



## **TULLOW OIL SK LIMITED**

### **Environmental Management System Public Statement for 2017 UK Operations**

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### Revision History

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0	14/06/2018	For issue as per OSPAR 2003/5	C. Brock	D. Newton T. Clay	F. Uliana
<i>Signatures, if required</i>					

### Revision Control

Revision:	Para /Sect	Change Description

This sheet must be completed in detail, at each revision once this document has been approved. Details must include revision number, description and indication of which pages and paragraphs have been revised, date of revision approval and approval indication.

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## 1. Definitions / Abbreviations

ALARP	As Low As Reasonably Practicable
BEIS	(Department for) Business, Energy and Industrial Strategy
CEO	Chief Executive Officer
DECC	Department of Energy and Climate Change
DSV	Diving Support Vessel
E&A	Exploration and Appraisal
EHS	Environment, Health and Safety
IMS	Integrated Management System
JULB	Jack Up Lift Barge
KPI	Key Performance Indicator
LTI	Lost Time Incident
LOPC	Loss Of Primary Containment
OGP	(International Association of) Oil & Gas Producers
OSPAR	Oslo/Paris Convention
P&A	Plug and Abandon
RD&D	Removal, Decommissioning and Dismantlement
ROVSV	Remote Operated Vehicle Support Vessel
TOSK	Tullow Oil Schooner and Ketch
UKCS	United Kingdom Continental Shelf
WPS	Wellhead Protection Structure

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## 2. Introduction

Under the OSPAR Recommendation 2003/5, the Department Business, Energy and Industrial Strategy (BEIS) require that all existing UKCS oil and gas operators undertaking offshore operations during 2017 must prepare an annual statement of their environmental performance, covering that calendar year, and make that statement available to the public. This document represents Tullow Oil SK Limited (Tullow) annual public environmental statement for 2017 in relation to UKCS OSPAR reporting.

## 3. Tullow's Background

Tullow Oil is an independent oil and gas exploration and production company. Its primary focus is in African and South American operations and includes targeted Exploration and Appraisal, and selective development projects and production, with a portfolio of 90 licences spanning 16 countries. Tullow is headquartered in London with shares listed on the London, Irish and Ghana Stock Exchanges.

## 4. The Environmental Management System

Tullow is committed to the delivery of a consistent and high standard of environmental, health, safety and social performance throughout the planning and undertaking of all its operations. Tullow senior management are committed to this with its Safe and Sustainable Operations Policy approved by the Board and signed by our CEO. (Figure 4-1).

As a responsible operator, Tullow is committed to:

- Managing our environmental and social impacts;
- Keeping our people and our assets safe and secure;
- Maintaining our asset integrity and being prepared for major emergencies;
- Ensuring our high standards are upheld throughout our supply chain;
- Protecting the human rights of the communities we operate among; and
- Providing two-way communication with people about the extent of our activities and how they might affect them.

Tullow has developed and implemented an Integrated Management System (IMS) that sets out key business standards which are maintained across the company. Our business model addresses the fundamentals that we must have in place to manage our risks and help us deliver our strategy. These include strong and effective risk management, high standards of governance, transparency and anti-corruption, developing a multi-disciplined and diverse entrepreneurial team and making a positive and lasting contribution where we operate.

One of these standards is Non-Technical Risk (T-SEA-STD-0001) which sets out the mandatory framework through which the business shall consistently and proactively identify, assess, mitigate,

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and monitor social and environmental impacts, and stakeholder issues. This enables Tullow to comply with legislation, and other relevant standards, to manage environmental risks effectively and to demonstrate continual improvement.

Tullow regularly reviews its policies, procedures and management systems that support the highest standards of governance and corporate responsibility. The Group has a framework for the consistent application of the standards that all Tullow operations must comply with. This is safeguarded through corporate governance processes together with monitoring and oversight by the Board. Benchmarking is achieved through Internal Audit reviews.

