

ASSESSMENT REPORT



MEREENIE OIL AND GAS

FIELD APPRAISAL PROGRAM

CONSERVATION COMMISSION OF THE
NORTHERN TERRITORY

ASSESSMENT REPORT FOR THE PROPOSED MEREENIE
OIL AND GAS FIELD APPRAISAL PROGRAM.

Environment Unit

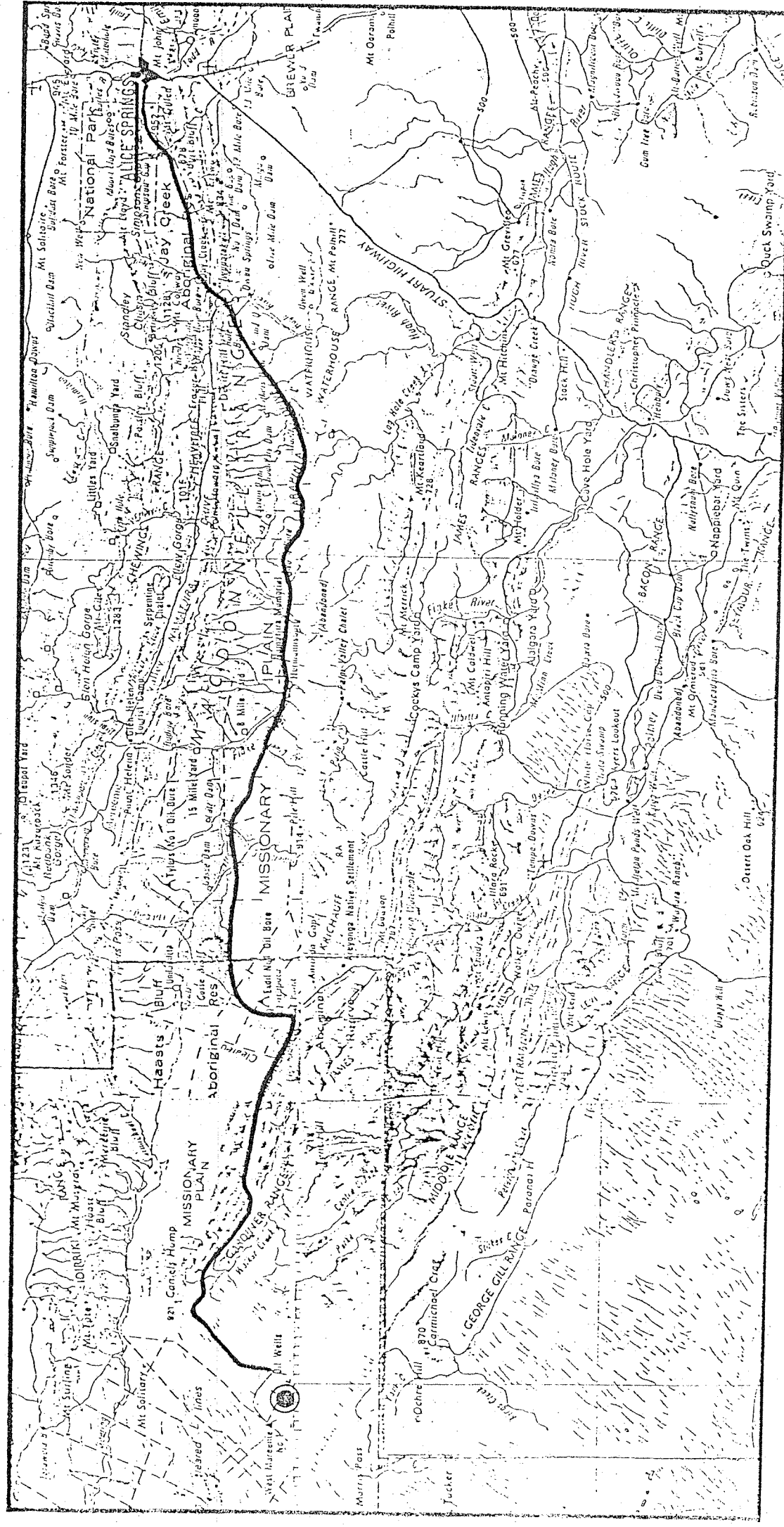
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TABLE OF CONTENTS

