



## **OSPAR Public Statement - 2016**

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## TABLE OF CONTENTS

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
<b>2</b>	<b>Alpha Petroleum Resources Limited.....</b>	<b>1</b>
<b>3</b>	<b>The Environmental Management System.....</b>	<b>3</b>
<b>4</b>	<b>2016 Environmental Performance.....</b>	<b>6</b>
4.1	Overview of 2016 Activities.....	6
4.2	2016 Environmental Aspects Register.....	6
4.3	2016 Environmental Objectives.....	7
4.4	2016 Environmental Performance.....	8
<b>5</b>	<b>2017 Environmental Objectives.....</b>	<b>9</b>

## ABBREVIATIONS

ALARP	As Low As Reasonably Practicable
Alpha Petroleum	Alpha Petroleum Resources Limited
BEIS	Department of Business, Energy and Industrial Strategy
CMAPP	Corporate Major Accident Prevention policy
EEMS	Environmental Emissions Monitoring System
EMS	Environmental Management System
JNCC	Joint Nature Conservation Committee
NUI	Normally Unattended Installation
OGA	Oil & Gas Authority
OIPW	Oil in Produced Water
OPPC	Oil Pollution Prevention and Control
OSPAR	Oslo and Paris Commission
Perenco	Perenco UK Ltd
SEMS	Safety and Environmental Management System
S&E	Safety and Environmental
SH&E	Safety, Health and Environmental
UKCS	United Kingdom Continental Shelf

## 1 INTRODUCTION

Under OSPAR Recommendation 2003/5 to Promote the Use and Implementation of Environmental Management Systems (EMS) by the Offshore Industry, the Department for Business, Energy and Industrial Strategy (BEIS) requires all operators of offshore installations to produce a Public Statement to report their environmental performance. These Statements must be prepared on an annual basis (covering offshore installation activities carried out during the previous calendar year), made available to the public and copied to BEIS by 1st June of each year.

In accordance with this requirement, this document reports on the environmental performance of Alpha Petroleum Resources Limited's (hereafter referred to as Alpha Petroleum) UK Continental Shelf (UKCS) operated offshore activities during 2016. It is focused on environmental issues associated with operations which were directly under Alpha Petroleum control and direct discharges from Alpha Petroleum assets. It does not include discharges and emissions at host facilities or from facilities which are operated under environmental consents held by the Installation Operator; these discharges and emissions are included within the relevant company's public statement.

## 2 ALPHA PETROLEUM RESOURCES LIMITED

Alpha Petroleum is a privately owned UK company, headquartered in Guildford and focussed on the United Kingdom offshore basins. Further information on the company is available from: <http://www.alphapetroleum.com>.

Alpha Petroleum is Licensee and Field Operator of a number of small southern North Sea gas basin developments (Figure 2.1). To date, these include one single well subsea completion (Helvellyn) and three small Normally Unattended Installations (NUIs – Kilmar, Garrow and Wenlock), all of which are tied back to platforms operated by Perenco UK Ltd (Perenco).