Tullow is certified to the international standard for environmental management systems – ISO 14001 (see Figure 4.2 below).

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TULLOW OIL PLC  
POLICY STATEMENT

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# Safe and Sustainable Operations

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Our goal is to create a working environment where we cause no harm to people, we minimise our environmental and negative social impacts, and we seek to optimize the shared benefits generated through our activities. Everyone who works for, or on behalf of, Tullow is responsible for ensuring that the expectations set out in this Policy are fully met in all aspects of our business.

To achieve these we will:

- Always comply with the law or Tullow Standards, whichever sets higher expectations, and hold our contractors to the same;
- Systematically identify and assess environmental, health, safety, security and social risks and manage them proactively throughout the project life cycle;
- Set goals and targets, and measure performance against them to continuously improve our performance;
- Invest in building a competent and capable organisation, supported by strong, visible safety and sustainability leadership;
- Not explore nor exploit for oil in World Heritage Sites and always mitigate the potential for operations to impact areas of natural and cultural value prior to undertaking any activity;
- Design, build and maintain safe working conditions and take responsibility for the health and wellbeing of our staff and contractors;
- Aim to create positive, tangible and sustainable contributions to the economic and social development of the communities and countries where we operate; and
- Communicate openly and respect the opinions of those who may be affected by our operations.

Safe and sustainable operations in all company activities is a core value. Everyone in Tullow or working on our behalf is empowered to stop any activity they regard to be in conflict with this Policy.



