



TEPUK Operational Environmental Statement
2018

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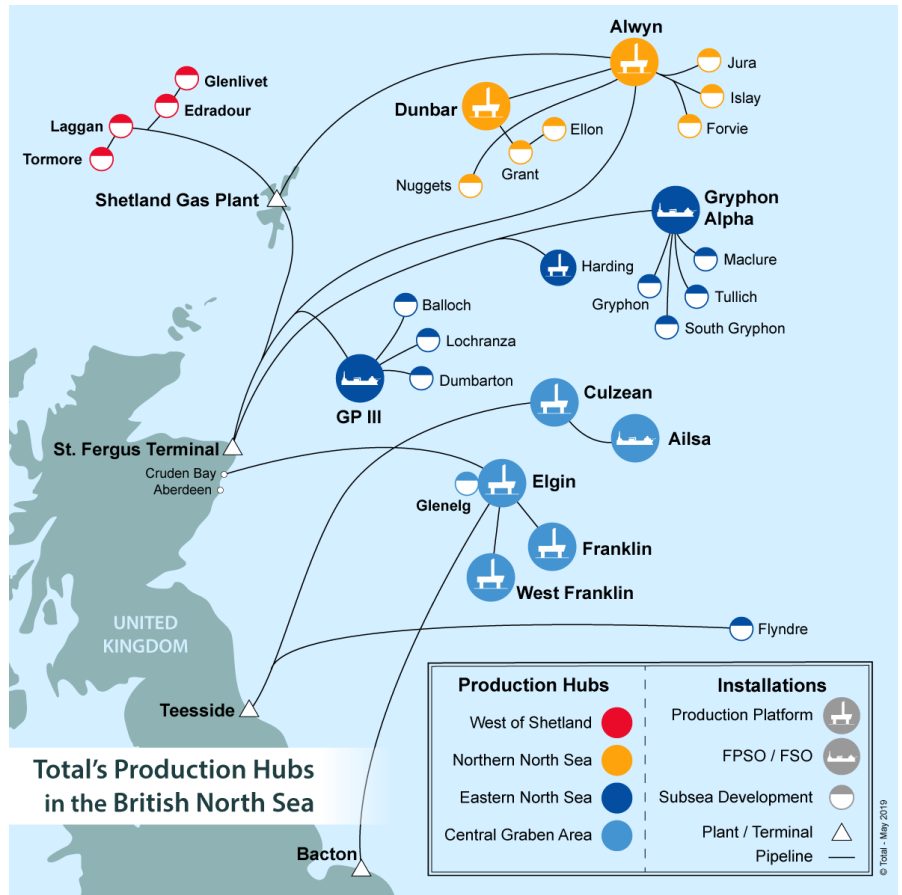
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TOTAL E&P UK LIMITED

Total E&P UK Limited (TEPUK) is one of the largest exploration and production subsidiaries of the Total Group, a global energy business with operations in more than 130 countries with over 100,000 employees.

The Total Group is a global integrated energy producer and provider, a leading international oil and gas company, and a major player in solar energy with SunPower and Total Solar. The Group discovers, produces, transforms, markets and distributes energy in a variety of forms, to serve the end customer.

In 2018, the Total Group completed the acquisition of Maersk Oil. This acquisition had a significant impact on the North Sea-based business, and for TEPUK in particular, it has meant the creation of a new Eastern North Sea hub which includes the Gryphon and Global Producer III floating production, storage and offloading vessels producing oil from Quad 9 and Quad 15 respectively. TEPUK is operator for both fields. In addition, the acquisition included the HP/HT project, Culzean, from which first gas is expected in Summer 2019. TEPUK holds operatorship and a 49.99% interest in the field alongside partners BP (32%) and JX Nippon (18.01%).



OPERATIONAL ENVIRONMENTAL STATEMENT INTRODUCTION



Jean-Luc Guiziou
Managing Director
May 2019

A handwritten signature in black ink, appearing to be 'JL Guiziou', written over a white background.

It is my pleasure to present to you the 2018 Operational Environmental Statement for Total E&P UK Limited (TEPUK). Although it's been a busy year for our affiliate since the acquisition of Maersk Oil, our commitment to the protection of the environment, the safety of our people, property, and the principles of sustainable development remains unchanged.

During the past 12 months our focus has been to successfully integrate operations and personnel from two great organisations – safely, and with minimum disruption. Our portfolio has grown, and with that, so has our ambition. Driving cultural change and embedding new ways of working has been at the forefront of all our activity as we strive to be the exploration and production operator, employer and partner of choice in the UK thanks to our people, passion and drive.

In 2018 we successfully moved all non-project based personnel into our HQ at Total House in Aberdeen. Our Culzean Project Team remains at Crawpeel House in order to focus on the safe delivery of first gas this spring. The delivery of the Culzean Project is a major milestone for TEPUK, and indeed

OPERATIONAL ENVIRONMENTAL STATEMENT CONTINUED

the wider Group, as resources are now estimated at 250 – 300 million barrels of oil equivalent (boe).

Drilling continues in our High Pressure / High Temperature (HPHT) fields in the Central Graben Area (CGA) as well as in the Northern North Sea (NNS), and we continue to explore in the West of Shetland (WOS) with gas from Glendronach expected this year.

It is a busy and exciting time. Our activity demonstrated we are committed to the Group's ambition to become the **responsible energy major** by making energy more affordable, reliable and cleaner.

Our Challenge:

Total is dedicated to three core challenges: satisfying the energy needs of a growing world population, curbing global warming, and adapting to changing customer behaviours and expectations.

Our response:

We aim to operate sustainably and have an active and positive presence in all our host

countries in such varied areas as safety, health, climate, the environment and shared development.

Our vision for the environment contains the following strands:

- **Supplying energy that contributes to economic and social development:**

To satisfy the needs of a growing population, we are doing everything we can to deliver affordable and reliable energy in compliance with the highest safety and environmental standards to as many people as possible.

- **Integrating climate change into our strategy:**

Lowering the carbon intensity of our current production mix, developing renewable energies and improving our energy efficiency are at the forefront of our strategy to produce cleaner energy.

In this Operations Environmental Statement, we are proud to display our transparency and accountability to our stakeholders, our dedication to employing the best environmental practices within our operations and our ambition to continually improve our performance.

HEALTH, SAFETY & ENVIRONMENT POLICY STATEMENT



Health, Safety and Environment Policy Statement

Total E&P UK (TEPUK) as a subsidiary of the Total Group, are committed to delivering our business objectives whilst prioritising a safe working environment for our employees, contractors and other stakeholders; safeguarding the environment and preventing pollution; complying with laws and regulations and preventing Major Accident Hazards. This commitment is visibly demonstrated through implementation and compliance with the Company Management System (CMS) and measured via the setting of annual targets and establishment of company objectives:

It is our stated policy to:

Kevin Byrne
Technical Services Director

Claus Vissing-Jørgensen
Customer Project Director

Mariam Kane-Garcia
Strategy & Business Director

- Maintain safe, energy efficient and regulatory compliant operations in all our activities by providing assets, facilities and equipment that have been efficiently designed and procured in accordance with BA/TNEC and installed, commissioned and maintained, in accordance with TEPUK and TOTAL Group procedures.
- Systematically identify for all activities, the hazards to which people, the environment and assets are exposed, evaluate the risks and define the measures for eliminating or reducing them to as low as reasonably practicable (ALARP).
- Execute our activities whilst meeting our local, national and international compliance obligations, along with TEPUK and TOTAL Group procedures.
- Continue to develop a positive HSE culture through strong visible leadership, active involvement of the workforce, individual accountability and a spirit of co-operation.
- Monitor the health of all employees to ensure they are not adversely affected by the work environment.
- Adopt the principles of continuous improvement by setting measurable business objectives, monitoring and reviewing performance through independent audits and statistical analysis of results.
- Ensuring our emergency response capability is suitable for responding to hazards and regularly testing the effectiveness of this response by controlled exercises.
- Work with our contractors and suppliers to ensure they understand our HSE requirements, whilst being prepared to listen to suggested improvements in areas where they have highly developed knowledge, in order to deliver mutually beneficial results.

