indicators in order to express an opinion on them to the Parliament as required by the Act. No opinion is expressed on the output measures of quantity, quality, timeliness and cost.

My audit was performed in accordance with section 79 of the Act to form an opinion based on a reasonable level of assurance. The audit procedures included examining, on a test basis, evidence supporting the amounts and other disclosures in the performance indicators, and assessing the relevance and appropriateness of the performance indicators in assisting users to assess the Department's performance. These procedures have been undertaken to form an opinion as to whether, in all material respects, the performance indicators are relevant and appropriate having regard to their purpose and fairly represent the indicated performance.

The audit opinion expressed below has been formed on the above basis.

Audit Opinion

In my opinion, the key effectiveness and efficiency performance indicators of the Department of Minerals and Energy are relevant and appropriate for assisting users to assess the Department's performance and fairly represent the indicated performance for the year ended June 30, 2000.

C P MURPHY
ACTING AUDITOR GENERAL
October 6, 2000



OUTCOME 1 OPTIMUM USE OF LAND AND RESOURCES

| Output | 1998-99 Expenditure (\$ million) | 1999-2000 Expenditure (\$ million) |
|---|--|--|
| 1 A system for the grant and maintenance of titles to explore for and mine minerals | 16.964 | 17.098 |
| 2 A system for the grant and maintenance of titles to explore for and produce petroleum | 2.249 | 2.519 |
| 3 A geological framework of the State and its resources | 15.588 | 14.971 |
| 4 An archive of geoscientific and resource exploration data | 2.146 | 2.535 |
| 5 Mineral processing, test-work, project and consultancy services | 0.690 | discontinued |
| TOTAL | \$37.637 | \$37.123 |

Access to land and marine areas of Western Australia, for the exploration and development of mineral and petroleum resources, is a major issue facing the minerals and energy industries. Such access is influenced by government policy and legislation and community acceptance of mineral and petroleum resource exploration and development.

The Department contributes by providing up-to-date geological and resource information and well-informed policy and legislative advice to ensure there are no unnecessary limitations to access where new legislation, policies or processes are being developed or when changes to land tenure are proposed. The Department ensures decision-makers have appropriate information to consider the impact of changes on access to mineral and petroleum resources in Western Australia.

The Department also continues to develop means of effectively involving the community in decisions that affect them.

ACCESS TO LAND AND MARINE RESOURCES

Land and marine areas under control of the Western Australian Government are accessible for exploration and development of mineral and petroleum resources through the provisions of the Mining Act 1978, the Petroleum Act 1967 and the Petroleum (Submerged Lands) Act 1982.

LAND-USE POLICY AND PLANNING

Implementation of Regional Forest Agreement

The Department was involved in developing the proposal for new types of reserves which was endorsed as part of the Regional Forest Agreement adopted by the Western Australian Government in May 1999.

New Commonwealth environmental impact assessment legislation

The Department was actively involved in reviewing the resource access implications of the Commonwealth's proposed Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), which will come into effect on 16 July 2000, resulting in certain types of low impact exploration (terrestrial and offshore) activities being exempt from the referral and assessment provisions of the Act.

The Commonwealth EPBC Act amalgamates five Commonwealth Acts and deals with environmental impact assessment and biodiversity conservation. Projects or activities likely to have a significant impact on matters of National Environmental Significance (NES)

trigger Commonwealth involvement in the environmental assessment process.

The six areas of NES prescribed in the Act are: Commonwealth marine environment, World Heritage properties, Ramsar wetlands (wetlands of international importance especially Waterfowl Habitat), Commonwealth-listed threatened species and ecological communities, migratory species and nuclear actions.

Project proponents will be required to ensure compliance with the Act, referring proposals that may affect an NES matter to the Federal Minister for the Environment. The State's environmental assessment processes are not affected by the introduction of this legislation.

Legislative changes to planning and environmental protection in WA

The Department was involved in reviewing legislative changes to planning and environmental protection legislation in Western Australia, particularly where land access issues were involved.

In association with the Ministry for Planning, the Department undertook to make appropriate amendments to the Mining Act 1978 once the State planning legislation is consolidated. Submissions were prepared and representations made to the Environmental Protection Authority concerning proposed amendments to the Environmental Protection Act 1986.

Assessment of proposals for changes in land-use

The Department was involved in assessing 1 117 proposals relating to:

- Proposed subdivisions in areas likely to affect access to mineral and petroleum resources
- Land tenure changes referred by the Department of Land Administration

The Department has a Memorandum of Understanding with the Western Australian Planning Commission and the Ministry for

Planning for subdivision proposals, which are referred to the Department for comment. This is a key function because once significant developments take place, access to search for resources can be very difficult or impossible. Nearby residents may strongly oppose resource exploitation and the removal of developments to allow extraction may render it uneconomic. In addition, private landowners may deny access to search for or exploit resources.

The Department ensures any changes to tenure or use are made with knowledge of the implications for access to the State's mineral, petroleum and construction resources. Proposals are assessed in view of tenements that may be held over the area, and with a consideration of the economic geology.

Strategic Resource Inventories

The Department has documented the location of resources, including strategic studies for titanium minerals on the Swan Coastal Plain, basic raw materials in the Perth metropolitan area, on the southern Swan Coastal Plain and around Kalgoorlie and Statewide for limestone.

These inventories are vital because land-use changes in the more developed parts of the State hinder access to mineral and construction materials. Planning instruments are being developed in collaboration with the Ministry for Planning and the Western Australian Planning Commission to minimise the effect of future land rezoning and developments on our State's important mineral resources.

Code of Practice for Mineral Exploration on Private Land

In association with other key Government and non-Government agencies, the Department facilitated development of a code of practice for landholders and persons undertaking mineral exploration and mining on private land in the Great Southern Region.

Mineral exploration and mining projects in the southern and central South-West received a

OUTCOME 1 OPTIMUM USE OF LAND AND RESOURCES

major boost with the release of a code of practice for use by companies and farmers. It explains the nature of mineral exploration and mining, and addresses issues often raised when these activities are proposed on farming property. It also represents a means of integrating the needs of mineral development and agricultural development. The code is expected to be promoted by industry associations and the Department throughout the rest of the South-West's farming regions.

New development titles in the Shire of Boddington

The Department was involved with the Shire of Boddington in applying a restrictive covenant for the first time, to prevent new developments near existing or proposed mining operations which otherwise would be prohibited because of noise issues and proximity to residences.

Negotiations with the Shire of Boddington will result in development titles in parts of the Shire being approved with a covenant preventing construction of residences, tourist accommodation and similar facilities sensitive to nearby mining. These areas are within a noise envelope within which future mining operations could be prohibited through the Environmental Protection Authority's limitations on noise created by mining. This is the first application of this type of covenant in Western Australia, and could be applied more widely to better utilise land attributes and ensure land is not sterilised through residential construction.

Improved Management of Declared Rare Flora (DRF) Sites

The Department and the Department of Conservation and Land Management (CALM) have adopted a Declared Rare Flora (DRF) management procedure to assist industry.

All DRF sites in Western Australia will be recorded in a confidential layer in the Department's electronic mapping system (TENGRAPH®) and updated regularly. Mining tenement holders can then be made aware of the need to liaise with

CALM prior to any ground disturbance where DRF sites have been identified.

Environmental map to assist industry

A map was developed showing the location in Western Australia of national environmental significance triggers prescribed in the Commonwealth EPBC Act. It demonstrates the implications of the legislation for resource proposals in Western Australia and has provided a necessary overview for industry.

Land-use manual developed

The Department developed a user manual describing each of the land categories recorded in the TENGRAPH® information system. The manual assists industry to understand potential constraints in accessing a particular type of land for mineral exploration and mining, and is available on the Department's website.

ABORIGINAL AND COMMUNITY CONSULTATION

Department drilling program in Central Reserve

In 1999, the Department worked closely with the Ngaanyatjarra Land Council (NLC) in selecting a site suitable for drilling a well to define a sequence of sedimentary rocks in the Officer Basin. Despite best endeavours, the Department was later informed the drilling program had disturbed an Aboriginal dreaming track, known as the Nyi-Nyi Tjukupa. The Department will continue consulting with the NLC on access matters.

Negotiated mineral access to Yandeyarra Aboriginal Reserve

For the first time in 20 years, mineral exploration was recently undertaken within the Yandeyarra Aboriginal Reserve in the Pilbara region. Previously, a mining moratorium was placed over the entire reserve. The Department took the lead role in negotiating the partial lifting of the moratorium from the northern portion of the reserve, which has facilitated the processing of

title applications and created an orderly approach to the negotiation of access agreements.

Establishment of Aboriginal Liaison Office in Kalgoorlie

In response to the level of current and proposed mineral exploration and mining activity in the Goldfields, the Department has established a permanent office in Kalgoorlie to assist with liaison and resolution of issues between the mining industry and Aboriginal community.

OTHER NATIVE TITLE MATTERS

Native Title (State Provisions) Act 1999

The Department has been involved with the Ministry of Premier and Cabinet regarding establishment of a State Native Title Commission under the Native Title (State Provisions) Act 1999.

The Act provides for a State Native Title Commission to deal with future Acts, but not the registration and mediation of native title claims.

The Act provides for a consultation process on pastoral leasehold lands, with the 'right to negotiate' remaining for unallocated Crown land and reserved land. However, the introduction of the amended 'right to negotiate' approach requires agreement of the Federal Parliament.

Under Part Four of the Act, objections to mining titles associated with mining infrastructure may be heard by Mining Wardens or determined by the State Native Title Commission.

Identification of Native Title Parties for Negotiation

A new registration test introduced under the Native Title Amendment Act 1998 has seen the Department undertake monitoring of individual native title claims to determine whether or not tenement applications could be granted.

The Commonwealth's Native Title Amendment Act 1998 has had a significant impact on native title claims lodged in Western Australia. As a consequence of the new registration test, a substantial number of native title claims were combined, resulting in an overall reduction in the number of native title claims and the emergence of single claims covering large areas of the State.

However, in a number of cases it was a very difficult exercise to identify who were the correct negotiation parties and which claimants should execute State deeds.

'Negotiation in good faith' clarified

The Department was involved in two challenges heard by the National Native Title Tribunal and was able to prove in both cases that it had 'negotiated in good faith'.

The cases provided clarification on new issues encountered in the negotiation process. In one decision, it was ruled there was no obligation to negotiate with individual applicants on a combined claim. In the other case, it was ruled that negotiations with a native title party via its nominated representative was sufficient to satisfy the requirements of 'good faith' without having to negotiate separately with the native title party/parties themselves.

Mediation protocol produced

Department officers met with National Native Title staff to discuss the importance of mediation in the context of 'negotiations in good faith', resulting in a mediation protocol being established, with clear procedures and time frames.

Regional Kimberley Memorandum of Understanding

To date, 12 tenements have been granted by the Department under the Kimberley Regional Memorandum of Understanding process. A further 30 tenements are currently being processed.

Output 1

A system for the grant and maintenance of titles to explore for and mine minerals

Output Description

The ongoing management of mining legislation and a mineral titles system that provides information on land availability for mineral exploration and mining, encourages exploration on titles and ensures security for title holders. Products and services provided within the management system include advice on land access matters, accurate and up-to-date information on land status, processing and determination of title applications, maintenance of a register of titles and assessment of compliance with expenditure commitments.

Expenditure in 1999-2000: \$17.098 million

Contact: Mr Roy Burton
 Director
 Mineral Titles Division
 2nd floor Mineral House
 (08) 9222 3184

| |
|---|
| Corporate Group |
| Mineral Titles Division |
| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

OVERVIEW

Western Australia’s mining title scene continues to be dominated by the effects of the Commonwealth Native Title Act 1993 and the record number of outstanding applications that have developed as a result of this legislation.

The reporting period for 1999-2000 ended positively with the State Government announcing measures that will allow some inroads into the current mining title backlog by granting applications on enclosed pastoral leases and granted mining leases that have been relinquished. This has been made possible by the recent decision by the Full Federal Court in the Miriuwung Gajerrong appeal case where it was determined that a number of land categories, including enclosed pastoral leases, extinguish native title.

It is anticipated this decision, and the measures announced by the State Government, will create the certainty needed to allow processing of significant numbers of applications over areas in which native title has been extinguished in

compliance with the conditions of the decision. In these situations, applications will not be required to be submitted to the Commonwealth Native Title Act process. As such, the decision has the potential to free up a large number of applications currently caught up in the native title process.

Although the current backlog of 10 400 applications covers a total of 27.76 million hectares, some of this area involves layers of successively applied for, or competing, applications over common ground. Applications will need to be processed by the Department in order of lodgement. However, it is expected that in light of recent events progress can be made to grant exploration rights and kick-start a new phase of exploration over prospective ground.

Currently, there are 16 280 tenements in force with a total area of 23.75 million hectares, as compared to 26.84 million hectares in 1998-99 and 35.25 million hectares in 1997-98.

Tenure

The number of applications for mining tenements received this year was 3 687. Although this was 28 per cent lower than that of the previous year when 5 121 applications were received, the 1998-99 figure included 1 200 general purpose lease applications. The larger number of applications for general leases in the previous year was primarily due to the fact that at the time, an area of no more than 10 hectares could be applied for under a single general purpose lease, and that since July 1999, the Minister for Mines has been able to approve applications for general purpose leases greater than 10 hectares. The lower number of applications received also confirms a downward trend due to significant areas already being tied up in existing outstanding applications as a result of the difficulties in granting sufficient numbers of mining titles under the Native Title Act.

The lower interest in applications during the period also reflected the economic outlook for gold and the generally lower valuation of resource stocks, which made it more difficult to raise finance for exploration.

Titles granted in Western Australia increased to 3 204, which was 285 per cent higher than in the previous period when 1 124 titles were granted. A major contributor to this increase was the grant of 1 049 general purpose leases to Robe River Iron Associates for the West Angelas iron ore project. There was also a significant increase in the grant of exploration and prospecting licences as a result of native title parties withdrawing objections when agreement was reached over the conduct of site avoidance surveys prior to exploration being commenced. The area of titles granted also increased from 3.75 million hectares in the previous period, to 7.98 million hectares in the current period.

Table 1: Tenements

| Applications for the period 1 July 1999 to 30 June 2000 | | |
|---|---------------|------------------------|
| | No. | Area (hectares) |
| Prospecting Licences | 1 189 | 167 755 |
| Exploration Licences | 1 557 | 14 158 480 |
| Mining Leases | 803 | 329 157 |
| Other | 138 | 783 789 |
| TOTAL | 3 687 | 15 439 181 |
| Tenements granted for the period 1 July 1999 to 30 June 2000 | | |
| | No. | Area (hectares) |
| Prospecting Licences | 868 | 113 940 |
| Exploration Licences | 971 | 7 562 520 |
| Mining Leases | 138 | 56 786 |
| Other | 1 227 | 252 305 |
| TOTAL | 3 204 | 7 985 551 |
| Tenements in force as at 30 June 2000 | | |
| (Mining Act 1978) | | |
| | No. | Area (hectares) |
| Prospecting Licences | 5 827 | 745 021 |
| Exploration Licences | 3 394 | 20 687 010 |
| Mining Leases | 4 865 | 1 829 000 |
| Other | 2 001 | 468 430 |
| (Mining Act 1904) | | |
| Mineral Claims and others | 193 | 21 790 |
| TOTAL | 16 280 | 23 751 251 |

Output 1

A system for the grant and maintenance of titles to explore for and mine minerals

A legal development of some interest has arisen out of an application by Iluka Resources Limited at Mundijong, which was the subject of numerous environmental objections. In this instance, the Warden has made a recommendation that the application be referred to the Environmental Protection Authority (EPA) for assessment before the Minister for Mines considers the application. To date, the practice has been for applications to be granted subject to a condition that no developmental mining takes place until the holder lodges mine proposals, which then require the approval of the State Mining Engineer. If appropriate, EPA assessment may also be required. As of 30 June 2000, the Minister is yet to consider the application.

Title Monitoring

The annual obligation of title holders to pay rent, lodge a report on activities and comply with expenditure conditions is continually monitored by the Department using computer systems to detect potential breaches.

Compliance with reporting obligations was slightly down on the previous year with 11 680 reports being received. This represents an 82.9 per cent compliance in respect to the 14 086 prospecting and exploration licences and mining leases in force.

The Department issued 2 034 notices of intention to forfeit for non-payment of rent and non-compliance with expenditure commitments during this period. The resulting number of titles forfeited is slightly up on the previous year with 152 being forfeited in 1999-2000 compared to 136 the previous year. In most instances, the notices of intention to forfeit were issued in respect of non-payment of rent with the result that rent was subsequently paid and no further action was taken. In future, late payment under these circumstances could incur a fine.

In 1999-2000, 5 883 exemptions from expenditure commitments were finalised. However, in most instances these related to part expenditure and project expenditure where the

sum expended on some tenements in a group exceeded the aggregate expenditure required on the whole group.

The Department withdrew its exemption guidelines as a result of the Calder Esq SM; Ex Parte St Barbara Mines Limited and Anor case in the Western Australian Supreme Court. One of the consequences of this action was that the Departmental guidelines concerning projects, and in particular the requirement for the rotation of expenditure on tenements in the group, were found not to be in accordance with the current provisions of the Mining Act. The Department is currently considering the issue in consultation with industry groups.

Table 2: Title Monitoring

| | 1997-98 | 1998-99 | 1999-2000 |
|--|---------|---------|-----------|
| Reports received | 16 145 | 15 299 | 11 680 |
| Exemption applications | 5 115 | 5 570 | 5 883 |
| Tenements forfeited (rent/expenditure) | 70 | 136 | 152 |

MINING INDUSTRY LIAISON COMMITTEE

The Mining Industry Liaison Committee (MILC) provides a forum for industry groups and the Department to consider and review issues relating to the Mining Act and provide recommendations to the Minister. Key issues considered during the year included:

- **Access to exploration licences by miner's right holders**
A regulated permit system is proposed to provide an opportunity for prospectors to search for alluvial mineral deposits, primarily gold, which may occur on exploration licences without the need to obtain the prior approval of the licence holder.
- **Further refinement of the special prospecting licence system**
 - The maximum number of Special Prospecting Licences (SPLs) allowed per person be increased from three to ten

- More short-term SPLs on primary tenements will be allowed with the consent of the holder. That is, more than one on a Prospecting Licence (PL) and more than one per 200 hectares on aggregate in respect to an Exploration Licence (EL)
- **Improvements to performance bond system**

Bonds in the form of a standard bank guarantee will be allowed up to \$25 000. Unconditional Performance Bonds over that amount are required to be lodged in the Department's standard format. Amounts up to \$10 000 may be in the form of a security. Other bond issues being finalised include proposals for:

- Introduction of a standard \$5 000 security on all tenement types (at present a \$500 security applies to PLs and \$5 000 to ELs)
- Securities on all expired 'dead' tenements to be automatically discharged after one year following expiry (unless put in suit)
- A requirement to provide a residential address on the security form
- **Expenditure relating to airborne surveys**

The full cost of an airborne survey or surveys covering ground surrounding the target tenement or tenements may be claimed as expenditure on the underlying tenements provided the results of the survey are submitted to the Department.

MINING ACT AMENDMENTS

An Amendment Act came into operation in July 1999, which included the following:

- Where transfer of a prospecting or exploration licence occurs and a lease application or applications have been made in conversion, the lease applications will be deemed to continue in the name of the new holders of the licence

- An ability for the Minister to approve an application for a general purpose lease that is greater than 10 hectares
- An additional security provision has been added to enable the Minister to impose further securities in any amount with respect to all tenement types for the protection of the environment and to ensure compliance with conditions

Customer and Information Services

Customer access to research and order products using online electronic systems increased with the *dme.bookshop* becoming available via the Internet from February 2000. Initially, the products that could be ordered through the bookshop focused on geological maps, publications and digital information. However, the scope of the products available will increase to the full range produced by the Department. The bookshop has attracted inquiries and orders from many countries including Finland, England and America, as well as many localities in Australia.

To assist the Department's e-commerce initiatives, the electronic cash register and inventory system that was implemented at the Perth office in 1998 has been introduced to other Mining Registrar offices. This integrated online facility will improve customer payment and Department banking and accounting processes.

Easier access to enable remote viewing of many of the Department's information systems has provided efficiencies to industry, which has been reflected in a reduction in customer contacts of 8.5 per cent. Direct counter inquiries at Perth office were down from 15 136 (59 per day) to 13 067 (51 per day), the lodgement of tenement applications and dealings are down from 11 692 to 10 064, and less tenement register searches were ordered, 32 395 (125 per day) to 28 298 (109 per day).

Output 1

A system for the grant and maintenance of titles to explore for and mine minerals

TENDEX® (electronic titles information system)

The Department continued to provide tenement information to the mining industry through the Department's regional offices and the Internet. Registrations for Internet access to the Department's electronic titles information system (TENDEX®) increased by 64 per cent over the previous year, with 2 950 clients now registered to use the system online.

Significant changes were made to the system during the year to manage the dramatic increase in TENDEX® users and the impact of the Goods and Services Tax (GST) on tenement rentals.

TENGRAPH™ (computerised tenement mapping system)

Internet access to TENGRAPH™ (the Department's computerised tenement mapping system) was made available to the public in July 1999. The new service has proven to be very popular with registrations in the first year reaching 1 560 and increasing substantially every month.

To help make TENGRAPH™ available to prospectors and others who may not have access to computer facilities in remote Western Australia, a computer with printer and Internet access was established for public use in the offices of the Sandstone Shire Council. The equipment is available to all users and current trends show a good level of use. The initiative has the backing of the Amalgamated Prospectors and Leaseholders Association (APLA) and further installations could be established elsewhere in the State if this pilot provides a useful service to industry.

The program to finalise the entry of data into TENGRAPH™ has now been completed Statewide with the addition of the Collie and Busselton areas. However, the Miriuwung Gajerrong Full Federal Court determination that native title is extinguished by Western Australian pastoral

leases that have been enclosed or improved and by the grant of mining tenements has created an urgent need to enter this information into TENGRAPH™ from paper plans. This will enable the Department to proceed with the granting of mining titles, without reference to the Native Title Act, where it can be demonstrated that native title has been extinguished in the area.

Mineral Titles System (MiTiS)

MiTIS will provide the mining industry with electronic access to mining title information currently available only from the Department's paper tenement registers. These registers will be archived as data capture progresses throughout the State and TENDEX® will be replaced on the completion of this process.

New file servers and computers for the public counter at Kalgoorlie were installed in readiness for MiTiS as development work continued on the system during the year. Data entry commenced during the year with the capture of the first Mineral Field (Kalgoorlie) in April 2000. It is expected that the capture of information for Kalgoorlie will continue throughout 2000 and after extensive testing the system will be ready for public release in early 2001.

MiTIS will provide significant benefits to the industry through improved processing times and eliminate the need for duplicate registers in Perth and in regional offices. Information will be entered only once and will then be available to industry at any of the Department's mining registrar offices.

The electronic nature of MiTiS will also provide a foundation for the eventual development of electronic lodgment of tenement applications and dealings, and enable the development of Internet access. A pilot project has just been initiated to assess the implications and work involved in providing an electronic lodgment service to industry. This assessment is planned for completion towards the end of 2001.

Geocentric Datum of Australia (GDA)

Implementation of the Geocentric Datum of Australia (GDA) is a nation-wide initiative that will result in a new datum (or reference point) for all mapping systems. It will have a significant impact on the management of titles because it affects all products and services that describe the position of features by coordinates. In addition, the Department and industry will benefit through the use of a single system throughout Australia that also conforms to international standards and allows easier use of satellite position fixing devices.

During the year, the Department has continued to work with the Western Australian Land Information System (WALIS). WALIS is responsible for coordinating the implementation of GDA within Western Australia.

The Western Australian approach to GDA has been to maintain the ground position of all titles but change the description of their position as defined by the new datum. This approach will have the least impact on the mining industry.

Legislative changes are currently before Parliament to support the implementation of GDA and enable the Department to meet the implementation deadline of 4 December 2000. Test conversions of the Department's databases have also been undertaken to ensure readiness before the implementation date.

Survey Services

The number of requests for the survey of mining tenements decreased from 120 tenements in 1998-99 to 112 in 1999-2000. Legal certification of past surveys was completed for 174 tenements.

Training programs in the use of the Department's Differential Global Positioning System (GPS) equipment were conducted during the year and GPS equipment was checked for Y2K compliance and accuracy after the removal of selective availability.

During the year, \$100 000, made available from previously unclaimed survey fees under the repealed Mining Act 1904, was used to:

- Provide a new GPS package for use in Southern Cross
- Extend the Optus signal to all units until 2001
- Provide for replacement and repairs to existing GPS equipment as the need arises
- Employ contract personnel to complete the Statewide coverage of the TENGGRAPH® system

Mining Act Review – National Competition Policy

As part of the State's commitments to National Competition Policy, in June 2000 the Department finalised its review of the Mining Act 1978. The final step is for the Minister to submit the Review to the Premier as Chairman of the Cabinet Government Management Standing Committee (GMC) for endorsement by Government.

In summary, the main restriction considered in the review of the Mining Act 1978 was the method of licensing mineral exploration and production. This relates to the size, term and conditions of the various licences as well as the manner in which they are granted (i.e. first-in-time principle). The Review concluded that this restriction on open competition was considered to be in the public interest and should be maintained. The reasoning is that the present licensing system gives certainty to applicants interested in exploring and mining a parcel of land and by doing so, provides the requisite conditions for investment security. Overall, the Review concluded that the Mining Act 1978 was working well and no changes were required.

Output 2

A system for the grant and maintenance of titles to explore for and produce petroleum

Output Description

The ongoing management, revision and provision or contracting of a set of products and services for Government and industry to manage access to land for petroleum exploration and production, ensure security for title holders, and encourage effective exploration and production within titles. The products and services include advice on land access matters, release of land for application, processing and determination of title applications, maintenance of a public register of titles and transactions, assessment of compliance with title work commitments, approval of field operations and reserve assessments.

Expenditure in 1999-2000: \$2.519 million

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| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

OVERVIEW

After weathering a period of record low oil prices in 1998, there was a turn-around in petroleum production in 1999-2000 with the value of production from Western Australia and the adjacent offshore area increasing by nearly 88 per cent to \$7.6 billion. As such, petroleum maintained its position as the State's largest resource sector by value.

Approximately 80 per cent (by value) of the State's petroleum products are exported. The major destinations are Japan (46 per cent), USA (12 per cent), China (11 per cent), South Korea (10 per cent), Singapore (10 per cent) and Taiwan (8 per cent).

Western Australia and the adjacent offshore area account for around 50 per cent of Australia's oil and condensate production.

CHALLENGE TO WORK PROGRAM BIDDING SYSTEM

During the year, the integrity of the Work Program Bidding System (WPBS), a key building block of petroleum title systems in Australia, was challenged when an application was made to surrender two permits associated with the Cornea oil discovery.

The issue arose because the joint venture holding the permits had not fully complied with its work program commitments under the WPBS.

The WPBS is the method by which the State and Commonwealth Governments award petroleum exploration permits. In essence, the application containing the highest quality guaranteed work program (that which best explores the entire bid area for the first three years) is the deciding factor in determining who is awarded the area.

With regard to the Cornea exploration permits, the permit holders commenced the work

program, but on realising that the geological prognosis on which their bid was based was seriously flawed did not wish to continue with their commitments.

If the permit holders were allowed to walk away from the title without fulfilling the guarantee, it was acknowledged that the title bidding system could be regarded as ineffective. If such an impression were created, it would become impossible to effectively administer the award of titles and encourage the search for petroleum in a meaningful way.

To overcome the problem, a scheme was developed whereby permit holders engaged in an inappropriate work program could essentially transfer their commitment (in terms of equal value exploration) to another approved area.

The offsetting work would need to be undertaken in what would generally be regarded as frontier areas, that is, areas that had been overlooked in previous bidding rounds.

The strategy was widely discussed with industry and many submissions were received. Generally, it was agreed that the solution was appropriate and certainly far more acceptable than adopting a simple cash bidding system.

It was also necessary to find a solution for those permit holders who had defaulted on guaranteed commitments and weren't prepared to mitigate that default by taking part in the 'frontier work' scheme. It has now been determined that, in such situations, defaulting permit holders will not be regarded as being in 'good standing' when they bid for new areas, or even farm-in to existing areas.

'Poor standing' status will be applicable for five years and information pertaining to permit holders in this category will be made publicly available. Making the information public will allow explorers contemplating a joint bid for a permit area the opportunity to ascertain whether their potential joint venturers are in good standing or not.

LEGISLATION

Legislative improvements were made during the year to the Commonwealth Petroleum (Submerged Lands) Legislation 1967. The main amendments included:

- Repeal of the provisions allowing the discretion for 16 blocks to be retained on renewal to escalate turn over of acreage and potentially increase exploration
- Changes to the period of time a pipeline title is in force to be relative to the use of the pipeline rather than a fixed arbitrary term
- Inclusion of infrastructure licences: a new class of title to provide for processing or storage outside the production licence area

The next step is to include these amendments in the State's petroleum legislation which shares the common mining code. This work will commence in tandem with other improvements such as the competition principle review of petroleum legislation and a plain English re-write.

Amendments were also made during the year to the State's Petroleum Act and included:

- Allowing any area within a title to be protected by imposing conditions which prevent the holder from entering that area (these conditions may later be lifted) to demarcate areas of special significance in advance of exploration programs being developed
- Extending the definition of Crown land used in the Act to include all land dedicated to a public purpose or reserve, which will mean there is now no duplication of the process to have access to reserved land considered
- Extending the terms of Drilling Reservations from one year to three years with a one-year right of extension if the work program has been completed, giving better security of tenure and greater flexibility for these shorter-term drilling titles

Work is also being undertaken through nationwide working groups on objective-based regulations for drilling, work-overs and resource management. Once regulations have been

Output 2

A system for the grant and maintenance of titles to explore for and produce petroleum

developed, the existing and administratively cumbersome directions currently used to regulate these matters will be retracted. The regulations are planned to be finalised in 2000-01.

INDUSTRY LIAISON

Increased consultation with industry was stressed during the year. The Department re-convened the Petroleum Industry Liaison Committee as a forum to discuss current issues and held the inaugural Department of Minerals and Energy Petroleum Open Day on 21 October 1999 in conjunction with the Petroleum Exploration Society of Australia's (Western Australian Branch) monthly technical seminar. Presentations on the role of the Department and current issues were made to more than 200 people. Topics included legislation, petroleum titles, exploration acreage and production in Western Australia. Feedback from industry indicates the event was very successful.

TITLES AND ACCESS TO LAND

During 1999-2000, the total number of all petroleum titles in force in Western Australia's onshore and adjacent waters areas, including the Commonwealth and adjacent area, increased to 284. This represented an increase of 26 titles over the previous year and, while a relatively healthy increase, was mainly confined to offshore activity and continues to disguise the fact that the grant of new titles onshore is stagnating. This is primarily due to Commonwealth Native Title Act (NTA) difficulties. There are 21 applications for petroleum titles currently in the NTA negotiation process.

Applications for three sets of areas in Commonwealth waters closed this year (two sets of new areas and one re-release of acreage not taken up in a previous round). The Department, in conjunction with the Commonwealth Department of Industry, Science and Resources, has received applications for 12 out of the 42 release areas. Application levels were slightly lower than usual, perhaps due in part to a lag

effect of former low oil prices on company budgets.

Nine permits have been granted with total work programs of \$287 million. This included \$30 million committed on permits over re-released areas to satisfy the Cornea development commitments.

An invitation to apply for exploration permits in 67 areas in Commonwealth waters adjacent to Western Australia was issued in May 2000 (two sets with different closing dates).

There were no releases of new areas in onshore Western Australia during the year. It had been intended to move to a more focused discrete area release system whereby the Government identifies particular areas for which it wishes to grant exploration permits. Such a strategy arose from the fact that very few applications had resulted from the previous Statewide release, i.e. where all areas not held under permit or applications for permits are made available for explorers to select and define the boundaries of their own areas of interest. However, certain matters such as the uncertainty created by the Miriuwung Gajerrong native title claim decision and the rationalisation of native title claim areas and representative bodies made that scheme less attractive at the time. It was therefore decided to concentrate on expanding the onshore exploration effort in existing permit areas and a strategy was devised to help promote this acreage by way of co-sponsoring with industry a farm-in opportunities booklet.

While some of the difficulties associated with the discrete area release strategy onshore are being resolved, it is intended to undertake a Statewide release strategy for the first release in 2000-01 with discrete areas being released in coastal waters.

PROMOTION OF EXPLORATION

This year, the Department initiated a targeted marketing approach to encourage exploration, particularly onshore. This was supported by a

broad array of publications designed to encourage continued investment in exploration in Western Australia and promotion at key exploration-oriented conferences.

The targeted marketing approach is aimed at identifying specific companies for which the opportunities in Western Australia may match their exploration philosophy or profile, and providing information and advice that would encourage them to investigate these opportunities. Contacts made through conferences and company lists are being used to build up a database. These companies are then provided with general information, through new publications such as the *Onshore Petroleum Opportunities* booklet (right), and answers to their specific questions through follow-up personal contact.

Plans for 2000-01 include expansion of the petroleum title and resource elements of the Department's web pages and providing new online services such as access to non-confidential title information and maps to display and enquire on titles, land data and exploration activity (wells and surveys).

The *Western Australian Onshore Petroleum Opportunities 2000* booklet was published to encourage greater expenditure and activity in existing onshore permits. This new publication contained information gathered from exploration companies on onshore farm-in opportunities. It has been marketed through a variety of industry and professional journals, societies, meetings and conferences and has been distributed worldwide. Positive comments received to date from Government and industry indicate interest in such an approach.

Two issues of the *Petroleum in Western Australia* magazine were published this year. The magazine contains information on activity, regulation and issues within Western Australia, together with poster-style maps of petroleum fields and development facilities.

A major new publication, the *Atlas of Petroleum Fields: Onshore Perth Basin*, was also completed.



Onshore Petroleum Opportunities booklet available from the Department of Minerals and Energy.

Output 2

A system for the grant and maintenance of titles to explore for and produce petroleum

This volume summarises the geology and resources of all known fields in the Perth Basin. This is the first such publication released by the Department and will be followed by similar publications on other basins in future years.

Considerable interest in the petroleum potential of the State was evident at a Western Australian promotional booth, jointly managed by the Department of Minerals and Energy and the Department of Commerce and Trade, at the Australian Petroleum Production and Exploration Association conference, held this year in Brisbane. This is Australia's leading exploration and production conference.

The message was carried overseas this year to the huge American Association of Petroleum Geologists Annual Convention in New Orleans where the Department, in conjunction with the Australian Geological Survey Organisation, provided information products and advice on investment in Western Australia from a promotional booth.

Proposals to have the non-confidential elements of titles information (generally contained in the petroleum register) made electronically available online are to be subjected to various scoping exercises. It is also intended to proceed with a graphics interface to the Petroleum Titles Management System (PETMAN). Such a strategy will enable the integration of petroleum title boundaries and information with other cadastral and landuse information. It will also benefit the management of the petroleum title grid base in terms of the new Geocentric Datum of Australia (GDA).

EXPLORATION

The Department of Minerals and Energy reviews plans for petroleum exploration operations such as wells and surveys prior to giving approval. The assessment includes ensuring the proponent has appropriate rights to access the land (or waters), what contribution the activity will make to meeting any work program conditions for the title and that the data being collected meets

current standards. The Department also reviews trends in exploration to further the State's understanding of industry drivers and to identify and implement changes to the regulatory regime to encourage exploration and to reflect changes to technology.

This year, Western Australia attracted about 60 per cent of the investment in petroleum exploration in Australia. Activity was at a high level with an impressive success rate: eight gas and five oil discoveries from 40 new field wildcat wells.

Along with ongoing discoveries, an encouraging sign of Western Australia's position in the exploration industry is the number of new overseas players becoming active in the State. Newfield Exploration Company as well as the Kerr McGee Corporation of the USA, and Inpex of Japan operated their first wells in Western Australia in the first half of 2000.

