

STATEMENT OF COMPLIANCE

The Honourable George Cash JP MLC
Minister for Mines
Parliament House
PERTH WA 6000

Dear Minister

In accordance with the Financial Administration and Audit Act 1985, 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 ending June, 1995.

The Annual Report has been prepared in accordance with the provisions of the Financial Administration and Audit Act 1985. It uses the format established in previous years, with the Department's activities described under Corporate Programs. These are set against a background of the mining and petroleum industry in 1994-95.

Yours sincerely



Ken Perry
DIRECTOR GENERAL
DEPARTMENT OF MINERALS AND ENERGY

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REPORT OF THE DIRECTOR GENERAL



KEN PERRY
Director General

“The Department’s mission remains to manage and support the safe and sustainable development of mineral and petroleum resources in the best interests of the community.”

The Department of Minerals and Energy has served Western Australia for over one hundred years. It has an admirable reputation for the fairness and integrity of its administration, and for the quality of its support to the mineral and petroleum industries. This reputation stems in part from the Department’s continued review of the external environment, internal processes and the search for a better way.

During 1994-95 the vision for the Department was refocussed to highlight the need for the State to remain competitive internationally. Our vision is for *Western Australia to have the world’s best exploration, development and operating regime for minerals and petroleum projects*. This vision provides measurable benchmarks with which we can compare our performance.

While striving for this vision, the Department must ensure world class safety performance and environmental standards. Granting of titles must deliver swift and secure results, and returns to the State must be adequate to compensate for the use of community-owned non-renewable resources.

Without doubt the major issue over the past year has been native title and its impact on the mining and petroleum sectors. During the year the Department assisted in the development of Western Australian legislation in response to the High Court’s Mabo decision. Initially the Department played an active part in the development of the State’s case which was presented to the High Court challenging the Federal Government’s legislation. The subsequent failure of that challenge in March 1995 led to a reappraisal and development of State processes consistent with the Commonwealth legislation.

The timetable and the complexities of the processes involved in working with the Federal legislation dramatically affected the granting of titles. Between the High Court decision on March 16 and the end of June 1995, mineral titles granted fell by 95 per cent and the more intermittent granting of petroleum titles was similarly stalled. The problems of native title are immense and although the majority of production will not be affected in the short term, delays in exploration will cause production to fall in the longer term. With five to 10 years between the exploration for minerals and the development of a mining project, the effects may not be noticeable now, but the dramatic impact on production will be felt for many years.

Mineral and petroleum exploration in the State was firmly supported by the Department. Western Australia has the largest resources sector in Australia and continued exploration provides the foundation



REPORT OF THE DIRECTOR GENERAL

for discovery and development of natural resources. Our support included a review of land access procedures for marine parks, nature and conservation reserves and Aboriginal reserves. The Department also continued to encourage mining organisations and other land holders to develop appropriate land access arrangements for exploration purposes.

With considerable financial support from the Government, geoscientific mapping has been accelerated in the Eastern and Murchison goldfields. Geochemical mapping techniques and airborne geophysical surveys have been used to compile regional geological maps. A petroleum exploration incentives program was started to encourage greater exploration in inland sedimentary basins.

During the year the Department introduced an electronic tenements graphic system. This system, which displays land held under mineral title and land available for application, came on line at Kalgoorlie in August 1994. It will eventually cover all active mining areas in the State and enable ready access to graphical information on land held. This will facilitate access to land for exploration.

Progress was made with initiatives aimed at placing greater responsibility for occupational health and safety issues on industry. A new Mines Safety Inspection Act was assented to by Parliament in November 1994. This Act amalgamated legislation covering metalliferous and coal mines. Following its passage through Parliament, work began on an extensive framework of regulations needed to implement the legislation effectively. Work also began on drafting legislation introducing a safety case approach to safety management in the petroleum sector.

Environmental approval processes were reviewed and a Memorandum of Understanding was signed with the Department of Environmental Protection, outlining the responsibilities and roles of each agency.

Legislation was introduced to provide retention licences for mineral deposits which are at present uneconomic to develop. Legislation was also amended to provide for environmental inspectors whose roles will be both educational and inspectorial.

Prospectors have always played a significant role in the gold sector. During the year, special prospecting licences were introduced to allow small scale mining activity on tenements held by larger companies. The Notice of Intent and environmental bond processes were also reviewed to facilitate prospectors' operations in the gold sector.

The Government program of groundwater research was stepped up with increased hydrogeological research, including mapping and drilling, in the Pilbara and northern parts of the State. Investigation of contaminated groundwater sources remained a major issue. A comprehensive study of the Perth metropolitan area was completed and published.

The Chemistry Centre of Western Australia was commercialised during the year and although it remains responsible through me as Director General, the Centre now operates as a separate business unit. Chemistry Centre funding has now been provided to Government Departments which are able to procure their chemical services from any source. A separate annual report is being provided by the Chemistry Centre this year.

The program of change within Government agencies continued. The major key to unlocking further productivity improvements within the Department lies with reducing the bewildering array of mandatory processes designed to ensure probity but instead stifle creativity. Proposed changes will emphasise trust and ensure that authority and accountability are matched by responsibility. Instead of measures of process, performance will be driven by measures of actual outcomes attuned to the agency's mission. The cultural changes involved will not happen overnight — they are slow to gather momentum but will do much to enhance the way the Department operates. I see this as a major challenge for the future.

Departmental staff have successfully met all challenges presented to them over the past year and are to be congratulated for their efforts. Particular mention must be made of Lee Ranford who acted as Chief Executive for almost two years. The Department is indebted to Lee for his leadership.



Ken Perry
DIRECTOR GENERAL



THE DEPARTMENT OF MINERALS AND ENERGY

ORIGINS

The Department of Minerals & Energy was established on 1 January 1894 as a regulatory body to ensure the safe and orderly development of mineral resources in the State and to ensure the community benefits from these activities. Over the past 100 years this role has been widened.

Although the regulatory role has been broadened since the Department was created, activity in recent years has focused more on promotion and management of the industry. The Government has an objective to double the real value of resource production in the next ten years, and the Department has moved towards providing services which assist industry in meeting this objective while also improving the efficiency of its own regulatory processes.

In addition to its central role in the resources sectors, the Department's responsibilities include the assessment of State groundwater resources and the protection of the public from hazards associated with the transport and storage of dangerous goods.

In summary the Department's responsibilities include:

- promotion of responsible investment in exploration, and extraction of the State's mineral and petroleum resources;
- exploration for, and assessment of, the State's groundwater resources; and
- public safety associated with the transport, storage and use of explosives and dangerous goods.

These responsibilities have been incorporated into a Mission Statement which summarises the Department's role.

MISSION

The mission of the Department of Minerals and Energy is to:

- manage and support the sustainable development of the State's mineral, petroleum and groundwater resources in the best interests of the community of Western Australia; and
- ensure that the community is protected from hazards associated with dangerous goods.

To achieve this mission the Department assists the Government in the development of policies and legislation and monitors industry operations to ensure these policies and legislation are followed.

EXTERNAL INFLUENCES

The major external influences on Departmental activities during the year have been Government policy initiatives and improved world commodity prices. Improved prices increased activity in the mining sector, which in turn had a significant impact on the Department.

Government Policies

Resources sector

Mineral and petroleum resources in Western Australia are largely owned by the State on behalf of the community. However, they are almost entirely explored for, and developed by, private enterprise. Deposits which can be profitably extracted are almost always difficult and expensive to find, small in size relative to the total land mass, and non-renewable. As resources are mined, continual exploration is needed to delineate new ore bodies. If the industry is to expand in the manner sought by the Government, a high level of exploration is essential.

Although Western Australia is resource rich, exploration and mining activities are generally a high risk financial venture. Conditions needed to maximise investment include predictability, certainty of government fiscal management and legislation, efficient allocation of mineral rights and access to land for exploration and infrastructure.

To ensure mining operations continue to be supported by the community, it is necessary for the Government to ensure that a balance is maintained between promoting the development of the industry and managing the impact it has on the community. The Department's roles in achieving this balance are:

- support for exploration through the collection of regional data and the maintenance and dissemination of privately collected exploration data;
- the maintenance of a secure title system;
- ensuring that safe and healthy work practices are adopted for those employed in the industry;
- ensuring that the environment is protected and rehabilitated after mine use; and
- mineral producers pay a fair return by way of royalties for the right to extract and sell or use community-owned resources.

Department expenditure in the mineral and petroleum sectors expanded in response to Government policy and initiatives. To encourage exploration, the Government increased Department funding for a range of geoscientific projects aimed at



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providing regional information on which exploration companies can build more detailed exploration programs. The funding included \$2.5 million as the third tranche of a four-year, \$10 million program of accelerated geochemical airborne geophysical and regional mapping. A further \$2.5 million was provided as the second tranche of a five-year, \$13.5 million program to investigate on-shore sedimentary basins for their petroleum potential.

To improve the quality and efficiency of map production, over 90 per cent of maps were produced using computer-assisted or automated techniques. There was also an increased use of digital information technology to improve access to, and dissemination of, data.

As part of its role in providing a secure title system, the Department assisted the State Government in its High Court challenge of the federal Native Title legislation. The failure of that challenge meant that title processes had to be redeveloped to comply with Commonwealth legislation.

A great deal of work and legal consultation at a senior level was involved in ensuring the full range of State titles and title processes complied. The effect on title approval was dramatic with a 95 per cent fall in the number of mineral titles issued between the High Court decision in March 1995 and the end of the financial year. The issue of petroleum titles was similarly stalled.

To make the issuing of mining titles more efficient, the move to computerised electronic database systems continued in the Department. The graphical plan system (TENGRAPH) went on line in Kalgoorlie during August 1994, while the design of an integrated computerised mining titles register (MiTiS) commenced.

Prospectors have always played a significant role in the gold sector. During the year, special prospecting licences were introduced to allow small scale mining activity to take place on tenements held by larger companies. The Notice of Intent and environmental bond processes were also reviewed to facilitate prospectors' operations in the gold sector.

To ensure the health and safety of workers in the mining industry, the Department continued with its monitoring and inspection function. However, the introduction of the new Mines Safety Inspection Act in November 1994 and the drafting of a new petroleum safety legislation has altered the Department's focus in this area. The Department now emphasises "duty of care" that the employer must demonstrate, assessing and educating employers in this regard in both the mineral and petroleum industries.

Extensive consultation occurred within government and with industry in drafting new regulations for the legislation. These should come into effect with proclamation of the legislation in late 1995.

Hydrogeology and groundwater resources

Hydrogeological mapping and groundwater assessment work continues to be high on the list of Government priorities. Three hydrogeological maps of the Eastern Goldfields were published and ten drilling projects were undertaken for a wide variety of studies ranging from deep exploratory drilling at Dongara, to the location of irrigation bores for orchards at Donnybrook. A study of the hydrology of the Ord River irrigation area also continued.

A major study on the hydrogeology and groundwater resources of the Perth metropolitan region was completed and published. With about 40 per cent of Perth's water supply from groundwater sources, identifying groundwater sources and potential sources of contamination is vital. Studies at the Barragoon drilling project and Whitfords, in the metropolitan region, indicate significant sustainable groundwater resources along the coastal belt.

Community concerns with the protection of groundwater resources were reflected in the high level of interest shown in the Department's release of a major study drawing together over 30 years of hydrogeological research. This study demonstrated that with sensible management there are sufficient groundwater resources and recharge to supply the Perth metropolitan area well into the 21st century.

Explosives and dangerous goods

Risk assessment and management of dangerous goods storage and transport continued both in response to community demands and Government expectations.

A study into the Kwinana industrial strip, partly funded by the Department and based on international practice, demonstrated that the risk to the Rockingham and Kwinana residential area is well within acceptable levels. Results from this risk assessment will allow land usage in the surrounding buffer area to be optimised while ensuring that public safety is not compromised by future developments or changes.

Agreement was reached with users of the Kalgoorlie explosives reserve for their leases to be extended for ten years, after which the reserve is to be vacated. Planning for a new site commenced.

The most publicised dangerous goods issues handled by the Department during the year were a



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proposal to transport sodium cyanide solution by road through the metropolitan area, and the off loading of four unstable freight containers of Potassium Amyl Xanthates (PAX) at the Fremantle Port.

For the transport of sodium cyanide, the Department was able to provide evidence that road transport was as safe as rail and justified an approval to use road transport.

The PAX issue developed when the containers of PAX were moved from the Port to a site in O'Connor, and later to a disused quarry in Kwinana. This prompted an angry reaction from local residents who felt they should have been consulted before the move.

The publicity surrounding these issues demonstrated the growing community interest in the handling, storage and transport of chemicals and dangerous goods.

Industry Activity In 1994-95

An increase in volume of production occurred for most commodities as a consequence of new operations and increased throughput from existing projects. The total value of output increased by ten per cent to \$13 866 million.

Petroleum

The strongest single increase in production occurred in the petroleum sector, with increases in natural gas, liquefied natural gas (LNG) and oil. Taking over from gold as the leading commodity in the State's resources sector, the combined value of petroleum output rose to \$3 661 million, accounting for just over 26 per cent of the total value of resource production. New projects to come on stream during the year included the massive Goodwyn A platform, and the Griffin, Scindian, Roller and Skate fields. Production from all existing fields continued, although in some cases at depleted levels.

While the number of petroleum titles in force increased marginally to 201, the number of dealings processed increased substantially to 1 501. The high level of exploration and development activity in the petroleum sector continued during the year with a consequent demand on Departmental services. A change from descriptive regulations to management of safety through approved safety cases is assisting the Department to meet its safety management role in a more efficient and effective manner.

Energy prices in the past have been a major impediment to mineral processing in Western Australia. However, recent reforms in the energy

sector, such as the splitting of SECWA into gas and electricity utilities, have allowed suppliers to develop and sell gas to any market. This helps lower the price of gas and encourages the private sector to participate in projects such as the Goldfields Gas Pipeline.

Deregulation of the gas market and an increase in consumer demand is expected to lead to a further increase in exploration activity and a continuation of the trend to prove up and develop the State's rich gas reserves.

Gold

The volume of gold produced in the State fell by around three per cent but when combined with a higher value Australian dollar, the fall in the total value of production was around eight per cent to an estimated \$3 122 million. The drive for greater efficiency and lower costs in the industry continued. There was also an increase in underground mining, greater processing of refractory ores and a new focus of attention on the Yandal greenstone belt. Significant new developments in the year included the Youanmi underground project and the very large Bronzewing operation.

Expenditure on exploration for gold was \$380 million. This accounted for around 70 per cent of the \$496 million estimated to have been spent on total mineral exploration.

Iron Ore

Despite a nine per cent increase in the volume of iron ore produced, its value fell by around three per cent to \$2 797 million. Production commenced from the revamped Koolyanobbing and Cockatoo Island projects while the large Marandoo mine was also officially opened. A number of exciting developments were announced in the downstream processing area with BHP confirming plans in June 1995 to spend almost \$1 500 million on the construction of an iron ore processing plant in the Pilbara.

Alumina

Alumina production increased by a marginal one per cent but low world prices meant that the total value of production fell by around six per cent to \$1 684 million. Despite high world stocks, the forecast for alumina prices is promising and Alcoa announced plans to double the capacity of its Wagerup facilities.

Nickel

Nickel production during the year increased and when combined with a strong rise in prices, the value of Western Australian nickel increased by a massive



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98 per cent to \$908 million. Nickel replaced diamonds as the State's fifth most valuable commodity and the opening and likely expansion of the Mt Keith nickel project means that this trend is likely to continue. Detailed investigations continued into a number of other potential nickel mines.

Diamonds

Diamond production fell by 17 per cent during the year as a result of an already over-supplied market. Sales increased by one per cent to \$480 million. Normandy Poseidon continued to mine at its Bow River alluvial operation while the Argyle project partners are considering whether to develop the underground deposits.

Mineral Sands

The mineral sands industry recovered substantially as the value of production increased by 32 per cent to \$474 million due to a rise in both volume and price. The promising outlook for mineral sands enabled BHP to announce its intention to proceed with the development of the Beenup mineral sands project. During the year work also commenced on the Jangardup deposits.

Other minerals

Prices for copper, lead and zinc increased substantially during the year and this was reflected in increased exploration activity. Coal experienced a better year with both value and production increasing. The Government commitment to a new 300 megawatt base load power station enabled Western Collieries to open the Premier open cut mine. Production from Griffin's Ewington 2 open cut mine is expected to commence next year.

Titles

Despite supportive government policies and improved commodity prices the number of mineral title applications fell by 20 per cent. New processes flowing from the Commonwealth Native Title legislation meant that the number of titles actually granted fell by 40 per cent to just under 3 000. Between the High Court decision in March and the end of June 1995, granting of titles slowed to a trickle. At the end of the year there were 19 200 titles in force in Western Australia, the majority being held for gold exploration or development. The actual area under title increased slightly to a record 38 million hectares (about 15 per cent of the State). Title monitoring increased substantially with 15 355 reports submitted by exploration and mining companies compared with 12 678 reports in 1993-94.

CURRENT ISSUES

Current issues which influence the nature of the Department's activities have been identified as:

- requirement for improved customer focus and service delivery;
- increased interest in environmental and Aboriginal issues and their impact on the availability of and access to land;
- limited availability of financial and staff resources resulting from Government expectations of increased productivity and reduced public sector expenditures; and
- demands for greater accountability for government and public sector expenditures and revenue collection.

CORPORATE PROGRAMS AND STRATEGIES

The Department operates under four Corporate programs which represent each major area of responsibility:

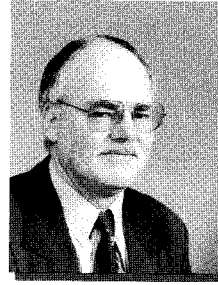
- 1 Mineral Resources Management
- 2 Petroleum Resources Management
- 3 Geology and Resources Information
- 4 Dangerous Goods Management

These programs are supported by a range of corporate services.

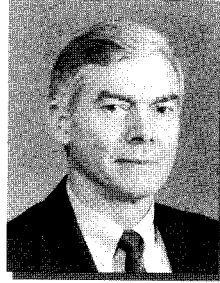
Specific strategies have been developed to meet the objectives of the four corporate programs.

For operational purposes, the Department is structured into five Divisions which are based around professional disciplines. The responsibilities of the Directors are set out on the following pages.





Bill Phillips - Director



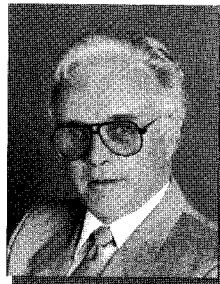
Lee Randford - Assistant Director General



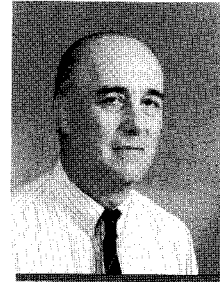
Jim Torlach - Director



**Ken Perry
Director
General**



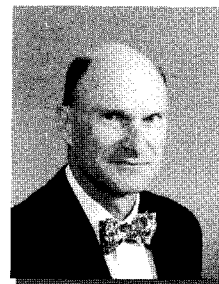
Ian Fraser - Director



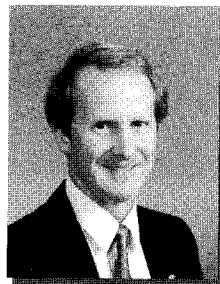
Pietro Guj - Director



Colin Branch - Assistant Director General



Ken Price - Director



Murray Meaton - Director



DIRECTORATE RESPONSIBILITIES

MINERAL TITLES DIVISION

Title Registration and Performance
Warden's Court
Mining Information Services

LAND ACCESS UNIT

Land Access
Native Title
Environmental Issues

MINING OPERATIONS DIVISION

Occupational Health & Safety
Environmental Management

PETROLEUM OPERATIONS DIVISION

Title Registration and Performance
Exploration and Production
Safety
Environmental Management

GEOLOGICAL SURVEY DIVISION

Regional Geoscience Mapping
Mineral and Petroleum Resources
Groundwater Resources
Geotechnical Services

CORPORATE SERVICES

Human Resources
Finance and Administration
Computing and Information
Internal Audit

EXPLOSIVES & DANGEROUS GOODS DIVISION

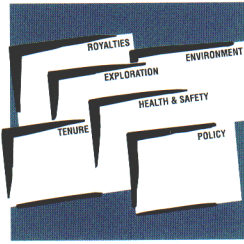
Transport
Storage
Major Hazards Risk Assessment

POLICY & PLANNING DIVISION

Corporate Planning and Review
Mineral and Petroleum Royalties
Economic Policy
Public Affairs



Program 1: MINERAL RESOURCES MANAGEMENT



Objective: *To ensure that the exploration for and mining of the State's mineral resources are managed for the benefit of the people of Western Australia.*

Description: *Mineral exploration and mining, unlike their petroleum equivalents, are generally conducted through numerous, relatively small operations. Most mineral deposits cover only a small area and hence exploration and mining activities are controlled through the issue of a relatively large number of small tenements. The mining process is essentially an earth-moving process, and large volumes of earth and rock may have to be moved and processed to extract the commodity sought.*

Introduction

This program seeks to ensure that explorers have access to land and past exploration data; explorers and miners have secure titles on which to base their investments; exploration and mining activities are conducted with high standards of worker and public safety, and with due care for their impact on the environment; and the community receives appropriate returns from the mining of its mineral resources.

The direct recurrent cost of this program was \$16.2 million. This, together with associated corporate service costs of \$6.05 million and capital expenditure of \$0.8 million resulted in total expenditure of \$23.05 million. This program employs a total of 337 full time equivalent staff.

The six sub-programs which make up this program are described in the following pages along with a summary of their key activities. A table of the major planned achievements and outcomes, and key performance indicators is included following the sub program activities.



MINERAL RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 1.1: MINERAL INDUSTRY AND RESOURCES POLICY

Objective: *To provide government with high quality, timely, mineral industry and resource information, policy analysis and advice with a view to ensuring long-term social and economic benefits to the community from the sustainable development of the State's mineral resources.*

Description: *Issues addressed in this sub-program include land use and access, mineral prospectivity, resource availability, mining and metallurgical practice, economic and social factors (including Aboriginal issues), research and training, foreign ownership, Commonwealth/State issues and industry assistance.*

Strategies: *The monitoring and evaluation of industry performance, compilation and maintenance of technical and economic data bases, and liaison with government agencies, the mining industry and the public, as a basis for the preparation of information briefings and policy advice.*

Introduction

Economic and policy advice was provided throughout the year on issues ranging from payroll taxation to uranium mining, from individual mine operations to world market conditions.

A new iron ore royalty regime was developed in conjunction with the Departments of Treasury and Resources Development, and was adopted by Cabinet as Government policy. Work began on encouraging further processing of iron ore within the State.

Resource access

The urban development of the Swan Coastal Plain south and north of the Perth metropolitan region continued to put pressures on the development of heavy mineral sand deposits and the protection of

limestone and clay extraction areas. A task force was established to investigate heavy mineral sands issues and a seminar arranged in conjunction with the Ministry for Planning to increase the understanding of resource development in an urban context.

The Department supplied technical and policy advice to the State Gravel Supply on access to road making materials. Negotiations with the Department of Conservation and Land Management continued on wetlands of international importance, protection of rare plants and remnant rain forests. Reports on the rehabilitation of gold and heavy mineral sand mines were released for public comment.

Environment

The Director General and the Chairman of the Environmental Protection Authority signed an interagency Memorandum of Understanding covering environmental management procedures for onshore mineral exploration and mining. A draft Memorandum covering marine mineral exploration and mining has been prepared.

Submissions were made to the Marine Reserves Committee and the Coastal Zone Review Committee on the Intergovernmental Agreement of the Environment and World Heritage Property Management. The Department has also participated in the newly formed Infrastructure Co-ordinating Committee of the Western Australian State Planning Commission.

Assessments were made of proposed conservation reserves in the eastern Goldfields, south coast and South-West forests. The Department finalised negotiations in relation to the proposed reserve in the Forrestania area.

Native Title

The High Court ruled against Western Australian Land (Titles and Traditional Usage) Act on 16 March 1995 and considerable effort has been directed into the implementation of procedures which conform to the Commonwealth Government's Native Title Act.

Work started on a mineral title management system that encompasses the ramifications of the Native Title Act. Extensive consultations were held with legal, mining and Aboriginal interest groups and the newly formed National Native Title Tribunal to assist in the development of the system.

Action was taken to recruit specialist staff to mediate between industry and Aboriginal parties and a program of Aboriginal cultural awareness for all Departmental staff was introduced. A Kimberley Liaison Officer was appointed to improve Departmental communication with industry and Aboriginal people.



MINERAL RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 1.2: MINERAL TENURE

Objective: *To provide the mineral industry with a timely, secure and equitable titles system, and accurate, up-to-date information about mineral and land tenure in order to encourage and facilitate responsible mineral exploration and development.*

Description: *Accurate and up-to-date information on land status is provided, and systems are maintained to ensure the expeditious processing and determining of title applications. A public plans system and legal title registry systems are also 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 and work obligations is monitored to ensure that land is being actively explored or made available to others.*

Titles

The Commonwealth Native Title Act 1993 and the lapsing of the State's Land (Titles and Traditional Usage) Act 1993 caused significant changes to title procedures for another year. Despite this, the area held under granted mining title increased slightly over the previous year to a record 38.1 million hectares. The number of applications received however fell by 20 per cent and the number granted fell by 40 per cent (Table 1).