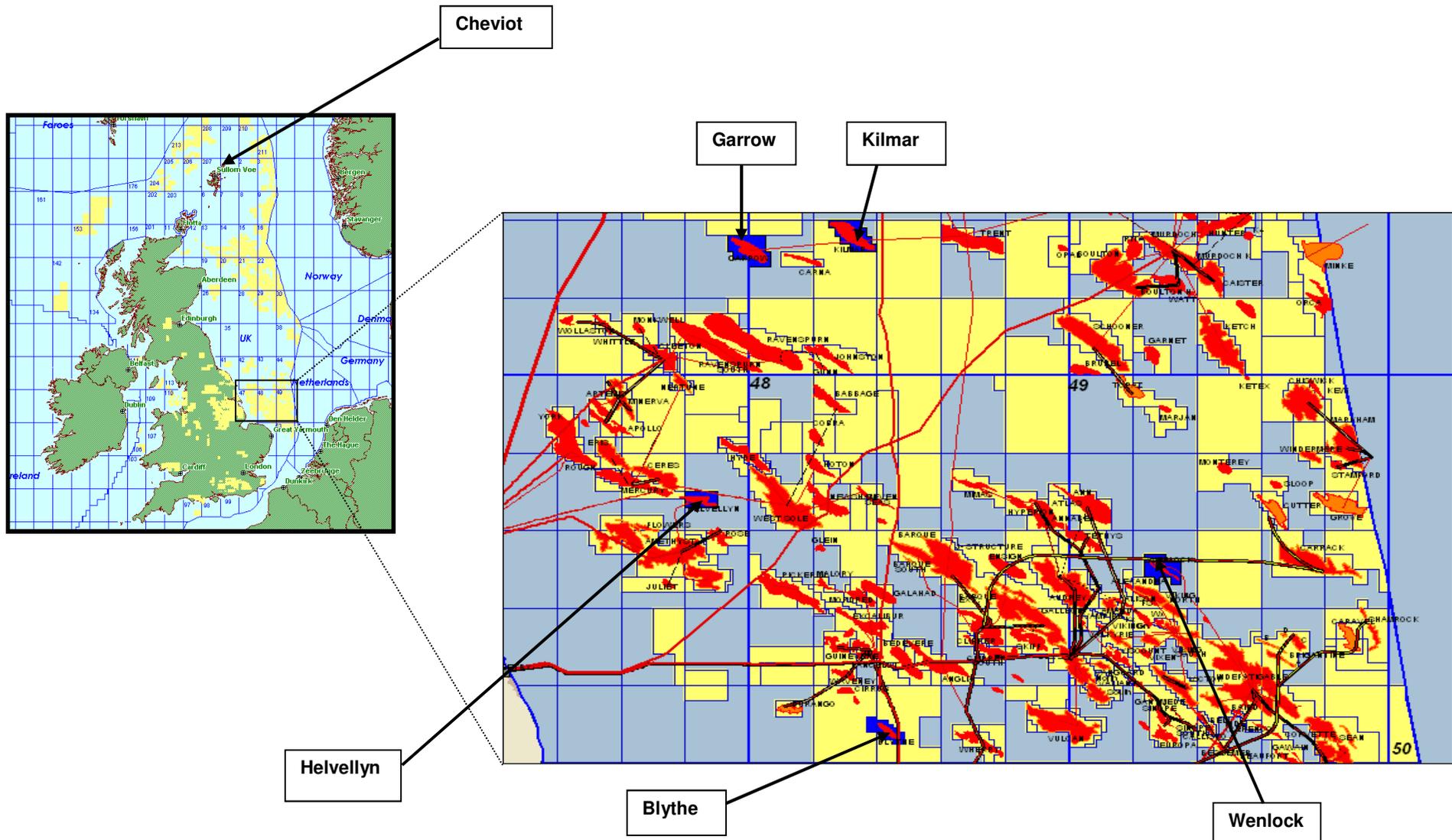
During 2016, Alpha Petroleum was also Licensee of the Blocks that contain the Cheviot reservoir in the northern North Sea and the Blythe reservoir in the southern North Sea. Alpha Petroleum transferred its equity in Licences 48/22b and 48/23a (the Blythe field) to Independent Oil and Gas in June 2016 and has no further involvement in these licences.

Table 2.1 shows the Alpha Petroleum licenses that were held in the UKCS during 2016.

**Table 2.1: The Alpha Petroleum Licences held in the UKCS during 2016**

Block	Interest	Licence	Field	UKCS Region
47/10a	100%	P001	Helvellyn	Southern North Sea
43/22a	17%	P683	Kilmar	Southern North Sea
42/25a, 43/21a	17%	P1034	Garrow	Southern North Sea
49/12aN, 49/12b	20%	P033	Wenlock	Southern North Sea
48/22b, 48/23a	50%	P1736	Blythe	Southern North Sea
2/10b, 2/15a, 3/11b	100%	P1070	Cheviot	Northern North Sea

Figure 2.1: Location of Alpha Petroleum Assets (2016)



### 3 THE ENVIRONMENTAL MANAGEMENT SYSTEM

Alpha Petroleum operates under an integrated Safety and Environmental Management System (SEMS) to enable the goals and aims of the Company's Safety, Health and Environmental (SH&E) Policy (Figure 3.1) to be achieved. It reflects the principles embodied in existing international and national models for safety and environmental management (e.g. ISO14001, OHSAS 18001, HSG (65)).

Alpha Petroleum Senior Management is committed to incorporating the goals of the SH&E Policy into all Company activities: no accidents, no harm to people and no damage to the environment.

The SEMS is designed to identify, control and manage safety and environmental risks arising from business activities and workplaces so that risks to the health and safety of personnel and to the environment are reduced to a level deemed to be as low as reasonably practicable (ALARP). It covers:

- Permanent offshore oil and gas production installations;
- Temporary offshore operations and projects; and,
- The Guildford office.

