ENVIRONMENTAL STATEMENT 2014

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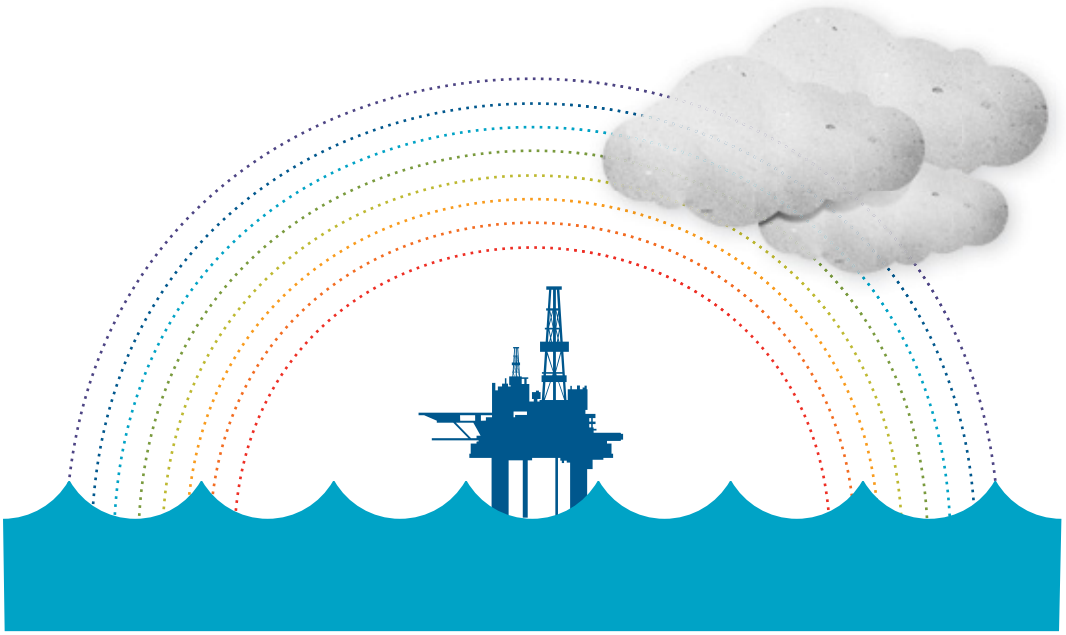
At TAQA, we are committed to world-class health, safety, security, environmental and quality (HSSEQ) performance. We work to respect the natural environment and to achieve our goals of ensuring that no harm comes to people; to providing a safe, secure workplace; and carrying-out our activities with minimal impact on the environment. Our commitment to safe and incident-free operations goes hand-in-hand with improved operational reliability, lower costs, and higher productivity.



Introduction

Welcome to TAQA's 2014 Environmental Statement.

Our priority in 2014 was to fully integrate the Harding asset, which we acquired in 2013, into TAQA's UK business and through a continued focus on safety and environmental performance, reliability and costs, ensure our long-term sustainable future in the UKCS.

We have been working hard to give our people, both on and offshore, a better awareness and understanding of the environment we work and live in and what we can all do to protect it.

This included the launch of TAQA's own environmental e-learning programme, which highlights the individual role of our employees in helping to reduce our environmental impact. Our employees also demonstrated their commitment by participating in World Environment Day in June and, in August, 40 volunteers helped clear more than a quarter of a tonne of waste from Aberdeen beach.

We have made strides in reducing the volume of waste produced, down 27% from 2013, but we still need to improve our segregation of waste onshore and are currently working on ways to address this.

Our relentless focus on operational reliability and efficiency meant we recorded average production levels of 61.5 mboe/d during 2014, a 30% increase over 2013. Due to a combination of this increased production, limited downtime and shutdowns, we also saw a reduction in our diesel usage, however these activities did increase gas turbine and flare emissions.

In 2014, TAQA also successfully participated in our Secretary of State's Representative (SOSREP) emergency response exercise, based on a major leak from one of our platforms. The hard work, dedication and professionalism of our people during this exercise is one I have come to expect, and sets us up well for the months and years ahead, for our day to day business, and if needed emergency response.

Through challenging times in the industry we will continue to make our environmental performance a priority. We know that to be successful as a business it is critical we continue to look at new ways to further reduce our impact on the environment in which we operate as we strive to become the front-runner in safe and efficient operations and development.

“We know that to be successful as a business it is critical we continue to look at new ways to further reduce our impact on the environment in which we operate as we strive to become the front-runner in safe and efficient operations and development.”

Pete Jones
Managing Director, TAQA in the UK


RISK
TAQA

Health, Safety, Security & Environment Policy

There is no operational priority more important than protection of the health, safety and security of employees, contractors and visitors. We must also respect and protect the natural environment. At TAQA, management of HSSE is split into three areas – People, Process and Plant. Within these three areas we will manage our business operations to:

People

- Require commitment and accountability from everyone to implement this policy and work in accordance with all elements and expectations of our HSSE Management System 'Commitment to HSSE Excellence'
- Encourage an environment of openness and transparency and communicate openly with all stakeholders regarding HSSE performance
- Provide sufficient resources, training and equipment to develop and maintain highest standard HSSE systems in support of this policy

Process

- Comply with all applicable laws and regulations; make use of relevant industry standards and best practices where appropriate
- Identify, assess, manage and minimise HSSE risks
- Continuously improve HSSE performance by setting goals and objectives and monitoring our progress through regular evaluation and assessment
- Ensure that appropriate response procedures are in place to minimise the impact of any security incident or emergency

Plant

- Identify Major Hazards, assess and prioritise associated risks and identify the barriers required to assure a safe and secure working environment
- Establish regular inspection, testing and maintenance activities to ensure ongoing suitability of the barriers
- Consider the lifecycle of our assets, and in particular consideration will be given to ageing aspects and how life extension will be achieved and the associated risks managed
- Prevent pollution and minimise the impact of our operations on the environment

Everyone working for, or on behalf of, TAQA has a personal responsibility to work safely and protect the environment. Irrespective of our role or location, we are all safety leaders. If we are in doubt regarding any job we are involved with, or one which we observe, everyone is empowered to challenge and stop work.

Pete Jones
Managing Director, TAQA in the UK

North Sea Operations

Abu Dhabi National Energy Company PJSC (TAQA)

TAQA, meaning energy in Arabic, is the brand name of Abu Dhabi National Energy Company PJSC. TAQA is an international energy and water company listed on the Abu Dhabi Securities Exchange. TAQA strives to be safe and sustainable, and embrace the challenge of delivering affordable and reliable energy and water. TAQA is proud to align its strategy with Abu Dhabi's Economic Vision 2030, a roadmap for a sustainable economy with a focus on knowledge-based industry. TAQA's interests lie in conventional and alternative power generation, water desalination, oil and gas exploration and production, pipelines and gas storage. TAQA operates in Canada, Ghana, India, Iraq, Morocco, the Netherlands, Oman, Saudi Arabia, the United Arab Emirates, the United Kingdom and the United States.

TAQA in the UK

TAQA's UK business was incorporated in 2006 and is a wholly owned subsidiary of the Abu Dhabi National Energy Company. Since acquiring its first North Sea interests in 2007, TAQA has created a business which is now ranked amongst the top exploration and production companies in the UK North Sea.

