

**Chrysaor
Environmental
Report
2017**



CHRYSAOR

Introduction

The purpose of this report is to present Chrysaor Holdings Limited (Chrysaor) environmental performance for 2017, as required by OSPAR Recommendation 2003/5. The report focuses on the 2017 environmental performance of Chrysaor's operated assets in the United Kingdom Continental Shelf (UKCS).

On the 1st November 2017, Chrysaor Holdings Limited acquired three Shell operated facilities in the UKCS: Armada, Lomond and North Everest. Environmental performance associated with these assets between November 2017 and year end are included in this report.

Chrysaor Company Structure

Chrysaor is a private company established in 2007 and focused on generating superior equity returns by developing and commercialising oil and gas incremental resources. Chrysaor is now a self-sustaining full cycle Exploration and Production (E&P) company, with a portfolio of assets balancing near term development with production growth, combined with significant gearing to appraisal and exploration success.

On completion of the acquisition of the three Shell operated facilities, Chrysaor Holdings Limited became the leading UK North Sea Independent E&P company. Chrysaor Holdings Limited operates as Chrysaor Limited (Lomond and North Everest) and Chrysaor North Sea Limited (Armada).

Environmental Management

Chrysaor is committed to conducting its operations in such a way as not to cause harm to the environment. This is enacted by its Health, Safety and Environmental Policy which is approved by the Chief Executive.

Chrysaor has in place a Environmental Management System (EMS) that is applied to manage the impacts of any activities, products and services on the environment. It provides a structured approach for continuous planning, implementing, reviewing and improving on environmental protection measures as well as working towards increasing environmental sustainability.



CHRYSAOR

Chrysaor Health, Safety and Environmental Policy

Chrysaor will conduct its operations in such a way as not to harm people and minimise the impact on the environment. Chrysaor is fully committed to continuously improve its health, safety and environmental performance by the successful implementation of this policy.

Chrysaor commits it will:

- Ensure compliance with all applicable legislation and standards;
- Ensure an effective management organisation is in place and all personnel and contractors are aware of their health, safety and environmental responsibilities;
- Create a safe and healthy working environment for our employees, contractors and all other persons who could be affected by its activities;
- Identify, evaluate and control the risks and impacts associated with its activities, including where the potential exists for major accident events;
- Ensure that energy and resource management are an integral part of the business;
- Promote resource and energy conservation, waste minimisation and pollution prevention;
- Recognise and respond to employee and community concerns regarding the health, safety and environmental aspect of the company's operations;
- Ensure all employees and contractors are competent to perform their health, safety and environmental roles; and
- Achieve continuous improvement of its business processes through the implementation of its Values and Business Principles.

Chrysaor will ensure that the necessary resources are provided to fully support this Policy and will ensure that it is subject to audit and review as part of the Management System goal of continuous improvement in performance.

Phil Kirk
Chief Executive

January 2017



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UK Operations

Chrysaor has 100% equity Interest in the Armada, Lomond and North Everest installations, where we are installation and well operator. Chrysaor also has non-operated equity in Beryl Area, Bressay, Buzzard, Elgin-Franklin, Erskine, J-Block and Schiehallion. This Environmental report will focus on the key environmental metrics associated with our operated assets.





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Greater Armada Area Commercial oil and gas production from the Greater Armada area fields began in 1997. The Armada platform is situated in Block 22/5b of the central North Sea, approximately 250 km East of Aberdeen, with fields straddling blocks 16/29c, 16/29g, 22/4a, 22/5a and 22/5b. The Armada Hub consists of Drake, Hawkins and Fleming gas/condensate fields, with tie-backs from Seymour, Block 22/5b and Maria, Block 16/29a in the UK Sector. In addition, the Armada platform accepts production from Rev and Gaupe in the Norwegian Sector. The Seymour field was developed in 2004/2005, Maria field in 2006, Rev field in 2007 and Gaupe field in 2011.



Gas is exported from Armada via the CATS pipeline to Teesside, while the produced liquids are exported via the Forties Pipeline System to the Kinneil processing plant at Grangemouth.

On transition to Chrysaor, the Cessation of Production date for the Armada platform was extended. Chrysaor have plans in place for a multi-phase drilling programme within the Greater Armada area throughout 2018.