	<u>Page</u>
Acknowledgements	1
Location Map	
1. Introduction	2
2. The Proposal	2
3. Environmental Assessment Procedures	5
4. Evaluation of the E.I.S.	6
4.1 Introductory Sections	6
4.2 Proposed Exploration and Development Program	6
4.3 Description of Existing Environment	7
4.3.1 Biophysical Environment	7
4.3.2 Social Environment	8
4.4 Impacts of the Project	8
4.4.1 Biophysical Environment	9
4.4.2 Aboriginal Communities	10
4.5 Environment Management Program	10
4.5.1 Protection of the Biophysical Environment	10
4.5.2 Agreement with Aboriginals	11
5. Conclusion	12

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2. The cooperation of the Department of Home Affairs and Environment in carrying out the environmental assessment of the Mereenie Project is gratefully acknowledged.



LOCALITY PLAN - MERENIE FIELD - AMADEUS BASIN

(from additional information provided by the Merenie Partners)

ASSESSMENT REPORT FOR THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR MEREENIE OIL AND GAS APPRAISAL PROJECT.

(Based on a Review of the E.I.S. submitted by Oilmin (NT) Pty. Ltd., and Magellan Petroleum (NT) Pty. Ltd.)

1. INTRODUCTION

This report reviews the final environmental impact statement on the proposal by Magellan Petroleum (NT) Pty. Ltd, Oilmin (NT) Pty. Ltd. and several other companies, to carry out a two year appraisal program of the Mereenie oil and gas field. The Mereenie field is located 225 km west of Alice Springs on Haasts Bluff Aboriginal Land.

Environmental assessment of the Mereenie project has been carried out jointly by the Conservation Commission of the NT and the Commonwealth Department of Home Affairs and Environment to satisfy the environmental requirements of the NT Government and the provisions of the Commonwealth Environment Protection (Impact of Proposals) Act.

Commonwealth involvement arose from the requirement by the Minister for Aboriginal Affairs to ratify an agreement between the Mereenie Partners and the Central Land Council relating to this development.

The environmental impact statement was prepared for the Mereenie partners by the environmental consultants, Dames and Moore Pty. Ltd., (Perth Office).

2. THE PROPOSAL

The Mereenie Partners propose to carry out a two year appraisal program to evaluate oil and gas reserves in the Mereenie basin and to determine the optimum strategy for hydrocarbon production.

Exploration commenced in the area in the 1960's and led to discovery of an estimated 14.3 billion cu metres of natural gas overlying 300 million barrels of oil in place, of which 60 million barrels are estimated as recoverable.

Additional geological and geophysical surveys and a drilling program are necessary to enable further assessment of the field. Specific aims of the appraisal are:

- (a) To determine production rates of wells drilled into the two oil reservoirs in various parts of the field where porosities and permeabilities are known to vary.
- (b) To investigate the behaviour of the wells under production in the short term to enable forecasting for long term production, and
- (c) To provide data which can be used to indicate whether oil recovery can be achieved using enhanced recovery techniques.

Approximately 50 wells up to 1500 metres deep, at a spacing of approximately 800 metres will be installed over more permeable sections of the field. Methods of maximising oil flow while minimising damage to the reservoir by drilling mud will also be investigated.

The appraisal program will involve the construction of necessary infrastructure such as camps, access roads, airstrips, water supply, power generation, and waste disposal facilities.

Briefly this will involve:

- . Camp - accommodation for 30-40 men, located 0.8 km west of East Mereenie No. 4 location.

- . Access roads - upgrading of existing roads to all weather status, plus extensions and construction of additional well access roads.
- . Airstrips - restoration of two existing strips.
- . Water supply - establishment of a well close to the campsite.
- . Electricity - supplied by generators in workshop area.
- . Waste disposal - installation of a septic system for sewage and sullage, and incineration and burial of food wastes.

Crude oil produced from the field during the appraisal program will be transported via a network of 50 mm pipes for storage at gathering stations. Two steel storage tanks (1600 kl) will be constructed at the main gathering station. Oil tankers will transport any oil produced during the appraisal program to Alice Springs. This will involve approximately four trips per day on existing tracks and roads.

Daily oil production of 650 barrels will produce approximately 18,000 cubic metres of natural gas. This will be used wherever possible for fuel and salt water disposal, if any, with the remainder being flared.

An environmental management program is included in the proposal and deals with biophysical impacts such as erosion control, rehabilitation, waste disposal and pollution clean up measures. This is described and discussed in section 4.5.1 of this report.