The SEMS provides a flexible management framework through which the Company can systematically identify and manage its safety and environmental risks and opportunities, accommodating individual operational complexities, changing legal and business requirements and the Company's commitment to continual improvement.

The key components of the SEMS are summarised in Table 3.1 and key documents include:

- The SH&E Policy;
- The Corporate Major Accident Prevention policy (CMAPP)
- The SEMS Framework document, which outlines SEMS elements and associated systems and documents;
- SEMS Guidance documents, which describe how SEMS elements are applied;
- Emergency Response Plans, which detail the Company's response to and management of incidents;
- Oil Pollution Emergency Plans, which detail the Company response to pollution incidents; and,
- SEMS Implementation and Supporting Documents, which comprise documents such as annual plans, studies, evaluations and audits.

As required by OSPAR Recommendation 2003/5, Alpha Petroleum's EMS is independently verified with the most recent verification being completed in August 2016.

**Figure 3.1: Alpha Petroleum SH&E Policy 2016**

  
**SAFETY, HEALTH AND ENVIRONMENTAL POLICY**

Alpha Petroleum Resources Limited will conduct its business with a commitment to the safety and health of people and to the protection of the environment. Our Goals are – No Accidents, No Harm to People and No Damage to the Environment.

**To accomplish this we will:**

- Recognise the importance of safety, health and environmental factors as an integral part of our business.
- Design and manage all activities to ensure safety and health risks associated with work places are as low as reasonably practicable, to prevent pollution and to minimise environmental impacts.
- Comply with laws, regulations and obligations governing safety and environmental protection and the standards set by industry organisations to which we subscribe.
- Ensure that all personnel are aware of the Company's safety and environmental goals and expectations and hold them accountable for their performance.
- Provide leadership, professional personnel and training to support this Policy.
- Monitor, evaluate and report safety and environmental performance.
- Participate in programmes designed to improve technology, laws and regulations.
- Seek continual improvement in safety and environmental performance by setting appropriate objectives and targets consistent with the aims of this Policy.

  
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Graham Walters  
Managing Director  
Alpha Petroleum Resources Limited

21<sup>st</sup> March 2016

**Table 3.1: SEMS Framework**

SEMS Process	Main Process Activities	SEMS Elements and Key S&E Documents
	<ul style="list-style-type: none"> <li>Develop and Review SH&amp;E Policy and CMAPP</li> </ul>	<ul style="list-style-type: none"> <li>– Safety, Health and Environmental Policy</li> <li>– Corporate Major Accident Prevention Policy</li> </ul>
	<ul style="list-style-type: none"> <li>• Establish SEMS accountabilities &amp; responsibilities</li> <li>• Manage Personnel S&amp;E competence and training</li> <li>• Manage contractor S&amp;E performance</li> <li>• Manage S&amp;E documents and data</li> <li>• Ensure effective communication</li> </ul>	<ul style="list-style-type: none"> <li>– GU1: Personnel Safety and Environmental Competence</li> <li>– GU2: Assuring Contractor Safety and Environmental Performance</li> <li>– Document Control and Data Management</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify legal and other S&amp;E requirements</li> <li>• Establish S&amp;E objectives and targets</li> <li>• Prepare Safety, Environmental and Emergency Plans</li> </ul>	<ul style="list-style-type: none"> <li>– GU3: Safety and Environmental Regulatory Compliance</li> <li>– GU4: Safety and Environmental Plans</li> <li>– Emergency Response Plans</li> <li>– Oil Pollution Emergency Plans</li> <li>– Well Examination Scheme</li> <li>– Disaster Recovery Plan</li> </ul>
	<ul style="list-style-type: none"> <li>• Manage S&amp;E risks</li> <li>• Manage S&amp;E impacts of changes</li> <li>• Take corrective, preventative and improvement action</li> </ul>	<ul style="list-style-type: none"> <li>– GU5: Risk Management</li> <li>– GU6: Management of Change</li> <li>– GU7: Incident Notification and Investigation</li> </ul>
	<ul style="list-style-type: none"> <li>• Monitor performance</li> <li>• Conduct audits</li> <li>• Review SEMS</li> </ul>	<ul style="list-style-type: none"> <li>– GU8: Safety and Environmental Performance Assurance</li> </ul>

## 4 2016 ENVIRONMENTAL PERFORMANCE

### 4.1 OVERVIEW OF 2016 ACTIVITIES

Alpha Petroleum produced a Safety and Environmental Plan detailing the extent of its intended activity for 2016. This plan was reviewed and updated on a quarterly basis.