Lomond First production of gas and condensates from the Lomond Field was achieved in July 1993, with the Erskine Production Module installed in 1997. The Lomond platform is situated in Block 23/21 in the central North Sea, 239 km from Peterhead and comprises a four-legged braced steel jacket consisting of a combined wellhead/production/living quarters platform. Lomond processes gas and condensate from the Lomond and Erskine fields.



Gas and condensate is exported via infield pipelines to the CATS (Central Area Transmission System) Riser platform at North Everest. Gas is then exported via the CATS pipeline to Teesside while condensate is exported via North Everest to the Forties Pipeline System then onwards to Kinneil for processing.

North Everest Located in Block 22/10a, 145 km east of Scotland, North Everest commenced production in 1993. The North Everest installation is bridge linked to the CATS Riser Platform. North Everest is a combined wellhead/production/accommodation platform processing gas and condensate from the, North Everest field, South Everest subsea wellheads, located some 7.1km south of the North Everest production platform and Everest East Expansion (EEE) wells, located approximately 6.8km North East of the installation.



Condensate is exported via the Forties Pipeline System to the Kinneil processing plant at Grangemouth and the gas is exported via the CATS pipeline to Teesside.



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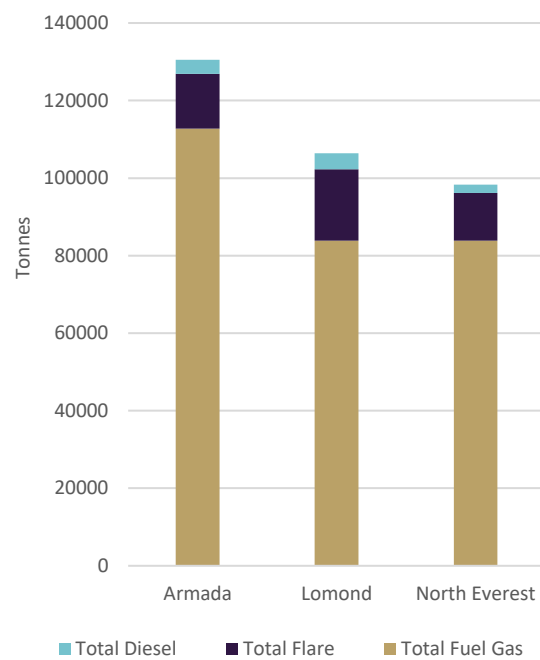
Environmental Performance

Atmospheric Emissions

The main source of atmospheric emissions from Chrysaor operations are from the combustion of fuels (gas and diesel) for power generation, compression of gas and pumping of oil for transportation along export pipelines to the shore. Emissions from the combustion of diesel used in back-up generators constitutes a small amount of total atmospheric emissions. Flaring emissions are associated with routine maintenance activities, equipment and plant trips, shut-down and start-up activities.

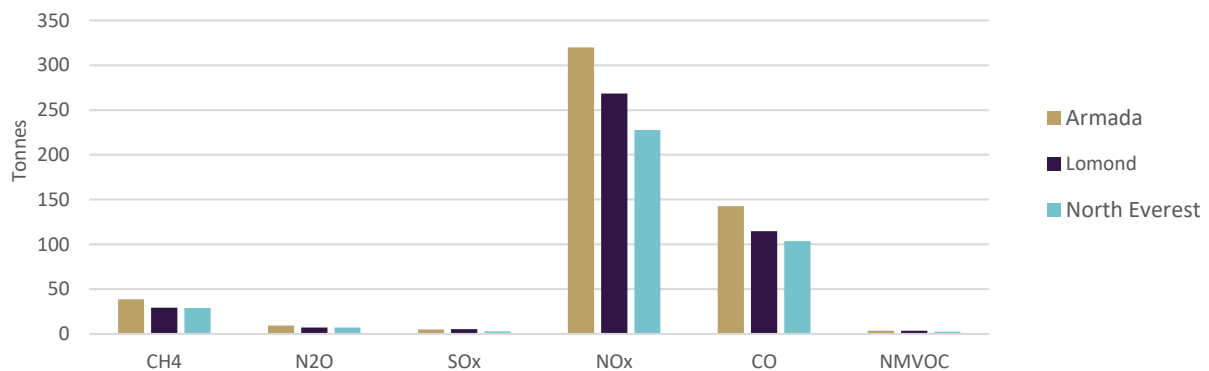
The emission of Carbon Dioxide (CO₂) is governed by the European Union Greenhouse Gas Emissions Trading System (EU ETS) which is currently in the third Phase, running from 2013 to 2020. In 2017, Chrysaor operated assets (Lomond, North Everest and Armada) emitted 335,200 tonnes of CO₂.