Australia also continues to rank highly in international surveys as a place to explore. For example, the 1999 Robertson's International New Ventures Survey ranked Australia second to Brazil. Apart from low sovereign risk and the fiscal and legislative regime, the success of exploration on the Greater North West Shelf off Western Australia has made Australia attractive. The Department's challenge now is to improve the perception of onshore prospectivity and opportunities in Western Australia.

On the regulatory side, while the onus is on title holders to comply with exploration work program commitments for their titles, the Department is moving to a more pro-active approach to monitoring compliance. The aim is to pinpoint any potential issues as soon as possible so that options for resolution are identified well before the end of the commitment year. In implementing this approach, responsibilities have been redistributed to allow more resources to be put to this task and work has begun on defining requirements for a computer-based monitoring system.

DEVELOPMENT

Three fields started producing petroleum this year — Wonnich (Apache) gas production commenced in July 1999, and oil production commenced from the Laminaria (Woodside) and Buffalo (BHP) oilfields late in 1999. The gas pipelines network also continued to grow with the 360 kilometre Mid-West Pipeline coming on-stream on 12 August 1999.

Planning and evaluation continued during the year for three major LNG developments:

- North West Shelf expansion using Perseus Field gas;
- Gorgon Field; and
- Scott Reef and Brecknock Fields.

Based on development of known gas resources offshore, long-term growth is expected to continue. Estimated at 2 832 giga cubic metres (100 trillion cubic feet), these vast gas resources underwrite the State's long-term role as a gas supplier.

With Western Australia continuing to be the focus of petroleum development in Australia, the Department is putting increasing emphasis on staff and industry access to skills and technical resources to ensure petroleum resources management practices continue to benefit the State. Greater use is being made of external technical resources through contracting for specialised studies and at the end of the year, new reservoir simulation software was obtained to improve analytical capabilities.

The need for technical assessment of numerous development plans continued this year, reflecting the continued interest in developing Australia's resources. This activity included assessment of:

- Production licence applications, including reservoir depletion plans, for East Spar South, Buffalo North, Legendre and Legendre South
- Updated field development plans for Goodwyn, Lambert-Hermes and Wanaea-Cossack, processing of which is ongoing

- Applications for seven Locations and Retention Leases
- Applications to drill 22 development wells

A Field Development Concept Plan, a prerequisite to application for a Production Licence, has been received for the Echo-Yodel field and is being assessed. The Greater Echo-Yodel includes a number of other discovered fields that may also be developed.

Assessment also continued this year on the large Perseus-Athena gas pool development on the North West Shelf. The Perseus-Athena Field is one of the largest gas fields in Australia and its development has significant implications for the State.

Fourteen field inspections of drilling, production testing equipment and metering stations were made during the year.

Output 3

A geological framework of the State and its resources

Output Description

Published maps, reports and datasets to maintain an up-to-date geological framework of the State and its mineral and petroleum resources.

Expenditure in 1999-2000: \$14.971 million

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| Mining Operations Division |
| Explosives and Dangerous Goods Division |

INDUSTRY OVERVIEW

The year under review was a most difficult one for the Western Australian mineral exploration industry.

Most commodity prices were relatively depressed and although nickel prices were at historic highs, most of the current nickel projects, either in production (e.g. Murrin Murrin, Cawse, Bulong) or at feasibility stage (e.g. Ravensthorpe), were discovered in previous exploration phases.

Gold remained the main focus of mineral exploration effort in Western Australia (around 56 per cent of the total mineral exploration expenditure), but its paramount position is being eroded. In part, this is due to the low international gold price, currently less than US\$300 per ounce, which offers little incentive to the mineral explorer, even though gold mines (without hedged production) are still receiving more than A\$450 per ounce due to the Australian dollar remaining depressed against the American dollar.

Consequently, gold exploration expenditure in Western Australia has dropped by over 50 per cent in the last two to three years and appears to be stabilising at the rate of about \$50 to \$60 million per quarter — levels last experienced in 1993.

A further worrying economic trend is the apparent link between the Australian dollar against the US dollar and the gold price. This means that significant rises in the world price for gold have been largely offset by similar increases in the A\$/US\$ exchange rate.

Vast areas of the State are now witnessing very little exploration and grassroots exploration in 'greenfields' areas has declined drastically. Mineral exploration statistics confirm the drop in exploration activity, with marked declines in the:

- Number of exploration tenements (mainly exploration licences)
- Area under tenement
- Metres of exploration drilling (rotary air blast drilling, more common in the early stages of exploration, has also dropped significantly from the highs of 1996-97)

Expenditure on onshore petroleum exploration remains a fraction of that allocated to its offshore counterpart (where exploration is reasonably strong) and is currently at levels comparable to the 1960s. Forecasts for onshore petroleum exploration and for mineral exploration in 2000-01 indicate a level similar to the current year.

OUTPUT DESCRIPTION

During the year, the Department's Geological Survey Division continued its enhancement and promotion of the mineral and petroleum potential of Western Australia through the provision of pre-competitive geoscience information and data to its customers.

Pre-competitive information is 'non-rival' — meaning that its use by one explorer does not reduce the value or use of the same data by another explorer. This information is usually of a regional nature and, because it is not efficient for companies to duplicate the collection of this type of information, it makes good economic sense for the information to be acquired by a single source and then made available to all explorers.

In 1999-2000, the Department:

- Published 31 maps at various scales, 47 manuscripts and 12 digital datasets. These included geological, geochemical, geophysical, geochronological and mineral occurrence data
- Exhibited products and promoted the prospectivity of Western Australia at several national and international investment and geoscientific conferences. These included the annual conferences of the Prospectors and Developers Association of Canada, the American Association of Petroleum Geologists, the Australian Petroleum Production and Exploration Association, and the Australian Society of Exploration Geophysicists
- Showcased recent advances in the understanding of the State's geological framework and resources to industry and the public through the staging of *GSWA 2000*, an open day of technical talks and poster displays highlighting current Geological Survey of Western Australia services, products, and work-in-progress
- Provided reports on the mineral endowment of the Gascoyne, Southern Cross-Esperance regions as an integrated dataset for the Gascoyne Development Commission and for

the Commonwealth-State sponsored Regional Mineral Study program respectively

- Released the first package in a new series of 1:50 000 maps and reports (hard copy and CD) detailing the geology, landforms, and resources of urban and development areas. This first package is centred on Geraldton
- Located evidence of base metal mineralisation in the remote Quadrio Lake region, 400 kilometres north-east of Wiluna, which resulted in the Minister for Mines reserving the area of discovery and calling for expressions of interest to undertake exploration of the region. Following no firm commitment by any party to explore, the area was released for public application

New geological projects undertaken by the Department during the year included:

- 'RoxMap.WA', a customer-driven computer program that generates high quality maps on demand of an area chosen by the customer. The initial use of this service will be centred on the 'seamless' 1:100 000 scale digital geological map of the Eastern Goldfields region
- Completion of a pilot program to implement a common spatial database across the Geological Survey Division. This system, 'GeoBASE.WA', will enhance the availability of geoscientific information to all staff and customers and enhance the efficient generation of geoscientific maps
- Customer service initiatives included the relocation of the Department's library from the fifth to the first floor. The library is now adjacent to the main public counter area and its increased accessibility has generated an increase in visitors

The Department also held various liaison committee meetings during the year at which the work programs proposed by the Geological Survey Division were discussed. The committee members comprise representatives from industry, universities, and the Australian Geological Survey Organisation as these are considered to represent the chief customers of Geological Survey outputs.

Output 3

A geological framework of the State and its resources

WORK PROGRAM ACTIVITIES IN 1999-2000

In the financial year, the Geological Survey spent \$14.971 million on mapping and resources studies (areas of activity are shown in Figures 3.1 and 3.2).

Regional Geoscience teams mapped in the Pilbara, Bangemall Basin, Earraheedy Basin, Southern Cross area and the Eastern Goldfields.

Regolith and geochemical mapping was undertaken on the Winning Pool 1:250 000 Sheet and Urban and Development Areas geological mapping concentrated in the Leeuwin-Naturaliste and Geraldton areas.

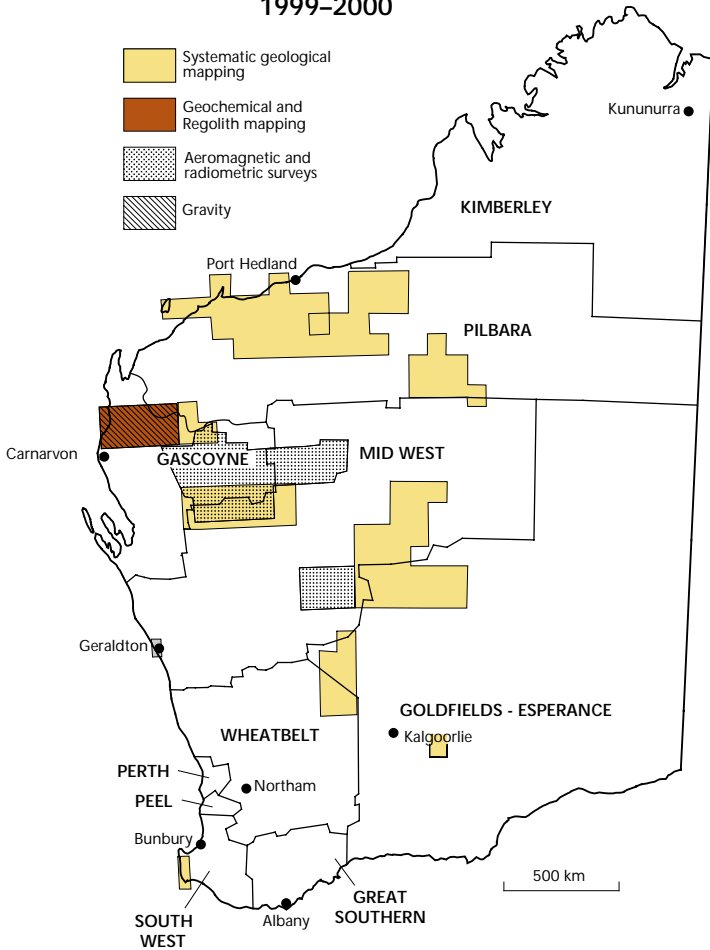
In the Proterozoic Officer Basin near the Western Australian/South Australian/Northern Territory border, a deep stratigraphic test hole, Vines 1, was drilled to 2 017 metres. This hole recorded a gas show at a depth of 1 483 metres and as well as providing significant new geological data about source, reservoir, and seal rock characteristics, significantly enhanced the perceived prospectivity of the eastern Officer Basin within Western Australia.

More than 1 800 new mineral occurrences were described and captured in the Department's Western Australian Mineral Occurrence database (WAMIN). These occurrences were located chiefly in the east Pilbara region and the eastern Kimberley region.

Geophysical data were acquired over the Stanley and Winning Pool 1:250 000 sheet areas (four kilometres spaced gravity), and the Youanmi 1:250 000 sheet area (200-400 metre-spaced aeromagnetic and radiometric).

Figure 3.1

Geoscience Mapping Activities 1999-2000



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HIGHLIGHTS

A major highlight for the Geological Survey Division during the year was the recovery of the world's oldest evidence of early life-forms from an area in the Pilbara, west of Marble Bar. These earliest life-forms, called stromatolites, have significant scientific and commercial value and their recovery was deemed essential to counteract possible theft. Their recovery, endorsed by the Nyamal Aborigines, attracted international media attention and was also the feature of an ABC Quantum television program. The stromatolite sample is now on display at the Western Australian Museum in Perth.

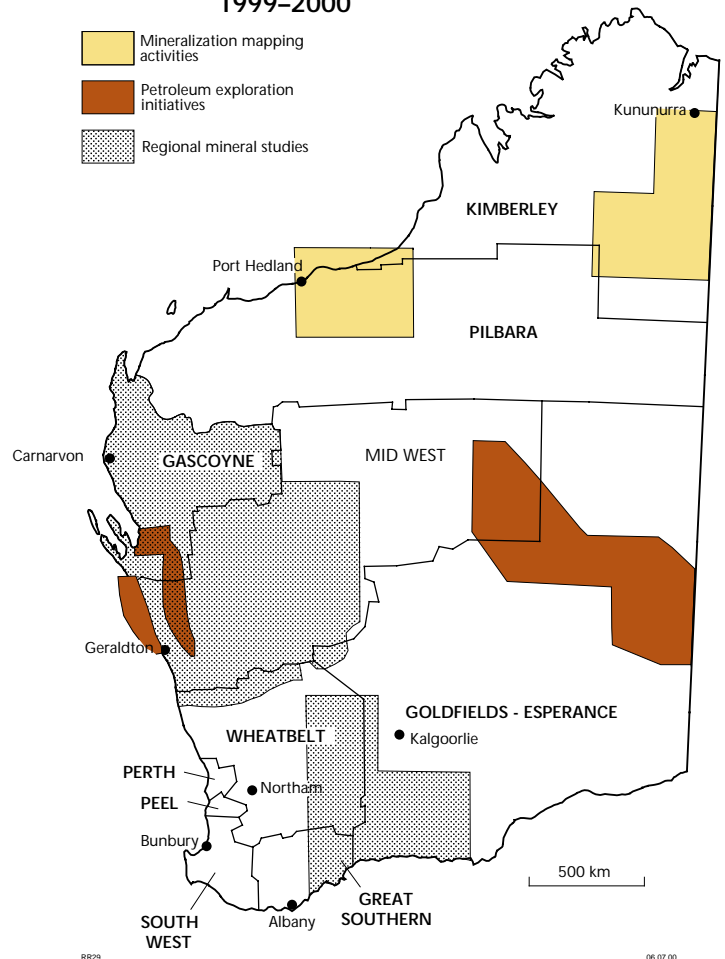
The Geological Survey also announced to the world the discovery of the largest asteroid impact crater in Australia (and the fourth largest in the world). Centred on Woodleigh Station near Shark Bay, the crater is about 120 kilometres in diameter. It is probably the result of a five kilometre-wide meteorite that hit the earth 200-360 million years ago. Conclusive evidence that the Woodleigh area contained a large crater was collected during a Geological Survey geophysical and drilling program to ascertain the potential of the area for hydrocarbons.

GEOLOGICAL SURVEY REVIEW

Late in the year, the Minister for Mines announced the appointment of a taskforce with a view to determining an appropriate level of funding for the organisation, and setting future directions and priorities.

Dr Ross Fardon, a highly qualified geologist with considerable experience in senior industry and government positions, was appointed chairman of the taskforce. Other members are Dr Bryan Smith, an industry representative familiar with the Geological Survey operations, and Mr Andrew Chuk, a senior State Government Treasury officer with considerable industry experience as a mining engineer.

Figure 3.2
Mineral and Petroleum Resources Activities
1999–2000



The taskforce is looking at:

- An appropriate level of funding for the organisation
- An appropriate pricing policy for Geological Survey products and services
- An appropriate mechanism to ensure the organisation's programs and products meet the needs of its industry and Government clients

It will make its recommendations to the Minister before the next round of Budget estimates in 2001.

Output 4

An archive of geoscientific and resource exploration data

Output Description

An archive of geoscientific and resource exploration documents, samples and data.

Expenditure in 1999-2000: \$2.535 million

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MINERALS

During the year, the Department increased the availability of geoscientific and resource exploration data to incrementally improve the geological framework of Western Australia and assist in the rate of exploration success.

Completion of Kalgoorlie Core Library

The Kalgoorlie Drill Core Library and Operational Base was completed on 30 June 2000 — on budget and on schedule. It is anticipated that this state-of-the-art facility will be open for business before the end of October 2000. Trays of drill core will be stacked on pallets and racked in a large modern warehouse to a height of 10 metres by a special wire guided turret truck. The viewing area for customers features self-adjusting pallet lifters and viewing tables with rollers to assist in rapid layout of core. The core will be catalogued and linked to the Department's Western Australian Mineral Exploration Index (WAMEX) database (a database of statutory mineral exploration reports). The operational base will also provide office accommodation for 8–10 geoscientists and technicians, as well as public areas suitable for meetings and the viewing of WAMEX data.

New exploration data initiatives

In conjunction with other States and Territories, a template has been developed that assists



Ivor Roberts (centre), the Department's Geological Manager in Kalgoorlie, shows Premier Richard Court (left) and Mines Minister Norman Moore where gold mineralisation is present in core samples in the new JH (Joe) Lord Drill Core Library.

industry to submit mineral exploration data in digital form. This is possible because of the National-agreed standards put in place in 1998-99, in which the Department played a significant role.

The Department has now also replaced the process of copying exploration reports to microfiche, by scanning the report to digital format (PDF). The distribution of open file reports in digital form has been outsourced to several commercial agents.

During the year, a new, easy to use front-end to the WAMEX database was developed and implemented on the Department's web server. This lets external customers make many of the most popular enquiries of WAMEX over the Internet. This new development, known as 'WAMEX via the WEB', is accessed through the Department's web page at www.dme.wa.gov.au/statdata/index.html#mineral.

PETROLEUM

A tender was let for a pilot program that will transfer selected data from the Department's Western Australian Petroleum Information System (WAPIMS) database to a more robust platform and also allows the interrogation of this data through a spatial web-based system. The database contains information on petroleum permits, wells, geophysical surveys and other exploration reports submitted to the Department by petroleum explorers. Subject to the success of the pilot, it is the Department's intention to apply this program to all petroleum exploration data. The database can be located via the Internet at www.dme.wa.gov.au/statdata/index.html#petrol.

The Department also completed the last in the series of *Schedule of Wells* for all of Western Australia. This schedule is a database providing information on onshore petroleum exploration and production wells.

STATUTORY EXPLORATION INFORMATION MANAGEMENT

The Department acquired, stored and, after a period of confidentiality, released to open file information submitted to the Department under statutory regulations by mineral and petroleum tenement holders. The data can be used by existing and potential investors to make choices about where to explore and what commodities to look for, in order to avoid the cost of repeating previous exploration activities. The well-indexed databases of statutory data held by the Geological Survey Division reduce the risk in exploration to investors and increase the prospectivity of Western Australia.

This year, 2 103 mineral exploration reports were received from industry. A total of 33 498 sets of petroleum-related data (seismic tapes, logs, well tapes, reports and samples) were captured from various sources for indexing in the database.

The Department released 1 299 mineral reports to the public after expiration of confidentiality periods. The Department also responded to requests from the petroleum industry and released a total of 635 edited and unedited petroleum reports. In addition, 130 approvals were granted for access to magnetic tapes from 380 seismic surveys and 123 wells. Samples from 205 wells were requested along with slides from 44 wells.

OUTCOME 1

OPTIMUM USE OF LAND AND RESOURCES

Output 5

Discontinued

Output 5 was discontinued with the transfer of the Mineral Processing Laboratory to CSIRO in 1998. The Department therefore has ten Outputs. However, the original numbering (1-11) has been retained in this report to maintain consistency with 1999-2000 and 2000-01 Treasury Budget Statements. DME Outputs will be reviewed with Treasury during 2000-01 and new numbering applied in future budget statements and annual reports.

Audited Key Performance Indicators

OUTPUTS

1. A system for the grant and maintenance of titles to explore for and mine minerals
2. A system for the grant and maintenance of titles to explore for and produce petroleum
3. A geological framework of the State and its resources
4. An archive of geoscientific and resource exploration data

EFFECTIVENESS

Optimum* land-use planning relies on quality, timely land information, including resource potential and land title status. The Department of Minerals and Energy is the State authority on the geology and mineral resources of Western Australia and the agency responsible for mineral and petroleum title systems.

The level of exploration and development activity for mineral and petroleum resources is dependent on a number of factors, including the estimated chance of finding these resources, world commodity prices, Government fiscal, safety, environmental and land access statutes and policies, and community attitudes. They are traditionally described as:

- Sovereign and country risks
- Financial risk
- Prospectivity (the likelihood of commercially recoverable resources being present)

With respect to sovereign risk, the Department is responsible for the development and administration of title systems that provide processes for allocation and maintenance of land title for exploration and development, security of tenure and surety that holders will meet the obligations that come with the title rights. The Department also assists in improving the prospectivity of Western Australia by publishing geoscientific maps, reports and promoting datasets that describe the geology and resource potential of the State, and by archiving and making available geoscientific data collected by companies during exploration.

The Department's initiatives are designed to contribute to a climate in which the industry sectors continue to be of significant benefit to the State.

The effectiveness of the Department's Outputs in achieving the desired Outcome is indicated by the:

- Timeliness of the systems in providing land and resource products and services to industry and government, as measured by the average time to assess title applications (1.1) and the average time taken to produce framework geological maps of the State (1.2)
- Evaluation by customers of geological information products, as measured by a rating given by representatives of industry peak bodies (1.3)

*Optimum is defined, in the context of the Department's business goals, as the achievement of agreed set output targets - as measured by the indicators included in this report. These targets seek an appropriate balance between achieving economic benefits, through the discovery and development of the State's mining and petroleum resources, and meeting community standards for safety, health and environmental management. The Department's targets are considered appropriate when desired economic benefits are achieved within acceptable levels of environmental and social impact.

- Attractiveness of the Western Australian land and titles systems as measured by the level of exploration in the State in the current investment climate quantified in absolute dollar terms and as a proportion of the national investment (relative effectiveness) (1.4)
- Mineral and petroleum resources available for future production and sale as measured by the inventory of known resources currently in the ground (1.5)

1.1 Timeliness of titles systems

For mineral titles, target times are the average times for processed applications computed over a number of years prior to the introduction of the Commonwealth Native Title Act 1993. The aim is for the majority of services (75 per cent) to meet this average, despite the increasing complexity of title grant processes. Target times for mineral title applications apply where there is no dispute and the application does not affect private land.

For petroleum titles, target times were developed several years ago, seeking to improve on previous performance.

The measures are for:

- Prospecting Licences and Exploration Licences (mineral), the percentage of applications that are finalised or submitted to Native Title Act procedures within the target periods
- Mining Leases, the percentage of applications granted or for which a determination on the right of grant is made within the target period
- All petroleum titles and field operations, the percentage of applications granted or refused within the target time, including any periods for Native Title Act processes

The target performance for these measures are given in Table KPI 1.1 below and the results are displayed in Figure KPI 1.1.

Table KPI 1.1 Target performance for processing of title applications

| Application type | | Elapsed time | % of applications processed in time |
|--------------------------|----------|--------------|-------------------------------------|
| Prospecting Licence (PL) | | 4 months | 75 |
| Mining Lease (ML) | | 7 months | 75 |
| Exploration Licence (EL) | | 7 months | 75 |
| All petroleum titles | | 3 months | 75 |
| Petroleum title dealings | | 3 months | 75 |
| Petroleum wells | C'wealth | 45 days | 75 |
| | State | 30 days | 75 |
| Petroleum Surveys | C'wealth | 35 days | 75 |
| | State | 20 days | 75 |

Audited Key Performance Indicators

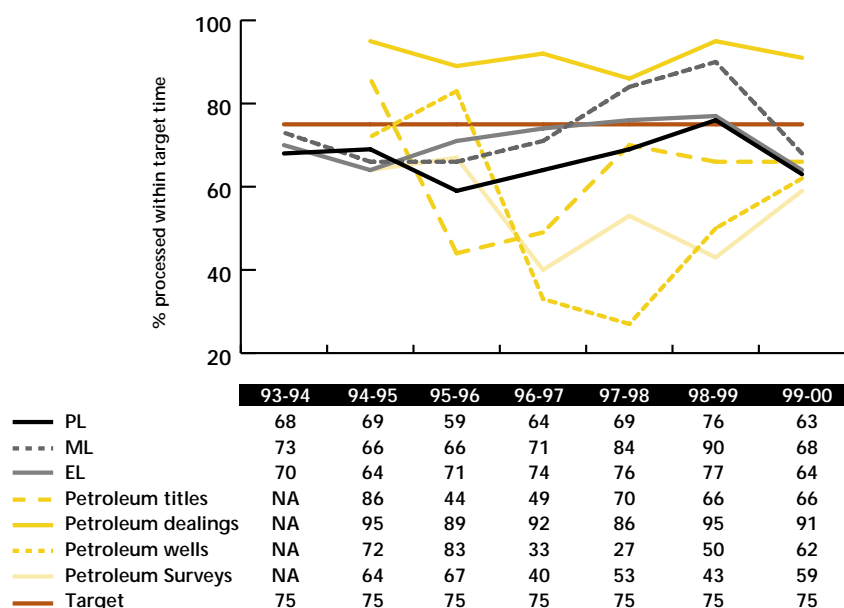


Figure KPI 1.1 Percentage of applications processed within target elapsed times

For mineral titles, the measures are essentially the elapsed time for the Department to complete its processing services. The development of the necessary policy changes and new processing guidelines following the March 2000 Full Federal Court decision in the Miriuwung Gajerrong appeal case resulted in processing targets for mineral applications not being achieved for the year.

For petroleum titles, the measures relate to the total elapsed time, including external referrals and processes carried out in parallel and beyond the control of the Department. Circumstances such as environmental investigations, Native Title Act processes and heritage negotiations, continue to detract from achieving targets. However, a substantially greater proportion of field operations were approved this year within the target time compared with last year.

1.2 Timeliness of 1:100 000 geological maps

This measure is the average elapsed time to produce a 1:100 000 geological map sheet from commencement (i.e. ordering the compilation sheets), through field work and drafting, to publication. Geoscientific maps are widely used by mineral and petroleum explorers and developers and by land-use planners as a critical source of information on which to base resource-allocation decisions. The 1:100 000 geological map series is the framework for describing the geology of the State.

A target of 36 months was set following an independent customer satisfaction survey carried out in 1994, which showed some client dissatisfaction with the time taken to publish geoscientific maps.

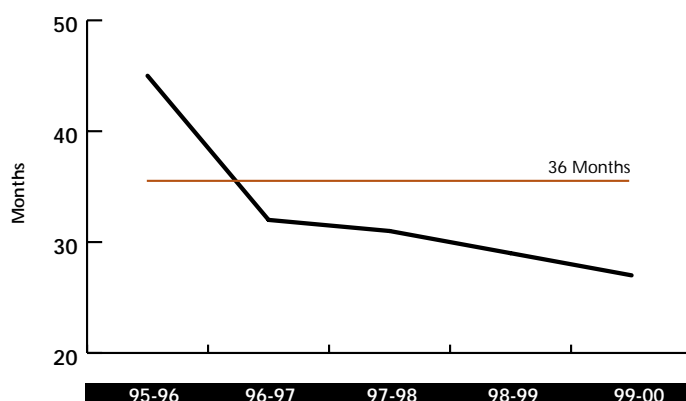


Figure KPI 1.2 Average time to produce 1:100 000 geological maps

Through the use of new technology and process improvement, the Department continues to meet the target average production time of less than 36 months, which was reached initially in 1996-97. Customer response from the 1998 customer survey report stated "... mean satisfaction on the product and rate dimensions improved impressively from 1994". In 1999-2000, the average time needed to produce a 1:100 000 geological map was 27.5 months.

1.3 Ratings by customer representatives of interpretative geological products and data services

This measures the quality of interpretative geoscientific products (Output 3) and exploration data services (Output 4) through a customer rating given by industry-based Technical Advisory Subcommittees tabled through the Geological Survey Liaison Committee. This committee comprises industry representatives nominated by the Australian Petroleum Production and Exploration Association, the Chamber of Minerals and Energy of Western Australia, the Association of Mining and Exploration Companies, and other geoscience customers, such as the Australian Geological Survey Organisation and Western Australian universities. The Committee meets twice yearly to consider reports by its Technical Advisory Subcommittees and to provide guidance for future programs and feedback on past performance. Each report includes a rating of quality against a five-point scale for the products/services in its area of expertise.

A more rigorous approach to assigning the ratings was introduced during 1999-2000 to better capture the scope of activities. While the results are not directly comparable to the 1998-99 figures, future years will use 1999-2000 as a benchmark.

Table KPI 1.2 Ratings by customer representative committees of Outputs 3 and 4 products and services

| Output (product/service area) | Technical Subcommittee | Quality rating of no. products and services (max 5) |
|-------------------------------|---|---|
| 3 | Regional Geoscience Mapping and Mineral Resources | 3.9 |
| | Petroleum Initiative | 3.8 |
| 4 | Exploration Data and Information | 3.2 |

Audited Key Performance Indicators

1.4 Investment in exploration

Investment in exploration is influenced by the title and geological Outputs of the Department, as well as external factors such as constraints on access to land, and local and global economic circumstances including commodity prices. The following measures indicate the success of the Department's Outputs in the context of these other factors. While there are differences between States in the perceived prospectivity and commodity production profile, the proportion of total expenditure in Australia attracted to Western Australia is indicative of the success of the Department's Outputs against other areas working within similar global conditions. Western Australia is particularly sensitive to factors in the gold market as expenditure on gold exploration accounts for more than 60 per cent of the State's total expenditure.

Total mineral exploration expenditure (excluding petroleum) in Western Australia declined for the third year in succession, falling by an estimated 24 per cent (\$129.5 million) from \$523.1 million to \$393.6 million (estimated) in 1999-2000. This rapid decline has continued from the previous year. Most of the decrease is attributable to the fall in gold exploration expenditure, down an estimated 30 per cent (\$101.3 million) over just one year, and by an estimated 56 per cent in the three years since the peak activity of 1996-97. Despite the rapid decline, the proportion of Australian mineral exploration expenditure spent within Western Australia has remained relatively stable at 60.1-62.4 per cent during the last four years.

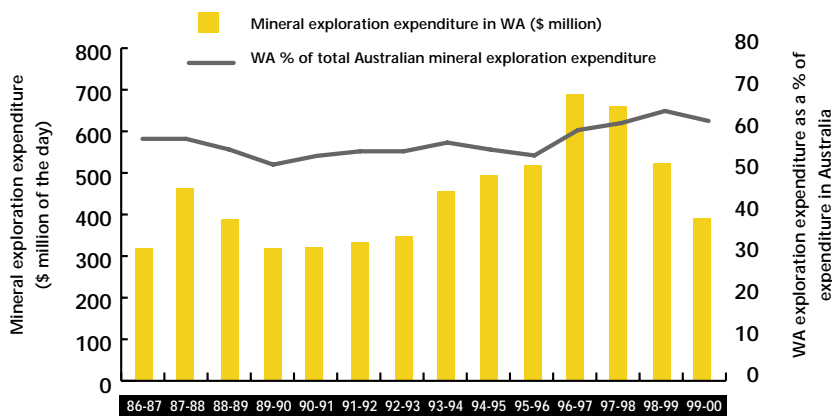


Figure KPI 1.3 Mineral exploration expenditure in Western Australia

Source: Australian Bureau of Statistics
 Note: 1999-00 contains an estimate for June 2000 quarter

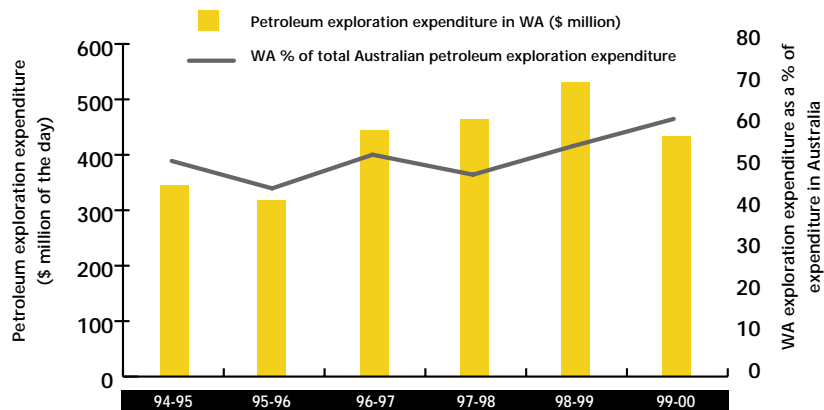
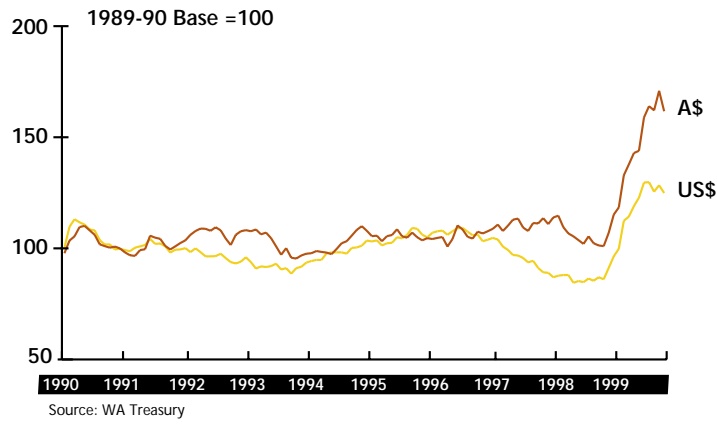


Figure KPI 1.4 Petroleum exploration expenditure in Western Australia

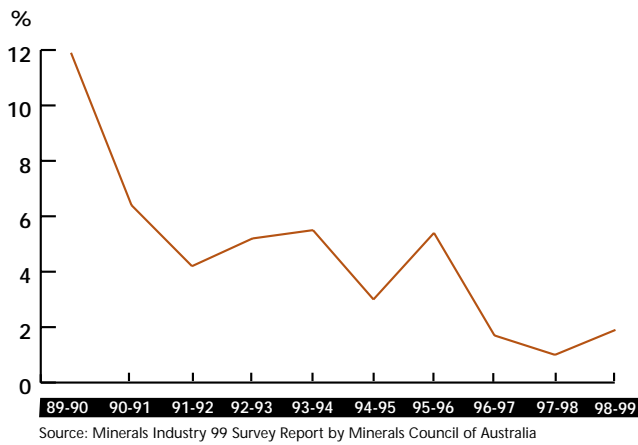
Source: Australian Bureau of Statistics
 Note: 1999-00 contains an estimate for June 2000 quarter

Total petroleum exploration expenditure in Western Australia fell by an estimated 18.1 per cent (\$96.2 million) from \$530.8 million in 1998-99 to \$434.6 million in 1999-2000. This follows three consecutive years of growth in petroleum exploration expenditure in both Western Australia and Australia. A similar fall (17.5 per cent) was recorded in the total petroleum exploration expenditure in Australia for 1999-2000. Despite the declines, the proportion of Australian petroleum exploration expenditure spent within Western Australia has climbed dramatically from 44 per cent in 1995-96, to a record 61.2 per cent in 1998-99, with the estimated figure for Western Australia petroleum expenditure in 1999-2000 only slightly less at an estimated 60.7 per cent and still likely to be the second highest level ever recorded.

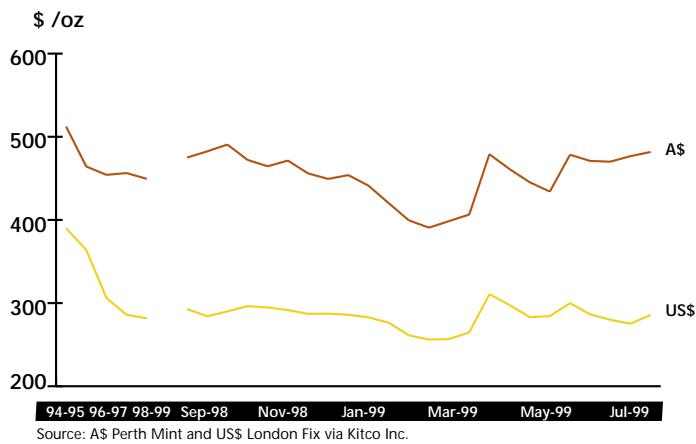
Audited Key Performance Indicators



Western Australian Commodity Price Index



Net profit return on average assets employed



Gold price

1.5 Resources Inventory

The mineral resources inventory for the State comprises the estimated weight of major commodities that remain, as at 31 December 1999, in mines and deposits. For minerals, the resources inventory below only includes measured and indicated categories. No attempt is made to include inferred resources or show separately the portion of resources classified as reserves (economic to mine at present).

Gold resources (measured and indicated) increased for the seventh year in succession, despite continued high levels of production. Recent discoveries of major deposits such as Coyote, Thunderbox and Belleisle (St Ives) and a move to near-mine exploration suggest that gold resources may increase further next year, despite the recent severe cutbacks in exploration. However, the drop in gold exploration, particularly in areas away from existing mines, is a concern for longer-term maintenance of current gold resources.