Celia MacDonald
HR Director

Karen Bossom
Finance Director

Steve Rose
HSE Director

Neil Cummine
West of Shetland (WOS)
Asset Director

David Hainsworth
Eastern North Sea (ENS)
Asset Director

Eric Henderson
Northern North Sea (NNS)
Asset Director

Pierre Cuisinier
Central Graben Area (CGA)
Asset Director

Jean-Luc Guiziou
Managing Director, TEPUK



May 2019
www.total.com

ONSHORE OPERATIONS

Operations at Shetland Gas Plant

The Shetland Gas Plant (SGP) provides facilities for reception, processing and export of natural gas and its associated condensate from Laggan and Tormore gas condensate fields located to the West of Shetland (WOS). SGP is located approximately 28 miles North of Lerwick on the main island of the Shetland Isles. In 2017 the Edradour and Glenlivet fields also came onstream which was key to achieving peak production rates.

Gas arrives at SGP through two pipelines, each 18" diameter which carry gas from the WOS fields. When gas arrives at the plant, liquids are removed in the slug catchers before the gas is dried, chilled, re-heated and metered, before being sent via a 30" diameter export line to join with the existing 32" diameter Frigg UK (FUKA) pipeline system to the St Ferus Gas Terminal.

Production started in 2016 and peak production rates are expected to be around 81kboe/d. The environmental management system in place at SGP ensures that strict environmental monitoring and performance standards can be achieved. This is regulated by the Scottish Environment Protection Agency.



Shetland Gas Plant

OFFSHORE OPERATIONS

Operations in the Northern North Sea

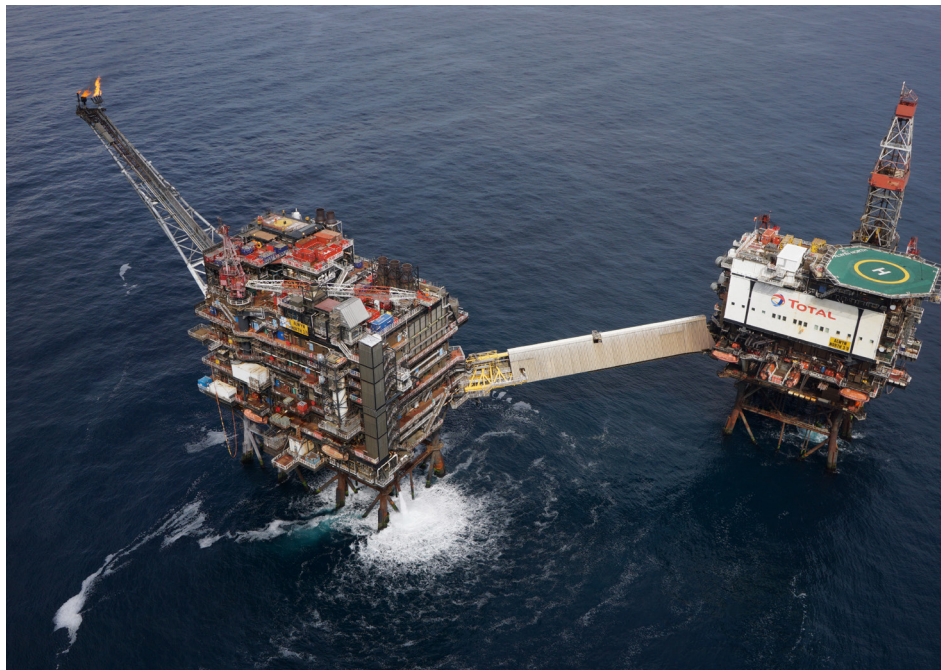
TEPUK's Northern North Sea (NNS) hub lies 160km east of the Shetland Islands and 440km northeast of Aberdeen in Block 3/9a.

Our Alwyn North field lies at the heart of this area and first produced oil and gas in 1987. Alwyn North is the hub of the Alwyn Area and the support centre for the neighbouring Dunbar, Ellon, Grant, Nuggets, Forvie North, Jura and Islay fields.

These neighbouring fields were brought onstream through innovation and technological advances, thereby extending the life of the Alwyn Area past 2020.

The field comprises two bridge-linked platforms in a water depth of 126m. North Alwyn A (NAA) provides drilling and accommodation facilities, while North Alwyn B (NAB) provides processing facilities. NAB supplies other Alwyn Area fields with power, water and chemicals via a network of subsea cables and pipelines.

Alwyn North has facilities for the re-injection of both drill cuttings and produced water. Untreated oil and gas from neighbouring Alwyn Area fields is piped to NAA and



Alwyn North

across the bridge to NAB for processing and export to shore. Oil from NAB is exported to the Sullom Voe Oil Terminal in Shetland via the Cormorant Alpha

platform and the Brent pipeline system. Gas from NAB is exported to the St Fergus Gas Terminal on the north-east coast of Scotland via the Frigg pipeline system.

OFFSHORE OPERATIONS

Our **Dunbar** field, situated 22km south of Alwyn North, first produced oil and gas in 1994. Dunbar comprises a platform together with well and accommodation facilities. Produced oil, gas and water are pumped back to the Alwyn platform via a 22km subsea multiphase pipeline. The Dunbar platform has facilities for drill cuttings reinjection, and some produced water reinjection.

Ellon, a subsea oil development and **Grant**, a subsea gas condensate development are located around 9km from Dunbar and linked to the Dunbar platform by flowlines and control umbilicals. Ellon started production in 1994 and Grant followed in 1998.

Nuggets is a development of four gas-bearing accumulations located 20km south of Dunbar. Brought into production during 2002/03, gas from Nuggets is piped back to Alwyn North via a 67km subsea pipeline.

Forvie North is a gas condensate development which started production in January 2006. It comprises subsea production facilities and a 32km pipeline tied back to the Alwyn North platform.

Jura is a subsea gas condensate development located 30km south of the

Alwyn North platform. The development is located in 113m water depth and consists of a two well subsea tie-back to the Forvie manifold via a 3km bundle assembly. First gas was achieved in May 2008.

Islay is TEPUK's latest development in the Alwyn Area, Islay is a gas/condensate field

located just over 30km to the south of Alwyn North. The development consists of a single well tied back with a 6km gas and condensate pipeline to the Forvie subsea manifold, with gas and condensate transported via the existing pipeline to Alwyn North. First production from this field was achieved in 2012.



Dunbar

OFFSHORE OPERATIONS

Operations in the Central North Sea

Our Assets in the Central Graben Area of the North Sea comprise the Elgin, Franklin, Glenelg and West Franklin fields, and are located 240km east of Aberdeen. Production started in 2001. The Elgin/Franklin field was the first HP/HT offshore development in the world.

Field reservoirs lie in a structurally complex area nearly 6km below the seabed where the pressure is close to 1100 bar and the temperature is around 190°C. These conditions necessitate specialist engineering, equipment and management.

