

30 May 2014



The Commissioner  
Hydraulic Fracturing Inquiry  
GPO Box 4396  
Darwin NT 0801

HydraulicFracturing.Inquiry@nt.gov.au

### Statoil Australia Submission

Dear Commissioner Hawke,

Statoil Australia Theta B.V. (**Statoil**) provides the enclosed submission to the Northern Territory Hydraulic Fracturing Inquiry.

Statoil is the operator of four 4 exploration permits (**EP**) in the Northern Territory (**NT**) being 103, 104, 127 and 128. Statoil took over as operator of the four permits on 1 September 2013.

We are currently undertaking the 2014 work program which includes the drilling of 5 vertical exploration wells and potentially hydraulically fracturing and testing up to three wells.

The potential hydraulic fracturing or 'stimulation jobs' will be small, comprising a single stage. We are currently conducting extensive core analysis and testing to design the best possible stimulation job and identify the best candidate well(s) to test the hydrocarbon potential in the South Georgina Basin.

Statoil is the operator in three major shale production areas in the United States. We have a large number rigs that are drilling and stimulating wells in the Eagle Ford area in Texas, the Bakken area in North Dakota and in the Marcellus area in Pennsylvania. In order to conduct safe operations in the NT, Statoil has brought in experienced personnel from our US operations to plan and conduct our program in the NT. Our international expertise is complemented by highly skilled and locally experienced Australian personnel.

As we are new to onshore operations in Australia, we are utilising our shale experience from other areas of the world to ensure we meet or exceed local laws and regulations. Statoil has found the regulations in the Territory to be robust and comprehensive. All Territorians are well served by the Department of Mines and Energy (**DME**) which we view as a diligent and effective regulator. We also note the high calibre of the people at the Central Land Council (**CLC**) and their effectiveness in representing the Traditional Owners.

We have a wealth of technical expertise and we are keen to provide any further technical information you may require.

We will endeavour to provide early responses to any questions you may have after considering our submission.

Yours faithfully,



Alv Sigve Teigen  
Country Manager  
Statoil Australia



**Statoil**

Submission to the Northern Territory of Australia  
Hydraulic Fracturing Inquiry  
May 2014



## Introduction

Statoil welcomes the opportunity to inform the Inquiry in to Hydraulic Fracturing in the Northern Territory. This document is provided in response to the Commissioner's call for submissions relating to the Terms of Reference.

## Overview of Statoil

Statoil is an integrated, technology-based international energy company primarily focused on upstream oil and gas operations. We are committed to meeting the world's energy needs in a responsible manner, applying technology and creating innovative solutions. We are headquartered in Stavanger, Norway with more than 23,400 employees worldwide, and are listed on the New York and Oslo stock exchanges. We were founded as the Norwegian State Oil Company, Statoil, in 1972. Statoil's market capitalisation is about USD 100 billion.

Statoil has business operations in 33 countries and is a leading operator with 40 years of experience from oil and gas production on the Norwegian Continental Shelf (**NCS**). Statoil's equity production in 2013 was 1,940 million barrels of oil equivalent (**boe**) per day, of which 37% came from international activities.

The company is among the world's largest net sellers of crude oil and condensate, and is the second-largest supplier of natural gas to the European market. Processing and refining are also part of our operations. Statoil is further participating in projects that focus on other forms of energy, such as offshore wind and carbon capture and storage, in anticipation of the need to expand energy production, strengthen energy security and combat adverse climate change.

In further developing our international business, we intend to utilise our core expertise in areas such as deep waters, heavy oil, harsh environments and gas value chains in order to exploit new opportunities and develop high-quality projects.

### Our business areas

We have seven business areas:

- Exploration
- Development and Production Norway
- Development and Production International
- Development and Production North America

- Marketing, Processing and Renewable Energy
- Technology, Projects and Drilling
- Global Strategy and Business Development

### **Our strategy**

Statoil aims to grow and enhance value through its technology-focused upstream strategy, supplemented by selective positions in the midstream and low-carbon technologies. Statoil's top priorities remain to conduct safe, reliable operations with zero harm to people and the environment, and to deliver profitable production growth through disciplined investments and prudent financial management with competitive redistribution of capital to shareholders.