Alpha Petroleum offshore operations undertaken during 2016 comprised:

#### Helvellyn

- Ongoing gas production operations (through Amethyst: operated by Perenco)

#### Kilmar

- Ongoing gas production operations (through Trent: operated by Perenco)
- Completion of commissioning of new generators

#### Garrow

- Ongoing gas production operations (through Trent: operated by Perenco)
- Ongoing refurbishment of generators

#### Wenlock

- Ongoing gas production operations (through Inde 49/23A-AC: operated by Perenco)
- Ongoing refurbishment of generators

#### Cheviot

- Geophysical, Geotechnical and Environmental Site Survey

### 4.2 2016 ENVIRONMENTAL ASPECTS REGISTER

Once Alpha Petroleum operations are identified, key environmental risks are identified, assessed and documented in an annual Environmental Aspects Register.

Planned activities and potential unplanned events (e.g. accidental releases) associated with the proposed operations were risk assessed against six environmental elements based on the main types of potential environmental impact for oil and gas activities. These are:

1. Physical Presence;
2. Seabed Disturbance;
3. Noise and Visual Impacts.
4. Atmospheric Emissions;
5. Marine Discharges;
6. Solid Wastes;
7. Resource Usage.

A total of 110 environmental aspects were identified and assessed. Of these 108 were assessed as Not Significant (negligible or low environmental risk) and 2 as Significant (medium environmental risk). No Highly Significant environmental risks were identified.

The 2 significant risks related to potential impacts of the seismic equipment used during the Cheviot site survey, on fish and marine mammals. These types of surveys are subject to environmental impact assessment and submission of an application for survey consent. Guidelines on use of seismic equipment and inclusion of marine mammal observers within the survey team were incorporated into the Company's survey contracts.

Operations on the existing installations are undertaken under the SEMSs of the Installation Operator, Well Operator and Pipeline Operator. These responsibilities are held by Perenco for all Alpha Petroleum operating assets. Perenco's Management Systems have been reviewed by Alpha Petroleum and Perenco has been approved by OGA and BEIS as a competent Operator.

All regulated aspects were appropriately monitored. In addition, risk reduction and mitigation measures were put in place to control and mitigate significant environmental risks and maintain a high standard of environmental management. These included:

- Continued compliance, monitoring and reporting in accordance with all environmental permits, consents and other regulatory requirements;
- Continued liaison with environmental regulators and stakeholders;
- Assessment of and coordination with the designated Installation/Well/Pipeline Operator, Perenco;
- Continued inspection and maintenance of all offshore facilities by Perenco;
- Compliance with JNCC guidelines for minimising the risk of injury and disturbance to marine mammals from seismic surveys, including the use of Marine Mammal Observers during seismic survey operations;
- Use of Fishery Liaison Officer on the survey vessel;
- Review and audit of survey contractors and vessels;
- Installation specific emergency response plans in place (Perenco);
- Oil Pollution Emergency Plans in place (Perenco);
- Ship Oil Pollution Emergency Plans in place (all vessels); and
- Interface documents in place to ensure responsibilities and communications are clearly identified.

With these controls in place all significant and other legislatively controlled aspects were appropriately monitored.

Contractor Management has the potential to impact on the environment through unplanned releases to the environment. This is managed through the Company SEMS, specifically *SEMS Guidance GU2: Assuring Contractor Safety & Environmental Performance*. The survey operations at Cheviot required safety and environmental reviews and audits of the survey contractor and proposed vessels prior to contract award with further risk assessments undertaken prior to mobilisation and, as necessary, during survey operations.

#### 4.3 2016 ENVIRONMENTAL OBJECTIVES

Given that Alpha Petroleum's operations are largely consent driven, good environmental compliance and performance is largely a factor of ensuring that the Company, its' appointed Operator, Perenco, and appointed contractors obtain and maintain all appropriate environmental permits and consents. A series of environmental objectives were set and included in the annual Safety and Environmental Plan. These were set within the context of:

- Past performance;
- Assessment of risks associated with planned activities, as summarised in the Environmental Aspects Register;
- Compliance with existing and future legislation, permits and consents;
- Meeting the commitments made in the Alpha Petroleum SH&E and CMAPP Policies.