Elgin consists of central processing facilities located on a Process, Utilities and Quarters (PUQ) platform bridge-linked to two wellhead platforms, Elgin WHP A and Elgin WHP B. Franklin WHP and West Franklin WHP are normally unattended satellite platforms that tie back to the Elgin PUQ. The PUQ is, in effect, a miniature gas refinery with a sophisticated process plant onboard to produce commercial quality gas. Liquids from Elgin/Franklin are exported to Cruden Bay on the north east coast of Scotland via the Graben Area Export Line (GAEL) pipeline and Forties Pipeline System. Liquids are then piped onwards to Kinneil for tanker export.



Elgin PUQ

OFFSHORE OPERATIONS

Gas from Elgin/Franklin is exported to the Bacton terminal in Norfolk via the 468km Shearwater Elgin Area Line (SEAL) pipeline.

The West Franklin field is an adjacent structure to the western margin of Franklin field in the Central Graben area of the North

Sea. The structure straddles the 29/4d and 29/5c blocks and is an ultra HP/HT field.

The West Franklin jacket was installed in August 2011, the Elgin B WHP jacket in 2012. The topsides for the two facilities were installed in summer 2013, the commissioning was completed in 2014 with first gas produced in early January 2015.

The Culzean field located in Block 22/25a, 235 km from the Scottish coastline in a water depth of ca. 88m LAT, is developed via six production wells drilled by a heavy-duty jack-up drilling rig. The field facilities comprise a Wellhead Platform (WHP) bridge-linked to a central processing facility (CPF) platform that is in turn bridge-linked to a utilities and living quarters (ULQ) platform. The associated Ailsa FSO (Floating Storage And Offloading vessel) receives processed condensate from the CPF for onward tankerage. The development also includes one produced water reinjection well (PWRI), with a further three replacement wells being drilled due to potential geo-mechanical well failures. First production is currently expected in Q2 2019.



Culzean

OFFSHORE OPERATIONS



Gryphon

Operations in the Eastern North Sea

TEPUK's Eastern North Sea (ENS) was created from the assets acquired from Maersk Oil North Sea UK Limited (MONS) in March 2018. It includes the Gryphon

Alpha and the Global Producer III (GP3) floating production, storage and offloading facilities (FPSOs) and a number of fields: Gryphon, South Gryphon, Tullich, Maclure, Ballindalloch, Dumbarton, Lochranza, Balloch, Flyndre and Harding.

ENS's aim is to optimise the late field life of Quads 9 and 15, in order to maximize recovery in a safe and efficient manner. Maximising value by developing a clear late field life strategy.

OFFSHORE OPERATIONS

Operations in the West of Shetland

The West of Shetland (WOS) operations include the now producing Laggan and Tormore fields and Edradour and Glenlivet fields. The Laggan and Tormore fields are situated some 125km North West of the Shetland Islands on the UK Continental Shelf approximately 600m below sea level and the Edradour and Glenlivet fields are situated approximately 70 km North West of the

Shetland Islands at a depth of 300 – 430m.

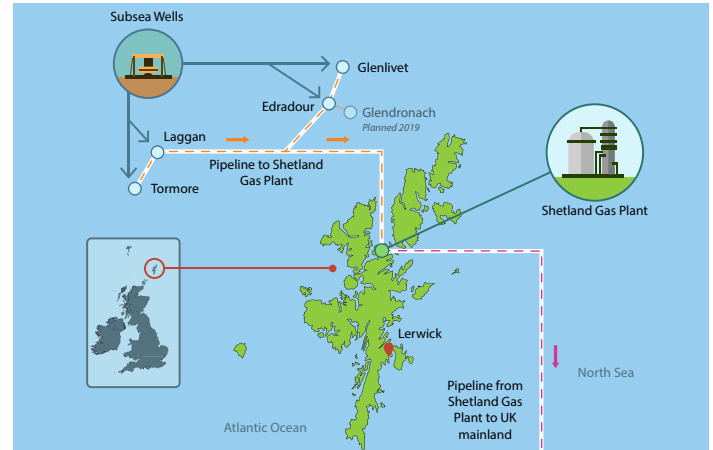
Edradour and Glenlivet tie into the Laggan and Tormore pipelines. The Laggan and Tormore import pipelines are the longest subsea tie back in the UK and equal longest in the world with Snohvit in Norway. The comingled fluids are transported through these production pipelines to Shetland Gas Plant, which has a capacity of up to 15Mscm/d gas and 35 kbb/d condensate, for processing

and export to St. Fergus Gas Terminal on the North East Coast of Scotland via the Shetland Island Regional Gas Export (SIRGE) pipeline, a 234km long export pipeline which connects to the existing Frigg UK Area (FUKA) pipeline.

Edradour and Glenlivet Pipelines were connected to the existing Laggan Tormore pipelines in 2017.



Shetland Gas Plant



West of Shetland

OFFSHORE OPERATIONS

Drilling Operations

TEPUK delivered an extensive exploration, development and well intervention drilling programme in 2018 with drilling operations being completed successfully and safely across all TEPUK assets.

In the Central Graben area, the Rowan Gorilla V (RGV) jack up drilling rig was used to drill and complete the sixth development well (F11) from the Franklin Wellhead Platform. The RGV also commenced slot recovery operations in preparation for a future development well. The Maersk Highlander jack-up has been drilling on the Culzean field since 2016, during 2018 top-hole drilling operations started on a fourth HPHT well, and completion operations commenced on the first three wells in anticipation for the start of production. The Noble Sam Hartley commenced drilling of the B4 well, the fourth well to be drilled Elgin Wellhead B platform.

The North Alwyn drilling package on the North Alwyn A (NAA) platform was reactivated during 2018 after a period of being warm stacked to commence drilling on the Alwyn N57 well.

In the West of Shetland area the Stena Don Semi-Submersible was used to undertake drilling of the Glendronach exploration well.

The Ocean Valiant has been working throughout 2018, primarily completing a number of well abandonments in various fields.



Rowan Gorilla

ENVIRONMENTAL MANAGEMENT SYSTEM

Environmental Management is embedded within the overall TEPUK Company Management System (CMS).

HSE arrangements are built on the foundations of the guidance contained in 'HSG (65)', the environmental standard 'ISO 14001' and the Total Group Safety, Health & Environment framework 'One-MAESTRO'.

One-MAESTRO (Management And Expectation Standards Towards Robust Operations) principles are based on Plan-Do-Check-Act improvement cycle. 10 HSE Principles and their associated expectations are to be met in terms of safety at the workplace, control of major hazards, security, industrial hygiene, environmental protection, quality of our products and services as well as community involvement. One-MAESTRO management system was recognised by an external certifying body as being compliant with all the requirements of ISO 14001:2015.

Consistent with our HSE policy, the intended outcomes of the CMS includes:

- Enhancement of environmental performance

- Fulfilment of compliance obligations
- Achievement of environmental objectives

TEPUK's CMS is also certified to ISO 14001:2015 standard.

This 2018 environmental statement reports our environmental performance against key indicators.

These key indicators focus on the following areas:

- Emissions to Air
- Energy Efficiency
- Water use & discharges
- Waste generation & disposal
- Legal Compliance
- Management of Major Environmental Hazards

Organisation of the One-Maestro Principles



EMISSIONS TO AIR

Under normal operations, atmospheric emissions resulting from our operations are generated by:

- Combustion of fuels in turbines and generators that are used for compression and power generation
- Flares which are an integral part of the platform/rig safety systems
- Venting carbon dioxide and gaseous hydrocarbons through the process
- Sour Gas which is removed from the product to ensure pipeline entry specification is achieved.