The boom in nickel exploration during the last five years is now reflected in the sustained dramatic increase in the measured and indicated resources during the last four years — with resources increasing from only 7.70 megatonnes of contained nickel in 1994 to 20.23 megatonnes at the end of 1999. Most of the increase has been in resources contained in lateritic nickel deposits. Although no new discoveries have occurred, resources of diamonds have remained steady after a large upgrade of resources in March 1999. Bauxite resources remain unchanged. Resources of high-grade iron ore have declined slightly for the second year in succession.

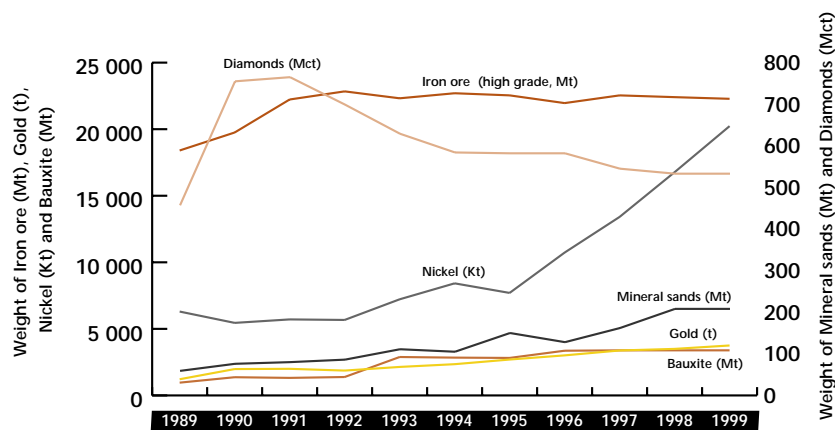


Figure KPI 1.5 Inventory of in situ minerals for Western Australia as at 31 December 1999, measured and indicated categories of the Joint Ore Reserves Committee Code. There is no implication that these resources are currently economic to mine.

Source: Australian Bureau of Statistics

Audited Key Performance Indicators

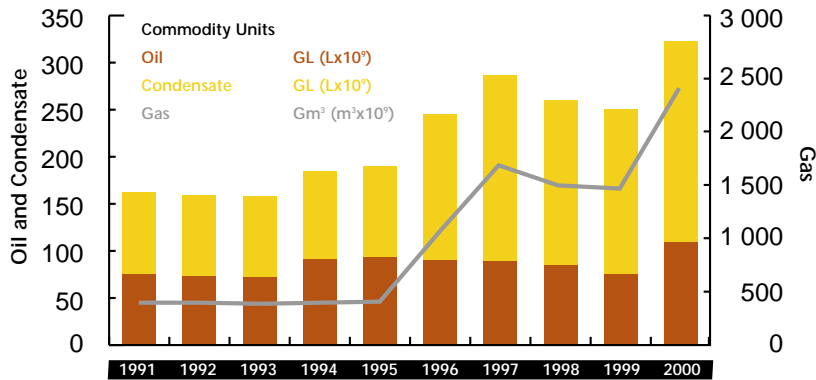


Figure KPI 1.6 Inventory of petroleum reserves at the 50 per cent probability level

Petroleum reserves in the ground are not observable or measurable and therefore are estimated from models using geological, geochemical, production and other data. These models are based on probability techniques. The 50 per cent level means the estimated value for which there is an equal choice of the reserve being greater or smaller; the nearest English phrase being the 'likely reserve'.

Oil reserves increased this year with the discovery of new fields and the re-evaluation of previous discoveries, rising from 76 ggalitres to 109 ggalitres. The production rate also increased significantly from an average of just over 24 000 kilolitres per day last year to over 34 000 kilolitres per day this year.

Booked gas and associated condensate reserves rose substantially due to reassessment of the Brecknock, Scott Reef and Scarborough Fields and discovery of the Geryon field. The average daily gas and condensate production rates for 1999-2000 are marginally higher than the previous year.

| Efficiency Measure | Result | | |
|---|---------------|---------------|-----------------|
| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
| Output 1: A system for the grant and maintenance of titles to explore for and mine minerals | | | |
| Average cost per hectare of land under title of the mineral title system | 0.42 | 0.63 | 0.72 |
| <p>The grant and maintenance of mineral titles is a land management function where the size of the land holding is one of the primary determinants of the level of service required; for example, in assessing competing land uses or evaluating compliance with conditions in conducting exploration and mining activities, some of which are set by area. This indicator provides a measure of the cost of this land management per hectare.</p> <p>The average annual cost per hectare of issuing and maintaining titles is calculated as total cost of service divided by the area of titles current as at 30 June 2000.</p> <p>This measure shows a significant increase in the cost of the mineral title system for current titles. This is due to the marked reduction of land under title rather than an increase in service cost per se. The Department has processed applications for title under the Mining Act 1978 within target processing times (see KPI 1.1) and without significant cost changes (see below). However, a large number of applications are then subject to Native Title Act processes, which have not yet been completed and there has been no grant of a title. From 1994-95 to 1998-99, the average time to grant Mining Leases has increased from 5.3 months to 27 months and to grant Exploration Leases from 8.2 months to 14 months.</p> <p>In 1999-2000, the average time to grant Mining Leases increased to 32 months and to grant Exploration Leases 18 months.</p> | | | |
| Average cost of mineral title services | | | |
| The average cost per title service, calculated as total cost of service divided by the number of services provided. | | | |
| Cost per title application processing service | 1 786 | 2 575 | 3 440 |
| Cost per monitoring or dealing service | 129 | 122 | 179 |
| Cost per information service | 22 | 23 | 36 |
| The 1998-99 figures conform to the new Output structure and therefore cannot be directly correlated with previous published efficiency results. | | | |
| Output 2: A system for the grant and maintenance of titles to explore for and produce petroleum | | | |
| Average cost per title of the petroleum title system | 7 556 | 7 497 | 8 425 |
| <p>The grant and maintenance of petroleum titles, while a land management function, has significant costs in technical assessment related to resource management regulations and petroleum field activities such as wells and surveys, which are not proportional to the area of title. For the purposes of efficiency assessment, the base unit is therefore taken to be the title.</p> <p>The average annual cost per title of issuing and maintaining titles is calculated as total cost of service divided by the number of titles active during the year.</p> <p>The increase in unit cost this year is due in part to greater demand for policy and legislative services and an increase in spending to promote onshore exploration opportunities.</p> | | | |

Audited Key Performance Indicators

| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
|---|---------------|---------------|-----------------|
| Output 3: A geological framework of the State and its resources | | | |
| Average cost per unit of published geological product | 200 860 | 201 865 | 196 289 |
| <p>Various types of published products (e.g. maps and books) have each been assigned a 'weight' that attempts to quantify the relative effort required to proceed from their respective initial field work to final publication. A 1:100 000 geological map is weighted at one unit.</p> <p>The average cost per unit of published product is calculated by dividing the total cost of service by the number of units of product published within the year.</p> | | | |
| Output 4: An archive of geoscientific and resource exploration data | | | |
| Average cost per (weighted) exploration data transaction unit | 45.76 | 45.85 | 39.43 |
| <p>Exploration data management primarily involves accessioning, monitoring, curation and public release of statutory exploration and production reports. The transactions are weighted according to their complexity, aggregated and divided into the total cost of service.</p> | | | |



OUTCOME 2

SAFE AND HEALTHY MINERAL AND PETROLEUM INDUSTRY WORKFORCES

| Output | 1998-99 Expenditure (\$ million) | 1999-2000 Expenditure (\$ million) |
|---|----------------------------------|------------------------------------|
| 6 A system for regulating and promoting health and safety in the mineral industry | 11.248 | 11.212 |
| 7 A system for regulating and promoting health and safety in the petroleum industry | 1.816 | 1.720 |
| TOTAL | \$13.064 | \$12.932 |

The Department administers safety legislation to safeguard and promote safety and occupational health in the mining and petroleum sectors.

Advice is also given to Government and industry on engineering and occupational safety and health matters related to underground and surface mining operations and petroleum exploration and production operations, mineral processing, smelting and refining, transportation and storage.

NOTE: WorkSafe is responsible for safety management in most workplaces that are not mine sites or up-stream petroleum operations.

Output 6

A system for regulating and promoting health and safety in the mineral industry

Output Description

The ongoing management, revision and provision (or contracting) of products and services to facilitate a healthy environment and safe systems of work for mineral exploration and mining activities. The key elements include the provision of regulatory, technical and policy advice, audit and education services, and information systems. Where appropriate, prosecutions are initiated for breaches of the legislation.

A regulatory system based on world best practice forms the basis for broad-scale application of safety principles to apply in exploration and development activities. Audit systems assist operators to identify potential risk areas and investigation services help improve the level of knowledge about safety practices.

Expenditure in 1999-2000: \$11.212 million

| | |
|---|---|
| Contact: Policy/MOSHAB Mr Jim Torlach State Mining Engineer 3rd floor Mineral House (08) 9222 3280 Operations Mr Martin Knee Acting Director Mining Operations Division 6th floor Mineral House (08) 9222 3443 | Corporate Group |
| | Mineral Titles Division |
| | Petroleum Division |
| | Geological Survey Division |
| | Mining Operations Division |
| | Explosives and Dangerous Goods Division |

THE OPERATIONAL YEAR

The year 1999-2000 was another year of consolidation in the safety performance of the Western Australian mining industry, although the statistics for the year show a marginal reversal in the long-term downward trend. This can be substantiated through the Department's accident statistics system (AXTAT), which tracks injuries and their causes, enabling effective programs to be developed to further reduce risk to mining industry employees.

Investigations

Despite the industry's concerted effort to continue reducing accidents, the Department conducted 33 serious accident investigations and

four inquiries into five confirmed work-related deaths during the year. Two single fatalities involving vehicles occurred in the iron ore and underground gold sectors. One multiple fatality occurred in the underground gold sector and involved the deaths of three employees in an accidental mine-fill escape. In addition, a further inquiry is being conducted into a death involving medical complications following a fall at work. In this case, the precise cause of death has not yet been determined.

Investigations into the fatalities are currently continuing. It is the Department's view that no fatality is acceptable and that a fatal accident rate of zero can be achieved by the mining industry.

The Department continued its program to shift the emphasis of its activities towards a higher degree of industry self-regulation during the year. This is underpinned by a move from compliance inspections to field audits while maintaining a high degree of visibility and interaction with the industry and its employees.

During the year, 121 occupational health and safety audits, 25 Management Safety Systems audits and 231 High Impact Function audits were conducted. These were complemented by 2 026 inspections and another 538 site visits for other purposes. The program of audits, accident investigations and inspections resulted in 153 incidents of plant and machinery being stood down, 62 site closures and six prosecution briefs being prepared.

Education and information

The Department continued to play an important role in providing education, training support and information to industry. During the year, 198 safety meetings and presentations on mine sites to employees and 1 294 briefings of employee safety and health representatives in the industry were conducted. This complements a range of publications and a much appreciated phone information and advisory service provided by the Department's many occupational health and safety professionals.

The Department also dealt with 140 complaints from the public or mineral industry employees in regard to mining activities.

A guideline entitled *Safety and Health Risk Management*, for use by front-line supervisors, safety and health representatives, and miners and operators, was developed and released by the Mines Occupational Safety and Health Advisory Board (MOSHAB). MOSHAB is a tripartite body (Government, industry and unions) which develops occupational safety and health policy for the mining industry. This publication is aimed at further promoting a positive and effective safety culture and continuously improving safety performance in the industry.

A guideline entitled *Geotechnical Considerations in Open Pit Mines*, which was developed by the Mining Operations Division, was also endorsed by MOSHAB and released to industry. The guideline was peer reviewed by industry geotechnical professionals and provides comprehensive technical information and references, and assists mining operations in achieving compliance with obligations under the Mines Safety and Inspection Regulations.

Two guidelines, which were previously published by the Chamber of Minerals and Energy after endorsement by MOSHAB, were reviewed, revised and reformatted by MOSHAB and have been published as MOSHAB guidelines. *General Duty of Care in Western Australian Mines* and *A Guide to the Mines Safety and Inspection Act 1994* provide employees and management with a clear and simple explanation of mine safety legislative requirements.

During the year, a program to establish the nationally accredited Front-Line Management Initiative (FMI) competencies for managers and supervisors in the industry was continued with a series of regional workshops sponsored by the Chamber of Minerals and Energy and supported by the Department. A draft guideline on the program was produced and circulated by the Chamber of Minerals and Energy with the endorsement of MOSHAB.

ThinkSafe MineSafe campaign

The *ThinkSafe MineSafe* campaign, which was initiated by MOSHAB to foster the development of an improved safety culture across the industry, was actively and successfully promoted during the year. Promotional activities commenced with a formal launch of the program by the Minister at the Chamber of Minerals and Energy's South West Regional Occupational Safety and Health Conference in July at Bunbury. The *ThinkSafe MineSafe* posters and *Minesafety Matters* pamphlets, featuring West Coast Eagles footballer Glen Jakovich, who is readily identified in this role by the Western Australian community, were released at the Conference and widely distributed.

Output 6

A system for regulating and promoting health and safety in the mineral industry

An extended range of posters and pamphlets was released at the MOSHAB MineSafe Day in Kalgoorlie in August. A second MineSafe Day was held in Perth in November. Further distribution of this material to mining operations has continued throughout the year.

LEGISLATION AND POLICY

A legislative working group has been established by the MOSHAB Standing Committee to coordinate a review of targeted sections of the Mines Safety and Inspection Regulations.

Amendments proposed include removal of some provisions considered to be impracticable or superseded, improvements and clarifications and previously identified requirements for minor corrections. Some amendments will devolve more responsibility to mine operators with less direction from the regulatory authority. The amendments will include provisions to require front-line management competencies for persons to be appointed to certificated management and supervision positions under the Mines Safety and Inspection Act 1994 (MSI Act).

The Department is also pursuing a policy of promoting a greater degree of self-regulation in the industry through progressive removal of the need for directions and approvals by the regulatory authority on a range of functions and activities, particularly in relation to plant.

In accordance with Section 110 of the MSI Act, the Minister for Mines is required to carry out a review of the operation and effectiveness of the Act as soon as practicable after the expiration of five years from its commencement, which is in December 2000. As a result, the Department has prepared a draft process framework and schedule for the review for consideration by the Minister, and to assist development of recommendations to the Minister by MOSHAB.

PROCESSING PLANT RISK MANAGEMENT

With a number of large and complex processing plants being recently established in Western

Australia, the Department has been promoting risk management principles. In particular, the Department has been concentrating on the design and commissioning of new down-stream processing plants, particularly those with toxic or flammable gas inventories. Concurrently, the Department ensures suitable occupational health systems are developed by the industry to manage the diverse hazards.

Auditing of risk management implementation is progressively extending to process plants, many of which were constructed before detailed risk assessments were required. Consequently, the management procedures used at these plants are being targeted to determine whether appropriate risk assessments have been undertaken, particularly during plant modifications.

SAFETY AND HEALTH INFORMATION SYSTEMS

The Mines Safety and Inspection Act 1994 is now in its fifth year of operation and the new mine health surveillance system set up under the Act has collected sufficient data to enable the Mines Occupational Physician to undertake some preliminary assessment of trends on health effects.

The initial findings allow comparison of respiratory symptoms and lung function by employment category and industry sector.

In excess of 50 000 persons are now included on the database, and the first round of the required ongoing five-yearly assessments will commence in the course of 2000-01.

In the longer term, as the volume of data and length of the assessment period increases, it will be possible to present a more definitive report on any trends. Associations with atmospheric contaminant levels recorded in a Departmental database (CONTAM) will also be used to validate the exposure standards.

The upgraded CONTAM system is currently being trialed before introduction to the mining

industry on 1 July 2000. As part of the upgrade, the system will be able to collect more extensive and representative sample data. Industry feedback on the style of and improvements to the new system has been positive. The exploration drilling industry will also be included in the CONTAM system for the first time. Within the 2000-01 financial year, it is planned that mines with Internet access will be able to access the system and compare their performance with their industry sector or industry-wide. Mines will eventually be able to electronically receive and return sample record sheets to the Department. The system will improve the ability to take corrective action to safeguard occupational health and analysis of the data will help detect any adverse health effects at the earliest opportunity.

As part of the process of raising industry competencies when implementing CONTAM requirements, the Ventilation Officers Course has been outsourced, extended in duration and been granted national accreditation.

The Department has also continued to refine and improve the information systems in place to track and report on occupational safety and health outcomes in the mining industry. AXTAT (employee accident statistics) and MINEHEALTH (employees' health surveillance data derived from regular health checks) underwent some minor enhancements to improve operating efficiency in the Department.

During the year, the Mining Operations Division Audit Management System (MODAMS) was developed to process and organise the large amount of audit data held by the Department. MODAMS was launched by the Minister in April 2000. It generates reports on audit compliance across the minerals industry, with reports available via the Internet. A MODAMS subsystem, which is now being developed, will allow external auditors to audit a site, enter the data into their own MODAMS database and then transmit the data to the central repository of audit data held by the Department. This

subsystem is scheduled for completion by November 2000.

MINING INDUSTRY SAFETY AND HEALTH STATISTICS

The safety performance statistics are derived from the Department's AXTAT system based on available data at the time of the report preparation*. During the 10 year period 1990-91 to 1999-2000, the lost-time injury frequency rate (lost-time injuries per million hours worked) dropped dramatically from 27.5 to 6.6. Although this performance is impressive, the 1999-2000 statistics exhibit a slight upward trend over the previous year, indicating scope for further improvement as employers attend to their responsibilities to provide a safe working environment.

Incidence of lost-time injury underground in metalliferous mining moved from 1.7 to 2.1 during the year while the frequency moved from 7.0 to 7.9 (Table 6.1). On the surface in the metalliferous sector, lost-time injury incidence moved from 1.3 to 1.4 and frequency moved from 6.2 to 6.4. In the coal sector, an improving trend was evident, with incidence moving from 4.1 to 2.2 while frequency improved from 29.4 to 12.1.

Total serious injuries fell from 258 in 1998-99 to 231 in 1999-2000, and the number of minor injuries rose marginally from 329 to 333 for the same period (Table 6.2). The total decrease in injuries represented a three per cent improvement on last year.

The number of employees in mining fell by less than ten per cent to 39 112.

There were six confirmed fatal accidents during the year — one in the iron ore sector and five in the gold sector.

The Department's view is that no fatal accident is acceptable and that a fatal incidence rate of zero is achievable and must remain a top priority for industry.

* 26th September 2000

Output 6

A system for regulating and promoting health and safety in the mineral industry

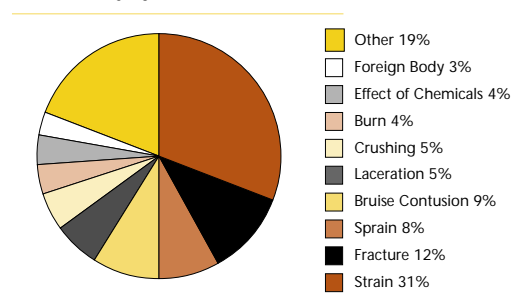
Table 6.1: Lost-Time Injury Incidence and Frequency Rates

| | 1998-99 | | 1999-2000 | | % Reduction | |
|---------------------|-----------|-----------|-----------|-----------|-------------|-----------|
| | Incidence | Frequency | Incidence | Frequency | Incidence | Frequency |
| Metalliferous | | | | | | |
| Surface | 1.3 | 6.2 | 1.4 | 6.4 | -8 | -3 |
| Underground | 1.7 | 7.0 | 2.1 | 7.9 | -24 | -13 |
| Total Metalliferous | 1.3 | 6.3 | 1.4 | 6.5 | -8 | -3 |
| Coal | 4.1 | 29.4 | 2.2 | 12.1 | 46 | 59 |
| Total Mining | 1.4 | 6.6 | 1.5 | 6.6 | -7 | 0 |

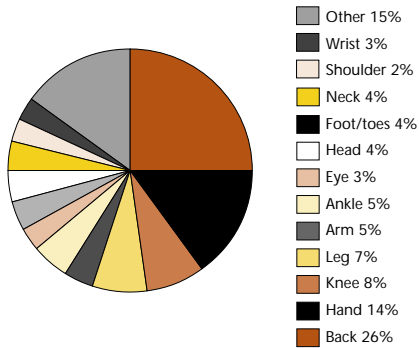
Table 6.2: Lost-Time Injuries

| Mineral being produced | Employees | Fatal | Serious | Minor | Total |
|------------------------|-----------|-------|---------|-------|-------|
| Gold | 11 307 | 5 | 86 | 91 | 182 |
| Iron Ore | 7 936 | 1 | 33 | 76 | 110 |
| Coal | 714 | - | 2 | 14 | 16 |
| Bauxite and Alumina | 7 403 | - | 20 | 17 | 37 |
| Mineral sands | 2 190 | - | 14 | 33 | 47 |
| Diamonds | 854 | - | 18 | 7 | 25 |
| Base metals | 1 283 | - | 14 | 16 | 30 |
| Salt | 739 | - | 5 | 6 | 11 |
| Nickel | 4 838 | - | 20 | 33 | 53 |
| Construction materials | 368 | - | - | 7 | 7 |
| Other | 1 480 | - | 19 | 33 | 52 |
| Total for Mining | 39 112 | 6 | 231 | 333 | 570 |
| Exploration | 623 | - | 5 | 4 | 9 |

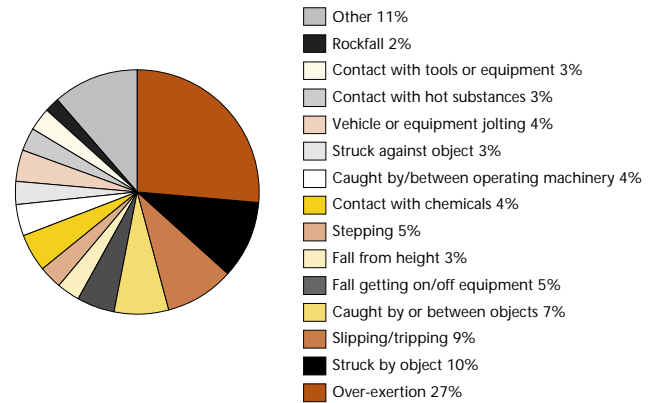
Nature of injury



Part of body



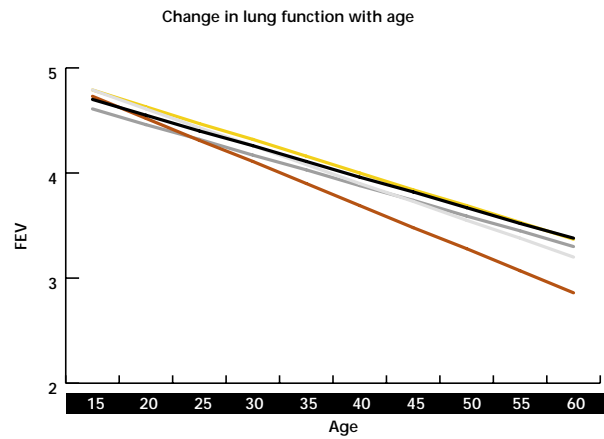
Type of accident



This graph shows the normal decline in lung function (in this case air blown out in one second, FEV) with age for three groups of people. The first group comprises Western Australian miners and is divided into non-smokers, ex-smokers and current smokers based on data from the Department's MINEHEALTH system.

The second and third groups contain data from two normal populations, the Busselton study, WA and the Cotes study, USA.

This data indicates no significant adverse effects to lung function by working in the WA mining industry when compared to non-smoking workers. The graph also shows the effect of smoking as expected and that ex-smokers do not fully return to non-smoking levels.



| | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
|-------------------|------|------|------|------|------|------|------|------|------|------|
| Cotes Study (USA) | 4.70 | 4.55 | 4.40 | 4.26 | 4.11 | 3.96 | 3.82 | 3.67 | 3.52 | 3.38 |
| Busselton (WA) | 4.79 | 4.61 | 4.43 | 4.26 | 4.08 | 3.90 | 3.73 | 3.55 | 3.38 | 3.20 |
| Miner, smoker | 4.73 | 4.52 | 4.31 | 4.11 | 3.90 | 3.69 | 3.48 | 3.28 | 3.07 | 2.86 |
| Miner, ex-smoker | 4.79 | 4.63 | 4.47 | 4.32 | 4.16 | 4.00 | 3.84 | 3.69 | 3.53 | 3.37 |
| Miner, non-smoker | 4.61 | 4.46 | 4.32 | 4.17 | 4.03 | 3.88 | 3.74 | 3.59 | 3.45 | 3.30 |

Output 7

A system for regulating and promoting health and safety in the petroleum industry

Output Description

The ongoing management, revision and provision (or contracting) of products and services to facilitate safe facilities design and systems of work in petroleum operations. The most important elements are development and application of safety legislation, assessment of Safety Cases and operations proposals, audits of facilities and safety management systems, investigation of incidents and communication of information on health and safety issues.

Expenditure in 1999-2000: \$1.720 million

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| |
|---|
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| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

The Department administers safety in the upstream petroleum industry under a legislative regime that uses the 'Safety Case' approach to achieve a safe working environment. It uses a contemporary objective-based methodology where the onus is on the operator to identify and reduce risk through engineering changes and safety management systems.

The Department administers the State areas and, in conjunction with the Commonwealth Department of Industry, Science and Resources (DISR), the Commonwealth offshore areas.

An external review of the administration of safety in the Commonwealth offshore adjacent areas by all relevant State/Territory authorities (including the Department) was carried out in February-March 2000, by a team of international safety experts. This team comprised two senior representatives of the Norwegian Petroleum Directorate and an independent safety consultant from the United Kingdom.

The report of the review team was presented to the National Oil and Gas Safety Advisory

Committee (NOGSAC) in May 2000. NOGSAC was established by the Federal Minister to advise on legislation of safety matters in the Commonwealth offshore area. The committee is tripartite, with representatives from industry (operators and contractors), workforce and regulators (State and DISR). The review identified there had been considerable improvement in safety performance under the Safety Case legislation. No deficiencies were identified in the administration of safety. However, the review team made recommendations regarding legislation reform and the manner in which the States, Territories and DISR worked together to obtain consistency in the administration of safety in the Commonwealth offshore areas.

External and internal audits have confirmed that the Department provides quality safety services. The third annual external audit of the Department's administration of safety in the Commonwealth adjacent area was carried out on behalf of the Commonwealth Department of Industry, Science and Resources by the Safety Case review team, comprised of international safety experts, in February 2000.

The audit concluded the Department:

- Has the resources in both numbers and technical skills to administer the regime, at the present level of industry activity
- Is well run with good team spirit
- Is undergoing continuous internal improvement
- Engaged a thorough and systematic process in the acceptance of the (audited) safety case

In 2000, a restructure of the Safety and Environment Branch of the Department's Petroleum Division was implemented to provide greater efficiency by wider delegation of managerial responsibilities. The Branch has developed a quality management system, including documentation of procedures.

LEGISLATION AND SAFETY MANAGEMENT

The first draft of new regulations for the Western Australian Petroleum Safety Act (PSA) were completed this year. When the regulations have been finalised and passed through Parliament the PSA, which was given Royal assent on 21 June 1999, will be proclaimed. The Act will apply the Safety Case regime, currently applying to petroleum facilities and operations in State and Commonwealth waters, to State onshore petroleum sites and activities.

Regulations for the Commonwealth Petroleum (Submerged Lands) Act 1967 have been drafted covering pipeline and diving operations. The *Guidelines for Preparation and Submission of Safety Cases* for production facilities and mobile offshore drilling units have been revised and are expected to be available later this year. They have been developed through a system of working groups under the auspices of the Australia and New Zealand Minerals and Energy Council to which the Department has been a major contributor.

The Department has also been an active member of the Australian Standards Committee for the development of national pipeline standards.

A draft Offshore Petroleum Operations (Exploration and Production) Emergency Management Plan for the State Emergency Management Advisory Committee (SEMAC) was prepared by the Department this year. This plan documents the roles and responsibilities of the different stakeholders in the event of an offshore emergency and links the SEMAC Policy Statements and the Emergency Management Plans of the operators of the offshore facilities. The Department also convened the inaugural meeting of the Western Australia Offshore Petroleum Emergency Management Committee (WAOPEMC) in February 2000.

The Department actively contributed this year to several workshops to progress the development of new key performance indicators for safety. Several companies trialed a perception survey developed by a NOGSAC working group looking at lead Key Performance Indicators (KPIs). Present safety KPIs such as Lost Time Incident Frequent Rate (LTIFR) and Total Incident Frequency Rate (TIFR) are lag indicators — they measure past performance and the number of incidents that have occurred. Lead indicators measure the current situation, and may be indicative of the potential for future incidents. As such, Australia will be taking the idea of a standard perception survey as a lead KPI to the International Regulators Forum to be held in October 2000.

INDUSTRY LIAISON

The inaugural NOGSAC industry Health, Safety and Environment representatives' national conference was held in Perth on 27-28 April 2000. Presentations on safety initiatives were given by representatives from the petroleum and other industries and the Department, with the Department's Director General giving the keynote address. More than 60 delegates attended what is expected to be an annual event.

The Department's international standing with regard to safety regulation was reinforced by an invitation to present on the risk-based objective-setting regulatory system (the Safety Case

Output 7

A system for regulating and promoting health and safety in the petroleum industry

regime) to Indonesian regulators and industry representatives in May 2000. Indonesia is considering adopting a similar regulatory approach to the Western Australian administration of safety in the upstream petroleum industry.

The Department represented the State/Territory Designated Authorities at the 1999 International Regulators Forum (IRF), which is made up of a group of upstream petroleum regulators from various countries who meet annually to discuss current issues and developments. Representatives attended from the United Kingdom (Health and Safety Executive), Norway (Norwegian Petroleum Directorate), Holland, USA (Minerals Management Service), Canada and Australia. Through the Department of Industry Science and Resources, Australia will host the 2001 IRF, which is currently planned to be held in Perth.

The Department also represented Australia at an international workshop on Floating Production Storage and Offtake (FPSO) vessels in Houston in June 2000, at the invitation of the US Minerals Management Service.

ASSESSMENTS AND AUDITS

During 1999-2000, safety management documents, such as Safety Cases, Safety Management Systems and Bridging Documents were assessed for:

- Three development projects – Buffalo construction and operations, and input for Legendre and Echo/Yodel
- Three existing production facilities – Barrow Island Operations, Goodwyn A (revision), and Griffin Gas Plant (Griffin Export facility revision)
- Three Mobile Offshore Drilling Units – Ocean General (upgrade), Ocean Epoch (upgrade), and ENSCO 50 (new Safety Case)
- 14 seismic operations (bridging documents)
- 15 petroleum pipelines
- 48 exploration and production wells
- 29 diving operations

Safety Management Systems audits of facilities and operations were conducted, including joint audits with operators and other government agencies (such as the Northern Territory Department of Minerals and Energy).

The Department developed and implemented a Year 2000 emergency management procedure and monitored operations over the new year period. No major problems occurred in the industry during December/January.

Early in 2000 the Department commenced an internal audit program for its major operations procedures including auditing, safety case assessment and incident investigation.

INDUSTRY SAFETY PERFORMANCE

Injuries

No fatalities occurred in the Western Australian oil and gas exploration and production industry in 1999-2000. The last fatality offshore was in July 1994, and the last fatality onshore in March 1996. Injury frequency rates this year are consistent with the past two years, being substantially lower than those prior to the requirement from July 1992 for Safety Cases offshore.

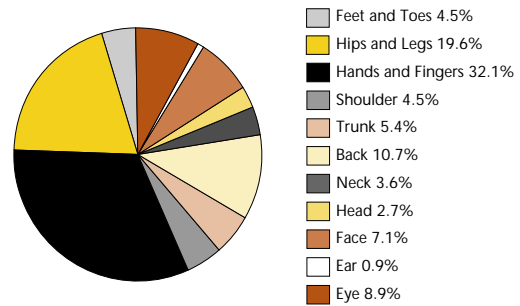
Significant Incidents

A major fire and a series of explosions took place at the onshore oil production facility at Mount Horner on the night of 19 April 2000. The Mount Horner field was producing approximately 15 cubic metres (100 US barrels) of oil per day. Although there were no personnel on the plant at the time of the incident, it resulted in considerable damage to the facility. The Department sent both safety and environmental inspectors to investigate the incident. The current holder of the title under which the Mount Horner field is operating is negotiating its sale to a third party. If the sale eventuates, the plant could be rebuilt and production recommenced. An estimated quantity of 60 kilolitres of crude oil from two of its four tanks were set alight. A small quantity of oil sprinkled outside the bounded

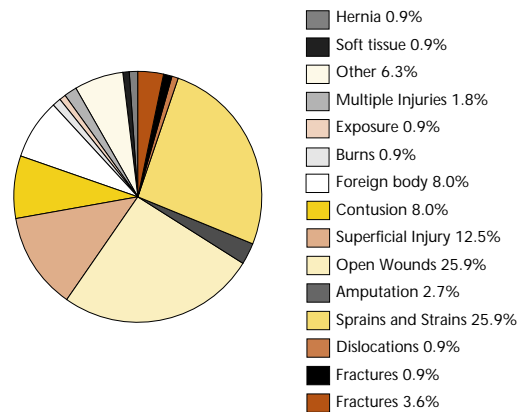
area up to 100 metres in radius, but the clay ground is well compacted and physical tests showed very shallow penetration (no more than 50 millimetres). About 500 square metres of surrounding bush (mainly eucalypts) were burnt.

An incident occurred on 11 April 2000 when a Fast Rescue Craft (FRC) dropped 11.5 metres to the sea during lifting operations at the FPSO (Floating Production Storage and Offtake facility) *Cossack Pioneer*. The incident occurred as a result of the failure of a lifting lug on the FRC lifting frame. Injuries to the five occupants ranged from serious (internal damage) to minor (hospitalisation for observation). The Department investigated the incident as part of a joint industry investigation team. Corrective actions have been implemented to prevent a recurrence.

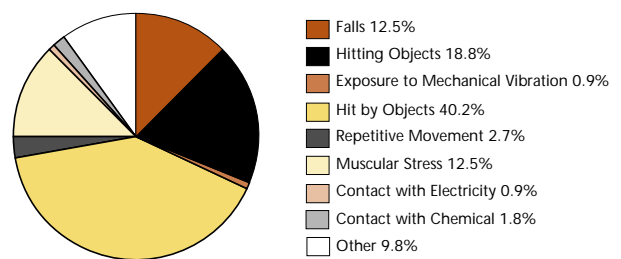
Part of Body



Nature of Injury



Type of Accident



During 1999-2000 there has been a reduction in the proportion of reported incidents involving back, eye, feet and toe, and head injuries. Strains and sprains have remained the same as last year whilst there has been an increase in the proportion of reported cuts, hip and leg (10%-19.6%), and hand injuries (26% to 32%).

Muscular stress incidents reduced by approximately one-third. Injuries resulting from being hit by objects increased slightly, whilst those resulting from hitting objects or falls remained the same as 1998-1999.

Audited Key Performance Indicators

OUTPUTS

- 6. A system for regulating and promoting health and safety in the mineral industry
- 7. A system for regulating and promoting health and safety in the petroleum industry

EFFECTIVENESS

The Department of Minerals and Energy provides a regulatory framework within which mining and petroleum operators have a duty of care for providing a safe and healthy work environment for their workforces.

The effectiveness of the Department’s safety Outputs is indicated by the:

- Improvement in the mining industry’s level of compliance with the Mines Safety and Inspection Act 1994 as measured by the change over time in compliance with standards in audits conducted by the Mining Operations Division (presented as an index with 1998-99 as the base year) (2.1)
- Change in the level of safety in the mining and petroleum workforces as measured by the change over time of the lost-time injury frequency rates (2.2)
- Relative level of safety as measured by comparison of Workers’ Compensation Insurance premium rates with other high-risk industries in Western Australia (2.3)

2.1 Compliance with the Mines Safety and Inspection Act 1994 and Best Practice Safety Management Systems

The level of safety and health in the industry relies on good management systems. These are guided by the regulatory framework, which outlines the expected minimum level of efficacy of such systems. The Department’s Mining Operations Division audits these systems to ensure industry compliance with regulatory standards and best practice.