The majority of TAQA's UK portfolio is wholly owned and operated by the business. It consists of 100% operated equity in the Tern, Kestrel, Eider, Cormorant North, South Cormorant, Falcon and Pelican Fields. It has a combined 26.73% interest in the Dana-operated Hudson field and a 24% interest in the Sullom Voe Terminal. It has an interest in the SAGE pipeline and onshore terminal, and the Brae-Miller Linkline. TAQA operates the Brent Pipeline System.

TAQA also has a 70% operated interest in the Harding field, 70% in the Morrone field and 37.03% non-operated interest in the Maclure field. In the Brae area TAQA has an interest of 45.7% in Block 16/7a, a 50.1% interest in East Brae, and a 65% interest in the Braemar field.

> ...the focus for TAQA in 2014 was to increase production efficiency from existing assets, maintain integrity and embed the Harding platform into the business.

2014 Overview

After a busy period of growth in 2013, following the acquisition of assets from BP in the Central North Sea, the focus for TAQA in 2014 was to increase production efficiency from existing assets, maintain integrity and embed the Harding platform into the business.

TAQA's UK North Sea operations recorded average production levels of 61.5 mboe/d, a 30% increase over 2013. This was due to the Harding acquisition, successful well intervention work, and top quartile operating efficiency, combined with a tight focus on safety and reliability across the asset base. On Tuesday 15th July TAQA achieved record production for 2014 of 70.2 mboe/d, thanks to a combined effort of all five platforms and non-operated interests.

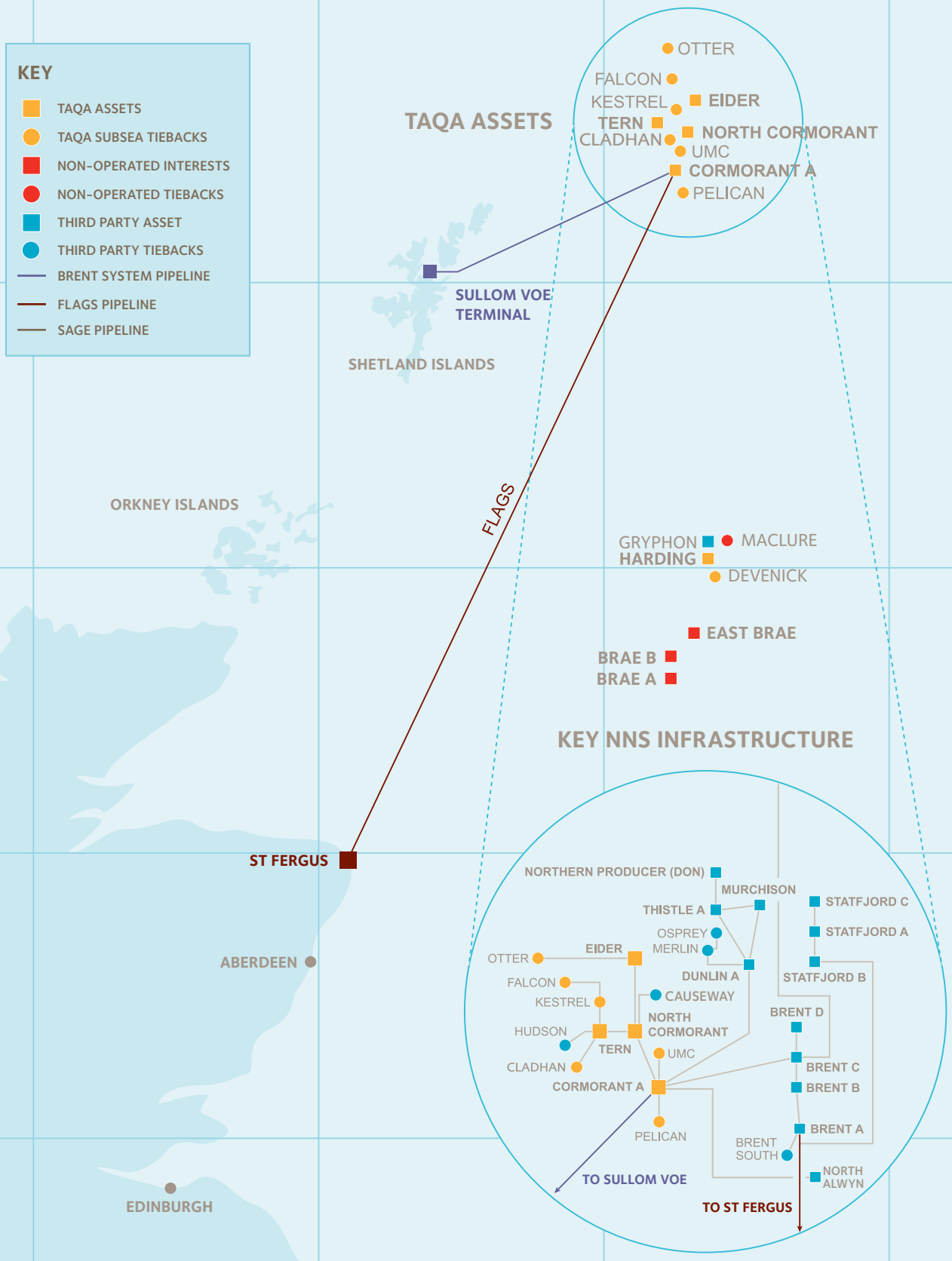
Integrity of existing production and injection wells across all of TAQA's assets continues to be a high priority, and the quality of the well stock was improved through a number of well interventions and testing routines. This was strengthened by the Light Well Intervention Vessel Campaign to Pelican, Underwater Manifold Centre (UMC), and Otter fields during the summer.

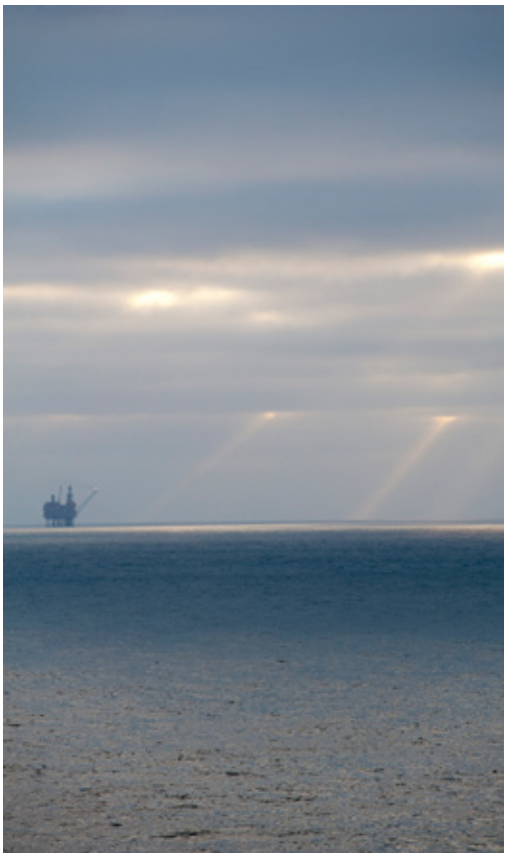
TAQA has also seen a step change in reliability performance during the year, with platform uptime averaging 85%, reversing a three year downward trend, and above our target of 82%.

