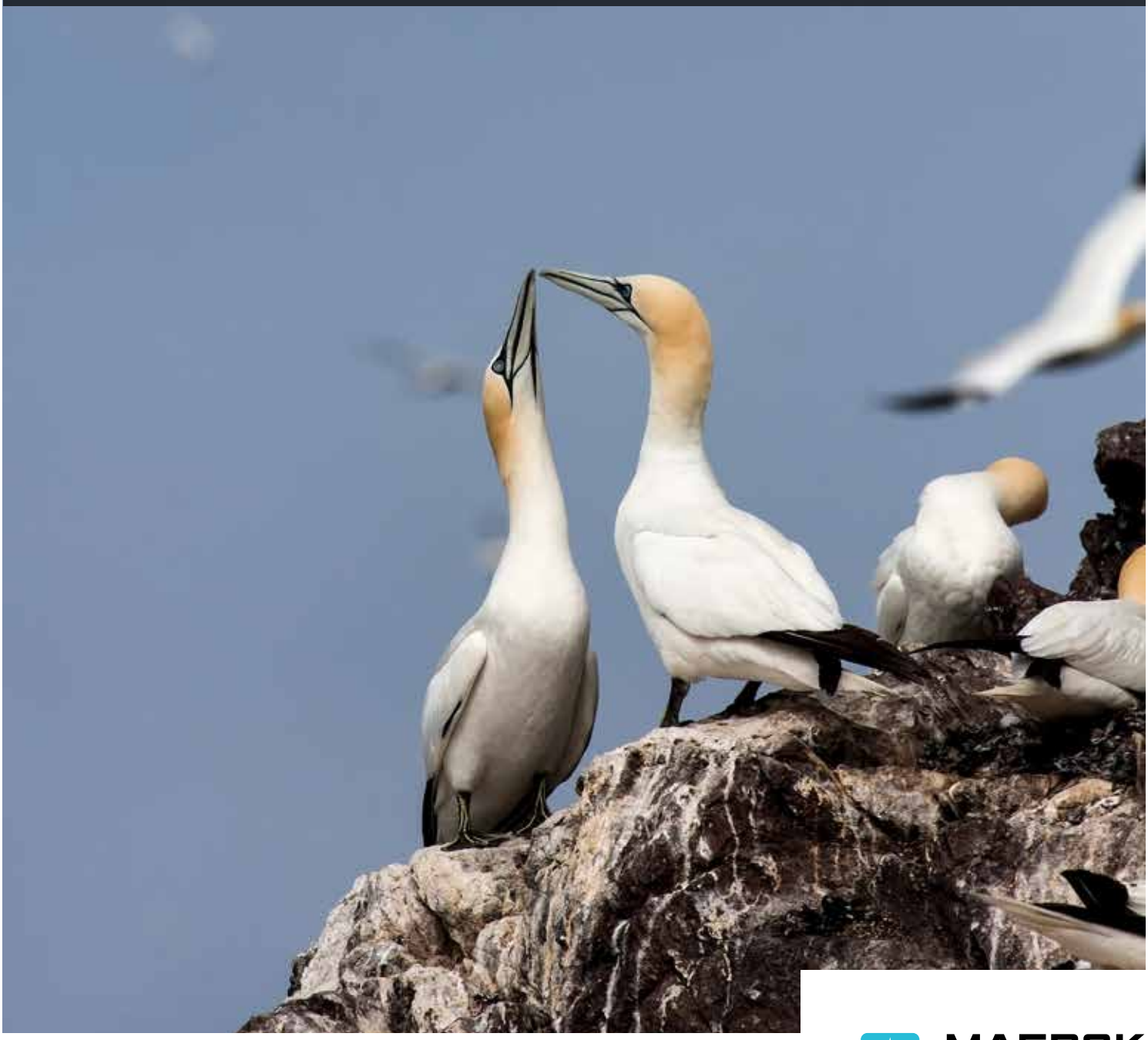
Maersk Oil UK
Environmental Performance Report
2015

"An ongoing commitment to legal compliance, continual improvement, and prevention of pollution in our UK operations"



MAERSK OIL

Maersk Oil North Sea UK Limited
Health, Safety & Environment (HSE) Statement

Our Incident-Free Commitment

At Maersk Oil UK we are committed to fulfilling our Incident-Free ambition to protect people, the environment, our assets and reputation.

At Maersk Oil UK we shall:

- Demonstrate constant care through visible and active role-modelling that engages colleagues
- Manage HSE as a line responsibility with clear accountabilities
- Ensure that our employees and contractors have the right competencies, behaviours and resources to achieve sustainable Incident-Free operations
- Continuously improve the effectiveness of the HSE Management System through findings from risk-based auditing, incident investigation and published good practice
- Ensure compliance with company, legal and regulatory requirements as well as good industry practice
- Systematically identify, assess and manage major accidents and other HSE risks throughout exploration, design, construction, operation and abandonment of wells and facilities
- Sustain a learning organisation by reporting and investigating incidents, to ensure root causes are identified and acted upon
- Maintain effective emergency preparedness plans including regular exercises
- Proactively engage with stakeholders to understand their HSE interests
- Commit to continual improvement in environmental performance minimising and preventing pollution as far as is practicable
- Establish clear HSE objectives and targets and review these regularly

I am committed to an Incident-Free Maersk Oil

- For safe people
- For a better business

BETTER. SAFER. TOGETHER

Morten Kelstrup
Managing Director,
Maersk Oil North Sea UK Limited

MAERSK OIL

Contents

On an annual basis, this environmental performance report is produced to communicate the performance of the previous year.

The strategic direction for the year ahead is summarised in the Maersk Oil UK Incident Free Programme 2015.

Managing Director's Introduction

I am pleased to introduce the 2015 Environmental Performance Report for Maersk Oil UK. The purpose of this document is to report to all our stakeholders on the environmental performance of our offshore operations.

We are committed to minimising risks and continually improving performance in the areas of Health, Safety, Security, Environment and Quality across the whole organisation with the aim of achieving incident-free operations.