For 2016 the following environmental objectives were set:

- Continued review, and roll-out to all personnel, of the SEMS to fully incorporate changes in associated regulations and Company developments;
- Ensure appropriate consultations held with regulators and environmental stake holders for both 2016 offshore operations and field development planning for the Cheviot field;
- Ensure full legislative and regulatory compliance;
- Undertake OSPAR 2003/5 re-verification of Alpha Petroleum EMS;
- Complete the transfer of Kilmar and Garrow environmental permits to Perenco as Installation Operator, in accordance with new regulatory requirements;
- Ensure the monthly average concentration of oil discharged in produced water at the Kilmar installation does not exceed 30 mg/l with a target set of less than 5 mg/l;
- Review and, where practicable, reduce the use of production chemicals;
- Undertake refresher training for oil spill response;
- Undertake vessel audits, SEMS review and contractor management of the survey contractor;
- Ensure risk assessments completed for all major activities;
- Ensure environmental incidents are investigated and followed through to closure.

All environmental objectives were met.

#### 4.4 2016 ENVIRONMENTAL PERFORMANCE

Table 4.1 summarises the environmental performance data for the Alpha Petroleum assets. It should be noted that due to restrictions on the host facilities, the Wenlock NUI was not in production between 12<sup>th</sup> July 2016 and 23<sup>rd</sup> December 2016 and the Kilmar and Garrow NUIs were not in production from 23<sup>rd</sup> August 2016 until the end of the year.

In addition, from May 1<sup>st</sup> 2016, environmental permits and reporting responsibilities for the Garrow and Kilmar NUIs transitioned to Perenco. Perenco also reported all waste associated with the Kilmar and Garrow NUIs and no waste was transported from the Wenlock NUI in 2016.

The discharge of oil in produced water is subject to control under the Oil Pollution Prevention and Control (OPPC) Regulations which require that the monthly average concentration of aliphatic hydrocarbons in any discharge is less than 30 mg/l. Since November 2012, produced water associated with the K3 well has been treated and discharged from the Kilmar NUI rather than the Trent host platform. In 2015, Alpha Petroleum set itself a target of a monthly average oil in produced water (OIPW) concentration of less than 10 mg/l; and in February 2016 set itself a further target of concentration levels less than 5 mg/l. Samples of OIPW have indicated concentration consistently lower than 5 mg/l with occasional samples between 5mg/l and 10 mg/l. These low OIPW concentrations result from both the nature of the gas (a dry gas with low condensate levels) and the success of the water separation and clean-up technologies installed on the NUI.

**Table 4.1: Environmental Performance Data**

Installation	Environmental indicator	Unit	Volume
<b>Discharge of Oil regulated under OPPC Regulations<sup>1,6</sup></b>			
Kilmar	Produced Water Discharged	m <sup>3</sup>	15,952
Kilmar <sup>2</sup>	Hydrocarbons Discharged	Kilograms	102
<b>Chemical Consumption<sup>3,6</sup></b>			
Kilmar <sup>1,4</sup>	Gold (use / discharge)	Tonnes	0.10 / 0
Wenlock <sup>4</sup>	Gold (use / discharge)	Tonnes	0.43 / 0
<b>Atmospheric Emissions<sup>5,6</sup></b>			
Kilmar	Total Vented Gas	Tonnes	16.6
Garrow	Total Vented Gas	Tonnes	0.4
Wenlock	Total Vented Gas	Tonnes	0.4
<b>Environmental Incidents</b>			
All	Chemical Release	No Incidents	0
All	Hydrocarbon release	No Incidents	0

1 Totals for January to April 2016; May 1<sup>st</sup> onwards reported by Perenco

2 Average concentration of oil in water of 6.4 mg/l

3 No SUB warnings on any chemicals

4 Single Corrosion Inhibitor chemical injected into the pipelines at the NUIs to protect the integrity of the export pipelines

5 Includes gas vented during operations and shutdowns on the NUIs

6 Data is as reported in EEMS

## 5 2017 ENVIRONMENTAL OBJECTIVES

Environmental objectives have been set by Alpha Petroleum for 2017 and include:

- Continued review and improvement of the SEMS to meet ISO 14001:2015 requirements;
- Ensure appropriate consultations held with regulators and environmental stake holders for the field development of the Cheviot field;
- Ensure full legislative and regulatory compliance;
- Continue transfer of environmental permits to Perenco for the Wenlock NUI, in accordance with regulatory requirements;
- Ensure the monthly average concentration of oil discharged in produced water at the Kilmar installation does not exceed 30 mg/l with a target set of less than 5 mg/l;
- Review and, where practicable, reduce the use of production chemicals;
- Undertake appropriate monitoring and management of Contractors during Cheviot design phase;
- Ensure environmental incidents are investigated and followed through to closure.