An increase in area held suggests the industry adopted a cautious attitude to the native title issue and the uncertainty created by the introduction of the Commonwealth Government's Native Title Act 1993.

The High Court decision of 16 March 1995 rendered the State's Land (Titles and Traditional Use) Act legislation inoperative and the number of tenements being granted virtually came to a standstill while applications were submitted to the procedures under the Commonwealth Native Title Act. No applications had been cleared by the Native Title Tribunal by the end of the financial year.

During the year there was a decline in prospecting and exploration applications and an increase in applications for mining leases and ancillary titles. This suggests that most prospective exploration areas are now held under title and holders

are converting to more secure and long term title as prospects mature.

Suspending the granting of title applications from 16 March 1995, and the need to comply with the Native Title Act, impacted on the performance measurement indicators that have been used for the past three years. New indicators will be developed for 1995-96 which take into account the Native Title Act requirements.

During the first eight months of 1994-95 the outcomes for processing 85 per cent of prospecting licences within four months and 75 per cent of exploration licences and mining leases within seven months were 69 per cent, 64 per cent and 66 per cent respectively.

The registration of transfers, caveats and other dealings involving changes to the title register increased from 10 817 in 1993-94 to 11 320. An average of 74 per cent of dealings were registered within one month of lodgement as against the target of 90 per cent.

The results achieved in processing applications and registering dealings were lower than targeted due to the greater than forecast impact of native title.

Table 1: Tenement Applications

	Number	Area(ha)
Prospecting Licences	1 614	193 576
Exploration Licences	1 645	16 940 000
Mining Leases	1 228	555 662
Other	346	43 785
TOTAL	4 833	17 733 023

Tenements Granted

	Number	Area(ha)
Prospecting Licences	1 126	147 549
Exploration Licences	1 159	13 202 316
Mining Leases	611	290 241
Other	103	6 076
TOTAL	2 999	13 646 182

Tenements in force as at June 1995

(1978 Mining Act)	Number	Area(ha)
Prospecting Licences	7 991	1 109 662
Exploration Licences	3 950	34 943 253
Mining Leases and others	6 934	2 008 018
(1904 Mining Act)		
Mineral Claims & others	325	34 123
TOTAL	19 200	38 095 056



MINERAL RESOURCES MANAGEMENT PROGRAM

Title administration

In December 1994 the Mining Registration Division and a major part of the Surveys and Mapping Division merged to become the Mineral Titles Division. This action brought the key functions of title application processing/Mining Act administration and title mapping and surveys under a single administration.

The computerised graphical plan system TENGRAPH was installed in the Kalgoorlie office in August and Coolgardie office in November 1994. TENGRAPH shows land available for mining activity - a product which once required hours of time consuming research to produce the desired result is now available by simply logging into TENGRAPH. This facility has sparked renewed interest in pegging gaps between tenement boundaries and is helping to promote exploration activity.

Plans are to have all State mining activity data available on TENGRAPH by August 1997. Leonora was to be connected in July 1995 followed by Meekatharra in August 1995 and Mt Magnet in November 1995. The program will move to the Pilbara and the Kimberley before coming back to the Dundas and Yilgarn mineral fields by mid 1996 and finally the South-West mineral field in 1997.

The Computerised Rental and Expenditure Monitoring System (TRAXS) was successful, with an 18 per cent increase in the number of expenditure reports received. This was associated with only a slight increase in the number of tenements forfeited, the majority for failing to pay rent.

Expenditure exemption applications increased by 20 per cent over the previous year due to effective monitoring of reporting requirements. Reporting shortfalls were addressed by exemption requests to keep titles in good standing.

The number of exemption application requests rose and although this increased workload, the result indicates a higher standard of compliance with the provisions of the Mining Act (Table 2).

During the year 225 complaints were lodged by third parties seeking forfeiture for non-compliance with expenditure requirements by existing title holders.

Table 2: Title Monitoring

	1992-93	1993-94	1994-95
Reports received	9 877	12 678	15 355
Applications for exemption	2 780	3 612	4 496
Tenements forfeited	511	102	124

Customer and information services

Customer and telephone enquiries were high in the Perth office and each of the 11 country offices. On average 81 customers attended Mineral House daily against an average of 85 the previous year. During the year 26108 mining tenement searches were provided along with 16 479 maps.

Surveys

During the year, 282 surveys were lodged with the Department for examination and certification. The 77 per cent increase over last year was due to a major mining company undertaking survey of its titles in the Coolgardie mineral field. Survey instructions were prepared for a further 81 surveys.



MINERAL RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 1.3:

MINERAL INDUSTRY OCCUPATIONAL HEALTH AND SAFETY

Objective: *To achieve a low and decreasing incidence of bodily injury, occupational disease and fatalities amongst those employed in the mineral industry.*

Description: *Strategies to achieve the objective include auditing and encouraging compliance with regulations and guidelines; promotion of and participation in safety education, training and research; and the provision of specific safety and occupational health advice to government, industry and the public.*

Introduction

The Inspectorate started the year with a near full establishment, but the resignation of five district inspectors adversely impacted on the capacity of the Department to service the industry.

Recruitment of new district inspectors proved difficult due mainly to the salary gap between industry and government for experienced mining engineers. A recruitment drive in South Africa was undertaken to alleviate the staffing shortages.

The geographical coverage of the regional mining inspectorates was changed during the year to provide a more balanced and efficient coverage of mining operations. The Collie Inspectorate was upgraded and its coverage increased to include both the metalliferous and the coal sector in the South-West.

Mining industry safety

The Interim Mines Occupational Health and Safety Advisory Board (MOHSAB) entered its second year as the advising tripartite body responsible to the Minister on matters of occupational health and safety in the mining industry.

The Board established the following sub-committees for support:

- Occupational Health Standing Committee;

- General Safety Standing Committee;
- Radiation Safety Sub-Committee;
- Legislative Development Sub-Committee; and
- Medical Advisory Panel.

During the year the Occupational Health Standing Committee developed draft guidelines dealing with noise, health surveillance, heat stress and biological monitoring.

The General Safety Standing Committee co-ordinated the development of guidelines on safety standards for mobile equipment and proposals for safety management plans and emergency preparedness.

The Radiation Safety Sub-Committee reviewed and endorsed proposed regulations for radiation protection and radioactive waste management in mining, and considered issues relating to radiation gauge inspections, red mud disposal from bauxite mining, radiation dose assessment procedures and health status studies.

The Legislative Development Sub-Committee continued with the development of regulations for the Mines Safety and Inspection Act which was assented to in November 1994. Two drafts have been developed and circulated. Proclamation of the Mines Safety and Inspection Act is expected in September 1995, following completion of the Regulations.

The Medical Advisory Panel provided expert occupational medical support and advice to the Occupational Health Standing Committee and Radiation Sub-Committee on matters such as health surveillance, biological monitoring and the health status study for employees in the mineral sands sector.

Draft guidelines for the new Act and Regulations have been prepared and are intended to assist industry employers and employees in meeting duty of care obligations by outlining safe practices and systems of work. The guidelines, which are subject to endorsement by the Mines Occupational Health and Safety Advisory Board, cover issues such as underground ventilation, noise control, diesel storage and refuelling underground, and safe exploration procedures. The complete list of guidelines can be found in the *Publications Appendix* at the back of this Annual Report.

The Department continued to assist in the compilation of a handbook for safe mining. This handbook will be used at mines throughout Australia and New Zealand. It will provide a comprehensive and practical guide to hazard identification and risk management.



MINERAL RESOURCES MANAGEMENT PROGRAM

Following the recommendations of a fatal accidents study through the Mines Occupational Health and Safety Advisory Board, two industry surveys reviewed the process of close-up inspections and scaling of high underground working areas, and operating remote control equipment underground. From the surveys, minimum standards have been set.

In 1994, the Mining Council of Australia introduced an Australia wide safety competition for the mining industry. The Department supported the competition by providing the services of the Deputy State Mining Engineer as a member of an evaluation and assessment team. The National Award for Excellence was won by Kanowna Belle Gold Mine of Western Australia, and one of the three commendations was awarded to Kalgoorlie Consolidated Gold Mines.

The Department also contributed to a new Australian Standard on the design and safe use of remote controls for mining equipment.

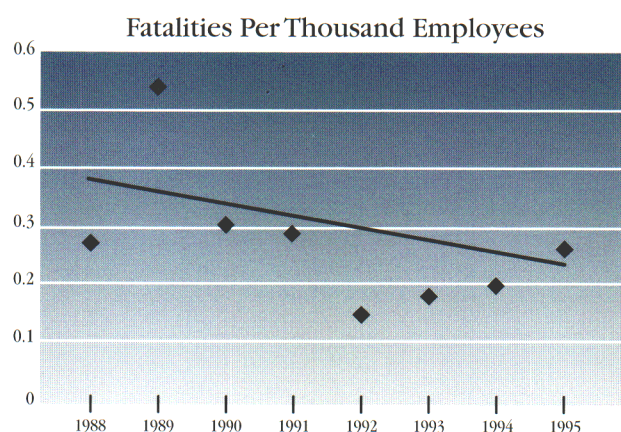
Prosecutions

There were six prosecutions during the year for failure to adhere to safety legislation requirements under the Mines Regulation Act. A further two prosecutions are currently in progress.

Accidents and accident statistics

Nine fatalities occurred in the mining industry, with five in the gold sector, two in the iron ore and one each in the bauxite/alumina and salt sectors. Three of the fatalities occurred underground with six on the surface. The fatality incidence rate of 0.26 per 1 000 employees, (0.20 in 1993-94), remains a serious concern to the Department (Table 3).

Table 3: Western Australian Mines Fatality Incidence



Full details of mining industry accident statistics for the 12 month periods to 30 June 1994 and 31 December 1994 have been published (AXTAT summary and Fatal and Lost Time Injuries in Western Australian Mines respectively), and are available from the Department. A comparison of accident statistics is given in Tables 4 and 5.

Table 4: Mining Accidents

Mineral	Employees	Fatal	Serious	Minor	Total
Gold & Nickel	15 999	5	219	308	527
Iron Ore	7 110	2	39	117	156
Coal	762		24	99	123
Bauxite & Alumina	5 814	1	28	29	57
Mineral Sands	1 780		13	25	38
Diamonds	1 229		16	24	40
Base Metals	523		11	7	18
Salt	517	1	6	12	18
Construction Material	304		3	7	10
Other	756		15	21	36
Total	34 794	9	374	649	1 023

Table 5: Lost Time Incidence and Frequency Rates¹

	1993-94		1994-95		Change %	
	Incidence	Frequency	Incidence	Frequency	Incidence	Frequency
Metalliferous Mines						
Surface	2.6	12	2.4	11	-8	-8
Underground	4.3	21	5.2	24	21	14
Total	2.7	13	2.7	12	0	-8
Coal Mines²						
Surface	10.2	65	16.1	90	58	38
Underground	22.6	159	-	-	-	-
Total	12.1	79	16.1	89	13	33
Total Mining	3.0	14	3.0	13	0	-7

- (1) Under Australian Standards AS 1885.1, incidence is the number of occurrences of injury/disease for each 100 workers employed. Frequency is the number of occurrences of injury/disease for each one million hours worked.
- (2) There was no underground coal mining in the State during the year.

The performance for surface coal mining deteriorated during the year. The incidence and frequency rates have increased by 58 per cent and 38 per cent respectively, reversing the improvement recorded last year. Back injuries are a disproportionate problem in this sector.

The workers compensation premium rates for 1995-96 reflect the sustained improvements in safety performance in all of the metalliferous mining sector in 1994-95. The increased premium rate for the coal mining sector reflects the adverse trend in injury rates. (Table (6))



MINERAL RESOURCES MANAGEMENT PROGRAM

Table 6: Recommended Compensation Premium Rates 1995-96

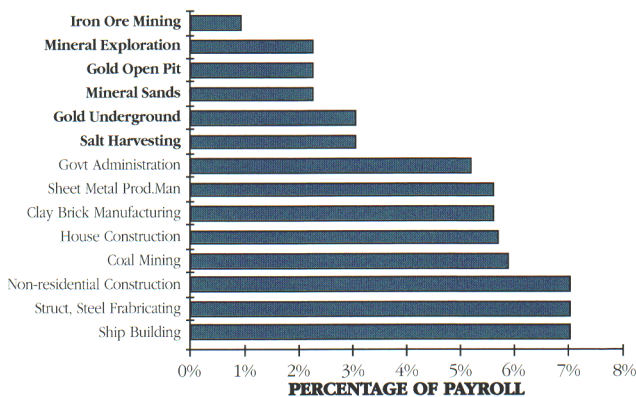
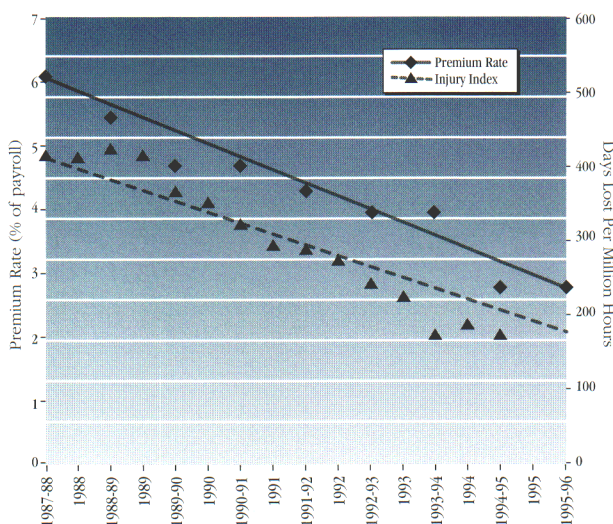


Table 7: Comparison of Injury Index and Compensation Premium Rates



Accident reporting and communication

Approval was granted to set up the mining information network MINet, which links the Department's safety and inspection data bases in Perth, Kalgoorlie, Karratha and Collie to mines across the State.

The existing accident injury recording system AXTAT will be re-developed to include a facility for recording high potential accident and incident details, even where no injuries have occurred. The present system records only details of accidents in which lost time injuries have resulted.

An information system is also under development that will store and allow easy retrieval of audit data, record book entries, current legislation, standards, guidelines, significant incident reports and safety

bulletins. Mines inspectors will have access to the information in the office and in the field.

A new information service known as EXIS (External Information System) is to be made available to registered users. The information available will be updated regularly and include; accident data from AXTAT in the form of graphs, charts and tables; collated accident information from other States; codes of practice, guidelines, standards and current legislation; significant incident reports and safety bulletins.

Safety and inspections

This year 2 400 inspections were conducted by District and Special Inspectors of Mines. This figure is lower than for 1993-94 due to staff shortages and the impediment to travel caused by Cyclone Bobby in early 1995.

The 274 mine fires reported during the year caused the Department concern. There was an increase in both surface and underground fires, which resulted in four mine workers being burnt and several exposed to smoke inhalation.

Although the fires were quickly extinguished with hand held or fixed fire suppression systems (a result of improved diligence on the mine sites), the frequency and potential of these incidents is a matter of serious concern to the Inspectorate and the industry.

During 1994-95, work on mines was suspended by the Inspectors on 185 occasions (235 in 1993-94) and 276 items of defective equipment were taken out of service (300 in 1993-94). Sections of underground mines were closed on 124 occasions, the majority of these being for inadequate ventilation at the workplace (Table 8).

Table 8: Work Suspensions

	INSPECTORATE	SURFACE		UNDERGROUND	
		Safety reasons	Following accident	Safety reasons	Following accident
Number of items of equipment stood down	Kalgoorlie	42	10	26	5
	Perth	67	5	7	0
	Karratha	59	20	2	1
	Collie	19	6	6	1
	sub-total	187	41	41	7
Number of times portions of mines were closed	Kalgoorlie	14	5	67	7
	Perth	23	2	23	4
	Karratha	4	3	14	1
	Collie	4	6	6	2
	sub-total	45	16	110	14
	TOTAL	232	57	151	21



MINERAL RESOURCES MANAGEMENT PROGRAM

Significant incident reports

Significant incident reports continue to be prepared and distributed in accordance with the Worksafe guidelines. The eleven reports issued during the year can be found in the *Publications Appendix* in the back pages of this Annual Report.

Electrical inspections

With the restructuring of SECWA from 31 December 1994, the Department concluded an agreement with the newly formed Office of Energy to undertake electrical inspections on minesites on the Department's behalf for the next three years. Included in the new arrangements are provisions for country based Office of Energy inspectors to operate from the Department's regional offices in Karratha, Kalgoorlie and Collie. In the interests of efficient use of Government resources, the appointed inspectors carry out functions for the Office of Energy in their several regions, as well as the Department's inspection work.

Special Inspectors of Mines (electricity) carried out 622 inspections on minesites during the year and issued 310 letters to mine managers requiring the correction of specific defects. The inspection rate is approximately 26 per cent less than the 844 inspections reported for the previous year, the reduction being due to staff transfers, resignations and the restructure process.

A total of 185 submissions on installation approvals, appointments and exemptions, were received and processed. There were 111 reported electrical incidents (five lost time injuries) that required investigating. No fatal injury resulted. Seven warnings were issued to persons for offences relating to unlicensed and unauthorised electrical work.

Radiation

The Department's Mining Industry Dose Assessment System software program was completely rewritten and issued to relevant mining companies. The system is used at minesites to record radiation monitoring data and to assess employee radiation doses.

The mineral sands industry kept the annual doses below 20 millisieverts for all employees. While the statutory annual dose limit is still 50 millisieverts, the industry is committed to maintain radiation doses below the proposed new national standard of 20 millisieverts (average over five years). However, some employee doses just above 20 millisieverts were recorded for the tantalum industry and while the

primary dose limit of 50 millisieverts was not exceeded, Departmental inspectors are closely monitoring the situation. The company involved has undertaken to reduce exposure.

As part of its quality assurance program the Department conducted some 50 sets of equipment calibration and sample analysis audits through the mineral sands and tantalum industries. The Department also received 26 reports dealing with radiation matters in mining for review in this period. The topics ranged from occupational exposure and environmental radioactivity to the radiological aspects of red mud residue from alumina refining.

Advice was given to a number of operations where high temperature electric arc furnaces are used, and where there is potential for non-ionising radiation hazards such as magnetic fields and ultra violet radiation to occur.

Sixteen Department mines inspectors have been appointed as authorised officers under the Radiation Safety Act to enable the inspection of radiation gauges on behalf of the Radiological Council. This will ensure a higher inspection frequency at a lower cost.

Occupational noise and vibration

Auditing of noise management was maintained. The industry responded positively to requests for properly structured noise control planning. The implementation of noise control plans is a vital aspect of noise management to ensure continuing reduction of employee exposure to noise. There was an obvious trend in industry to adopt "buy quiet" programs to ensure that new mining and processing equipment is not likely to expose employees to excessive noise levels.

There was substantial progress towards full implementation of a computerised system for noise recordings. The system has accumulated noise data for over 25 000 industry employees; those exposed to noise above the action level represented 41 per cent of all employees.

Work continued on a series of guidelines to assist the industry adopt proven noise control solutions.

Assessment of noise and vibration levels generated by mining blasts continued in areas adjacent to mining and quarrying operations. Findings from this work are effectively used by the industry to modify their blasting practices and consequently reduce the blast impact on surrounding areas.



MINERAL RESOURCES MANAGEMENT PROGRAM

Occupational hygiene

A biological monitoring program initiated by the Department continued. The program is primarily focused on the following sectors of industry:

- fire assay laboratories in the gold industry (lead);
- gold tailings retreatment (mercury);
- heavy media separation in the mineral sands industry (thallium);
- smelting of arseno-pyrite ores in the gold and nickel industry (arsenic); and
- mining and processing of lead ores (lead).

In the twelve month period there were 179 blood lead, two urinary arsenic, six urinary mercury and 17 urinary thallium tests conducted. Of the 204 samples received, only one of the urinary results was found to be elevated.

Chemical management

Inspections carried out during the year emphasised correct handling and use of chemicals along with compliance with the Dangerous Goods (Storage) Regulations 1992. Inspections included the auditing of company programs in relation to:

- provision of Material Safety Data Sheets (MSDS);
- chemical requisition procedures;
- personal protective equipment usage;
- storage and handling of chemicals;
- site audit; and
- disposal of chemicals.

As a result of the audits and inspections, the Department identified key areas in need of improvement:

- training employees to use MSDS information;
- providing MSDS information to on-site contractors;
- control of access to dangerous goods and chemicals;
- selection of personal protective equipment (PPE); and
- training, use and maintenance of PPE.

Waste disposal procedures at large minesites improved noticeably. These procedures included the use and monitoring of waste disposal contractors and the returning of products to the chemical supplier.

The majority of minesites have now been formally assessed on the status of compliance with the Dangerous Goods (Storage) Regulations 1992. Since gazettal of these regulations in October 1992 there have been 100 full assessments and in excess of 300 partial assessments at minesites. Partial assessments are sufficient where bulk fuels and compressed gases are the principal dangerous goods on site, whereas bulk chemical storage tanks require formal assessments, including testing for structural integrity.

Geotechnical and rock mechanics

Geotechnical issues on employee safety in open pit and underground mining were extensively covered. The Department conducted 67 geotechnical assessments dealing with ground conditions, ground support and reinforcement, mine design and operating issues. As a result improvements were made to a number of mine designs and, in some cases, to operating practices.

Education on ground control in the workplace continued during the year with 28 presentations to approximately 445 underground employees in the Pilbara, Kimberley, Murchison, Yilgarn, Kalgoorlie and Leinster regions. In conjunction with the Western Australian School of Mines, the Department conducted a two-day course for industry personnel on ground control in underground mining.

The Department undertook a joint research project with the Chemistry Centre WA on the corrosive behaviour of friction rock stabilisers used for ground support in underground mining openings. A technical paper documenting the outcome of the research has been prepared and accepted for presentation at the Underground Operators Conference to be held in Kalgoorlie in November 1995.

Work continued on geotechnical aspects of tailings storage design, management and decommissioning with some 112 geotechnical assessments being completed during the year. The Department was involved in two workshops related to tailings storage design, operation, rehabilitation and decommissioning with the Australian Centre for Geomechanics.

Safety publications

Both MINESAFE and RescueNet continue to be published quarterly. Once again, RescueNet was industry sponsored with Telfer, Boddington Gold, Central Norseman and Paddington mines contributing both funds and feature articles.

MINESAFE is now in its sixth year and continues to be the Inspectorate's flagship for conveying occupational health and safety messages to the mining industry workforce. Demand for this publication is increasing, and it is circulated to interstate and overseas mines, consultants and governments.

Board of examiners

There was a record number of applicants for the examinations held in May 1995, when 350 people sat under the Mines Regulation Act 1946 and Regulations 1976 for the last time. The next examinations will be held under the new legislation. The Board issued a total of 205 certificates for first class mine managers, quarry managers, underground supervisors, restricted quarry managers, authorised mine surveyors, and open cut managers (coal).



MINERAL RESOURCES MANAGEMENT PROGRAM

1.4 MINERAL INDUSTRY ENVIRONMENTAL MANAGEMENT

Objective: *To ensure that environmental impacts of mineral exploration and development activities are within acceptable community standards.*

Description: *Strategies include the maintenance of a legislative framework, and worksite visits to monitor and audit compliance with legislation and conditions of title. A security bond system is maintained to indemnify the State in the event of failure by a proponent to comply with environmental conditions of title. Guidelines on environmental management of mining operations are prepared and published to assist industry meet government requirements.*

Environmental and rehabilitation management

During the year 255 Notices of Intent (NOI) were received for new mining proposals and one Environmental Management Program (for an operating mine). Of these, 75 were referred to the Environmental Protection Authority. The majority of the NOIs were assessed and reviewed by Departmental officers. As a first step in outsourcing some routine functions, appraisal of Notices of Intent by consultants began on a trial basis in May and June. The success of this trial will be reviewed in 1995-96.

At 30 June 1995 there were 1 500 Environmental Performance Bonds in place with a total value of \$53.95 million. During the year 518 bonds totalling \$23.97 million were registered. Some of the additional bonds received during the year represent the consolidation of bonds as sites develop. Eighteen bonds were reduced or retired during the year when rehabilitation had reached satisfactory standards.

The standard of rehabilitation continues to improve throughout the industry. The annual environmental reporting and assessment process has encouraged operators to carry out progressive rehabilitation in order to reduce the Performance Bonds.

A total of 106 NOIs to clear land were received by the State Mining Engineer through delegation from the Commissioner of Soil and Land Conservation.

Work on the old mining area of Wittenoom continues, with the Building Management Authority inviting tenders for a feasibility study and project management program for making the mine openings at Wittenoom, Colonial and Yampire Gorge mine sites safe.