To succeed going forward we continue to focus strategically on the following:

- Sustaining leading exploration company performance
- Take out the full value potential of the NCS
- Strengthen global offshore positions
- Maximise the value of our onshore positions
- Creating value from a superior gas position
- Continuing portfolio management to enhance value creation
- Utilising oil and gas expertise and technology to open new renewable energy opportunities

Guiding Equity production for 2014 is estimated to grow by around 2% Compound Annual Growth Rate (CAGR) from a 2013 level rebased for divestments and redeterminations.

Statoil will continue to mature the large portfolio of exploration assets and expects to complete around 50 wells worldwide in 2014 with a total exploration expenditure level at around USD 3.5 billion, excluding signature bonuses.

Statoil expects to invest around USD 20 billion on average per year in 2014-16.

### **International Activity**

Statoil is present in several of the most important oil and gas provinces in the world and these will account for much of our future production growth. In 2013, our petroleum production outside Norway amounted to an average of 539 000 boe per day of entitlement production and 723 000 boe per day of equity production.

In 2013, we were engaged in production in 11 countries outside of Norway: Algeria, Angola, Azerbaijan, Brazil, Canada, Libya, Nigeria, Russia, the UK, the US and Venezuela.

The main sanctioned development projects in which we are involved are located in Angola, Azerbaijan, Canada, the UK and the US. We are also well positioned for further growth through a strengthened US onshore position through our operated acreage at Bakken, Marcellus and Eagle Ford.

We also have representative offices in Kazakhstan, Mexico and the United Arab Emirates.

As of 31 December 2013, Statoil had exploration licences in 18 countries: Angola, Australia, Azerbaijan, Brazil, Canada, the Faroe Islands, Germany, Greenland, India, Indonesia, Libya, Mozambique, New Zealand, Russia, Suriname, Tanzania, the UK, and the US (Alaska and Gulf of Mexico). We have significant exploration activity internationally and were involved in 24 Statoil-operated and partner-operated exploration wells in 2013. Seven wells were announced as discoveries in the period, including the Statoil operated Harpoon West and Bay du Nord discoveries in Canada, as well as Tangawizi, which was Statoil's third discovery offshore Tanzania within one year.

The Exploration unit supports Statoil's international growth ambitions by accessing material acreage positions early in the exploration phase. Statoil's entry into the South Georgina Basin in the Northern Territory is an example of this strategy. In 2013, Statoil secured new acreage globally, including licences in Australia (farm-in to BP's operated licences in the Great Australian Bight), award of six licences in the Espirito Santo Basin in Brazil, award of 17 leases in the Central and Western US Gulf of Mexico, and award of a 100% equity share in an exploration permit in the Reinga-Northland area offshore New Zealand. Statoil also signed agreements that completed the contractual framework for a joint venture with Rosneft in Russia to explore offshore frontier areas in the Sea of Okhotsk and in the Russian Barents Sea.

#### Key numbers for Statoil's international activity in 2013

- 24 exploration wells completed
- 7 discoveries made
- Equity production of 723,000 boe per day
- Proved oil reserves as of 31 December 2013 of 1,032 million barrels (**mbbl**)
- Proved gas reserves as of 31 December 2013 of 48 billion cubic metres (**bcm**)

#### **Our shale business in North America**

In just a few short years Statoil has positioned itself as a significant player in the exploration and development of oil, gas and shale formations in the US. Our US onshore cluster is responsible for the exploration and production from shale formations.

In 2008, Statoil acquired an interest in the Marcellus shale acreage in north-eastern USA from Chesapeake Energy Corporation. Four years later, in 2012 we were able to purchase additional acreage in the area. Today we are gradually transitioning into operatorship in the Marcellus. Building on our this expertise and experience, Statoil entered the Eagle Ford formation in south-west Texas in 2010 by forming a joint venture with Talisman Energy. Statoil holds approximately 72,300 acres in Eagle Ford and transitioned into operatorship in 2013. Through the acquisition of Brigham Exploration Company in

October 2011 Statoil secured the Bakken and Three Forks oil plays in North Dakota. Entering these plays and taking on operatorship represented a significant step for Statoil as it was our first US shale operated asset.

Statoil is active in some of the most exciting shale resource areas of North America, and we will continue to do our utmost to ensure that these resources are developed responsibly, respecting the unique cultural, environmental and economic characteristics of each community and setting where we operate.