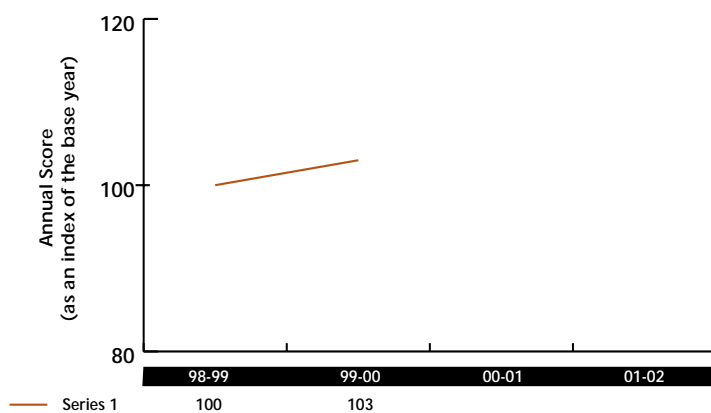


Figure KPI 2.1 Mines Safety and Inspection Act 1994 compliance index

Data for this measure is obtained from the Mining Operations Division Audit Management System (MODAMS), which records the outcomes of mine site audits. MODAMS and the audits have been developed and applied over a number of years and a time-series of reliable statistics is now available. This compliance index is introduced as a KPI for the first time this year and reports on the relative level of compliance as represented by an index where 1998-99 is the base year.

2.2 Injury frequency rates

The injury frequency rates (IFR) are the number of occurrences of injury or disease (total (TIFR) or lost time (LTIFR)) for each one million hours worked as defined in Australian Standard AS 1885.1-1990. LTIFR is a lag indicator of industry performance and may not reflect current safety management initiatives.

Data for this measure is obtained from statutory reports by companies of hours worked and injuries for each mineral or petroleum operation in Western Australia. The data is stored in computer databases and analysed according to the Australian Standard. Results of previous years have been updated using all available data.

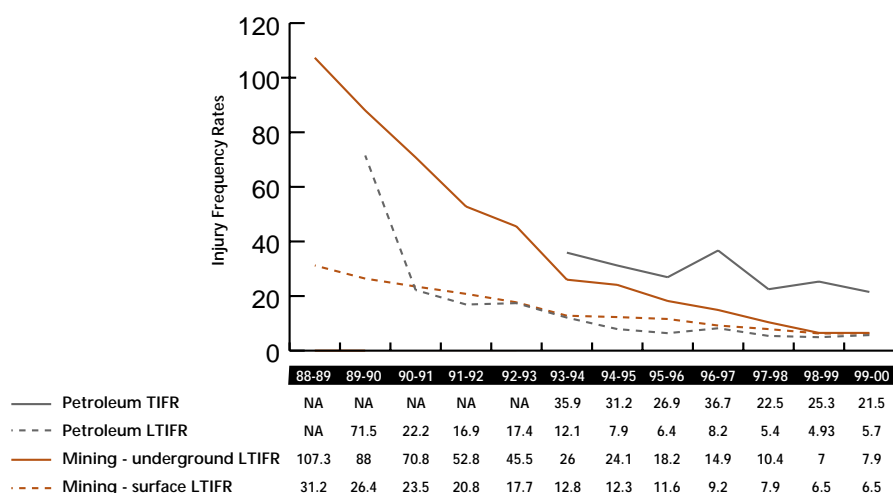


Figure KPI 2.2 Injury frequency rates for the mineral and petroleum sectors

Safety is improving in the long term in the mineral sector, as measured by the number of lost-time injuries per million hours, with a minor increase in the petroleum sector, as measured by the number of lost-time injuries per million hours. Safety performance in the petroleum sector appears to have levelled over the past three years after the initial improvement observed following the introduction of the Safety Case regime in 1990 (acquired from July 1992).

Audited Key Performance Indicators

2.3 Comparative safety: Workers' Compensation Insurance premium rates

The workers' compensation premium rates were selected as a consistent measure to compare safety levels between industries. The premium rates are expressed as a percentage of salary (dollars of insurance premium per \$100 of salaries) and are given for mining and general industry sectors. Information is published by the Premium Rates Committee in the Government Gazette.

Insurance premium rates are lower for the mining and petroleum sectors than for many comparable heavy industry sectors.

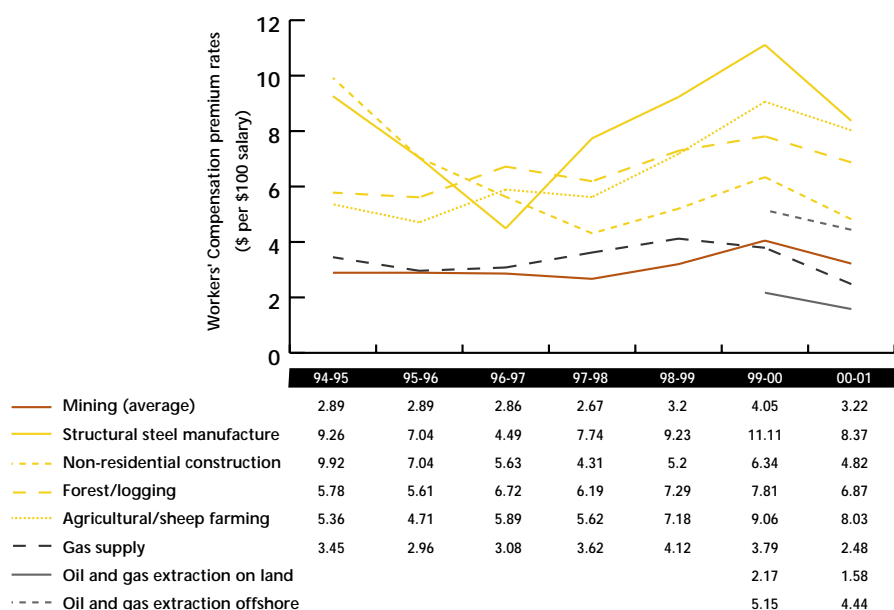


Figure KPI 2.3 Comparative workers' compensation premium rates

| Efficiency Measure | Result | | |
|--|---------------|---------------|-----------------|
| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
| Output 6: A system for regulating and promoting safety and health in the mineral industry | | | |
| Average cost of safety services per mineral industry employee | 245 | 260 | 287 |
| This is calculated as the total cost of service, divided by the average number of employees over the year. | | | |
| Output 7: A system for regulating and promoting safety and health in the petroleum industry | | | |
| Average cost per unit of petroleum safety services | 1 076 | 1 221 | 1 004 |
| Safety services, such as assessment of safety plans, have each been assigned a 'weight' that attempts to quantify the relative weight of effort required to complete it for the base year (1997-98). | | | |
| The average cost per unit of safety service is calculated by dividing the total cost of service by the number of units of service provided during the year. | | | |

OUTCOME 3 ACCEPTABLE ENVIRONMENTAL STANDARDS FOR MINERAL AND PETROLEUM EXPLORATION, DEVELOPMENT, PRODUCTION AND PROJECT COMPLETION

| Output | 1998-99 Expenditure (\$ million) | 1999-2000 Expenditure (\$ million) |
|--|--|--|
| 8 A system for regulating and promoting environmental management in the mineral industry | 1.348 | 1.880 |
| 9 A system for regulating and promoting environmental management in the petroleum industry | 0.407 | 0.637 |
| TOTAL | \$1.755 | \$2.517 |

The Department of Minerals and Energy plays an integral role in setting and monitoring the performance of mining and petroleum operations against established environmental standards and conditions of title.

The Department provides regulatory, technical and policy advice services, assessments and audits of environmental management plans and their implementation, and related information products. This has resulted in continued improvements in industry performance.

The annual Golden Gecko Awards for 1999-2000, which were held in September 1999, acknowledged the outstanding contribution recipients have made to balance environmental responsibility with the successful development of Western Australia's resources.

A Golden Gecko Award symbolises a company's or individual's commitment to go beyond compliance with regulations and provides recognition for their efforts in achieving excellence and leadership in environmental management.

Awards for Environmental Excellence were made to two operators in the mineral section, one in the petroleum section, with certificates of merit issued to two minerals sector operators.

With a record high of 22 applicants in 1999, the awards continue to be a sought after recognition of excellence in environmental performance, which is reflected in the generally high quality of the applications received.

Output 8

A system for regulating and promoting environmental management in the mineral industry

Output Description

The provision of a regulatory environment for the management of risk to the environment from mineral industry operations. The system includes regulatory, technical and policy advice services, the assessment and audit of environmental management reports and their implementation, and the provision of information.

Expenditure in 1999-2000: \$1.880 million

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| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

OPERATIONAL HIGHLIGHTS

Overview

The Department administers relevant provisions of the Mining Act 1978 to minimise the impact of mining and exploration activity.

This role has arisen from increasing community awareness and involvement in environmental issues. Significant improvements in responsible environmental management by the State’s mining industry have now been internationally recognised, and are also the focus of the Department’s annual Golden Gecko Awards for Environmental Excellence.

To ensure the impact of mining on the environment is minimised, mining is only allowed on an appropriate mining tenement subject to appropriate conditions and strict environmental controls imposed by the Department and other government agencies, such as the Environmental Protection Authority. Before mining can begin, the tenement holder must submit a ‘Notice of Intent’ (NOI) to the Department outlining the proposed operations, strategies to minimise the impact on the environment and a proposed rehabilitation

program. Commitments made by the tenement holders are subsequently included in operating conditions imposed on the tenement.

Specialist environmental officers from the Department inspect operations, review company activities and revise unconditional performance bonds to secure rehabilitation of the site. They also issue work directions or stop work orders where a company is not complying with environmental requirements.

Regulatory activities

The regulatory activities conducted by Departmental environmental officers can be grouped into four categories: approval actions, inspection and review of ongoing operations, initiating sanctions against unacceptable activities, and promotional activities.

This year the Department received 284 and approved 252 Notices of Intent, conducted 252 Annual Environmental Reviews, carried out 327 General Environmental Inspections and received 1 105 Ground Disturbing Approval Applications for exploration activities.

During the year the Department dealt with 55 complaints of an environmental nature, ranging from unauthorised mining to environmental incidents.

Sanctions initiated during the year included one Ministerial Fine recommended in lieu of Title Forfeiture, one Work Direction and four Stop Work Orders.

LEGISLATION AND POLICY

An amendment to the Mining Act 1978 was passed by Parliament to allow the Minister for Mines to request the holder of a mining lease to lodge a security for compliance with conditions imposed on the lease. A policy was developed on the application of securities with supporting guidance on security calculation rates.

The Department's preferred type of security is an Unconditional Performance Bond guaranteed by a bank or other financial institution.

In agreement with industry, personal securities will replace personal sureties as an accepted form of security on mining tenements. Personal sureties will be phased out.

Golden Gecko Awards and other promotional activities

In 1999, the Golden Gecko Awards received enthusiastic support from the minerals and petroleum industry with 21 nominations. Golden Gecko Awards were awarded to Placer Granny Smith at Laverton, Epic Energy on the Burrup Peninsula and Iluka Resources at Capel. Certificates of Merit were awarded to Princess Margaret Hospital Foundation for the Ruggies Recycling Program and to Anaconda for its Murrin Murrin Operation.

Promotional activities during 1999-2000 included publication of two issues of *Rehab Blab magazine*, a review of the Annual Environmental Report Guidelines and the hosting of the Golden Gecko Awards for Environmental Excellence.

ENVIRONMENTAL MANAGEMENT PROCESS

The environmental management process covering mining operations involves three distinct phases: the approval to commence mining operations, management of ongoing operations and decommissioning of operations.

State environmental legislation gives primary responsibility for all environmental matters to the Environmental Protection Authority (EPA). A Memorandum of Understanding between the EPA and the Department of Minerals and Energy provides a cost-effective management process in which the degree of scrutiny and management by Government is related to the potential environmental impacts of any given operation.

The development of close working relationships with other agencies, such as the Department of Environmental Protection (DEP), Conservation and Land Management (CALM) and the Water and Rivers Commission (WRC), has further enhanced the management of environmental issues in the mining industry.

ENVIRONMENTAL PERFORMANCE

Land Disturbed

The following statistics are for 1999 and relate to reports received from companies conducting mining operations under the Mining Act 1978. The statistics include provisional figures for State Agreement Act Operations and some operations carried out on pre-1899 title land.

Output 8

A system for regulating and promoting environmental management in the mineral industry

Table 8.1: Area of disturbance, rehabilitation land-forming and re-vegetation for mineral activity in Western Australia

| Activity | 1999 Annual (ha) | | | Cumulative Total to 31/12/99 (ha) | | | Percentage of disturbed area where rehabilitation has been initiated |
|--|--------------------------------|---|---------------|-----------------------------------|---|---------------|--|
| | Disturbed by mining operations | Preliminary rehabilitation land forming | Re-vegetation | Disturbed by mining operations | Preliminary rehabilitation land-forming | Re-vegetation | |
| Bore Fields and Pipelines | 1 135 | 222 | 156 | 2 236 | 284 | 170 | 12.7 |
| Campsites | 58 | 4 | 2 | 1 188 | 265 | 252 | 22.3 |
| Exploration | 2 053 | 435 | 217 | 4 218 | 1 149 | 555 | 49.6 |
| Mine Site Infrastructure | 2 549 | 517 | 394 | 25 577 | 2 425 | 1 585 | 9.5 |
| Open Pits | 4 058 | 516 | 341 | 22 463 | 3 807 | 2 981 | 17 |
| Tailing Facilities and Evaporation Ponds | 1 409 | 262 | 299 | 21 236 | 1 503 | 1 158 | 7.1 |
| Waste Dumps | 4 006 | 2 847 | 2 302 | 25 885 | 12 406 | 8 203 | 47.9 |
| TOTAL | 15 268 | 4 813 | 3 711 | 102 806 | 21 839 | 14 904 | 21.2 |
| SAA Sites | | | | 20 806 | | | |
| Mining Act Sites | | | | 82 000 | | | |

A total of 102 806 hectares had been disturbed to the end of 1999 with some 15 268 hectares of new disturbance in calendar year 1999. Of the total disturbance, rehabilitation had commenced on 21 839 hectares and been completed on 14 904 hectares to the end of calendar year 1999. During 1999, rehabilitation commenced on 4 135 hectares and was completed on 2 341 hectares. This indicates that 21.2 per cent of total mine disturbance to the end of calendar year 1999 was in the process of rehabilitation.

The above numbers show considerable effort is being made by mine operators to rehabilitate waste dumps, with work commenced on 47 per cent of the dumps. Exploration activities reported are confined to those taking place close to mining operations, often referred to as 'brownfields' exploration.

Unconditional Performance Bonds

The Department held 2 319 bonds with a total value of \$220.8 million as at 31 December 1999. On 30 June 2000, the number of bonds had increased to 2 452 with a total value of \$240.2 million available to cover the cost of post-operational rehabilitation should the operators

fail to meet their commitments and conditions of approval. Based on the December 1999 figure, this indicates that an average bond of \$3 433 is held for each hectare of disturbance.

In the 1999-2000 financial year, nine bonds totalling \$129 000 were called in, as the tenement holders were unable to complete the rehabilitation to the required standard.

MINERALS AND ENVIRONMENT LIAISON COMMITTEE

The Minerals and Environment Liaison Committee (MELC) was established in 1991 by the Minister for Mines. This interagency committee, which is chaired by the Director General, provides a regular forum for the Department to keep industry and the conservation movement up-to-date about environmental management issues of mutual interest. There is an active two-way exchange of data and information leading to steady improvement in industry performance and increased opportunities for cooperation.

During 1998-99, MELC's program covered the following issues:

- Investigations into Pilbara conservation reserves, metropolitan regional parks, Perth's Bushplan, resources strategies for basic raw materials, lime and road-building materials
- Unconditional Performance Bonds
- The Commonwealth Environment Protection and Biodiversity Conservation Act
- Changes to environmental assessment under the Western Australian Environmental Protection Act
- Rangeways Project
- Greenhouse response
- Reports from Australian and New Zealand mining and Energy Council (ANZMEC) national taskforce meetings and the Mineral Industry Council of Australia
- Strategic framework for mine closure
- Pastoral leases and proposed conservation
- Abandoned mine site program
- National environmental protection measures
- Minerals Industry Code for Environmental Practice
- Assessment of exploration in major nature reserves
- Environmental Weed Strategy and the State Weed Strategy

Abandoned Mine Sites

An inventory of abandoned mine sites in Western Australia commenced in 1999-2000 to:

- Accurately locate and describe relevant features of abandoned mine sites in Western Australia
- Identify public safety and environmental hazards associated with them
- Assess their potential heritage value

An innovative database designed for field use on a palm-top computer and satellite navigation equipment, capable of locating mine sites to less

than five metres accuracy, was used to locate almost 9 000 features related to abandoned mine sites.

Over this period, locations and features of abandoned mine sites in the Cue–Meekatharra, Lake Austin, Yalgoo, Paynes Find, Ravensthorpe, Northampton and Mount Magnet areas were added to the database.

During 2000-01, priority sites in the remaining portion of the Mount Magnet, Sandstone, Gidgee and Eastern Goldfields areas will be located and their features recorded.

A sum of \$350 000 per annum has been appropriated for this project.

Output 9

A system for regulating and promoting environmental management in the petroleum industry

Output Description

The ongoing management and provision (or contracting) of a set of products and services to ensure exploration and production activities meet environmental standards defined in the legislation and current government policy. The system comprises policy services, interagency agreements and processes, performance guidelines, information services and regulatory services currently including assessments of Environmental Impact Assessments, Environmental Management Plans and Systems, Oil Spill Contingency Plans plus audits of facilities and Environmental Management Systems and investigations of environmental incidents.

Expenditure in 1999-2000: \$637 000

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| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

The Commonwealth Petroleum (Submerged Lands) (Management of Environment) Regulations came into effect on 1 October 1999. The regulations were developed by a tripartite working group, which included representatives from the Department, other Government regulators, industry and non-government organisations (represented by Greenpeace). The regulations are objective and based on assessment and management of the environmental effects and risks of a proposed activity.

On 7 June 2000, the Minister for Mines endorsed the development of new Western Australian environmental regulations for the Petroleum (Submerged Lands) Act 1982, the Petroleum Act 1967 and the Petroleum Pipelines Act 1969.

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) was assented to in July 1999 and came into

effect on 16 July 2000. The requirements of this Act are provided on Environment Australia's website at www.environment.gov.au/epbc. The EPBC Act represents a significant change for the petroleum industry. For example, the legal onus is now on the proponent of a petroleum activity to refer to the Commonwealth Minister for the Environment proposals which may result in a significant impact on a matter of national environmental significance. Matters such as these identified in the Act that serve as triggers for Commonwealth assessment and approval are listed as: World Heritage Properties, Ramsar wetlands, nationally threatened species and ecological communities, migratory species, Commonwealth marine areas and nuclear actions (including uranium mining). The full implications of the EPBC Act are not expected to be known until later in 2000.

The Department presented a paper on the development and application of the risk-based

objective management of environmental regulations in Western Australia at the Society of Petroleum Engineers International biannual Health, Safety and Environment (HSE) conference in June 2000.

The Department also participated on the selection committee for Woodside Offshore Petroleum's internal environmental awards in 2000.

ENVIRONMENTAL ASSESSMENTS AND AUDITS

In 1999-2000, the Department assessed 324 environmental submissions, compared to 308 in 1998-99. Under the new Commonwealth Petroleum (Submerged Lands) Act (PSLA) Management of Environment regulations (effective from October 1999) one Environment Plan can feasibly cover activities previously covered by several Environment Management Plans. The Department assessed 52 Environmental Plans. This was the first year that the Environmental Plans had been implemented.

The Department performed 15 environmental management audits of facilities and operations in 1999-2000. These included joint audits with operators, other government agencies and audits for assessments for the Golden Gecko Awards for Environmental Excellence.

Early in 2000, the Department commenced an internal audit program for its major operations procedures including auditing and incident investigation. The Department prepared a draft procedure for Environment Plan assessment and distributed it to industry and other Government agencies for review and comment.

The Department produced a document entitled *Environmental Assessment Processes for Petroleum Activities in WA*. This document clarifies the environmental assessment process (and interagency processes) that contribute to exploration and development project approval.

INDUSTRY ENVIRONMENTAL PERFORMANCE

One measure of environmental performance is the frequency and consequence of hydrocarbon spills and leaks.

In addition to two substantial hydrocarbon spills on 26 July and 22 October, there were four minor hydrocarbon spills offshore, including one diesel spill (total 1.30 cubic metres), two crude oil spills (0.05 cubic metres) and one seismic streamer fluid loss (10 cubic metres), which discharged into the marine environment. Three synthetic-based drilling fluid spills totalling 10.02 cubic metres were also reported. However, there was no measurable environmental effect from the offshore spills (see below).

Nine onshore crude oil spills were reported totalling 15.07 cubic metres. The majority of onshore incidents were caused by flowline leaks. Three onshore spills were controlled by bunded areas resulting in no environmental impact. Six onshore spills impacted vegetation and rehabilitation is required. Two diesel spills were reported totalling 0.95 cubic metres. One of these was captured in a bunded area and the other requires rehabilitation.

On 26 July, a 25 cubic metre oil spill occurred at the Harriet field loading facility near Varanus Island, 125 kilometres west of Dampier. A subsea purge valve on the submarine loading line was sheared off when the end of the 72-metre flexible loading hose was lifted on-board a tanker by a crane, prior to commencing loading operations. The spill was monitored and no oil reached shore. The Department joined the Department of Environmental Protection (DEP) in a post-incident audit to confirm that no detectable environmental damage had resulted from the incident (DEP Investigation Report 01-1999). The Department investigated the incident and subsequently referred the matter to the Crown Solicitors Office for advice.

On 22 October, a 60-cubic-metre diesel fuel spill occurred at the Goodwyn A platform, 150

Output 9

A system for regulating and promoting environmental management in the petroleum industry

kilometres north-west of Dampier, during the transfer of diesel from one storage tank to another onboard the facility. The spill was monitored and dissipated rapidly. The facility is remote from land and no observable marine environmental damage resulted. An investigation into the incident identified the breakdown of several control procedures and devices. The operator has implemented corrective actions, and this has been audited by the Department.

GOLDEN GECKO AWARD

In 1999, Epic Energy Proprietary Limited was awarded a Golden Gecko Award for environmental excellence to recognise its high quality work on the Burrup Pipeline Project. The project involved construction of a gas pipeline in an area world-renowned for its environmental and cultural values. The pipeline runs from the North West Shelf along the Burrup Peninsula to the inlet for the existing Karratha-Port Hedland gas pipeline. As well as taking into consideration environmental impacts, Epic Energy also made preservation of a vast number of rock carvings along the path of the pipeline, and the inclusion of the local Aboriginal community as rangers, a high priority throughout the project.



Epic Energy Golden Gecko Award recipients (from left) Mr Graeme Hogarth, Project Manager, Mines Minister Norman Moore, Mr John Girdle, Deputy Project Manager, Mr Jay Holm, Chief Executive Officer.

Audited Key Performance Indicators

OUTPUTS

8. A system for regulating and promoting environmental management in the mineral industry
9. A system for regulating and promoting environmental management in the petroleum industry

EFFECTIVENESS

The Department of Minerals and Energy provides regulatory, technical and policy advice services, assessments and audits of environmental management plans and their implementation, and information products.

The effectiveness of the Department's performance in achieving acceptable standards of environmental performance by industry is indicated by the:

- Degree of community satisfaction with environmental management and regulation in the mining industry (3.1)
- Changes over time in the industry's Annual Environmental Review assessment scores (presented as an Environmental Compliance Index) (3.2)
- Level of compliance with environmental criteria set for petroleum operations as measured by the percentage of audited projects with no major corrective action recommendations (3.3)

3.1 Community satisfaction with the mineral industry's environmental management as measured by an annual survey

A telephone survey is undertaken each year to assess the community's understanding of environmental regulation and management in the mining industry. The data collected is used to develop new initiatives in response to issues identified by the survey.

Table KPI 3.1 Percentage of customers who rated their awareness of the mineral industry's environmental management

| Issues | Percentage of respondents who rated these issues as high or very high | |
|--|---|-----------|
| | High | Very High |
| Importance of the environment | 28.0 | 52.9 |
| Compliance with the law | 36.7 | 17.8 |
| Awareness of enforcement processes | 17.4 | 24.3 |
| Satisfaction with enforcement processes | 36.3 | 29.5 |
| | No | Yes |
| Satisfaction with performance of the mining industry | 29.9 | 50.8 |

Audited Key Performance Indicators

3.2 Annual Environmental Review assessment scores for mine sites

On completion of the Annual Environmental Review for each mine site, scores are allocated in a number of categories to reflect the operator's performance in managing environmental aspects. This performance indicator measures the trend in the overall annual average of these scores for the industry and is presented as an index with 1998 as the base year.

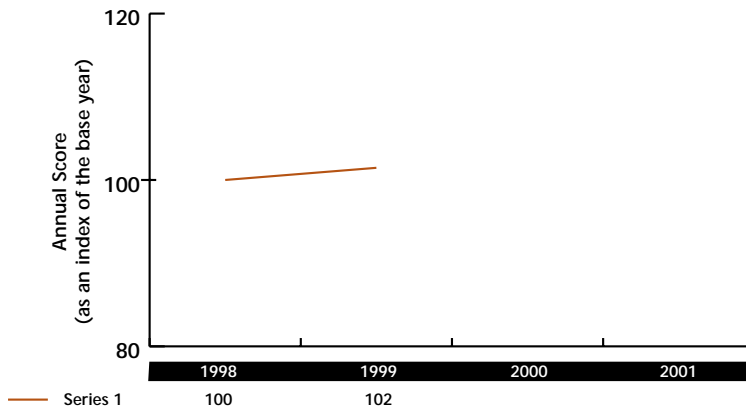


Figure KPI 3.2 Environmental Compliance Index

3.3 Compliance with the Department's environmental management criteria for petroleum operations

Non-compliances are defined as:

- Specific infringements of commitments made in project environmental documentation (Environmental Management Plans or EMPs)
- Specific infringements of conditions of approval
- Practices not in accord with the Commonwealth and State Petroleum Acts and Regulations and Schedules of Directors issued under these Acts.

Non-compliances are identified in field audits. Audits are conducted on a cross-section of projects and are selected on a risk-assessment basis, which may introduce variability into the results between years. Non-compliances can be segregated into minor and major categories. An example of a minor non-compliance may include the presence of litter at an operation and, while still requiring the generation of a Corrective Action Recommendation (CAR), minor non-compliances are not considered to have a reasonable risk of significant environmental impact. A major non-compliance, however, is defined as an item where if no CAR is identified and implemented, there is a reasonable risk of significant environmental impact.

Audit activity increased this year and while there was a slight decrease in the proportion of the audited projects for which no major CARs were issued, compliance remained reasonably high.

Table KPI 3.1 Compliance with the Department's environmental management criteria for petroleum operations

| | 1995-96 | 1996-97 | 1997-98 | 1998-99 | 1999-2000 |
|--|---------|---------|---------|---------|-----------|
| Number of active projects | 160 | 89 | 174 | 158 | 165 |
| Number of active projects audited | 12 | 7 | 9 | 12 | 13 |
| Percentage of audited projects for which no major CARs were issued | 80% | 71% | 89% | 83% | 77% |

| Efficiency Measure | Result | | |
|--|---------------|---------------|-----------------|
| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
| Output 8: A system for regulating and promoting environmental management in the mineral industry | | | |
| Average cost per mine site of annual environmental performance reviews | 5 181 | 5 165 | 6 179 |
| This is calculated as the total cost of service, divided by the number of mines for which an annual environmental review has been undertaken. This means that an annual environmental report has been received from the company, the report has been reviewed, a site inspection has been completed and an inspection report returned to the company. | | | |
| For comparison with the previous year, this figure excludes an amount of \$322 540, which is assigned to a specific data take-up project for the State's abandoned mine sites. | | | |
| Total environmental bond score in relation to the cost of environmental services | NA | New measure | 4 444 |
| This measure shows the total cost of service as a percentage of the total value of bonds that would be held on all areas disturbed by mining operations. This value is used to represent the risk to the environment and is represented by the bond amount held by the Department for Mining Act sites, plus an amount calculated at standard Departmental rates for State Agreement Act sites that are not currently bonded. The indicator is represented as cost per \$1 million in total bonds. This represents 0.44 per cent of the total value of bonds held by the Department. | | | |
| Output 9: A system for regulating and promoting environmental management in the petroleum industry | | | |
| Average cost per unit of petroleum environmental service | 591 | 503 | 846 |
| Environmental services, such as assessment of environmental submissions and audits, have each been assigned a 'weight' that attempts to quantify the relative weight of effort required to complete it for the base year (1997-98). | | | |
| The average cost per unit of environmental service is calculated by dividing the total cost of service by the number of units of services provided during the year. | | | |
| The method of allocating expenditure to this Outcome changed from last year and the two results are not directly comparable. | | | |

**OUTCOME 4
APPROPRIATE RETURNS TO THE COMMUNITY FOR THE EXPLOITATION OF ITS
MINERAL AND PETROLEUM RESOURCES**

| Output | | 1998-99 Expenditure (\$ million) | 1999-2000 Expenditure (\$ million) |
|--------|--|--|--|
| 10 | A system to establish royalty rates and ensure appropriate royalties are paid when due | 1.151 | 1.140 |
| TOTAL | | \$1.151 | \$1.140 |

The Department is responsible for developing royalty policies to cover a wide range of mineral and petroleum production and for the collection of royalties.

A royalty is a payment to the community in exchange for the use of its natural resources. This is different to a tax that is a contribution to State revenue levied on individuals or companies.

Royalties are directed into the State Government's Consolidated Fund to help pay for Western Australia's schools, police, health system and other community infrastructure and services.

Output 10 A system to establish royalty rates and ensure appropriate royalties are paid when due

Output Description

Recommendations are made for mineral and petroleum royalty rates and systems. Royalty legislation is developed and new royalty arrangements established. Compliance with these requirements is monitored and financial returns audited. Information on current and predicted royalty returns to the State is compiled and distributed. This information is used in monitoring the success of rates, conditions and arrangements in achieving a fair return to the community and in developing new policy.

Expenditure in 1999-2000: \$1.140 million

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 Manager, Mineral and Petroleum Royalties
 Policy, Planning and Services
 8th floor Mineral House
 (08) 9222 3304

| |
|---|
| Corporate Group |
| Mineral Titles Division |
| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

ROYALTY SYSTEMS

Under the Western Australian legal system, most mineral and petroleum resources belong to the community. As such, the State Government determines the appropriate level and form of royalties to be paid by developers for the right to extract these non-renewable resources. The revenue subsequently raised then compensates all Western Australians through the provision of public infrastructure and other community benefits and services. Basically, a royalty is a payment to the community in exchange for the use of its natural resources. This is different to a tax that is a contribution to State revenue levied on individuals or companies.

To ensure the greatest benefit for the whole community, the Department provides royalty policy advice to the State Government and performs the assessment, collection and verification of royalty payments by developers.

Royalty rates under the Mining Act are derived by adopting a benchmark of ten per cent of mine-head value. Royalty rates levied on

petroleum projects are generally between ten per cent and 12.5 per cent of the well-head value.

Five royalty systems are used to determine the royalty to be paid in areas of State jurisdiction. Three are used for mineral production and two for petroleum production.

Royalties may be based on the:

- Quantity of mineral produced (specific-rate royalties). This system is generally applied to low-value products such as sand or construction materials. Rates are generally 30 or 50 cents per tonne
- Value of mineral produced and sold (ad valorem royalties). This system is applied to most minerals such as iron ore, nickel, mineral sands and base metals. Rates under the Mining Act range from 2.5 per cent to 7.5 per cent depending on the extent of value-adding by producers before the sale point

Output 10

A system to establish royalty rates and ensure appropriate royalties are paid when due

- Net profit from the mining operation (profit-based royalties). Currently, one operation has a 22.5 per cent profit-based component included in its royalty system
- Value of petroleum recovered at the well-head (well-head royalties)
- Percentage of net cash flow (resource rent royalties). This system is currently used for one petroleum operation to which a rate of 40 per cent is applied

ROYALTY ARRANGEMENTS AND ISSUES

Although royalty systems and rates are defined under legislation, the Department advises producers on how royalty calculations should be performed, what information is required in royalty returns and what information is required for review during audits performed by the Department to verify royalties due. Desk audits of royalty returns are performed as well as visits to the offices of royalty payers.

Issues that arise through the royalty assessment process are negotiated with producers. During the year, 107 issues arose regarding audit queries, late payment of royalty, royalty system reviews, disputed sales values and deductions, royalty calculation procedures and the implementation of new arrangements. Many of these issues involved significant negotiations and included:

Goods and Services Tax (GST)

Although royalty payments are exempt from the Goods and Services Tax (GST), the revenue and cost inputs into the royalty calculation are affected by it. Government adopted a GST-exclusive approach to royalty calculations and this meant the Department had to take appropriate action to ensure this approach was followed for all royalty calculations from 1 July 2000. This required the Department to amend Mining Regulations, alter petroleum royalty arrangements and liaise with the Department of Resources Development to ensure Agreement Act companies were advised of the Government's position on this issue.

Royalty Relief

Royalty relief is available if projects meet established royalty relief criteria. This reduction or suspension of royalty payments can be extended to producers under special and extenuating circumstances. The criteria for royalty relief include special transition provisions relating to gold producers. Although one application for royalty relief was received and assessed during the year, it did not qualify for royalty relief. One petroleum producer sought a reduction in the royalty rate because of falling rates of petroleum recovery towards the end of the productive life of the field, which in the absence of relief would have resulted in further recovery from this field becoming uneconomic with consequent closure. In this case, a temporary reduction in the royalty rate was approved and production is continuing.

DEVELOPMENT OF NEW ARRANGEMENTS

The Department implemented new royalty arrangements for nine projects during the year.

The strategic plan was updated for the Mineral and Petroleum Royalties Branch and a detailed operational plan was developed to assist the Branch to meet its objectives.

Discussions were held with the Commonwealth Department of Industry, Science and Resources to streamline administrative arrangements for offshore petroleum royalties.

An interdepartmental committee completed its review of base metal royalties and their recommendations were endorsed by Cabinet and included in the Mining Regulations.

A customer questionnaire was finalised with a view to conducting an industry survey during the third quarter of 2000.

AMENDMENTS TO LEGISLATION

Mineral royalties are levied under either the Mining Act 1978 or State Agreement Acts, which apply to a limited number of large projects. Royalties for petroleum are implemented through the State Petroleum Act 1967, Commonwealth Petroleum (Submerged Lands) (Royalty) Act 1967, State Petroleum (Submerged Lands) Act 1982 or the Barrow Island Royalty Variation Agreement Act 1985.

The royalty regulations under the Mining Act were amended to include:

- Extension of the existing administrative procedure for granting royalty relief to all projects under the Mining Act
- Base metal royalty changes (briefly described below)
- GST-related requirements
- Adjustments to royalty mineral categories

BASE METAL ROYALTY CHANGES

An in-depth review of the base metal royalty arrangements was undertaken by a cross-Government Working Group comprising representatives of the Departments of Minerals and Energy, Treasury and Resources Development.

The review was prompted by increasing anomalies caused by the inappropriate application of a single royalty rate to particular base metal products and the recent entry of significant new players and technologies to nickel mining.

The review identified that the single rate system distorted competition and did not provide an incentive for base metal producers to value-add to their products in Western Australia. The recommendations of the Working Group, designed to eliminate inequities in the base metals royalty system, were endorsed by Cabinet and included in the Mining Act royalty regulations.

The changes extend the current nickel royalty system to all co-products and by-products of the nickel mining and processing industry, excluding gold, silver and platinum group metals. The changes were focused primarily on cobalt production and did not affect the nickel royalty system. To allow producers time to adjust to the changes, a transitional period of five years will apply before they are obliged to adopt the new system. Also, for other copper, lead, cobalt and zinc production, royalty rates of five per cent for concentrates and 2.5 per cent for metals were included.