CO₂ Emissions 2017



The Offshore Combustion Installations (Pollution Prevention and Control) Regulations 2013 (PPC) regulate atmospheric emissions (with the exception of CO₂) from offshore oil and gas facilities. Armada, Lomond and North Everest hold PPC permits, with specific limit values for Methane (CH₄), Sulphur Oxides (SO_x), Nitrous Oxides (NO_x) Carbon Monoxide (CO) and non-methane volatile organic compounds (NMVOC). The quantity of emissions is calculated based on the total diesel and fuel gas use on each of the installations.

Total PPC Emissions 2017

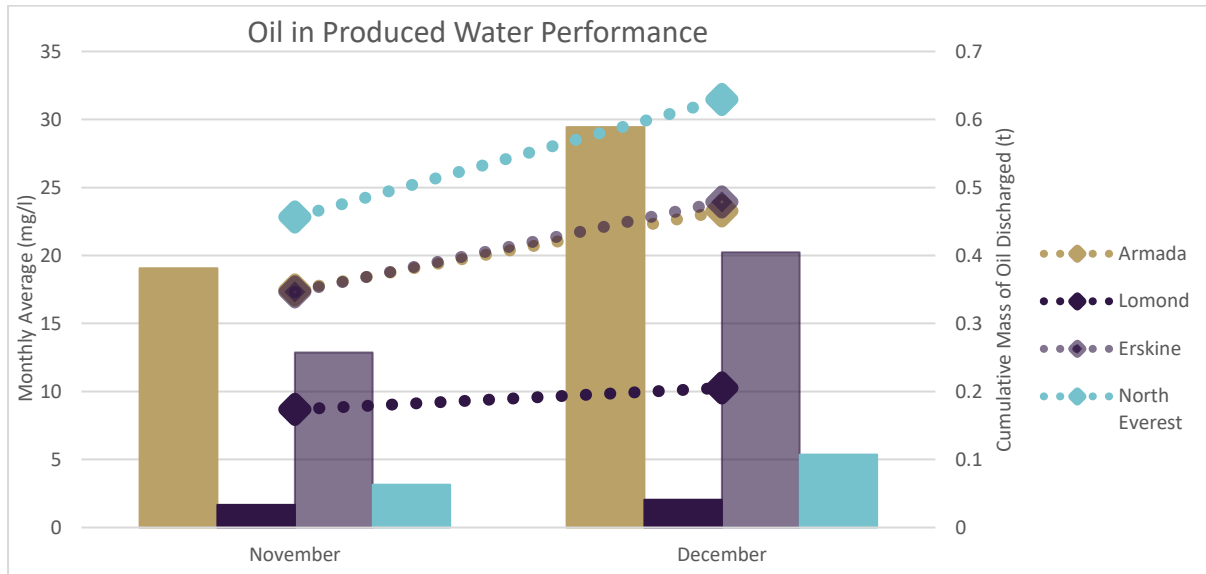


Discharges to Sea

Oil Discharges

The OSPAR Commission recommendations are regulated through the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (as amended) (OPPC).