EU Emissions Trading System

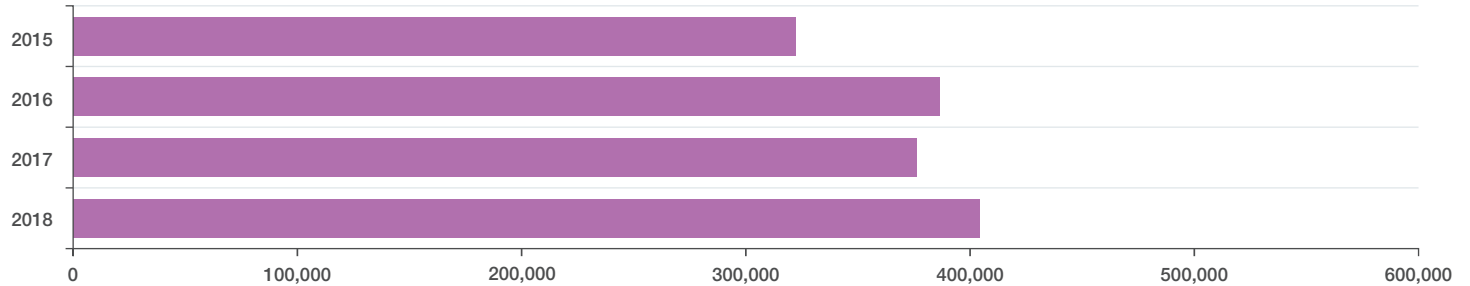
The Alwyn North, Elgin PUQ, GPlII, Gryphon, Culzean platforms, Ailsa FSO and the SGP all exceed the 20MW thermal input threshold for combustion installations. Under the Greenhouse Gas (Emissions Trading System) Regulations 2012 for carbon dioxide (CO₂) we are required to report annually on our emissions of CO₂ with a view to reducing emissions year on year. Data relating to our CO₂ emissions is independently verified. The following graphs show the CO₂ emitted from the aforementioned assets.



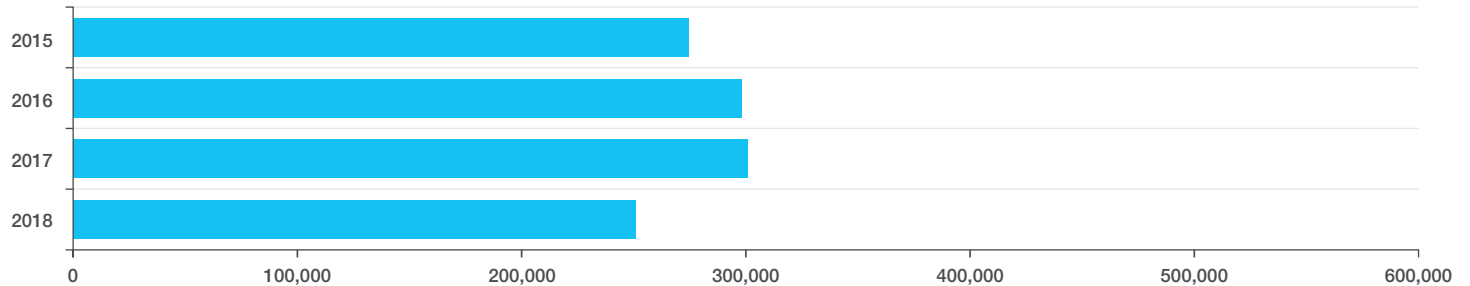
EMISSIONS TO AIR

Combustion and Flaring Emission (tonnes) CO₂

Elgin



Alwyn

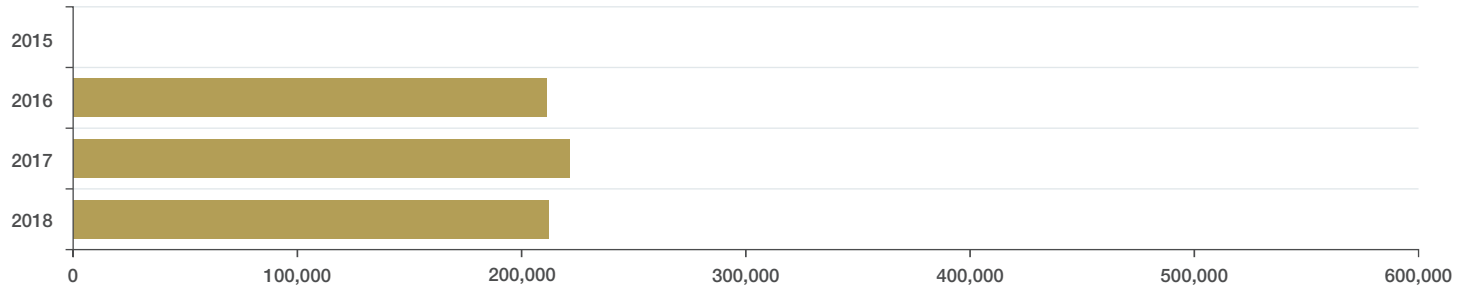


EMISSIONS TO AIR

Combustion and Flaring Emission (tonnes) CO₂

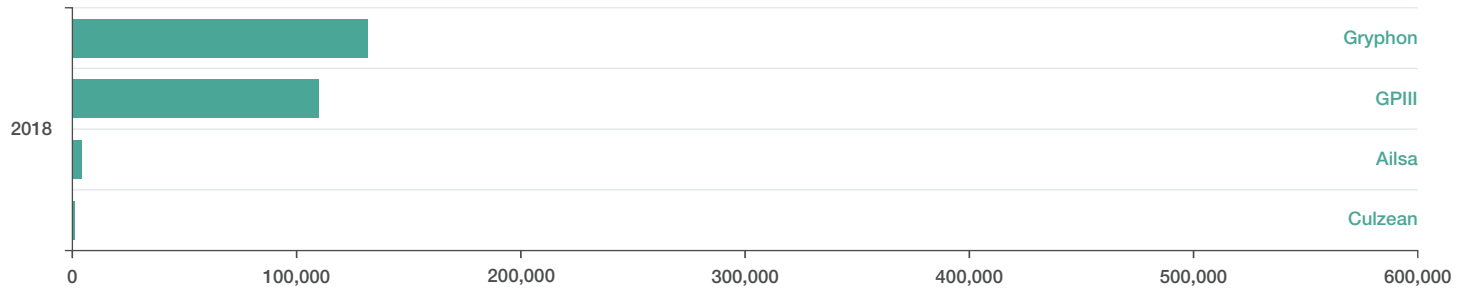
Shetland Gas Plant

Shetland Gas Plant came onstream in December 2015.



ENS Asset combustion and flaring emissions (tonnes) CO₂

ENS Asset created in March 2018



EMISSIONS TO AIR

EU ETS Phase IV – achieving the emissions objective

To achieve the EU's overall greenhouse gas emissions reduction target for 2030, the sectors covered by the EU Emissions Trading System (EU ETS) must reduce their emissions by 43% compared to 2005 levels.