Social impacts of the project, particularly the effects on local Aborigines, are dealt with in the E.I.S. These are discussed in section 4.5.2 of this report.

3. ENVIRONMENTAL ASSESSMENT PROCEDURES

Consideration of the potential environmental impacts of the Mereenie project date back to 1975 when the Commonwealth Government was advised of a proposed pipeline from Mereenie to Alice Springs. It was not until late 1979 however that an agreement allowing exploration and development to proceed was signed between the Mereenie partners and the Central Land Council (C.L.C.), representing the local Aborigines. A requirement of the agreement was that an E.I.S. be prepared.

On 16 April 1980 joint environmental assessment of the project was agreed to by the Commonwealth and NT Governments. On the same day the direction to prepare an EIS was given by the Commonwealth Minister to the Mereenie partners, as proponent of the project.

An initial report entitled "Environmental Assessment and Management Programme" was submitted by the proponent in July 1980 and this was followed by additional information in the form of an "Addendum" in November 1980. These reports were unacceptable as an EIS, although they did form the basis of the EIS submitted in January 1981.

Throughout the preparation of the reports a high level of liaison was maintained between the proponent, the Commonwealth and Northern Territory Governments.

The Conservation Commission had responsibility for ensuring that the Northern Territory's environmental requirements were met.

Inputs by the Departments of Mines and Energy and Transport and Works (Water Division), Northern Territory Electricity Commission and the Office of the Co-ordinator General in the Department of the Chief Minister, were sought and co-ordinated by the Commission.

The draft EIS was released for public review for one month on 20 February 1981, throughout the NT and interstate. No public comments were received, no doubt due to the remote location of the Mereenie project and the extensive negotiations carried out previously with the CLC, which ironed out the major problems.

A number of important shortcomings were raised by NT Government authorities and these were subsequently satisfactorily answered by the proponents. For the purpose of the NT Government's environmental requirements the Mereenie Partner's responses are considered part of the final E.I.S., which was submitted to the Department of Home Affairs and Environment following the public review period.

4. EVALUATION OF THE E.I.S.

The following evaluation examines the E.I.S. section by section to determine its success in meeting the Northern Territory's environmental requirements.

4.1 Introductory Sections:

Adequate information has been provided on details of the background of the principal Mereenie Partners and past exploration and development activities in the Mereenie area. A general description is given on the nature of the E.I.S. and its scope and limitations.

4.2 Proposed Exploration and Development Program

Detailed information is provided on investigation

aspects of the proposal. The need for geological and geophysical surveys, and methods of carrying these out, are explained in some detail.

Information provided on drilling, the gathering system and other infrastructure gives an adequate idea of the operations involved in the appraisal programme.

4.3 Description of Existing Environment:

4.3.1 Biophysical Environment

The physical environment is described in detail, particularly geology, topography and soils. A land system and terrain unit classification approach is used and this is backed up by maps, diagrams and photographs. The bulk of information is presented as appendices.

Less information is given on hydrology, both surface and ground water; (a point of criticism on the draft E.I.S. by Department of Transport and Works). Information on climate is extrapolated from nearby weather stations and gives reliable indication of climatic conditions at Mereenie.

The biological environment is described in varying degrees of detail.

Vegetation is covered as part of the terrain unit classification in some detail. Although a plant collection was made (112 plant species collected) this was not considered comprehensive as many of the flowering ephemerals were not present at the time of the survey. Two species of plants are considered rare or endangered, (Euphorbia sarcostemmoides and Eucalyptus socialis) but these are not expected to be affected by operations at Mereenie.

Little information is presented on wildlife, despite criticism of this failing in the draft E.I.S.

The report claims however, that wildlife habitats in the Mereenie lease area are widespread throughout the region, and in the event of the discovery of rare or endangered animal species, immediate action will be taken to prevent habitat destruction.

No details are provided on the extent of feral animal abundance and damage in the area.

A short account of present land status is given. Land within the Mereenie lease is already seriously degraded in places due to a combination of factors including heavy grazing by feral livestock, fire, drought, limited water supply and unstable soils. Previous exploration work does not appear to have caused any of the degradation. This does not however lessen the Partners responsibility to ensure satisfactory environmental management.

4.3.2 Social Environment. Little information is provided on Aboriginal communities in the surrounding area, although the prime land owning groups are identified. More information on aspects of present Aboriginal life, against which future changes could be measured, would have been valuable, however local Aborigines specifically requested that in respect of their privacy such information not be included.