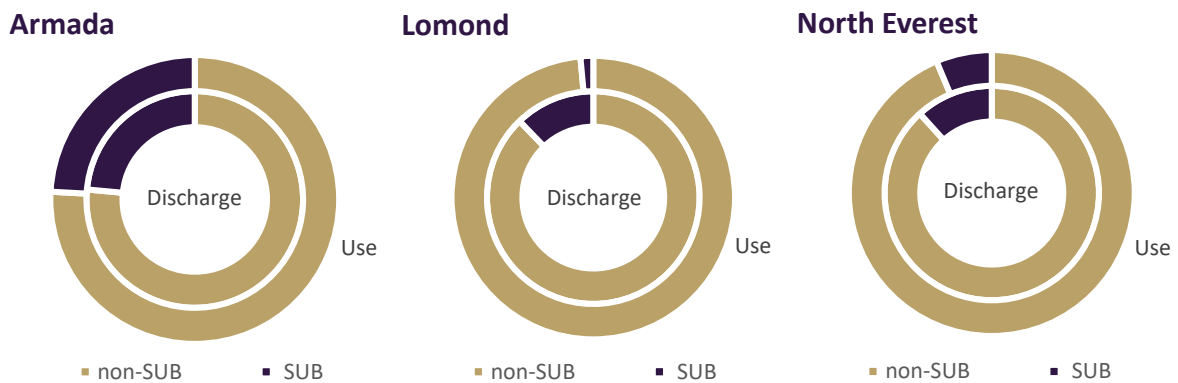
Water produced alongside oil and gas operations, known as produced water, contains dispersed oil which is treated to permitted levels prior to discharge to the marine environment. The Armada and North Everest have single discharge points of produced water discharge, while the Lomond platform has two permitted discharge points, one associated with Lomond fluids and one for the Erskine fluids.



Chemical Discharges

Chemical use in offshore production operations is regulated under the Offshore Chemicals Regulations 2002 (as amended). A substitution warning is assigned to a chemical if a component appears on the OSPAR prescribed list for priority action, or if the component fails to meet set criteria with respect to persistence, bioaccumulation potential or toxicity.

Each platform holds a separate chemical permit which includes justification for the use of chemicals which hold a substitution warning.