Our environmental aspirations include:

- minimising harmful discharges from our installations and activities as far as is practical;
- raising environmental awareness and engagement within the workforce;
- maintaining standards in improving environmental performance; and
- meeting or exceeding legal and other environmental requirements.

Maersk Oil UK successfully maintained an ISO14001 certified Environmental Management System through 2015. Whilst initiatives for continuous improvement have been undertaken, the setting of ambitious internal targets which exceeded regulatory compliance limits in 2015 has resulted in good performance in areas such as emissions to air and chemical management. Our offshore Environmental Representatives are in place and environmental performance considerations are being designed into our future operations for the upcoming Culzean field. However, we recognise there is always room for improvement and on our journey to Incident Free operations we will continue to focus on the reduction of avoidable environmental incidents and improving performance for oil in produced water concentrations.

We welcome comments and questions on the content of this publication.

Morten Kelstrup
Managing Director,
Maersk Oil North Sea UK Limited

Our Operations

Maersk Oil UK North Sea Ltd has had a presence in the UKCS since 2005. The company operates nine fields: Gryphon, Tullich, Maclure, Janice, James, Affleck, Donan (Dumbarton), Lochranza and Balloch. Exploration activities continue in the UK sector and are an important part of the company's growth strategy.

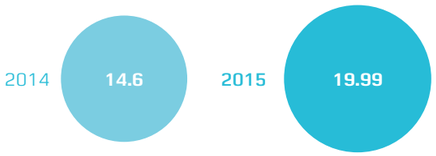
Three operated North Sea assets located within the United Kingdom Continental Shelf (UKCS):

- **Janice Alpha FPU**
- **Gryphon Alpha FPSO**
- **Global Producer III FPSO**

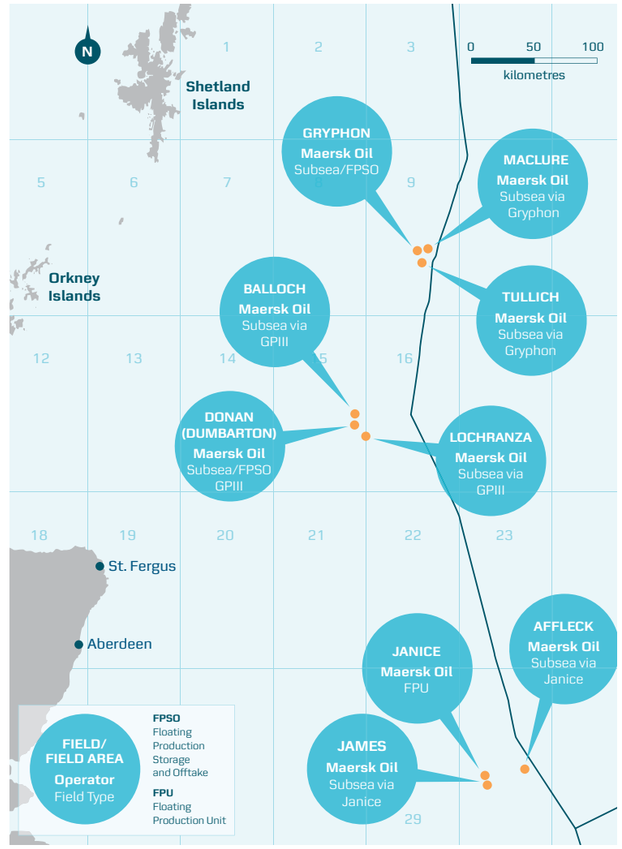
During the 2015 reporting period, Maersk Oil UK's activities included an active drilling programme involving drilling and well abandonment operations.

Operated Production and Drilling Activity

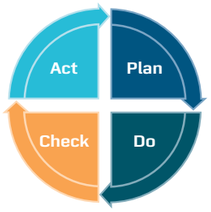
Total Operated Production (MMBOE)



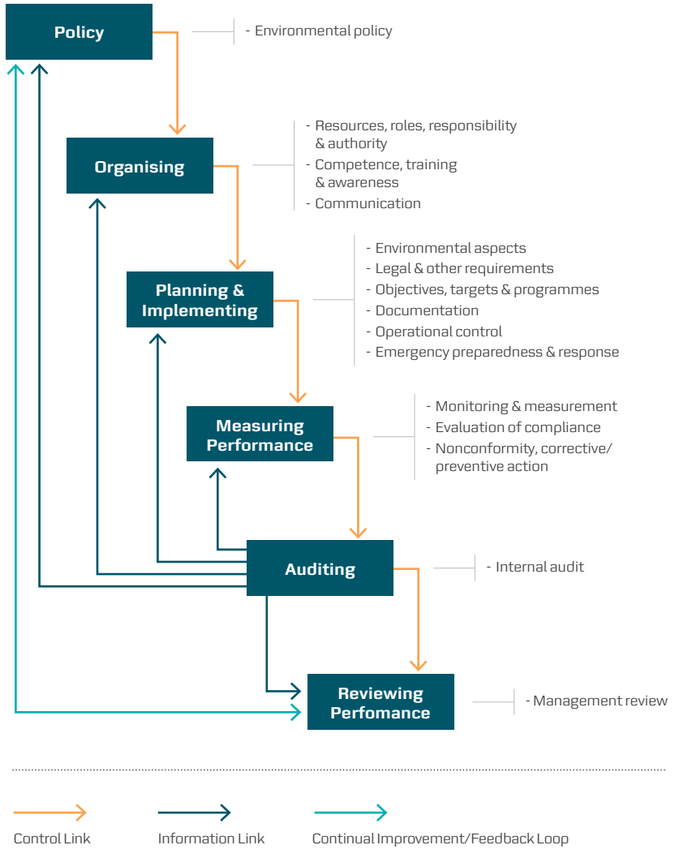
Wells Programme



Maersk Oil UK Environmental Management System



Within all our international operating units, Maersk Oil UK has established a clear framework for the effective management of HSSEQ issues involving exploration, drilling and production activities. Maersk Oil UK regards environmental management as being an integral part of our overall management responsibility, the fundamental aims being to support environmental protection, prevent pollution and comply with legislation and regulations.