Greenhouse Gas Emissions

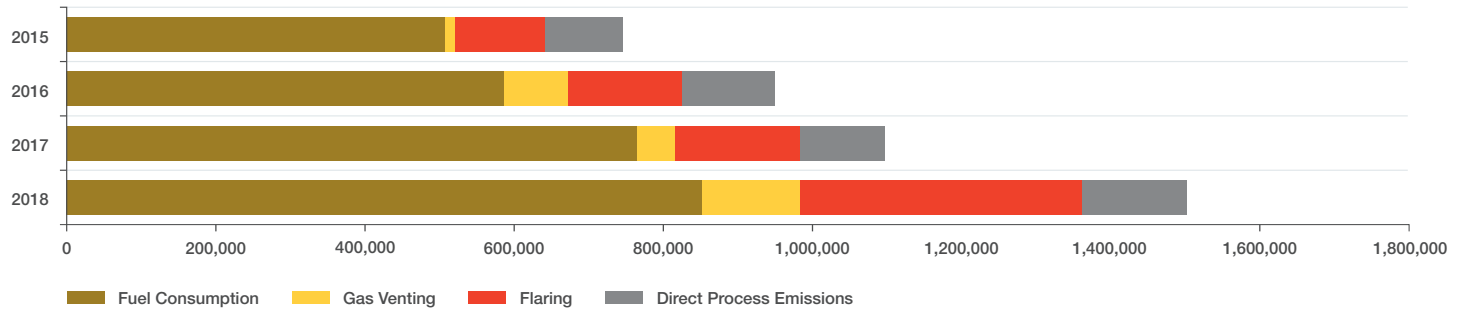
We measure our atmospheric emissions in a number of ways to help identify areas where reductions can be made. By minimising the emissions wherever possible, we actively contribute to a culture which combats climate change. To help us understand our overall impact on climate change we measure the amount of emissions to air from all of our operations and then convert the data on these emissions into a CO₂ equivalent. The graph below shows the

emissions to atmosphere from all TEPUK offshore production and drilling operations.

Emissions in 2018 have increased compared to 2017, this is mainly down to the acquisition of new assets and an increase in drilling activity but the energy required to produce a barrel of oil equivalent has reduced across TEPUK.

An increase in flaring in 2018 has also occurred due to acquisition of new assets. TEPUK is investigating possibilities to reduce flaring across all the assets.

Figure 18: CO₂ equivalent (tonnes) from TEPUK offshore operations



ENERGY EFFICIENCY

Managing the energy that we produce offshore is a key part of reducing our environmental emissions. TEPUK has completed a series of energy efficiency assessments on all installations, onshore and offshore.

TEPUK, as one of the largest affiliates in the Total Group, has in place an action plan to achieve compliance with the group requirements with regards to implementing an energy management system which aligns to ISO 50001, this is expected to be achieved in line with Group timelines.

TEPUK relocated to Total House, a modern office environment providing modern open plan working.

The building has many efficiency saving features including:

- Rain Water Harvesting System
- Ground Source Heating which reduces reliance on fossil fuels
- Electrical Vehicle charging points
- 86 PV Panels
- Energy rating of the building



WATER

Water – Discharges to sea

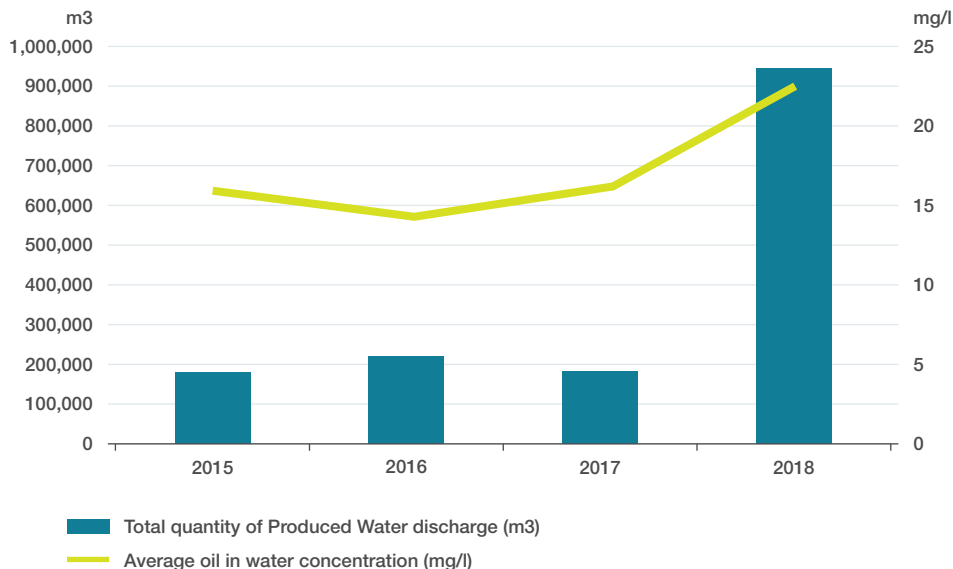
Permitted discharges to sea arising from our operations include:

- Produced Water Discharged to Sea
- Chemical Discharges to Sea
- Treated Effluent Discharge to sea from Gas Plant operations.

Produced Water

Produced water is water extracted from the subsurface with oil and gas. It may include water from the reservoir, water that has been injected into the formation and any chemicals added during the production/treatment process. The produced water volumes, concentration of oil in water increased in 2018 in comparison with the previous years. This was due to new asset acquisition. GPIII and Gryphon have larger discharges of produced water compared to other assets in the TEPUK portfolio. Re-injection rates at these fields are optimised to limit the discharge and processes are in place to manage the stability of the separation units on each asset.

Quantity of produced water discharged and average oil in water concentration



Weight of oil discharged

	2015	2016	2017	2018
Total weight of oil discharged to marine environment in produced water (tonnes)	2.88	3.17	2.95	21.36

CHEMICAL MANAGEMENT

Chemical Use

TEPUK uses, and discharges chemicals as part of the offshore exploration and production process. The use and discharge of chemicals is regulated under the Offshore Chemicals Regulations 2002 (as amended), and TEPUK is required to obtain appropriate permits from BEIS prior to commencement of these operations.

The Oslo-Paris Convention (OSPAR) offshore oil and gas strategy and the OSPAR hazardous substances strategy commits the OSPAR commission and member states to:

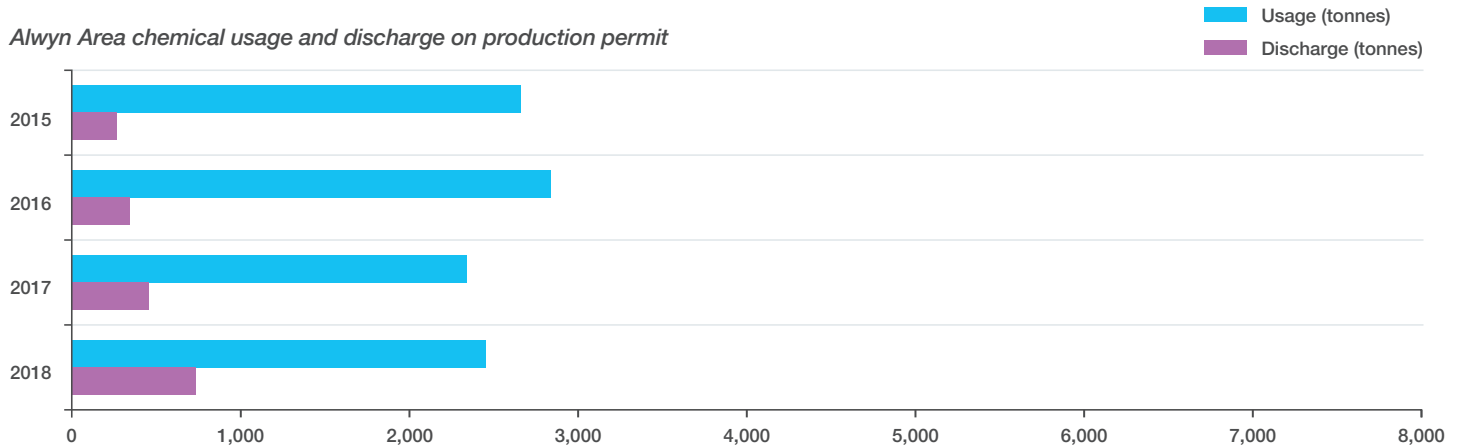
“making every endeavour to move towards the target of cessation of discharges, emissions and losses of hazardous chemicals by the year 2020.”