**Paul McDade**  
Chief Executive Officer – Tullow Oil plc  
May 2017



T-HSS-POL-0001 Version 3

**Figure 4-1: Tullow's Safe and Sustainable Operations Policy**

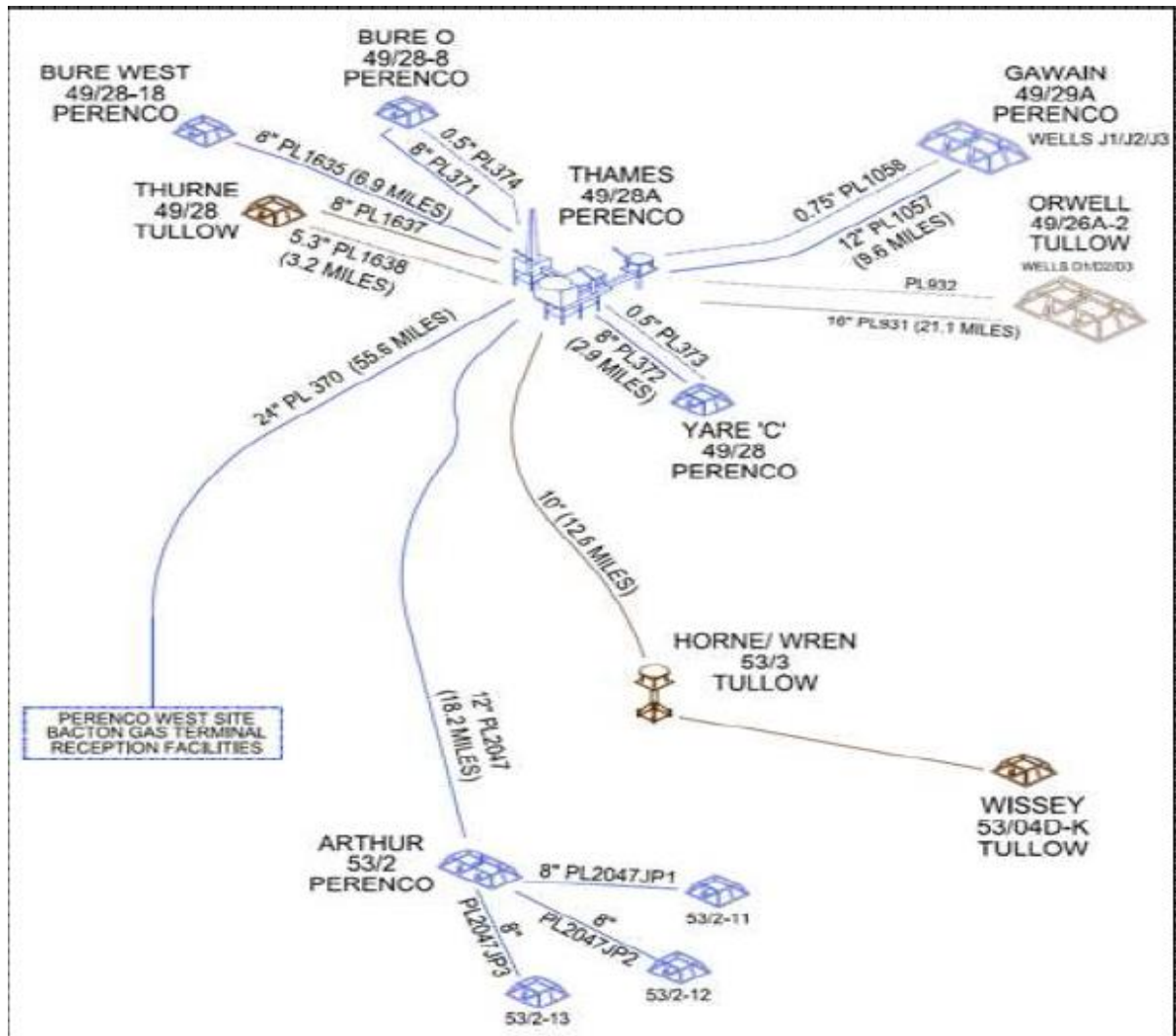




#### 4.1. 2017 Environmental Reporting

#### 4.2. TOSK UKCS Offshore Operations

The Thames Area Development consisted of three bridge-linked platforms which together formed a natural gas production and compression installation hub, located approximately 80 km east north east of Bacton Terminal off the coast of Norfolk in the Southern North Sea (Figure 4-3).



**Figure 4-3: Thames Area Development (TOSK assets identified in brown and Perenco in blue)**

The Horne, Wren and Wissey reservoirs had depleted to a stage where none of the existing wells sustain production and Cessation of Production has been in place since 2014.

As per the BEIS-approved Decommissioning Programme TOSK is decommissioning the Horne, Wren Wissey and Orwell assets and all the associated wells and infrastructure (Figure 4-3, TOSK Assets identified in brown and Perenco in blue).

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A summary of the decommissioning activities is shown in Table 4.1

Phase	Objective	Scheduled Completion
1	Achieve Hydrocarbon free status	Completed May 2015
2	Plug and Abandon (P&A) Horne and Wren Wells	Completed August 2016
	Remove, dismantle and dispose of Horne and Wren Platform (RD&D)	Completed March 2017
	Removal of Horne and Wren Conductors	Scheduled to complete by end Q3, 2018
3	<ul style="list-style-type: none"> <li>• P&amp;A Wissey Well, remove subsea tree and WPS</li> <li>• P&amp;A 2 E&amp;A Wells, Orwell and Wren</li> <li>• P&amp;A remaining subsea Wells (Orwell gas producers and Thurne gas producer)</li> </ul>	Wissey, Orwell, Wren and Thurne due to be completed end Q3, 2018  Remaining E&A Wells to be completed in 2019
4	Removal of Orwell WPS, subsea clearance and surveys	Scheduled to complete by end Q4, 2018/early 2019

**Table 4.1: Planned Decommissioning**

Phase 1 activities, undertaken during 2015 included

- Subsea well inspections
- Diving operations;
- Well isolations; and
- Pipeline flushing and severance.