As such we have we are committed to our [shale operator commitments](#):

1. Safe operations – As we undertake our operations we will focus on protecting the health and safety of our workforce, the people around us and the environment. This includes our goal of zero harm to people to preventing all HSE incidents. One example: US Onshore HSE handbooks - we have developed a fit-for-purpose approach to US Onshore shale operations. In 2012 we deployed HSE manuals: *Contractor HSE Handbook* and *Safe Practices Manual*.

2. Minimising our environmental footprint – Statoil strives to protect important natural resources that are basic human needs, including water, clean air and land. Examples: conserving and protecting water resources: conducting baseline assessments within operated areas; air quality: gathering emissions data to understand impact, striving to reduce flaring of gas; land stewardship: site selection reviews

Other examples: gathering lines to reduce footprint, implementing and testing new technologies, such as fracturing with produced water

3. Earning trust – We seek to build enduring relationships with people in these communities based on trust, openness and sound operations. Example: Williston Energy Outreach, disclosing chemicals on [fracfocus.org](http://fracfocus.org) (US)

4. Always improving – Shale and tight rock opportunities are in the early stages of development. There will always be a need for continually evaluating efforts for improvement. We are learning and contributing to advances in this rapidly evolving industry, and we are continually looking for improvements in the way we do business. We are investing in research and development to advance technology applications.

- We take a long term perspective on our shale investments. We focus on technology to recover resources in the best way, to achieve the highest recovery rates and to lower the environmental impact. In addition we strive to identify and implement activities that benefit the local communities where we operate.
- We have a 40 years history of exploring and operating safely in harsh and sensitive environments. This includes the northernmost parts of Norway and in deepwater off the coast of Africa, Brazil and North America.

# Health, Safety and Environment

## Ambition and goal

Statoil's ambition is to be an industry leader in Health, Safety and Environment (HSE) and carbon efficiency. It is stated by our CEO that safety must be first priority in everything we do; should a conflict arise, safety must always take precedence over production.

Statoil is committed to:

- Integrating safety in the way we do business
- Improving safety performance in all our activities
- Demonstrating the importance of safety through hands-on leadership and behaviour
- Openness on all safety issues and active engagement with stakeholders

Statoil's goal is zero harm - all accidents can be prevented. Our focus is on preventing individual, major and environmental accidents. Statoil has four focus areas in HSE:

- Leadership and compliance with our management system
- Improved risk management
- Simplification of the management system
- Increased focus on technical integrity and barriers

The safety and health of all personnel involved in Statoil's activities are key priorities for the company. Statoil will not compromise safety for any reason, whether on operational or economic grounds. Further, Statoil takes the necessary security measures to ensure that our employees, our information and our facilities are protected against criminal acts or hostile actions.

## Policies

Statoil's corporate safety and sustainability policies are contained in the Statoil Book:

### Safety

#### Our approach

We will ensure safe operations which protect people, the environment, communities and material assets. We believe that accidents can be prevented.

#### We are committed to

- Integrating safety in the way we do business
- Improving safety performance in all our activities
- Demonstrating the importance of safety through hands-on leadership and behavior
- Openness on all safety issues and active engagement with stakeholders

## Sustainability

### Our approach

We contribute to sustainable development through our core activities wherever we work. We use natural resources efficiently, and provide energy which supports sustainable development.

### We are committed to

- Integrating sustainability in the way we do business
- Contributing to the development of sustainable energy systems and technology
- Making decisions based on the way they affect our interests as well as the interests of the societies and the ecosystems in which we operate
- Respecting human rights and labour standards
- Ensuring anti-corruption and transparency on all sustainability issues and active engagement with stakeholders
- Contributing to local content by developing skills and opportunities in the societies in which we operate

## Statoil's approach

### Process safety and major accident hazard management

Statoil has developed and uses tools and methods for handling and controlling process safety, including well integrity. These are used to minimise the risk of accidents and incidents with a high potential for escalating into major events.

We have procedures and practices in place that require us to review, map and describe the technical condition of safety barriers and safety systems for our drilling activities and on our offshore installations and at our onshore plants, with the focus on the risk of major accidents. We are committed to continuous improvement of our system for monitoring the risk level and safety condition of the barriers. To this end, we undertake technical safety condition reviews to supplement basic maintenance and testing of the barriers.

Statoil has established an internal major accident forum, with the objective to maintain sustained top management focus on major accident risks. The forum is a meeting arena for the corporate executive committee, key process owners, corporate audit, and employee representatives to openly review and discuss major accidents affecting the industry and Statoil.