Prosecutions

Following inspections and investigations, two prosecutions were made for illegal mining. The convictions resulted in a fine of \$2 000 for one offender, and a fine of \$300 for the second offender. A further prosecution for unauthorised clearance for mining purposes resulted in a fine of \$57 000.

Environmental awards

For the third year, the Department presented awards for environmental excellence in the mineral and petroleum industries. Awards were given to CSR Readymix for its operations at the Jandakot Sand Quarry, and Ray Gerrard for the development of the Nurally seeder. West Australian Petroleum received a certificate of merit for management of its intertidal seismic operations at Barrow and Theverard Islands. The Awards Selection Committee comprised Professor Fay Gale AO, Brendan Nicholson (West Australian Newspapers), Harry Butler CBE, and Lee Ranford, Acting Director General of the Department of Minerals and Energy.

The awards are presented annually by the Minister for Mines to promote and encourage advances in environmental management and rehabilitation in all aspects of the mining and petroleum industries of Western Australia.



MINERAL RESOURCES MANAGEMENT PROGRAM

1.5 MINERAL EXPLORATION DATA

Objective: *To provide the mineral industry with ready access to mineral exploration, development and production data in order to encourage efficient and effective mineral exploration and development.*

Description: *This sub-program seeks to encourage mineral exploration and development activities and prevent wasteful duplication of effort. The strategy is to maintain a complete archive of the exploration and mining reports lodged by the tenement holders, and to ensure that the reports are readily accessible when they are released to the public under the terms of the relevant legislation.*

During the year 3 322 exploration reports were received and prospecting activities were carried out on 10 827 tenements. In 1993-94 a total of 2 849 reports were received on 9 637 tenements.

Gold continues to be the most commonly sought commodity in mineral exploration reports received, representing 71 per cent of all reports. (Figure 1). A total 1 801 reports were released to open-file. Gold was again the most common commodity in released reports, representing 59 per cent of the total (Figure 2).

Figure 1: Mineral Exploration Reports Received during 1994-95 (3 322 Reports)

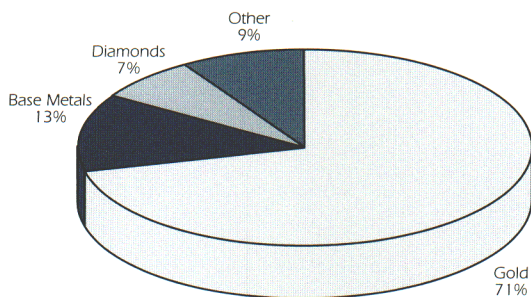
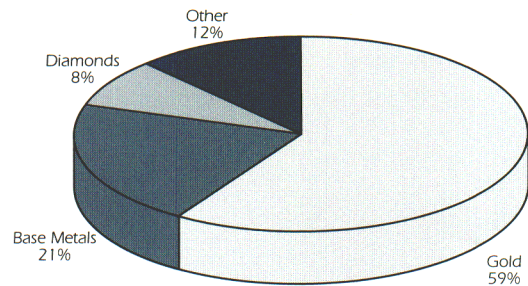


Figure 2: Mineral Exploration Reports Released during 1994-95 (1 801 Reports)



Mineral exploration reports that are submitted to the Department by the mining industry in compliance with the reporting requirements of the Mining Act are included in the Department's Western Australian Mining Exploration Index (WAMEX). A public access version is available for open-file data searches from the Library, 5th Floor, Mineral House, 100 Plain Street, East Perth.

Microfiche copies of reports may be viewed in the library at Mineral House and at the Geological Survey regional office in Kalgoorlie. Microfiche copies may also be purchased from the Department.

There was increased monitoring of industry requests to submit combined statutory reports. This was to ensure that all operators obtain prior agreement from the Department as to which group of tenements will constitute a reporting unit (or project) before submitting future combined reports. During the year, combined reporting status was granted for 4 536 tenements in 523 groups.

The Mining Industry Liaison Committee addressed exploration reporting issues through its sub-committee on reporting and compiled a set of statutory guidelines on the standard and contents of mineral exploration reports. In addition, a revised format for Operations Reports (Form 5) was prepared. It is planned that new legislation on exploration reporting and data release will become effective during late 1995.



MINERAL RESOURCES MANAGEMENT PROGRAM

1.6 MINERAL ROYALTIES

Objective: *To collect, for the community, a fair return for the extraction of the State's mineral resources in a manner that is administratively and economically efficient.*

Description: *Strategies include the development and implementation of royalty systems to collect and verify the royalty payment from mineral producers. The royalty system and verification arrangements are negotiated with producers within a common framework and are then formalised through legal means.*

Most mineral resources in Western Australia belong to the community. Individuals and companies engaged in the extraction and sale of these resources provide benefits to the community through employment, establishment of new towns, and provision of infrastructure and financial payments in the form of charges, rates and taxes.

One of the charges is a royalty which represents the price for mineral resources transferred from the community to the miner.

The Department is responsible for developing royalty systems, managing the implementation of royalty policy and the collection of royalties for the State. The three systems used to determine the amount of royalty paid are based on:

- the quantity of mineral produced (specific rate royalties). This system is generally applied to low value products such as sand or construction minerals. Rates vary from 30 to 50 cents per tonne;
- a percentage of the value of mineral produced and sold (ad valorem royalties). Most minerals such as iron ore, nickel and base metals, have royalties that are based on the proportion of production value. Rates vary from 1.65 per cent to 7.5 per cent depending on the extent of value adding before the sale point; and
- a percentage of the net profits of the mining operation. Currently only one mining company has a profit based royalty system and this is levied at a rate of 22.5 per cent.

The aim of the mineral royalties sub-program is to ensure that the community receives a fair financial return for the depletion of non-renewable resources. Setting a benchmark to determine what is considered a fair return is a complex issue. Variables such as differing production technologies, infrastructure costs, and mineral types have an effect on the value of saleable production at the mine head. The philosophy incorporated into the Mining Act reflects a 10 per cent mine head value benchmark. The average rate this year for minerals subject to royalties was 9.6 per cent compared with 9.5 per the previous year. The average rate for all minerals including gold, for which no royalty is payable, was 6.2 per cent this year compared to 6.1 per cent during 1993-94.

Royalty payments collected from the minerals industry totalled \$277 million:

Mineral royalty collection (\$m)

1990-91	232
1991-92	258
1992-93	269
1993-94	261
1994-95	277

In addition to mineral royalties, the Department collected \$26 million through additional lease rentals which are levied in the form of a royalty on iron ore producers under State Agreement Acts.

Royalties were received on a timely basis and accurately reflected the amounts due. This was achieved by carrying out internal reviews on 944 returns and auditing 324 of those returns, valued at \$193 million. Increased royalty collections of \$1 million resulted directly from audit activities.

During the year a new iron ore royalty system was implemented to provide greater uniformity and equity in royalty rates.

Several major negotiations were undertaken during the year to meet the Department's objectives. Proposed amendments to legislation were initiated through a continual commitment to legislative review, while cessation of the royalty relief granted to some mineral sand producers resulted in arrangements for the repayment to the State of \$5 million between April 1995 and January 1996.

Several royalty rates were reviewed under escalation clauses and where appropriate, new rates implemented. Consideration was also given to a number of requests for royalty relief or royalty reduction.



MINERAL RESOURCES MANAGEMENT PROGRAM
PERFORMANCE MEASUREMENT
PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

Planned Achievements

To provide improved mineral title administration by implementing the TENGRAPH computer-based geographical information system in the Mining Registrars' Offices at Kalgoorlie, Coolgardie and Leonora.

To establish a new regional office in the Kimberley region to improve liaison and access to departmental information.

To implement administrative procedures in conjunction with other agencies to ensure that the determination of mineral title applications affected by the Land (Titles and Traditional Usage) Act 1993 is not unduly delayed.

To achieve a continuing reduction in the incidence of accidents and lost time injuries in metalliferous and coal mining operations.

To commence work on the development of an inventory of abandoned minesites in Western Australia in order to determine their environmental significance and level of risk to public safety.

To introduce changes to the Mining Act to ensure that the reporting of the results of mineral exploration is timely and to a standard that provides an effective database of past exploration activity.

To commence development of dial-in access arrangements to departmental computerised databases to provide improved service to industry.

To complete a review and implement changes to specific rate royalties for industrial minerals.

Outcomes

Continuous improvement in mineral title administration is being achieved with the successful implementation of the computer-based tenement graphics system, TENGRAPH, in Kalgoorlie, Coolgardie and Leonora.

A regional office, staffed by a senior liaison officer representing the interests of the Department, was established in Kununurra in March 1995 to service the Kimberley region.

Administrative procedures were implemented ensuring the timely determination of mineral title applications affected by the now inoperative Land (Titles and Traditional Usage) Act 1993. Administrative procedures are being revised to determine applications under the Commonwealth Native Title Act.

The incidence of lost time injuries from mining accidents continued to decline. The workers' compensation rates for 1994-95 were reduced, reflecting the ongoing improvement in safety performance.

Following a review of priorities, development of an inventory of abandoned minesites was not undertaken.

Statutory guidelines for the submission of mineral exploration reports were produced in consultation with industry to ensure that reporting of the results of mineral exploration is timely and to a standard that provides an effective database of past exploration activities.

Development of a program to provide for dial-in access to the Department's mineral tenement information system (TENDEX) was completed in June 1995. Access to the information is now available and access to the Department's other computerised information systems will progressively be made available during 1995-96.

A review of iron ore and petroleum royalties was undertaken in place of the planned review of specific rate royalties for industrial minerals.



MINERAL RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

Objective:

To ensure that the exploration for and mining of the State's mineral resources are managed for the benefit of the people of Western Australia.

Influencing Factors

The level of mineral exploration and development activity in the State is dependent on a number of factors, including world commodity prices and Federal and State fiscal and land access policies, which significantly outweigh the impact of any Departmental initiatives. It is not appropriate, therefore, to use the level of these activities as a measure of Program effectiveness. However, they do provide an important indication of the context in which the Department operates, showing that the State cannot be complacent if it is to retain its pre-eminent position in terms of attracting mineral exploration and development investment.

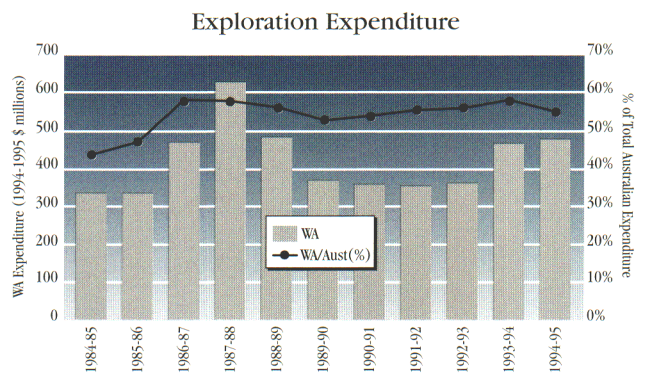
Indicator

Level of Mineral Exploration Activity

The rate of resource discoveries and the corresponding changes in the State's resource inventory are related to the level of exploration activity. The graph opposite indicates the current and immediate past levels of aggregate exploration expenditure in Western Australia compared to the total expenditure in Australia.

Overall exploration expenditure in the State during 1994-95 was slightly higher than in 1993-94. However, the proportion relative to total Australian expenditure fell slightly for the first time in five years.

Result

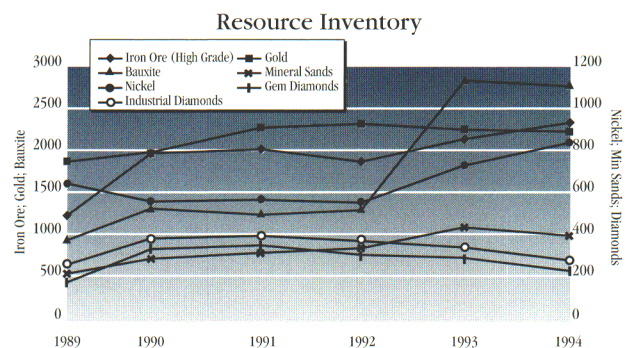


Major Minerals Resource Inventory

Changes in resource inventories for selected commodities (measured and indicated resources at 31 December).

Units of commodities shown are:

Iron Ore (high grade)	ten million tonnes
Gold	tonnes
Bauxite	million tonnes
Mineral Sands	hundred kilo-tonnes
Nickel	ten kilo-tonnes
Diamonds	million carats



Gold and nickel inventories have increased again over the previous year's levels following continued strong exploration and development activity for these two commodities. No new diamond resources have been delimited and diamond inventories have continued to decrease for the third consecutive year.



MINERAL RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

MINERAL TENURE SUB PROGRAM 1.2

Objective:

To provide the mineral industry with a timely, secure and equitable titles system, and accurate, up-to-date information about mineral and land tenure in order to encourage and facilitate responsible mineral exploration and development.

Indicator

Result

Effectiveness

The proportion of Prospecting Licence, Mining Lease and Exploration Licence applications which are finalised within the target period.

	Target	1992-93*	1993-94	1994-95	
Prospecting Licences	85% within 4 months	82%	68%	69%	69%
Mining Leases	75% within 7 months	62%	73%	66%	66%
Exploration Licences	75% within 7 months	62%	70%	64%	64%

* Target periods in 1992-93 were three, five and six months respectively.

This indicator reflects the Department's ability to process title applications in a timely manner. Some applications are subject to delays beyond the control of the Department, for example; where applications affect private land, Aboriginal or Conservation Reserves or legal disputation arises.

The average time taken to determine each major title category during the year.

	1992-93	1993-94	1994-95*
Time in months to process:			
Prospecting Licences	2.6	3.7	4.4
Mining Leases	5.5	6.0	5.3
Exploration Licences	7.3	8.4	8.2

* July to February only; grant of title after 16 March 1995 affected by requirements of Native Title Act.

Prior to the introduction of the Land (Titles and Traditional Usage) Act the respective 75 per cent and 85 per cent target figures reflected applications not subject to delays due to traditional land use and Native Title considerations. Since December 1993 all applications have been subject to a 70 day objection period on traditional land use grounds. This impacted on the outcomes in 1994-95 to a greater extent than had been predicted.

Following the High Court decision of 16 March 1995, the grant of mineral titles in the State was effectively suspended until the end of June 1995 while applications were submitted under the provisions of the Commonwealth Native Title Act. Results for both effectiveness indicators are, accordingly, based on title grants between July 1994 and February 1995.

The proportion of mining leases and exploration licences granted within the target period of seven months declined because of the extra processes involved.

Efficiency

The administration cost for mineral titles.

1992-93 1993-94 1994-95

This indicator reflects the departmental cost of issuing and maintaining titles.

Mineral Titles (cents/ha) 29c 24c 25c

Costs were contained despite delays and extra costs associated with additional processes.



MINERAL RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

MINERAL INDUSTRY OCCUPATIONAL HEALTH AND SAFETY SUB PROGRAM 1.3

Objective:

To achieve a low and decreasing incidence of bodily injury, occupational disease and fatalities amongst those employed in the mineral industry.

Indicator

Result

Effectiveness

The frequency of lost time injuries for mining operations.

The frequency is the number of occurrences of injury or disease for each one million hours worked as defined in Australian Standard AS1885.1 - 1990.

	1991-92	1992-93	1993-94	1994-95*
Coal Mines	112	130	79	89*
Metalliferous Mines	21	17	13	12*

* Subject to confirmation

Continuous improvement in the overall safety record of the mining industry has been marred by a deterioration in the performance for surface coal mining, reversing the improved performance recorded last year. Back injuries are a disproportionate problem in this sector.

Workers' compensation premium rates for the mining industry as a proportion of the employer's payroll.

These rates are published in the Government Gazette and are determined by the Premium Rates Committee on the basis of past performance. Each year's figures reflect the previous year's safety performance.

	1991-92	1992-93	1993-94	1994-95	1995-96
	%	%	%	%	%
Coal	3.33	3.00	4.02	4.39	5.88
Gold underground	7.51	6.76	5.50	3.08	3.07
Gold open-cut	3.93	3.54	3.72	2.76	2.28
Mineral sands	3.93	3.54	3.72	2.76	2.28
Iron ore	3.20	2.88	2.73	1.44	0.95

The rates generally reflect an improved safety performance, bearing in mind that they are set on 1 July, based on the previous year's compensation data. The increase in the coal premium reflects the increase in the frequency rate recorded in 1994-95.

Efficiency

The total cost of salaries plus support services for the sub-program's engineering inspectorates per employee in the mineral sector.

The costs have been determined using the sub-program's salary level and a factor (0.7) for all overheads. Previous years' figures are historical.

	1991-92	1992-93	1993-94	1994-95
All mining	\$185	\$188	\$193	\$190*

*Subject to up-date.

The slightly reduced cost of the inspectorates per employee in the mineral sector reflects an increase in employee numbers combined with a reduced number of inspection staff.



MINERAL RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

MINERAL INDUSTRY ENVIRONMENTAL MANAGEMENT SUB PROGRAM 1.4

Objective:

To ensure that environmental impacts of mineral exploration and development activities are within acceptable community standards.

Indicator	Result			
	1992-93	1993-94	1994-95	
Effectiveness				
The extent to which mineral operations comply with Departmental environmental completion criteria.	No. of Projects assessed	5	12	18
	Proportion meeting criteria (Bonds reduced or released)	100%	92%	100%

A security bond system is maintained to indemnify the State in the event of failure by a proponent of mining activity to comply with environmental conditions of title. Bonds are called on to rectify unsatisfactory environmental performance. Where rehabilitation work is completed to the satisfaction of the Department bonds are reduced or released.

The extent to which there is acceptance by the community of the Department's role in environmental management of the mineral industry, measured by surveys of community groups.

The survey approach was not undertaken this year; however responses to the review of rehabilitation and environmental performance in the Gold and Mineral Sands Industry carried out by The Mining Environment Liaison Committee indicate that the Department is achieving its goals and that the community is accepting these achievements.

MINERAL EXPLORATION DATA SUB PROGRAM 1.5

Objective:

To provide the mineral industry with ready access to mineral exploration, development and production data in order to encourage efficient and effective mineral exploration and development.

Indicator	Result			
	1992-93	1993-94	1994-95	
Effectiveness				
The proportion of mineral exploration reports on active mining tenements received from industry which have been accessioned in the WA Mineral Exploration database (WAMEX).	No. of reports received	2 187	2 849	3 322
	Proportion accessioned	100%	100%	100%

Indicator	Result			
	1992-93	1993-94	1994-95	
The proportion of mineral exploration reports which become eligible for release that are placed on open file as microfiched items.	No. of reports eligible	2 298	2 460	2 215
	Proportion released	100%	40%	81%

Stabilised staffing levels and processes have largely eliminated the backlog of reports which developed during 1993-94.



MINERAL RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

MINERAL ROYALTIES SUB PROGRAM 1.6

Objective:

To collect, for the community of Western Australia, in a manner that is administratively and economically efficient, a fair return for the extraction of the State's mineral resources.

Effectiveness

Total royalties collected as a proportion of mine-head value	1992-93	1993-94	1994-95
• Including gold (for which no royalty is payable)	7.0%	6.1%	6.2%
• Excluding gold	n/a	9.5%	9.6%
The proportion of royalties reported due which are paid by the required date.	1992-93 99.9%	1993-94 99.9%	1994-95 99.8%

Efficiency

The average administration cost per audit visit.	1993-94 \$3 939	1994-95 \$5 083
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The change from 1993-94 was caused mainly by a redundancy payout in July 1994 and a reduction in the number of external site audits.



Program 2: PETROLEUM RESOURCES MANAGEMENT



Objective: *To ensure that the exploration, development and production of the State's petroleum resources are managed for the benefit of the people of Western Australia.*

Description: *Petroleum Exploration, development and production activities are generally large operations. Most petroleum deposits tend to have relatively large areal extent with oil and gas being produced through an array of deep drilled holes. As a general rule, the petroleum industry is more capital intensive than the mineral industry.*

Introduction

This program ensures that explorers have access to land and past exploration data; explorers and producers have secure titles on which to base their investments; exploration, development and production activities are conducted with high standards of worker and public safety, and with due care for their impact on the environment; and the community receives a reasonable return from the extraction of its petroleum resources.

These objectives are managed separately from the minerals sector activities because of the significant and inherent differences between the client organisations and the nature of the exploration, development and production processes.

The direct cost of this program was \$2.746 million. This together with associated corporate service costs of \$1.183 million, resulted in total expenditure of \$3.929 million. The program employed a total of 47 full time equivalent staff and generated direct revenues of \$3.323 million through fees and rents.

As part of an overall analysis of department activities carried out during the year, a review of the program has resulted in a streamlined structure comprising three sub-programmes which will be implemented in 1995-96.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.1: PETROLEUM INDUSTRY AND RESOURCES POLICY

Objective: *To provide Government with high quality, timely, petroleum industry and resource information, policy analysis and advice with a view to ensuring long term social and economic benefits to the community from the sustainable development of the State's petroleum resources.*

Description: *Issues include land use and access, petroleum prospectivity, resource availability, petroleum exploration, development and production practices, economic and social factors (including Aboriginal issues), research and training, foreign ownership, Commonwealth and issues and industry assistance.*

Strategies: *Include the monitoring and evaluation of industry performance, compilation and maintenance of technical and economic databases, and liaison with Government agencies, the petroleum industry and the public, as a basis for the preparation of information briefings and policy advice.*

Resources

Assessments of the State's oil and gas reserves were completed along with evaluations of development proposals for the Wandoo oilfield and the East Spar gas/condensate field.

Evaluation of all drilling proposals was carried out along with monitoring of all exploration and production operations. Subsequent projects included analysis of potentially large offshore gas discoveries at Chrysaor and Perseus, and evaluation of appraisal drilling over the Macedon, East Spar, Petrel, Tern, and Gorgon gasfields and the Stag oilfield.

Monitoring of under balanced drilling technology used on Barrow Island was undertaken along with reservoir engineering studies on Canning Basin oilfields and the East Spar gasfield.

Environment and promotion

The Department assisted the Government to develop an environmental policy on marine parks which was released through the *New Horizons in Marine Management* document in November 1994.

To help promote Western Australia as the oil centre of Australia, the Department ran the *1994 WA Oil and Gas Forum* in October featuring a range of speakers from Government and industry.

The Department continued to liaise with the Department of Resources Development on major projects including the Goldfields Gas Pipeline and Gorgon projects.

Royalties

A discussion paper was published on a proposed petroleum royalty system designed to be more economically efficient than the present system, while at the same time encouraging marginal producers and exploration in areas of lower prospectivity. An international firm of consultants commented favourably on the proposed royalty arrangements and were critical of the existing regime. Industry was less enthusiastic, preferring to maintain the existing arrangements.

Discussions are continuing on the royalty system in other areas, as well as work on the introduction of a State gas flaring policy. The Department, along with the Departments of Resources Development and Treasury, is involved in a State attempt to regain a direct share of offshore petroleum royalties from the Commonwealth.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.2: PETROLEUM TENURE

Objective: *To provide the petroleum industry with a timely, secure and equitable titles system, and accurate, up-to-date information about petroleum land tenure in order to encourage and facilitate responsible exploration and development.*

Description: *Accurate and up-to-date information on land status is provided, and systems are maintained to ensure the expeditious processing and determining of title applications. Compliance with expenditure commitments and work obligations is monitored to ensure that areas are being actively explored or made available to others. Work covered by this sub program also encompasses the day-to-day administration of petroleum activities in Commonwealth offshore areas on behalf of the Commonwealth Government.*

Title activity

The number of active petroleum titles increased slightly from 195 to 201. Although no new production licences were issued, four new pipeline licences were granted. These included the 1400 km Goldfields Gas Pipeline which will transport gas from the State's major petroleum region to the Eastern Goldfields. The Department will be responsible for overseeing the construction and operation of the pipeline.

A total of 1 501 title dealings were processed, of which 95 per cent were determined within three months. This is a substantial increase over the previous year in terms of both number received and the time taken to process the applications.

Early in the year, extensive amendments to the State's petroleum legislation were effected. These amendments were designed to encourage exploration in more "frontier" areas of the State. While these initiatives have been largely negated by the uncertainties created by the Commonwealth Native Title Act, the gas storage amendment was successful. To date, agreement has been reached to transport associated gas from the offshore Griffin Project to be

re-injected into the onshore Tubridgi gasfield near Onslow. Another gas storage project closer to Perth is being finalised. Gas storage has the capacity to save gas which would otherwise be flared or vented and accordingly assists the State conserve a resource and reduce pollution.

The advent of the Commonwealth's Native Title Act has had a considerable impact on the State's ability to process petroleum title applications, particularly over onshore regions. Processes are being adapted to accommodate Native Title but is unlikely that further titles will be granted in the short term. A prototype of the petroleum titles management system PETMAN is being tested. Once operational, this system will improve title services.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.3: PETROLEUM INDUSTRY OCCUPATIONAL HEALTH AND SAFETY

Objective: *To achieve a low and decreasing incidence of bodily injury, occupational disease and fatalities amongst those employed in the petroleum industry.*

Description: *Strategies include auditing and enforcing compliance with petroleum legislation; promotion of, and participation in, safety education, training and research; and the provision of specific technical advice to government, industry and the public.*

Introduction

As part of the ongoing process of managing costs and improving customer service, the safety, engineering, and environmental functions were consolidated into one branch. Use of quality management techniques has improved effectiveness through the minimisation of rework.