The principles of the International Standard for Environmental Management Systems (ISO14001:2004) are incorporated within the Maersk Oil UK Global Management System (GMS).

The GMS provides the framework for a 'Plan-Do-Check-Act' approach to HSSEQ management, which actively promotes continual improvement in all aspects of the organisation's activities.

In 2010 Maersk Oil UK successfully secured certification of the Environmental Management System (EMS) to the International Standard ISO14001: 2004. The scope of certification for Maersk Oil UK is "Extraction and production of oil and natural gas on Maersk Oil operated UKCS Fields and onshore support activities, including planning and organisation of development and exploration for all UK operated blocks, carried out at Maersk House". Throughout 2015 we have successfully maintained ISO14001 certification.

Environmental Aspects

Environmental Performance

We are committed to a process of continual improvement and pollution prevention with the intention to minimise discharges and emissions from all our installations and activities. Strenuous efforts are made to prevent incidents, but accidental spillages do happen. All accidental/unplanned discharges of oil or chemicals to sea, regardless of volume, must be reported to the Department of Energy and Climate Change (DECC), the Maritime and Coastguard Agency (MCA), the Joint Nature Conservation Committee (JNCC) and Marine Scotland. An approved Oil Pollution Emergency Plan (OPEP) needs to be in place for each offshore installation.

Atmospheric Emissions

Atmospheric emissions generated from our offshore operations come from:

- Fuel combustion by turbines and generators for power generation;
- Flaring of hydrocarbons;
- Venting of unburned hydrocarbons from cargo tanks and cargo transfer; and
- Use of propane gas cylinders.

These activities lead to emissions of carbon dioxide (CO_2), nitrogen oxides (NOx), sulphur oxides (SOx), methane (CH_4) and other Volatile Organic Compounds (VOCs). CO_2 emitted from these activities is regulated by the European Union Emissions Trading Scheme (EU ETS). Phase III of the EU ETS runs from the 1st January 2013 to 31st December 2020 which introduces additional procedural and emissions management requirements. Under EU ETS, we report annual CO_2 emissions with a view to reducing emissions year on year. Non- CO_2 emissions from our installations are regulated under the Offshore Combustion Installation (Prevention and Control of Pollution) (PPC) Regulations.

Discharges to Sea - Produced Water

Produced Water (PW) is a by-product of oil production and processing. Oil-in-Produced-Water (OiPW) refers to the trace amounts of oil still remaining in the water phase following PW treatment. In the UK, discharge of PW to sea is regulated under the Offshore Petroleum Activities (Oil Pollution Prevention and Control) (OPPC) Regulations. Maersk Oil UK is required to monitor and report PW discharges to sea in particular, the quality (in mg/l) and total volume of oil.

It is the produced water management strategy on all Maersk Oil UK installations to re-inject produced water when re-injection capabilities are available thereby minimising the volume of oil discharged to sea. When produced water oil concentration discharged to sea is increased for any reason the strategy remains to minimise the volume of oil discharged to sea by re-injection rather than discharge overboard to reduce monthly average oil in produced water concentrations.

Discharges to Sea - Chemical Management

Chemicals are used for a wide variety of purposes in the offshore industry, e.g. to optimise production, aid separation and for protection against corrosion and bacterial growth. Chemical use and discharge is regulated in the UK through the Offshore Chemicals Regulations (OCR). Maersk Oil UK aims to minimise the negative impact of chemicals by reducing the use of products with selected harmful, substitution components. Chemical permits must be in place before chemicals can be used or discharged during drilling, workovers, production and pipeline operations.

Waste Management

A variety of solid, liquid, hazardous and non-hazardous wastes are produced from our offshore operations, including: waste chemicals, waste oil, paper, scrap metal, glass and wood. The Merchant Shipping (Prevention of Pollution by Garbage) Regulations prohibits overboard discharge of offshore waste.
All offshore waste is segregated and the majority is disposed of onshore via a variety of disposal routes, including recycling, landfill and incineration. Maersk Oil UK aims to continue reducing the volume of waste produced by our operations, and minimising volume sent to landfill.

2015 Environmental Performance Summary

The mapping and monitoring of discharges, emissions and wastes arising from our drilling and production activities is a long established practice within Maersk Oil UK. This information is used for regulatory reporting purposes and helps inform our strategy to improve our environmental performance. Data relating to key Environmental Performance Indicators (EPIs) based on internal targets for 2015 is summarised below.

Issue	Maersk Oil UK 2015 Objectives	2015 Internal Targets	2015 Performance
Environmental Performance	Take all reasonable steps to prevent pollution	Zero spills	Production Operations 8 x PON1 Drilling 1 x PON1 Production Operations 18 x NCN Drilling Operations 1 x NCN Decommissioning 2 x NCN
	Ensure Maersk Oil UK's compliance with relevant environmental legislative requirements	Full compliance with permits and consents	18 x OPPC NCN 3 x OCR NCN
	Systematically identify and manage environmental risks through a fully functioning EMS which aims to drive continual improvement	Maintenance of the certified EMS to ISO14001 across all locations and within scope	Certification maintained
	Deliver a robust (risk based) internal and third party (contractor) environmental auditing programme	100% audit completion against plan	100% completion against plan
Atmospheric Emissions	Continue to improve understanding of atmospheric emissions management and where possible reduce GHG emissions in line with permit conditions and operational demands	Production Operations Annual target of 177,000 tonnes CO_2 – Flaring	167,870 tonnes
		Production Operations Annual target of 322,000 tonnes CO_2 derived from combustion activities	245,244 tonnes
Discharges to sea - produced water	Continue to investigate, evaluate and prioritise measures to improve the management of oil in produced water and where possible reduce oil and chemical discharges in line with permit conditions and operational demands	UK Production Operations YE Target 79.28 tonnes oil to sea	Actual 86.75 tonnes
		UK Production Operations Internal Target - OiPW 28 mg/l	Actual 28.41 mg/l
Discharges to sea - chemical management	Reduce the use and discharge of chemicals with SUB warnings	Production Operations - Target 7 chemicals with SUB warnings by end of year	Actual 6
		Drilling - <250 kg SUB chemicals discharged	750 kg
Waste Management	Promote waste management practices in line with the principles of the waste management hierarchy	Annual target greater than 55% recycling rate from offshore production facilities	55%
		Annual target >85% recycling rate related to drilling activities (excluding waste sent for onshore treatment)	89.76%