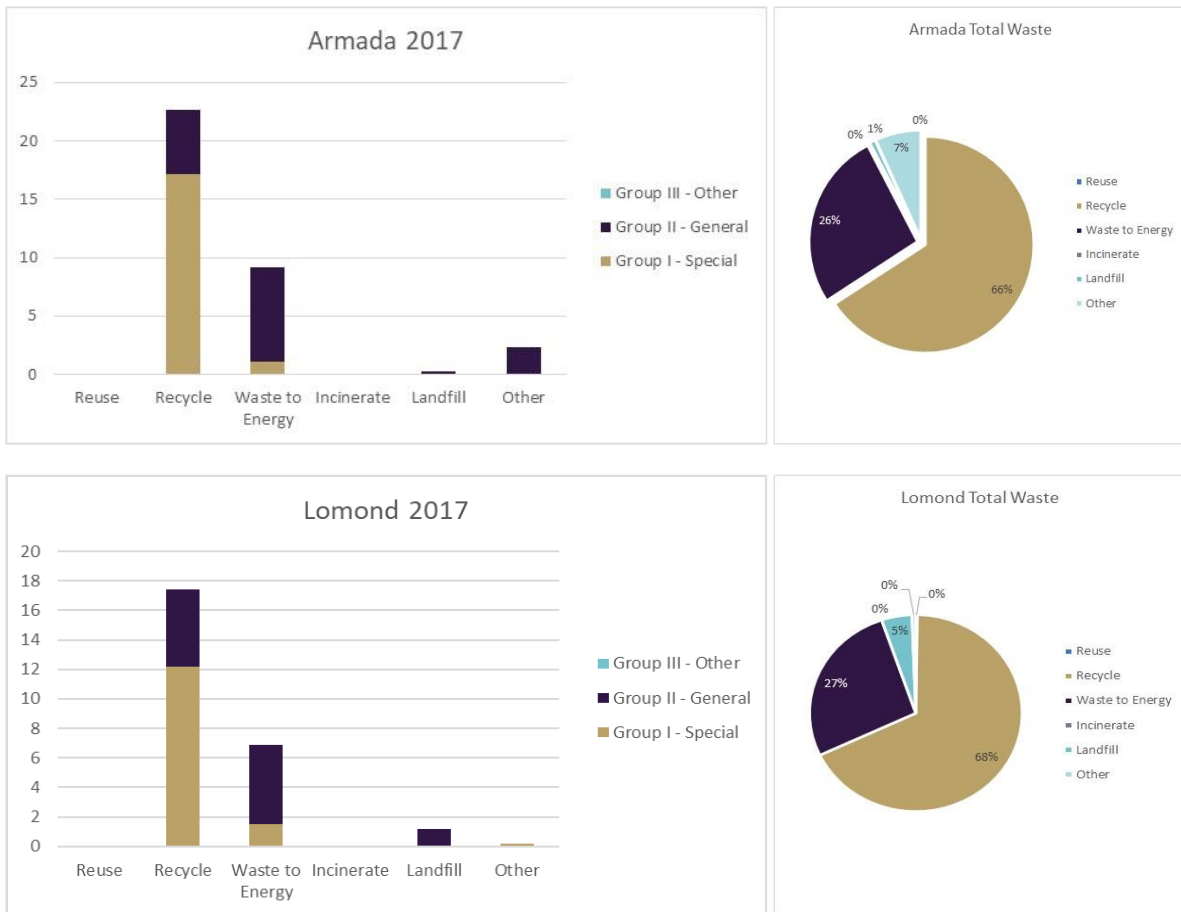


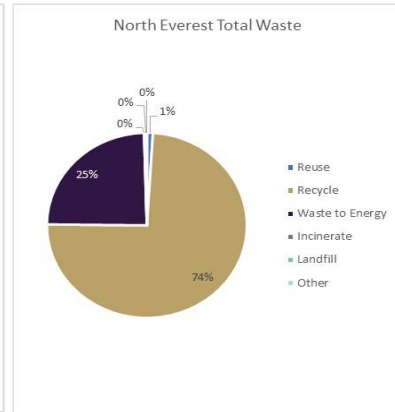
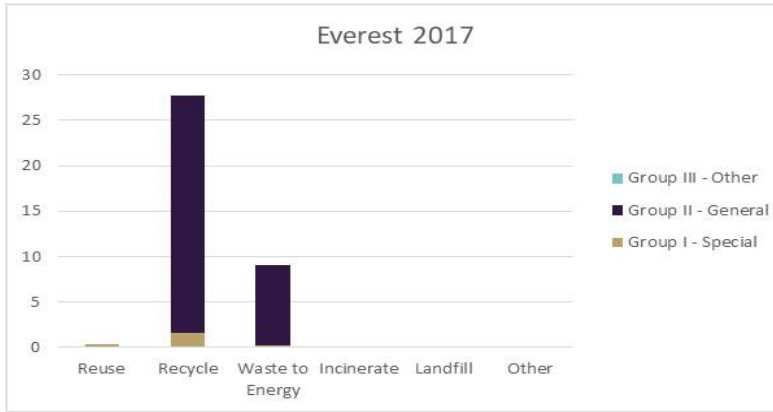
Waste

Waste is categorised as hazardous or non-hazardous, dependant on whether the waste has one or more constituent specified in Annex III of the EU revised Waste Framework Directive (WFD, Direction 2008/98/EC). All waste is recorded and reported to OPRED.

Hazardous waste includes bulk liquid wastes, process sludges, oily rags, used chemicals, paints, batteries, fluorescent light tubes and electronic equipment. Non-Hazardous waste includes packaging, galley waste, scrap metal and wood.

In November and December 2017, Chrysaor assets produced a total of 98 tonnes of waste materials; 68 tonnes of which was recycled. The tonnage of Group 1 “Special”, Group II “General” and Group III “Other wastes” are provided for the Armada, Lomond and North Everest installations.





Unplanned Releases and Regulatory Non-Compliances in 2017

During November and December 2017, there were two instances of oil in produced water exceeding the Oil Discharge permit limits (Armada and North Everest). In each instance Non-compliance forms were submitted to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED).

Chrysaor had no unplanned releases (spills) of oil or chemicals to sea during 2017.

Objective for 2018

The primary objective for 2018 is to recertify the Environmental Management System to the international recognised ISO14001:2015 standard. The scope of the Chrysaor certification aims to be expanded to cover all types of future Chrysaor operated activities. This will require that the existing internal management system processes are aligned to meet the more rigorous expectations of the 2015 standard.