Safety

Work continued on a new Petroleum Occupational Health and Safety Act to bring upstream petroleum safety matters under a single Act. The Department has been actively involved in tripartite work to dismantle existing prescriptive requirements in the *Schedule of Specific Requirements as to Offshore Petroleum Exploration and Production - 1990*, and replace them with an objective setting framework.

The Department was also represented on a tripartite working group set up to resolve safety issues at the interface between the petroleum and maritime industries. The objective is to establish a Memorandum of Understanding between the Australian Maritime Safety Authority and the Department which clearly defines respective roles for the benefit of both regulators and industry.

Audits of helicopter operations were conducted on several offshore installations and a comparative assessment report is being prepared. The audit program is being done in consultation with the Civil Aviation Authority, and augments the audits conducted by helicopter companies and petroleum operators.

A major safety seminar held to make industry aware of Government objectives and strategies was well received with requests for an ongoing seminar programme. The next seminar will be held in September 1995.

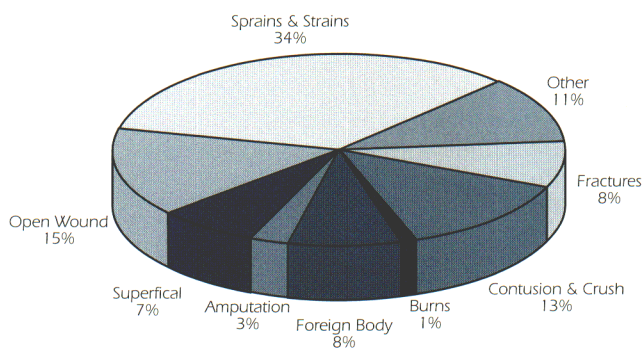
Assessment of safety cases continued and assessment began on the safety plans of two major pipeline projects and the safety cases of mobile offshore drilling units.

Audits and inspections were carried out in accordance with the Safety Case Regime and the respective legislation. These audits and inspections have resulted in numerous requests for corrective action. On four occasions, operations were required to cease or to remain shut down until specific actions were completed to the Department's satisfaction.

Safety performance in the industry continued to improve with a decrease in the offshore lost time injury frequency rate. There was only one fatality during the year.

Of all injuries reported to the Department, including lost time and medical treatment injuries, 34 per cent were sprains and strains which indicated that more attention needed to be paid to manual handling issues. Many of these injuries occurred during the summer months where heat stress may have been a contributing factor (Figure 3)

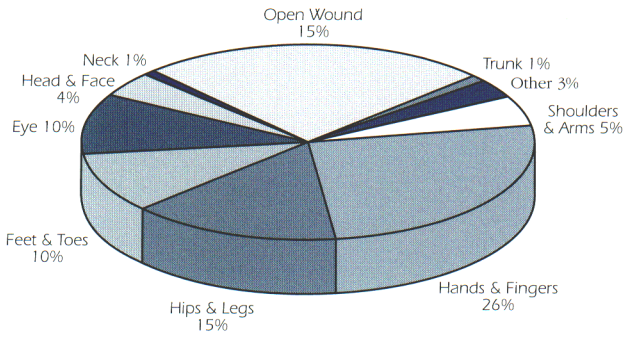
Figure 3: Nature of Injury 1994-95



PETROLEUM RESOURCES MANAGEMENT PROGRAM

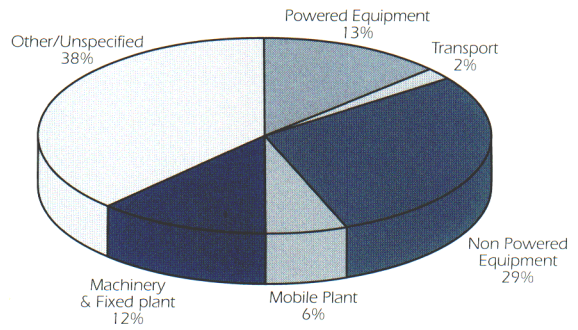
In 51 per cent of all reported injuries, hands, fingers and backs were involved. The significance of back injuries (25 per cent), is that they are cumulative which can have an effect in later life (Figure 4).

Figure 4: Part of Body 1994-95



Whilst powered machinery, fixed and mobile plant contributed to 33 per cent of reported injuries, non powered plant and other unspecified plant contributed to the remaining 77 per cent of injuries. This outcome suggests a manual handling problem with hand powered tools (Figure 5).

Figure 5: Breakdown Agency 1994-95



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.4: PETROLEUM INDUSTRY ENVIRONMENTAL MANAGEMENT

Objective: *To ensure that any adverse environmental impacts of petroleum exploration and development activities are within acceptable community standards.*

Description: *Strategies include the maintenance of a legislative framework, and worksite visits to monitor and audit compliance with legislation and conditions of title, during operations and after project completion. A security bond system is maintained to facilitate administration and emergency response in the event of any mishap.*

During the year there were no major oil spills and no significant impact on the environment as a result of petroleum operations. Fifty environment management plans and forty-nine oil spill plans and exercise reports were reviewed and approved.

Environmental advice was provided for 209 drilling and survey applications. Advice was provided on amendment of the Conservation and Land Management Act and to the East Spar and Wandoo development proposals.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.5: **PETROLEUM EXPLORATION DATA**

Objective: *To provide the petroleum industry with ready access to petroleum exploration and production data in order to encourage efficient petroleum exploration and development.*

Description: *To encourage exploration and development activities and to ensure the previous activities are not necessarily duplicated, a library of core and sample material and technical reports on activities within petroleum tenements is maintained. Technical reports, lodged with the Department as a condition of tenure, are released to the public as required by legislation. Cores and samples may be viewed at the State core storage facility.*

Strategies: *Include cataloguing and capture of all incoming petroleum data to ensure data quality; maintain and archive data such that upon its release the data is of a standard and format usable by all customers; release of data in a timely and responsive manner either through the Department or its agencies; ensuring the released data is of a standard and price to facilitate petroleum exploration and research in the State; provide customers with a database encouraging this exploration by providing products and search facilities helpful to industry; ensure data indexing systems and archiving facilities conform to industry standards and developing customer needs.*

The Western Australian Petroleum Exploration database (WAPEX) expanded by 49 299 registered items to 431 911 items including reports, seismic section, well logs and data tapes. Productivity in access, capture and release of petroleum data increased by 24.1 per cent.

A total of 99 edited reports from 45 activities, and 80 unedited reports from 34 activities were released. A total of 77 requests representing 4 902 tapes were released for reprocessing and 31 sampling approvals and 13 palaeontological borrowing approvals were given.

The library function of the section increased from 36 borrowings per month to 630 borrowings per month over the year due mainly to the work generated by the new Petroleum Initiatives Team.

Construction of a central archive repository began and will house petroleum and mineral exploration report databases and library archives currently situated at four locations throughout Perth. The new archive will be ready by mid September 1995.

The prototype for a new petroleum exploration database has been designed and tested. Well data has been incorporated into a petroleum geographic information system using this prototype.

A proposal for the transcription and archiving of petroleum digital data has been drawn up for consideration by management and industry. It is planned to formalise this proposal and put forward an implementation strategy next year.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

SUB PROGRAM 2.6: PETROLEUM ROYALTIES

Objective: *To collect, for the community of Western Australia, in a manner that is administratively and economically efficient, a fair return for the extraction of the State's petroleum resources.*

Description: *The strategies involve the development and implementation of royalty systems to collect and verify the royalty payments from petroleum producers. The royalty systems and verification arrangements are negotiated with producers within a common framework and are then formalised through legal means.*

Royalty payments are collected by the Department from all producers operating under Western Australian legislation and also from some producers operating in areas of Commonwealth jurisdiction. These royalties represent the payment made by producers for the right to extract and use or sell a community owned resource.

Two systems are used to determine the amount of royalty to be paid for petroleum production in the State:

- 1) A royalty based on a percentage of the value of petroleum recovered at the well-head. This is known as the well-head value royalty system and applies to onshore areas, the Territorial Sea and the Woodside North West Shelf project area located in Commonwealth waters. A royalty schedule is negotiated which defines the location of the wellhead and the value at which that royalty is levied.

While well-head value is a commercial concept, the royalty agreements are complex and take a considerable amount of time to negotiate, with a rate of between five per cent and 12.5 per cent of the well-head value being applied. Royalty is collected on an interim basis until these agreements are finalised.

- 2) A royalty based on a percentage of the net cash flow or economic rent base. Currently, the Resource Rent Royalty (RRR) system applies a rate of 40 per cent to the net cash flow of economic rent base, with allowances for all production costs. By agreement between the Commonwealth and Western Australia, the State maintains full responsibility for the administration of the RRR regime on Barrow Island and revenue is shared on a 75:25 basis between the Commonwealth and the State.

Royalty payments collected from the petroleum industry during the year totalled \$153.4 million, of which \$113.7 million passed through the State Consolidated Revenue Fund (Table 9). Over 99 per cent of the value of royalties was paid on time by producers.

Total payments by industry increased by 39 per cent due to strong prices and a higher volume of sales.

Significant achievements during the year included the completion of a petroleum royalty schedule for the Goodwyn project; and significant progress towards agreement for the Roller/Skate, Cossack and Wanaea projects.

Table 9: Petroleum Royalty Collection (\$m)

Legislation	Revenue State	Revenue Commonwealth	Total	Paid CF	
STATE					
Barrow Island	4.6	13.8	18.4	4.6	
Other	35.1	19.2	54.3	54.7	
Total	39.7	33.0	72.7	59.3	
COMMONWEALTH					
Total	1994-95	94.5	58.9	153.4	113.7
	1993-94	61.4	49.3	110.7	72.9
	1992-93	58.2	48.4	106.6	79.7



PETROLEUM RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

Planned Achievements

An increase in onshore petroleum exploration as a consequence of the new legislative amendments, administrative changes and promotional strategies developed during 1993-94.

Further reductions of the incidence of accidents and lost time injuries in petroleum operations.

Continue reduction in the response time for industry access to archival exploration reports and data and reduce the timetable to capture newly submitted exploration data.

Complete a review of State and Commonwealth petroleum revenue sharing arrangements for offshore petroleum projects and develop options for achieving a more equitable share of the revenue for the State.

Outcomes

The legislative amendments, administrative changes and promotional strategies developed during 1993-94 have not yet affected onshore petroleum exploration activity which remained low in 1994-95.

The lost time injury frequency rate for offshore operations has decreased significantly while the onshore rate shows a marginal increase. There has been increased safety awareness within the petroleum industry and better reporting of lost time injuries.

Frequency of lost-time injuries per million hours worked

	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95*
Onshore	69.5	35.4	44.7	20.7	21.0	17.1	17.0
Offshore	24.0	22.9	13.7	15.5	15.9	11.7	6.4

* Figures for 10 months 1.7.94 to 30.4.95

The response times for access to archival petroleum data has been reduced by seven per cent from 1993-94 levels. There has also been a reduction of 30 per cent in the backlog for capturing newly submitted data.

A review of petroleum royalty arrangements in Western Australia was completed.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

Objective:

To ensure that the exploration, development and production of the State's petroleum resources are managed for the benefit of the people of Western Australia.

Influencing Factors

The level of petroleum exploration and development activity in the State is dependent on a number of factors, including world commodity prices and Commonwealth and State fiscal and land access policies, which significantly outweigh the impact of any Departmental initiatives. It is not appropriate, therefore, to use the level of these activities as a measure of the Department's effectiveness. They do, however, provide an important indication of the context in which the Department operates, and show that the State cannot be complacent if it is to retain its pre-eminent position in terms of attracting petroleum exploration and development investment.

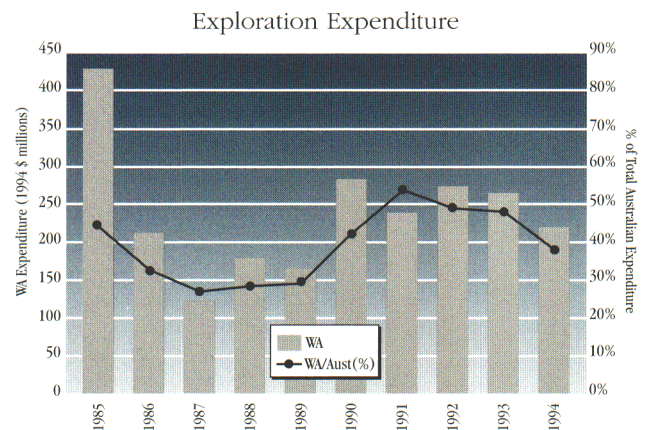
Indicator

Level of Petroleum Exploration Activity

The rate of resource discoveries and the corresponding changes in the State's resource inventory are related to the level of exploration activity. The graph indicates the current and immediate past levels of aggregate exploration expenditure in Western Australia compared to the total expenditure in Australia.

Exploration expenditure in Western Australia and the proportion relative to the rest of Australia has continued to decrease. This is due in part to an increase focus by companies on exploration in the Timor Sea and in other Australian areas such as the Otway Basin. It is also due to a decrease in the amount of detailed seismic exploration.

Result



Petroleum Reserves Inventory

Reserves from proved developed, proved undeveloped and probable fields at the 50 per cent probability level. For reserves to remain static while fields are on production, the rate of discovery must keep pace with the annual rate of production.

Units of commodities shown are:

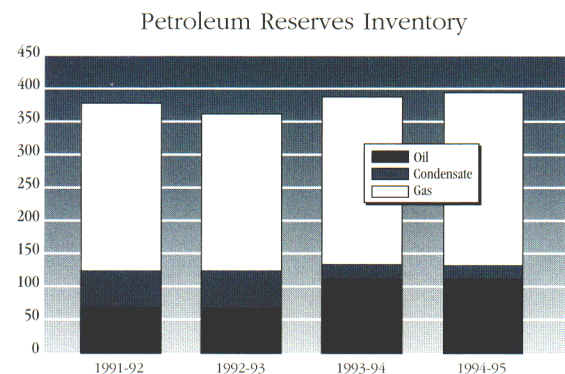
Oil and Condensate: GL

Gas: Gm³

Current WA production rates (approximate):

Condensate and Oil - 32 000 kilolitres/day

Gas - 50 million cubic metres/day



Western Australia's reported reserves inventory has shown a gradual increase over the past three years reflecting the effect of exploration successes over the past five years.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

PETROLEUM TENURE SUB PROGRAM 2.2

Objective:

To provide the petroleum industry with a timely, secure and equitable titles system, and accurate, up-to-date information about petroleum land tenure in order to encourage and facilitate responsible exploration and development.

Indicator	Result
Effectiveness	
Well applications	1994-95
The target time to process well applications is:	Number received 71
<ul style="list-style-type: none"> • 30 days in State jurisdiction • 45 days in Commonwealth jurisdiction 	Processed within target time 72%
Survey applications	1994-95
The target time to process survey applications is	Number received 33
<ul style="list-style-type: none"> • 20 days in State jurisdiction • 35 days in Commonwealth jurisdiction 	Processed within target time 64%
Title applications	1994-95
The target time to process title applications is three months.	Number finalised in year 77
	Average time for finalisation (months) 2.5
	Finalised within 3 months of application 86%
Title Dealings and Maintenance	1994-95
The target time to process title dealings is three months.	Number finalised in year 1 501
	Average time for finalisation (months) 1.5
	Finalised within 3 months of application 95%
These are new indicators for which previous year's results are not available.	
Efficiency	
	1992-93 1993-94 1994-95
The administration costs for petroleum titles.	Number of titles processed 113 128 77
	Average cost per title (\$) 4 348 4 583 6 847

While expenditure attributable to this sub program was approximately \$60 000 less than the previous year, the number of applications received was also less. The advent of the Commonwealth Native Title Act also prevented the processing of 20 applications.



PETROLEUM RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENTS - KEY PERFORMANCE INDICATORS

PETROLEUM INDUSTRY OCCUPATIONAL HEALTH AND SAFETY SUB PROGRAM 2.3

Objective:

To achieve a low and decreasing incidence of bodily injury, occupational disease and fatalities amongst those employed in the petroleum industry.

Indicator	Result			
<i>Effectiveness</i>	1991-92	1992-93	1993-94	1994-95
<p>The frequency of lost time injuries for petroleum operations.</p> <p>The frequency is the number of occurrences of injury or disease for each one million hours worked in Australian Standard AS1885.1-1990.</p>	<p>Onshore 20.7 Offshore 15.5</p>	<p>21.0 15.9</p>	<p>17.1 11.7</p>	<p>17.0 6.4</p>
		<p>The frequency rate for petroleum activities has continued to decrease, particularly in the high-risk, offshore sector where Safety Branch activities have been concentrated.</p>		

<i>Efficiency</i>	1991-92	1992-93	1993-94	1994-95
<p>The total cost of salaries plus support services for the safety/engineering inspectorate per employee in the petroleum sectors.</p>	359	296	413	318
		<p>The reduced cost per worker in 1994-95 is largely due to an increase in industry activity, particularly the offshore construction of the Goodwyn A platform.</p>		

PETROLEUM INDUSTRY ENVIRONMENTAL MANAGEMENT SUB PROGRAM 2.4

Objective:

To ensure that any adverse environmental impacts of petroleum exploration and development activities are within acceptable community standards.

Indicator	Result		
<i>Effectiveness</i>	1992-93	1993-94	1994-95
<p>The extent to which petroleum operations comply with Departmental environmental criteria.</p> <p>Performance is assessed by field inspections and evaluation of completed environmental reports. The indicator measure used is based on companies' compliance with the Department's criteria on the reporting of their environmental management commitments.</p>	<p>Reports received n/a Reporting Compliance 100%</p>	<p>48 100%</p>	<p>45 100%</p>
		<p>The target time to assess proposals is fifteen days</p>	
		<p>Assessed within target time</p>	
		<p>90%</p>	
<i>Efficiency</i>	1992-93	1993-94	1994-95
<p>Average cost per report assessed.</p> <p>The costs are the total operating costs for the Environmental Branch and do not include Departmental overheads.</p>	n/a	1 790	1 910



PETROLEUM RESOURCES MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

PETROLEUM EXPLORATION DATA SUB PROGRAM 2.5

Objective:

To provide the petroleum industry with ready access to petroleum exploration and production data in order to encourage efficient petroleum exploration and development.

Indicator	Result	
	1993-94	1994-95
Effectiveness		
The time taken to capture new data submitted to the Department by the exploration industry.	32%	52%

Figures show cumulative percentage captured within the time indicated.

Indicator	Result	
	1993-94	1994-95
The time taken to respond to requests from industry for exploration data and reports.		
Edited Reports - within 2 weeks	79%	65%
Unedited Reports - within 2 weeks	48%	71%

Edited reports have interpretative data excised and are released after a two year moratorium period.

Unedited reports contain all data and a five year moratorium period applies.

The time taken to respond to requests is directly related to the quality of original data capture. The increase in response time is a result of the reassignment of resources to improve the quality and timeliness of the data capture which will translate into improved response times in the future.

PETROLEUM ROYALTIES SUB PROGRAM 2.6

Objective:

To collect, for the community of Western Australia, in a manner that is administratively and economically efficient, a fair return for the extraction of the State's petroleum resources.

Effectiveness

Indicator	1992-93	1993-94	1994-95
Total royalties collected as a proportion of well-head value.	10.6%	11.1%	11.3%
The proportion of royalties reported due which are paid by the required date.	99.9%	99.9%	99.9%

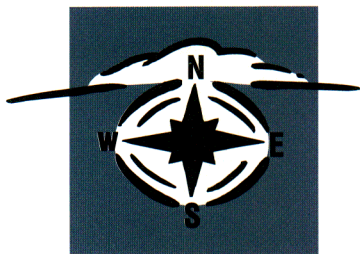
Efficiency

Indicator	1993-94	1994-95
The average administration cost per audit visit.	\$1 933	\$2 003

The increase in administration cost is due to the inclusion of the costs of accounting and secretarial staff not included in 1993-94.



Program 3: GEOLOGY AND RESOURCE INFORMATION



Objective: *To improve the knowledge of the geology of Western Australia and the quality of the regional geological, geophysical and geochemical data and maps for use by industry, government and the public to support exploration, groundwater management, land-use planning and infrastructure development.*

Description: *This program involves the field collection of independent geoscientific data, and the compilation of data from industry and other government sources. The information is published in the form of geological maps, bulletins, reports and digital data sets, and forms the basis of policy analysis and advice to government. The publications also enable the Department to meet the requirements for relevant maps and geoscientific information of the State's mining and petroleum industries. In addition, the needs of State agencies are met in the areas of groundwater management, land-use assessment and planning, and major civil engineering and infrastructure development.*

Introduction

The provision of timely, high quality, geoscientific maps, publications and information enhances the chance of success in the exploration for and development of the mineral and hydrocarbon resources of the State. The availability of maps and

information is also essential in promoting the State's prospectivity for minerals and petroleum, in encouraging current and new companies to invest in the State, and in maximising the development of its mineral wealth for the benefit of both industry and the people of Western Australia.

Decisions on land-use, urban infrastructure and supporting road and rail links, are only possible when the best scientific information and advice is available. The information is also an essential element in the effective management of the State's mineral, fossil fuel and groundwater resources.

The direct recurrent cost of this program was \$11.252 million. This, together with associated corporate service costs of \$1.914 million, resulted in total expenditure of \$13.166 million.

In early 1995 the program was restructured and at 30 June 1995 this program employed a total of 181 full time equivalent staff in a number of categories: 132 permanent staff, including eight contract staff temporarily occupying permanent positions; 11 staff funded by external agencies on contract with the Department; and 38 staff on one to three year contracts.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

SUB PROGRAM 3.1: REGIONAL GEOSCIENCE MAPPING AND EXPLORATION SUPPORT

Objective:

To provide up-to-date regional geological, geochemical and geophysical maps and resources information in the formulation of exploration and development strategies by the mining and petroleum industries, and for resource assessment and land use planning by government and other organisations.

Description:

Geological, geochemical and geophysical data are collected and synthesised to produce maps for various purposes and at a variety of scales. These range from geological maps of the whole State to detailed maps of areas of special interest, such as environmental geology maps necessary for land-use planning and development. Most maps produced are regional geology maps at standard 1:250 000 and 1:100 000 scales. Maps areas of current mining activity, as well as those of perceived mineral potential, and are thus essential for the formulation of exploration concepts and the discovery of new mineral deposits.

Regional geochemical and geophysical maps and datasets are used to support and supplement geological mapping, as well as highlighting prospective exploration areas for mineral, petroleum and groundwater resources. In particular, the 90 per cent of the State in areas of poor outcrop where rock, and as yet undiscovered mineral deposits, are concealed beneath soil cover.

Geoscientific maps of all types also have a wide application in soil salinity studies, pollution control, and ground stability studies.

Geoscientific data are also compiled into explanatory notes and reports on individual mapsheets, mineral provinces, or areas of special interest, and facilitate the development new mineral deposit models and exploration concepts by the mineral and petroleum industries.

Introduction

The regional geoscience mapping sub-program is now organised into integrated project teams mapping major geological provinces of the State.

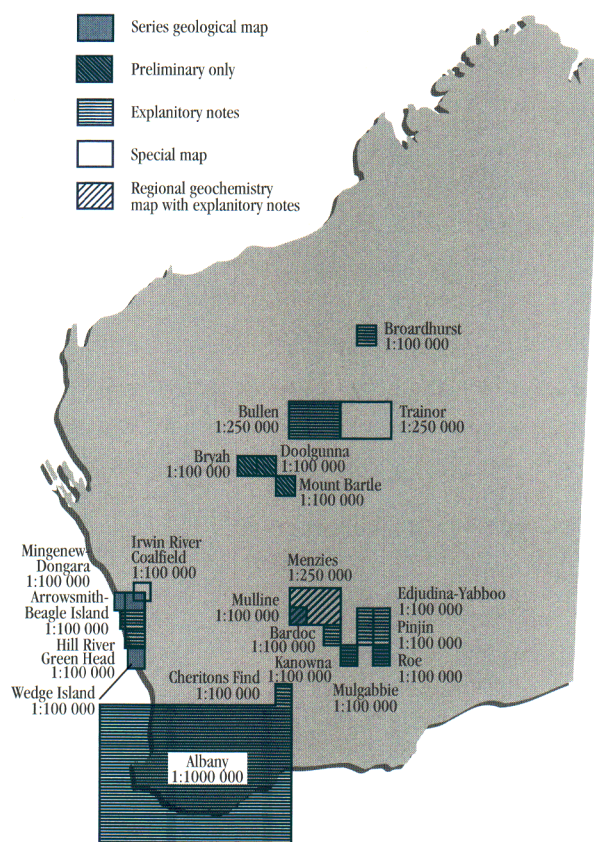
Project areas are selected on the basis of the needs of the exploration industry and those of government, as determined through the Geological Survey Liaison Committee. Some surveys are initiated to promote the potential mineral wealth of areas which may be remote and difficult to access.