ASSESSMENT, COLLECTION AND VERIFICATION

During the year, an average of 286 companies or individual projects paid royalty. A total of 1 079 royalty returns were received and assessed and 209 visits were made to royalty payers. Adjustments to royalty collections from audit activities resulted in an additional \$7.1 million in royalty payments.

A total of \$954.3 million was collected for the year, comprising \$431.8 million for minerals and \$522.5 million for petroleum. From this, \$190.6 million was paid to the Commonwealth Government under petroleum royalty-sharing arrangements.

Output 10

A system to establish royalty rates and ensure appropriate royalties are paid when due

Table 10.1: 1999-2000 Royalty Collection (\$ million)

| | Revenue State | Revenue Commonwealth | Total | Paid Into Consolidated Fund |
|--|---------------|----------------------|--------------|-----------------------------|
| State Legislation | | | | |
| Minerals | 431.8 | | 431.8 | 431.8 |
| Petroleum | 29.7 | 38.8 | 68.5 | 42.7 |
| Sub-total | 461.5 | 38.8 | 500.3 | 474.5 |
| Commonwealth Legislation | | | | |
| Petroleum | 302.2 | 151.8 | 454.0 | 302.2 |
| Total Royalty Collection 1999-2000 | 763.7 | 190.6 | 954.3 | 776.7 |
| Total Royalty Collection previous years | | | | |
| 1998-99 | 597.5 | 95.4 | 692.9 | 605.4 |
| 1997-98 | 606.9 | 123.2 | 730.1 | 622.2 |
| 1996-97 | 545.0 | 122.9 | 667.9 | 560.8 |

1999-2000 Total Collections \$954.3 million

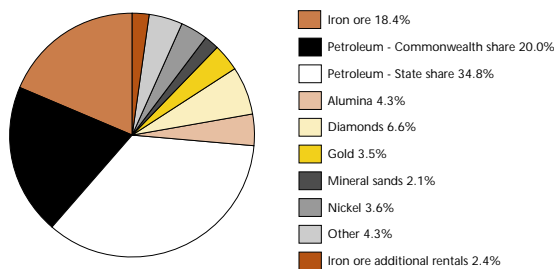


Figure 10.1: 1999-2000 Royalty Collection

There were 38 late royalty payments. Apart from a few payments, these late payments were generally received within three days of the due date. Two royalty payment arrangements for outstanding royalties occurred due to difficulties experienced by projects.

Arrangements with the Commonwealth to administer the collection of Christmas Island royalties continued during the year. The Department assesses, collects and verifies the royalty payments and then transfers them to the Commonwealth.

The value of royalty collections increased by 37.7 per cent, mainly because of higher oil and nickel prices and a lower exchange rate. This was partially offset by lower iron ore prices and a decrease in iron ore sale volumes.

Audited Key Performance Indicators

OUTPUT

10. A system to establish royalty rates and ensure that appropriate royalties are paid when due

EFFECTIVENESS

The Department of Minerals and Energy makes recommendations on legislation and policy regarding royalty arrangements and administers the relevant State and Commonwealth Acts.

The effectiveness of the Department in achieving the Government target of ten per cent of mine-head or well-head value when due is indicated by the:

- Average royalty rate as measured as a percentage of mine-head or well-head value (4.1)
- Timeliness of royalty collection as measured by the percentage (by value) of royalties due and paid by the required date (4.2)

4.1 Average royalty rate

Determining a fair return to the community is a complex process. Royalty rates under the Mining Act were derived by adopting a benchmark of ten per cent of the mine-head value and set by Cabinet in 1981. Royalty rates levied on petroleum projects are generally either ten per cent or 12.5 per cent of well-head value. Mine/well-head values are defined as the value of the product at a specified point just after extraction from the ground.

The average royalty rate calculated in years prior to 1998-99 excluded gold, as there was no gold royalty. The average royalty rate for 1999-2000, including gold, was calculated to be 8.1 per cent. During 1999-2000, the gold royalty applied at a concessionary royalty rate of 1.25 per cent

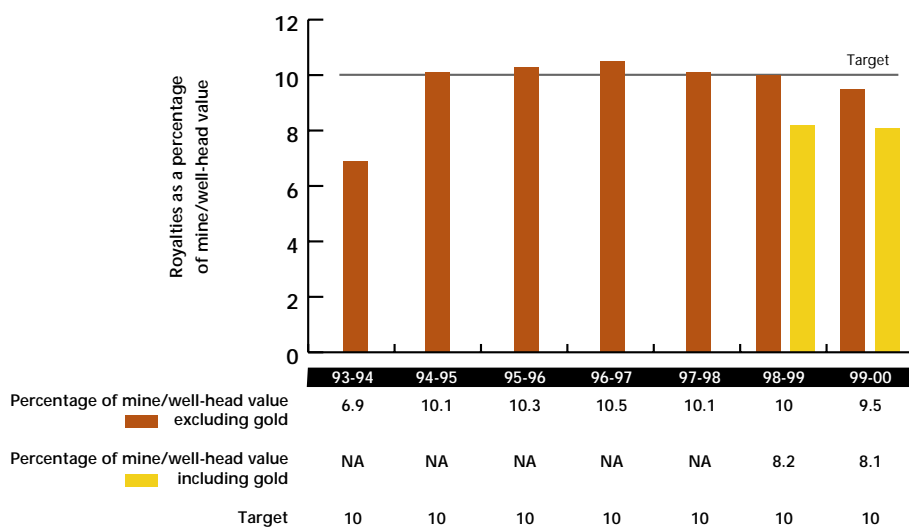


Figure KPI 4.1 Average royalty rate

Audited Key Performance Indicators

During the year, a review of the cost assumptions for calculating the mine-head value was conducted and operating and capital costs appear to have reduced on average at a commodity level. This is the main reason for the reduction of the average royalty rate from around ten per cent in 1998-99 to 9.5 per cent in 1999-2000. When costs reduce between the mine/well-head point and the sale point, royalties as a percentage of the mine/well-head value also reduce.

4.2 Percentage of royalty due and paid by the required date

The percentage by value of royalties due and paid by the required date.

1997-98: 95.9 per cent

1998-99: 96.4 per cent

1999-2000: 98.1 per cent

Of 1 079 royalty returns, there were 38 late payments of royalties in 1999-2000. The majority of these late payments were received within three days of the due date.

| Efficiency Measure | Result | | |
|---|---------------|---------------|-----------------|
| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
| Output 10: A system to establish royalty rates and ensure that appropriate royalties are paid when due | | | |
| Average annual cost per royalty payer of the royalty system | 3 771 | 4 024 | 3 986 |
| The average annual cost per royalty payer of all royalty services is calculated as total cost of service divided by the number of royalty payers. This includes the cost of royalty assessment (the verification and auditing of returns) and issue management (such as examining requests for variations to rates or setting arrangements for new projects). | | | |
| A project royalty payer is defined as: | | | |
| <ul style="list-style-type: none"> • A company or individual that remits royalty for a single project; or • Each participant of a project if separate royalty remittances are made for a single project; or • The number of people for which a single company or individual remits a royalty. | | | |
| Average assessment cost per royalty payer | 1 597 | 1 621 | 1 629 |
| The assessment of royalty returns comprises around 40 per cent of the total royalties work. The average annual cost of assessment services per royalty payer is calculated as the total cost of assessment services divided by the number of royalty payers. | | | |



**OUTCOME 5:
A COMMUNITY CONFIDENT THAT IT IS SAFE FROM HAZARDS ASSOCIATED WITH
THE STORAGE, HANDLING AND TRANSPORT OF DANGEROUS GOODS**

| Output | | 1998-99 Expenditure (\$ million) | 1999-2000 Expenditure (\$ million) |
|--------------|--|--|--|
| 11 | A system for regulating the storage, handling and transport of dangerous goods | 2.540 | 2.799 |
| TOTAL | | \$2.540 | \$2.799 |

Industrial development and mining activities in Western Australia depend on the safe storage, handling and transport of explosives and dangerous goods. The Department regulates the State's explosives and dangerous goods industry by monitoring and auditing compliance with regulations and legislation.

The Major Hazards and Storage Branch of the Explosives and Dangerous Goods Division advises the Ministry for Planning and Local Government on land usage and access issues to do with dangerous goods storage and manufacturing sites. The advice relates to safety zones around major plants and separation distances to public places and residential areas.

The Division is also responsible for the regulation of fireworks in Western Australia.

Output 11

A system for regulating the storage, handling and transport of dangerous goods

Output Description

An audit and inspection program for premises storing and vehicles transporting dangerous goods. A community oriented information system focusing on the key drivers of community confidence.

Expenditure in 1999-2000: \$2.799 million

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 Explosives and Dangerous Goods Division
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| |
|--|
| Corporate Group |
| Mineral Titles Division |
| Petroleum Division |
| Geological Survey Division |
| Mining Operations Division |
| Explosives and Dangerous Goods Division |

NEW LEGISLATION — DANGEROUS GOODS BILL

The chemical, explosives and petroleum industries have been urging the adoption of performance-based legislation for dangerous goods for a number of years in order to provide flexibility and encourage more innovative and cost-effective control measures. The Department is introducing reforms to enable the transition from reactive compliance to active management of the real safety risks.

As part of the transition, a consultation process on a new Dangerous Goods Bill was conducted throughout the year. The Bill will have two major features: a general duty of care and provisions to give legal status to Codes of Practice as non-mandatory documents. In turn, these codes will allow certain enterprises, which choose to follow a Code of Practice, to be deemed to have complied with the regulations.

At the end of June 2000, the Department was awaiting Cabinet approval for drafting of the Bill, which will provide the regulation-making powers necessary to adopt the national standards. These standards are developed under the leadership of the National Occupational Health and Safety Commission (NOHSC) on the *Storage and Handling of Dangerous Goods* and the *Control of Major Hazard Facilities*.

When the Dangerous Goods Bill is passed by Parliament, new regulations incorporating these national standards will be developed. The new legislation will also include a major reform of outdated explosives safety laws.

The new Dangerous Goods Bill will simultaneously remove various legislative requirements that not only impede industry's operations, but also have been identified as having no commensurate safety benefit. These measures also seek to shift the responsibility for the safety of dangerous goods from Government to industry in order to achieve higher levels of public, operator and environmental safety more efficiently.

The implementation of the Bill will also amalgamate provisions of the Explosives and Dangerous Goods Act 1961 (Principal Act) with the Dangerous Goods (Transport) Act 1998 (Transport Act) and create a single consolidated Dangerous Goods Act. The Bill will repeal both of these Acts.

Before the proclamation of the Transport Act in June 1999, Western Australia relied solely on the Principal Act for the control of all activities involving dangerous goods including transport.

Reverting to a single Act will simplify industry's understanding of the State's dangerous goods legislation and deliver substantial administrative efficiencies.

NOTE: The new reforms are limited to changes concerning the storage, handling and manufacture of dangerous goods and explosives. Legislation relating to the transport of dangerous goods was reformed in 1999.

MAJOR HAZARD FACILITIES

The report of the Longford Royal Commission into the Esso Longford gas plant explosion in Victoria strongly recommended the adoption of the national standard for the Control of Major Hazard Facilities.

In Western Australia, the national standard for the Control of Major Hazard Facilities is already being applied on the administrative direction of the Chief Inspector. However, a formal adoption into regulations as proposed is desirable to strengthen the rigorous implementation and enforceability of the standard. Such regulations would fall under the umbrella of the Dangerous Goods Bill, which is awaiting approval from Cabinet (see above).

CONSULTATION

Consultation on the intended reforms has been extensive. The first public comment phase was initiated in September 1999 with the release of a discussion paper. The matters raised in the subsequent submissions were summarised in the widely distributed *Response to Submissions*. The matters raised by the submissions have been taken into account in developing the Drafting Instructions.

A second public comment phase was initiated with the distribution of a paper entitled *The Intent of the Dangerous Goods Bill*. This paper assisted the public and industry to make meaningful comment specifically on the contents of the proposed Bill and the Drafting Instructions.

A Dangerous Goods Legislative Advisory Committee was established to examine the submissions and amend and finalise the Drafting Instructions. Major stakeholders that are represented on the Dangerous Goods Legislation Advisory Committee include:

- Chamber of Minerals and Energy
- Chamber of Commerce and Industry
- Department of Environmental Protection
- Fire and Emergency Services Authority of WA
- Plastics and Chemicals Industries Association WA
- Unions WA
- WA Farmers Federation
- WA Municipal Association
- WorkSafe WA

AMENDMENTS TO THE TRANSPORT OF EXPLOSIVES REGULATIONS

Following extensive consultations by the end of June 2000, amendments to the Dangerous Goods (Transport) (Explosives by Road and Rail) Regulations 1999 were being finalised with the intention to proclaim and gazette in August 2000:

- Adoption of the Australian Explosives Code
- Relaxation of certain licensing requirements for drivers of small quantities of low-hazard explosives
- Exclusion of explosives from the Graham Farmer Tunnel

Adoption of the Australian Explosives Code

In March 2000, the Commonwealth Government published the second edition of the *Australian Explosives Code*.

This Code provides a uniform basis for Commonwealth, State and Territory legislation on the transport of explosives. The second edition is being adopted by all Australian jurisdictions.

Output 11

A system for regulating the storage, handling and transport of dangerous goods**Relaxation of certain licensing requirements**

The Department has been made aware, by the fireworks industry, of the difficulty in transporting fireworks interstate for legitimate displays in Western Australia.

In order to address these problems concerning the transport of small quantities of low-hazard explosives (including propellant powder, toy rocket engines and emergency signalling devices), it was decided to exempt drivers from the licensing and authorisation requirements. This action will not diminish public safety and is in harmony with national practice.

Explosives banned from Graham Farmer Tunnel

During 1999-2000, it was proposed to give regulatory force to the current determination by the Director of Explosives and Dangerous Goods to exclude placarded loads (all but small quantities of explosives) from the Graham Farmer Tunnel. Essentially, nothing changed for the industry as placard loads of dangerous goods were already banned from entering tunnels by authority of the determination.

Regulations will remove any legal uncertainty and bring the necessary degree of clarity and transparency to this requirement.

DANGEROUS GOODS ACCIDENTS

There was a reduction in accident rates in most categories of explosives and dangerous goods administered by the Department. The biggest improvement was in storage accidents which fell from 22 the previous year to eight, while explosives accidents also dropped from four to one during the same period. However, the number of transport accidents increased by two to 26, including three petrol tanker roll-overs.

The first two transport accidents of the year, and the incidents that received the most media attention, were two fuel tanker roll-overs in Beckenham and Ellenbrook in January 2000.

Since then, a further fuel tanker roll-over occurred approximately 60 kilometres east of Albany. Fortunately, none of the accidents resulted in fire or serious injuries. However, all three led to significant clean up costs and disruption to traffic.

The incidents have been investigated by both the Department and police, and all have been attributed to the driver choosing an inappropriate speed for the road conditions. Consequently, the Department is reviewing legislation to see whether there is a need for further measures to be put in place to prevent a recurrence. One option is the installation of roll-over monitoring systems in dangerous goods vehicles. These systems consist of sensors placed on vehicles to provide an audible warning to the driver once a percentage of the vehicle stability threshold is reached. The monitoring of vehicle stability is also recorded in an on-board computer, which provides a record of stability performance on any particular trip. Another option being considered is to apply more stringent experience prerequisites to the issuing of bulk dangerous goods driver licences.

MAJOR HAZARD FACILITIES

There are currently 28 premises classified as Major Hazard Facilities (MHF) in Western Australia. Most of these facilities are finalising their Safety Reports required under the National Standard for the Control of Major Hazard Facilities.

In recognition of its priority MHF functions, the Division underwent a restructure in May 2000. This resulted in the formation of the Major Hazards Branch, which deals predominantly with MHF and land-use planning in the vicinity of MHF. The aim of the Branch is to ensure MHF are operating safely and that there is a high level of community and industry confidence in the operations. Inspection emphasis is placed on compliance with the National Standard, consultation with the community by the industry on the operation of MHFs, and interaction with other Government agencies in relation to land-use planning.

The Department is also planning to apply the National Standard to explosives storage and manufacturing facilities that meet the threshold criteria, as well as mine sites that have the potential for significant off-site impacts. This will provide further assurance that measures are in place to minimise the risk associated with MHF on mine sites or those facilities that are storing and handling explosives in significant quantities.

COOPERATION AGREEMENT WITH WORKSAFE WA

The Division worked with WorkSafe WA throughout the year to formulate a cooperation agreement to guide the management of accidents, incidents and enforcement issues of common interest to the two authorities. The agreement sets out efficient and effective relationships between the Explosives and Dangerous Goods Division (Explosives) and WorkSafe WA in areas of overlapping legislative responsibility.

The legislation overlaps in the area of chemical hazards arising in and from the workplace in those instances when Dangerous Goods are also classified as hazardous substances. Hazardous substances are controlled under regulations associated with the Occupational Safety and Health Act 1984.

Encouraging such cooperation increases the efficiency of both authorities and assists industry and the community by clarifying the authorities' roles.

MEMORANDUM OF UNDERSTANDING WITH ENVIRONMENTAL PROTECTION AUTHORITY

The Department and the Environmental Protection Authority (EPA) have agreed to a Memorandum of Understanding in order to clarify existing arrangements designed to safeguard the public concerning the safety threats emanating from dangerous goods involved in new industrial development proposals.

The Department will continue to advise the EPA about the risk levels of chemicals. This advice will occur not only when the EPA contacts the Department, but also when the Department actively alerts the EPA of certain proposals that are likely to pose significant risks to the public. In this manner, the EPA can initiate the appropriate process for environmental risk evaluation.

STRATEGIC DIRECTIONS FOR EXPLOSIVES AND DANGEROUS GOODS DIVISION

The Department anticipates the next five years should witness a significant change to the regulations of dangerous goods safety.

Through 1999-2000, the Division has laid foundations for major transformations in the way it conducts business. Changes are being made to the Dangerous Goods and Explosives Information System (DEXIS) to facilitate electronic payment of funds and give licensees more access to their licence details.

Staff within the Inspectorate are also being further trained in auditing, which will ultimately result in a smaller and more efficient Inspectorate, as inspections become a reduced part of the Department's role.

However, it is likely the industry will require more technical expertise from the Department. As a result, the Department's role is increasingly shifting to that of trainer and advisor, particularly with regard to training third party assessors and external inspectors. The extensive management training in the Department is currently paying off as inspectors are now increasingly monitoring and overseeing third party auditors to a greater degree than in the past.

Training will continue to be a major part of the Department's budget as new legislation is developed. This will ultimately allow for performance-based regulations and codes of practice that place more responsibility for safety on industry.

Audited Key Performance Indicators

OUTPUT

11. A system for regulating the storage, handling and transport of dangerous goods

EFFECTIVENESS

Community confidence

The primary aim of this Output is improving community confidence in public safety with respect to dangerous goods. The Department of Minerals and Energy has responsibility, under the Explosives and Dangerous Goods Act 1961 and the Dangerous Goods (Transport) Act 1998, for public safety in the handling of dangerous goods during storage and transport.

The traditional regulatory and policy approach of the Department's administration is gradually being phased towards a system that places more responsibility on those operating within the dangerous goods industry. This shift is aimed at improving community confidence in public safety with respect to dangerous goods in Western Australia.

The Department has surveyed community confidence levels four times over the past five years and the results are showing a slight upward trend. This year, the same survey was run in Victoria to try to put the State's performance into a national context. The community confidence level in Victoria was 61 per cent.

Percentage of population confident in dangerous goods management

| June 1996 | June 1997 | June 1998 | June 2000 |
|-----------|-----------|-----------|-----------|
| 59% | 63% | 61% | 65% |

The Department will continue its strategy of working on the identified drivers of community confidence: knowledge of the rules and regulations, and ensuring that the regulations are followed. In the coming year, more resources will be put into suburban inspection work.

The effectiveness of the Department's dangerous goods regulatory Output is indicated by the:

- Degree to which the regulations are being followed as measured by the level of compliance with the standards of the Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992 and the Dangerous Goods (Transport) (Road and Rail) Regulations 1999 (5.1)
- Level of safety in dangerous goods storage and transport activities, as displayed by the accident record (5.2)

5.1 Compliance with safety standards

5.1.1 Compliance with safety standards in the transport of dangerous goods

Although the compliance levels observed in 1999-2000 appear to be significantly below those measured in previous years, the data analysis used to determine this year's compliance levels has been modified to eliminate bias associated with:

- Inspection of bulk dangerous goods vehicles only, which display higher compliance levels than packaged dangerous goods vehicles
- Inclusion within the sample of licensing inspections of new dangerous goods vehicles (which are not good indicators of on-road compliance)
- The use of inappropriate vehicle types within the sample (e.g. prime movers used to provide compliance figures on load restraint and trailers used to provide compliance figures on documentation)

Consequently, the performance figures for 1999-2000 cannot be validly compared with those for previous years.

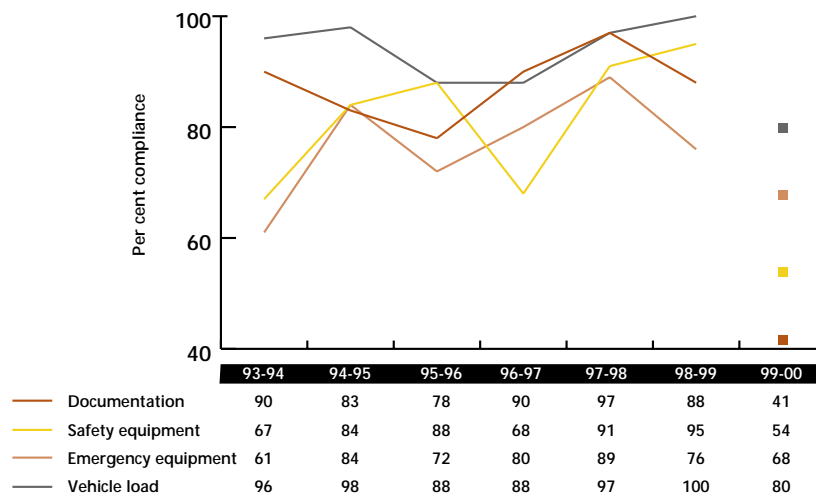


Figure KPI 5.1.1 Compliance with standards for transport of dangerous goods

Note: Data has not been sourced from an interrogation of the DEXIS licensing database as conducted in previous years for reasons discussed above. The sample is of transport inspections conducted at transport depots, roadblocks and joint police operations during the 1999-2000 financial year.

Data relates to non-compliances detected during inspections and it should be noted that if two elements of non-compliance are detected within the same compliance measure category (e.g. emergency equipment), only one non-compliance for that category is registered for overall compliance percentages.

Audited Key Performance Indicators

5.1.2 Compliance with safety standards in the storage of dangerous goods

The level of compliance with regulations observed at premises where dangerous goods are stored and handled.

The measures indicate a positive trend for increased safety.

Although compliance levels observed at the premises have decreased slightly from the 1998-99 results, it must be noted that the focus of inspections conducted during 1999-2000 has been on high-risk premises, such as warehouses, previously identified poor compliance sites and other high-risk sites that are just below Major Hazard Facility status.

When comparing the 1999-2000 results with similar samples with high-risk bias (e.g. 1996-97 and 1997-98), it can be seen that compliance levels have continued to rise.

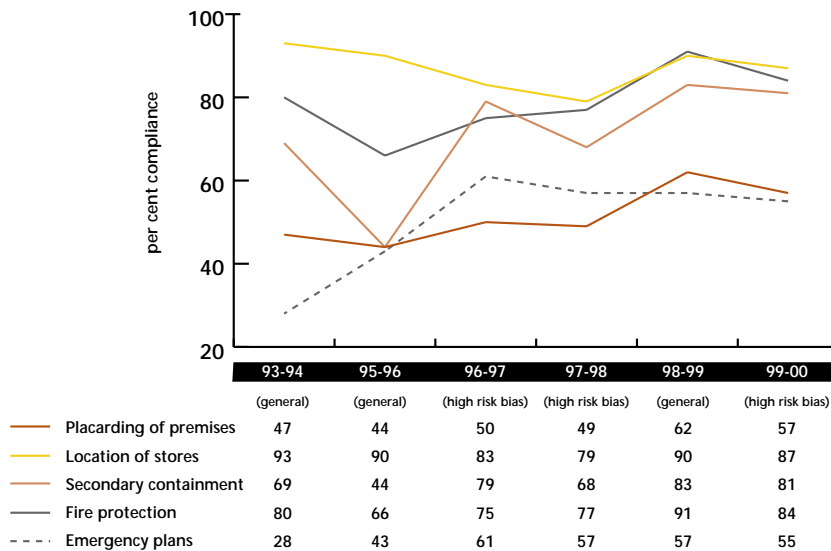


Figure KPI 5.1.2 Compliance with standards for storage of dangerous goods

Note: Data has been sourced from an interrogation of the DEXIS licensing database, and in particular, inspections of 216 storage sites conducted in the 1999-2000 financial year.

Data relates to non-compliances detected during inspections and it should be noted that if two elements of non-compliance relating to the same measure of safety are detected at a particular storage site (e.g. fire protection), only one non-compliance for that category is registered for overall compliance percentages.

*1994-95 data is excluded due to figures being unrepresentative as a result of a special program to focus on chlorine storage installations previously unregulated prior to April 1993.

5.2 Safety record

The safety record is illustrated by the number of accidents reported to the Department during the year for the storage, handling or transport of dangerous goods.

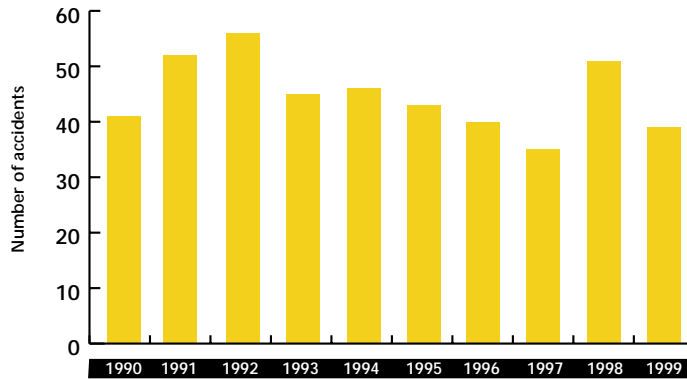


Figure KPI 5.2 Safety Record

Accident numbers reported over the past 10 years have varied between 35 and 56 per annum. During 1999, there were only 39 accidents, the second lowest level since 1990. This improved level was achieved through a concerted effort by all parties in the dangerous goods industry.

| Efficiency Measure | Result | | |
|--|---------------|---------------|-----------------|
| | 1997-98 \$ | 1998-99 \$ | 1999-2000 \$ |
| Output 11: A system for regulating the storage, handling and transport of dangerous goods | | | |
| Average cost per storage site of administering the Explosives and Dangerous Goods Act 1961 | 278 | 264 | 285 |
| The average annual cost per storage site subject to dangerous goods regulations is calculated as the total cost for dangerous goods site regulation divided by the number of sites at the end of the year. | | | |

Endeavouring to meet the needs of both customers and staff is a primary philosophy at the Department of Minerals and Energy. The aim is to create and maintain a safe and healthy working environment that provides better opportunities for advancement of individuals within the Department, customers and the State of Western Australia.

AT A GLANCE

During the year 1999-2000, the Department has:

- Developed a number of new electronic information systems to service the information needs of industry
- Established an Occupational Safety and Health Coordinator position
- Inaugurated a Staff Consultative and Improvement Committee

MEETING CUSTOMER NEEDS

ECONOMIC POLICY

The major focus of policy work in 1999-2000 was in the area of mineral royalties, including ongoing work on vanadium and gold royalties. This resulted in the conclusion of work by an interdepartmental working group to examine anomalies in the base metals royalty system, and implementation of the changes through Cabinet and finally into law.

Work continued on a response to the State's National Competition Policy objectives, including reviews of the Mining Act 1978 and Petroleum Pipelines Act 1969. The Department also made contributions to Treasury for input to the Commonwealth Grants Commission 1999 Review, gave consideration to international treaties and Commonwealth Foreign Investment Review Board proposals, and made submissions for regional Cabinet meetings and meetings between the Government and Chamber of Minerals and Energy.

The Department provided representation on the Western Australian Greenhouse Council and

comments on the National Greenhouse Strategy document. The Department was also represented on the Industry and Waste Management, Fuel Supply, Land-use and Emission Trading Technical Panels.

Two editions of the *Statistics Digest*, the flagship statistics publication on the State's mining industry, were produced and the resources focus sections of the Digest were published in an easily accessible format on the web at www.dme.wa.gov.au/statistics/resourcefocus99/index.html. The Digest contains official figures on output, employment and exports from the State's mining and petroleum industry, and also analyses them in an international and national context.

CORPORATE COMMUNICATIONS AND MARKETING

The role of Corporate Communications and Marketing Branch is to:

- Improve internal and external communications
- Improve understanding of the Department's role in developing and regulating Western Australia's minerals, petroleum and dangerous goods industries
- Improve understanding of the role of the mining and petroleum industries in the context of balancing the community's economic and environmental needs

The Branch supports many of the initiatives undertaken by the Department in addition to carrying out core activities such as media liaison, Ministerial speech writing, issues management, developing and maintaining corporate image, and writing and producing a range of Departmental publications and products.

CORPORATE PLANNING AND REVIEW

Corporate planning saw a change of guard during the year and consolidation on previous work-in-progress associated with implementing the Department's new Output Based management structure.

Several planning workshops were undertaken during 1999-2000 to initiate and maintain the newly restructured Corporate Division. The new Policy, Planning and Services Division was formed in mid-1999, under the direction of the Deputy Director General (Policy, Planning and Services), with a plan to implement a strong customer-service focused centre.

A review and update of the Corporate Statement in early 2000, together with presentations to all staff by the Director General, resulted in an improved level of staff awareness and understanding of the Department's importance. The new statement places a significant emphasis on corporate goals while retaining a strong business goal focus.

A Corporate workshop held in March 2000 began implementing improvements under the themes: Customer Service Focus, An Employer of Choice, Productivity-Driven Organisation and An Action Organisation.

An annual review of strategic plans highlighted possible improvements in defining the Department's objectives, strategies, risks, measures and milestones.

The Department achieved a five per cent productivity milestone improvement for the year and is reviewing the future productivity model to achieve improved alignment of business and corporate goals with productivity initiatives.

FINANCIAL MANAGEMENT

During the year, the Department sought customers' views on the services provided and as a result, several strategies have been introduced to enhance service delivery.

Improvements in financial management have focused on reviewing and re-engineering purchasing, payables and receivables processes, and the development of a financial data warehouse linking payroll, accounts payable, purchasing and general ledger financial data. The system is web-enabled and integrated with the

Department's Intranet environment, thereby enabling users, through their desktop computers, to view personal salary, non-salary and commitment data.

New procedures better utilise the functions and controls of the existing financial system for purchasing and payables. This includes the process of electronic approvals of requisitions, purchase orders and invoices. These new procedures are a precursor to upgrading the financial systems to an Intranet base that will provide a web-based procurement-to-payment solution. The streamlining of the accounts payable and receivable processes will realise improvements in efficiency. Managers will be more directly involved in accrual-based management and budgeting within their business units.

All nine regional centres have had their old cash registers updated with a computerised point-of-sale system. This new system not only performs the function of a cash register for revenue and goods and services tax (GST), but also enables details to be downloaded daily to the general ledger, thus eliminating manual processing.

New guidelines are being developed to improve the Department's performance in contract management. This will build on current controls and further reduce the operational risks.

The introduction of the GST on 1 July 2000 was achieved in the Department through a taxation compliance project team. Modifications were instituted in legislation, financial information systems and accounting processes to comply with the new tax. Supply functions and procedures were also reviewed and enhanced to accommodate the new tax requirements.

Extensive audits of the Supply Section throughout the year have confirmed a high standard within the Quality Assurance framework.

Whilst accrual budgeting and the introduction of a capital user's charge have been deferred by

Treasury until 2000-01, the Department has already put in place training and reporting to meet these requirements. During 2000-01, Divisions within the Department will manage financially on both an accrual and cash basis. A user guide to the accrual reports is being developed, which will complement the ongoing training and management accounting advice provided to Divisions during 2000-01.

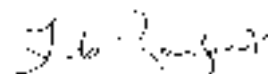
RISK MANAGEMENT

Throughout the year, work has continued within Divisions on monitoring and updating risk profiles and treatment plans. Ongoing work by various risk management committees and project teams has resulted in the production of updated documentation of risk management policies and practices.

Extensive work has continued on the corporate risk areas by the various action teams, which obtain direction from, and report to, the Department's Corporate Directorate.

Statement of Compliance with Treasurer's Instruction 109

The Department considers the requirements of Treasurer's Instruction 109 have been met by way of ongoing, soundly-based risk management practices within all its operational areas and continuous monitoring of these endeavours by the Corporate Executive.



L C Ranford
DIRECTOR GENERAL

INFORMATION SYSTEMS AND SERVICES

The constantly changing trends in information technology (IT) continue to present major challenges and opportunities. This has required the Department to continually explore and introduce measures to ensure maximum benefit is obtained from its IT investment. These include investigating benefits from the standardisation and leasing of computers, to innovations in the management and coordination of IT initiatives across the organisation. The Department has also expanded its use of new web-based technology including the implementation of an electronic bookshop providing a one-stop shop to external customers wishing to purchase Departmental books and publications via the Internet.

Further important achievements in the Department's outsourced IT services contract for enterprise server operations, network support and maintenance, mid-range systems and desktop services were achieved during the year. Corrective measures introduced in 1998-99 because of budget over-runs and service level concerns during the initial contract continued in 1999-2000, resulting in costs being kept within budget, improved service delivery and more effective monitoring of expenditure.

The Information Services Branch was also involved in introducing, developing or upgrading the following Departmental systems:

- New Mineral Title System (MiTiS)
- New Mining Operations Audit Management System (MODAMS)
- Next generation of the Mine site Contaminant Monitoring System (CONTAM)
- Petroleum Titles Management System (PETMAN)

Another significant milestone was the successful upgrade of e-mail and desktop facsimile software to newer standard integrated software. Continuing integration of e-mail, desktop facsimile and voice messaging software, with a target for completion during 2000-01, aims to provide a more responsive service to the

Department's customers. When fully implemented, these systems are expected to generate greater internal efficiencies.

The Department's information systems are provided via a mix of mainframe and non-mainframe-based computing facilities. A review has been launched to examine the potential benefits of moving to a completely non-mainframe computing environment, both from a cost and longer-term strategic perspective.

Risk management initiatives have been undertaken during the year to ensure the Department's critical business information systems meet service level requirements. A disaster recovery site is now in place for enterprise server/mainframe-based services. The Department, in close association with the service provider, is now addressing issues associated with the distributed, non-mainframe-based computing infrastructure.

Significant effort during the year resulted in the Information and Records Services section developing quality documentation for all areas of its operations. A comprehensive information audit, which commenced in 1999-2000, precedes a major upgrade of the Department's record system, including the improved management of electronic documents.

The expected introduction of State legislation closely mirroring the Commonwealth Electronic Transactions Act 1999 is being incorporated into revised information technology plans for the Department's business units. Effectively, the legislation establishes, with some exceptions, parity between paper-based and electronic transactions. Other legislation expected to significantly affect the Department is the proposed State Records Bill 1999.

YEAR 2000 TRANSITION

Review, planning and remedial efforts ensured the Department's systems and services continued without incident into 2000. Contingency plans were implemented, providing additional levels of assurance during the transition period.

CUSTOMER SERVICE PROJECT

Customer Service Charters

New Customer Service Charters began development to provide customers and staff with a strong focus for the delivery of customer service. The charters cover:

- Mineral Industry
- Petroleum Industry
- Explosives and Dangerous Goods

A more effective complaint-handling system is being developed.