In 2014 TAQA continued platform drilling operations on the North Cormorant, which saw the successful drilling and completion of one production well and an ESP workover of another. TAQA also started drilling the Harding Morrone well, which was suspended after the conductor was successfully run and cemented. Operations are due to recommence in the summer of 2015. Once complete, the well will have the furthest step out of any well drilled from a TAQA asset.

A 9 month mobile drilling campaign took place on the Cladhan field which involved the drilling and completion of two production and one water injector well. Production, water injection and umbilical lines have been laid and will be tied into Tern, in 2015.

A riser to complete a water injection well development in Ithaca's Causeway field was also installed on North Cormorant. The completion of this project will support long-term production from TAQA's first third-party subsea tie-back.


KEY
TAQA ASSETS
TAQA SUBSEA TIEBACKS
NON-OPERATED INTERESTS
NON-OPERATED TIEBACKS
THIRD PARTY ASSET
THIRD PARTY TIEBACKS
BRENT SYSTEM PIPELINE
FLAGS PIPELINE
SAGE PIPELINE
TAQA ASSETS
OTTER
FALCON
KESTREL
EIDER
TERN
NORTH CORMORANT
CLADHAN
UMC
CORMORANT A
PELICAN
SULLOM VOE TERMINAL
SHETLAND ISLANDS
ORKNEY ISLANDS
FLAGS
GRYPHON
MACLURE
HARDING
DEVENICK
EAST BRAE
BRAE B
BRAE A
KEY NNS INFRASTRUCTURE
ST FERGUS
ABERDEEN
EDINBURGH
NORTHERN PRODUCER (DON)
MURCHISON
THISTLE A
STATFJORD C
STATFJORD A
OSPREY
MERLIN
EIDER
OTTER
DUNLIN A
STATFJORD B
FALCON
KESTREL
CAUSEWAY
BRENT D
NORTH CORMORANT
HUDSON
TERN
UMC
BRENT C
CLADHAN
CORMORANT A
BRENT B
PELICAN
BRENT A
BRENT SOUTH
NORTH ALWYN
TO SULLOM VOE
TO ST FERGUS



North Cormorant

Position:
177km (110 miles) north-east of Lerwick, Shetland

Block number:
211/21a

Operator/Duty Holder:
TAQA

Equity:
100% TAQA

Discovery date:
August 1974

Water depth:
161m (528ft)

Est ultimate recovery:
Approx. 461 million barrels of oil (61 million tonnes)

Reservoir depth:
2710m (8900ft)

Producing horizon:
Middle Jurassic

Oil production:
Via Brent System Pipeline

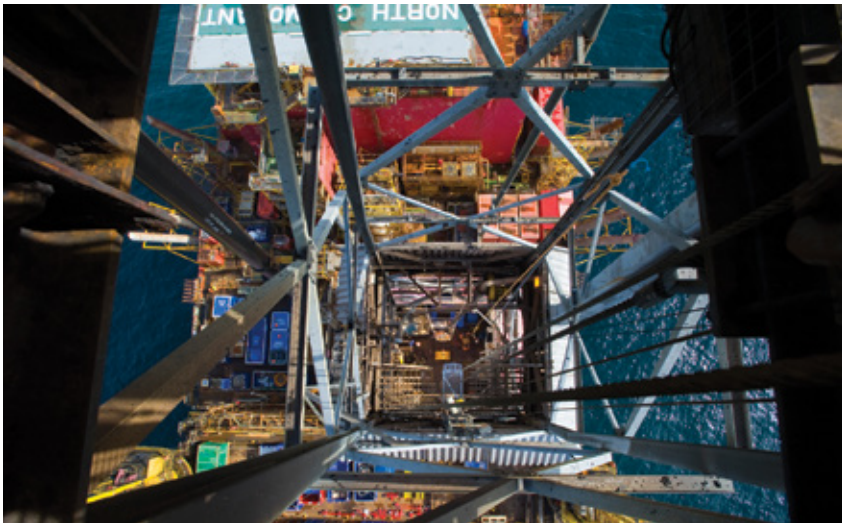
Storage capacity:
Nil

Type of installation:
8 legged steel jacket

Function:
North Cormorant is a drilling and production facility for the North Cormorant field. Oil and gas is imported from Eider before being separated and processed via the North Cormorant process facilities. The oil is then routed to Cormorant Alpha for onward transmission through the Brent System Pipeline to Sullom Voe Terminal.

Since 2012 the North Cormorant platform is also a production facility for the TAQA Cormorant East field and the third party Causeway field.

Associated gas, and gas imported from Tern, is exported through the Western Leg via Brent A and the Far North Liquids and Associated Gas System (FLAGS) Pipeline to St Fergus Terminal. Crude oil, imported from Tern, is exported to Cormorant Alpha.



Eider

Position:
184km (114 miles) north-east of Lerwick, Shetland

Block number:
211/16a and 211/21a

Operator/Duty Holder:
TAQA

Equity:
100% TAQA

Discovery date:
May 1976

Water depth:
157.5m (517ft)

Est ultimate recovery:
Approx. 109 million barrels of oil (14 million tonnes)

Reservoir depth:
2620 - 2750m
(8600 - 9030ft)

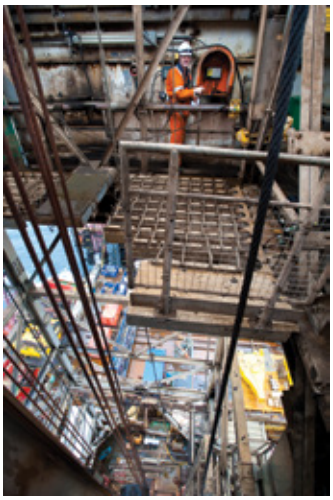
Producing horizon:
Middle Jurassic (Brent) sands

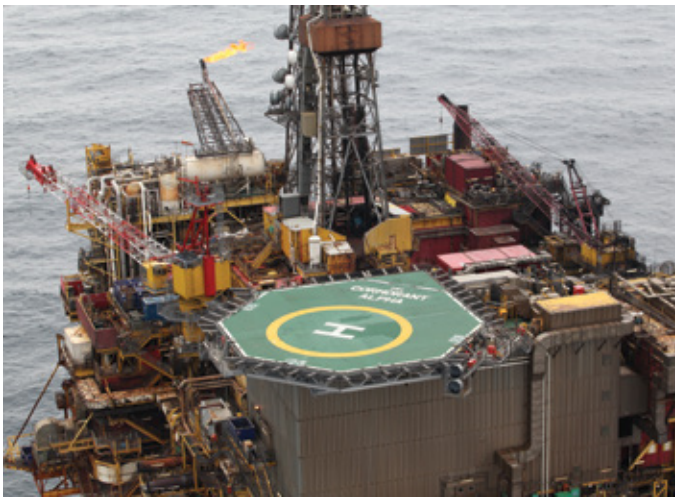
Oil production:
Via Brent System Pipeline

Storage capacity:
Nil

Type of installation:
8 legged steel jacket

Function:
Eider produces, meters and pumps oil and also operates as an oil producing satellite for the North Cormorant installation. Oil and gas is exported to North Cormorant via a subsea pipeline before being exported via the Brent System Pipeline to Sullom Voe Terminal. The Eider platform is also an oil and gas production facility for the Otter field.