Ninety per cent of maps are produced using computer-assisted or automated techniques. There has been an increase in the use of digital information and Geographical Information Systems (GIS) technology to ensure maps and reports can be quickly updated with current information for immediate release.

Two initiatives to promote on-shore oil and gas exploration were introduced. These studies, staffed by contract personnel, relate to the hydrocarbon potential of two under-explored regions of the State: the interior sedimentary basins and the basins at the western margin of the continent.

All mapping projects were carried out on schedule. Map coverage of the State was extended with the publication of five full-colour and three preliminary edition 1:100 000 scale geological maps, six geological maps at other scales and seven maps relating to geophysical investigations. Explanatory notes for 11 maps at 1:100 000 scale were also published (Figure 6).

Figure 6: Maps and Explanatory Notes Published 1994-95



GEOLOGY AND RESOURCE INFORMATION PROGRAM

Glengarry Basin project

The Glengarry Basin has considerable potential for minerals, particularly strata-bound base metal deposits, and gold. Nevertheless, the geology of the basin is not well known, and the purpose of this project is to provide up-to-date geological and geophysical data, and interpretation of the data, to encourage exploration. The project is part of the regional geochemical mapping program.

An aeromagnetic survey was made of Glengarry, Peak Hill and parts of the Robinson Range mapsheets by contractors. Interpretive maps were produced at 1:100 000 scale. Preliminary editions of the Bryah, Doolgunna and Mount Bartle 1:100 000 geological maps are on sale, and field mapping continues on a further three sheets.

Eastern Goldfields project

This mapping project, in one of the most important economic regions of Western Australia, is conducted under the National Geoscience Mapping Accord in conjunction with the Australian Geological Survey Organisation (AGSO).

During the year, field mapping was completed on the Sir Samuel, Darlot and Duketon 1:100 000 map sheets, and preliminary maps were prepared for publication. From previous field mapping, the Roe, Kanowna and Mulline 1:100 000 geological maps were released. Mapping continues in the northern part of the Wiluna Greenstone Belt. Airborne geophysical and Landsat Thematic Mapping data have been collected and processed for the Wiluna, Sir Samuel and Duketon 1:250 000 map areas. Part of the Eastern Goldfields team is resident in Kalgoorlie where, in addition to a major field mapping program, three geologists provide access to the mineral exploration database, a major Departmental collection of exploration company reports, answer public enquiries and provide a service to industry and the community.

Regional geochemical and regolith mapping project

Regional geochemical mapping involves the mapping of surface material (regolith) and the sampling and chemical analysis of such material. This new initiative was first developed in 1993-94 with the assistance of an industry advisory committee. Appropriate methodology and protocol for this new series of geochemical and regolith maps was developed. The pilot project was undertaken on the Menzies 1:250 000 mapsheet, followed by the Leonora mapsheet.

In 1994-95 field work was completed on four mapsheets and commenced on a fifth. Chemical analyses have been completed for three sheets, and explanatory notes for two sheets are nearly complete. The highlight was the publication of the regional geochemistry explanatory notes series, for the Menzies 1:250 000 sheet in December 1994.

The explanatory notes include a review of the geology, production history, and previous exploration activity in the area, as well as the methodology, results, and discussion of regolith geochemistry. In addition, regolith and geochemical maps of important elements for mineral exploration, together with a disk containing the complete analyses of over 1 000 stream and soil samples, is included in the note series.

Sampling and chemical analysis for this project was conducted on contract, with project management undertaken by Departmental personnel.

King Leopold and Halls Creek project

This long-term project commenced in 1986 with the mapping of the King Leopold Orogen. A Bulletin on the area is in the final stages of editing. Mapping of the Halls Creek Orogen, in conjunction with AGSO, commenced in 1990. The region has significant mineral potential, and includes the world's largest diamond mine at Argyle. Dixon Range and Gordon Downs 1:250 000 sheets were completed, and a number of 1:100 000 sheets are in advanced stages of preparation.

Pilbara Craton project

This project commenced in late 1994 and is being carried out in cooperation with AGSO, as part of the National Geoscience Mapping Accord. The aim of the project is to produce 16 new 1:100 000 maps, and provide a comprehensive re-assessment of the geology, metallogeny and mineral potential of the Pilbara granite-greenstone terrain, including the acquisition of aeromagnetic data, and advanced processing of remote sensing data.

Paterson Orogen project

The Paterson Orogen occupies a remote area of central Western Australia, and geological mapping and mineral exploration are still at an early stage. Part of the area was included in an excursion of the 12th Australian Geological Convention, and Departmental officers took the opportunity to introduce mining and exploration companies to this promising area.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

Lennard Shelf project

This project is aimed at preparing a comprehensive account of the Devonian Reef Complex of the northern Canning Basin. Field work is being conducted in cooperation with an international team of research students.

Highlights during the year included the study of the lowermost exposed Devonian unit, the associated zinc-lead mineralisation at the Cadjebut mine, and studies of the huge masses of conglomerate associated with the reefs. Compilation of geological maps of the area continues.

Shark Bay World Heritage area

A number of geological features, including marine stromatolites, coquina deposits and Pleistocene evaporites make Shark Bay worthy of World Heritage listing. The Department is therefore involved in studying the region to protect World Heritage values and to provide sensible exploration guidelines.

Highlights for the year include consultant Dr Phillip Playford's role in a Japanese television production at Hamelin Pool discussing the evolution of life and the atmosphere with an orbiting female Japanese astronaut. Radiocarbon dating of beach ridges demonstrated that they have been accumulating for 5 000 years, and that major cyclones occur every 50 years.

Interior Basins project

This project aims to stimulate petroleum exploration in the onshore Canning, Officer and Savory Basins. These basins are poorly understood because of limited geoscientific data, but they have proven hydrocarbon potential.

A review of published work and company reports is in progress, and a number of drilling sites have been located in the Savory and Officer Basins. A gravity survey of the Trainor area is in progress. Reconnaissance field work has begun in the central Canning Basin.

Following integration and review of the data, plans for the acquisition of geophysical and geological data during 1995-96 will be formulated.

Western Margin project

The purpose of this project is to assess the hydrocarbon potential of the onshore Perth and Carnarvon Basins to promote exploration activities.

The program involves a systematic review of company reports and published work, focussing on well post-mortems, structural setting and source-rock potential. Two reports on the structure and hydrocarbon potential of the Northern Perth Basin were published, which offer suggestions to industry on how to improve oil and gas drilling results.

Two stratigraphic wells were drilled in the Carnarvon Basin. Structural information of the Merlinleigh sub-basin was acquired by aeromagnetic and radiometric survey and a gravity survey is in progress. Two reports have been completed on parts of the Carnarvon Basin and will be published early in 1995-96. These reports conclude that there is good potential for oil generation and traps in parts of the Carnarvon Basin.

Mineralisation studies

This project investigates and documents the geological controls of mineralisation, and proposes new exploration strategies.

Mapping of the Cocanarup and Ravenshorpe 1:100 000 sheets was completed, and a report of a new tectonic model for copper-gold mineralisation in the Ravenshorpe greenstone belt was prepared and will be published shortly.

In 1995 the project moved to a new area in the Eastern Goldfields to study lithostratigraphic, structural and metamorphic controls on gold mineralisation in the Kanowna-Kurnalpi-Pinjin area. This complements a study on the Menzies-Kambalda region already completed.

A database was set up for Archaean lode gold deposits and a study of mineral potential of the East Kimberley area got underway.

Industrial minerals project

Industrial minerals are non-fuel and non-metallic and are exploited for their physical or chemical properties. Two commodity bulletins, on talc and magnesite, barite and fluorite, have been prepared.

Under a sister State agreement with Zhejiang Province, People's Republic of China, there has been cooperation with Chinese experts on a number of industrial mineral deposits in Western Australia that show potential for joint development. Deposits examined include bentonite, potash feldspar, high grade kaolin and talc. After physical and chemical testing, a report of the investigations will be written in English and Chinese.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

SUB PROGRAM 3.2: HYDROGEOLOGY AND GROUNDWATER RESOURCES

Objective: *To explore for, map, and assess the State's groundwater resources to appropriate standards and levels of confidence as a basis for groundwater management and land-use planning by government, industry and the public.*

Description: *Groundwater is the most readily available source of water in most of Western Australia. Knowledge of its availability is essential for State planning, environmental management, mining, urban and industrial development, and for long-term supply and other strategic planning. As there is little incentive for private enterprise to systematically explore for and assess groundwater resources, it falls to the State to undertake this critical task in the interest of all users.*

Strategy: *Is based on hydrogeological mapping, drilling and borehole testing carried out or supervised by a specialist group of hydrogeologists and technical support staff. The group also conducts specialised investigations on request from other government agencies.*

Introduction

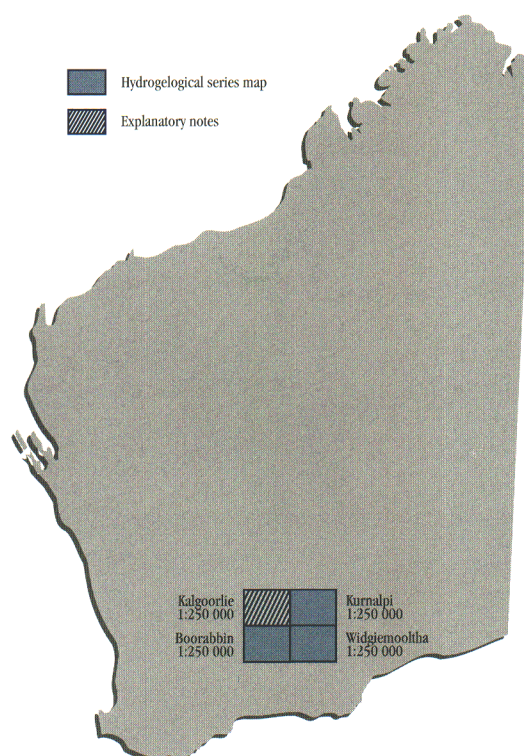
Hydrogeology and groundwater work conducted by the Department covers every aspect of groundwater studies, from exploration for new sources of supply, to ensuring adequate groundwater resources are delineated for development and land-use planning. Knowledge of groundwater is also essential for maintaining the environment, particularly its wetlands, and in investigating possible contamination of groundwater by some industrial and other human activities.

Regional hydrogeological mapping

The highlight of the year was the June 1995 publication of the Hydrogeological and Groundwater Resources of the Perth Region, Western Australia Bulletin. It is the culmination of over 30 years of hydrogeological investigation of both shallow, and deep artesian water resources. It describes the occurrence and quality of the groundwater resources within a multi-layered system of water table and artesian aquifers, and provides estimates of recharge, through-flow, and storage of groundwater. At present about 40 per cent of Perth's water supply comes from groundwater sources, and the study shows there are sufficient resources and recharge to supply an increased population in the metropolitan area into the 21st century and beyond. The Bulletin will be a standard reference work for many years to come.

Three 1:250 000 hydrogeological maps of the Eastern Goldfields were also published during the year. The maps outline highly saline water in the major drainage systems of the Goldfields. Such resources are essential for the processing of ore, including gold and nickel, and for industrial purposes. The maps have been well received by the mining industry (Figure 7).

Figure 7: Hydrological Maps Published in 1994-95



GEOLOGY AND RESOURCE INFORMATION

Groundwater exploration and assessment

Ten drilling projects were undertaken during the year for a wide variety of studies, ranging from deep exploratory drilling at Dongara for strategic purposes, to the location of irrigation bores for orchards at Donnybrook. Potential extensions of the Ord River irrigation area contain significant shallow aquifers, and the hydrology study of this important agricultural area continues to ensure the best use is made of surface and groundwater resources in future developments.

Groundwater contamination

A major submission was made to the Parliamentary Committee on recycling and waste management, and the safe disposal of solid, liquid

and intractable waste. A general study of the possible sources of contamination for Perth's groundwater is nearing completion, and a report will be issued in the first half of next year.

Groundwater supply investigations

Studies of town water supplies from Exmouth to Esperance continued and a number of reports were issued. Studies at the Barragoon drilling project and Whitfords indicate significant sustainable groundwater resources along the coastal belt.

Technical assistance was provided to help locate water supplies for 39 remote Aboriginal communities as part of the Aboriginal and Torres Straits Islander Commission program.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

SUB PROGRAM 3.3: GEOTECHNICAL SERVICES

Objective: *To provide high quality, timely and independent geotechnical and rock mechanics advice and information to State Government agencies in accordance with their needs.*

Description: *Specialised geotechnical and rock mechanics advice and services are provided to State Government agencies involved in civil engineering projects, such as road building and dam construction. A small team of specialists carries out investigations and provides training and advice in accordance with the needs of the agencies. Technical studies and research projects are planned and implemented to ensure that up-to-date and high quality technical advice is available.*

Introduction

The geotechnical services section was set up almost a quarter of a century ago to provide geotechnical advice to government agencies and the public. The section has been involved in most of the large government funded civil engineering projects undertaken in the State, including the Ord River dam and more recently the Harris dam at Collie, the New Victoria, North Dandalup, and Margaret River dams.

With a decline in dam construction by the Water Authority, and pressure to out-source Government services, it was decided to close the section on 30 June 1995.

Collie Basin subsidence project

This study sought to investigate the effects of land subsidence over shallow coal mines in the Collie area, and propose appropriate engineering solutions and remedial techniques for site rehabilitation. The study was necessary for future town planning, and urban and rural development. The final report has been submitted to the Minerals and Energy Research Institute of Western Australia (MERIWA), which funded the project.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

PERFORMANCE MEASUREMENT PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

Planned Achievements

To address the demand for a greater degree of information in geologically complex areas by the release of 12 maps at 1:100 000 scale and 10 maps at other scales in the Eastern Goldfields, Pilbara, Kimberley, Murchison and Southern Cross regions and the Perth Basin. The current and anticipated coverage of 1:100 000 scale maps in these regions is shown below:

1:100,000 Geoscientific Map Coverage of Western Australia:

1993-94 (*) 1994-95 (target)

Regional Area	Maps(*) Compiled	Maps Issued	Cumulative Coverage	Maps(*) Compiled	Maps Issued	Cumulative Coverage
Eastern Goldfields	6(5)	6(5)	16	5	6	22
East Kimberley	1(1)	2(2)	2	1	-	2
Pilbara	5(5)	0(1)	2	3	4	6
Murchison	-	-	-	5	-	-
Southern Cross	2 (0)	-	1	-	1	2
North Perth Basin ¹	(0)	2(2)	2	1	1	3
TOTAL	15(11)	10(10)	23	15	12	35

(1) Figures in parentheses show targets for 1993-94.

(2) Map compilation completed during the year.

Release of geoscientific data packages for the onshore Perth, Carnarvon and Canning Basins and commencement of regional geological and geophysical data acquisition programmes as the first phase of the initiative to stimulate onshore petroleum exploration.

To complete the compilation of regional hydrogeological maps at 1:250 000 scale (each covering 100km x 150km approximately) as shown in the table below to provide information in digital format that can be used for groundwater and land salinisation assessments, the preparation of catchment management strategies in key agricultural districts, and groundwater supply assessments in mining and pastoral areas.

1:250 000 Hydrogeological Map Coverage of Western Australia:

1993-94 1994-95 (target)

Regional Area	Programmed Sheets(1)	Maps Compiled	Maps Issued	Cumulative Coverage (2)	Maps Compiled	Maps Issued	Cumulative Coverage(2)
South Coast	7	2	-	-	2	2	2
Eastern Goldfields	4	-	4	4	-	-	4
Murchison	4	4	-	-	-	4	4
West Kimberley	2	-	-	2	-	-	2
TOTAL	17	6	4	6	2	6	12

(1) Total Number of Sheets for which mapping at this scale is considered necessary.

(2) Published (issued) maps.

A series of three of a planned 12 regional geochemical-regolith maps will be initiated and the first maps and accompanying digital databases will be published during the year.

Outcomes

Seven 1:100 000 geological maps were printed and released and six additional 1:100 000 geological maps were released as preliminary pen-plots ahead of printing. A total of seven other geological maps, three aeromagnetic image maps, and seven aeromagnetic interpretive maps were also released.

Geoscientific data packages for the onshore Perth and Carnarvon Basins were released. Acquisition of aeromagnetic data in the Merlinleigh sub-basin (Carnarvon Basin) was completed and an extensive gravity survey and stratigraphic core drilling was commenced.

Five hydrogeological maps were published and compilation of six other maps was completed.

Fieldwork was completed on four new geochemical-regolith maps. The Menzies and Leonora maps, which were sampled in the previous year, were published and released.



GEOLOGY AND RESOURCE INFORMATION PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

Objective:

To improve the knowledge of the geology of Western Australia and the quality of the regional geological, geophysical and geochemical data and maps for use by industry, government and the public to support mineral and petroleum exploration, groundwater management, land-use planning and infrastructure development.

Indicator

Result

Effectiveness

The rate of geoscientific map production.

Geoscientific maps are widely used by mineral and petroleum explorers and developers and by groundwater and land-use planners as a basic source of information on which to make resource allocation decisions. The indicator reflects the extent to which the Department is maintaining an adequate coverage of this information over the State.

	1992-93	1993-94	1994-95
Maps compiled	7	15	18
Maps issued	2	10	20

The large increase in numbers of maps reflects the additional funding provided by the Government towards a four-year, accelerated mapping program and the clearing of some backlogs.

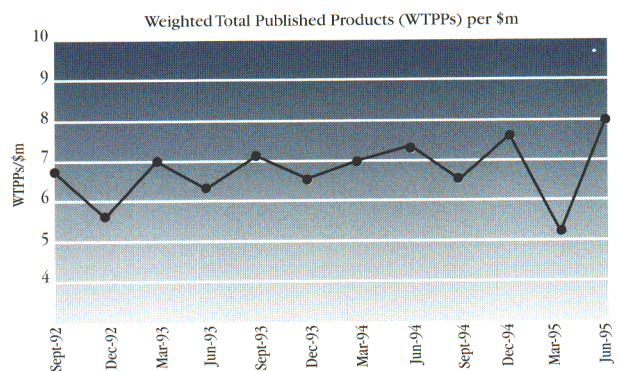
Note: There is already 100 per cent coverage of the State by first edition 1:250 000 geological maps, but with the passage of time a number of maps exceed 20 years in age and become outdated. The maps referred to alongside are, therefore, part of a critical program of updates and revisions of earlier maps, or new maps at a more detailed scale (usually 1:100 000 to allow greater complexity to be displayed), or a new type of map (e.g. geochemical map).

Efficiency

To be weighted quarterly published map and publication output against expenditure.

Various types of published products (e.g. maps, books, etc.) have each been assigned a 'weight' which attempts to quantify the relative effort required to proceed from initial field work to final publication. The total quarter weighted production is then compared to the expenditure of that quarter. The quarterly weighted products per unit expenditure has been smoothed using a four quarter rolling average to attempt to compensate for output peaks and troughs due to the different completion time for various products.

Geoscientific Mapping Quarterly Productivity Index



The number of weighted total published products continues to follow an upward trend.



Program 4: DANGEROUS GOODS MANAGEMENT



Objective: *To achieve an acceptably low level of risk to the public from the storage, handling and transport of explosives and dangerous goods in Western Australia.*

Description: *Industrial development and mining activities in Western Australia are dependent upon the safe storage, handling and transport of explosives and dangerous goods. The strategy adopted to achieve the objective is based on the regulation of industry by developing, maintaining and enforcing relevant legislation.*

Strategies: *A comprehensive database of the sites where dangerous goods are manufactured and stored is maintained to assist in monitoring and auditing compliance with the regulations, and to provide the information required when an emergency response is necessary. Educational material and technical advice are also provided on: compliance with the regulations; hazards controls plans; and more general aspects of handling and storing explosives and dangerous goods.*

Introduction

Industrial development and activities in Western Australia are dependent upon the safe storage, handling and transport of explosives and dangerous goods. The Department of Minerals and Energy seeks to ensure that the hazards to the public that arise from these activities are maintained at an acceptably low level. It does this by the regulation of industry through the development, maintenance and enforcement of the Explosives and Dangerous Goods Act.

The direct cost of this program was \$2.445 million, made up of \$1.585 million for operational costs and \$0.715 million for allocated corporate development and capital expenditure of \$0.145 million for development of a computerised management system. This program employs a total of 39 full time equivalent staff.

Kwinana safety study

The State's most prominent industrial area, the Kwinana Industrial Strip was the subject of a major risk assessment project during the year. The \$250 000 project, jointly funded with the Department of Resources Development, Department of Planning and Urban Development and LandCorp was managed by the Department's Major Hazards Branch.

The study showed that risk to the residential area of Rockingham and Kwinana is well within the risk criteria accepted as tolerable by the public based on international practice.

Results from the project will:

- allow land usage in the surrounding buffer area to be optimised;
- ensure public safety is not compromised by future developments or changes; and
- minimise the potential for delays in addressing the public risk of any new proposals.

Kalgoorlie explosives reserve

Agreement was reached with users of the Kalgoorlie explosives reserve for their leases to be extended for 10 years, after which the reserve is to be vacated. A new site will be established as part of the proposed Mungari industrial estate, approximately 30km south-west of Kalgoorlie.



DANGEROUS GOODS MANAGEMENT PROGRAM

Xanthates fire

Perhaps the most controversial issue dealt with by the Department during the year was the off loading of four freight containers of Potassium Amyl Xanthates (PAX) at the Fremantle Port following advice from the South African manufacturer that the containers could have been unstable.

The goods were kept at the Port for several days with no evidence of deterioration. However, the containers were relocated to a transport yard in O'Connor where they ignited as they were individually checked. In an emergency relocation, the goods were quickly moved to a disused quarry in Kwinana late at night. This provoked an angry reaction from local citizens who felt they should have been consulted before the move.

After extensive tests by the manufacturer's representatives, the goods were transported to a mine site in the North-Eastern Goldfields where they were used for their original purpose.

The Department has since identified an interim storage point for future emergency transfers of potentially unstable dangerous goods.

Transport of sodium cyanide solution

Closely following the controversial Xanthates issue was the contentious proposal to transport sodium cyanide solution by road through the metropolitan area. Approval for construction of the manufacturing plant in Kwinana in 1987 was subject to rail transport of the solution through the metropolitan area.

The company was able to provide evidence that road transport was as safe as rail transport and this fact combined with reduced rail services justified an approval to use road transport. The Department's role was to provide advice to Government on the company's claims in respect to risks and hazards and to ensure that the eventual transport was conducted in accordance with the Regulations. Unfortunately, misinformation regarding the risks of this operation was combined with underlying general public concern over metropolitan road usage by heavy vehicles.

Licensing dangerous goods storage

The backlog of applications for dangerous goods storage licenses, caused by the implementation of the new Dangerous Goods Regulations in 1993, was largely cleared during the year.

To minimise delays, applications for new developments were given priority while existing facilities were assessed progressively. This allowed the Department to clear some outstanding projects within this area and to develop more proactive means of encouraging industry to comply with the regulations.

A small project team will complete an assessment of the low risk, low urgency applications over the next six months.

National uniformity

On a national level the four main streams of regulation - transport of dangerous goods, storage of dangerous goods, explosives and major hazards facilities, have progressed as the nation strives for uniform legislation. The Department continued to assist in this process throughout the year. It is anticipated that by June 1996 there will be major legislative changes to facilitate national uniformity in dangerous goods.

Major hazards

The State's eight designated major hazard facilities were reviewed to ensure they were operating in accordance with the respective hazard control plans.

There were three separate toxic gas releases which travelled off site during the year. In each incident the cause of the release was controlled by on-site emergency response plans resulting in minimal off-site impact.

Explosives

A fatal accident involving a minesite facility used for the manufacture of explosives at Porgera, Papua New Guinea had far reaching effects on the Western Australian mining industry. The Department maintained regular contact with the team investigating the cause of the explosion, and ensured appropriate hazard alerts were issued to local industry until the precise cause was identified.

The Australian Code for the transport of explosives by road and rail was issued, and training courses for drivers of vehicles carrying explosives were set up as a result. This corrected an anomaly in the previous legislation whereby drivers of dangerous goods vehicles required formal training whereas drivers of explosives vehicles did not.



DANGEROUS GOODS MANAGEMENT PROGRAM

The Dangerous Goods Liaison Committee endorsed the Department's proposal to lift the ban on the sale of sparklers for an 18 month trial in response to industry and public pressure. Sparklers are not prohibited in other States where their use has continued safely.

Transport

A new enforcement strategy began with the Department introducing its own on-road enforcement vehicle.

The vehicle, which is equipped with roof mounted flashing lights and communications equipment, has proved very effective in providing inspectors with an efficient means of intercepting and inspecting vehicles carrying dangerous goods. The vehicle is crucial for effective performance measurement.

Storage

Work started on an accreditation program to enable larger, well resourced companies to conduct in-house assessments of new proposals for the storage of dangerous goods. The Department will audit the systems, procedures and personnel prior to accreditation and then conduct random performance audits. Industry will benefit from the more efficient issuing of licences and from the in-house approval system. The system will be expanded to allow third party consultants to service this industry.