Decommissioning operations involved Bibby Offshore's, Topaz Dive Support Vessel (DSV) and the SeaJacks Kraken, a Jack Up Lift Barge (JULB) with four legs that can be jacked down to the seabed and which was employed as a work platform

Phase 2 activities (P&A) undertaken during 2016 included

- Removing suspension plugs then setting dual barrier reservoir abandonment cement plugs in 7" liner with Coiled Tubing
- Cutting and pulling shallow tubing then setting shallow abandonment plugs on top of 9 5/8" bridge plugs inside and outside of casing
- Cutting and pulling surface casings (20", 13 3/8", 9 5/8").
- Completing preparatory work for platform removal work scope

P&A activities involved the Seajacks Kraken JULB connected to the Horne and Wren platform via an installed gangway.

Phase 2 activities (RD&D) were undertaken in March 2017, using the Heavy Lift Vessel (HLV) the Rambiz 3000 (see figure 4.1 below) and was planned to include:

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- Cutting and lifting the Horne and Wren Topsides
- Dredging and cutting the piles of the Horne and Wren Jacket
- Lifting the Horne and Wren Jacket
- Lifting the Horne and Wren Conductor guides (cut during 2016 P&A Campaign) to deck

Of the above 2017 work scope, all was completed in March 2017, bar the removal of the Horne and Wren Conductor guides. These could not be removed, and investigation into the failure to remove indicated that the cut on the conductors in 2016 had not been sufficiently completed. The guides were left in situ, protruding approximately 3-3.5m above sea bed.

A return campaign followed in November 2017 to cut and remove the conductor guides, and carry out some opportunistic seabed clearance work. The vessel deployed was the ROV Support Vessel (ROVSV) Olympic Bibby See figure 4.2, below). Unfortunately, this attempt was also unsuccessful due to a number of issues including strong currents, poor visibility and equipment failure. A further campaign is being planned for 2018, with an expectation of successful completion by end September 2018.



**Figure 4.4 Rambiz 3000 HLV having lifted Horne & Wren Platform**

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**Figure 4.5 Olympic Bibby ROVSV (photo courtesy of MarineTraffic.com)**

Additionally, in April 2017 a General Visual Inspection (GVI) was undertaken at the suspended Wren Exploration Well (53/3c-6) using the ROVSV Olympic Bibby, to determine whether there had been any change to the status of the leak first reported to DECC in May 2015, and to conduct further flow rate measurements to compare with those previously obtained. This Well is scheduled to be plugged and abandoned (P&A) in accordance with UK Oil and Gas Guidelines as part of the Phase 3 P&A Campaign in 2018 (see table 4.1 above).

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### 4.3. Summary of Reportable Emissions

Reportable emissions from undertaken in 2017 are provided in table 4-2

Environmental Indicator	Unit	Horne & Wren	Orwell	Wissey
<b>Gas/Oil Production</b>				
Production Pipelines	-	0	0	0
Chemical release	No. incidents	0	0	0
Hydrocarbon releases <sup>1</sup>	No. incidents	0	0	0
Fuel consumption (diesel)	Tonnes	0	0	0
Flaring (natural gas)	Tonnes	0	0	0
<b>Chemical Usage and Discharges <sup>2</sup></b>				
Gold (use / discharge)	Kilogrammes	0	0	0
Silver (use / discharge)	Kilogrammes	0	0	0
SUB* (use / discharge)	Kilogrammes	0	0	0
A (use / discharge)	Kilogrammes	0	0	0
B (use / discharge)	Kilogrammes	0	0	0

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<b>Environmental Indicator</b>	<b>Unit</b>	<b>Horne &amp; Wren</b>	<b>Orwell</b>	<b>Wissey</b>
C (use / discharge)	Kilogrammes	0	0	0
D (use / discharge)	Kilogrammes	0	0	0
E (use / discharge)	Kilogrammes	0	0	0
<b>OPPC Pipeline Discharges</b>				
Oil on fluids	Tonnes	0	0	0
<b>Special (Group I) Hazardous</b>				
Special (Group I) Hazardous	Tonnes	0	0	0
<b>General (Group II) Non-hazardous</b>				
General (Group II) Non-hazardous	Tonnes	0	0	0
<b>Other (Group III)</b>				
Other (Group III)	Tonnes	0	0	0