Environmental Performance Summary **Janice Alpha**

- **Floating Production Unit (FPU)**
- Location: 156 miles south east of Aberdeen in Block 30/17a
- Currently produces from the Janice, James and Affleck fields

Environmental Performance

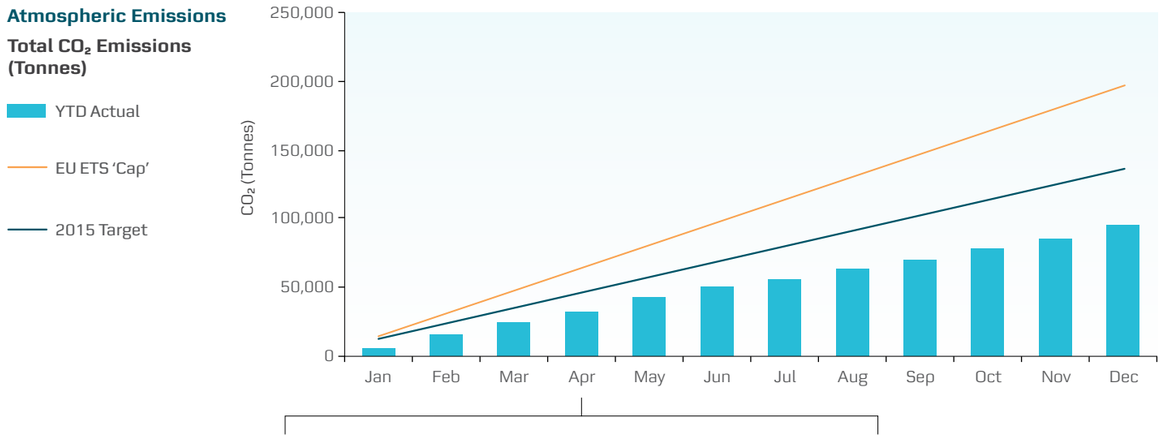
PON1	OPPC NCN	OCR NCN	PPC NCN
1	2	1	0

- **One PON1:**
  - Minor spillage of oil to deck which migrated overboard.
- **Two OPPC NCNs:**
  - Produced water average >30 mg/l due to no reinjection capabilities during plant start up. Primary strategy remains to reduce total oil to sea. Once plant resumes steady state, PWRI is restarted in order to reduce overall environmental impact rather than reduce oil to sea averages.
- **One OCR NCN:**
  - Due to the over use and discharge of a chemical

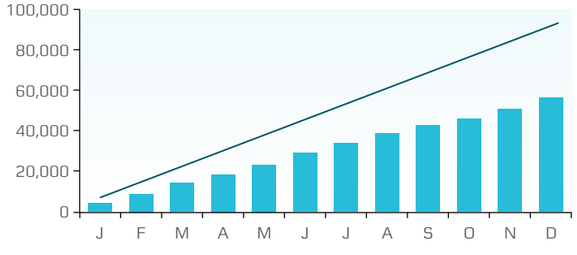
Janice OPPC compliance performance is a result of the Maersk Oil PW Management Strategy as described on page 7 discharges to sea – produced water.

Atmospheric Emissions

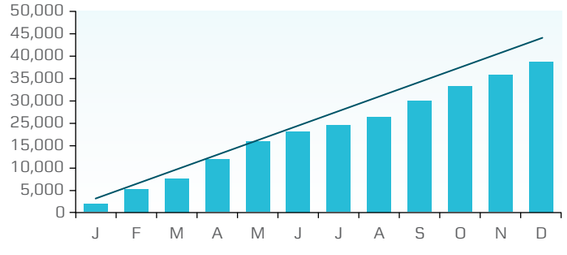
Total CO_2 Emissions (Tonnes)



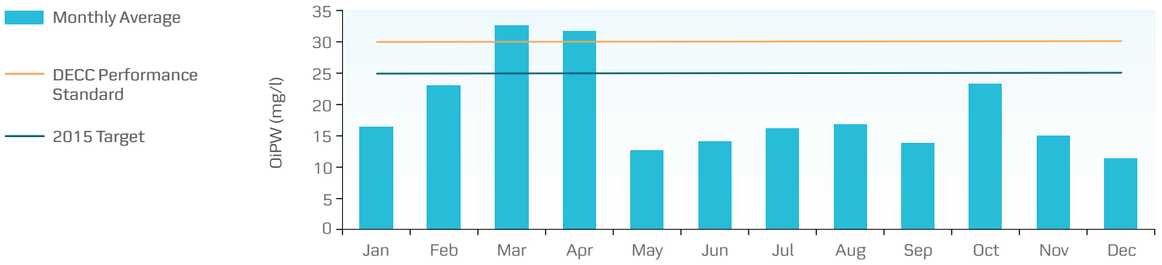
Combustion CO_2 Emissions (Tonnes)



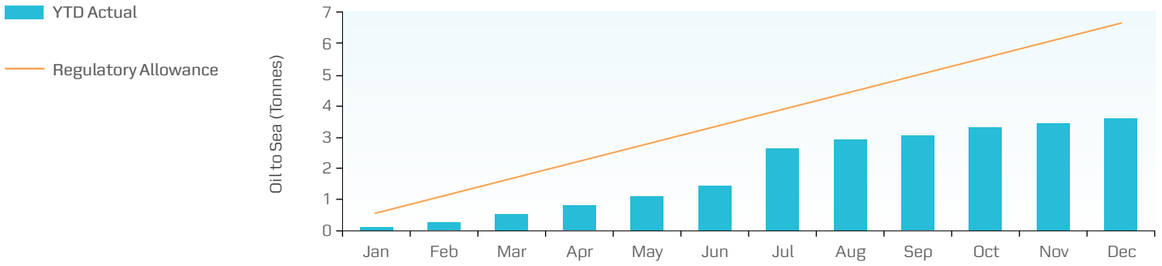
Flaring CO_2 Emissions (Tonnes)