A significant amendment to the Dangerous Goods Regulations increased the quantity of dangerous goods permitted on a farm without a license. The original intent of the Regulations allowed the storage of dangerous goods in quantities necessary for the normal operation of farming properties. Industry identified that although risk to public safety was insignificant, farming operations were required to adhere to the licensing process.



DANGEROUS GOODS MANAGEMENT PROGRAM
PERFORMANCE MEASUREMENT
PLANNED ACHIEVEMENTS AND OUTCOMES FOR THE YEAR

Planned Achievements

To amend legislation to adopt national transport regulations for the transport of dangerous goods and further improve public safety through compliance with these regulations.

To increase the resources allocated to the key areas of transport and manufacture of explosives and dangerous goods by reassigning resources from areas where efficiencies have been affected such as explosives storage areas.

To develop national common essential requirements for the safe manufacture, handling, packaging and storage of explosives as the basis for uniform State regulations.

Outcomes

The Australian Explosives Code has been incorporated into Western Australia's Explosives Regulations and legislative amendments are being made to enable the national Dangerous Goods Transport Regulations to be adopted.

Staff have been reassigned to the key areas of managing the transport and manufacture of explosives and dangerous goods.

Common essential requirements were developed as the basis for uniform State regulations covering the safe manufacture, handling, packaging and storage of explosives.



DANGEROUS GOODS MANAGEMENT PROGRAM

PERFORMANCE MEASUREMENT - KEY PERFORMANCE INDICATORS

Objective:

To achieve an acceptably low level of risk to the public as a result of the storage, handling and transport of explosives and dangerous goods in Western Australia.

Indicator

Result

Effectiveness

The public deems compliance with the relevant legislative controls as providing an acceptably "low level of risk". Hence, the extent to which the explosives and dangerous goods industry is observed to be complying with the regulations is seen as a direct indicator to the effectiveness of the Division in achieving its objective.

Transport of Dangerous Goods:

The proportion of vehicles complying with safety standards.

Following the unsuccessful trial in 1993-94 in which data was obtained from sources other than Departmental inspectors, this year's data is gathered from traditional inspectorial enforcement methods. Confidence levels in the accuracy of the data have also improved due to the introduction of the Department's own on road enforcement vehicle which is used more regularly to inspect operations during actual transport.

	1991-92	1992-93	1993-94	1994-95
	%	%	%	%
Full Vehicle	44	58	n/a	63
Documentation	84	81	90	83
Safety equipment	73	74	67	84
Emergency equipment	78	84	61	84
Vehicle load	93	96	96	98

Publicity of the results of on road enforcement activities coupled with vigorous follow-up and prosecution where warranted has seen an observable increase in compliance levels. The higher and more identifiable profile of the Transport Branch may account for this. The decrease in compliance with documentation requirements is a concern and is being addressed by targeting prime contractors.

Storage of Dangerous Goods:

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

Baseline compliance levels were measured during 1993-94 to be used for comparative purposes in subsequent years.

During 1994-95, premises used for the storage of chlorine were targeted as such storage is considered a relatively high risk activity. The storage of chlorine was unregulated prior to the introduction of the Dangerous Goods Regulations 1992. Compliance levels for this activity in 1994-95 are compared with the 1993-94 baselines for the overall dangerous goods industry.

	All dangerous goods 1993-94	Chlorine only 1994-95
	%	%
Placarding of Premises	47	33
Location of Stores	93	69
Emergency Response Plans	28	6

The indicators for chlorine storage facilities could be considered indicators of industry's voluntary compliance with an existing Australian Standard that was not mandated until April 1993. As the Dangerous Goods Regulations are being phased in, very limited program resources have been allocated to chlorine facilities prior to this year. Consequently, the effectiveness of the 1994-95 activities involving the storage of chlorine will not be evident until 1995-96.

Extremely low levels of compliance in respect to Emergency Response Plans have been encountered as the majority of the sites are remote and unattended. This does not obviate the need for an appropriate emergency response plan, a fact being highlighted to operators by Departmental inspectors.

Efficiency

Delays have continued in the development of DEXIS, a computerised dangerous goods and explosives information system to assist in the management of this program. Final implementation was scheduled for late July 1995. The system specifications for DEXIS incorporate extensive recording and reporting tools to analyse performance and efficiency during the routine collection of data associated with the issue of licences and from inspection records. It is anticipated that the ability to report on these indicators, especially effectiveness will be enhanced by the introduction of DEXIS in the 1995-96 reporting year.



PERFORMANCE INDICATORS AUDIT



Opinion of the Auditor General

To the Parliament of Western Australia

DEPARTMENT OF MINERALS AND ENERGY
PERFORMANCE INDICATORS FOR THE YEAR ENDED JUNE 30, 1995

Scope

The Financial Administration and Audit Act 1985 requires the accountable officer to prepare and submit performance indicators. Treasurer's Instruction 904 requires that key indicators of effectiveness and efficiency be reported for each program. I am required to audit these indicators and state whether, in my opinion, they are relevant and appropriate having regard to their purpose and fairly represent the indicated performance.

I have reviewed the performance indicators reported by the Department of Minerals and Energy for the year ended June 30, 1995 in accordance with the approach outlined in the Auditor General's First General Report for 1993. During my review, I have assessed the relevance of the reported indicators to the objectives of the Department, as well as the appropriateness of the indicators, to assist users to assess performance. I have also assessed whether the Department is reporting on all appropriate objectives. Where I have formed the view that the indicators are relevant and appropriate, I have also examined, on a test basis, the relevant information systems to determine whether the information reported in the indicators is verifiable and free from significant bias.

Audit Assessment

It is my view that the performance indicators are relevant to the objectives of the Department. The indicators are appropriate for assisting users to assess the Department's performance, however, the information reported for the following effectiveness indicators does not fairly represent the indicated performance:

Mineral Exploration Data

- The proportion of mineral exploration reports on active mining tenements received from industry which have been accessioned in the WA Mineral Exploration database (WAMEX).
- The proportion of mineral exploration reports which become eligible for release that are placed on open file as microfiched items.

Petroleum Industry Environmental Management

- The extent to which petroleum operations comply with Departmental environmental criteria.

In my view, except for those listed above, the indicators fairly represent the indicated performance.

Department of Minerals and Energy
Performance Indicators for the year ended June 30, 1995

I am aware that the Department is developing for the Dangerous Goods Management program, efficiency indicators which will show the relationship between the resources used and the outputs produced which contributed to the desired outcomes.

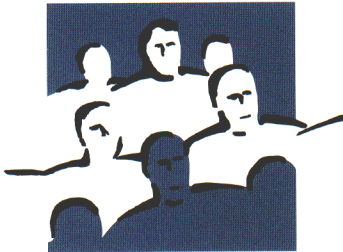
A handwritten signature in black ink, appearing to read 'H M Blake'.

H M BLAKE
ACTING AUDITOR GENERAL

October 10, 1995



CORPORATE SERVICES



Objective: *To assist the Department in using its human, financial and other resources effectively to provide a service responsive to the needs of the community, industry and Government.*

The program provides support services to the Department's Corporate Executive and operating Divisions to assist in optimising the resources provided by Government.

The continuing trend towards greater Departmental accountability has seen a growing number of central agency functions devolved to the Department, putting pressure on resources within this area. This has necessitated a continuous review of systems and procedures to make the best use of staff and other resources.

The resources utilised in providing these corporate services have been allocated to the programmes previously described in this report.

Corporate planning

A new strategic planning cycle commenced following the appointment of the Director General in December 1994. The vision was recast with a more external focus and general strategic directions defined with a greater emphasis on the Department's information management role.

An interim review of the objectives and functions of each sub-program resulted in a rationalisation of the program and division management structure which are now more closely aligned. A benchmark study was initiated to determine the status of the State's regulatory and support regime relative to other States and countries.

The Department's emphasis on customer service continued with the production of a customer service charter. Measurement and analysis are being used as tools to ensure that customer services are maintained at a high level consistent with State Government policy and the interests of the community.

Human resource management

Government reforms were the catalyst for a number of human resource initiatives over the past year. Price Waterhouse was commissioned to undertake a best practice review of human resource management. The evaluation ranked the practices within the Department highly against other public sector and private agencies and the findings have been a basis for the development of human resource performance indicators.

A comprehensive review of human resource policies, practices and procedures was carried out. Policies are being developed to enable the orderly transition of responsibilities to line managers. Key activities during the year include:

- investigation of an integrated human resource information and payroll system;
- development of a preliminary industrial agreement which was presented to employees in December and negotiated and is now being redrafted. A workplace agreement incorporating a performance pay component is also being prepared;
- the commissioning of a consultant to further minimise accidents and eliminate hazards from the workplace. The consultant will work exclusively on workers' compensation, rehabilitation and general occupational health, safety and welfare services. During the year there were 16 workers' compensation claims, 13 were accepted, two were rejected with one still pending. A total of 706 person days were lost during the 1994-95 renewal period, regardless of the date of injury. The Department had a workers' compensation frequency rate of 6.04, an estimated cost of claims of \$0.92 per \$100 wageroll, and a premium rate of 0.89 per cent;
- development of an employee assistance policy and contracting an external organisation to provide counselling and support for staff experiencing personal difficulties; and
- training with 52 per cent of staff participating in either management development, awareness raising sessions, technical seminars, workshops



CORPORATE SERVICES

or courses. With the new direction of the Department, training line managers was a priority. Cross-cultural awareness training commenced to help staff develop a greater understanding of Aboriginal issues. Consultants, external courses and in-house training resources combined to meet staff training needs. Departmental facilities include a self paced learning centre and a library.

With the Government's push for privatisation and outsourcing, one of the key objectives of the Human Resources Branch has been to consult and inform staff of their entitlements under the present redundancy and redeployment provisions and to ensure that transitions are as smooth as possible.

Standards, Codes of Ethics and Codes of Conduct had not been established as at 30 June 1995 therefore comment on compliance, as required by section 31 (1) of the Public Sector Management Act, cannot be made.

The average full time equivalent staffing level for the year was 576.42 with a 7.17 per cent turnover of permanent staff. The commercialisation of the Chemistry Centre, the dissolution of the Surveys and Mapping Division and the formation of Mineral Titles Division generated extensive work in human resources during the year.

Financial management

The Department installed a new computerised financial management information system ready for the 1995-96 financial year. As accrual accounting has not generally been practiced in budget sector agencies of the public sector in the past, an extensive retraining program was required for key staff.

A framework was developed to enable a *zero based* approach to be taken in the allocation of resources in the 1995-96 financial year. This initiative will help to achieve optimal use of resources in the delivery of Departmental objectives.

The Department was allocated \$950 000 in 1994-95 for the refurbishment of the Mineral House complex and regional offices. Of that, \$354 000 was allocated to refurbish the air conditioning at Mineral House, \$16 000 to partition the Karratha office, and \$580 000 to commence work on the relocation of the Mining Registrar's offices and Magistrate's Chambers at Meekatharra.

The Department was given the opportunity to call public tenders under the supervision of the State

Supply Commission. This initiative was a precursor to the granting of fully devolved purchasing to the Department, which will enable it to call public tenders directly for all its requirements on a permanent basis. The trial was successful, and approval will be sought for full devolved purchasing during 1995-96.

Internal audit focus was on information technology control issues including disaster recovery planning and dial-in access security. Systems development work included a review of the proposed financial and information management systems and the financial sub-system of the Dangerous Goods and Explosives Licensing and Information System (DEXIS). A special project audit included the installation of NetCensus software on all Departmental computers to facilitate proper controls over software usage and recording. Traditional audit work on a systems basis continued throughout various Divisions and outstations. A risk management survey was completed during the year as the basis for the Audit Plan for 1995-96.

Information systems and technology

Good progress was achieved in the development and implementation of a number of key computer based systems.

The development and data capture for the Mineral Titles Tenement Graphics System (TENGRAPH), continued with a successful implementation in Perth and Kalgoorlie in August 1994.

The TENGRAPH system won an information technology industry award. The system has been well received by the mining industry and will be progressively introduced across the remainder of the State.

A number of enhancements were made to the Mineral Tenure Index System (TENDEX). These will culminate in the implementation of a dial-in access service to be made available through the public telephone system in late 1995.

A new prototype of DEXIS is operating successfully. DEXIS will provide a wider range of licensing functions, with improved integration of work flow, improved audit trails, the recording of inspection details and the provision of follow-on exception reporting and management information.

Comprehensive electronic mail and event scheduling systems were implemented. The internal electronic mail services have been interfaced with the international Internet service which provides the



CORPORATE SERVICES

Department's professional staff with improved access to international libraries and repositories of research data.

During the latter part of the year the Department arranged for external consultants to carry out an extensive study of computing requirements and future information technology architecture. In line with Departmental policy, over 40 per cent of the systems development and technical support were contracted out.

Public affairs, displays and publications

Partial underwriting of and participation in Mining and Energy Week, was one of the highlights in a busy year for Public Affairs staff. Publication of an updated Guide to Minerals and Petroleum in Western Australia, and the launch in Kalgoorlie and Perth of the TENGRAPH system, were other mile stones.

In December 1994, the reprographics, displays and desktop publishing and design functions were incorporated with the public affairs group, substantially increasing the size and scope of the operations. A comprehensive review resulted in the closure of the reprographics and displays functions by the end of the year and a decision to contract out future photographic and display requirements.

Media relations received high priority with the development of a highly successful pilot media information package for the Goldfields region. The inception of this program has seen a decrease in overall media releases and an increase in positive media contacts.





ACCOUNTING

The financial statements for the year ended 30 June 1995 have been prepared on an accrual basis in accordance with the provisions of the Financial Administration and Audit Act, 1985, Treasurer's Instructions issued pursuant thereto, and relevant accounting standards of the Australian Society of Certified Practising Accountants and the Institute of Chartered Accountants in Australia. To assist in comparisons with other Government agencies they follow the format suggested in the appendices to the Treasurer's Instructions.

Mineral and Petroleum royalties represent the bulk of revenue collections but as they are not operating revenue, they appear below the bottom line of the Operating Statement as administered revenue.

REVENUE

Consolidated Fund

During the financial year the Department was responsible for the collection of \$436 million through the Consolidated Fund (CF). Mineral and petroleum royalties collected from companies operating under State legislation comprised 84 per cent of this amount. Part of the revenue was payments collected by the State on behalf of the Commonwealth for petroleum produced within Commonwealth waters. These receipts were subsequently paid to the Commonwealth by way of special purpose payments after collection into the Consolidated Fund.

In addition to royalties, the Department also collected lease and other rental charges, (representing approximately 14 per cent of revenue), taxes and licences (approximately two per cent) and Departmental revenue (approximately half of one per cent).

EXPENDITURE

Consolidated Fund

Funds are appropriated by the Parliament through the Consolidated Fund to provide for recurrent services and capital expenditure.

Recurrent Services

This appropriation includes provisions for operating costs of the Department, refunds of revenue collected in previous years and payments to the Commonwealth. Payments to the Commonwealth are made under the provisions of the Petroleum (Submerged Lands) Act 1982 for the Commonwealth share of royalties received from offshore operations. The Commonwealth revenue has been collected by the State into the Consolidated Fund. Payments to the Commonwealth totalled \$19 187 million in the year, compared with \$11 413 million paid in the previous year.

During the financial year, the Department's operating budget of \$43 455 million was overspent by \$836 000 due to externally funded projects and refunds of revenue collected in previous years.

Capital Expenditure

During the year, \$1 313 million was expended on capital projects funded from this source.

FINANCIAL MANAGEMENT

The Department has implemented an integrated new generation financial management information system (FMIS) to provide the Accountable Officer and Corporate Executive with timely and comprehensive financial management reports on an accrual basis to assist in resource allocation and management decisions, and to meet statutory reporting requirements under the Financial Administrative and Audit Act.

PRICING POLICY

The Department generally adopts a full cost recovery user pays approach in determining fees and charges for services provided to the public and industry. With some services, where there is considered to be an element of service to the general public, a nominal fee has been determined. However, this represents only a small fraction of services provided and has minimal impact on revenue. In other cases the data collected is considered to be a freely available resource for the public and for industry, but a charge is levied to cover the cost of supplying this data in user friendly formats.

ROYALTY POLICY

The Department has a corporate objective of ensuring that the community receives a fair return for the extraction of non-renewable resources owned by the people of the State. The Department aims to ensure that these royalties are collected on time and in an economically and administratively efficient manner.



DEPARTMENT OF MINERALS & ENERGY

OPERATING STATEMENT

	Note	1994-95 (\$'000)	1993-94 (\$'000)
COST OF SERVICES			
Operating expenses			
Salaries	4	26 123	27 563
Superannuation	5	1 018	1 186
Administration expenses	7	20 276	19 199
Depreciation	6	2 643	Nil
Total cost of services		<u>50 060</u>	<u>47 948</u>
Operating revenues			
User charges and fees	8	1 654	1 530
Other revenues	9	266	680
		<u>1 920</u>	<u>2 210</u>
Net cost of services		<u>48 140</u>	<u>45 738</u>
REVENUES FROM GOVERNMENT			
Appropriations	10	45 604	46 715
Receipts paid into Consolidated Fund	11	(1 841)	(2 116)
Resources received free of charge	12	1 589	983
Liabilities assumed by the Treasurer	13	1 018	1 186
Total revenues from Government		<u>46 370</u>	<u>46 768</u>
CHANGE IN NET ASSETS			
RESULTING FROM OPERATIONS		<u>(1 770)</u>	<u>1 030</u>

ADMINISTERED EXPENSES & REVENUES	14		
EXPENSES			
Petroleum (Submerged Lands) Act 1982		19 187	11 413
Total Administered Expenses		<u>19 187</u>	<u>11 413</u>
REVENUES			
Taxes & Fees		7 485	7 474
Royalties		532 223	393 264
Total Administered Revenues		<u>539 708</u>	<u>400 738</u>



DEPARTMENT OF MINERALS & ENERGY

STATEMENT OF FINANCIAL POSITION

	Note	1994-95 (\$'000)	1993-94 (\$'000)
CURRENT ASSETS			
Cash and amounts in suspense	15	479	547
Restricted cash	16	4 222	5 014
Inventories	17	3 698	116
Accounts receivable	18	173	94
Prepayments	19	14	493
Total current assets		<u>8 586</u>	<u>6 264</u>
NON-CURRENT ASSETS			
Property, plant, equipment and vehicles	20	7 620	12 151
Works in progress	21	33	
Total non-current assets		<u>7 653</u>	<u>12 151</u>
Total assets		<u><u>16 239</u></u>	<u><u>18 415</u></u>
CURRENT LIABILITIES			
Accounts payable	22	810	56
Employee entitlements	24	3 736	3 298
Payments received in advance	26	4 103	5 014
Treasurers advances	25	467	240
Accrued Salaries	23	100	
Total current liabilities		<u>9 216</u>	<u>8 608</u>
NON-CURRENT LIABILITIES			
Employee entitlements	24	2 241	2 436
Total non-current liabilities		<u>2 241</u>	<u>2 436</u>
Total liabilities		<u>11 457</u>	<u>11 044</u>
EQUITY			
Accumulated surplus			
Asset revaluation reserve	27	4 782	7 371
Total equity		<u>4 782</u>	<u>7 371</u>
Total liabilities and equity		<u><u>16 239</u></u>	<u><u>18 415</u></u>
ADMINISTERED ASSETS AND LIABILITIES			
ADMINISTERED CURRENT ASSETS			
Restricted cash		6 038	4 102
Accounts Receivable		105 688	Nil
Total administered current assets		<u>111 726</u>	<u>4 102</u>
Total administered assets		<u><u>111 726</u></u>	<u><u>4 102</u></u>
ADMINISTERED CURRENT LIABILITIES			
Trust Accounts		6 038	4 102
Total administered current liabilities		<u>6 038</u>	<u>4 102</u>
Total administered liabilities		<u><u>6 038</u></u>	<u><u>4 102</u></u>



DEPARTMENT OF MINERALS & ENERGY

STATEMENT OF CASH FLOWS

	Note	1994-95 (\$'000) Inflows (Outflows)
CASH FLOWS FROM OPERATING ACTIVITIES		
Payments		
Salaries and related costs		(25 794)
Administration		(17 996)
Receipts		
User charges and fees		1 841
Other revenues		<u> </u>
Net cash from operating activities	30	<u>(41 949)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Payments for purchase of non-current assets		(1 813)
Net cash from investing activities		<u>(1 813)</u>
CASH FLOWS FROM GOVERNMENT		
Receipts from capital appropriations		1 313
Receipts from recurrent appropriations		44 290
Revenue paid to CF		(1 841)
Net cash provided by government		<u>43 762</u>
Net increase in cash held		-
Cash at the beginning of the reporting period		20
Cash at the end of the reporting period		<u><u>20</u></u>

CASH FLOWS FROM ADMINISTERED TRANSACTIONS

CASH INFLOWS FROM ADMINISTERED TRANSACTIONS

Business	7 485
Mining	426 534
Total administered cash inflows	<u>434 019</u>

CASH OUTFLOWS FROM ADMINISTERED TRANSACTIONS

Administered Expenses	19 187
Total administered cash outflows	<u>19 187</u>

Net cash inflows/(outflows) from administered transactions 414 832



DEPARTMENT OF MINERALS & ENERGY

PROGRAM SCHEDULE OF EXPENSES AND REVENUES AND ADMINISTERED EXPENSES AND REVENUES

PROGRAM	Mineral Resources Management		Petroleum Resources Management		Geology & Resources Information		Dangerous Goods		Corporate Services		Refund of Revenue		Total	
	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000
Operating expenses														
Salaries	11 278	13 567	1 888	2 330	6 607	5 269	1 203	1 324	5 147	5 073			26 123	27 563
Superannuation	428	486	88	107	152	190	50	59	300	344			1 018	1 186
Administration Expenses	7 030	4 546	563	874	4 971	2 561	360	401	4 956	4 989	2 396	5 828	20 276	19 199
Depreciation	1 104		48		564		47		880				2 643	
Total operating expenses	19 840	18 599	2 587	3 311	12 294	8 020	1 660	1 784	11 283	10 406	2 396	5 828	50 060	47 948
Revenues from services														
Users Fees & Charges & Other Revenue	559	301	130	27	286	591	656	611	289	680	-	-	1 920	2 210
Total revenue from services	559	301	130	27	286	591	656	611	289	680	0	0	1 920	2 210
Net cost of services	19 281	18 298	2 457	3 284	12 008	7 429	1 004	1 173	10 994	9 726	2 396	5 828	48 140	45 738
Revenues from Government														
Appropriations	18 480	18 033	2 506	3 005	10 908	8 405	1 718	1 589	9 596	9 855	2 396	5 828	45 604	46 715
Receipts paid to Consolidated Fund	(514)	(266)	(42)	(28)	(342)	(535)	(654)	(606)	(289)	(680)			(1 841)	(2 115)
Resources received free of charge	889	399		67		122		41	700	354			1 589	983
Liabilities assumed by the Treasurer	428	486	88	107	152	190	50	59	300	344			1 018	1 186
Total revenues from Government	19 283	18 652	2 552	3 151	10 718	8 182	1 114	1 083	10 307	9 873	2 396	5 828	46 370	46 769
CHANGE IN NET ASSETS RESULTING FROM OPERATIONS	2	354	95	(133)	(1290)	753	110	(90)	(687)	147			(1770)	1 031

ADMINISTERED EXPENSES AND REVENUES

EXPENSES ADMINISTERED FOR THE CROWN

Petroleum (Submerged Lands) Act 1982			19 187	11 413									19 187	11 413
Total administered expenses	0	0	19 187	11 413	0	0	0	0	0	0			19 187	11 413

REVENUE ADMINISTERED FOR THE CROWN

Taxes, Fees & Royalties	394 772	323 623	144 036	76 212			900	903					539 708	400 738
Total administered revenues	394 772	323 623	144 036	76 212	0	0	900	903	0	0			539 708	400 738



DEPARTMENT OF MINERALS & ENERGY

PROGRAM SCHEDULE OF ASSETS AND LIABILITIES AND ADMINISTERED ASSETS AND LIABILITIES

PROGRAM	Mineral Resources Management		Petroleum Resource Management		Geology & Resources Information		Dangerous Goods		Corporate Services		Refund of Previous Years Revenue		Total	
	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000	1994-95 \$'000	1993-94 \$'000
Assets														
Current														
Cash and Amounts in Suspense	-	8	-	1	459	337	-	1	20	200			479	547
Restricted Cash	2 853	4 786	707		662	228							4 222	5 014
Inventories	177	116			3 516		5						3 698	116
Accounts Receivable	79	34			88	56	6	4					173	94
Prepayments	12	256		39	1	74	1	25		99			14	493
Total Current Assets	3 121	5 200	707	40	4 726	695	12	30	20	299			8 586	6 264
Non-current														
Property Plant & Equipment	3 751	4 734	94	1 822	1 680	2 207	57	1 038	2 038	2 350			7 620	12 151
Works in Progress	33												33	0
Total Non-current Assets	3 784	4 734	94	1 822	1 680	2 207	57	1 038	2 038	2 350			7 653	12 151
Total assets	6 905	9 934	801	1 862	6 406	2 902	69	1 068	2 058	2 649			16 239	18 415
Liabilities														
Current														
Accrued Salaries	41	-	8	-	16	-	5	-	30	-			100	-
Accounts Payable	74	25	8	1	460	5	9	-	259	25			810	56
Employee Entitlements	1 593	1 683	248	281	939	518	184	175	772	641			3 736	3 298
Payments received in advance	2 853	4 786	707		543	228							4 103	5 014
Treasurers Advances	-	8	-	1	447	207	-	1	20	23			467	240
Total Current Liabilities	4 561	6 502	971	283	2 405	958	198	176	1 081	689			9 216	8 608
Non-current														
Total Non-current Liabilities	950	1 243	151	208	572	382	105	129	463	474			2 241	2 436
Total Liabilities	5 511	7 745	1 122	491	2 977	1 340	303	305	1 544	1 163			11 457	11 044
Net assets	1 394	2 189	(321)	1 371	3 429	1 562	(234)	763	514	1 486			4 782	7 371