OSPAR recommendation 2006/3 was enabled in the UK by the issue of the ‘UK National Plan for the Phase out of Substances Identified as Candidates for Substitution’. This plan requires TEPUK to ensure arrangements are in place to support the achievement of the goal of zero discharges by 2020.

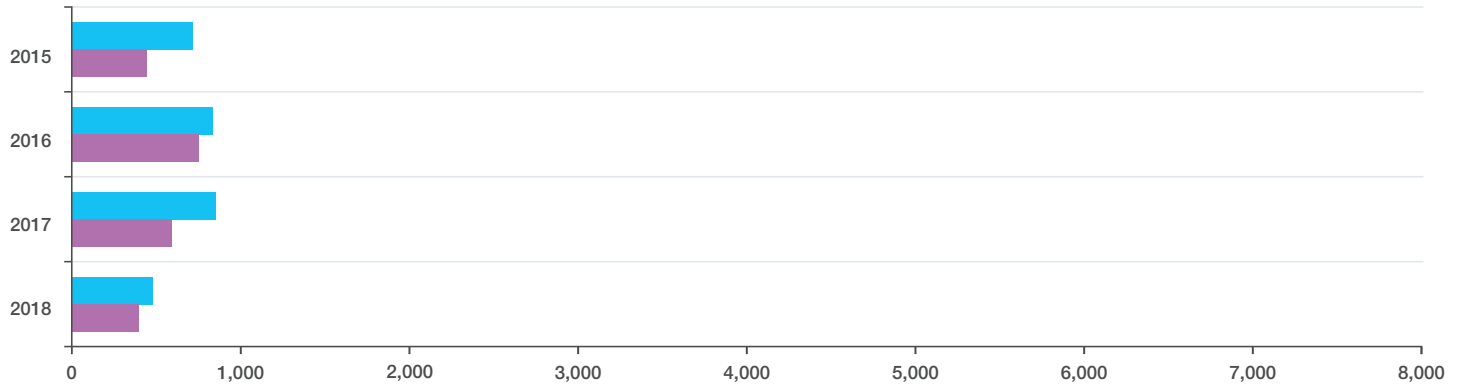
TEPUK carried on with the development and implementation of our Environmental Chemicals Management Strategy and successfully changed out several of its chemical applications for more acceptable substitutes. This strategy outlines the process TEPUK has in place to take into account the UK National Plan and the environmental impacts associated with chemical use and discharge. The use of this process enables TEPUK to prioritise the elimination of harmful substances with less harmful alternatives over a given time period.

CHEMICAL MANAGEMENT

Alwyn Area chemical usage and discharge on production permit

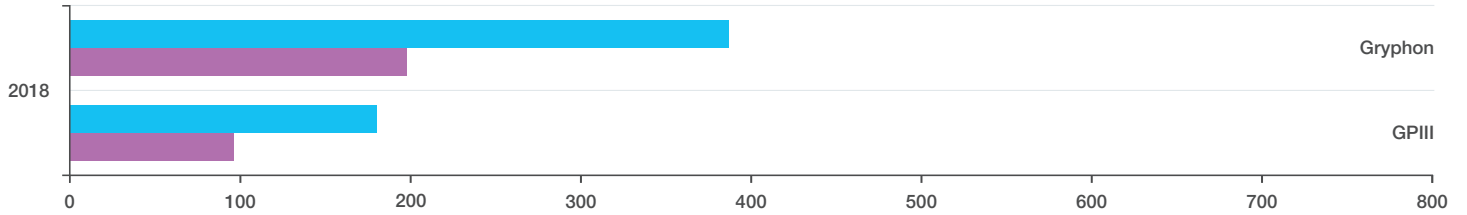


Central Graben Area chemical usage and discharge on production permit

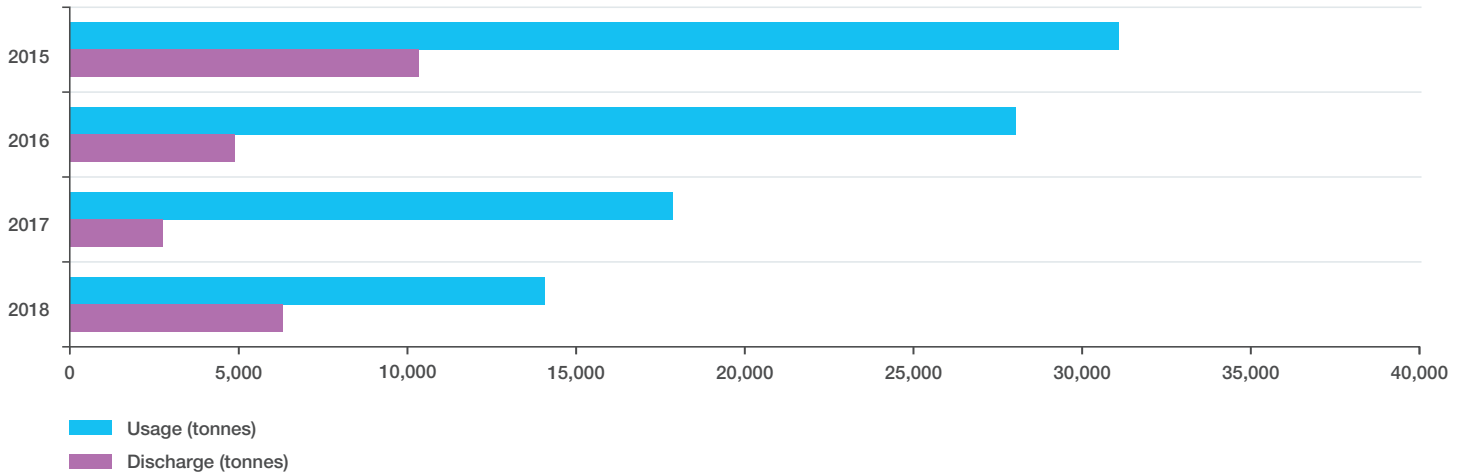


CHEMICAL MANAGEMENT

GPIII and Gryphon chemical usage and discharge on production permit



Well chemical usage and discharge



RELEASES TO THE ENVIRONMENT

In 2018 the number of oil spills to sea remained the same in comparison to 2017 though the number of chemical spills has increased. Quantity of oil discharged has increased due to an ongoing leak from the Jura 1 well. Operations to contain the leak are well in hand and a containment device has been commissioned and installation is planned for mid-2019.