4.4 Impacts of the Project

Both beneficial and detrimental impacts are discussed. The report identifies potential economic benefits for Aboriginal communities, Alice Springs, the Northern Territory and the nation as a whole, but explains that these benefits can not be quantified at this stage. Discussion concentrates on the project's adverse

effects on the biophysical and social environment, with particular emphasis on potential changes to Aboriginal Communities.

4.4.1 Biophysical Environment:

The report identifies vegetation destruction and soil erosion as significant impacts of the project, but indicates that the disturbances will be largely superficial and minor. Pollution of the land surface and ground and surface waters, by appraisal program operations are not expected although little information is provided to substantiate this claim and the possibility of an oil spill can not be overlooked. Research into and monitoring of aquifer quality and behaviour in conjunction with Department of Mines and Energy has been agreed to by the Mereenie Partners in response to N.T. Government comments on the lack of hydrological data.

Operations such as the clearing of temporary tracks and seismic lines will result in minor changes to vegetation, however more significant impacts will be caused by construction of camps, roads, gathering systems and storage facilities and drilling operations.

The report includes plans for the rehabilitation of these areas during the decommissioning phase, which will be incorporated into the lease agreement between the Northern Territory and the Mereenie Partners.

Heat produced during the flaring off of exhaust gas will cause local damage to subsoil. This is not expected to be a serious problem and adequate rehabilitation measures for these areas are outlined.

The report fails to mention the impact of operations on fauna of the area. Although

difficult to quantify, disruption to wildlife communities will occur and this issue should have received more attention in the E.I.S.

4.4.2 Aboriginal Communities:

A discussion of the main causes of tensions between traditional communities and incursions into remote areas by large scale operations is presented. The report outlines a number of ways for reducing these problems, and states that Mereenie operations will be on a small scale with much less social impact.

Although recognising the impact that increased wealth to communities from royalty payments will have, the report devotes little attention to this matter concentrating instead on discussing ways of minimising social conflict between employees and Aboriginals.

A list of potential impacts of the project on the lease area is presented at Attachment 3.

4.5 Environmental Management Program

This section attracted substantial comment from Northern Territory agencies during review of the draft E.I.S., with most questions being directed at proposals for management of the biophysical environment.

The Mereenie Partners based the environmental management program on a number of policies relating to: Northern Territory requirements, oil field production standards for efficiency and safety, relations with Aboriginal communities, and conservation of the biophysical environment.

4.5.1 Protection of the Biophysical Environment:

The report outlines proposals for minimising

damage caused by activities such as geological and seismic surveys, drilling operations, construction of the gathering system and development of roads, airstrips, borrow pits and the water supply.

Erosion in unstable terrain units emerges as a major problem, although methods of minimising disturbance in sensitive areas are outlined. The report also proposes plans to protect the two rare and endangered species of flora, and agrees to protect the habitat of any endangered species of wildlife in the unlikely event that these are encountered.

The Department of Transport and Works expressed concern over the proposed management standards for surface and ground waters during review of the E.I.S. Additional steps to ensure monitoring and protection of groundwater and surface water quality have been subsequently agreed to by the Mereenie Partners.

Concern was also expressed by a number of Government authorities over procedures to be followed in the event of oil spillage. These have now been clarified and will be included in the agreement between the Department of Mines and Energy and the Mereenie Partners.

Undertakings agreed to by the Partners give a concise summary of proposed management standards and these are listed in Attachment 1.

4.5.2 Agreement with Aboriginals:

The agreement with the local Aboriginals forms the basis of the reports' social environment management program. It covers a wide range of issues concerning future relations and dealings between local Aboriginals and the Mereenie Partners. These issues were extensively

discussed prior to the drafting of the agreement and attracted few comments during review. Some organisations expressed concern however, over possible social effects of alcohol despite clauses in the agreement banning alcohol from the lease area. In response the Mereenie Partners reiterated that the ban would be enforced, and that ongoing liaison between the Company, and the C.L.C. (through the special Advisory Committee) should ensure that any problems concerning alcohol or other social issues can be avoided or minimised.

Overall, the management program outlined for protection of the Aboriginal communities is considered sufficient to mitigate against forseen adverse effects of the project, while at the same time the underlying agreement ensures satisfactory economic benefits will accrue to the communities.

A summary of the issues covered in the agreement and undertakings of the Mereenie Partners is given at Attachment 2.