Cormorant Alpha

Position:
161km (100 miles) north-east of Lerwick, Shetland

Block number:
211/26a

Operator/Duty Holder:
TAQA

Equity:
100% TAQA (not including Brent System Pipeline owners' interest)

Discovery date:
September 1972

Water depth:
150m (492ft)

Est ultimate recovery:
Approx. 90 million barrels of oil (12.4 million tonnes)

Reservoir depth:
2895m (9500ft)

Producing horizon:
Middle Jurassic (Brent) sands

Oil production:
Through a 36 inch subsea pipeline direct to Sullom Voe.

Gas production:
Commingled in process separation then via Western leg to FLAGS line to St Fergus.

Storage capacity:
1 million barrels

Type of installation:
Concrete gravity structure – 4 legs

Function:
Its main function is to drill, produce, meter and pump oil and gas. Cormorant Alpha also receives oil via pipelines from the Brent C, Dunlin, North Alwyn and North Cormorant platforms as well as from the Pelican subsea tie-back. Oil from Cormorant Alpha is exported to Sullom Voe Terminal in the Shetlands via the Brent Pipeline System. Gas from Cormorant Alpha also joins the Western Leg Gas Pipeline link to the FLAGS.

Tern

Position:
169km (105 miles) north-east of Lerwick, Shetland

Block number:
210/25a

Operator/Duty Holder:
TAQA

Equity:
100% TAQA

Discovery date:
April 1975

Water depth:
167m (548ft)

Est ultimate recovery:
Approx. 295 million barrels of oil (39 million tonnes)

Reservoir depth:
2440m (8005ft)

Producing horizon:
Middle Jurassic (Brent) Sands

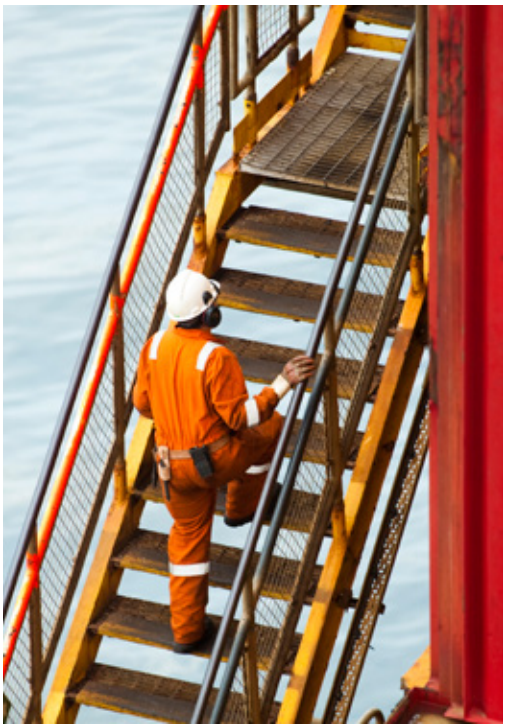
Oil production:
Via Brent System Pipeline

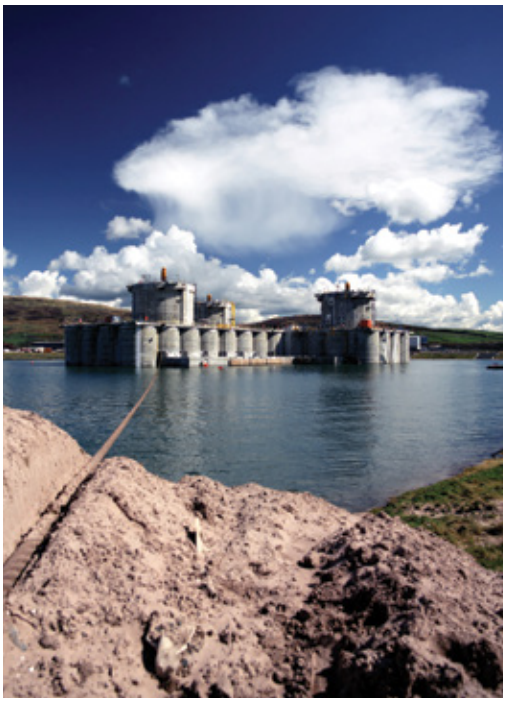
Gas import/export:
Via Western leg

Storage capacity:
Nil

Type of installation:
8 legged steel jacket

Function:
The Tern platform serves as a production and drilling facility for the Tern, Kestrel, Hudson, and the Falcon field. It also provides production, gas lift and water injection facilities for the Hudson field, water injection facilities for the Eider and Kestrel fields and gas lift to the Falcon field. Crude oil is exported to North Cormorant before joining the Brent System via Cormorant Alpha. The separated gas is compressed and used as fuel gas. It is also used as lift gas for Tern, Hudson and Kestrel production wells.





Harding

Position:
320km north-east of Aberdeen

Block number:
9/23b

Operator/duty holder:
TAQA

Equity:
TAQA (70%)
Maersk (30%)

Discovery date:
1987

Water depth:
110m

Est ultimate recovery:
>250 million barrels of oil

Reservoir depth:
1676.4m (5500ft)

Producing horizon:
Tertiary (Balder)

Oil production:
Oil from Harding is exported via 24-inch diameter oil export pipeline to a submerged tanker loading system.

Storage capacity:
600,000 barrels of oil

Type of installation:
Harding is a heavy-duty jack-up production unit, resting on a gravity base/storage tank.

Function
The basis of the Harding development is a large, heavy-duty jack-up platform. It is a fully integrated drilling and production platform for the Harding and Morrone fields. The topsides structure sits on the Gravity Base Tank (GBT), a reinforced concrete structure that provides the foundation. The GBT is also a T-shaped storage tank, which acts as a large storage tank for the export of crude oil. Oil production is exported from the GBT every 26 to 30 days via a short (2km), 24" pipeline and Submerged Turret Loading (STL) system to shuttle tankers.

Brent System Pipeline

The Brent System Pipeline is responsible for transporting around 90,000–100,000 barrels of oil a day from some 20 North Sea fields. This accounts for almost 50% of the Sullom Voe Terminal input and around 8% of UK offshore oil production.

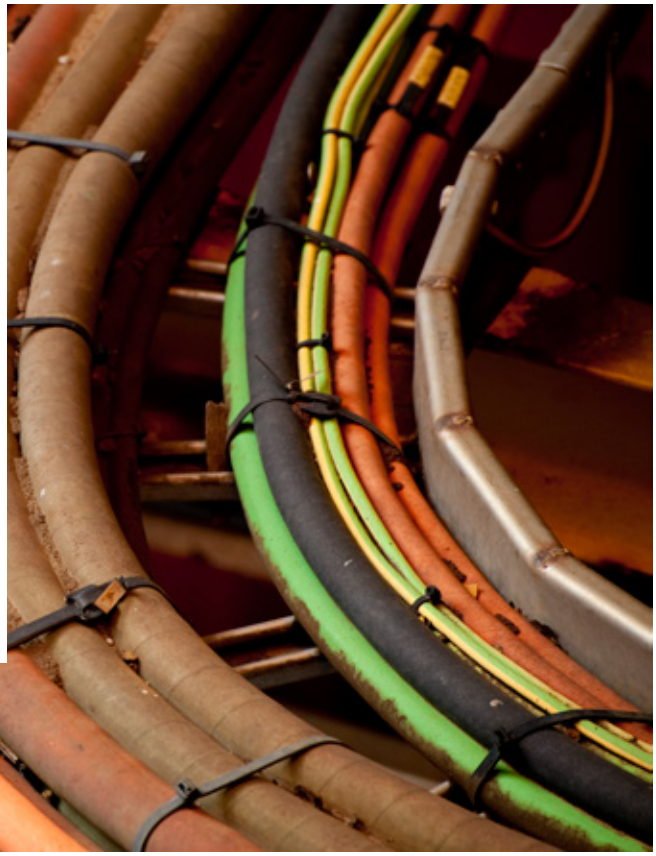
90,000–100,000 barrels – Average amount of oil transported per day.