Departmental Customer Centre

Another major initiative was the development of Departmental Customer Centres to provide integrated modern customer facilities through which customers can purchase publications, access information and conduct business. A main feature of the centres will be the use of web technology to provide customers with easy access to publications and services regardless of their location.

Advantage was taken of security changes at Mineral House to relocate all customer service facilities in the building, including the library, to the ground and first floors. Services previously carried out by the Petroleum, and Explosives and Dangerous Goods Divisions were also relocated to the Mining Information Centre. The Perth Wardens Court was relocated to the Central Law Courts and the space converted to a general-purpose seminar room. These changes form the basis of the Mineral House Customer Centre.

A concept plan was also developed for a Kalgoorlie Regional Complex to be located at the site of the Department's new JH (Joe) Lord Drill Core Library. All the Department's operations in Kalgoorlie will eventually be relocated to one site, providing customers with a modern and integrated customer service centre.

The opening of a new Mining Registrar's office in Karratha at the beginning of 2000, in the same premises as the Regional Mining Engineer, will improve services to the Karratha Region.

Regional Customer Service and Development

The Department has a strong focus on and commitment to regional areas to meet the goals of the Regional Development Council's Regional Development Policy Strategy and five high order objectives for regional customers by:

| | Regional Development Policy Strategy Supported |
|--|--|
| - Maintaining thirteen regional offices throughout the State to service the industry and public and upgrading the Karratha office to better service the Pilbara region | 2.2.1, 3.2.4, 6.4.1 |
| - Providing Internet access to the key information systems (such as TENGRAPH®) | 2.2.1, 2.2.7 |
| - Providing a Telecentre in Sandstone with access to departmental systems to support prospectors in the region. | 2.2.1, 2.2.7 |
| - Establishing the new JH (Joe) Lord Drill Core Library in Kalgoorlie and developing the concept for a DME regional complex | All five objectives |
| - Geological mapping programs focusing on onshore petroleum reserves and identifying geological features to create increased world interest in regional areas | 3.2.4 |
| - Undertaking an inventory of abandoned mine sites to enable regional safety and rehabilitation issues to be addressed | 6.4.1 |
| - Promotion of mine safety through regional newspapers, radio and TV | 3.2.4, 6.4.1 |
| - Consultation with regional Aboriginal communities, Chamber of Mines, and WA Farmers Federation in respect to mining and explosives and dangerous goods issues | 6.4.1 |

Key to the Regional Development Council's Five High Order Objectives

- 2.2.1 Regional customers have equitable (in comparison to Perth) access to services provided
- 2.2.7 Regional customers are informed of the services available to them
- 3.2.4 The organisation used regional suppliers
- 6.2.3 The organisation supported local planning processes
- 6.4.1 The organisation consulted with regional communities about the effects of proposed changes

Customer satisfaction surveys

Increasing use of customer surveys, to measure the Department's performance and obtain customer feedback, has resulted in the development of an effective customer survey process.

An in-house seminar introduced selected staff to survey fundamentals and covered such topics as survey instrument design, selection of survey sample and analysis of survey results. External providers were used to conduct surveys that support Key Performance Indicators.

Departmental customer survey standards are being developed.

PUBLICATIONS AND INFORMATION

A wide range of publications and information relating to the mineral, petroleum, and explosives and dangerous goods industries are available from the Department, either in printed

or digital form, and online at the Department's website (www.dme.wa.gov.au). The public can also access a new online bookshop launched during 1999-2000, to order many of the Department's publications and maps.

This year, the Department produced the inaugural *Western Australian Onshore Opportunities* booklet, which highlights the vast onshore prospectivity of the State and provides the petroleum industry an insight into what the State has to offer.

Most of the Department's publications and information services are free and available from the Customer Service Centre on the first floor of Minerals House, 100 Plain Street, East Perth.

The Customer Service Centre also sells and distributes Departmental maps and products and provides the public with computer access to Departmental electronic information systems, such as TENGRAPH® and TENDEX®.

The Department also provides a library service, which is now located on the first floor, close to the Customer Service Centre, to provide easier access to the public. The library contains Departmental publications, including geological maps and reports, and provides facilities for viewing non-confidential exploration data from the minerals and petroleum industry.

Publications produced by the Department cover many topics including:

- **Mineral and petroleum exploration and resource access** e.g. Information Series on mineral prospecting and exploration under the Mining Act 1978
- **Safety in mineral exploration and production** e.g. *Minesafe* magazine, which promotes mining industry safety and health issues. Published quarterly
- **Environmental issues affecting mineral exploration and production** e.g. *Rehab Blab*, which provides information about mine site rehabilitation. Published twice yearly
- **Petroleum exploration and production** e.g. *Petroleum in Western Australia*, a biannual publication that contains information about all aspects of the State's petroleum exploration and production industry
- **Geological, geophysical and geochemical maps and publications** e.g. 1:100 000 seamless geological map of the Kalgoorlie area, resource studies, inventory of mineral deposits and occurrences
- **Mineral tenement maps** and various thematic maps relating to mining and other land-use applications in Western Australia
- **Explosives and dangerous goods** e.g. Annual publication of *Summary of Accident Reports* under the Explosives and Dangerous Goods Act 1961, which records the nature of incidents, and the cause and consequence of each incident and *Explosay* the dangerous goods newsletter
- A range of **educational material**, including a series of fact sheets on the minerals and petroleum industry

- Comprehensive **statistical information** on the Western Australian mining and petroleum industries e.g. the *Statistics Digest of mineral and petroleum production in Western Australia*
- **Departmental** Annual Reports, Handbook and newsletter

ADVERTISING AND PROMOTIONS

Expenditure related to advertising and market research organisations

This report is made in compliance with Section 175ZE of the Electoral Act 1907.

During 1998-99 the Department expended a total of \$436 433 with advertising and market research organisations, dispersed as detailed below.

| | |
|--|------------|
| <i>Advertising agencies</i> | \$436 433 |
| Adcorp Australia | 7 311 |
| Advans Exhibition Service | 2 455 |
| ANZ Cards | 15 067 |
| Australian Geological Convention | 9 435 |
| Commonwealth Bank of Australia | 3 819 |
| Deloitte Touche Tohmatsu | 3 000 |
| Discus | 5 454 |
| Goldfields Mining Expo | 2 300 |
| Kings Park Function Centre | 8 165 |
| Marketforce Productions | 281 016 |
| Media Decisions WA | 8 142 |
| Ministry of the Premier | 2 814 |
| Morgan and Banks Ltd | 45 080 |
| Novotel Langley Perth | 2 960 |
| Petroleum Exploration Society | 2 460 |
| State Law Publisher | 20 696 |
| The Centre for Business Solutions | 5 058 |
| The Plastic Sandwich Company | 2 768 |
| Other (<\$1 500 total for each agency) | 8 433 |
| <i>Market research organisations</i> | <i>Nil</i> |
| <i>Polling organisations</i> | <i>Nil</i> |
| <i>Direct mail organisations</i> | <i>Nil</i> |

Note: The increase in advertising from last year is largely due to the lifting of the moratorium on Native Title advertising.

FREEDOM OF INFORMATION

For details of the Department's Freedom of Information process or an Information Statement, please contact the Department's Freedom of Information Officer on 9222 3100, or by writing to Mineral House, 100 Plain Street, East Perth 6004.

INTERNAL AUDIT

The 1999-2000 Internal Audit program paid particular attention to key control issues identified in the Department's Risk Management Review. These included the treatment of risks

common to all business units, such as information technology controls and contract management.

Further reviews were carried out on the business continuity plans developed by the business units as well as the standard operational audits associated with financial and information-based systems.

As in previous years, 90 per cent of the lower-risk compliance audit work was contracted to a private accounting firm.

MEETING STAFF NEEDS**HUMAN RESOURCE MANAGEMENT***Statement of Compliance with Public Sector Standards*

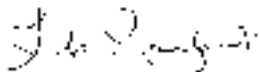
In the administration of the Department of Minerals and Energy, I have complied with the Public Sector Standards in Human Resource Management and the Western Australian Public Sector Code of Ethics.

I have:

- Maintained a self-assessment program through the Department's internal auditor
- Continued to develop policies and guidelines that have been made available to staff in both hard copy and electronic form
- Further developed checks and controls for the Standards, in particular the Recruitment, Selection and Appointment Standard

Applications made for breach of Standards review and the corresponding outcomes for the period are:

| | | | |
|-------------------|---|---------------------------|---|
| Number lodged | 2 | Applications under review | 0 |
| Breaches found | 2 | Multiple breaches | 0 |
| Material breaches | 2 | | |



L C Ranford
DIRECTOR GENERAL

Staffing

The Department had 602 staff at the end of 1999-2000, of whom 20.1 per cent were on fixed-term contracts. People employed on fixed-term contracts were contracted to undertake tasks of a limited duration on the basis of either finite levels of funding, or for specific projects.

Turnover for permanent staff for the year to date has been 5.4 per cent and 22.5 per cent for contract staff.

Employment Contracts and Industrial Issues

Action commenced in the second half of 1999-2000 to develop new Enterprise and Workplace Agreements for the period 2000-02. Both agreements reflect updated productivity models and enable the Department to continue implementing its new productivity management model focused on business outputs.

Work and Family Issues

The Department continues to offer conditions of employment that allow staff to balance work and family life. Part-time and home-based work have been utilised by a number of employees, and the carer's room has permitted staff to carry out their duties at Mineral House while looking after a family member.

Equal Opportunity

The Department's Equal Employment Opportunity (EEO) and Diversity Management Plan, which was reported in the 1998-99 Annual Report, has been singled out for commendation by the Director of the Office of Equal Opportunity in Public Employment and is included in that agency's 1998-99 Annual Report. The Department has commenced a comprehensive review of the effectiveness of the Management Plan and it is intended that an updated plan will be in place early in 2001.

Equal Employment Opportunity awareness training was undertaken throughout the Department during the past year and the recruitment and selection processes, reflecting an equity approach, are continually changing.

The Grievance Management and Contact Officer System has allowed employees to raise items of a sensitive nature and ensured that these issues have been carefully handled to a satisfactory conclusion for employees. The EEO and Diversity Steering Committee has monitored the implementation and progress of this system.

Occupational Safety and Health

A report from the Industrial Foundation for Accident Prevention (IFAP) led to the establishment of a position of Occupational Safety and Health Coordinator for the Department. This senior role was filled in July 2000 with responsibility to develop, implement and coordinate all aspects of the Department's Safety and Health Management Plan as well as provide technical advice on matters related to occupational safety and health.

Workers' Compensation

During the year there were nine claims for workers' compensation, all of which were accepted. This was a decrease of five compared with the previous year.

The Lost-Time Injury/Disease Rate (number per million hours worked) for the year was 5.80. The estimated cost of claims was \$0.26 per \$100 payroll and the premium was 0.46 per cent.

Employee Development

Improvements continue to be made to the Performance Enhancement Program (PEP), including the establishment of a process that allows an employee, who is aggrieved in relation to their formal assessment rating, to have a panel review their claim. A major review of PEP and the associated bonus payment will occur in the first half of 2000-01.

The Principles of Management workshops have continued successfully and the Department has been involved in two pilot workshops of the Covey 'Seven Habits of Highly Effective People' program, with a view to increased understanding of the personal effectiveness of expected behaviours.

STAFF CONSULTATIVE AND IMPROVEMENT COMMITTEE (SCIC)

In April 1999, the Corporate Executive endorsed forming an independent group to represent staff in discussions with the directorate on issues affecting employees. The group consists of a cross-section of staff levels of elected representatives from the operating divisions and regional areas. The chairperson attends Corporate Executive meetings to provide direct input. Elections occurred in May and the 14-member committee had its inaugural meeting on 9 June 1999.

The Staff Consultative and Improvement Committee's (SCIC) mission is to:

- Foster improved communications and relationships between senior management and staff within the Department and to facilitate evolutionary change
- Facilitate improvements in productivity, workplace flexibility and efficiency, employee fulfilment and customer service

The Committee identified five goals that would provide general improvement:

- Communication
- Productivity and the development of a better Work Place Agreement
- Equity to training, assessment, and promotion
- Motivation by empowerment and trust
- Influencing decisions and policies

To address these goals, the Committee developed three working groups for Communication, Performance Assessment and Productivity and Workplace Agreement.

In its inaugural year, SCIC was successful in all areas, most noticeably in productivity, with staff providing 85 suggestions through SCIC, which assisted the Department in developing the new Work Place Agreement. Communication has improved, with many issues attracting comments from a wider audience. SCIC is now

operating as an integral part of the Department, providing an alternative view to management on many issues that will benefit staff and customers.

FACILITIES SERVICES

The Facilities Services Branch applies continuous process improvement principles to the development of policies, information systems, administrative procedures and processes. During the year, an enhanced electronic Building Service Request System was implemented and the matrix of the building-related occupational safety and health (OSH) responsibilities of Departmental managers was reviewed and updated.

The Branch continued to increase its customer service focus. A customer service survey conducted during the year provided a quantitative basis for measuring performance and identified several areas in which it can be improved.

Key staff have completed training in Complex Procurement – Certificate IV of the Public Sector Procurement and Contracting Program, as well as training in Strategic Asset Management, Space Planning, OSH and other facilities areas.

Disability Services

In accordance with its Disability Services Plan, the Department has continued to customise its services and facilities to ensure access by people with disabilities. The plan takes into account the requirements of disabled persons with respect to existing facilities, refurbishment programs and in the design of new facilities.

During the year, a ramp was installed at the Leonora Mining Registrar's Office. As areas within the Mineral house Complex are refurbished, service and passageways are being widened to facilitate toilet access for disabled persons. At the new Geological Survey Regional Headquarters and Drill Core Library in Kalgoorlie, level access and toilets for disabled persons have been

incorporated into the design of the complex, which was ready for occupation at the end of the year.

Energy Management

Following investigations into power tariffs and costs, and subsequent discussions with Western Power, a decision was taken to switch to an alternative tariff, generating significant savings, furthering energy cost reduction.

Monitoring of the Department's energy management performance through the 'One-to-Five' program of Western Power Energy Services has shown a 50 per cent improvement during the year.

A detailed energy audit conducted and funded by the Office of Energy has prioritised energy management strategies and initiatives that will be implemented in order of feasibility.

OUTPUT PERFORMANCE MEASURES

This section reports the results for performance measures cited in the 1999-2000 Budget Papers, but the format reflects the current format used in the 2000-01 Budget Statements. The new Output measurement system was put in place for the 1999-2000 Budget.

OUTCOME 1: OPTIMUM USE OF LAND AND RESOURCES

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|-----------------------|---------------------|--|
| Output 1: A system for the grant and maintenance of titles to explore for and mine minerals | | | |
| QUANTITY | | | |
| Customer information services (counter-based) | 72 500 | 59 597 | |
| Title applications processed (Mining Act) | 4 200 | 2 680 | |
| Title monitoring and dealing services | 42 000 | 31 827 | |
| QUALITY | | | |
| Customers satisfied with information services | 90% | – | Survey to be complete during the 2000-01 year. The survey was not done during this financial year. |
| Titles issued in compliance with statutory procedures | 100% | 99.8% | |
| Compliance with reporting requirements | 92% | 83% | |
| TIMELINESS | | | |
| Average time taken (months) to determine each major title category | | | |
| Prospecting Licences | – | 17 | Impact of Native Title Act 1993 processes. |
| Mining Leases | – | 32 | |
| Exploration Licences | – | 18 | |
| Searches completed within 24 hours | 90% | 93% | |
| Titles processed in target time | 75% | 65% | |
| Monitoring and dealing services registered within 1 month | 90% | 93% | |
| COST | | | |
| Average cost per information service | \$27 | \$36 | |
| Average cost per title processed | \$2 243 | \$3 454 | |
| Average cost per monitoring or dealing service | \$136 | \$179 | |

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|---|--------------------|-------------------------|---|
| Output 2: A system for the grant and maintenance of titles to explore for and produce petroleum | | | |
| QUANTITY | | | |
| Resource assessment and information services (internal units, e.g. resource assessment = 80 points, publication = 25 units) | 428 | 978 | |
| Operations application and monitoring services | 120 | 125 | |
| Title applications processed (exploration = 1 unit; production/retention = 14.5 units; pipeline = 3.5 units) | 287 | 192.5 | |
| Title maintenance application and monitoring services | 1 500 | 1 851 | |
| QUALITY | | | |
| Customer satisfaction with title services | 85% | Ranked 1st in Australia | The Department was ranked first against other similar State and Commonwealth organisations for performance in regulation in an independent national survey. |
| TIMELINESS | | | |
| Customer satisfaction with timeliness of services | 80% | Ranked 1st in Australia | |
| COST | | | |
| Average cost per resource assessment and information unit | \$896 | \$792 | |
| Average cost per operational service | \$1 643 | \$1 451 | |
| Average cost per title application | \$3 126 | \$2 705 | |
| Average cost per title maintenance service | \$634 | \$563 | |

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|---|--------------------|------------------|-----------------------------------|
| Output 3: A geological framework of the State and its resources | | | |
| QUANTITY | | | |
| Weighted total published products (WTPP) | 77.22 | 76.27 | |
| QUALITY | | | |
| Rating (1-5) of product quality by Geological Survey Liaison Committee | 4.0 | 3.9 | |
| Ratio of geoscientific papers published compared to number submitted to international, peer-reviewed journals | 70% | 93% | |
| TIMELINESS | | | |
| Average time for production of 1:100 000 maps released during the year (target: <36 months) | 30 months | 27.5 months | |
| COST | | | |
| Average cost per WTPP | \$204 261 | \$196 289 | |

OUTPUT PERFORMANCE MEASURES

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|--------------------|------------------|--|
| Output 4: An archive of geoscientific and resource exploration data | | | |
| QUANTITY Weighted data transaction units (WDTU). Transactions include data receipt, accessioning, capture, storage and retrieval | 44 796 | 64 286 | Data from several large geophysical surveys were uploaded using a new batch process. |
| QUALITY Rating (1-5) of archive processes by the Exploration Data and Information Sub-Committee of the Geological Survey Liaison Committee | 3.0 | 3.2 | |
| TIMELINESS Open-file reports made available for viewing within 24 hours of request | 100% | 100% | |
| COST Average cost per WDTU | \$44.00 | \$39.43 | |

OUTCOME 2: SAFE AND HEALTHY MINERAL AND PETROLEUM INDUSTRY WORKFORCES

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|--------------------|------------------|-----------------------------------|
| Output 6: A system for regulating and promoting health and safety in the mineral industry | | | |
| QUANTITY Number of operating mines regulated (based on record book numbers) | 600 | 641 | |
| QUALITY Customers with formal safety roles, involvement in safety and health committees or managerial or supervisory responsibilities that are satisfied or very satisfied with services | 80% | - | Measured biannually |
| TIMELINESS Customers (defined as above) who rate timeliness of service delivery as good or very good | 97% | - | Measured biannually |
| COST Average cost per operating mine | \$19 228 | \$17 304 | |

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|--------------------|-------------------------|---|
| Output 7: A system for regulating and promoting health and safety in the petroleum industry | | | |
| QUANTITY Weighted units of audits and assessment | 2 059 | 1 713 | |
| QUALITY Customers satisfied with services | 85% | Ranked 1st in Australia | The Department was ranked first against other similar State and Commonwealth organisations for performance in regulation in an independent national survey. |
| TIMELINESS Customer satisfied with the timeliness of services | 85% | Ranked 1st in Australia | Measured biannually. |
| COST Average cost per unit of audit and assessment | \$1 179 | \$1 004 | |

OUTCOME 3: ACCEPTABLE ENVIRONMENTAL STANDARDS FOR MINERAL AND PETROLEUM EXPLORATION, DEVELOPMENT, PRODUCTION AND PROJECT COMPLETION

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|---|--------------------|------------------|---|
| Output 8: A system for regulating and promoting environmental management in the mineral industry | | | |
| QUANTITY | | | |
| Number of audits of company Annual Environmental Reports (AER) | 265 | 252 | |
| Mine sites regulated (based on record book numbers) | 600 | 641 | |
| New measure: Abandoned mine sites added to the inventory | 5 250 | 8 920 | The initial estimate of 12,000 sites has been revised upwards to 80,000 based on field inspections (*). An average of seven sub-sites per location has been found to exist. |
| QUALITY | | | |
| Customers satisfied or very satisfied with services | 80% | - | Measured biannually. |
| TIMELINESS | | | |
| Customers satisfied with timeliness of service delivery as good or very good | 85% | - | Measured biannually. |
| COST | | | |
| Average cost per mine site | \$2 685 | \$2 430 | |
| Average cost per abandoned mine site identified | \$67 | \$36 | |

* Note: Following the first year's field inspection program, the initial estimate of 12 000 abandoned minesites/locations was revised upwards to 80 000 based on the multiple number of actual sites found to exist at each location (average of seven). The project has focused on the high priority locations near populated areas. With current resources the project is expected to complete the inspection of high priority sites within four years.

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|---|--------------------|-------------------------|--|
| Output 9: A system for regulating and promoting environmental management in the petroleum industry | | | |
| QUANTITY | | | |
| Environmental Management Plans/Reports assessed (exploration = 1 unit; development = 5 units) | 370 | 367 | |
| Environmental Audits (man-audits) | 30 | 36 | |
| QUALITY | | | |
| Customers satisfied with environment services | 85% | Ranked 1st in Australia | The Department was ranked first against other similar State and Commonwealth organisations for performance in regulation in an independent national survey. |
| TIMELINESS | | | |
| Customers satisfied with the timeliness of DME services | 85% | Ranked 1st in Australia | |
| COST | | | |
| Average cost per environmental plan/report assessed | \$1 239 | \$1 429 | Introduction of new legislation and Commonwealth Petroleum Submerged Lands Act (PSCA) regulations coming into effect with associated revised procedures and cost structures. |
| Average cost per environmental audit | \$2 714 | \$3 124 | |

OUTCOME 4: APPROPRIATE RETURNS TO THE COMMUNITY FOR THE EXPLOITATION OF ITS MINERAL AND PETROLEUM RESOURCES

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|--------------------|------------------|---|
| Output 10: A system to establish royalty rates and ensure appropriate royalties are paid when due | | | |
| QUANTITY | | | |
| Issues resolved | 120 | 107 | |
| Royalty returns verified and audited | | | |
| - production value projects | 700 | 866 | Projects with multiple products are now being treated as separate returns. |
| - net value projects | 235 | 213 | |
| QUALITY | | | |
| Number of internal and external audit queries | | | |
| - Minor | 0 | 0 | |
| - Major | 0 | 0 | |
| TIMELINESS | | | |
| Percentage of audits completed within target plan | 95% | 83% | |
| COST | | | |
| Estimated average cost per issue resolved | \$2 646 | \$2 877 | A lot more time has been spent on issues in the past year, including Argyle Diamond and GST for minerals and petroleum. Slightly less resources were used on verifying returns due to this. |
| Estimated average cost per royalty return | | | |
| - production value projects | \$655 | \$513 | |
| - net value projects | \$1 701 | \$1 820 | |

OUTCOME 5: A COMMUNITY CONFIDENT THAT IT IS SAFE FROM HAZARDS ASSOCIATED WITH THE STORAGE, HANDLING AND TRANSPORT OF DANGEROUS GOODS

| | 1999-2000 estimate | 1999-2000 actual | Reasons for significant variation |
|--|--------------------|------------------|---|
| Output 11: A system for regulating the storage, handling and transport of dangerous goods | | | |
| QUANTITY | | | |
| Premises managed | – | 6 182 | |
| Licence renewals | 12 000 | 11 764 | |
| Policy and information service units | 4 160 | 4 615 | |
| Call-centre services | 57 000 | 56 815 | |
| Safety system services, including audits and investigations | 2 015 | 835 | Reduction caused by increasing use of third party auditors. |
| Regulatory enforcement services, including inspections | 1 380 | 1 108 | Some storage and transport inspection activities outsourced to third parties. |
| QUALITY | | | |
| Regulatory enforcement services satisfactorily completed | 70% | 80% | |
| Days per annum that renewals do not go out on time | 8 | 6 | This is an estimate. |
| Complaints regarding standard of advice | 10 | 2 | |
| Safety system services satisfactorily completed | 70% | 80% | |
| Number of caller complaints | 40 | 12 | |
| TIMELINESS | | | |
| Average number of days to process routine (95%) licence renewals | 3 | 2 | |
| Percentage of letters answered within 10 working days | 90% | 90% | |
| Calls answered within 4 rings | 75% | 90% | |
| Regulatory enforcement service actions completed within 20 days | 90% | 85% | |
| Average number of days to deliver majority (85%) of safety system services | 15 | 10 | |
| COST | | | |
| Average cost per regulatory enforcement service | \$132 | \$174 | |
| Average cost per licence renewal | \$14 | \$17 | |
| Average cost per policy and information service | \$174 | \$226 | |
| Average cost per call-centre service | \$17 | \$21 | |
| Average cost per safety systems service | \$390 | \$228 | |



Auditor General

To the Parliament of Western Australia

DEPARTMENT OF MINERALS AND ENERGY FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2000

Scope

I have audited the accounts and financial statements of the Department of Minerals and Energy for the year ended June 30, 2000 under the provisions of the Financial Administration and Audit Act 1985.

The Director General is responsible for keeping proper accounts and maintaining adequate systems of internal control, preparing and presenting the financial statements, and complying with the Act and other relevant written law. The primary responsibility for the detection, investigation and prevention of irregularities rests with the Director General.

My audit was performed in accordance with section 79 of the Act to form an opinion based on a reasonable level of assurance. The audit procedures included examining, on a test basis, the controls exercised by the Department to ensure financial regularity in accordance with legislative provisions, evidence to provide reasonable assurance that the amounts and other disclosures in the financial statements are free of material misstatement and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion as to whether, in all material respects, the financial statements are presented fairly in accordance with Accounting Standards, other mandatory professional reporting requirements and the Treasurer's Instructions so as to present a view which is consistent with my understanding of the Department's financial position, the results of its operations and its cash flows.

The audit opinion expressed below has been formed on the above basis.

Audit Opinion

In my opinion,

- (i) the controls exercised by the Department of Minerals and Energy provide reasonable assurance that the receipt and expenditure of moneys and the acquisition and disposal of property and the incurring of liabilities have been in accordance with legislative provisions; and
- (ii) the Operating Statement, Statement of Financial Position, Statement of Cash Flows, Output Schedule of Expenses and Revenues and Summary of Consolidated Fund Appropriations and Revenue Estimates and the Notes to and forming part of the financial statements are based on proper accounts and present fairly in accordance with applicable Accounting Standards, other mandatory professional reporting requirements and the Treasurer's Instructions, the financial position of the Department at June 30, 2000 and the results of its operations and its cash flows for the year then ended.

C.P. MURPHY
ACTING AUDITOR GENERAL
October 6, 2000

4th Floor Dumas House 2 Havelock Street West Perth WA 6005 Western Australia Tel: (08) 9222 7500 Fax: (08) 9322 5664

| | |
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CERTIFICATION OF FINANCIAL STATEMENTS

The accompanying financial statements of the Department of Minerals and Energy have been prepared in compliance with the provisions of the *Financial Administration and Audit Act 1985* from proper accounts and records to present fairly the financial transactions for the year ended 30 June 2000 and the financial position as at 30 June 2000.

At the date of signing we are not aware of any circumstances which would render any particulars included in the financial statements misleading or inaccurate.



L C Ranford
Accountable Officer



R Browne FCPA
Principal Accounting Officer

13 August 2000

Operating Statement
for the year ended 30 June 2000

| | Note | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|--|------|-----------------------|---------------------|
| COST OF SERVICES | | | |
| Operating expenses | | | |
| Salaries | 4 | 30 958 | 30 275 |
| Superannuation | 5 | 3 233 | 3 635 |
| Depreciation | 6 | 1 912 | 2 110 |
| Administration expenses | 7 | 20 389 | 20 127 |
| Net loss on disposal of non-current assets | 8 | 19 | - |
| Total cost of services | | <u>56 511</u> | <u>56 147</u> |
| Operating revenues | | | |
| User charges and fees | 9 | 9 295 | 11 960 |
| Net gain on disposal of non-current assets | 10 | - | 25 |
| | | <u>9 295</u> | <u>11 985</u> |
| Net Cost of Service before Abnormal Items | | 47 216 | 44 162 |
| Abnormal items | | - | - |
| Net cost of services | | <u>47 216</u> | <u>44 162</u> |
| REVENUES FROM GOVERNMENT | | | |
| Appropriations | 11 | 41 592 | 45 014 |
| Resources received free of charge | 12 | 679 | 739 |
| Liabilities assumed by the Treasurer | 13 | 3 233 | 3 635 |
| Total revenues from Government | | <u>45 504</u> | <u>49 388</u> |
| CLOSING BALANCE ACCUMULATED SURPLUS/(DEFICIT) | | <u>(1 712)</u> | <u>5 226</u> |

Statement of Financial Position
as at 30 June 2000

| | Note | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|------|-----------------------|----------------------|
| CURRENT ASSETS | | | |
| Cash and amounts in suspense | 14 | 8 250 | 11 187 |
| GST input credits | 15 | 24 | - |
| Inventories | 16 | 2 863 | 2 542 |
| Accounts receivable | 17 | 102 | 132 |
| Prepayments | 18 | 290 | 171 |
| Total current assets | | <u>11 529</u> | <u>14 032</u> |
| NON-CURRENT ASSETS | | | |
| Property, plant, equipment and vehicles | 19 | 36 641 | 36 524 |
| Works in progress | 20 | 3 528 | 1 393 |
| Total non-current assets | | <u>40 169</u> | <u>37 917</u> |
| Total assets | | <u><u>51 698</u></u> | <u><u>51 949</u></u> |
| CURRENT LIABILITIES | | | |
| Accounts payable | 21 | 3 539 | 2 430 |
| Accrued salaries | 22 | 636 | 401 |
| GST payable | 23 | 138 | - |
| Employee Entitlements | 24 | 4 159 | 4 327 |
| Total current liabilities | | <u>8 472</u> | <u>7 158</u> |
| NON-CURRENT LIABILITIES | | | |
| Employee entitlements | 24 | 3 605 | 3 462 |
| Total non-current liabilities | | <u>3 605</u> | <u>3 462</u> |
| Total liabilities | | <u>12 077</u> | <u>10 620</u> |
| EQUITY | | | |
| Accumulated surplus/(deficiency) | 25 | 17 788 | 19 496 |
| Asset revaluation reserve | | <u>21 833</u> | <u>21 833</u> |
| Total equity | | <u>39 621</u> | <u>41 329</u> |
| Total liabilities and equity | | <u><u>51 698</u></u> | <u><u>51 949</u></u> |

Statement of Cash Flows
for the year ended 30 June 2000

| | Note | 1999-2000 (\$'000) Inflows (Outflows) | 1998-99 (\$'000) Inflows (Outflows) |
|--|------|--|--|
| CASH FLOWS FROM GOVERNMENT | | | |
| Receipts from capital appropriations | | 1 750 | 3 283 |
| Receipts from recurrent appropriations | | 39 842 | 41 731 |
| Net cash provided by Government | | <u>41 592</u> | <u>45 014</u> |
| Utilised as follows: | | CASH FLOWS FROM | |
| OPERATING ACTIVITIES | | | |
| Payments | | | |
| Salaries and related costs | | (30 748) | (30 130) |
| Administration | | (19 995) | (19 545) |
| GST paid | | (24) | - |
| Receipts | | | |
| Receipts in suspense | | 954 | 221 |
| User charges and fees retained under a net appropriation agreement | | 9 325 | 11 987 |
| GST collected | | 138 | - |
| Net cash used in operating activities | 27 | <u>(40 350)</u> | <u>(37 467)</u> |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Payments for purchase of non-current assets | | (4 182) | (1 619) |
| Proceeds from sale of non-current assets | | 3 | 140 |
| Net cash used in investing activities | | <u>(4 179)</u> | <u>(1 479)</u> |
| TOTAL OF CASH FLOWS FROM OPERATING AND INVESTING ACTIVITIES | | (44 529) | (38 946) |
| Net increase/(decrease) in cash held | | (2 937) | 6 068 |
| Cash at the beginning of the reporting period | | 11 187 | 5 119 |
| Cash at the end of the reporting period | 28 | <u><u>8 250</u></u> | <u><u>11 187</u></u> |

Output Schedule of Expenses and Revenues

for the year ended 30 June 2000

| OUTPUT | Output 1: Grant and maintenance of titles to explore for and mine minerals | | Output 2: Grant and maintenance of titles to explore for and produce petroleum | | Output 3: A geological framework of the State and its resources | | Output 4: An archive of geoscientific and resource exploration data | |
|---|---|-------------------|--|-------------------|---|-------------------|---|-------------------|
| | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 |
| COST OF SERVICE | | | | | | | | |
| Operating expenses | | | | | | | | |
| Salaries | 9 261 | 9 060 | 1 471 | 1 264 | 8 131 | 8 271 | 1 377 | 1 139 |
| Superannuation | 980 | 1 095 | 154 | 146 | 854 | 1 002 | 145 | 138 |
| Administration expenses | 5 998 | 5 912 | 826 | 763 | 5 585 | 5 824 | 945 | 801 |
| Depreciation | 851 | 897 | 67 | 76 | 397 | 491 | 67 | 68 |
| Net loss on disposal of non-current asset | 8 | - | 1 | - | 4 | - | 1 | - |
| Total cost of service | 17 098 | 16 964 | 2 519 | 2 249 | 14 971 | 15 588 | 2 535 | 2 146 |
| Operating revenues | | | | | | | | |
| Users' fees and charges | 3 150 | 3 757 | 2 182 | 2 978 | 280 | 244 | 48 | 34 |
| Net gain (loss) on disposal of non-current assets | - | (3) | - | (1) | - | (7) | - | (1) |
| Total operating revenue | 3 150 | 3 754 | 2 182 | 2 977 | 280 | 237 | 48 | 33 |
| Net cost of services before abnormal items | 13 948 | 13 210 | 337 | (728) | 14 691 | 15 351 | 2 487 | 2 113 |
| Abnormal items | - | - | - | - | - | - | - | - |
| Net cost of service | 13 948 | 13 210 | 337 | (728) | 14 691 | 15 351 | 2 487 | 2 113 |
| Revenues from Government | | | | | | | | |
| Appropriations | 12 014 | 13 634 | 1 853 | (1 324) | 11 278 | 15 565 | 1 909 | 3 940 |
| Resources received free of charge | 642 | 689 | 3 | 4 | 14 | 18 | 2 | 3 |
| Liabilities assumed by the Treasurer | 980 | 1 095 | 154 | 146 | 854 | 1 002 | 145 | 138 |
| Total revenues from Government | 13 636 | 15 418 | 2 010 | (1 174) | 12 146 | 16 585 | 2 056 | 4 081 |
| CLOSING BALANCE ACCUMULATED | | | | | | | | |
| SURPLUS/(DEFICIT) | (312) | 2 208 | 1 673 | (446) | (2 545) | 1 234 | (431) | 1 968 |
| OUTPUT | | | | | | | | |
| | Output 5: Mineral processing, test- work, project and consultancy services | | Output 6: Regulating and promoting health and safety in the mineral industry | | Output 7: Regulating and promoting health and safety in the petroleum industry | | Output 8: Regulating and promoting environmental management in the mineral industry | |
| | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 |
| COST OF SERVICE | | | | | | | | |
| Operating expenses | | | | | | | | |
| Salaries | - | 331 | 6 031 | 6 141 | 1 004 | 1 020 | 1 084 | 736 |
| Superannuation | - | 40 | 626 | 724 | 105 | 118 | 102 | 87 |
| Administration expenses | - | 314 | 4 253 | 4 039 | 564 | 616 | 646 | 484 |
| Depreciation | - | 5 | 300 | 344 | 46 | 62 | 48 | 41 |
| Net loss on disposal of non-current assets | - | - | 2 | - | 1 | - | - | - |
| Total cost of service | - | 690 | 11 212 | 11 248 | 1 720 | 1 816 | 1 880 | 1 348 |
| Operating revenues | | | | | | | | |
| Users' fees and charges | - | 452 | 104 | 41 | 1 490 | 2 404 | 14 | 5 |
| Net gain (loss) on disposal of non-current assets | - | 42 | - | (5) | - | - | - | - |
| Total operating revenue | - | 494 | 104 | 36 | 1 490 | 2 404 | 14 | 5 |
| Net cost of services before abnormal items | - | 196 | 11 108 | 11 212 | 230 | (588) | 1 866 | 1 343 |
| Abnormal items | - | - | - | - | - | - | - | - |
| Net cost of service | - | 196 | 11 108 | 11 212 | 230 | (588) | 1 866 | 1 343 |
| Revenues from Government | | | | | | | | |
| Appropriations | - | 249 | 8 414 | 10 903 | 1 265 | (110) | 1 417 | 1 122 |
| Resources received free of charge | - | - | 10 | 13 | 2 | 3 | 1 | 2 |
| Liabilities assumed by the Treasurer | - | 40 | 626 | 724 | 117 | 118 | 102 | 87 |
| Total revenues from Government | - | 289 | 9 050 | 11 640 | 1 384 | 11 | 1 520 | 1 211 |
| CLOSING BALANCE ACCUMULATED | | | | | | | | |
| SURPLUS/(DEFICIT) | - | 93 | (2 058) | 428 | 1 154 | 599 | (346) | (132) |