5. CONCLUSION

The E.I.S. for the Mereenie oil and gas field appraisal program provides sufficient information for a decision to be made on the extent of the project's environmental disturbance.

Based on an evaluation of the E.I.S., it is the Commission's belief that environmental impacts will fall within acceptable and manageable limits. This view concurs with the Commonwealth Government's assessment of the Mereenie E.I.S.

Although deficient in its treatment of some impacts and management problems associated with both the

biophysical natural and social environments, overall consideration of environmental issues is satisfactory.

The most serious impacts identified for the biophysical environment are the likelihood of erosion due to extensive clearing, the possibility of oil spills from either drilling operations, the gathering system, storage tanks or transport trucks, and pollution of underground and surface water bodies. Vegetation and wildlife disturbance will also be significant, but it is not expected that operations will lead to permanent disruption of flora and fauna communities.

The environmental management program proposed by the Mereenie Partners is designed to minimise disturbance, erosion and pollution, including protection for the area from the introduction of feral animals. An important aspect of the program will be the rehabilitation measures adopted, and the success of these will be largely dependent on fire protection. Assistance of the N.T. Bush Fires Council will be sought in this regard.

Main social impacts of the appraisal program will be on the Aboriginal communities of Central Australia and the E.I.S. identifies these as both adverse and beneficial. Through the presence of appraisal operations on the Haast Bluff Aboriginal land and the possibility of full scale hydrocarbon production in future, the risk of degradation of the land and the increase in social problems is recognised. On the other hand, Aboriginal communities will gain significant economic benefits from the project. Most foreseen social problems have been discussed between the Mereenie Partners and the C.L.C. and measures for minimising adverse impacts have been incorporated into their separate agreement.

On-going monitoring as part of the environmental management program and co-operation with Government authorities as well as the establishment of an Advisory Committee will enable the Mereenie Partners to respond to both biophysical natural and social environmental changes.

ATTACHMENT 1

MANAGEMENT STANDARDS AGREED TO BY THE MERENIE PARTNERS
IN THE E.I.S

Drill Site Preparation

The lessees agree to implement the following actions:-

- . Topsoil, if present on areas subject to vehicular traffic, will be cleared and stockpiled along the perimeter of the drill site.
- . Vegetation will be cleared from the site as required. Where it is possible and practicable, large trees will be left standing. Vegetation will be cleared from the area delineated as the drill site only to the extent to allow safe drilling operations to proceed.
- . Vegetation cleared from the site will be stockpiled around the perimeter of the drill site to facilitate its replacement at the conclusion of drilling operations.
- . A sump will be constructed of adequate size to contain any waste liquids.
- . Topsoil and vegetation surrounding the flare pit will be removed and stockpiled for subsequent replacement.
- . On site buildings will have a septic system, Imhoff tanks, or chemical toilets to allow satisfactory sewerage disposal.
- . An area will be set aside for the specific purpose of engine and vehicle maintenance so that spillage of soils and greases associated with drilling operations are spatially contained. This will facilitate decommissioning operations when the site is abandoned.

Camp Site

The lessees agree to:-

- . Locate the campsite on sandstone in land unit 6 which will minimise environment disturbance.
- . Locate the septic system so as not to pollute groundwater.
- . Incinerate food wastes prior to burial in a refuse disposal pit.

Gathering System

The lessees agree to base management standards on the need for:-

- . access along the gathering lines,
- . control of erosion along pipe and access routes,
- . control of erosion at gully crossings, and
- . the provision of safety measures in the unlikely event of a gathering line fracture.
- . ensuring vegetation protection and fire prevention during welding operations.

Waste Disposal

The lessees agree to:

- . dispose of any saltwater by flaring off with exhaust gas in a flare pit
- . dispose of any dry salt by deep burial in abandoned flare pits, subject to approval by the Department of Mines and Energy and the Conservation Commission of the N.T.
- . dispose of all wastes outside the core of the anticline as described in the E.I.S.

Road Construction

The lessees agree to submit details of proposed roads to the Department of Mines and Energy prior to construction.

The lessees agree to use a non-toxic organic amine as a corrosion inhibitor in drilling operations.

Airstrips

The lessees agree to adopt the following standards:-

- . Control of overland flow generated on the surface of the airstrip such that the run-off will be controlled at non-scour velocities and discharged to safe disposal areas.
- . Run-off control structures will be used where necessary to prevent surrounding land contributing overland flow to the area of the airstrip and thus predisposing the area generally to accelerated soil erosion.