150km – Transportation distance from Cormorant Alpha to Sullom Voe.

16% – TAQA interest.

In August 2009, TAQA became the operator of the North Sea Brent System of pipelines and facilities, taking over from Shell, which held the position since mid 1970s. The Brent System serves much of the northern North Sea sector of the UKCS bringing liquids to the Sullom Voe Terminal in the Shetlands.

The Brent System is a co-venture between companies who each own a percentage interest in the system. It consists of a proportion of the processing system on and structure of the TAQA operated Cormorant Alpha platform, as well as the 150km pipeline connecting Cormorant Alpha to the BP-operated Sullom Voe Terminal in the Shetlands.




EXCELLENCE
COMMITMENT TO EXCELLENCE

TAQA Commitment to Excellence

Health, Safety, Security and Environment (HSSE) Management Programme

The Abu Dhabi National Energy Company (TAQA) is committed to the pursuit and attainment of a world class health, safety, security and environmental performance. It pledges to respect the natural environment, and to work to achieve its goals of ensuring that no harm comes to people; to provide a safe, secure workplace; and to carry out its activities with minimal impact on the environment. To meet this commitment, TAQA has established an HSSE policy that describes its core principles for HSSE management.

To implement the HSSE programme, TAQA has developed a set of eleven elements and expectations that make up its HSSE Management System. These elements generally correspond to the "Plan–Do–Check–Act" elements of ISO standards for health, safety, environmental and quality management systems.

The HSSE programme ensures that within all of its activities and operations, TAQA will as a minimum:

- Comply fully with all regulatory requirements and meet or exceed these expectations wherever it operates in the world;
- Provide a secure working environment by protecting itself, its assets, and its operations against risk of injury, or loss or damage from criminal or hostile acts;
- Ensure that all employees, contractors and others are well informed, well trained, engaged and committed to the HSSE improvement process;
- Recognise that safe operations depend not only on technically sound plant and equipment but on competent people and an active HSSE culture. Workers are empowered to halt any activity which creates HSSE concerns with the understanding that no task is so important that it cannot be done safely;
- Regularly provide assurance that the processes are working effectively. While all TAQA employees and contractors are responsible for HSSE performance, line management is accountable for understanding and managing HSSE risks;
- Fully participate in hazard identification and risk assessments, Assurance Audits, and reporting of HSSE results;
- Maintain public confidence in the integrity of its operations. TAQA will openly report its performance and consult with people outside of the company to improve our understanding of external and internal HSSE issues associated with its operations;
- Expect that all parties working on behalf of TAQA recognise that they can impact TAQA's operations and reputation, and must operate to all local regulatory and TAQA standards;
- Assure itself that management systems for all suppliers, contractors and sub-contractors fully support its commitment to HSSE Excellence.

TAQA's HSSE MANAGEMENT SYSTEM ELEMENTS AND EXPECTATIONS

1. Leadership and Accountability
2. Regulatory Compliance and Corporate Standards
3. Training and Competence
4. Contractor and Supplier Management
5. Risk Management
6. Emergency and Crisis Management
7. Incident Investigation, Analysis and Prevention
8. System Measurement and Improvement
9. Communication and Stakeholder Awareness
10. Documentation and Records
11. Engineering Controls

Environmental Management System and ISO 14001

TAQA operates an Environmental Management System (EMS) which is set out in accordance with the requirements of the ISO 14001:2004 Standard.

The EMS details the environmental aspects of all activities associated with TAQA's offshore operations and onshore offices, including risk ranking and mitigation measures. It also documents the procedures for monitoring and reporting environmental performance and for ensuring that TAQA's activities are in compliance with all relevant environmental legislation.

At a location level TAQA's Environmental Management System addresses the following:

- Identifies possible environmental aspects, their consequences and how to control them;
- Identifies processes, roles and responsibilities;
- Oil spill management and response;
- Confirmation of operations to legal and regulatory requirements.

The EMS provides control of processes or activities which may have a potential environmental impact by means of procedures, instructions, training and education, in addition to assisting with:

- Preventing pollution;
- A systematic approach to working processes;
- Identifying potential or actual problems and finding solutions;
- Tracking environmental performance;
- Utilising natural resources effectively;
- Managing legal compliance;
- Improving awareness of workforce.

Key elements of TAQA's EMS

Environmental aspects – These are elements or activities that may result in a positive or negative impact on the environment. Where the actual impact on the environment cannot be controlled, the aspects can be. Thus TAQA's EMS is driven by significant environmental aspects; the aspects themselves form the basis for review and if necessary adjustment of procedures and working practices.

Legal requirements – Identification of applicable legal regulations is an integral part of the Environmental Management System.

Objectives, Targets and Programmes – The TAQA 'Objectives and Targets List' with respect to environmental performance is reviewed annually then translated into plans and programmes to ensure effective and successful implementation.

Training, Awareness and Competence – Periodic training and awareness are cornerstones of the TAQA Learning and Development Programme.

Communication – Effective external and internal communication of environmental issues within TAQA contributes to the success of the EMS. This is carried out internally through regular meetings and offshore visits and externally with authorities and third parties.

Document Control – All EMS documentation is systematically managed to ensure it is up to date, accurate and traceable.

Operational Control – TAQA's procedures and work instructions are set up to minimise and control the impact of environmental aspects.

Emergency preparedness and response – Location level response plans are in place and are designed to effectively manage a wide variety of emergency scenarios.

Monitoring and measurement – All incident reports, such as near misses, incidents and accidents are systematically recorded and corrective actions are tracked.

Auditing – Regular auditing ensures the continued effectiveness of the EMS. All internal audits are performed according to the TAQA audit procedure, results are then discussed in cross functional meetings and corrective actions are tracked for progress.

Management review – Management reviews are crucial to the cycle for continuous improvement. Regular Management Review meetings initiate and evaluate improvement programmes.

ISO 14001

The International Standards Organisation (ISO) is a non governmental network of global national standards institutes. ISO 14001 is the main management systems specification document in the ISO 14000 series containing the essential elements that must be satisfied by an organisation seeking registration or certification for its Environmental Management System.

The backbone of ISO 14001 systems are:

- Senior management support and participation;
- Explicit organisational structures and responsibilities;
- Good communication;
- Competency reviews and training;
- Efficient document management and recording procedures;
- Audit capabilities;
- Regular well planned management reviews;
- Continual improvement and robust corrective action culture.

The ISO 14001 philosophy is based on the **Plan-Do-Check-Act (PDCA)** management model, originally known as the Deming cycle. In continuously going through each individual step, environmental management can result in improved environmental performance.

Plan: tools for identification of targets in environmental performance.

Do: tools for achieving goals of environmental management.