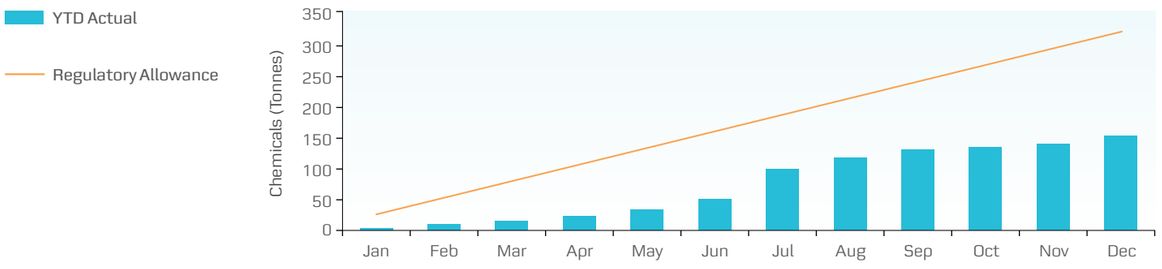
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)



Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):

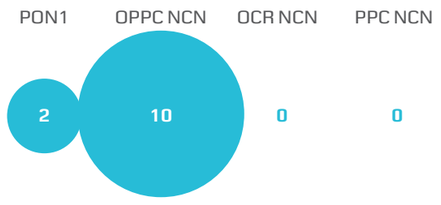
	Landfill	Incineration	Treated	Recycled	**Total**
	47.96	0.34	8.79	111.073	168.163
Percentage of Total:	28.52%	0.2%	5.23%	66.05%	

There has been a significant reduction in average oil in produced water concentration and a decrease to overall emissions to air from flaring when compared with the 2014 data. Overall oil in produced water discharge to sea was in line with discharges during 2014.

Environmental Performance Summary **Gryphon Alpha**

- **Floating Production, Storage and Offloading Vessel (FPSO)**
- **Location: 175 miles north east of Aberdeen in Block 9/18b**
- **Currently produces from the Gryphon, Tullich and Maclure fields**

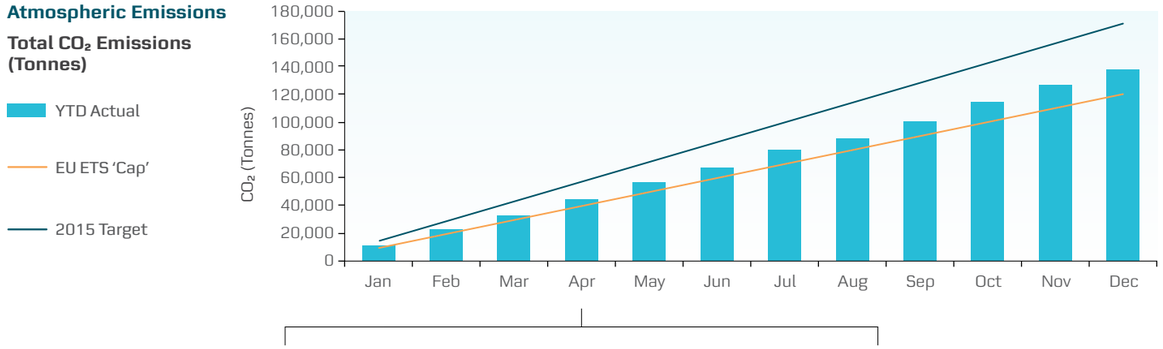
Environmental Performance



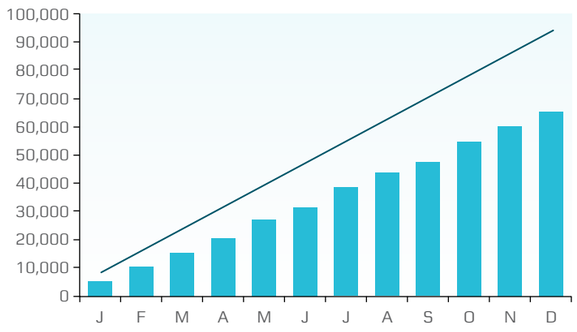
- **Two PON1s:**
  - Gryphon crude oil export pipeline system failure resulting in a discharge of oil to sea
  - Diesel spill to deck during internal transfer, a small amount made its way through the scuppers and so to sea
- **Ten OPPC Non-Compliance Notifications:**
  - Desanding hydrocyclone monthly average >30 mg/l

Atmospheric Emissions

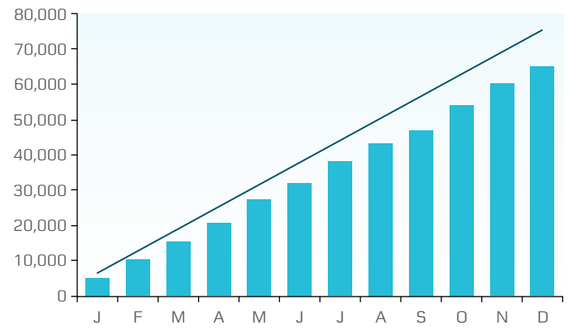
Total CO_2 Emissions (Tonnes)