Flora Protection

The lessees agree to:-

- . Leave areas of land on which the plant Euphorbia sarcostemmoides occurs undisturbed by operations.
- . Leave individual specimens and communities of Eucalyptus socialis undisturbed by operations.
- . Prevent infestation on the Lease area by weeds or non-indigenous plants, and ensuring removal where these occur as a result of appraisal program operations.
- . Use during rehabilitation, only those plants approved by the Conservation Commission of the N.T.

Fauna Protection

The proponents agree to regulate their workforce in the interests of fauna protection as follows:-

- . Employees will generally be prohibited from bringing firearms or traps into the Lease areas. Exceptions will be made for certain senior staff who may have firearms which may be used to control feral cats and foxes, which prey on native fauna and could be expected to increase in numbers as a result of increased human activity.
- . The workforce will be prohibited from bringing domestic cats to the Lease area.

Fire Prevention

The lessees agree to:-

- . Implement any recommendations made by the Bush Fires Council of the N.T. in relation to fire prevention and control in the Lease area.
- . Direct that the person-in-charge at Mereenie assumes responsibility for
 - (a) Instruction of the workforce to ensure that they are fully aware of the dangers and environmental effects of fire.
 - (b) Supervision of activities to ensure that preventative measures are undertaken as appropriate.
 - (c) Preparation of contingency plans for implementation in the event that fires occur, either as a result of an accident or through natural causes.
 - (d) Ensure that suitable earthmoving equipment is available on site for clearing of fire breaks, or to combat fire spread.
- . The fitting of fire extinguishers in each of the proponent's vehicles.

Oil Spill Prevention

The lessees agree to adopt the following broad management standards for accidental oil spills during the appraisal drilling and development programme.

- . The source of the spill will be identified and the oil flow shut off.
- . The spill will be contained at the earliest possible time after the spill commences, using methods and materials outlined in the E.I.S.
- . The free oil (if any) will be recovered and disposed of in the manner described in the E.I.S.
- . Materials and equipment for the containment and recovery of oil will be on site at all times.
- . The effected area will be identified and rehabilitated using methods approved by the Conservation Commission of the N.T.

- . Route inspection of storage and gathering systems will be carried out regularly, at least once every 10 days and any leakages repaired with minimal delay.
- . Bunds surrounding storage tanks will be built to specifications outlined in the E.I.S., subject to approval by Department of Mines and Energy.

Rehabilitation

The lessees agree to adopt the following management standards:-

a) Seismic Lines

- . Once access is no longer required previously cleared vegetation will be respread and re-generation from rootstock will be allowed to proceed.
- . Where areas to be rehabilitated have been subject to compaction by repeated traffic or activity, ripping will be carried out prior to the return of topsoil and seeding to return permeability to the subsoil.

b) Borrow Areas

- . Vegetation will be cleared from the site and placed adjacent to the area to be disturbed.
- . Where an adequate topsoil (per se) horizon is present, this will be stripped and stockpiled adjacent to the borrow area.
- . Other overburden present, will be stockpiled separately from any topsoil.
- . When gravel extraction has been completed, any overburden stockpiled will be replaced and the whole of the disturbed area reshaped to conform as closely as possible to the surface contours prior to disturbance. Edges of pits will be graded to shallow angles to prevent collapse and leave neat depressions where shallow water can accumulate.

- The area will be deep ripped and any topsoil stockpiled will be respread over the area. Vegetal material stockpiled will also be respread where practicable.

c) Oil Spills

- In recognition that different rehabilitation techniques are applicable in different situations the lessees agree to identify and rehabilitate affected areas using techniques approved by the Conservation Commission of the N.T.

d) Site Decommissioning

- The lessees agree to implement the following management standards on abandoned drilling sites in Terrain Units 2 and 4 which will represent the maximum rehabilitation standards of disturbed sites:
- All machinery, equipment, and materials associated with the drilling operation will be removed from the site.
- All refuse will be buried at the site or returned to the base camp.
- The sump will be refilled, burying the contents to a safe depth. The site will be roughly levelled.
- The disturbed area will be re-levelled if necessary to return the surface to the original configuration as far as practicable.
- The area will be deep ripped.
- Soil erosion control works will be designed to minimise site erosion, and run-off discharge will be directed to safe disposal areas.
- Erosion control works will be constructed where there is a risk of site erosion occurring following decommissioning of the site.