Check: tools for checking the effect of environmental management.

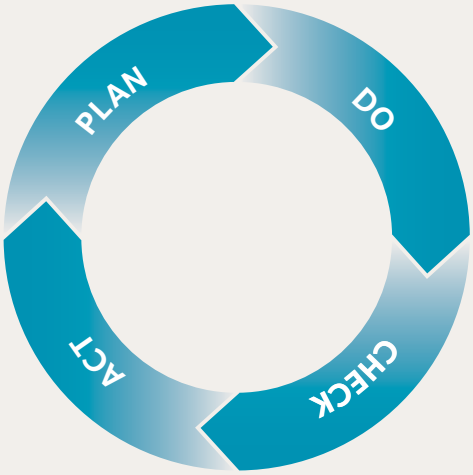
Act: tools for taking effective adjusting measures in environmental management.

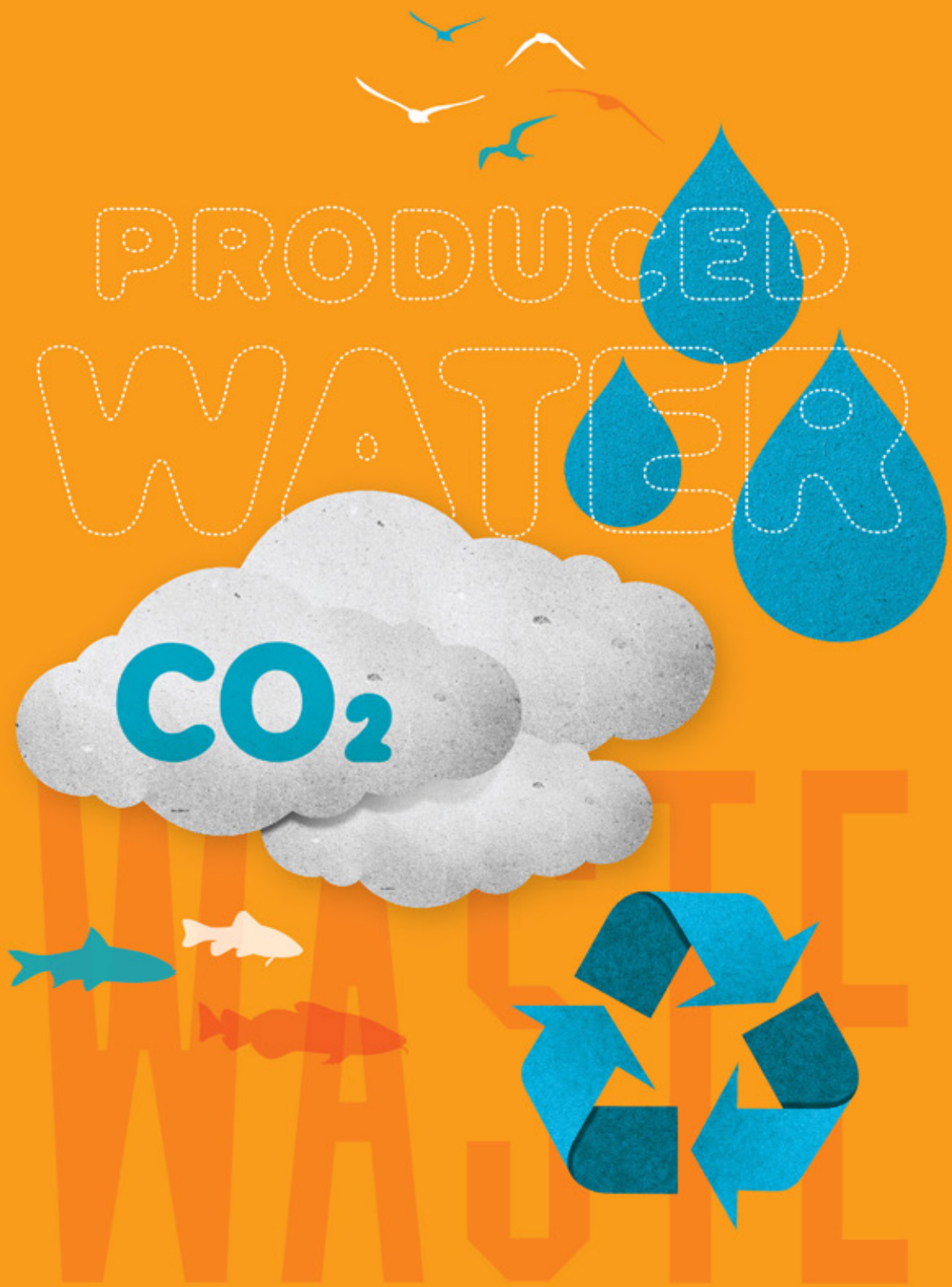
The use of the PDCA cycle helps in keeping the environmental management system a continuous process instead of an individual event. This continuous process is illustrated in the graphic opposite.

In designing TAQA's Environmental Management System to meet the requirements of ISO 14001, TAQA is effectively optimising the company's opportunity to reduce risk and liability within a structured system while enhancing its commitment to pollution control.

Two independent ISO 14001 surveillance audits were undertaken in 2014, both on and offshore. These audits covered all of the elements of ISO 14001 and incorporated the Devenick subsea tie-back into the certification. Both audits produced positive results with only six minor improvements identified during one of the audits.

> The Environmental Management System details the environmental aspects of all activities associated with TAQA's offshore operations and onshore offices, including risk ranking and mitigation measures. It also documents the procedures for monitoring and reporting environmental performance and for ensuring that TAQA 's activities are in compliance with all relevant environmental legislation.




PRODUCED
WATER
CO_2
WASTE

Environmental Performance

During 2014 TAQA saw a steady level of activity with the embedding of the Harding platform, continued drilling operations and commencement of the topsides and subsea operations of the Cladhan subsea tie-back.

Atmospheric Emissions

Atmospheric emissions from offshore activities arise mostly from burning of fuel gas and diesel for power generation and flaring of associated gas that cannot be used or exported for safety reasons, which is an integral part of the platform safety systems.

CARBON DIOXIDE EMISSIONS

The Greenhouse Gases Emissions Trading Scheme Regulations (2012) is the mechanism used to regulate and reduce carbon dioxide (CO_2) emissions to the atmosphere. All TAQA assets account for CO_2 emissions by means of the cap and trade system, which allows for an allocated allowance of CO_2 to be emitted and then allowance for all subsequent releases to be purchased.

The major combustion processes on the TAQA platforms resulting in the production of CO_2 are the generation of electrical power and the compression of gas for its transport to shore. Reservoir gas provides the primary fuel source with diesel acting as back up.

Figure 1 shows the actual (full year) amount of CO_2 emitted against the combined Emissions Trading Scheme (ETS) allowance. CO_2 emissions in 2014 were approximately 73% greater than the ETS allowance and 15.7% higher than the emissions in 2013. The introduction of ETS phase III in 2013 saw a significant reduction in allowances and they will continue to decrease each year. The overall TAQA allowance decreased by 3,645 tonnes, 1.7%, between 2013 and 2014. To account for the deficit between allowance and emissions TAQA purchased additional allowance from the trading scheme.