The Deepwater Horizon tragedy in 2010 reinforced the need to maintain the safety and reliability of our deepwater drilling operations worldwide. Statoil is working closely with industry peers on prevention and emergency preparedness. One development after Deepwater Horizon has been the establishment of the Oil Spill Response Limited's (OSRL) Subsea Well Intervention Service (SWIS), which provides for swift subsea incident response around the world. Statoil is one of the international oil and gas

companies that pooled resources to form the Subsea Well Response Project, to develop equipment that could enhance subsea well control capability.

We recognise the risks associated with our business and are prepared to handle situations that require immediate action.

As such, Statoil holds regular emergency response courses and exercises.

### **Environmental principles**

Our goal is to design and operate our facilities and installations in such a manner that regular operations do not have a negative impact on the environment and to safeguard against accidents and accidental emissions/discharges as far as possible. We will minimise our environmental footprint by choosing the best development solutions and delivering energy products that are produced using the best available technology. Statoil operates within the global principles of sustainable development.

Statoil has a carbon value-chain approach and is a pioneer in carbon capture and storage (CCS), with many years of experience of underground CO<sub>2</sub> storage at oil and gas production facilities, including the Sleipner Field on the Norwegian Continental Shelf and the Hammerfest LNG facility in northern Norway.

All operational assets must comply with the ISO 9001 and ISO 14001 standards:

- Act in accordance with the precautionary principle
- Minimise environmental impact
- Comply with applicable legislation and regulations
- Set specific targets and improvement measures
- Consult and cooperate with relevant stakeholders
- Make our policy available to the public
- Reduce greenhouse gas emissions
- Seek optimal utilisation of natural resources
- Contribute to protecting biodiversity
- Continuously improve energy efficiency, environmental performance and products
- Reduce fresh water use through sustainable water resource management
- Minimise waste generation

### **Risk management**

Risk management forms an integral part of our management approach. We aim to minimise harmful impacts and optimise the benefits and opportunities generated by our activities throughout their life cycle. We take a holistic and multi-disciplinary approach to risk management, drawing on tools and expertise from our HSE, social responsibility, and ethics and anti-corruption disciplines to respond to the diverse challenges and opportunities we encounter in the course of undertaking our activities.

Our policies and guidelines require us to identify and document HSE risks for all activities, to establish and document risk tolerance criteria at the relevant level of activity, and to assess the identified HSE risk factors against the established tolerance criteria. Necessary risk-reducing measures must be implemented in order to meet the established criteria, and further to reduce the risk of harm so that it is as low as reasonably practicable. Identified HSE risk factors should be included in the basis for the selection and planning of supervisory activities.

Impact assessments are required for all relevant projects to assess environmental, social, human rights and health impacts, and to define measures to reduce or avoid negative impacts and enhance benefits.

Statoil's requirements for impact management for Statoil-operated activities are based on both national requirements in the countries we operate and international guidance as set out in ISO 14001 for environmental management systems, the Equator Principles and the International Finance Corporation's Performance Standards on Environmental and Social Sustainability. The impact management process forms an integral component of the overall risk management processes in Statoil.

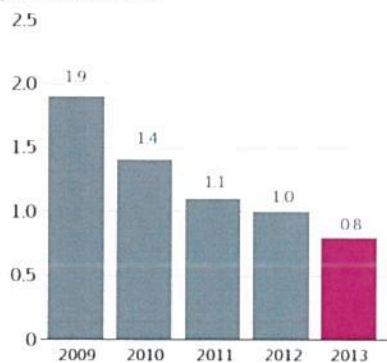
### HSE performance

Statoil uses Serious Incident Frequency (SIF) as a key performance indicator (KPI) to monitor HSE performance. This KPI combines both actual consequences of incidents and the potential for incidents to

develop into serious or major accidents. Our safety statistics show a positive trend that is the result of our continual focus on HSE.

Serious incident frequency

(per million hours worked)



Statoil is progressing work internally, with authorities and industry organisations, such as the International Association of Oil and Gas Producers, on identifying potential leading indicators for our safety performance that give an early warning of an increasing risk.

A Technical Integrity Management Programme (TIMP) has been implemented across the majority of Statoil-operated facilities, to give an up-to-date, comprehensive, systematic and easily accessible overview of plant integrity for operators, engineers and management.