- . Where it has been decided to stockpile topsoil and vegetation material, this will be respread over the site. Where this is not possible, such as in some areas of Terrain Units 2 and 4, a seed mixture will be used to establish a ground cover.

ATTACHMENT 2

UNDERTAKINGS FOR PROTECTION OF THE SOCIAL ENVIRONMENT

(Summarised from the E.I.S. and Based on the Agreement between the Mereenie Partners and the Central Land Council).

Employment and Training:

- . to employ on the project as many local Aborigines as is practicable,
- . to establish an appropriate training scheme for Aborigines.

Local Business Development:

- . to support, encourage and advise on the establishment of enterprises and businesses providing goods and services to the Lessees.

Safety and Health:

- . to comply with requirements of Petroleum Act and other relevant requirements, in relation to exploration, production and transportation.
- . to furnish the same medical care to Aboriginal employees, their sub-contractors and agents as to other employees.

Advisory Committee:

- . to establish an Advisory Committee comprising two members appointed by the Lessees and two members appointed by the C.L.C.

Rights of Traditional Land Owners

- . to ensure free movement of Aborigines through project area,
- . to ensure Aborigines have the right to establish residences within the lease area,
- . to recognise Aboriginal's right to pursue customary and traditional activities.

Protection of Sacred Sites:

- . to identify sacred sites in conjunction with C.L.C. prior to operations in any area,
- . to ensure protection of sacred sites.

Control of Liquor:

- . to ensure no liquor is brought onto, or sold or consumed within the lease or adjoining Aboriginal land
- . to inform all employees, subcontractors and families of alcohol restrictions.

Removal of Employees:

- . to encourage non-Aboriginals to understand and respect Aboriginal traditions, languages and culture,
- . to provide instruction to non-Aboriginal employees on aspects of Aboriginal history and culture,
- . to provide initial and periodic courses for non-Aboriginal supervisory staff on a more advanced level than the abovementioned instruction.

ATTACHMENT 3

POSSIBLE ENVIRONMENTAL IMPACTS IDENTIFIED IN MEREENIE E.I.S.

(All impacts and potential impacts, beneficial and detrimental, are listed.)

1) Social Impacts

- . Hastening of changes in traditional Aboriginal way of life.
- . Increased opportunities for employment.
- . Increased wealth to community through royalty payments.
- . Increase in alcohol availability.
- . Potential for build up of racial tension due to:-
 - offensive behaviour by workers,
 - intrusion onto sites of significance,
 - abuse of alcohol and associated problems,
 - misunderstanding due to unfamiliarity.

2) Physical Impacts

- . Surface disturbance over an extensive area.
- . Loss of topsoil.
- . Increase in erosion.
- . Damage to subsoil in flare pit.

- . Localised sources of pollution caused by flare pits, septic tanks, refuse disposal.
- . Pollution or damage to underground and surface water bodies.
- . Scarring of land surface by borrow pits, tracks and other developments.
- . Pollution by salt water or salt.
- . Oil spills from wells, gathering system and storage tanks (including transport trucks).
- . Spread of litter in the area.
- . Diversion of normal drainage lines.

3) Biological Impacts

- . Destruction of wildlife habitat.
- . Increased road-kills of wildlife.
- . Removal of vegetation and changes to vegetation communities in lease area (e.g. due to redistribution of run-off by tracks).
- . Trampling of vegetation.
- . Interference with normal habits of wildlife (e.g. scavaging by dingoes).
- . Introduction of feral animals (e.g. cats and dogs).
- . Introduction of weeds (e.g. during rehabilitation).

. Shooting or capturing of native wildlife.

. Introduction of diseases.

(FROM DEPARTMENT OF HOME AFFAIRS AND ENVIRONMENT, ENVIRONMENT
ASSESSMENT REPORT FOR MEREENIE PROJECT)

1. Summary and Recommendations

1.1 Summary

A Joint Venture comprising Magellan (N.T.) Pty. Ltd. and partners proposes to carry out a two year appraisal program over the Mereenie Oil and Gas Field in the Northern Territory and subsequently to proceed with petroleum production if justified by the results of the program.

The Mereenie Field is located approximately 225 km west of Alice Springs. It lies within lands vested in the Haasts Bluff Aboriginal Land Trust in accordance with the Aboriginal Land Rights (Northern Territory) Act, 1976. Under this Act, the Central Land Council (CLC) is a corporate body established to represent Aboriginal interests in the region. The Joint Venture and the CLC have entered into an Agreement in relation to the proposed development. The Agreement was finalised in mid-1980. It is awaiting ratification by the Minister for Aboriginal Affairs in accordance with Section 27 (3) of the Aboriginal Land Rights Act.