FIGURE 1: 2014 FULL YEAR CO_2 EMISSIONS VERSUS ETS ALLOWANCES

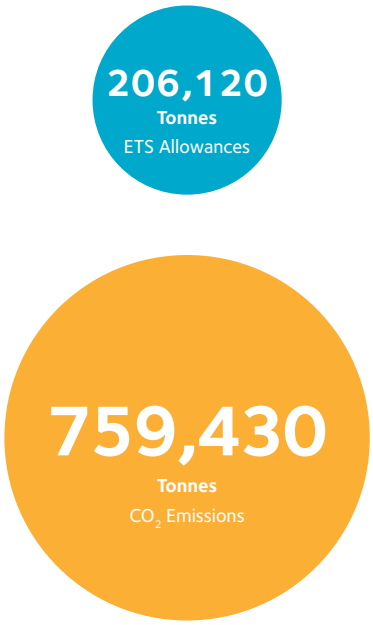


FIGURE 2: TAQA CO_2 DISCHARGES BY SOURCE

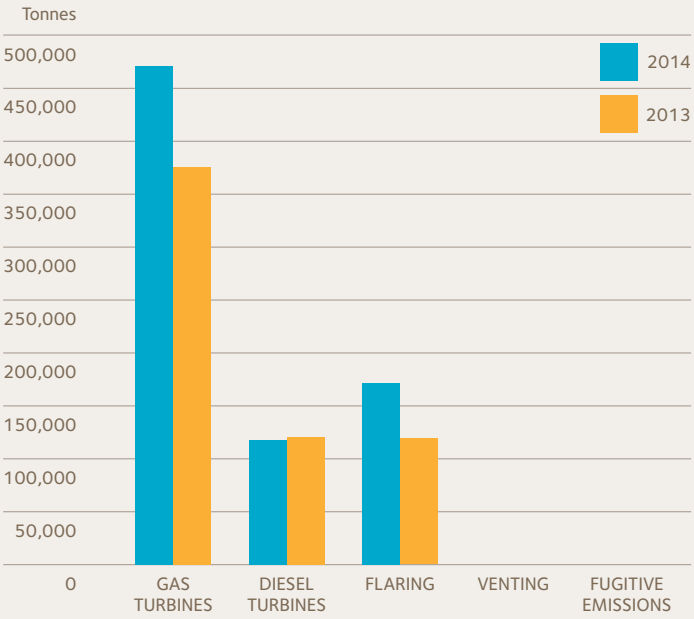
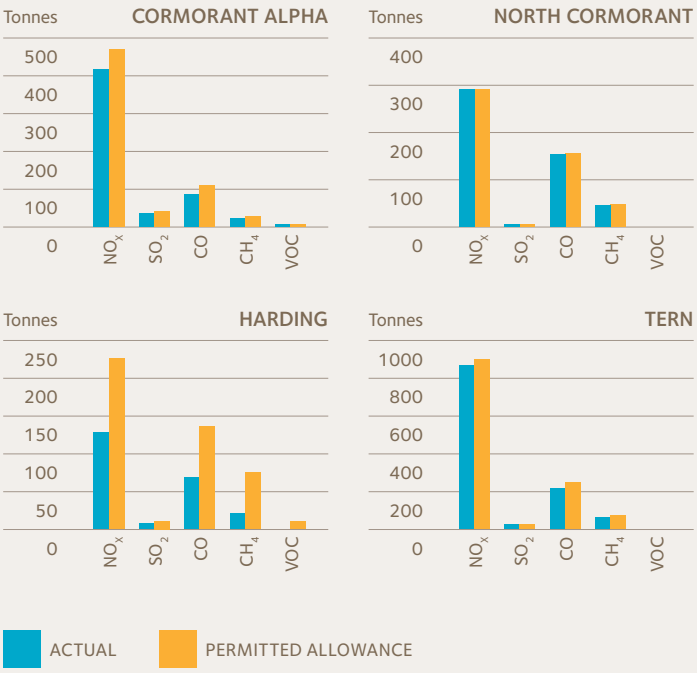


FIGURE 3: TAQA ACTUAL NON CO_2 ATMOSPHERIC EMISSIONS VS PERMIT ALLOWANCE



CARBON DIOXIDE EMISSIONS (CONTINUED)

Figure 2 shows that the largest proportion of CO_2 discharge comes from turbine gas usage. Issues with gas generator reliability meant that more generators were being run, thus using more gas, and there was limited production downtime so there was a steady demand for power and water injection. The demand for diesel decreases during production uptime which explains the slightly lower diesel emissions in 2014 compared to 2013. An increase in CO_2 production from flaring compared to 2013 can be attributed to increased production on the Cormorant Alpha platform, issues with gas export to North Cormorant from Eider and instability during start up after platform shutdowns. In contrast the North Cormorant platform did see a reduction in emissions from flaring due to stable production and a platform shutdown during the year.

NON CO_2 ATMOSPHERIC EMISSIONS

The main combustion emission is carbon dioxide however smaller emissions of nitrous oxide, sulphur dioxide, carbon monoxide, methane and volatile organic compounds are also produced. Non CO_2 atmospheric emissions from TAQA installations are regulated via legislation covering flare emissions, vent gas emissions and offshore Combustion Installations (PPC) regulations.

As shown in *Figure 3* all platforms were within the permitted allowance for non CO_2 atmospheric emissions. Eider is the only platform that does not have a PPC permit because it does not reach the combined thermal input threshold to trigger the need for a permit.

FIGURE 4: TAQA 2014 WASTE DESTINATION COMPARISON

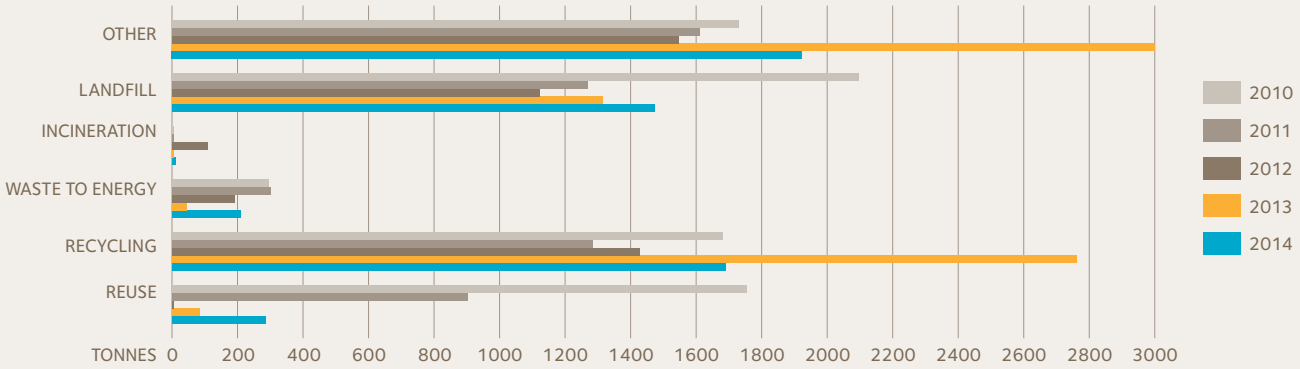
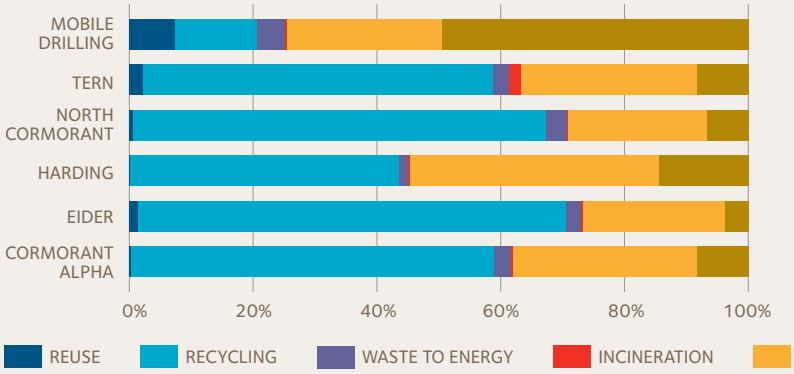
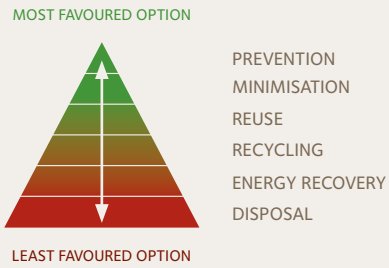