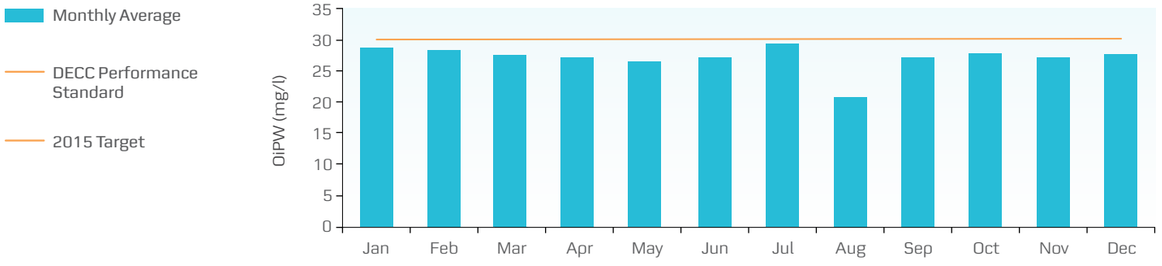
Combustion CO_2 Emissions (Tonnes)



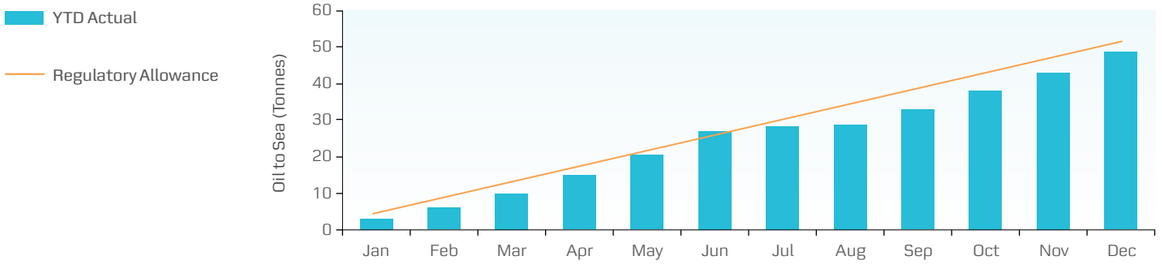
Flaring CO_2 Emissions (Tonnes)



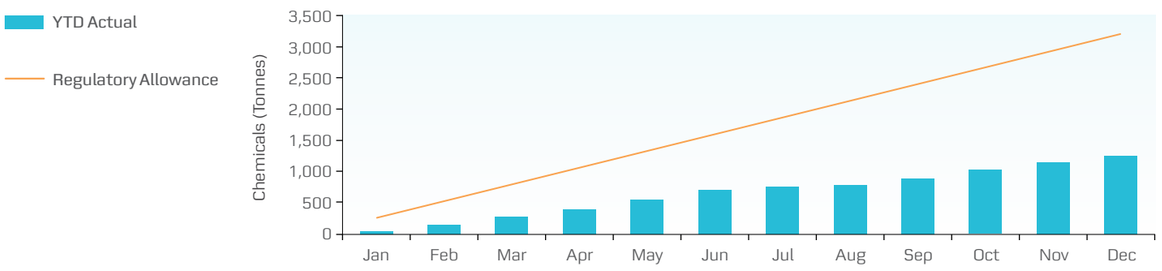
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)

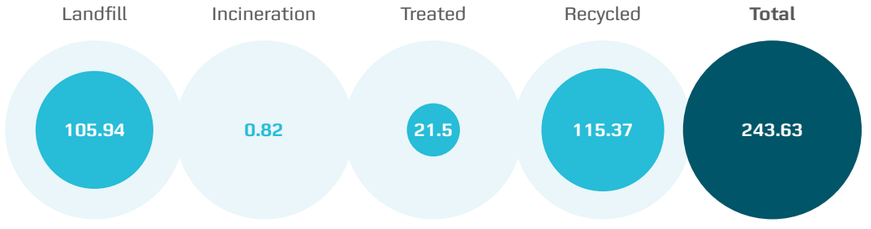


Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):



	Landfill	Incineration	Treated	Recycled
Percentage of Total:	43.48%	0.34%	8.82%	47.35%

Compared to 2014, discharges of oil to sea were higher for 2015. This higher discharge of oil to sea is due to a change in our PWRI strategy in response to reservoir management which must balance PWRI against hydrocarbon production. The high number of NCNs was due to this being a sand discharge point, where particles of sand can become entrained with oil, leading to a higher OiW content. Although the monthly average was above 30 mg/l, a minimal volume of oil was discharged to sea (0.9 tonnes). Overall environmental performance during 2015 remained stable and below internal targets.

Environmental Performance Summary
Global Producer III

- **Floating Production, Storage and Offloading Vessel (FPSO)**
- **Location: 137 miles north east of Aberdeen and 25 miles west of the transboundary line in Block 15/20a and 15/20b**
- **Currently produces from the Donan (Dumbarton), Lochranza and Balloch fields.**