### Local communities

We try to maximise the shared value and benefits of our business in the countries in which we operate. Engagement with communities is crucial to mitigate any potentially negative impacts of our projects. We use public consultations, surveys, interviews, town hall meetings and community panels to understand

our impact on communities, and to develop mitigation strategies and plans to improve our contribution to the communities concerned.

Recognising that different countries have different procedures and routines for involving stakeholders, Statoil's ambition is to both comply with national requirements and to apply best practice as described in international guidelines and standards. Where appropriate, we try to establish a direct dialogue with representatives of the affected communities and other stakeholders.

### **Recognition and Awards**

Statoil's ambition is to contribute to sustainable development. We are proud to have received the following recognitions and awards for our sustainability performance the past two years.

#### **Rankings**

- Corporate Knights 2013: # 1 - Global Ten Most Sustainable Corporations in the World
- Transparency International 2012: # 1 - Transparency in corporate reporting
- UN Global Compact 100: Index component
- STOXX Global ESG Leaders: Index component
- Dow Jones Sustainability Index World: Index component
- FTSE4Good Index 2012: Member Ethisphere Institute 2012: "World's most sustainable companies" list
- Oekom research company rating: Prime status
- Norway's Ideal Employers 2012: #1. Employer of choice in Norway among students and young professionals within the business, engineering and IT fields (Universum Norwegian Student Survey).

#### **Awards**

- 2012 Canadian Association of Petroleum Producers (CAPP) Responsible Canadian Energy Award for Environmental Performance
- Alberta Science and Technology Leadership Foundation (ASTech) 2012 Outstanding Achievement in Environmental Technology and Innovation Award

## Technical Capabilities

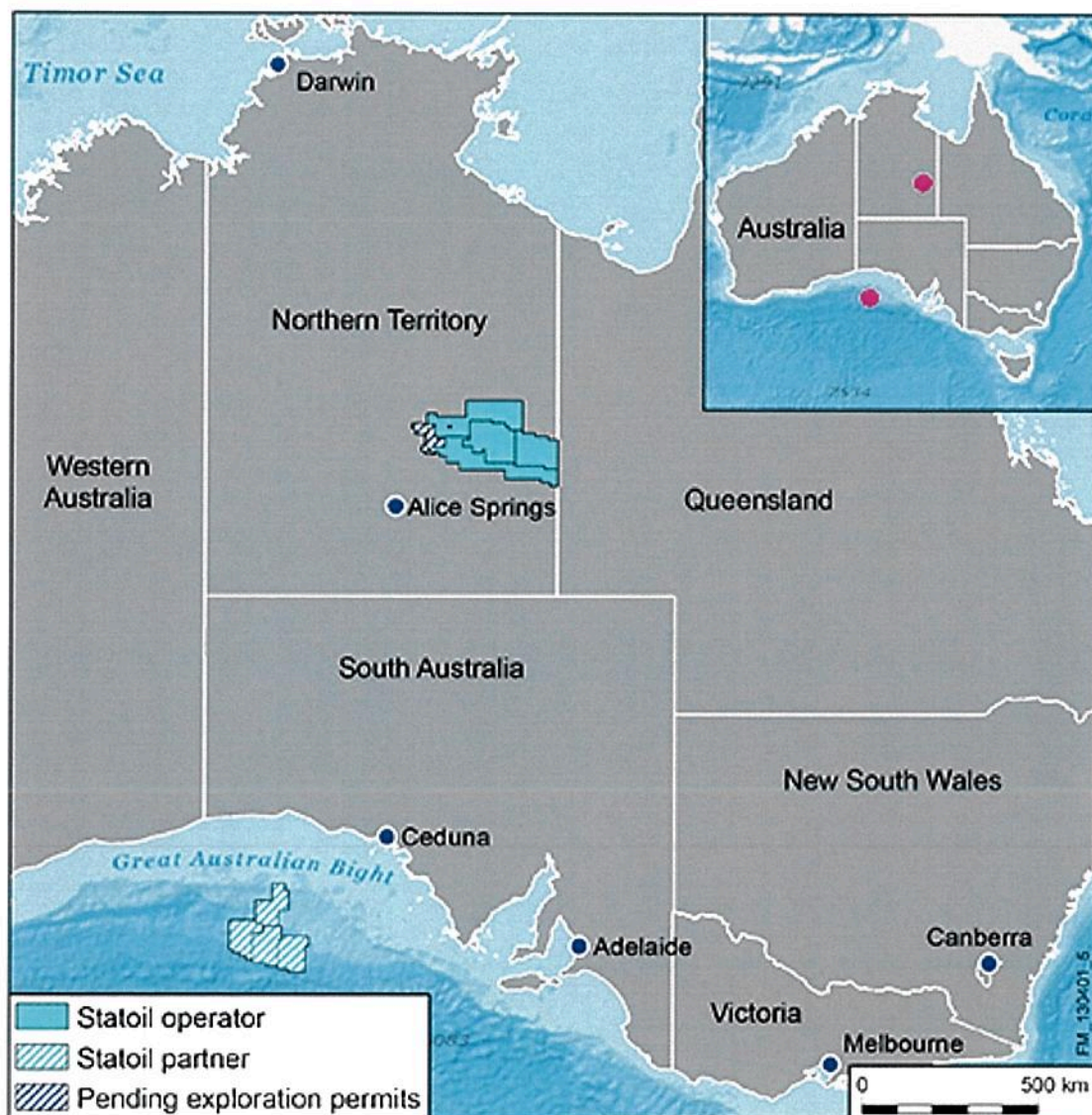
Statoil has a clear upstream focus and significant growth ambitions towards 2020. Technology is key to giving the company a competitive edge and critical to succeeding in a business environment with increased scope and complexity in the opportunity set, new business areas posing stricter demands on our licence to operate and tougher competition on access to resources.