**Table 4-2 Tullow's 2017 UKCS Reportable Emissions**

<sup>1</sup> Note: Wren Exploration Gas Leak was reported to DECC via a PON 1 in May 2015

<sup>2</sup> Note: No permissible chemicals were used for the 2017 GVI or RD&D Scopes of Work, hence nil return

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#### **4.4. Project EHS Objectives and Targets**

Corporately Tullow set annual Safe and Sustainable Operations targets and performance monitoring metrics, which are tailored to become Business Unit specifics that reflect the particular set of challenges associated with that particular operation.

Tullow has the overall goal of decommissioning the assets in the most expeditious and economical way possible commensurate with best oilfield practice and prudent risk management. Within this context, the overall EHS goal is that all risks to personnel, the environment and the assets are identified and eliminated or minimised to ALARP levels.

Specific EHS objectives for the Thames Decommissioning project, include

- EHS performance will not be compromised by commercial or schedule pressures;
- All relevant EHS regulations will be complied with and permits, licences and consents will be obtained in a timely manner;
- The Safe and Sustainable Operations Policy and EHS goals will be communicated to Project personnel and all contractors to ensure they understand their EHS responsibilities and accountabilities and that they demonstrate visible EHS leadership;
- Appropriately consult and inform statutory and non-statutory groups and individuals;
- Identify, understand and manage all hazards and risks to personnel, the environment and assets to ALARP levels;
- Ensure that Contractors exhibit the required behaviours such that their work is carried out safely and without risks to health or the environment;
- Contractors and key suppliers will be required to have acceptable project specific EHS plans and management systems in place prior to commencing work;
- Build a positive behaviour-based EHS culture that focuses on open reporting, positive feedback, values learning and the prevention of incidents;
- No unplanned discharges and emissions to the environment;
- Minimise planned discharges and emissions through all phases of the project;
- All solid wastes to be disposed of in an approved and auditable manner;
- All commitments made in the Environmental Statement/Regulatory notifications will be met.

In complying with these objectives, the Project's intention is to challenge the Contractors to strive for high levels of inherent safety and environmental performance. An 'EHS by Design' principle shall be applied throughout the project using the following risk reduction hierarchy:

- Remove the risk (e.g. through design, use differing (non-hazardous) materials, etc.);
- Reduce the risk through an engineering solution;
- Reduce risks through procedural control (including training and competency arrangements);
- Recommend personal protective equipment solutions.

#### 4.5. Key Performance Indicators (KPIs)

To verify that the above objectives are met, EHS performance will be monitored against selected Key Performance Indicators (KPI's) (Table 4-3).

KPI	Definition	Target
LTI (Includes fatalities)	Lost time incidents that involve a person being unfit to perform any work on any day after the occurrence of the injury or occupational illness. 'Any day' includes rest days, weekend days, leave days, public holidays or days after ceasing employment.	0
Recordable Incidents	This includes all types of injury listed in Appendix 2 of the Tullow Incident Management Reporting Procedure (T-EHS-PRO-008).	0
Spills	An uncontrolled release of a pollutant.	<ul style="list-style-type: none"> <li>No spills &gt; Level 1 on harm index</li> <li>No spills &gt; 150 litres</li> </ul>
Loss of Process Containment (LOPC)	Defined in the OGP Process Safety Guidance document: <a href="http://www.ogp.org.uk/pubs/456.pdf">www.ogp.org.uk/pubs/456.pdf</a>	<ul style="list-style-type: none"> <li>0 – Tier 1 incident</li> <li>0 – Tier 2 incident</li> </ul>
Fines	Financial penalties imposed by Regulators	<ul style="list-style-type: none"> <li>No fines</li> </ul>

**Table 4-3 EHS Key Performance Indicators**