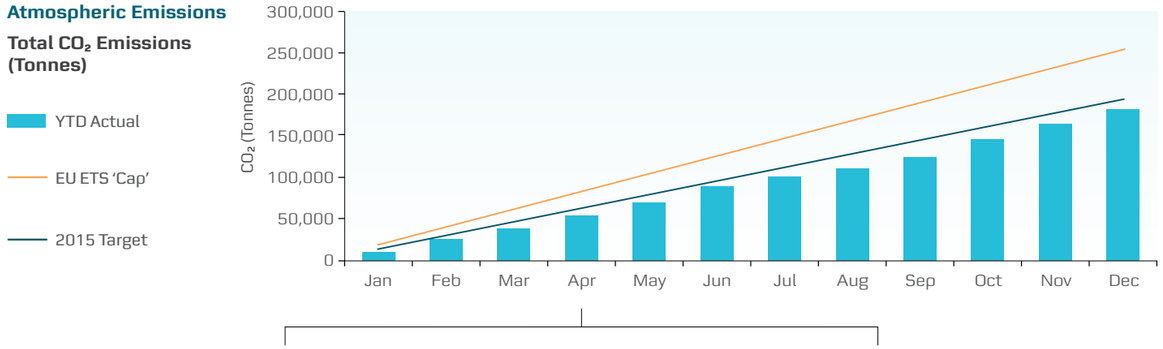
Environmental Performance

PON1	OPPC NCN	OCR NCN	PPC NCN
5	6	0	0

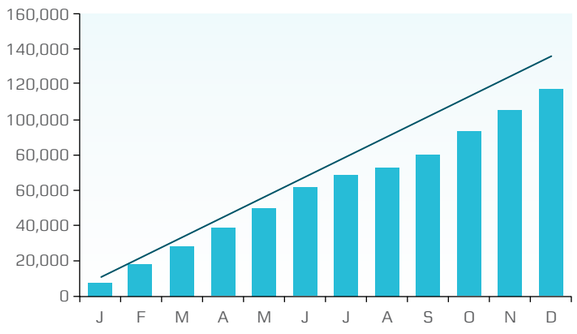
- **Five PON1s:**
  - Leak from bunkering hose
  - Two subsea hydraulic fluid leaks
  - Waste aviation fuel bund leak
  - Methanol leak from methanol injection flexible hose
- **Six OPPC NCNs:**
  - Six OPPC NCN's consisted of four average monthly oil in water concentration >30 mg/l and two with average oil in water concentration >100 mg/l.

Atmospheric Emissions

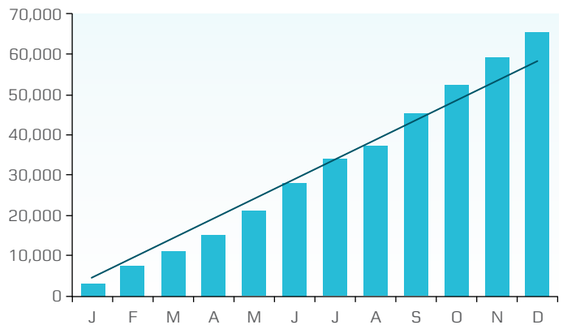
Total CO_2 Emissions (Tonnes)



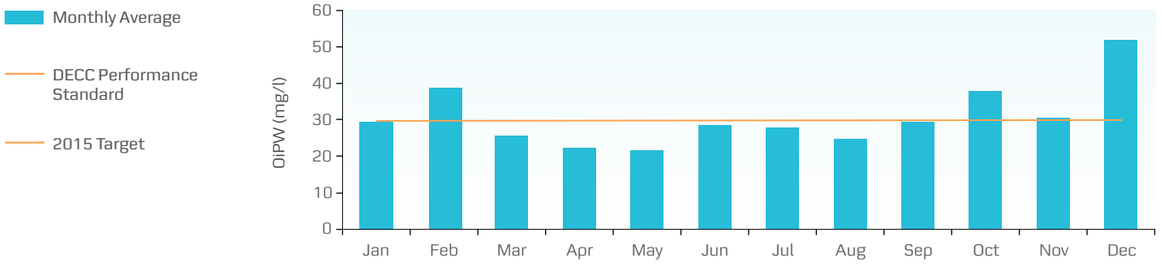
Combustion CO_2 Emissions (Tonnes)



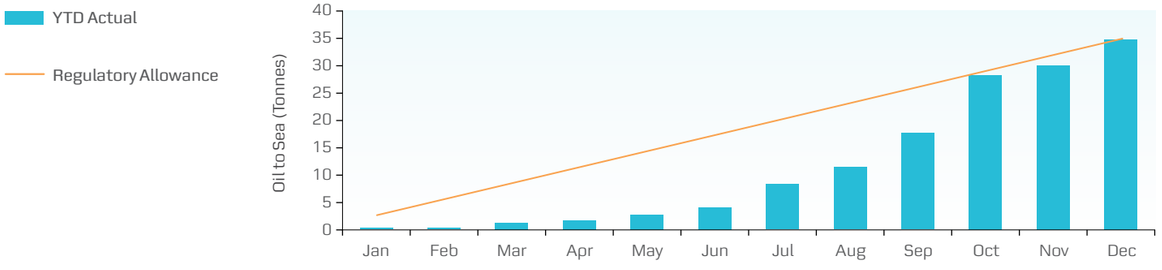
Flaring CO_2 Emissions (Tonnes)



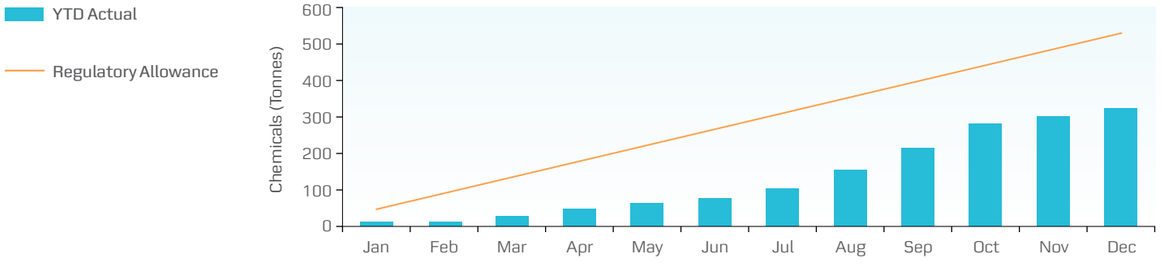
Monthly Average OiPW (mg/l)



Oil Discharge to Sea (Tonnes)



Chemical Discharge to Sea (Tonnes)



Waste Management

Waste Generated (Tonnes):	Landfill	Incineration	Treated	Recycled	Total
	61.98	0.187	36.855	135.677	234.699
Percentage of Total:	26.41%	0.08%	15.7%	57.81%	

Emissions to air and discharges to sea during 2015 increased over 2014's figures, primarily due to increased production from a new well tie in.

Environmental Performance Summary
Drilling Operations

Environmental Performance

PON1s & NCNs:

PON1	OPPC NCN	OCR NCN
1	0	1

- **One PON1:**
  - Subsea leak observed by ROV
- **One OCR NCN:**
  - Unpermitted use of a chemical

Environmental Performance

During the 2015 reporting period, Maersk Oil's activities included an active drilling programme in the UKCS, involving both drilling and well abandonment operations. A total of 4 wells were drilled and 2 well abandonments completed by end of 2015. The remainder of the Leadon well abandonment programme continued into 2016. 2015 has seen a commitment to challenging environmental key performance indicators to maintain our commitment to continual improvement in reducing our impact on the environment during drilling operations.