Our corporate technology strategy sets the strategic direction for technology development and implementation to meet the corporate ambitions for 2020 and beyond. The strategy focuses on prioritisation of technologies for value creation, growth and access.

We have three research centres in Norway and a heavy oil technology centre in Canada. The Research & Development organisation is responsible for operating and further developing our world-class laboratories and experimental rigs. To a large extent, Statoil's R&D resources are focused on developing technical solutions, which can enable or enhance concrete business opportunities. Correspondingly, we are consistently in the forefront of applying pioneering technology, both developed in-house and through external partnerships.

## Statoil in Australia

In April 2013, Statoil signed a farm-in agreement with BP, acquiring a 30% equity share in four licences in the frontier Ceduna Sub Basin within the Great Australian Bight, off the coast of South Australia, where BP previously held a 100% equity share. The basin requires competencies that are core to Statoil: Deep water, harsh environment, co-existence with other industries and high HSE standards. BP has completed an extensive 12,000 square km 3D seismic survey and the two companies are currently maturing drillable prospects and performing continued environmental studies.



## Statoil in the Northern Territory

In September 2013 Statoil assumed operatorship, acquiring an 80% equity share from PetroFrontier, in four exploration permits (EP 103, EP 104, EP 127 and EP 128), in the South Georgina Basin in Australia's Northern Territory (NT). The work programme for 2014 includes the drilling of up to five exploration wells, hydraulically fracture and test up to three wells and permanently plug and abandon three wells drilled by the former operator.

To date, Statoil has successfully drilled two wells (OzAlpha-1 and OzBeta-1) and the drilling of the third well (OzGamma-1) is underway at the date of the submission.

Statoil has established a good dialogue with the Department of Mines and Energy (DME) and considers the current regulatory framework robust and comprehensive. Regulatory supervision of operations in the NT is higher than in many other developed countries. Statoil currently operates in three major US onshore regions (Bakken, Marcellus and Eagle Ford) and is well placed to compare jurisdictional differences. In our view, the DME is effective in ensuring that onshore operators mitigate all potential environmental impacts.

Traditional Owners of the land subject to our exploration permits are represented by the Central Land Council (CLC). We have a good working relationship with the CLC and consider the organisation as a key stakeholder to the South Georgina Basin. Statoil is currently working with the CLC to deliver indigenous employment opportunities.

In addition to the CLC, Statoil works closely with pastoralists to identify outcomes that benefit both parties. This includes handing over infrastructure such as water bores and upgraded roads at the conclusion of operations.

In addition to meeting with affected landholders, Statoil has also attended community meetings addressing oil and gas exploration in the NT. Statoil is also investigating other relevant community support projects in the NT.

Appendix 1



Image 1 – OzBeta-1 EP 127



Image 2 – OzAlpha-1 EP 104