Oil spills

Year	Number of Spills	Quantity (tonnes)
2015	27	5.066
2016	26	0.237
2017	7	3.796
2018	7	6.502

Chemical spills

Year	Number of Spills	Quantity (tonnes)
2015	9	21.07
2016	15	0.734
2017	3	2.276
2018	14	4.211

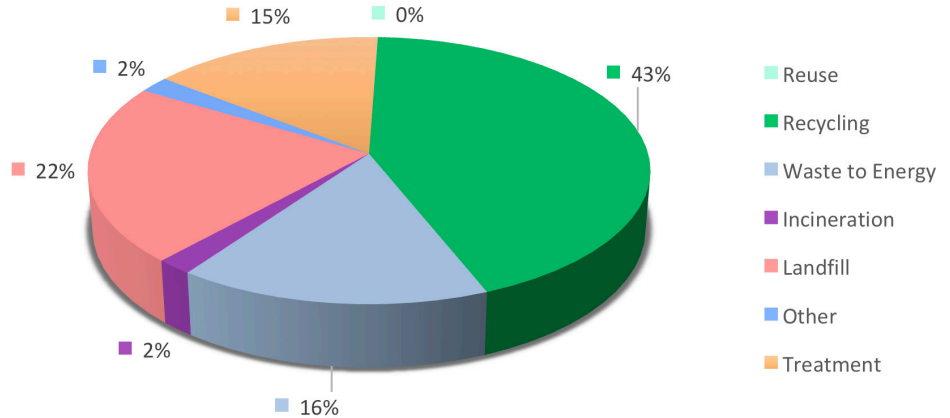
WASTE

TEPUK's operations consume materials that generate a range of waste including drill cuttings, waste chemicals, tank washings residue, waste oil, general waste, paper, scrap metal, glass and wood. We are committed to reducing waste production across all of our operations and effectively managing the waste that is produced. This commitment is consistent with our aim to reduce the impact of our operations on the environment and is in accordance with the waste management hierarchy.

At TEPUK, we continually strive to identify and implement sustainable options for the management of our waste streams and we actively support local, innovative solutions for reuse and recycling of waste.

Onshore waste management routes for wastes generated by TEPUK in 2018.

Waste generated by TEPUK activities



WASTE

Waste data

Waste (tonnes)

Year	2015	2016	2017	2018
Alwyn North	1,479	339	275	475
Dunbar	135	293	144	112
Elgin	323	464	579	476
MODU's	23,455	26,795	16,788	11,300
SGP	-	728	1,047	839
Gryphon*	-	-	-	294
GPIII*	-	-	-	220

* asset not under TEPUK prior to 2018

WASTE

Offshore Waste Management

Some of the waste generated by our operations are managed offshore and discharged to the marine environment under permit or in the case of cuttings, re-injected into the reservoir. This is industry Best Available Technique (BAT) for the management of these waste types. The table below shows the waste managed offshore for the last four years.

Over the last three years we have seen a significant increase in the amount of drilling activity in TEPUK acreage.

Ongoing drilling campaigns and well intervention work have meant the following Mobile Offshore Drilling Units (MODUs) have been utilised by TEPUK for the whole or part of 2018.

- Rowan Gorilla V
- Noble Sam Hartley
- Maersk Highlander
- Ocean Valiant
- Stena Don

Waste cuttings data

	2015	2016	2017	2018
Water Based Drill Cuttings discharged overboard (tonnes)	4,908	1,027	1,647	2,204
Oil Based Drill Cuttings treated by Rotormill and discharged overboard (tonnes)	0	0	0	0
Cuttings, slurry, brine and slops re-injected (tonnes)	0	0	0	0

LEGAL COMPLIANCE

Unplanned oil and chemical spills associated with TEPUK offshore activities are required to be reported to BEIS using a Petroleum Operations Notice 1. These discharges are discussed within the Accidental Spills section of this Statement.

In addition, TEPUK is also required to submit notifications to BEIS in the event of a non-compliance with the current legislative regime under the Offshore Chemicals Regulations 2002 (OCR) and the Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (OPPC), Marine Production Licences Reg 45 (2) (PON2) and the Pollution Prevention and Control (Scotland) Regulations 2000 (PPC).

The table opposite shows the number of non-compliances reported to BEIS in 2018.

In 2018 there were numerous short term excursions above the limits of the OPPC permit on the Alwyn and Gryphon platforms. These were due to short term trips causing produced water to be discharged to sea and exceeded the OPPC non-compliance reporting threshold.

Non-compliances are investigated where the circumstances meet the criteria of the

Non-compliance data

Installation	Alwyn & Dunbar	Elgin	West of Shetland	MODUs	Gryphon	GPIII
OCR (Offshore Chemical Regulations)	0	0	0	0	1	0
OPPC (Oil Pollution Prevention and Control)	13	0	0	0	13	3
PON2	0	0	0	0	1	0
PPC	0	0	4	0	0	0

TEPUK incident investigation process, all findings are noted and dedicated action plans are implemented to address the issues identified and prevent the non-compliance from re-occurring.

As part of the company's ISO14001 certified Environmental Management System, TEPUK regularly conducts internal audits and checks for legal compliance at all of its sites both on and offshore. Any resulting improvement actions are assigned to the appropriate persons with agreed target

dates for completion. Implementation of these actions is tracked electronically via the company 'Stre@m' reporting system. Trends are regularly analysed to identify potential room for improvement.

During the Commissioning Phase for SGP, there were several excursions over the defined PPC limits, these occurred in conjunction with the final stages of operational readiness. In 2018 SGP achieved a GOOD assessment score in the SEPA Compliance Assessment Scheme (CAS).

MANAGEMENT OF MAJOR ENVIRONMENTAL HAZARDS

In line with internal commitments and the revised Offshore Safety Directive, TEPUK has re-defined its approach to managing major environmental hazards.

TEPUK undertook a full Environmental Risk Assessment (ERA) of our offshore assets with regards to identifying any potential Major Environmental Incidents (MEI) which could be generated as a result of a Major Accident Hazard occurring. This was done to allow us to submit major reviews of our respective asset safety cases. The process has undergone several iterations and has a more quantitative approach to determining the risk associated with our operations with regards to the surrounding environment.

This approach follows the technical safety strategy. The risk assessment outcome, which considers the environmental sensitivity of an area, is used to define what the MEIs are.

This work builds upon the strategy developed over the last few years and allows TEPUK to document our environmental risks and mitigate them effectively within our Operational Integrity Assurance & Verification Scheme (OIAVS) and update any performance standards accordingly to take account of the risks identified in the ERA process.

ENVIRONMENTAL GOALS – 2018 (ACHIEVED)

Aspect	Objectives	Targets	Programmes	Achieved
Atmospheric Emissions	Improve air quality by reducing harmful activities either direct or indirect.	Achieve GHG Emission Intensity 13.7 kTCO ₂ eq/Mboe. on existing TEPUK assets.	Optimise fuel gas usage, flaring and production across TEPUK sites.	Partially achieved (due to inclusion of new assets)
Waste	Management of waste streams and reduce, reuse, and recycle	Achieve waste segregation efficiency of 80%	Increase awareness on sites	Achieved
Risk Management	Review the risks at Shetland Gas Plant (SGP) in line with the new COMAH requirements.	COMAH report to be completed by mid- 2018	Prepare and submit the Shetland Gas Plant (SGP) COMAH Report to the regulator.	Report has been submitted to HSE and SEPA and is under consideration
Environmental Management System	Gain ISO14001:2015 accreditation	Gain accreditation to ISO14001:2015 standard	Carry out process required in order to gain accreditation	Achieved
Chemical Management	Improve the management of chemicals at TEPUK	Define and implement the chemical management process by end of 2018	Roll out the associated procedures and practices	Review and update of relevant procedures is ongoing, to be continued in 2019

ENVIRONMENTAL GOALS – 2019 (PLANNED)