ADMINISTERED ASSETS AND LIABILITIES

Assets														
Current														
Accounts Receivable	75 389		30 299											105 688
Restricted cash			6 038	4 102									6 038	4 102
Total administered assets	75 389	0	36 337	4 102	0	0	0	0	0	0	0	0	111 726	4 102
Liabilities														
Current														
Trust Accounts			6 038	4 102									6 038	4 102
Total administered liabilities	0	0	6 038	4 102	0	0	0	0	0	0	0	0	6 038	4 102



DEPARTMENT OF MINERALS & ENERGY
SUMMARY OF CONSOLIDATED FUND APPROPRIATIONS AND REVENUE ESTIMATES

		Estimate	1994-95	Variation	Estimate	1993-94	Variation
		\$	\$	\$	\$	\$	\$
<i>Details of Appropriation items and Expenditures Authorised by Other Statutes</i>							
Item 38	Amount provided for Recurrent Services for the year	43 344 000	44 168 821	824 821	44 898 000	44 788 475	(109 525)
	Sub-Total	43 344 000	44 168 821	824 821	44 898 000	44 788 475	(109 525)
	Amount Authorised by Other Statutes						
	- Salaries and Allowances Act 1975	111 000	121 908	10 908	111 000	109 407	(1 593)
	- Petroleum (Submerged Lands) Act 1982	16 100 000	19 186 773	3 086 773	14 600 000	11 412 600	(3 187 400)
	Total Recurrent Services	59 555 000	63 477 502	3 922 502	59 609 000	56 310 482	(3 298 518)
Item 200	Amount provided for Capital Services for the year	1 746 000	1 313 109	(432 891)	1 931 000	1 816 888	(114 112)
	Grand Total	61 301 000	64 790 611	(3 489 611)	61 540 000	58 127 370	(3 412 630)
<i>Details of Expenditure</i>							
RECURRENT							
	Corporate Services	220 000	243 462	23 462	220 000	220 000	-
	Refunds of Revenue	1 960 000	2 396 117	436 117	6 279 000	5 828 219	(450 781)
Programs							
	Mineral Resources Management	21 891 000	22 257 639	366 639	22 259 000	22 953 698	694 698
	Sub-Program details:						
	Mineral Industry and Resources Policy	1 914 000	1 179 207	(734 793)	2 105 000	2 546 664	441 664
	Mineral Tenure	10 747 000	11 753 694	1 006 694	11 425 000	11 297 659	(127 341)
	Mineral Industry Occupational Health and Safety	6 886 000	7 114 130	228 130	6 190 000	6 894 226	704 226
	Mineral Industry Environmental Management	1 262 000	1 097 216	(164 784)	1 385 000	1 150 489	(234 511)
	Mineral Exploration Data	657 000	661 458	4 458	804 000	619 894	(184 106)
	Mineral Royalties	425 000	451 934	26 934	350 000	444 766	94 766



DEPARTMENT OF MINERALS & ENERGY
SUMMARY OF CONSOLIDATED FUND APPROPRIATIONS AND REVENUE ESTIMATES

	Estimate \$	1994-95 Actual \$	Variation \$	Estimate \$	1993-94 Actual \$	Variation \$
Petroleum Resources Management	4 203 000	3 927 408	(275 592)	4 299 000	4 119 112	(179 888)
Sub-Program details:						
Petroleum Industry and Resources Policy	789 000	899 416	110 416	715 000	729 672	14 672
Petroleum Tenure	1 019 000	918 832	(100 168)	888 000	969 175	81 175
Petroleum Industry Occupational Health and Safety	1 161 000	1 012 347	(148 653)	1 442 000	1 261 307	(180 693)
Petroleum Industry Environmental Management	218 000	177 791	(40 209)	194 000	174 517	(19 483)
Petroleum Exploration Data	693 000	608 583	(84 417)	798 000	707 979	(90 021)
Petroleum Royalties	323 000	310 439	(12 561)	262 000	276 462	14 462
Geology and Resource Information	12 864 000	13 165 557	301 557	9 742 000	9 510 379	(231 621)
Sub-Program details:						
Regional Geoscience Mapping	9 728 000	10 505 192	777 192	7 140 000	7 019 305	(120 695)
Groundwater Resources	2 469 000	2 350 942	(118 058)	2 060 000	1 989 378	(70 622)
Geotechnical Services	667 000	309 423	(357 577)	542 000	501 696	(40 304)
Dangerous Goods Management	2 317 000	2 300 546	(16 454)	2 210 000	2 266 474	56 474



DEPARTMENT OF MINERALS & ENERGY
SUMMARY OF CONSOLIDATED FUND APPROPRIATIONS AND REVENUE ESTIMATES

	Estimate \$	1994-95 Actual \$	Variation \$	Estimate \$	1993-94 Actual \$	Variation \$
Recurrent Expenditure	43 455 000	44 290 729	835 729	45 009 000	44 897 882	(111 118)
CAPITAL						
Capital Expenditure	1 746 000	1 313 109	(432 891)	1 931 000	1 816 888	(114 112)
Appropriations per operating statement	45 201 000	45 603 838	402 838	46 940 000	46 714 770	(225 230)
Appropriations for administered expenses	16 100 000	19 186 773	3 086 773	14 600 000	11 412 600	(3 187 400)
GRAND TOTAL OF APPROPRIATIONS	61 301 000	64 790 611	(3 489 611)	61 540 000	58 127 370	(3 412 630)
Details of Revenue Estimates						
OPERATING REVENUES						
 Departmental						
Registration	73 000	73 017	17	70 000	72 985	2 985
Explosives	570 000	654 451	84 451	481 000	606 491	125 491
Administration	233 000	265 558	32 558	206 000	679 738	473 738
Geological Survey	275 000	560 118	285 118	275 000	534 704	259 704
Surveys and Mapping	145 000	218 793	73 793	131 000	144 979	13 979
Mining Operations	21 000	39 953	18 953	21 000	48 855	27 855
Petroleum	22 000	29 247	7 247	21 000	27 750	6 750
	1 339 000	1 841 137	502 137	1 205 000	2 115 502	910 502



DEPARTMENT OF MINERALS & ENERGY
SUMMARY OF CONSOLIDATED FUND APPROPRIATIONS AND REVENUE ESTIMATES

	Estimate \$	1994-95 Actual \$	Variation \$	Estimate \$	1993-94 Actual \$	Variation \$
ADMINISTERED REVENUES						
Business						
Petroleum Permits and Licences	3 408 000	3 293 910	(114 090)	2 935 000	3 326 371	391 371
Prospecting Exploration and other Mining Licences	2 639 000	3 290 998	651 998	2 460 000	3 244 505	784 505
Explosives Regulations	146 000	149 709	3 709	140 000	153 833	13 833
Dangerous Goods Regulations	660 000	750 291	90 291	603 000	749 241	146 241
	6 853 000	7 484 908	631 908	6 138 000	7 473 950	1 335 950
Mining						
Royalties						
Iron Ore	140 000 000	138 971 476	(1 028 524)	151 500 000	148 674 163	(2 825 837)
Petroleum	114 500 000	113 736 996	(763 004)	106 000 000	72 886 319	(33 113 681)
Alumina	27 000 000	27 484 829	484 829	32 000 000	30 737 151	(1 262 849)
Diamonds	28 500 000	28 551 513	51 513	30 500 000	40 201 662	9 701 662
Mineral Sands	7 500 000	11 537 989	4 037 989	9 500 000	8 773 220	(726 780)
Nickel	15 000 000	17 680 335	2 680 335	10 500 000	7 908 430	(2 591 570)
Other	28 500 000	26 086 396	(2 413 604)	26 000 000	24 897 765	(1 102 235)
Lease and Other Rentals	54 500 000	62 484 836	7 984 836	54 565 000	59 185 189	4 620 189
	415 500 000	426 534 370	11 034 370	420 565 000	393 263 899	(27 301 101)
TOTAL REVENUE ESTIMATES	423 692 000	435 860 415	12 168 415	427 908 000	402 853 351	(25 054 649)



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

1. Departmental objectives and funding

To manage and support the sustainable development of the State's mineral, petroleum and groundwater resources in the best interest of the community of Western Australia; and to ensure that the community is protected from the hazards associated with dangerous goods.

The Department is funded by Parliamentary appropriation.

2. Significant accounting policies

(a) Basis of accounting

The financial statements have been prepared in accordance with Treasurers' Instruction 1101A and are based on the provision of Australian Accounting Standard AAS 29. They have been prepared on the accrual basis of accounting using historical cost accounting, 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.

The totals of user charges (being fees for services rendered by the Department that are not regulatory in nature), recoups, reimbursements and proceeds from the sale of assets controlled by the Department are included as operating revenues of the Department notwithstanding that the amounts or parts thereof are required to be paid directly into the Consolidated Fund and are not controlled by the Department in the sense of being retained by the Department through a net appropriation or otherwise. Inclusion of these amounts in operating revenues discloses a more accurate net cost of services, which would not otherwise be disclosed.

The financial statements have been prepared consistent with the requirements of the Financial Administration and Audit Act 1985.

This is the first year in which financial statements have been prepared on an accrual basis for audit purposes. The previous financial year's figures are unaudited and as such should be used for indicative comparisons only. Indicative comparative figures are not available for the statement of cash flows.

Land and Buildings have not been brought to account as valuations for the following properties controlled by the Department have not been completed.

Stakehill Road, Baldivis (Explosives Reserve)
19 Catherine Street, Bentley (Laboratory)
91-93 Brigg Street, Carlisle (Depot)
40 Cohn Street, Carlisle (Office)
35-37 Harris Street, Carlisle (Depot)
66 Wittenoom Street, Collie (Office)
40 Bayley Street, Coolgardie (Office)
15 Harold Street, Dianella (Core Library)
125 Hay Street, East Perth (Laboratories)
100 Plain Street, East Perth (Office)
48-52 Brookman Street, Kalgoorlie (Office)
Piccadilly Street, Kalgoorlie (Explosives Reserve)
Rochester Street, Leonora (Office)
Main Street, Meekatharra (Office)
137 Russell Street, Morley (Store)
Richardson Street, Mt Magnet (Office)
89-91 Princep Street, Norseman (Office)
Canopus Street, Southern Cross (Office)
15 Conlon Street, Waterford (Land)



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

(b) 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 drawn down by the Department. Appropriations which are repayable by the Department to the Treasurer are recognised as liabilities.

(c) Employee entitlements

Annual and long service leave

These entitlements are calculated at current remuneration rates. A liability for long service leave is recognised after an officer has completed four years of service.

Superannuation

Staff contribute to the Superannuation and Family Benefits Act Scheme (a pension scheme now closed), or the Government Employees Superannuation Act Scheme (a lump sum benefit scheme), which are both defined benefits schemes. If staff elect not to contribute to the lump sum benefits scheme they become non-contributory members of that scheme. The employer's portion of liability under both Schemes is assumed by the Treasurer.

The superannuation expense comprises the following elements:

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 Government Employees Superannuation Act Scheme; and

notional employer contributions which would have been paid to the Government Employees Superannuation Act Scheme if the Department had made concurrent employer contributions to that Scheme.

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 notional expense for the year in respect of pensions paid to retirees from the Department and the change in the unfunded employer's liability for future payments of those pensions, which is not included in the financial statements, amounts to \$2.776m. The total unfunded liability for pensions and transfer benefits assumed by the Treasurer at 30 June 1995 in respect of current employees is \$12.228m and for pensions payable to retirees is \$34.358m).

(d) Depreciation of non-current assets

All non-current assets having a limited useful life are to be systematically depreciated over their useful lives in a manner which reflects the consumption of their service potential.

Depreciation is to be provided as follows:

Buildings	50	years	Straight Line Method
Furniture	10	"	" " "
Office Equipment	5	"	" " "
Computer Equipment	5	"	Diminishing Value Method
Computer Software	3-5	"	Straight Line Method

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 assets assessed useful life) once full costs have been determined.



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

(e) Valuation of Inventories

All inventories brought to account are chargeable publications and maps produced by the organisation. They are generally valued on the basis of the unit cost of producing the end product. The cost of intellectual property and data collection are not included as they are recovered many times over by way of royalty collections on minerals and petroleum production.

When a new map of an area is produced, the old map is considered to be obsolete and is written off. Similarly, as new technologies replace the old in such a way that demand for an old product is eliminated or reduced to an insignificant level, the stock held in the old form is written off.

3 Programs of the Department

The programs of the Department and their objectives are:

Program 1 - Mineral Resources Management

Objective: To ensure that the exploration for and mining of the State's mineral resources are managed for the benefit of the people of Western Australia.

Program 2 - Petroleum Resources Management

Objective: To ensure that the exploration, development and production of the State's petroleum resources are managed for the benefit of the people of Western Australia.

Program 3 - Geology and Resources Information

Objective: To improve the knowledge of the geology of Western Australia and the quality of the regional geological, geophysical and geochemical data and maps for use by industry, government and the public to support exploration, groundwater management, land-use planning and infrastructure development.

Program 4 - Dangerous Goods Management

Objective: To achieve an acceptably low level of risk to the public as a result of the storage, handling and transport of explosives and dangerous goods in Western Australia.

In addition, the objective of Corporate Services is to assist the Department in using its human, financial and other resources effectively and efficiently to provide a service responsive to the needs of the community, industry and government.

Corporate support is provided from the following areas:

- Executive
- Finance and Administration
- Human Resources
- Internal Audit
- Record Services
- Computing Services
- Public Relations
- Policy and Planning



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95	1993-94
	(\$'000)	(\$'000)
4 Salaries		
Salaries	25 894	27 563
Change in employee entitlements	229	-
	<hr/>	<hr/>
	26 123	27 563
5 Superannuation		
Total expense for the year	1 018	1 186
6 Depreciation		
Computer Software	409	-
Furniture	82	-
Office Equipment	296	-
Computer Equipment	1 856	-
	<hr/>	<hr/>
	2 643	-
7 Administration expenses		
Expenses incurred during the year	18 687	18 216
Resources received free of charge (see note 12)	1 589	983
	<hr/>	<hr/>
	20 276	19 199
8 User charges and fees		
Explosives	656	611
Registration	83	90
Geological Survey	592	591
Survey & Mapping	254	161
Engineering	40	49
Petroleum	29	28
	<hr/>	<hr/>
	1 654	1 530
9 Other revenues		
Administration	266	680
All the above receipts form part of "Operating Revenues" as disclosed in the Operating Statement		
10 Appropriations		
Consolidated fund		
Recurrent	44 169	44 789
Other Statutes – Salaries & Allowances	122	109
Capital	1 313	1 817
	<hr/>	<hr/>
	45 604	46 715
11 Receipts paid into Consolidated Fund		
Departmental revenue	(654)	(606)
Explosives	(73)	(73)
Registration	(560)	(535)
Geological Survey	(219)	(145)
Survey & Mapping	(40)	(49)
Engineering	(29)	(28)
Petroleum	(266)	(680)
Administration	<hr/>	<hr/>
	(1 841)	(2 116)



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
12 Resources received free of charge		
Administration Expenses	1 589	983
<p>Resources received free of charge has been determined on the basis of the following estimates provided by agencies.</p>		
Office of the Auditor General		
– audit services	60	50
Building Management Authority		
– property maintenance services	603	716
Government Property Office		
– property management services	4	3
Department of Services		
– human resources, payroll and purchasing services	–	2
Department of Land Administration	889	173
Treasury Department		
– GAS processing and associated services	33	39
	1 589	983
13 Liabilities assumed by the Treasurer		
Superannuation	1 018	1 186
14 Administered expenses and revenues		
Expenses		
<p>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. The Commonwealth revenue has been collected by the State into the Consolidated Fund receipts. Petroleum (Submerged Lands) Act 1982</p>		
	19 187	11 413
Revenue		
<p>Taxes, Licences and Royalties</p> <p>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: \$434.019m and revenues due but not collected were \$105.688m.</p>		
Royalties		
Iron Ore	187 689	148 674
Petroleum	144 036	72 886
Diamonds	39 966	40 202
Alumina	33 954	30 737
Mineral Sands	17 142	8 773
Nickel	19 678	7 908
Other	27 273	24 898
Lease and Other Rentals	62 485	59 185
	532 223	393 264



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
Taxes and Licences		
Petroleum Permits and Licences	3 294	3 326
Prospecting Exploration & Other Mining Licences	3 291	3 245
Explosive Regulations	150	154
Dangerous Goods Regulations	750	749
	<u>7 485</u>	<u>7 474</u>
	<u>539 708</u>	<u>400 738</u>

15 Cash and amounts in suspense

Suspense Account	-	323
Cash on hand	20	20
Drilling	459	204
	<u>479</u>	<u>547</u>

16 Restricted cash

Payments Received in Advance		
Survey of Leases under the Mining Act Account	2 853	3 789
Deposits: Mines Department Account	707	997
Special Projects Trust Account	662	228
	<u>4 222</u>	<u>5 014</u>

17 Inventories

Geological Survey - Carlisle	3 516	-
Mining Titles	177	116
Explosives	5	-
	<u>3 698</u>	<u>116</u>

Inventories of Geological Survey maps and publications at Carlisle store were not brought to amount in 1993-1994. Hence they have been brought to account for the first time in 1994-95.

18 Accounts receivable

Accounts receivable for goods and services supplied	173	94
Less: provision for doubtful debts	-	-
	<u>173</u>	<u>94</u>

19 Other current assets

Prepayments	14	493
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DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95	1993-94
	(\$'000)	(\$'000)
20 Property, furniture, equipment and vehicles		
Furniture – at cost	895	1 603
Accumulated depreciation	495	–
	400	1 603
Office equipment – at cost	2 419	2 498
Accumulated depreciation	648	–
Total Office Equipment	1 771	2 498
Computer equipment – at cost	9 022	7 558
Accumulated depreciation	5 761	–
	3 261	7 558
Total Equipment	5 032	10 056
Computer Software – at cost	2 232	–
Accumulated depreciation	409	–
	1 823	–
Vehicles – at cost	365	492
Total of Property, Furniture, Equipment and Vehicles	7 620	12 151

The valuations of land and buildings have not been brought to account as valuations have not been completed.

In 1994-95 accumulated depreciation was brought to account on all capitalised assets (except vehicles) to reflect realistic written down values of assets at 30 June, 1995. Vehicles are not depreciated as they are purchased exempt of sales tax and hence are sold after two years for amounts similar to their purchase price.



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95	1993-94
	(\$'000)	(\$'000)
21 Works in Progress		
Mining Registrar/Magistrate Chamber – Meekatharra	33	–
22 Accounts payable		
Amounts payable for goods and services received	810	56
23 Accrued salaries		
Amounts owing for the one working day for the 30 June 1995 (1993-1994 no working days used)	100	–
24 Employee entitlements		
Current liabilities		
Fringe Benefits Tax	75	–
Liability for annual leave	2 071	1 761
Liability for long service leave	1 590	1 537
	<u>3 736</u>	<u>3 298</u>
Non-current liabilities		
Liability for long service leave	2 241	2 436
	<u>5 977</u>	<u>5 734</u>
25 Treasurer's Advances		
Cash Advances	20	20
Drilling Advance Account	447	220
	<u>467</u>	<u>240</u>
26 Payments Received in Advance		
Survey of Leases Under Mining Act Account	2 853	3 789
Deposits: Mines Department Account	707	997
Special Projects Trust Account	543	228
	<u>4 103</u>	<u>5 014</u>
27 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		
Balance at the beginning of the year	7 371	6 341
Asset Valuations brought to account in accordance with AAS29	(819)	
Change in net assets resulting from operations	(1 770)	1 030
Balance at end of the year	<u>4 782</u>	<u>7 371</u>
Asset revaluation reserve		
Balance at the beginning of the year	–	–
Revaluations during the year		
Balance at end of the year	<u>–</u>	<u>–</u>



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
28 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 Assets		
Restricted Cash (Commonwealth share of Barrow Island Royalty)	6 038	4 102
Accounts Receivable	105 688	-
This represents royalty not collected as at 30 June 1995 on production which occurred prior to balance date.		
At any time throughout the year, a number of 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 Liabilities		
Barrow Island Royalty Trust Fund	6 038	4 102
The Account was created under the Barrow Island Royalty Trust Account Act 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 amount shown represents the Commonwealth's liability.		
29 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:		
Health Department and MERIWA (Building Services, Parking, Conferences)	36	36
Chemistry Centre (Notional Rent on Buildings)	774	
DOLA	59	
	<u>869</u>	<u>36</u>
30 Reconciliation of net cash provided by operating activities to change in net assets resulting from operations.		
Net cash from operating activities (Statement of Cash Flows)	(41 949)	
Increase in accrued salaries	(100)	
Increase in employee entitlements	(229)	
Increase in Accounts Receivable	(79)	
Decrease in Prepayments	(468)	
Increase in Accounts Payable	(222)	
Depreciation	(2 643)	
Appropriations net of revenue	43 762	
	<u>40 179</u>	
Change in net assets resulting from operations (operating statement)	(1 770)	



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
31 Remuneration and retirement benefits of Senior Officers		
Remuneration		
Total of salaries and other benefits received, or due and receivable, for the financial year by Senior Officers of the Department.	783	920
The number of Senior Officers whose total salaries and other benefits received, or due and receivable, for the financial year, falls within the following bands:		
	1994-95	1993-94
\$40 000 to \$50 000	1	-
\$50 000 to \$60 000	-	-
\$60 000 to \$70 000	-	1
\$70 000 to \$80 000	4	5
\$80 000 to \$90 000	4	4
\$90 000 to \$100 000	1	-
\$110 000 to \$120 000	-	1
Retirement benefits		
In respect of Senior Officers the following amounts became payable for the financial year.		
Notional contributions to the Government Employees Superannuation Act Scheme.		
Redundancy payments	93	99
	<u> -</u>	<u> -</u>
The number of Senior Officers employed at 30 June who are members of the Superannuation and Family Benefits Act Scheme:		
Senior Officers of the Department's Corporate Executive	3	2



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
32 Explanatory Statement		
<p>The Summary of Consolidated Fund Appropriation Compliance and Revenue Estimates discloses appropriation and other statutes expenditure estimates, the actual expenditure made and revenue estimates and payments into Consolidated Fund, all on a cash basis.</p> <p>The following explanations are provided in accordance with Treasurer's Instruction 945:</p> <p>(a) Details of expenditure in advance of appropriation approved in accordance with Section 29 of the Financial Administration and Audit Act.</p> <p>(i) Amount provided for Recurrent Services</p> <p>Supplementary funding was approved to enable the Department to exceed its appropriation. This excess was contributable to two major areas, these being special externally funded projects and refunds of revenue collected in previous years.</p> <p>Externally funded projects are undertaken at no cost to Government. However as the Department is funded from the Consolidated Fund, supplementary funding has had to be provided each year to cover the expenditures incurred on the basis that a like amount of revenue has been collected. The funding required in 1994-95 was \$389 000.</p> <p>In addition to the above, supplementary funding was also sought for refunds of revenue collected in previous financial years. As there is a legal requirement to make these refunds when they become due, an additional \$436 000 was required to meet the Department's obligations.</p> <p>(ii) Amount Authorised by Other Statutes</p> <p>Salaries and Allowances Act 1975</p> <p>Petroleum (Submerged Lands) Act 1982</p> <p>Excess funding was provided by Treasury to meet these special act requirements.</p> <p>(b) Significant variations (greater than 10 per cent) where actual expenditures were less than budget estimates for the financial year.</p> <p>(i) Amount provided for Capital Services</p> <p>Major underspending has occurred as a result of the Mining Registrar's Offices and Magistrate's Chambers at Meekatharra planning phases being extended to enable work on the adjacent Police Station to be incorporated into the project.</p>	825	—
	11	—
	3087	—
	(433)	—



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

	1994-95 (\$'000)	1993-94 (\$'000)
(c) Significant variations (greater than 10 per cent) where actual revenues were greater than budget estimates for the financial year.		
(i) Department Revenue	502	911
Increased revenue is mainly attributable to externally funded projects in the Explosives, Administration, Geological Survey and Mining Operations areas. This situation occurs as no budget provision is made for special projects on either the revenue or expenditure side of the estimate. Supplementary funding was provided to cover the additional expenditure on the basis that a like amount of unbudgeted revenue has been collected to accommodate it.		
(ii) Business Revenue	632	1 336
Increased revenue is due to an increase in applications for mining tenements and an increase in dealings fees revenue due to an increase in the number of in force tenements.		
Dangerous Goods Regulations had excess revenues as a result of an increase in applications to store dangerous goods.		
(iii) Mining Revenue	11 034	(27 301)
increased Mining revenues as a result of		
(a) a 18 per cent increase in nickel prices;		
(b) overall improvement in Mineral Sands prices plus commencement of payback of 1994 royalty relief;		
(c) increase in rentals revenue due to the increase in the number of mining tenements in force and an increase in the size of tenements.		
(d) Significant variation (greater than 10 per cent) between actual outcomes for the financial year and outcomes for the immediately preceding financial year.		
(i) Refunds of Revenues		
Refunds were below last year's level as a result of extraordinary payments in 1993-94 for royalty refunds.	2 396	5 828
(ii) Amount Authorised by other Statutes		
Petroleum (Submerged Lands) Act 1982	19 187	11 413
Payments to the Commonwealth were greater than last year as a result of increased royalty revenue (approx \$41m).		
(e) Significant variation (greater than 10 per cent) where actual expenditures exceed the estimate for programs identified in the annual estimates.		
(i) CORPORATE SERVICES	23	-
Excess as a result of hiring of external consultants to provide advice on future options for the Chemistry Centre.		