The legislative basis for approval and regulation of all proposed operations at Mereenie is the Northern Territory Petroleum (Prospecting and Mining) Act. Granting of a mining lease over the oil and gas field, together with formulation of conditions attached to the approval, has been deferred pending finalisation and ratification of the Agreement.

The need for the decision of the Minister for Aboriginal Affairs regarding the ratification of the Agreement, together with the potential environmental significance of the proposed project, brought it within the ambit of the Environment Protection (Impact of Proposals) Act. An environmental impact statement (EIS) was directed on "the proposed development of oil and gas deposits at Mereenie, including extraction, transportation and treatment of the hydrocarbons." However, since only preliminary planning information was available on the overall development at this time, the Joint Venture prepared a draft EIS in relation to the proposed appraisal program only. The EIS was released for public review under the joint auspices of the Commonwealth and Northern Territory Governments. No public comments were received and the Joint Venture has re-submitted the document as a final environmental impact statement.

The EIS lists responsible measures for the protection of the environment at Mereenie and for the mitigation of adverse effects on the surrounding area and the local community, which might arise during the appraisal program. The main areas of concern in relation to the natural environment involve firstly land disturbance with associated erosion hazard and the adequacy of the rehabilitation program proposed, and secondly the effects of possible leaks and spills of hydrocarbons. There is also the possibility of contamination of ground water during project operations, an area which has not been addressed comprehensively in the EIS. However, this is unlikely to be of major concern during the appraisal program.

The proposed development and activities associated with it have important implications for the local Aboriginal people. It is the view of the Department that, during the appraisal program at least, direct effects of the project will be adequately controlled through implementation of the Agreement between the Joint Venture and the CLC.

In the event that the Mereenie Field is subsequently brought into commercial production, additional Commonwealth decisions in relation to the development, may be required. The nature of such decisions will be contingent on the partners' final plans in respect of project development.

The Department notes that physical and social impacts which might result from subsequent commercial production have not been addressed in the EIS. The companies have indicated that at least some of the wells to be drilled and ancillary facilities to be installed during the appraisal program, are likely to be utilised as production facilities should the project proceed to full development. The companies have also stated their intention to apply to appraisal activities the same standards of environmental controls and safeguards as would apply to production operations.

It is anticipated that the environmental impacts of production operations will be more significant in nature and scale than those of the appraisal program. The EIS does not examine, for instance, the environmental effects of intensified activity on the Mereenie Field, nor of construction and operation of a Mereenie-Alice Springs pipeline nor a possible treatment facility at Alice Springs. The likely impact of the project in full production on the social environment, also is not considered. If production proceeds it is likely that larger numbers of non-Aboriginal personnel will be present in the area and the effect of activities associated with the construction and operation of roads and pipeline will extend to areas beyond the proposed mining lease. These matters are not covered by the present Agreement with the CLC.

The Joint Venture, in response to comments by the Department and Northern Territory Departments, has agreed that a further EIS may be required in relation to the proposed pipeline and to the production phase of the development, should this eventuate. Such a document would address the areas of concern indicated above. The need for another EIS would be considered in accordance with the requirements of the Environment Protection Administrative Procedures, in due course.

1.2 Recommendations

On the basis of the assessment of the final environmental impact statement and pursuant to paragraph 9.3 of the Environment Protection Administrative Procedures, the Department recommends that the Minister for Aboriginal Affairs be advised that, in relation to the appraisal program over the Mereenie Oil and Gas Field, the object of the

Environment Protection (Impact of Proposals) Act has been met and there are no environmental objections to ratification of the Agreement between the Joint Venture and the Central Land Council, provided that:

- . the Joint Venture establishes and operates the appraisal program in a manner consistent with the undertakings given in the final environmental impact statement;
- . The Joint Venture meets the requirements and concerns of the Northern Territory Government as set out in the N.T. Departmental comments transmitted to the Joint Venture in March-April 1981; and
- . the Joint Venture agrees to prepare and submit further environmental documentation in relation to the production phase of the proposal, in time for its examination jointly by the Department and Northern Territory Government Departments, before the construction of any pipeline to carry hydrocarbons out of the Mereenie Field.