FINANCIAL REPORT

| OUTPUT | Output 9: Regulating and promoting environmental management in the petroleum industry | | Output 10: Establish royalty rates and ensure appropriate royalties are paid when due | | Output 11: Regulating the storage, handling and transport of dangerous goods | | TOTAL | |
|---|---|-------------------|---|-------------------|---|-------------------|---------------------|-------------------|
| | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 |
| COST OF SERVICE | | | | | | | | |
| Operating expenses | | | | | | | | |
| Salaries | 372 | 229 | 625 | 598 | 1 602 | 1 486 | 30 958 | 30 275 |
| Superannuation | 39 | 26 | 70 | 77 | 158 | 182 | 3 233 | 3 635 |
| Administration expenses | 209 | 138 | 408 | 433 | 955 | 803 | 20 389 | 20 127 |
| Depreciation | 17 | 14 | 37 | 43 | 82 | 69 | 1 912 | 2 110 |
| Net loss on disposal of non-current assets | - | - | - | - | 2 | - | 19 | - |
| Total cost of service | 637 | 407 | 1 140 | 1 151 | 2 799 | 2 540 | 56 511 | 56 147 |
| Operating revenues | | | | | | | | |
| Users' fees and charges | 552 | 539 | 13 | 2 | 1 462 | 1 504 | 9 295 | 11 960 |
| Net gain (loss) on disposal of non-current assets | - | - | - | - | - | - | - | 25 |
| Total operating revenue | 552 | 539 | 13 | 2 | 1 462 | 1 504 | 9 295 | 11 985 |
| Net cost of services before abnormal items | 85 | (132) | 1 127 | 1 149 | 1 337 | 1 036 | 47 216 | 44 162 |
| Abnormal items | - | - | - | - | - | - | - | - |
| Net cost of service | 85 | (132) | 1 127 | 1 149 | 1 337 | 1 036 | 47 216 | 44 162 |
| Revenues from Government | | | | | | | | |
| Appropriations | 470 | (246) | 851 | 1 197 | 2 121 | 84 | 41 592 | 45 014 |
| Resources received free of charge | 1 | 1 | 1 | 2 | 3 | 4 | 679 | 739 |
| Liabilities assumed by the Treasurer | 27 | 26 | 70 | 77 | 158 | 182 | 3 233 | 3 635 |
| Total revenues from Government | 498 | (219) | 922 | 1 276 | 2 282 | 270 | 45 504 | 49 388 |
| CLOSING BALANCE ACCUMULATED | | | | | | | | |
| SURPLUS/(DEFICIT) | 413 | (87) | (205) | 127 | 945 | (766) | (1 712) | 5 226 |

Summary of Consolidated Fund Appropriations and Revenue Estimates for the year ended 30 June 2000

| | 1999-2000 | | | 1998-99 | | |
|--|--------------------|------------------|---------------------|--------------------|------------------|---------------------|
| | Estimate \$'000 | Actual \$'000 | Variation \$'000 | Estimate \$'000 | Actual \$'000 | Variation \$'000 |
| RECURRENT | | | | | | |
| Amount required to fund outputs for the year | 49 491 | 48 996 | (495) | 52 491 | 53 692 | 1 201 |
| <i>Less Retained Revenue- Section 23A Financial Administration and Audit Act 1985</i> | 10 128 | 9 320 | 808 | 10 926 | 12 127 | (1 201) |
| Item 49 Amount provided to fund outputs for the year | 39 363 | 39 676 | 313 | 41 565 | 41 565 | - |
| Amount authorised by other statutes | | | | | | |
| - Salaries and Allowances Act 1975 | 166 | 166 | - | 162 | 166 | 4 |
| Sub Total | 39 529 | 39 842 | 313 | 41 727 | 41 731 | 4 |
| Item 50 Administered grants and transfer payments | 2 115 | 6 210 | 4 095 | 2 115 | 5 194 | 3 079 |
| Amount authorised by other statutes | | | | | | |
| - Petroleum (Submerged Lands) Act 1982 | 8 400 | 13 587 | 5 187 | 8 400 | 8 400 | - |
| Total recurrent services | 50 044 | 59 639 | 9 595 | 52 242 | 55 325 | 3 083 |
| CAPITAL | | | | | | |
| Amount provided for capital services for the year | 1 750 | 1 750 | - | 3 358 | 3 283 | (75) |
| <i>Less Retained Revenue- Section 23A Financial Administration and Audit Act</i> | - | - | - | 75 | - | 75 |
| Item 145 Amount provided for capital services for the year | 1 750 | 1 750 | - | 3 283 | 3 283 | - |
| Grand Total | 51 794 | 61 389 | 9 595 | 55 525 | 58 608 | 3 083 |
| Details of Expenditure | | | | | | |
| RECURRENT Outputs | 1999-2000 | | | 1998-99 | | |
| | Estimate \$'000 | Actual \$'000 | Variation \$'000 | Estimate \$'000 | Actual \$'000 | Variation \$'000 |
| A system for the grant and maintenance of titles to explore for and mine minerals | 14 228 | 14 510 | 282 | 14 559 | 14 147 | (412) |
| A system for the grant and maintenance of titles to explore for and produce petroleum | 2 210 | 2 264 | 54 | 1 210 | 1 936 | 726 |
| A geological framework of the State and its resources | 13 810 | 13 902 | 92 | 15 876 | 14 362 | (1 514) |
| An archive of geoscientific and resource exploration data | 2 130 | 2 354 | 224 | 2 018 | 1 977 | (41) |
| Mineral processing, test-work, project and consultancy services | - | - | - | 1 274 | 685 | (589) |
| A system for regulating and promoting health and safety in the mineral industry | 10 087 | 10 340 | 253 | 10 745 | 9 999 | (746) |
| A system for regulating and promoting health and safety in the petroleum industry | 2 166 | 1 546 | (620) | 1 936 | 1 563 | (373) |
| A system for regulating and promoting environmental management in the mineral industry | 1 669 | 1 710 | 41 | 1 107 | 1 198 | 91 |
| A system for regulating and promoting environmental management in the petroleum industry | 533 | 574 | 41 | 213 | 350 | 137 |
| A system to establish royalty rates and ensure appropriate royalties are paid when due | 1 076 | 1 043 | (33) | 1 180 | 1 005 | (175) |
| A system for regulating the storage, handling and transport of dangerous goods | 2 307 | 2 574 | 267 | 2 535 | 2 265 | (270) |
| Recurrent expenditure | 50 216 | 50 817 | 601 | 52 653 | 49 487 | (3 166) |
| Less retained revenue | 10 128 | 9 320 | (808) | 10 926 | 12 127 | 1 201 |

FINANCIAL REPORT

| | 1999-2000 | | | 1998-99 | | |
|---|--------------------|------------------|---------------------|--------------------|------------------|---------------------|
| | Estimate \$'000 | Actual \$'000 | Variation \$'000 | Estimate \$'000 | Actual \$'000 | Variation \$'000 |
| Change in Operating Account (Recurrent) | (559) | (1 655) | | | 4 371 | |
| Subtotal - Recurrent | 39 529 | 39 842 | 313 | 41 727 | 41 731 | 4 |
| CAPITAL | | | | | | |
| Asset replacement/maintenance | 850 | 1 438 | 588 | 925 | 1 225 | 300 |
| Asset expansion | 900 | 1 594 | 694 | 2 433 | 361 | (2 072) |
| Change in Operating Account (Capital) | | (1 282) | | | 1 697 | |
| Total value of investment | 1 750 | 1 750 | - | 3 358 | 3 283 | (75) |
| Less retained revenue | - | - | - | 75 | - | (75) |
| Subtotal - Capital | 1 750 | 1 750 | - | 3 283 | 3 283 | - |
| Appropriations for administered expenses | 10 515 | 19 797 | 9 282 | 10 515 | 13 594 | 3 079 |
| GRAND TOTAL OF APPROPRIATIONS | 51 794 | 61 389 | 9 595 | 55 525 | 58 608 | 3 083 |

| | 1999-2000 | | | 1998-99 | | |
|--|--------------------|------------------|---------------------|--------------------|------------------|---------------------|
| | Estimate \$'000 | Actual \$'000 | Variation \$'000 | Estimate \$'000 | Actual \$'000 | Variation \$'000 |
| Revenues disclosed as Administered Revenues | | | | | | |
| Territorial | | | | | | |
| Royalties: | | | | | | |
| Iron ore | 232 500 | 198 952 | (33 548) | 251 000 | 231 977 | (19 023) |
| Petroleum | 205 500 | 344 897 | 139 397 | 194 000 | 176 950 | (17 050) |
| Alumina | 38 500 | 40 738 | 2 238 | 40 000 | 39 139 | (861) |
| Diamonds | 27 000 | 62 496 | 35 496 | 32 500 | 54 941 | 22 441 |
| Mineral sands | 23 000 | 20 013 | (2 987) | 24 500 | 19 944 | (4 556) |
| Nickel | 24 000 | 34 815 | 10 815 | 32 500 | 19 977 | (12 523) |
| Gold | 37 500 | 33 446 | (4 054) | 28 000 | 28 297 | 297 |
| Other | 40 500 | 41 325 | 825 | 42 500 | 34 247 | (8 253) |
| Lease rentals | 40 000 | 35 667 | (4 333) | 43 000 | 39 992 | (3 008) |
| Total Territorial | 668 500 | 812 349 | 143 849 | 688 000 | 645 464 | (42 536) |
| Law Courts | | | | | | |
| Infringement penalties: | - | 29 | 29 | - | - | - |
| | - | 29 | 29 | - | - | - |
| GRAND TOTAL | 668 500 | 812 378 | 143 878 | 688 000 | 645 464 | (42 536) |

1 Explanations of variations between the current year estimates and actual results, and the actual results compared with the preceding year, are set out in note 31.

Notes to the Financial Statements

for the year ended 30 June 2000

1 Departmental mission and funding

The Department's mission is to provide a legislative framework, information systems and administrative processes for the mineral, petroleum and dangerous goods industries in Western Australia in order to:

- Promote the potential for resource exploration
- Facilitate access to land and provide secure title for resource exploration and development
- Meet community standards for environmental management and health and safety, and
- Ensure the community receives appropriate resource royalties.

The Department is predominantly funded by Parliamentary appropriation. A net appropriation agreement between the Treasurer and the Accountable Officer is in place to allow the Department to retain its revenue. Details of expenditure and revenues retained as per the agreement are disclosed in the Summary of Consolidated Fund Appropriations and Revenue Estimates.

| | (\$'000) |
|--|----------|
| Department's Gross Expenditure - Recurrent | 49 162 |
| - Capital | 1 750 |
| | 50 912 |
| Revenues Retained | 9 320 |
| Department's net expenditure against appropriation | 41 592 |

The financial statements encompass all funds through which the Department controls resources to carry on its functions.

In the process of reporting on the Department as a single entity, all intra-entity transactions and balances have been eliminated.

2 Significant accounting policies

(a) General Statement

The financial statements constitute a general purpose financial report which has been prepared in accordance with Australian Accounting Standards and UIG Consensus Views as applied by the Treasurer's Instructions. Several of these are modified by the Treasurer's Instructions to vary the application, disclosure, format and wording. The Financial Administration and Audit Act and the Treasurer's Instructions are legislative provisions governing the preparation of financial statements and take precedence over Australian Accounting Standards and UIG Consensus Views. The modifications are intended to fulfil the requirements of general application to the public sector together with the need for greater disclosure and also to satisfy accountability requirements.

If any such modification has a material or significant financial effect upon the reported results, details of that modification and, where practical, the resulting financial effect, are disclosed in individual notes to these financial statements.

(b) Basis of Accounting

The financial statements have been prepared in accordance with Australian Accounting Standard AAS29.

The financial statements have been prepared on the accrual basis of accounting using the historical cost convention, with the exception that certain non-current physical assets have been introduced at written down current cost as at 30 June 1995. Additions to non-current physical assets since valuation are stated at cost.

Administered assets, liabilities, expenses and revenues are not integral to the Department in carrying out its functions and are disclosed in schedules to the financial statements, forming part of the general purpose financial report of the Department. The administered items are disclosed on the same basis as is described above for the financial statements of the Department. The administered assets, liabilities, expenses and revenues are those which the

Government requires the Department to administer on its behalf. The assets do not render any service potential or future economic benefits to the Department, the liabilities do not require the future sacrifice of service potential or future economic benefits of the Department, and the expenses and revenues are not attributable to the Department. As the administered assets, liabilities, expenses and revenues are not recognised in the principal financial statements of the Department, the disclosure requirements of Australian Accounting Standard AAS33, *Presentation and Disclosure of Financial Instruments*, are not applied to administered transactions.

(c) Appropriations

Appropriations in the nature of revenue, whether recurrent or capital, are recognised as revenues in the period in which the Department gains control of the appropriated funds. The Department gains control of appropriated funds at the time those funds are deposited into the Department's bank account.

The majority of revenue earned is from licences. Refer note 9.

(d) Operating Accounts

Amounts appropriated are deposited into the account and any revenues which are the subject of net appropriation determinations are also deposited into the account. Revenues not subject to net appropriation determinations are deposited into the Consolidated Fund. All payments of the Department are made from the Operating Account.

(e) Employee Entitlements

1 Annual Leave

This entitlement is recognised at current remuneration rates and is measured as the amount unpaid at the reporting date in respect to employees' service up to that date.

2 Long Service Leave

A liability for long service leave is recognised and measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date.

When assessing expected future payments, consideration is given to expected future wage and salary levels including relevant on-costs, experience of employee departures and periods of service. Expected future payments are discounted using appropriate interest rates to obtain the estimated future cash outflows.

This method of measurement of the liability is consistent with the requirements of Australian Accounting Standard AAS30 *Accounting for Employee Entitlements*.

3 Sick Leave

Experience indicates that on average, sick leave paid during the reporting period is equal to the amount due and no liability for non-vesting sick leave exists.

4 Superannuation

Staff may contribute to the Superannuation and Family Benefits Act Scheme (a pension scheme now closed to new members), or to the Gold State Superannuation Scheme (a lump sum scheme now also closed to new members), which are both defined benefits schemes. All staff who do not contribute to either of these schemes become non-contributory members of the West State Superannuation Scheme, an accumulation fund complying with the Commonwealth Government's Superannuation Guarantee (Administration) Act 1992. The employer's portion of liability for all schemes is assumed by the Treasurer.

The superannuation expense comprises the following elements:

- (i) Change in the unfunded employer's liability in respect of current employees who are members of the Superannuation and Family Benefits Act Scheme and current employees who accrued a benefit on transfer from that Scheme to the Gold State Superannuation Scheme, and
- (ii) Notional employer contributions which would have been paid to the Gold State Superannuation Scheme and West State Superannuation Scheme if the Department had made concurrent employer contributions to those schemes.

(The superannuation expense does not include payment of pensions to retirees as this does not constitute part of the cost of services provided by the Department in the current year. The total unfunded liability for pensions and transfer benefits assumed by the Treasurer at 30 June 2000 in respect of current employees is \$10.744 million (1999 \$10.251 million).)

(f) Property, Plant, Equipment and Vehicles.

1 Acquisition

Items of property, plant, equipment and vehicles are recorded at cost and depreciated as outlined below.

The Department controls approximately 100 Crown Reserves throughout the State. The majority are decommissioned explosives reserves.

They have been brought to account under the asset category of land. A large number have negligible future economic value and will be relinquished in due course.

2 Revaluations

Certain non-current assets have been revalued from time to time as disclosed in the financial statements. Other assets are recognised at cost.

Of the total value held of land and buildings, 98 per cent are based on Integrity 3 (kerbside) valuations by the Valuer General. The remainder are mainly decommissioned explosive reserves, having negligible future economic value and have been based on Integrity 1 and 2 desktop valuations. All properties are held on the government property register at these valuations.

Government has directed the Valuer General's office that over each three-year period, every property particularly those with improvements, will be valued to an Integrity 3 level.

All other items of property, plant, equipment and vehicles are carried at the lower of cost, less accumulated depreciation, and recoverable amount.

3 Depreciation of Non-Current Assets

All non-current assets having a limited useful life are systematically depreciated over their useful lives in a manner which reflects the consumption of their future economic benefit.

Depreciation is provided as follows:

| | Years | Method |
|--------------------|-------|-------------------------------------|
| Buildings | 50 | Straight line |
| Furniture | 10 | Straight line |
| Office Equipment | 5 | Straight line |
| Computer Equipment | 5 | Diminishing value |
| Computer Software | 3-5 | Straight line on written down value |

These rates are reviewed annually.

Motor Vehicles are not depreciated. As the Department is exempt from sales tax, experience has indicated that the resale value returns an amount approximately equivalent to the purchase price.

Proprietary computer software is not capitalised as it is not owned by the Department. The Department merely pays for a licence to use it. However, in-house developed software is capitalised and hence depreciated over a period of three to five years (depending on the assessed useful life) once full costs have been determined.

(g) Valuation of Inventories

All inventories brought to account are chargeable publications, as are maps produced by the organisation. They are generally valued on the basis of the selling price which in turn approximately equates to the marginal cost of publishing the end product. Inventories are carried at the lower of cost and net realisable value. Cost is based on the first in first out principle. Net realisable value is determined on the basis of average demand over recent years. In accordance with national policy under the National Geoscience Mapping Accord (NGMA), maps older than 20 years are systematically written off.

(h) Leases

The Department has entered into an operating lease arrangement for motor vehicles where the lessor effectively retains all of the risks and benefits incident to ownership of the items held. Equal instalments of the lease payments are charged to the operating statement over the lease term as this is representative of the pattern of benefits to be derived from the leased property.

(i) Accounts Receivable, Accounts Payable and Accrued Salaries

Accounts Receivable generally settled within 30 days are carried at amount due. No provision for doubtful debts is made as all outstanding debts are considered recoverable. A debt will only be considered bad once all avenues of collection have been exhausted. Bad debts are written off in the period in which they are identified. Previous write-offs have been of small value and therefore, based on materiality value, no provision has been warranted.

Accrued salaries suspense account consists of amounts paid annually into a suspense account over a period of 10 financial years to largely meet the additional cash outflow in each eleventh year when 27 pay days occur in that year instead of the normal 26. No interest is received on this account.

Accounts payable, including accruals not yet billed, are recognised when the Department becomes obliged to make future payments as a result of a purchase of goods or services. Accounts payable are settled in accordance with Government policy.

Accrued salaries represents the amount due to staff but unpaid at the end of the financial year as the end of the last pay period for that financial year does not coincide with the end of the financial year. Accrued salaries are settled within a few days of the end of the financial year. The Department considers the carrying amount approximates net fair value.

(j) Resources Received Free of Charge or For Nominal Value

Resources received free of charge or for nominal value which can be reliably measured are recognised as revenues and as assets or expenses as appropriate at fair value.

(k) Net Fair Values of Financial Assets and Liabilities

Net fair values of financial instruments are determined on the following basis:

- Monetary Financial Assets and liabilities not traded in an organised financial market i.e. accounts receivable, accounts payable and accruals - cost basis (this approximates net market value); and
- Leave liabilities - current market rate adjusted for risk.

(l) Comparative Figures

Where appropriate, comparative figures are reclassified to be comparable with the figures presented in the current financial year.

3 Outputs of the Department

The budget for 1999-2000 was framed in terms of outcomes/outputs. Consequently, financial reporting for the year is also analysed in terms of outcomes/outputs. Information about the Department's outputs and the expenses, revenues, assets and liabilities which are reliably attributable to those outputs is set out in the Outputs Schedule. Information about expenses, revenues, assets and liabilities administered by the Department are given in the schedule of Administered Expenses and Revenues and the schedule of Administered Assets and Liabilities.

Outcome: Optimum use of land and resources.

Output 1: A system for the grant and maintenance of titles to explore for and mine minerals

The ongoing management of mining legislation, and a mineral titles system that provides information on land availability for mineral exploration and mining, encourage exploration on titles and ensure security for title holders.

Output 2: A system for the grant and maintenance of titles to explore for and produce petroleum

The ongoing management, revision and provision or contracting of a set of products and services for Government and industry to manage access to land for petroleum exploration and production, ensure security for title holders, and encourage effective exploration and production within titles.

Output 3: A geological framework of the State and its resources

Publish maps, reports and datasets to maintain an up-to-date geological framework of the State and its mineral and petroleum resources.

- Output 4: An archive of geoscientific and resource exploration data**
An archive of geoscientific and resource exploration documents, samples and data.
- Output 5: Mineral processing, test-work, project and consultancy services**
Provision of mineral processing testwork, project consultancy services to industry. The Mineral Process Laboratory facilities were leased to CSIRO from 1 September 1998. Since that date, the Department has not been producing in its own right any significant level of products or services in the field of mineral processing and the Output has been discontinued.
- Outcome: Safe and healthy mineral and petroleum industry workforces**
- Output 6: A system for regulating and promoting health and safety in the mineral industry**
The ongoing management, revision and provision (or contracting) of products and services to facilitate a healthy environment and safe systems of work in mineral exploration and mining activities.
- Output 7: A system for regulating and promoting health and safety in the petroleum industry**
The ongoing management, revision and provision (or contracting) of products and services to facilitate safe facilities design and systems of work in petroleum operations.
- Outcome: Acceptable environmental standards for mineral and petroleum exploration, development, production and project completion**
- Output 8: A system for regulating and promoting environmental management in the mineral industry**
The provision of a regulatory environment for management of risk to the environment from mineral industry operations.
- Output 9: A system for regulating and promoting environmental management in the petroleum industry**
The ongoing management and provision (or contracting) of a set of products and services to ensure petroleum exploration and production activities meet environmental standards and are in accordance with Government policy.
- Outcome: Appropriate returns to the community for the exploration of its mineral and petroleum resources**
- Output 10: A system to establish royalty rates and ensure appropriate royalties are paid when due**
Recommendations are made for mineral and petroleum royalty rates and systems. Royalty legislation is developed and new royalty arrangements established. Compliance with these requirements is monitored and financial returns audited.
- Outcome: A community confident that it is safe from hazards associated with the storage, handling and transport of dangerous goods**
- Output 11: A system for regulating the storage, handling and transport of dangerous goods**
An audit and inspection program for premises storing and vehicles transporting dangerous goods.

FINANCIAL REPORT

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| 4 Salaries | | |
| Salaries | 30 983 | 30 376 |
| Change in employee entitlements | (25) | (101) |
| | <u>30 958</u> | <u>30 275</u> |
| 5 Superannuation | | |
| Total expense for the year | 3 233 | 3 635 |
| The Notional superannuation expense is made up of the movement in the unfunded superannuation liability balance in respect of current employees | | |
| 6 Depreciation | | |
| Buildings | 388 | 349 |
| Computer software | 287 | 286 |
| Furniture | 59 | 59 |
| Office equipment | 198 | 209 |
| Computer equipment | 980 | 1 207 |
| | <u>1 912</u> | <u>2 110</u> |
| 7 Administration expenses | | |
| Expenses incurred during the year | 19 070 | 18 930 |
| Lease payments | 640 | 458 |
| Resources received free of charge (see note 12) | 679 | 739 |
| | <u>20 389</u> | <u>20 127</u> |
| 8 Net loss on disposal of non-current assets | | |
| Computing equipment | 19 | - |
| | <u>19</u> | <u>-</u> |
| 9 User charges and fees | | |
| Mineral Processing | - | 256 |
| Explosives | 443 | 542 |
| Mineral Titles | 191 | 239 |
| Geological Survey | 193 | 259 |
| Mining Operations | 22 | 32 |
| Petroleum | 31 | 40 |
| Administration | 503 | 251 |
| Petroleum permits and licences | 4 146 | 5 870 |
| Prospecting exploration and other mining licences | 2 771 | 3 490 |
| Explosives regulations | 163 | 156 |
| Dangerous Goods regulations | 832 | 803 |
| Special projects | | 22 |
| | <u>9 295</u> | <u>11 960</u> |
| 10 Net gain on disposal of non-current assets | | |
| Sale of equipment | - | 25 |
| | <u>-</u> | <u>25</u> |
| 11 Appropriations | | |
| Recurrent | 39 676 | 41 565 |
| Other Statutes - Salaries and Allowances | 166 | 166 |
| Capital | 1 750 | 3 283 |
| | <u>41 592</u> | <u>45 014</u> |

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| 12 Resources received free of charge | | |
| Administration expenses | | |
| Resources received free of charge have been determined on the basis of the following estimates provided by agencies: | | |
| Office of the Auditor General | | |
| - Audit services | 55 | 65 |
| Government Property Office | | |
| - Property management services | 3 | 4 |
| Department of Land Administration | | |
| - Land registration dealings, land information and products | 621 | 661 |
| Treasury Department | | |
| - Banking and associated services | | 9 |
| | <u>679</u> | <u>739</u> |
| 13 Liabilities assumed by the Treasurer | | |
| Superannuation | 3 233 | 3 635 |
| 14 Cash and amounts in suspense | | |
| Suspense account | 1 182 | 228 |
| Accrued salaries suspense account | 702 | 702 |
| Operating account | 6 366 | 10 257 |
| | <u>8 250</u> | <u>11 187</u> |
| Accrued salaries suspense account is represented by a cash balance and is therefore equivalent to the net fair value. | | |
| The balance in the suspense account represents administered funds received close to end of year but not transferred to Treasury until after end of year (Refer Note 21) | | |
| 15 GST input credits | | |
| GST input credits | 24 | - |
| | <u>24</u> | <u>-</u> |
| 16 Inventories | | |
| Geological Survey | 2 863 | 2 536 |
| Petroleum | - | 6 |
| | <u>2 863</u> | <u>2 542</u> |
| 17 Accounts receivable | | |
| Accounts receivable for goods and services supplied | 102 | 132 |
| Less: provision for doubtful debts | - | - |
| | <u>102</u> | <u>132</u> |
| The Department does not have significant exposure to any individual customer or counterparty. | | |
| The Department considers the carrying amount of accounts receivable approximates their net fair values. | | |
| 18 Prepayments | | |
| Prepayments | 290 | 171 |
| Prepayments consist mainly of maintenance, subscriptions and membership (\$208 000) and prepaid salaries (\$82 000). | | |

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| 19 Property, plant, equipment and vehicles | | |
| Land - at valuation | 16 543 | 16 543 |
| Buildings - at valuation | 18 435 | 18 435 |
| Accumulated depreciation | (1 681) | (1 295) |
| Buildings - at cost | 827 | 155 |
| Accumulated depreciation | (12) | (10) |
| Total Buildings | 17 569 | 17 285 |
| Furniture - at cost | 908 | 910 |
| Accumulated depreciation | (549) | (547) |
| Total Furniture | 359 | 363 |
| Office equipment - at cost | 2 250 | 2 040 |
| Accumulated depreciation | (1 736) | (1 575) |
| | 514 | 465 |
| Computer equipment - at cost | 8 927 | 9 396 |
| Accumulated depreciation | (7 606) | (8 150) |
| | 1 321 | 1 246 |
| Total Equipment | 1 835 | 1 711 |
| Computer software - at cost | 2 287 | 2 287 |
| Accumulated depreciation | (2 001) | (1 714) |
| Total Computer Software | 286 | 573 |
| Vehicles - at cost | 49 | 49 |
| Total of Property, Plant, Equipment and Vehicles | 36 641 | 36 524 |

The valuations of land and buildings are in accordance with an independent valuation, undertaken by the Valuer General's Office in Western Australia and the assets are stated at current market value for land and at replacement cost for buildings.

The valuations reported above are different from the valuations in the Government Property Register managed by the Government Property Office. The Government Property Register shows land and improvements valued at \$38 613 870 in the name of the Department of Minerals and Energy.

20 Works in progress

| | | |
|---|-------|-------|
| Mining Registrar/Magistrate Chamber - Meekatharra | 18 | 672 |
| State Drill Store - Carlisle | 3 141 | 379 |
| Kalgoorlie Explosives Reserve Roadwork | 101 | 74 |
| Mungarri Explosives Reserve | 268 | 268 |
| | 3 528 | 1 393 |

21 Accounts payable

| | | |
|---|-------|-------|
| Amounts payable for goods and services received | 2 357 | 2 202 |
| Suspense Account | 1 182 | 228 |
| | 3 539 | 2 430 |

The Department considers the carrying amounts of accounts payable approximates their net fair values.

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| 22 Accrued salaries | | |
| Amount owing for six working days from 23 June 2000 to 30 June 2000 was \$636 000 (1999 - 25 June 1999 to 30 June 1999, 4 working days was \$401 000) | 636 | 401 |
| The Department considers the carrying amount of accrued salaries is equivalent to the net fair value. | | |
| 23 GST payable | | |
| GST payable | 138 | - |
| | <u>138</u> | <u>-</u> |
| 24 Employee entitlements | | |
| Current liabilities | | |
| Liability for annual leave | 2 922 | 2 708 |
| Liability for long service leave | 1 237 | 1 619 |
| | <u>4 159</u> | <u>4 327</u> |
| Non-current liabilities | | |
| Liability for long service leave | 3 605 | 3 462 |
| | <u>7 764</u> | <u>7 789</u> |
| The Department considers the carrying amount of employee entitlements is equivalent to the net fair value. | | |
| 25 Equity | | |
| Equity represents the residual interest in the net assets of the Department. The Government holds the equity interest in the Department on behalf of the community. The asset revaluation reserve represents that portion of equity resulting from the revaluation of non-current assets. | | |
| Accumulated surplus (deficiency) | | |
| Balance at the beginning of the year | 19 496 | 14 254 |
| Prior year adjustment for accrued expenditure on assets | 4 | 16 |
| Change in net assets | (1 712) | 5 226 |
| Balance at end of the year | <u>17 788</u> | <u>19 496</u> |
| Asset revaluation reserve | | |
| Balance at the beginning of the year | 21 833 | 21 886 |
| Net Revaluation increments/(decrements) | | |
| Land | - | 50 |
| Buildings | - | (103) |
| Balance at end of the year | <u>21 833</u> | <u>21 833</u> |
| Total Equity | <u>39 621</u> | <u>41 329</u> |
| 26 Resources provided free of charge | | |
| During the year, the following resources were provided to other agencies free of charge for functions outside the normal operations of the Department: | | |
| MERiWA (building services, parking, conferences) | 9 | 11 |
| Chemistry Centre (notional rent on buildings) | 292 | 292 |
| | <u>301</u> | <u>303</u> |
| 27 Reconciliation of net cash used in operating activities to net cost of service | | |
| For the purposes of the Statement of Cash Flows, 'cash' has been deemed to include cash on hand. | | |
| Net cash used in operating activities (Statement of Cash Flows) | (40 350) | (37 467) |
| Non-cash Items | | |
| Superannuation | (3 233) | (3 635) |
| Depreciation | (1 912) | (2 110) |
| Resources received free of charge | (679) | (739) |
| (Increase)/Decrease in Assets | | |
| Accounts Receivable | (30) | (138) |
| Inventory | 321 | 205 |
| Prepayments | 119 | 42 |
| GST input credit | 24 | - |
| Gain on disposal of non-current assets | - | 25 |
| Loss on disposal of non-current assets | (19) | - |

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| Increase/(Decrease) in Liabilities | | |
| Accounts payable | (1 109) | 157 |
| Accrued salaries | (235) | (401) |
| Employee entitlements | 25 | (101) |
| GST Payable to Australian Taxation Office | (138) | - |
| Net cost of service (operating statement) | <u>(47 216)</u> | <u>(44 162)</u> |

28 Reconciliation of cash

For the purposes of the Statement of Cash Flows, 'cash' includes cash on hand and operating account. Cash at the end of the financial year as shown in the Statement of Cash Flows is reconciled to the related items in the Statement of Financial Position as follows:

| | | |
|-----------------------------------|--------------|---------------|
| Cash on hand | - | - |
| Operating account | 6 366 | 10 257 |
| Receipts in suspense | 1 182 | 228 |
| Accrued salaries suspense account | 702 | 702 |
| | <u>8 250</u> | <u>11 187</u> |

29 Additional financial instruments disclosures

(i) Interest rate risk exposure

The following table details the Department's exposure to interest rate risk as at 30 June 2000

| | Floating Interest Rate \$'000 | Non-Interest Bearing \$'000 | Total \$'000 | Weighted Average Effective Interest Rate |
|---------------------------------|-------------------------------------|-----------------------------------|-----------------|---|
| 30 June 2000 | | | | |
| Financial Assets | | | | |
| Cash and amounts in suspense | - | 8 250 | 8 250 | - |
| Accounts receivable | - | 102 | 102 | - |
| Total financial assets | | 8 352 | 8 352 | - |
| Financial Liabilities | | | | |
| Accounts payable | - | 3 539 | 3 539 | - |
| Accrued salaries | - | 636 | 636 | - |
| Employee entitlements | - | 7 764 | 7 764 | - |
| Total financial liabilities | - | 11 939 | 11 939 | - |
| 30 June 1999 | | | | |
| Financial assets | - | 11 319 | 11 319 | - |
| Financial liabilities | - | 10 620 | 10 620 | - |

(ii) Net Fair Value of Financial Assets and Liabilities

The carrying amount of financial assets and financial liabilities recorded in the financial statements are not materially different from their net fair values, determined in accordance with the accounting policies disclosed in note 2 to the financial statements.