Atmospheric Emissions

The majority of atmospheric emissions associated with drilling operations result from diesel combustion for power generation. Diesel use quantities depend upon the number of active rigs, well complexity and the time spent drilling. During 2015 the TCCRotomill drill cuttings recovery, treatment and disposal unit continued to be deployed on all development/appraisal well drilling and as a result atmospheric emissions associated with cuttings transport to shore for treatment remained low. Two well tests were completed during 2015 – CO_2 emissions from flaring were 3,681 tonnes, representing a decrease over 2014's flare emissions. During 2015, overall diesel consumption has decreased due to the reduction in number of rigs utilised throughout the year.

CO_2 Emissions (Tonnes)

	Flare	Combustion	Total
Drilling 2014	4,897	17,351	22,248
Drilling 2015	3,681	9,736	13,417

Discharges to Sea – Target not achieved

One accidental release to sea was recorded during 2015. Although the overall quantity was small and assessed as of negligible impact to the marine environment, any loss of containment is an unwanted event. Focus on preventing accidental releases to sea will continue to remain a high priority throughout 2016.

All discharges of produced water associated with well test and abandonment operations were carried out as per the conditions of our OPPC permits. All discharges were below 30 mg/l.

Waste Management – Target achieved

During drilling operations, several varied and complex waste streams are produced ranging from day to day living and galley wastes to contaminated cuttings and bulk liquid or 'slops' wastes. The number of wells and the complexity of those wells determine the type and quantity of waste generated. Sustainable management of complex streams presents a significant challenge. However, 2015 saw 89% of operational waste (excluding waste sent for further treatment onshore) over all drilling operations recycled.

Drilling Rig Waste

Generated Waste* (Tonnes):

	Reuse	Recycled	Landfilled	Incineration	Recovered Water[1]	Treatment[2]	Total Waste (t)
	502.23	227.7	524.48	0.02	287.95	44.97	1587.73
% of Total:	31.65%	14.38%	33.03%	0.01%	18.41%	2.83%	100%

[1] - Water recovered from waste fluids ('slops') and cuttings sent for onshore treatment. This is discharged to industrial sewer for further treatment.
[2] – Hazardous wastes sent for further treatment onshore (paints, chemicals, etc)

ISO 14001

Certificate *of* Registration

ERM Certification and Verification Services

2nd Floor
Exchequer Court
33 St. Mary Axe
London EC3A 8AA
Tel: +44 (0)20 3206 5281
Fax: +44 (0)20 3206 5442
Email post@ermcvs.com

This is to certify that

Maersk Oil North Sea UK Limited

ERMCVS

Certificate Number: 507
Initial Issue Date: 18 January 2014
Revision Date: 9 July 2014
Expiry Date: 17 July 2017
Version #: 2

at

Maersk House
Crawpeel Road
Altens
Aberdeen
AB12 3LG

has been registered to ISO 14001:2004 for

Extraction and production of oil and natural gas at the following Maersk operated installations on the UKCS

- *Block 15 Donan, Lochranza and Balloch Fields;*
- *Block 09 Gryphon, Tullich and Maclure Fields; and*
- *Block 30 Janice, James and Affleck field*

and onshore support activities, including planning and organization of development and exploration for all UK operated blocks, carried out at Maersk House in Altens, Aberdeen

UKAS MANAGEMENT SYSTEMS 067

Signed on behalf of ERM CVS by:

Jeff Rose
Head of Certification

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Independent Assurance Statement to Maersk North Sea UK Ltd

ERM Certification and Verification Services (ERM CVS) was engaged by Maersk North Sea UK Ltd (Maersk) to provide limited assurance in relation to the information set out below.

Engagement summary	
Scope of our assurance engagement	Whether the 2015 data in the Maersk Oil UK Environmental Performance Report 2015 (the Report) are fairly presented, in all material respects, in accordance with the reporting criteria. The Report is produced to meet the requirements of the OSPAR Recommendation 2003/5 To Promote the Use and Implementation of Environmental Management Systems by the Offshore Industry.
Reporting criteria	Regulatory reporting requirements for the North Sea Oil and Gas Industry and Maersk internal reporting guidelines.
Assurance standard	ERM CVS' assurance methodology, based on the International Standard on Assurance Engagements ISAE 3000 (Revised).
Assurance level	Limited assurance.
Respective responsibilities	Maersk is responsible for preparing the data and for its correct presentation in the Report, including disclosure of the reporting criteria and boundary. ERM CVS's responsibility is to provide conclusions on the agreed scope based on the assurance activities performed and exercising our professional judgement.

Our conclusions

Based on our activities, nothing has come to our attention to indicate that the 2015 data in the Report are not fairly presented, in all material respects, with the reporting criteria.

Our assurance activities

A multi-disciplinary team of EHS and assurance specialists performed the following activities:

- Discussions with responsible staff at Maersk North Sea UK headquarters in Aberdeen in order to:
  - Understand and evaluate (changes to) the relevant systems used for collecting and reporting the data, together with the associated internal review processes;
  - Verify underlying source data, on a sample basis;
  - Review relevant calculations and the aggregation of the data up to the end of October 2015.
- Assessing the consistency of the data for offshore fuel use and flaring with the results of the work undertaken by ERM CVS conducted in relation to the 2015 EU ETS verification.
- Subsequent office based review of the full year data for 2015 as well as assessing selected additional evidence in January and March 2016.

The limitations of our engagement

The reliability of the assured data is subject to inherent uncertainties, given the available methods for determining, calculating or estimating the underlying information. It is important to understand our assurance conclusions in this context.

Jennifer Iansen-Rogers
Head of Corporate Assurance Services
11th May 2016

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ERMCVS
Informed Assured

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