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

33 Lease Commitment

The Department has an operating lease with Lease Plan Australia Limited for its motor vehicle fleet. The two year contract commenced operation on 13 January 1995. On the basis of the current monthly charge of \$35 000 per calendar month the commitment is as follows:

1995-96 12 months @ \$35 000	=	\$420 000
1996-97 6.5 months @ \$35 000	=	\$227 500
Thereafter		-
Total commitment		\$647 500

34 Other Commitments

Commitments - The Financial Management Information System being developed for use in 1995-96 will feature comprehensive commitment information. However, it is not possible at this stage to provide accurate data in this regard.

35 Contingent obligations

-

36 Events occurring after balance date

No known event or events occurred after year end which materially affect the results reflected in this financial report.

37 Related bodies

The Department had no related bodies as defined in the Financial Administration and Audit Act 1985 and Treasurer's Instruction 951.

38 Affiliated bodies

The Department had no affiliated bodies as defined in Financial Administration and Audit Act 1985 and Treasurer's Instruction 951.



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

39 ACCOUNTS FOR THE TRUST FUND

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 Revenue Fund, and fees previously collected are then 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.

	1993-94		1994-95	
	\$		\$	
Opening Balance July 1	4 030 330	CR	3 789 321	CR
<u>Add</u> Receipts				
Survey Fees	-		-	
	<hr/>		<hr/>	
	4 030 330		3 789 321	
	<hr/>		<hr/>	
<u>Less</u> Payments				
Transferred to Revenue				
Refunds	241 009		936 117	
	<hr/>		<hr/>	
Closing Balance June 30	3 789 321	CR	2 853 204	CR
	<hr/>		<hr/>	

Barrow Island Royalty Trust Account

The account was created under the Barrow Island Royalty Trust Account Act 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.

	1993-94		1994-95	
	\$		\$	
Opening Balance July 1	7 851 851	CR	4 102 345	CR
<u>Add</u> Receipts				
Royalties Received	29 259 120		19 584 617	
	<hr/>		<hr/>	
Total Receipts	29 259 120		19 584 617	
	<hr/>		<hr/>	
	37 110 971		23 686 962	
	<hr/>		<hr/>	
<u>Less</u> Payments				
Transferred to Revenue	7 293 124		4 585 467	
Remitted to Commonwealth	25 715 502		12 752 629	
	<hr/>		<hr/>	
Total Payments	33 008 626		17 338 096	
	<hr/>		<hr/>	
Closing Balance June 30	4 102 345	CR	6 348 866	CR
	<hr/>		<hr/>	

Note: The Commonwealth share of royalty payment payable in July 1995 was \$6 038 178 and the State's share of the refund of royalty payable in July 1995 was \$310 688 due to quarterly provisional receipts exceeding assessed royalty due.



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

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.

	1993-94		1994-95	
	\$		\$	
Opening Balance July 1	723 246	CR	996 500	CR
<u>Add</u> Receipts				
Bonds, Securities	485 500		150 500	
Interest	31 839		52 045	
	<hr/>		<hr/>	
	1 240 585		1 199 045	
	<hr/>		<hr/>	
<u>Less</u> Payments				
Refunds of Bonds, Securities	202 500		350 000	
Transfers to Revenue				
– Interest	41 585		440 002	
	<hr/>		<hr/>	
Total Payments	244 085		492 045	
	<hr/>		<hr/>	
Closing Balance June 30	996 500	CR	707 000	CR
	<hr/>		<hr/>	

Transfers to Suspense Account

The account is maintained to hold funds to meet any relevant end of year commitment in respect of plant and equipment or land. The balance of the account is held at Treasury.

	1993-94		1994-95	
	\$		\$	
Opening Balance July 1	–		422 429	CR
<u>Add</u> Receipts				
Transfers ex CF – Plant & Equipment	422 429		–	
	<hr/>		<hr/>	
	422 429		422 429	
	<hr/>		<hr/>	
<u>Less</u> Payments				
Purchase of Plant & Equipment or Land	–		422 429	
	<hr/>		<hr/>	
Closing Balance June 30	422 429	CR	–	
	<hr/>		<hr/>	



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

Special Projects Trust Fund Account

The account was created to hold funds for the purpose of participating in significant projects with other countries and the private sector to the mutual benefit of the other participants and the State of Western Australia.

	1993-94 \$	1994-95 \$	
Opening Balance July 1	-	228 383	CR
<u>Add</u> Receipts			
Contribution from:			
Industry	64 641	59 360	
Government	391 087	684 677	
	-----	-----	
Total Receipts	455 728	744 037	
	-----	-----	
<u>Less</u> Payments			
Salaries	48 825	108 895	
Travel	11 692	10 910	
Equipment, Misc.	166 828	190 882	
	-----	-----	
Total Payments	227 345	310 687	
	-----	-----	
Closing Balance June 30	228 383	661 733	CR
	-----	-----	

Departmental Receipts in Suspense

This account which is held at Treasury 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 1995 was \$6 447.

40 TREASURER'S ADVANCE

Drilling

Recoverable drilling expenditure is initially charged to a Treasurer's Advance Account. The cost of work performed, together with overhead charges, are recovered and credited to this account. The amount of the advance outstanding as at 30 June 1995 was \$459 092.



DEPARTMENT OF MINERALS & ENERGY

NOTES TO THE FINANCIAL STATEMENTS

41 Supplementary Financial Information

	1993-94	1994-95
	\$	\$
Losses of public monies and public or other property through theft or default	82	1 400
<u>Less</u> Amount Recovered	82	-
	<hr/>	<hr/>
Losses for write off	-	1 400
	<hr/>	<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 by:

	1993-94	1994-95
	\$	\$
The Accountable Officer	4 975	328
The Minister	-	-
	<hr/>	<hr/>
	4 975	328
	<hr/>	<hr/>
Analysis of losses written off		
Stock shortages	593	-
Bad debts	4 382	328
	<hr/>	<hr/>
	4 975	328
	<hr/>	<hr/>

	1993-94	1994-95
	\$	\$
Consolidated Fund		
revenues due	298 449	172 593
Less considered to be irrecoverable	21 443	132
	<hr/>	<hr/>
Amount considered to be recoverable	277 006	172 461
	<hr/>	<hr/>
Unpaid expenditure claims as at 30 June - CF	55 896	361 514
	<hr/>	<hr/>

Gifts of Public Property

-	<hr/>	<hr/>
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FINANCIAL ACCOUNTS 1995

CERTIFICATION OF FINANCIAL STATEMENTS

The accompanying 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 ending 30 June 1995 and the financial position as at 30 June 1995.

At the date of signing we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.



K Perry
ACCOUNTABLE OFFICER



P H Palmer
PRINCIPAL ACCOUNTING OFFICER

14 August, 1995



Opinion of the Auditor General

To the Parliament of Western Australia

**DEPARTMENT OF MINERALS AND ENERGY
FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 1995**

Scope

I have audited the accounts and financial statements of the Department of Minerals and Energy for the year ended June 30, 1995 under the provisions of the Financial Administration and Audit Act 1985. The Department has submitted for audit accrual based financial statements in accordance with the Treasurer's Instructions.

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 applicable Accounting Standards and other mandatory professional reporting requirements (Urgent Issues Group Consensus Views) as modified by the Treasurer's Instructions.

Western Australian State public sector departments are continuing a major financial reform requiring a move from cash based to accrual based financial reporting. Australian Accounting Standard 29 (AAS 29) 'Financial Reporting by Government Departments' provides the framework that now guides departmental reporting arrangements to assure effective financial reporting by June 30, 1997. Transitional provisions exist in AAS 29 to assist in its implementation. This Accounting Standard has still to be formally applied in State departments, although the Treasurer's Instructions require the application of certain provisions of the Standard where accrual based financial statements are prepared by departments. The initial implementation of accrual based financial reporting has created certain difficulties in relation to various accounting matters, in particular: comparative figures; controlled and administered transactions and balances; asset identification, recognition and valuation; employee entitlements; modifications to the Standard under the Treasurer's Instructions; and compliance with professional standards.



FINANCIAL ACCOUNTS 1995

Department of Minerals and Energy Financial statements for the year ended June 30, 1995

In supporting the implementation of accrual based financial reporting and, ultimately accrual accounting, I have taken the transitional nature of the financial reform process into consideration in forming my audit opinion. Users of the financial statements are advised to consider the implications of the transitional arrangements when interpreting these financial statements.

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

Qualification

Note 2(a) to the financial statements states that the comparative figures for 1993-94 are indicative only. In addition, adequate supporting information could not be provided by management and consequently the comparative figures could not be verified. Accordingly, I am unable to express an opinion on the comparative figures in the Operating Statement, Statement of Financial Position, Program Schedules and the related Notes to these financial statements.

Qualified Audit Opinion

In my opinion,

- (i) subject to the matter referred to in the qualification, the Operating Statement, Statement of Financial Position, Statement of Cash Flows, Program Schedules 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 and other mandatory professional reporting requirements as modified by the Treasurer's Instructions, the transactions for the year ended June 30, 1995 and the financial position at that date; and
- (ii) 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.



H M BLAKE
ACTING AUDITOR GENERAL

October 10, 1995



APPENDIX 1

DEPARTMENT DIRECTORY

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Facsimile (099) 634 488

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Facsimile (090) 391 657

Mining Registrar
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Facsimile (090) 491 431



APPENDIX 2

LEGISLATION

The Department is responsible to the Minister for Mines for administering 15 Acts of Parliament:

- Mining Act 1978
- Petroleum Act 1967
- Explosives and Dangerous Goods Act 1963
- Mines Regulation Act 1946
- Coal Mines Regulation Act 1946
- Mines Safety and Inspection Act 1994*
- Coal Miners' Welfare Act 1947
- Miners' Phthisis Act 1922
- Mining on Private Property Act 1898
- Mining (Validation and Amendment) Act 1986
- Petroleum Pipelines Act 1969
- Petroleum (Registration Fees) Act 1967
- Petroleum (Submerged Lands) Act 1982
- Petroleum (Submerged Lands) Registration Fees Act 1982
- Coal Industry Tribunal of Western Australia Act 1992

* *Not yet proclaimed.*

The following Commonwealth offshore legislation is administered by the State through Commonwealth/State 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

The Department also carries out various functions in relation to the following State Agreement Acts:

- Alumina Refinery (Mitchell Plateau) Agreement Act 1971
- Alumina Refinery (Pinjarra) Agreement Act 1969
- Alumina Refinery (Wagerup) Agreement and Acts Amendment Act 1978
- Alumina Refinery (Worsley) Agreement Act 1973
- Alumina Refinery Agreement Act 1961
- Barrow Island Royalty Trust Account Act 1985
- Barrow Island Royalty Variation Agreement Act 1985
- Broken Hill Proprietary Company Limited Agreements (Variation) Act 1980
- Broken Hill Proprietary Company's Integrated Steel Works Agreement Act 1960

- Broken Hill Proprietary Steel Industry Agreement Act 1952
- Cement Works (Cockburn Cement Limited) Agreement Act 1971
- Collie Coal (Griffin) Agreement Act 1979
- Collie Coal (Western Collieries) Agreement Act 1979
- Dampier Solar Salt Industry Agreement Act 1967
- Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981
- Evaporites (Lake MacLeod) Agreement Act 1967
- Iron Ore (Channar Joint Venture) Agreement Act 1987
- Iron Ore (Dampier Mining Company Limited) Agreement Act 1969
- Iron Ore (Goldsworthy-Nimingarra) Agreement Act 1972
- Iron Ore (Hamersley Range) Agreement Act 1963
- Iron Ore (Hope Downs) Agreement Act 1992
- Iron Ore (Marillana Creek) Agreement Act 1991
- Iron Ore (McCamey's Monster) Agreement Authorisation Act 1972
- Iron Ore (Mount Bruce) Agreement Act 1972
- Iron Ore (Mount Goldsworthy) Agreement Act 1964
- Iron Ore (Mount Newman) Agreement Act 1964
- Iron Ore (Murchison) Agreement Authorisation Act 1973
- Iron Ore (Rhodes Ridge) Agreement Authorisation Act 1972
- Iron Ore (Robe River) Agreement Act 1964
- Iron Ore (The Broken Hill Proprietary Company Ltd) Agreement Act 1964
- Iron Ore (Wittenoom) Agreement Act 1972
- Leslie Solar Salt Industry Agreement Act 1966
- Mineral Sands (Beenup) Agreement Act 1995
- Mineral Sands (Cooljarloo) Mining and Processing Agreement Act 1988
- Mineral Sands (Eneabba) Agreement Act 1975
- Nickel (Agnew) Agreement Act 1974
- Nickel Refinery (Western Mining Corporation Limited) Agreement Act 1968
- North West Gas Development (Woodside) Agreement Act 1979
- Oil Refinery (Kwinana) Agreement Act 1952
- Onslow Solar Salt Agreement Act 1992
- Poseidon Nickel Agreement Act 1971
- Shark Bay Solar Salt Industry Agreement Act 1983
- Tailings Treatment (Kalgoorlie) Agreement Act 1988
- The Broken Hill Proprietary Company Limited (Export of Iron Ore) Act 1965
- Uranium (Yeelirrie) Agreement Act 1978
- Western Mining Corporation Limited (Throssell Range) Agreement Act 1985
- Wundowie Charcoal Iron Industry Sale Agreement Act 1974



APPENDIX 2

CHANGES TO LEGISLATION

Mining Amendment Act 1994

Significant changes to the reporting requirements under the Mining Act were passed by Parliament in October 1994. The Amendment Act included provision for:

- Mining Registrars to grant Prospecting Licences and recommend approval of other titles where no objections have been lodged;
- variable term for Special Prospecting Licences, i.e. any combination of three month periods up to four years;
- expansion of the grounds for extending the term of an Exploration Licence and provision for two allocations of two-year extensions;
- mineral exploration reports to be lodged annually;
- forfeiture/fine as a penalty for non-reporting;
- new procedures for the receipt of competing Exploration Licence applications lodged over 'released' ground; and
- aerial survey work not to be an offence under the Mining Act.

Regulations to support the Amendment Act are being finalised with proclamation planned in 1995-96.

Mining Act 1978

Mining Amendment Act 1994 (No. 58 of 1994). Received Assent on 2 November 1994, Part 1 and section 53 came into force on Assent, the remaining provisions have not yet been proclaimed to operate.

Statutes (Repeals and Minor Amendments) Act 1994 (No. 73 of 1994). Received Assent on 9 December 1994 and came into operation on that date. Minor amendment.

Mining Regulations 1981

Amendment No. 2 of 1994. Gazetted on 10 June 1994, to operate from 1 July 1994. Provided for an increase in application fee for the lodgement of an Exploration Licence and in the registration fee for the lodgement of certain dealings.

Amendment No. 3 of 1994. Gazetted on 9 September 1994. Corrected an error in regulation 23H.

Amendment No. 4 of 1994. Gazetted on 23 December 1994, to operate from 1 January 1995. Repealed subregulations (1) and (2) of regulation 86F.

Amendment No. 2 of 1995. Gazetted on 19 May 1995. New rates for royalty payments for iron ore.

Amendment No. 3 of 1995. Gazetted on 30 June 1995. Increased rent for mining leases and registration fees for the lodgement of certain dealings.

Mines Safety and Inspection Act 1994

This Act (No. 62 of 1994) was Assented to on 7 November 1994 but has not yet been proclaimed to operate. The Act revises, updates and combines the provisions of both the Mines Regulation Act 1946 and the

Coal Mines Regulation Act 1946, and includes occupational health, safety and welfare provisions for exploration activities.

Acts Amendment (Fines, Penalties and Infringement Notices) Act 1994 (No. 92 of 1994). Received Assent on 23 December 1994 and proclaimed to operate from 1 January 1995. Minor change to section 44 only.

Energy Corporation (Transitional and Consequential Provisions) Act 1994 (No. 89 of 1994). Received Assent on 15 December 1994 and proclaimed to operate from 1 January 1995. Minor change to section 63 only.

Explosives Regulations 1963

Explosives Amendment Regulations 1994.

Gazetted on 17 June 1994. Removed the requirement for the maximum load of explosives to be specified on a licence to convey explosives.

Dangerous Goods Regulations 1992

Dangerous Goods Amendment Regulations 1995. Gazetted on 12 May 1995. Minor changes to regulation 4.2.

Petroleum Legislation

Statutes (Repeals and Minor Amendments) Act 1994 (No. 73 of 1994). Received Assent on 9 December 1994 and came into operation on that date. Minor amendments to the Petroleum Act 1967, the Petroleum Pipelines Act 1969 and the Petroleum (Submerged Lands) Act 1982.

Petroleum Regulations

Petroleum Amendment Regulations (No. 2) 1994; Petroleum (Submerged Lands) Amendment Regulations (No.2) 1994; and Petroleum Pipelines Amendment Regulations 1994. All gazetted on 22 July 1994. These regulations were required to support the Acts Amendment Petroleum Act 1994 (No. 28 of 1994).

Other

Acts Amendment (Public Sector Management) Act 1994. This Act proclaimed on 1 October 1994 included amendments to a wide range of legislation. It was necessary to replace reference to the repealed Public Service Act 1978 with the new Public Sector Management Act 1994. Acts which were affected include:

- Coal Mines Regulation Act 1946;
- Explosives and Dangerous Goods Act 1961;
- Petroleum Act;
- Coal Miners Welfare Act 1947; and
- Coal Industry Tribunal of Western Australia Act 1992.



APPENDIX 3

RESEARCH AND TECHNICAL INVESTIGATIONS

Mining Operations Division

Projects completed:

- emergency preparedness and response audits for underground mines;
- guidelines for preparation of a Safety Management Plan (SMP) document for underground mines;
- investigations into methods of reducing particulates and hydrocarbons in underground work environment;
- investigations into vehicle fires occurring in the Kalgoorlie inspectorate area;
- long term management of radioactive wastes arising from mineral sands processing;
- analysis of thorium in urine by ICP.MS;
- acid rock drainage;
- corrosion of friction bolt stabilisers;
- development and commissioning of an electrostatic device to determine exhaled thoron in breath;
- review of crystalline silica exposure among metalliferous mines(1925-1993);
- review of CONTAM system operation and data collection protocols; and
- retrospective assessment of radioactivity inhaled by mineral sands workers.

Projects commenced

- a review of diesel underground equipment to evaluate the variance in exhaust opacity of similar engines (co-project with WASM);
- audit and survey of mine rescue equipment and facilities on minesites;
- contributions and compilation of Handbook for Safe Mining;
- survey to review procedures for performing close-up inspections and scaling of high underground working areas;
- survey to review procedures in underground locations where remote controlled mining equipment is used;
- survey of solvent vapour exposure during rubber lining activities;
- specification of arsenic in biomedical samples;
- leaching characteristics of mineral sands tailings;
- dust characterisation in mines (MERIWA project);
- saline tailings dam research (MERIWA project);
- diesel fume exposure in underground mines;
- various guidelines to accompany the Mines Safety and Inspection Act Regulations; and
- means of achieving practical methods of reducing high surface temperatures on underground diesel vehicles.

Geological Survey

Projects commenced

- geological mapping in the Eastern Goldfields, Glengarry Basin, Halls Creek Orogen, Pilbara Craton, Paterson Orogen, and Ravensthorpe area;
- regolith mapping and regional geochemical studies in the Eastern Goldfields, Glengarry Basin, and Capricorn Orogen;
- a study of the Mount Narryer Complex;
- studies of controls of gold mineralisation in the Eastern Goldfields;
- a review of the styles of mineralisation in the East Kimberley region;
- reviews of the State's lead-zinc, talc, magnesite, fluorite and barite resources;
- a study of the Lennard Shelf and Devonian Reef Complex;
- a study of the Shark Bay World Heritage area;
- investigations on the geology and petroleum potential of the State's onshore sedimentary basins;
- development of computer-based Geographic Information Systems (GIS);
- hydrogeological mapping in the Eastern Goldfields;
- groundwater exploration in the Perth basin and selected country areas; and
- hydrogeological studies relating to groundwater contamination.

Petroleum Operations Division

Projects completed

- joint study with UWA of review of tectonic framework of Western Australia's sedimentary basins;
- publication of study of prospectivity of offshore Carnarvon Terrace;
- organised one-day seminar '1994 WA Oil and Gas Forum' at Burswood Convention Centre;
- technical input into 'Guidelines for the Preparation and Assessment of Safety Cases';
- leading a national tripartite review of offshore safety legislation including that pertaining to diving;
- establishing the Maritime Offshore Petroleum Safety Advisory Committee (MOPSAG) jointly with AMSA and marine employer groups with an aim of rationalising jurisdiction on offshore petroleum activities;
- undertook the role of Lead Combat Authority for offshore petroleum emergencies and issued revised Policy Statement No 8;
- initiation, coordination and review of communications in a major emergency exercise named 'Spring Tide';
- conducted an industry-wide one-day safety seminar;
- input into Government Review of Coastal Management in WA; and
- technical and environmental evaluation of the East Spar and Wandoo field development plans.



APPENDIX 4

PUBLICATIONS

The Department produces over 900 publications and maps. These publications cover a wide range of topics, including:

- environmental issues affecting mining and petroleum exploration;
- mine work and safety practices;
- Office of Traditional Land Use publications;
- petroleum exploration, safety and environmental considerations;
- mineral exploration and land access;
- geological and geochemical maps and publications;
- a range of educational material, including a series of 26 information sheets. These fact sheets outline key issues in the mining industry, as well as an overview of various commodities mined in this State;
- explosives and dangerous goods;
- Departmental annual report;
- statistical digest;
- a guide to minerals and petroleum in Western Australia;
- mineral tenement maps and various thematic maps relating to mining and other land-use applications in Western Australia;
- Occupational Health and Safety Acts and Regulations. Draft guidelines for the Mines Safety and Inspection Act have been prepared on a range of operating practices. They are intended to assist industry employers and employees in meeting duty of care obligations under the Act by outlining safe practices and safe systems of work. The guidelines, which are subject to endorsement by the Mines Occupational Health and Safety Advisory Board, include:
 - guidelines for the Mines Safety and Inspection Act;
 - health surveillance of mine employees;
 - guidelines for mining project approval;
 - emergency preparedness for underground fires in metalliferous mines;
 - isolation and tag-out procedures;
 - underground ventilation (metalliferous mines);
 - noise control in mines;
 - management of sulphide dust explosion risk;
 - vertical opening safety practice;
 - diesel transport, storage and refuelling underground;
 - personal access to heavy mining machinery;
 - guidelines for safe procedures in exploration activities;
 - biological monitoring procedures; and
 - management of heat stress.

- In accordance with Worksafe guidelines the Department prepared and distributed significant incident reports. The 11 reports issued from the Department were:
 - No. 48 - elevating work platform users tipped from basket;
 - No. 49 - hazard alert (Explosives and Dangerous Goods Division);
 - No. 50 - trailing cable coupler - electrical accident;
 - No. 51 - failure of mast supports on drill rigs;
 - No. 52 - rope power shovel maintenance - fatal accident;
 - No. 53 - elevated work platform falling;
 - No. 54 - structural collapse of an iron ore stacker;
 - No. 55 - conveyor belt - fatal accident;
 - No. 56 - uncontrolled discharge of stored energy source - fatal accident;
 - No. 57 - remotely operated mobile machine - fatal accident; and
 - No. 58 - removal of rise ladder - fatal accident.

Details on all publications available from the Department can be obtained either from the library at the Perth office on (09) 222 3165, at the public counter on Level One, Mineral House, 100 Plain Street, East Perth, or at the regional offices listed in the appendix under Department Directory page 88.