Aspect	Objectives	Targets	Programmes
Atmospheric Emissions	Reduce methane intensity of emissions from TEPUK operations	Methane intensity <0.2% vol CH ₄ / volume marketed gas GHG emissions	Determine agreed industry methodology for measurement and reporting of methane emissions
Energy Management	Improve energy efficiency at TEPUK	Target ISO 50001 certification for TEPUK	Carry out process required in order to gain accreditation
Waste	Management of waste streams and reduce, reuse, and recycle	Improve waste management in all the assets	Review waste data from assets to identify areas for improvement
Environmental Management System	Ensure ISO 14001:2015 accreditation for the whole TEPUK	Incorporate Culzean & Ailsa into existing ISO 14001 Certificate	Carry out process required in order to gain accreditation
Environmental Improvement Programme	Increase environmental awareness among personnel Improve management of environmental data	Ensure awareness of 85% personnel through CBT sessions Digitalization of environmental dashboard	Train personnel on environmental management, environmental awareness Migrate/create environmental dashboards
Chemical Management	Improve the management of chemicals at TEPUK	Define and implement the chemical management process	Finalise update of procedures, roll out implementation

ISO14001 CERTIFICATE

ISO 14001

Certificate of Registration

This is to certify that

Total E&P UK Limited

at

Total E&P UK Limited, Total House, Tarland Road, Westhill
AB32 6JZ

has been registered to ISO 14001:2015 for

The production of oil and gas from operations under the control of Total Exploration and Production UK Limited (TEPUK) or their contractors. This includes the following activities and locations:

- Northern North Sea Offshore installations – Alwyn, Dunbar
- Central North Sea offshore installations – Elgin Franklin complex
- West of Shetland – Onshore Gas Plant
- Drilling activities (Platform drilling & drilling performed by Mobile Offshore Drilling Units)
- Associated subsea and pipeline systems

Onshore technical and business support services provided from offices, warehouse and quayside in Aberdeen.

Signed on behalf of ERM CVS by:


Jeff Rose
Head of Certification

ERM Certification and Verification Services
2nd Floor, Exchequer Court,
33 St Mary Axe, London,
EC3A 8BA
Tel: +44 (0)20 3206 5281
Fax: +44 (0)20 3206 5442
Email: post@ermcvs.com

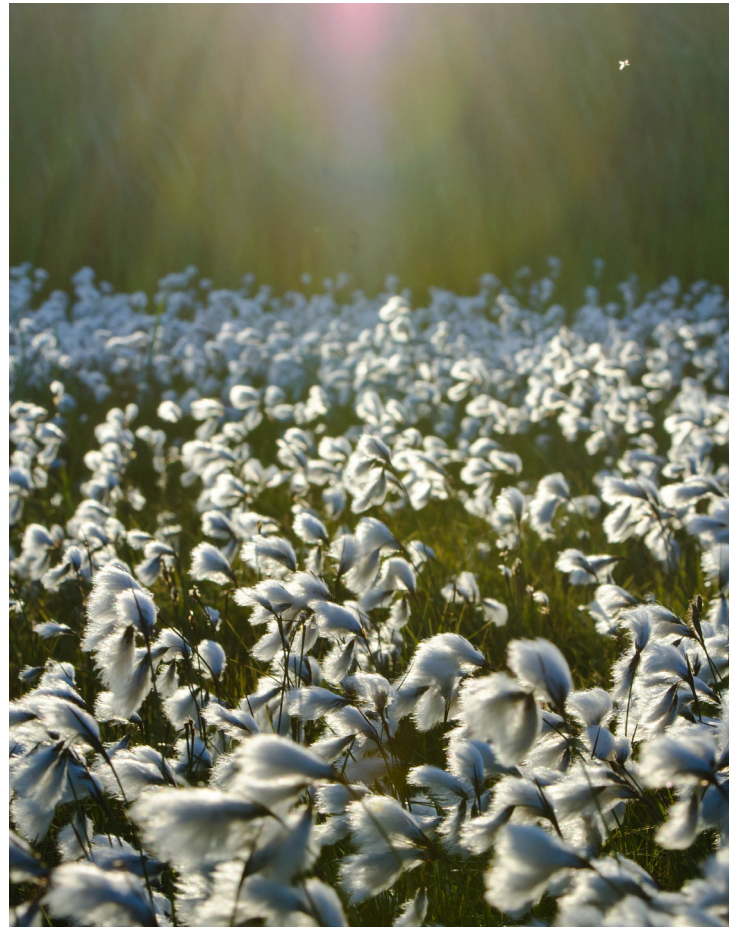
ERM CVS

Certificate Number: 426
Initial Issue Date: 22 August 2008
Renewal Date: 19 August 2016
Expiry Date: 19 August 2021
Version #: 6


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PARTNER INFORMATION

Northern North Sea area:			
ALWYN/DUNBAR	Total E&P UK Limited	100%	Operator
JURA	Total E&P UK Limited	100%	Operator
FORVIE	Total E&P UK Limited	100%	Operator
ELLON/GRANT	Total E&P UK Limited	100%	Operator
NUGGETS	Total E&P UK Limited	100%	Operator
ISLAY	Total E&P UK Limited	94.49%	Operator
	TOTAL E&P Norge AS	5.51%	
Central North Sea area:			
ELGIN/FRANKLIN	Total E&P UK Limited	46.17%	Operator
	ENI Elgin/Franklin Limited	21.87%	
	Chrysaor Limited	14.11%	
	Premier Oil E&P UK Limited	5.20%	
	Chevron North Sea Limited	3.90%	
	ONE-Dyas E&P Limited	2.19%	
	Summit Exploration and Production Limited	2.19%	
	Esso Exploration & Production UK Limited	4.37%	
GLENELG	Total E&P UK Limited	58.73%	Operator
	Premier Oil UK Limited	18.57%	

	Chrysaor Limited	14.70%	
	ENI UKCS Limited	8.00%	
CULZEAN	Total E&P North Sea UK Limited	49.9873%	Operator
	Britoil Limited	32%	
	JX Nippon Exploration & Production (UK) Limited	18.0127%	
Eastern North Sea area:			
AFFLECK	Total Oil UK Limited	66.67%	Operator
	Repsol Sinopec North Sea Limited	33.33%	
BALLINDALLOCH	Total E&P North Sea UK Limited	91.8%	Operator
	Nobel Oil E&P North Sea Limited	8.2%	
CAWDOR	Total E&P North Sea UK Limited	71.15%	Operator
	Repsol Sinopec Resources UK Limited	24.62%	
	Repsol Sinopec North Sea Limited	4.23%	
FLYDRE	Total E&P North Sea UK Limited	65.941%	Operator
	Repsol Sinopec Zeta Limited	26.979%	

PARTNER INFORMATION

	Total E&P Norge AS	6.255%	
	Petrolia NOCO AS	0.825%	
GRYPHON	Total E&P North Sea UK Limited	86.5%	Operator
	Sojitz Energy Development Limited	13.5%	
JANICE*	Total E&P North Sea UK Limited	100%	Operator
MACLURE	Total E&P North Sea UK Limited	38.19%	Operator
	TAQA Bratani Limited	37.04%	
	Apache Beryl Limited	17.18%	
	Nobel Oil E&P North Sea Limited	7.59%	
QUAD 15 (LOCHRANZA, DUMBARTON, BALLOCH)	Total E&P North Sea UK Limited	100%	Operator
TULLICH	Total E&P North Sea UK Limited	100%	Operator
West of Shetland area			
	Total E&P UK Limited	60.00%	Operator
	INEOS E&P (UK) Limited	20.00%	
	SSE E&P UK Limited	20.0%	

*Being decommissioned

FEEDBACK

If you have any comments, or would like further information on our environmental impacts or performance, please contact: Public Affairs and Corporate Communications.

TOTAL E&P UK Limited
 Total House, Tarland Road
 Westhill, AB32 6JZ
 Tel: +44 (0) 1224 297000
 Fax: +44 (0) 1224 298999
www.uk.total.com

Total E&P UK Limited, Total House
Tarland Road, Westhill, AB32 6JZ

Tel 00 44 1224 297000



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