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|---|-----------------------|---------------------|
| 30 Remuneration and retirement benefits of senior officers | | |
| Remuneration | | |
| The number of senior officers whose total salaries and other benefits received, or due and receivable for the financial year, who fall within the following bands is; | | |
| | 1999-2000 | 1998-99 |
| \$80 001 to \$90 000 | 1 | - |
| \$90 001 to \$100 000 | 2 | - |
| \$100 001 to \$110 000 | 3 | 7 |
| \$110 001 to \$120 000 | 4 | 1 |
| \$150 001 to \$160 000 | - | - |
| \$160 001 to \$170 000 | - | 1 |
| \$170 001 to \$180 000 | 1 | - |
| The total remuneration of senior officers is: | 1 233 | 1 026 |
| Retirement benefits | | |
| No senior officers received or were due to receive retirement benefits in the financial year. | | |
| Total notional contributions to Gold State Superannuation Scheme and West State Superannuation Scheme | 124 | 125 |
| One senior officer is a member of the Superannuation and Family Benefits Act Scheme | | |

31 Explanatory Statement

The Summary of Consolidated Fund Appropriation and Revenue Estimates discloses appropriation and other statutes expenditure estimates, the actual expenditure made and revenue estimates and payments into the Consolidated Fund, all on a cash basis. The following explanations are provided in accordance with Treasurer's Instruction 945:

- (a) **Details of expenditure in advance of appropriation approved in accordance with Section 28 of the Financial Administration and Audit Act 1985**
- (i) Amount provided to fund outputs for the year
Excess funding was provided by Treasury to fund outputs. 313
- (ii) Administered transactions 4 095
Excess funding was provided by Treasury to enable refunds of mining and petroleum tenement rentals.
- (b) **Significant variations (greater than 10 per cent) where actual expenditures were less than an expenditure item or exceeded or were less than other statutes estimate for the financial year.**
- Amount authorised by other statutes 5 187
Petroleum (Submerged Lands) Act 1982
Excess funding was provided by Treasury to meet this requirement. An increase in royalty payments to the Commonwealth through the Petroleum (Submerged Lands) Act was caused by higher petroleum royalty revenue collections.
- (c) **Significant variations (greater than 10 per cent) where actual expenditures exceeded or were less than budget estimates for the financial year**
- (i) Administered Transactions 4 095
See 31 (a) (ii) above.
- (ii) Details of expenditure - recurrent
- Outputs**
- An archive of geoscientific and resource exploration data 224
Additional resources were allocated to the management of statutory exploration data

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|--|-----------------------|---------------------|
| <i>in response to industry needs for the option to lodge exploration reports in digital format and to obtain newly released open file reports as scanned image on compact discs.</i> | | |
| A system for regulating and promoting health and safety in the petroleum industry | (620) | |
| <i>A result of increased revenue over estimates and deferment of a staff recruitment program pending completion of a study to determine the most effective structure and approach to implementation.</i> | | |
| A system for regulating the storage, handling and transport of dangerous goods | 267 | |
| <i>Carry-over of committed funds from previous financial year.</i> | | |
| (iii) Details of Expenditure - Capital | | |
| Asset replacement/maintenance | 588 | |
| <i>Carry-over from the previous financial year.</i> | | |
| Asset expansion | 694 | |
| <i>Carry-over from the previous financial year for Drill Core Library.</i> | | |
| (d) Significant variations (greater than 10 per cent) where actual revenues exceeded or were less than budget estimates for the financial year | | |
| Territorial Revenue | 143 849 | |
| <i>Significant recovery in commodity prices for petroleum and nickel, and to a lesser extent, alumina and base metals. Increased export volumes, especially for petroleum and nickel. Higher profit royalty for diamonds. Partially offset by lower export volumes, especially for iron ore and mineral sands, and the lower gold price.</i> | | |
| (e) Significant variation (greater than 10 per cent) between actual outcomes for the financial year and outcomes for the preceding financial year | | |
| (i) Retained revenues | (2 807) | |
| <i>Previous financial year included significant unbudgeted revenues from fees payable on the sale of interests in petroleum production projects, together with lower than anticipated revenue from tenement application and dealing fees, and lower than anticipated revenue from the sale of geological products and services.</i> | | |
| (ii) Details of expenditure - recurrent | | |
| Outputs | | |
| A system for the grant and maintenance of titles to explore for and produce petroleum | 328 | |
| <i>A consequence of a return to more usual revenue levels compared with the previous year's unusually high return and increased expenditure on promoting opportunities for investment in WA.</i> | | |
| An archive of geoscientific and resource exploration data | 377 | |
| <i>Additional resources were allocated to the management of statutory exploration data in response to industry needs for the option to lodge exploration reports in digital format and to obtain newly released open file reports as scanned images on compact discs.</i> | | |
| A system for regulating and promoting environmental management in the mineral industry | 512 | |
| <i>Carry-over of committed funds from previous financial year.</i> | | |

| | 1999-2000 (\$'000) | 1998-99 (\$'000) |
|--|-----------------------|---------------------|
| A system for regulating and promoting environmental management in the petroleum industry | 224 | |
| <i>A consequence of a return to more usual revenue levels compared with the previous year's unusually high return and increased expenditure on the environmental program.</i> | | |
| A system for regulating the storage, handling and transport of dangerous goods | 309 | |
| <i>Carry-over of committed funds from previous financial year.</i> | | |
| (iii) Change in Operating account (recurrent) | (6 026) | |
| Expenditure of committed funds carried over from previous financial year. | | |
| (iv) Change in Operating account (capital) | (1 282) | |
| Expenditure of committed funds carried over from previous financial year for Drill Core Library, Meekathara Mining Registrar's Office and Kalgoorlie Explosives Reserve roadworks. | | |
| (v) Appropriation for administered expenses | 6 203 | |
| Higher payments to the Commonwealth for royalties and higher refunds of previous years' revenues than the preceding year. | | |
| (v) Territorial revenue | 166 914 | |
| See 31(d) above | | |
| 32 Lease commitment | | |
| At the reporting date, the following lease commitments are due for payment: | | |
| Not later than one year | 352 | 352 |
| Later than one year but not later than two years | 352 | 352 |
| Later than two years by not later than five years | 1 056 | 1 056 |
| Later than five years | 1 760 | 2 112 |
| 33 Other commitments | | |
| As at balance date, the Department had the following commitments: | | |
| Capital | 1 228 | 134 |
| Recurrent | 1 111 | 511 |
| 34 Contingent Obligations | | |
| In addition to the liabilities incorporated in the financial statements, the Department has the following contingent liabilities: | | |
| Litigation in progress | | |
| The agency has pending potential litigation that may affect the financial position to the value of \$145 000. | | |
| 35 Events occurring after reporting date | | |
| No known event or events occurred after year-end which materially affect the results reflected in this financial report. | | |
| 36 Related bodies | | |
| The Department had no related bodies as defined in the Financial Administration and Audit Act 1985 and Treasurer's Instruction 951. | | |
| 37 Affiliated bodies | | |
| The Department had no affiliated bodies as defined in the Financial Administration and Audit Act 1985 and Treasurer's Instruction 951. | | |

38 Schedule of Administered Items
for the year ended 30 June 2000

| OUTPUT | Note | Output 1: Mineral Titles | | Output 2: Petroleum Titles | | Output 3: Geological Framework | | Output 10: Royalty rates | | Output 11: Dangerous Goods | | TOTAL | |
|--|------|-----------------------------|-------------------|-------------------------------|-------------------|-----------------------------------|-------------------|-----------------------------|-------------------|-------------------------------|-------------------|---------------------|-------------------|
| | | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 | 1999-2000 \$'000 | 1998-99 \$'000 |
| ADMINISTERED EXPENSES AND REVENUE | (1) | | | | | | | | | | | | |
| EXPENSES | | | | | | | | | | | | | |
| Petroleum (Submerged Lands) Act 1982 | | - | - | - | - | - | - | 13 172 | 8 487 | - | - | 13 172 | 8 487 |
| Refunds of Previous Years' Revenue | | 4 933 | 4 100 | - | - | - | - | 24 | 895 | 1 | 5 | 4 958 | 5 000 |
| Aboriginal Lands Trust | | 210 | 194 | - | - | - | - | - | - | - | - | 210 | 194 |
| Total administered expenses | | 5 143 | 4 294 | - | - | - | - | 13 196 | 9 382 | 1 | 5 | 18 340 | 13 681 |
| REVENUES | | | | | | | | | | | | | |
| Taxes, Fees and Royalties | | - | - | - | - | - | - | 855 533 | 623 749 | - | - | 855 533 | 623 749 |
| Law Courts | | - | - | - | - | - | - | - | - | 29 | - | 29 | - |
| Revenues from Government | | 6 185 | 4 294 | - | - | - | - | 13 611 | 9 295 | 1 | 5 | 19 797 | 13 594 |
| Total administered revenues | | 6 185 | 4 294 | - | - | - | - | 869 144 | 633 044 | 30 | 5 | 875 359 | 637 343 |
| ADMINISTERED ASSETS AND LIABILITIES | (1) | | | | | | | | | | | | |
| ASSETS | | | | | | | | | | | | | |
| Operating Account | | 1 042 | - | - | - | - | - | 954 | - | - | - | 1 996 | - |
| Accounts Receivable | | - | - | - | - | - | - | 153 435 | 110 251 | - | - | 153 435 | 110 251 |
| Cash | | - | - | - | - | - | - | - | - | - | - | - | - |
| Restricted cash | | 934 | 923 | 2 328 | 238 | 376 | 386 | 5 576 | 2 089 | - | - | 9 214 | 3 636 |
| Total administered current assets | | 1 976 | 923 | 2 328 | 238 | 376 | 386 | 159 965 | 112 340 | - | - | 164 645 | 113 887 |
| Administered non-current assets | | - | - | - | - | - | - | - | - | - | - | - | - |
| Total administered assets | | 1 976 | 923 | 2 328 | 238 | 376 | 386 | 159 965 | 112 340 | - | - | 164 645 | 113 887 |
| LIABILITIES | | | | | | | | | | | | | |
| Payments received in advance | | 879 | 881 | 2 328 | 237 | 376 | 386 | 5 576 | 2 089 | - | - | 9 159 | 3 593 |
| Accounts Payable | | 55 | 42 | 1 | 1 | - | - | 1 734 | 12 422 | - | - | 1 790 | 12 465 |
| Total administered liabilities | | 934 | 923 | 2 329 | 238 | 376 | 386 | 7 310 | 14 511 | - | - | 10 949 | 16 058 |

| Notes to Administered expenses and revenues | 1999-2000 \$'000 | 1998-99 \$'000 |
|--|---------------------|-------------------|
| (I) Administered expenses and revenues | | |
| Expenses | | |
| An appropriation is made under the provisions of the Petroleum (Submerged Lands) Act 1982 for the Commonwealth's share of royalties received from offshore operations. | | |
| Petroleum (Submerged lands) Act 1982 | 13 172 | 8 487 |
| Consolidated Fund appropriation payments made during the year were \$13.587m (1998-99 \$8.4m) and expenditure due but not paid was \$1.092m (1998-99 \$1.194m). | | |
| An appropriation is also made for refunds of previous years' revenues and a remuneration to the Aboriginal Lands Trust. | | |
| Refunds of previous years' revenues are made to tenement holders who have paid excess rentals on their holdings and to mineral/petroleum companies which have paid excess royalties. | 4 958 | 5 000 |
| Aboriginal Lands Trust is a reappropriation of rents and royalties collected on mining and petroleum tenements situated on Aboriginal reserves. | 210 | 194 |
| | 18 340 | 13 681 |
| Revenue | | |
| Taxes, Licences and Royalties | | |
| The Department is responsible for collection of certain taxes, licences and royalties. These are not classified as operating revenues and are paid directly to Consolidated Fund. | | |
| Collections made during the year were \$812.349m (1998-99 \$645.464m) and revenues due but not collected were \$153.434m (1998-99 \$110.251m). | | |
| Royalties | | |
| Iron Ore * | 208 668 | 219 699 |
| Petroleum | 361 344 | 167 979 |
| Diamonds | 66 687 | 51 546 |
| Alumina | 42 289 | 37 970 |
| Mineral sands | 18 999 | 21 326 |
| Nickel | 42 013 | 17 348 |
| Gold | 33 861 | 8 344 |
| Other | 46 005 | 59 545 |
| Lease Rentals * | 35 667 | 39 992 |
| Total Territorial | 855 533 | 623 749 |
| * Excludes iron ore additional lease rentals which are now included in iron ore royalties | | |
| Law Courts | | |
| Infringement penalties | 29 | - |
| | 29 | - |

| Notes to Administered expenses and revenues (continued) | 1999-2000 \$'000 | 1998-99 \$'000 |
|---|---------------------|-------------------|
| Revenues From Government | | |
| Appropriation for Petroleum (Submerged Lands) Act 1982 | 13 587 | 8 400 |
| Refunds of Previous Years' Revenue | 6 000 | 5 000 |
| Aboriginal Lands Trust | 210 | 194 |
| Total Administered Revenues | 19 797 | 13 594 |
| (II) Administered assets and liabilities | | |
| Administered assets and liabilities are not controlled by the Department but are administered by it on behalf of the Government. | | |
| Administered current assets | | |
| Restricted cash | | |
| Special projects trust fund | 376 | 386 |
| Deposits Department of Minerals and Energy account | 2 328 | 238 |
| Survey of leases under Mining Act account | 934 | 923 |
| Barrow Island Trust | 5 576 | 2 089 |
| | 9 214 | 3 636 |
| Operating Account | | |
| Unspent funds for Petroleum (Submerged Lands) Act 1982 | 954 | - |
| Unspent funds for refunds of previous years' revenue | 1 042 | - |
| Cash | - | - |
| | 1 996 | - |
| Accounts receivable | 153 435 | 110 251 |
| This represents royalty not collected as at 30 June 2000 on production which occurred prior to balance date. | | |
| Other negotiations are taking place to determine royalty arrangements for individual mines and wells. As these discussions result in substantial levels of royalty collection by the State, they represent a contingent asset. However, it is not possible to quantify the level of this asset at balance date. | | |
| Administered non-current assets | | |
| Property, plant, equipment and vehicles | - | - |
| | 164 645 | 113 887 |
| Administered current liabilities | | |
| Payments received in advance | 9 159 | 3 593 |
| Accounts payable | 1 790 | 12 465 |
| For 1998-99, accounts payable includes \$11.228m owing to a participant of the North West Shelf Project due to an overpayment of its royalties. This was settled in 1999-2000. | 10 949 | 16 058 |

39 Accounts of the Trust Fund for the year ended 30 June 2000

Survey of Leases Under the Mining Act Account

Survey fees collected under the Mining Act are paid into this account. The actual cost of surveys is charged to the Consolidated Fund, and fees previously collected are transferred to Consolidated Revenue. If the applicant decides not to proceed with the survey, the fee collected is refunded. The balance of the account is held at Treasury.

| | 1999-2000 | 1998-99 |
|-------------------------|----------------|-----------------|
| | \$ | \$ |
| Opening Balance 1 July | 923 293 | 1308 548 |
| <u>Add receipts</u> | | |
| Survey fees | 1 525 | - |
| Stale cheque | 12 013 | - |
| | <u>936 831</u> | <u>1308 548</u> |
| <u>Less payments</u> | | |
| Refunds | 2 452 | 385 255 |
| | <u>2 452</u> | <u>385 255</u> |
| Closing Balance 30 June | <u>934 379</u> | <u>923 293</u> |

Barrow Island Royalty Trust Account

The account was created under the Barrow Island Royalty Trust Account 1985 which provides for royalty payments received under the Barrow Island lease to be credited to the account and subsequently apportioned between the Commonwealth and the State. The balance of the account is held at Treasury.

| | 1999-2000 | 1998-99 |
|--------------------------|-------------------|-------------------|
| | \$ | \$ |
| Opening Balance 1 July | 2 089 137 | 5 599 327 |
| <u>Add receipts</u> | | |
| Royalties received | 39 708 312 | 15 813 700 |
| | <u>41 797 449</u> | <u>21 413 027</u> |
| <u>Less payments</u> | | |
| Remitted to State | 9 055 291 | 4 830 972 |
| Remitted to Commonwealth | 27 165 875 | 14 492 918 |
| | <u>36 221 166</u> | <u>19 323 890</u> |
| Closing balance 30 June | <u>5 576 283</u> | <u>2 089 137</u> |

Departmental receipts in suspense

This account is held at Treasury and is used to hold moneys temporarily pending identification of the purpose for which the funds were received. The balance of the account as at 30 June 2000 was \$1 182 257.

Deposits Mines Department Account

Funds held are received for the issue of temporary reserves and exploration permits pending finalisation of certain legal requirements. The balance of the account is held at Treasury.

| | 1999-2000 \$ | 1998-99 \$ |
|------------------------------|------------------|----------------|
| Opening Balance 1 July | 237 545 | 282 145 |
| <u>Add Receipts</u> | | |
| Bonds, Securities | 2 356 000 | 32 800 |
| Interest | 34 179 | 12 600 |
| | <u>2 390 179</u> | <u>45 400</u> |
| <u>Less Payments</u> | | |
| Refunds of Bonds, Securities | 300 214 | 90 000 |
| | <u>300 214</u> | <u>90 000</u> |
| Closing Balance 30 June | <u>2 327 510</u> | <u>237 545</u> |

Special Projects Trust Fund Account

The account was created to hold funds for the purpose of participating in significant projects with other countries, the Commonwealth and the private sector to the mutual benefit of the other participants and the State of Western Australia.

This account includes an agreement between the Commonwealth and the Department (Indian Ocean Territories Agreement) to carry out inspection services at Christmas Island. Receipts received totalled \$195 272 (1998-99 \$232 800) and payments made totalled \$194 529 (1998-99 \$145 193) giving a closing balance of \$88 350 (1998-99 \$87 607).

| | 1999-2000 \$ | 1998-99 \$ |
|---|-----------------|------------------|
| Opening Balance 1 July | 386 195 | 385 655 |
| <u>Add Receipts</u> | | |
| Contribution from Industry and Government | 246 371 | 668 860 |
| | <u>632 566</u> | <u>1 054 515</u> |
| <u>Less Payments</u> | | |
| Salaries | 218 369 | 172 920 |
| Travel | 7 385 | 18 517 |
| Equipment, Other | 30 836 | 476 883 |
| | <u>256 590</u> | <u>668 320</u> |
| Closing Balance 30 June | <u>375 976</u> | <u>386 195</u> |

Supplementary Financial Information

| | 1999-2000 | 1998-99 |
|---|----------------|----------------|
| | \$ | \$ |
| Losses of public moneys and public or other property through theft or default | 1 104 | 6 115 |
| Amount recovered | - | - |
| Losses for write-off | <u>1 104</u> | <u>6 115</u> |
| <hr/> | | |
| Public and other property, revenue and debts due to the State, written off in accordance with Section 45 of the Financial Administration and Audit Act 1985 by the: | | |
| Accountable Officer | - | 4 447 |
| Minister for Mines | - | - |
| | <u>-</u> | <u>4 447</u> |
| Analysis of losses written off: | | |
| Stock Shortages | - | - |
| Bad Debts | - | 4 447 |
| | <u>-</u> | <u>-</u> |
| <hr/> | | |
| Consolidated Fund | | |
| Revenue due | 101 481 | 131 903 |
| Less considered irrecoverable | - | - |
| Amount considered recoverable | <u>101 481</u> | <u>131 903</u> |
| <hr/> | | |
| Gifts of Public Property | - | - |

LEGISLATION AND CHANGES TO LEGISLATION

The Department of Minerals and Energy is responsible to the Minister for Mines for administering 18 Acts of Parliament:

The main Acts are:

- Mining Act 1978
- Petroleum Act 1967
- Mines Safety and Inspection Act 1994
- Explosives and Dangerous Goods Act 1961

The remaining Acts are:

- Barrow Island Royalty Trust Account Act 1985
- Barrow Island Royalty Variation Agreement Act 1985
- Coal Industry Tribunal of Western Australia Act 1992
- Coal Miners' Welfare Act 1947
- Coal Mines Legislation Amendment and Revival Act 1998
- Dangerous Goods (Transport) Act 1998
- Miners' Phthisis Act 1922
- Mining on Private Property Act 1898
- Mining (Validation and Amendment) Act 1986
- Petroleum Pipelines Act 1969
- Petroleum Safety Act 1999
- Petroleum (Registration Fees) Act 1967
- Petroleum (Submerged Lands) Act 1982
- Petroleum (Submerged Lands) Registration Fees Act 1982

The following Commonwealth legislation is administered by the Department through the Commonwealth-Western Australian offshore Petroleum-Minerals Joint Authorities:

- Petroleum (Submerged Lands) Act 1967
- Petroleum (Submerged Lands) (Registration Fees) Act 1967

- Petroleum (Submerged Lands) (Royalty) Act 1967
- Petroleum (Submerged Lands) Fees Act 1994
- Offshore Minerals Act 1994
- Offshore Minerals (Registration Fees) Act 1981
- Offshore Minerals (Mining Licence Fees) Act 1981
- Offshore Minerals (Exploration Licence Fees) Act 1981
- Offshore Minerals (Retention Licence Fees) Act 1994
- Offshore Minerals (Works Licence Fees) Act 1981
- Offshore Minerals (Royalty) Act 1981

In addition the Department undertakes a number of functions under the various State Agreement Acts.

Mining Act 1978

- **Acts Amendment (Mining and Petroleum) Act 1999 (No. 17 of 1999):** Assented to 15 June 1999 and proclaimed to operate from 24 July 1999. Various amendments to assist the mining and petroleum industries in title administration.
- **Acts Amendment (Police Immunity) Act 1999 (No. 42 of 1999):** Assented to 25 November 1999 and came into operation on that date. Reference to Police removed from section 160A.
- **Statutes (Repeals and Minor Amendments) Act 2000 (No. 24 of 2000):** Assented to 4 July 2000 and came into operation on that date. Minor changes only.

Petroleum Act 1967

- **Acts Amendment (Mining and Petroleum) Act 1999 (No. 17 of 1999):** Assented to 15 June 1999 and proclaimed to operate from 24 July 1999. Various amendments to assist the mining and petroleum industries in title administration.

Petroleum Pipelines Act 1969

- **Energy Coordination Amendment Act 1999 (No. 20 of 1999):** Assented to 24 June 1999 and proclaimed to operate from 16 October 1999. The definition of pipeline amended — section 4.
- **Statutes (Repeals and Minor Amendments) Act 2000 (No. 24 of 2000):** Assented to 4 July 2000 and came into operation on that date. Minor changes only.

Petroleum (Submerged Lands) Act 1982

- **Acts Amendment (Mining and Petroleum) Act 1999 (No. 17 of 1999):** Assented to 15 June 1999 and proclaimed to operate from 24 July 1999. Various amendments to assist the mining and petroleum industries in title administration.

Explosives and Dangerous Goods Act 1961

- **Acts Amendment (Police Immunity) Act 1999 (No. 42 of 1999):** Assented to 25 November 1999 and came into operation on that date. Reference to Police removed from section 60.
- **Statutes (Repeals and Minor Amendments) Act 2000 (No. 24 of 2000):** Assented to 4 July 2000 and came into operation on that date. Minor changes only.

Mine Safety and Inspection Act 1994

- **Statutes (Repeals and Minor Amendments) Act 2000 (No. 24 of 2000):** Assented to 4 July 2000 and came into operation on that date. Minor changes only.

Amendments to Existing Regulations

Mining Regulations 1981

- **Mining Amendment Regulations (No. 3) 1999:** Gazetted on 21 January 2000 to operate from that date. Amendments to the expenditure provisions.
- **Mining Amendment Regulations (No. 4) 1999:** Gazetted on 19 November 1999 to operate from that date. Amend the rate of royalty for vanadium.

- **Mining Amendment Regulations 2000:** Gazetted on 8 February 2000 to operate from that date. GST-related amendments.
- **Mining Amendment Regulations (No. 2) 2000:** Gazetted on 16 June 2000 to operate from 1 July 2000. GST-related amendments.
- **Mining Amendment Regulations (No. 3) 2000:** Gazetted on 14 April 2000 to operate from that date. Amendments to the royalty provisions.
- **Mining Amendment Regulations (No. 4) 2000:** Gazetted on 16 June 2000 to operate from 1 July 2000. Amendments to the royalty provisions.
- **Mining Amendment Regulations (No. 5) 2000:** Gazetted on 30 June 2000 to operate from 1 July 2000. Amendments to the royalty provisions.

Mines Safety and Inspection Regulations 1995

- **Mines Safety and Inspections Amendment Regulations (No. 2) 2000:** Gazetted on 23 June 2000 to operate from 1 July 2000. GST-related amendments.

Petroleum Regulations 1987

- **Petroleum Amendment Regulations 2000:** Gazetted on 8 February 2000 to operate from that date. GST-related amendments.
- **Petroleum Amendment Regulations (No. 2) 2000:** Gazetted on 27 June 2000 to operate from 1 July 2000. GST-related amendments.

Petroleum Pipelines Regulations 1970

- **Petroleum Pipelines Amendment Regulations 2000:** Gazetted on 8 February 2000 to operate from that date. GST-related amendments.
- **Petroleum Pipelines Amendment Regulations (No. 2) 2000:** Gazetted on 27 June 2000 to operate from 1 July 2000. GST-related amendments.

Petroleum (Submerged Lands) Regulations 1990

- **Petroleum (Submerged Lands) Amendment Regulations 2000:** Gazetted on 8 February 2000 to operate from that date. GST-related amendments.
- **Petroleum (Submerged Lands) Amendment Regulations (No. 2) 2000:** Gazetted on 27 June 2000 to operate from 1 July 2000. GST-related amendments.

Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Regulations 1992

- **Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Amendment Regulations 1999:** Gazetted on 20 July 1999 to operate from that date. Amendments relating to the term 'Packing Groups'.
- **Explosives and Dangerous Goods (Dangerous Goods Handling and Storage) Amendment Regulations 2000:** Gazetted on 23 June 1999 to operate from 1 July 2000. GST-related amendments.

Explosives and Dangerous Goods (Explosives) Regulations 1963

- **Explosives and Dangerous Goods (Explosives) Amendment Regulations 2000:** Gazetted on 23 June 1999 to operate from 1 July 2000. GST-related amendments.

Other

Legislation currently before Parliament.

- **Offshore Minerals Bill 2000, Offshore Minerals (Registration Fees) Bill 2000 and the Offshore Minerals (Consequential Amendments) Bill 2000:** These Bills are to govern the exploration for and exploitation of minerals from the seabed within the first three nautical miles of the Territorial Sea and for related matters. The Bills have been introduced into the Legislative Assembly.

Legislation drafted and ready for introduction to Parliament.

- **Mining Amendment Bill 2000:** To provide access to exploration licence areas by the holder of a Miner's Right.

Legislation passed by Parliament but not yet proclaimed or only partly proclaimed to operate.

- **Mining and Amendment Act 1996 (No. 54 of 1996):** Passed by Parliament on 31 October 1996 and assented to 11 November 1996. A partial proclamation for sections 5, 7, 10, 13 and 22 was published in the Gazette on 6 December 1996 to operate from 7 December 1996. The remaining sections relate to the registration of dealings and require further legislative changes and supporting regulations.
- **Petroleum Safety Act 1999 (No. 19 of 1999):** Passed by Parliament on 3 June 1999 and assented to 21 June 1999. The Act contains occupational safety and health provisions for the Petroleum Industry for both onshore and offshore areas and requires supporting regulations before it can be proclaimed to operate.

GLOSSARY OF SELECTED TERMS USED IN THE MINING AND PETROLEUM INDUSTRIES

KEY - *min* denotes mining term; *pet* denotes petroleum and/or gas term, *edg* denotes explosives and dangerous goods term

adit (*min*) – horizontal tunnel from the surface giving access to underground workings.

AN – ammonium nitrate - used for explosives.

ANFO – explosive mixture of ammonium nitrate and fuel oil.

anticline – fold, generally convex upward, whose core contains the stratigraphically older rocks.

appraisal drilling (*pet*) – used to determine the physical extent, reserves and likely production rate of an oil or gas field.

Archaean – the earliest of the two great divisions of the Precambrian, i.e. earlier than 2 500 million years before present.

barrel (*pet*) – unit volume measurement used for petroleum and its products; 1 barrel = 42 US gallons, 35 Imperial gallons (approx.), or 159 litres (approx.); 7.3 barrels = 1 ton (approx.); 6.29 barrels = 1 cubic metre.

base metals – copper, lead and zinc.

beneficiation (*min*) – improvement of the grade of ore (by milling, flotation, etc) to produce concentrate.

blowout (*pet*) – gas, oil or salt water escaping in an uncontrolled manner from a well.

blowout preventer (*pet*) – see Christmas tree.

Bridging Document – a Bridging Document is the site-specific and operator-specific part of a Safety Case for a well (or wells) to be drilled with a Mobile Offshore Drilling Unit (MODU, i.e. offshore drilling rig). For efficiency, the MODU usually has a facility Safety Case and this is supplemented by the Bridging Document part of the site-specific Safety Case.

bring in a well (*pet*) – to complete a well to producing status.

brownfields – around or near existing mine sites and/or known mineral deposits.

bulk (transport) (*edg*) – (a) dangerous goods of Class 2 (gases) in a container greater than 500 litres; (b) liquid or a paste other than Class 2 in a container greater than 250 litres; or (c) solids in a container greater than 400 kilograms.

Christmas tree (*pet*) – pipes and valves fitted to a production well-head to control flow of oil or gas and prevent blowouts.

CIP (*min*) – carbon in pulp (also see pulp).

class (*edg*) – number assigned to dangerous goods with a common most significant risk.

craton – continental block of the Earth's crust that has attained stability and has been little-deformed for a prolonged period. Mostly composed of Precambrian rocks.

development wells (*pet*) – wells drilled after a field has been discovered (see discovery well).

directional drilling (*pet*) – well deliberately deviated from the vertical to reach a particular part of a reservoir.

discovery well (*pet*) – first oil or gas well drilled in a new field to reveal the petroleum-bearing reservoir (see development well).

drilling fluid (*pet*) – circulating fluid or gas that forces cuttings out of the well to the surface.

drilling mud (*pet*) – lubricating mixture of clays, water and chemicals that carry away rock cuttings and maintain pressure at the drill bit.

drive (*min*) – horizontal heading driven along strike parallel to, or in, an orebody.

dyke – narrow tabular body of igneous rock cutting across structure of the adjacent country rocks.

explosives reserve (*edg*) – secured area of Crown land vested in the Minister for Mines and used to store and manufacture explosives.

farm-in – arrangement where one company acquires an interest in an exploration or production licence by paying some of the past or future costs of another company which is relinquishing part of its interest.

grade (*min*) – the relative quantity of the percentage of ore-mineral content. Common units are grams per tonne, parts per million, and per cent.

greenfields – relatively unexplored areas.

greenstone – any altered or metamorphosed basic igneous rock.

hazchem (*edg*) – hazardous chemical. Those with a licence to store hazardous chemicals must place a sign at the entrance to their premises, alerting fire crews and other emergency response groups of the type of hazards inside.

incline or decline (*min*) – sloping mine working.

injection well (*pet*) – well used to inject gas or water into the reservoir rock in order to maintain reservoir pressure in secondary recovery or (in the case of gas) for conservation purposes.

intermediate bulk container (IBC) (*edg*) – transport container up to 3-cubic-metre capacity used for dangerous goods of other than Class 2 (gases); IBCs are performance-tested containers which are not built to a design specification.

iron ore fines – particles of iron ore, usually below 10 millimetres in diameter, normally require sintering or pelletising before use in a blast furnace.

iron ore lump – ore, usually between 10 and 30 millimetres in diameter, which can be fed directly into a blast furnace.

jacket (*pet*) – steel lattice structure supporting an offshore platform.

liquefied natural gas (LNG) – natural gas liquefied by refrigeration or pressure for easier storage and/or transport. Generally methane.

liquefied petroleum gas (LPG) – mixture of light hydrocarbons liquefied by refrigeration or pressure for easier storage and/or transport. Generally propane and butane. Sometimes known as condensate.

magazine (*edg*) – store used exclusively to keep explosives.

major hazard facility (*edg*) – chemical plant with a significant potential for long-distance, off-site, adverse public safety event.

megatonne – equivalent to million tonnes.

metamorphic rock – rocks that have formed in the solid state from pre-existing rocks in response to pronounced changes of temperature, pressure, shearing stress and chemical environment.

MSDS (*edg*) – (Material Safety Data Sheet) a document that provides information on the identification, health hazards, precautions for the safe use and handling of a specific substance.

mullock or waste (*min*) – mined rock of no economic value.

oil trap – geological structure that traps migrating hydrocarbons, allowing an oil field to form.

open pit (*min*) – surface mining where ore is progressively extracted.

Optimum is defined, in the context of the Department's business goals, as the achievement of agreed set output targets - as measured by the indicators included in this report. These targets seek an appropriate balance between achieving economic benefits, through the discovery and development of the State's mining and petroleum resources, and

meeting community standards for safety, health and environmental management. The Department's targets are considered appropriate when desired economic benefits are achieved within acceptable levels of environmental and social impact.

orebody – mass of mineralisation economically capable of being worked.

orogen – belt of deformed rocks often accompanied by metamorphic and plutonic rocks.

oxide ore – weathered economic mineralisation; usually near the surface and often easy to beneficiate.

package (*edg*) – packaging and contents prepared for transport.

placer – alluvial deposit of ore, usually as mineral-bearing gravel or sand.

plate tectonics – theory of large-scale movement in which the Earth's crust is divided into a number of "plates" or slabs. Interaction at their boundaries causes earthquakes, volcanoes and/or mountain building.

platform (*pet*) – offshore structure from which development wells are drilled.

plugging (*pet*) – process of filling an unwanted well with concrete before abandoning.

possible resources (*pet*) – undeveloped oil and/or gas resources, which might eventually be recoverable from untested geological structures.

pulp – fluid mixture of ground ore and water, specified either as solid-liquid ratio (by weight) or as a percentage of solids (by weight).

regolith – surficial layer of loose rock materials (volcanic ash, glacial drift, alluvium, windblown deposits, vegetal accumulations, and soils) forming the land surface over rocks at depth.

resource (*min*) – identified mineral occurrence from which valuable status may be inferred, indicated or measured – depending on the degree of confidence and extent of geological evaluation.

reserve – part of a measured or indicated mineral resource which can be economically mined. Status may be proven or probable – depending on degree of confidence and extent of evaluation.

recoverable reserves (*pet*) – proportion of oil and/or gas in a reservoir that can be removed using currently available techniques.

reservoir rock – porous and permeable rock, such as sandstone, which may contain significant oil or gas.

roaster (*min*) – plant where sulphide concentrate is heated and oxidised to remove the sulphur, producing loaded carbon for stripping and bullion recovery.

sag mill (*min*) – semi-autogenous grinding mill that uses both grinding media, usually steel balls, and a large lump of ore itself to grind the ore.

sedimentary – rock formed of sediment (conglomerate, sandstone, and shale formed of fragments of other rock transported from their sources and deposited in water) or by precipitation (rock salt and gypsum), or organisms (limestone).

sedimentary basin – segment of the earth's crust which has been down-warped and infilled with sediment. Sediments increase in thickness toward the centre of a basin.

seismic – acoustic method of compiling geological profiles, either on land or at sea.

shaft (*min*) – a vertical or inclined excavation through which a mine is worked.

skip (*min*) – container used to hoist rock in shafts.

spudding in (*pet*) – to start drilling an oil well.

stope (*min*) – underground excavation formed by extraction of ore.

well-head (*pet*) – control equipment fitted to the top of a well casing, incorporating outlets, valves, blowout preventers, etc.

wildcat (*pet*) – exploration well drilled with limited or no knowledge of the contents of the underlying rock structure.

winze (*min*) – a steeply inclined underground mine opening, like a shaft, driven to connect one mine level with a lower level.

SURVEY FOR DEPARTMENT OF MINERALS AND ENERGY ANNUAL REPORT 2000

Thank you for reading the Department's Annual Report 2000.

As we can always improve our report, we seek your comments and suggestions on the content and format. We would appreciate you taking a few moments to comment on the following:

(Please circle the rating that best reflects your view.)
The scale we are using is 1- poor through to 5 - very good.

- | | | | | | |
|--|---|---|---|---|---|
| 1. Overall, did you find the report easy to read? | 1 | 2 | 3 | 4 | 5 |
| 2. Overall, did you find the report informative? | 1 | 2 | 3 | 4 | 5 |
| 3. Did you find the effectiveness indicators easy to understand and suitable to give an indication of our performance? | 1 | 2 | 3 | 4 | 5 |
| 4. Did you find the efficiency indicators easy to understand and suitable to give an indication of our performance? | 1 | 2 | 3 | 4 | 5 |
| 5. Did you find the Director General's report informative and relevant? | 1 | 2 | 3 | 4 | 5 |
| 6. Did you find the report on Operations informative and relevant? | 1 | 2 | 3 | 4 | 5 |
| 7. Did you find the report on Output measures informative and relevant? | 1 | 2 | 3 | 4 | 5 |
| 8. How well does the Outcome and Output structure clearly reflect our role in the Minerals and Energy sectors? | 1 | 2 | 3 | 4 | 5 |
| 9. Did you find the corporate governance section covering organisational performance and compliance easy to read and understand? | 1 | 2 | 3 | 4 | 5 |
| 10. Any specific comments that you think would improve our report next year. | | | | | |

Please remove this page (or take a copy) and post/fax/email it to:

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Fax: 08 9222 3108 or use our Internet site to make your comments:
www.dme.wa.gov.au email*: helpdesk@dme.wa.gov.au

*Note: If you are emailing your response/feedback, please enter the survey heading in the subject field and the question number and your response rating 1-5 (one question per line). Thank you.

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