FIGURE 5: TAQA 2014 WASTE DESTINATION



TAQA WASTE HIERARCHY



Waste

A variety of solid and liquid wastes are produced from TAQA's offshore operations, including: drill cuttings, waste chemicals, tank washings, waste oil, paper, scrap metal, glass and wood. To ensure legal compliance all TAQA platforms actively segregate their waste streams to allow for more environmentally acceptable disposal routes.

The Merchant Shipping (Prevention of Pollution by Garbage) Regulations 1998 prohibits overboard discharge of offshore waste. All waste is therefore segregated offshore and the majority is disposed of onshore via a variety of routes, including recycling, landfill, waste-to-energy (WtE) and incineration.

Figure 4 details the tonnage of TAQA waste going to each disposal route over the last five years. 2014 saw a rise in waste going to landfill, incineration, waste-to-energy and reuse but a decrease in waste being recycled and disposed of under the 'other' category (which includes discharged under consent and treated waste) when compared to 2013. Overall the tonnage of waste produced and handled during 2014 was 5,591 tonnes, which is a 27% decrease on the 2013 tonnage. 2014 saw a steady utilisation of the waste-to-energy route in place of landfill with an increase of 167 tonnes from 2013. The amount of waste sent to WtE is dictated by the capacity of the plant handling the waste.

Figure 5 gives an overview of the percentages of different waste disposal routes generated by the TAQA offshore locations. 2014 saw a rise, a 4% increase compared to 2013, in the amount of waste sent for reuse. The majority of waste sent for reuse comes from the mobile drilling (MODU) operations as they use the most chemicals and the majority of reusable waste is non-hazardous chemical drums and containers. Additionally any chemicals which are not used during the operations, such as cement, are returned to shore for reuse. Mobile drilling operations produce large volumes of oil based drill cuttings which are disposed of onshore. This explains why the MODU has the largest percentage of waste disposed of under the 'other' category compared to the platforms, where all drill cuttings are injected into the reservoir.

While there was a 5.7% reduction in recycled waste during 2014 the increase in waste sent for reuse, energy recovery and the overall reduced tonnage in waste produced during 2014 demonstrates that TAQA continues to move waste management up the waste hierarchy from less favourable disposal options.

Waste (continued)

Annual waste reduction targets for general waste were set for all platforms during 2014. The target for 2014 was a 2% reduction in general waste (based on 2013 levels) for the northern assets and a 5% reduction for the Harding platform. The target was based on continual improvement in garnet and shot blast recycling, food waste reduction and increased use of VegWare consumables, and enhancements in offshore signage and labelling for waste segregation. In addition improvements were made through the supply chain including reducing packaging. The waste reduction targets were met by the Eider, North Cormorant and Harding platforms however the Tern and Cormorant Alpha were unable to reach the target due to an increase in personnel on the platform throughout the year. Going forward waste reduction targets will focus on improving the waste segregation by monitoring the general waste, via skip audits, to drive recycling and lower the volume of waste going to landfill.

Produced Water

Produced water is created during the extraction of oil and gas from subsurface. The produced water may contain water which has come directly from the reservoir, from water injected into the formation to aid the extraction of oil or gas and any chemicals added during the production/treatment process. Oil reservoirs typically produce more water during extraction compared to gas reservoirs and as the reservoirs mature the proportion of water increases. The produced water is separated from the hydrocarbons so it contains dissolved and dispersed hydrocarbons.

The Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations 2005 (OPPC) (as amended) regulate all oil discharges to sea and require that all of these discharges must be permitted by the Department of Energy and Climate Change (DECC). DECC place strict limitations on both the concentration and quantity of oil discharged in order to protect the marine environment.

The five TAQA installations report a total of nine individual discharges streams – two on Cormorant Alpha, one on Eider, two on North Cormorant, two on Tern and two on Harding – all of which must meet the legal monthly discharge average of 30mg/l. A third discharge from Tern is the Hudson subsea tieback. Hudson is operated by Dana Petroleum, therefore the produced water discharge data is not included in this report.

Reporting discharge streams on an individual basis ensures that a constant focus can be maintained on the quality of each discharge via the required sample regime. If any deterioration in quality is observed subtle process adjustments can be made to minimise the overall quantity of dispersed oil being discharged to sea – something that was previously difficult to achieve when reporting combined discharges.

Figure 6 shows that the TAQA internal target average oil in produced water (OIPW) concentration for each discharge stream were met in 2014, apart from the North Cormorant Train A and the Tern Train B train which exceeded the internal targets by 37.6% and 10.8% respectively. The North Cormorant Train A exceedance was due to the North Cormorant Train B being offline for 83 days, which meant that all of the platform's produced fluids were being routed through one train causing difficulties in managing the oil in water (OIW) levels. The Tern Train B exceedance was a result of sand build up in the vessels of the separator trains, reducing the amount of time the water had to separate from the oil. The removal of the sand from the vessels has since lowered the OIPW concentration levels. All discharge streams met the legal monthly average limit of 30mg/l.

Figure 7 illustrates that all of the platforms, apart from Tern, met their internal produced water discharge targets for 2014. 2014 saw a 19.6% increase in the volume of produced water that was discharged compared to 2013. As TAQA operates aging assets the water cut of production wells increases year on year which in turn results in more produced water being discharged. Harding is the only platform that has the capability to re-inject produced water. 2014 saw 86.6%, 3,699,074m^3, of the total produced water being re-injected back into the reservoir which decreases the volume going to sea.

Figure 8 shows the actual quantity of oil discharged to sea via produced water for all TAQA platforms during 2014 compared to internal targets. A total of 242 tonnes of dispersed oil was discharged to sea which is 3.2% below the internal target. This is a 59 tonne increase from the amount that was discharged in 2013, 183 tonnes, because of increased production operations and limited downtime across all five assets.

In addition to the produced water discharge streams on the installations there were also three additional project based term OPPC permits in place during 2104. These covered the Light Well Intervention Vessel (LWIV) campaign in the Pelican and UMC fields and pipeline operations in the UMC. From these approximately 0.1 tonnes of oil were discharge to sea.

FIGURE 6: TAQA ACTUAL OIPW VERSUS TARGET OIPW CONCENTRATIONS

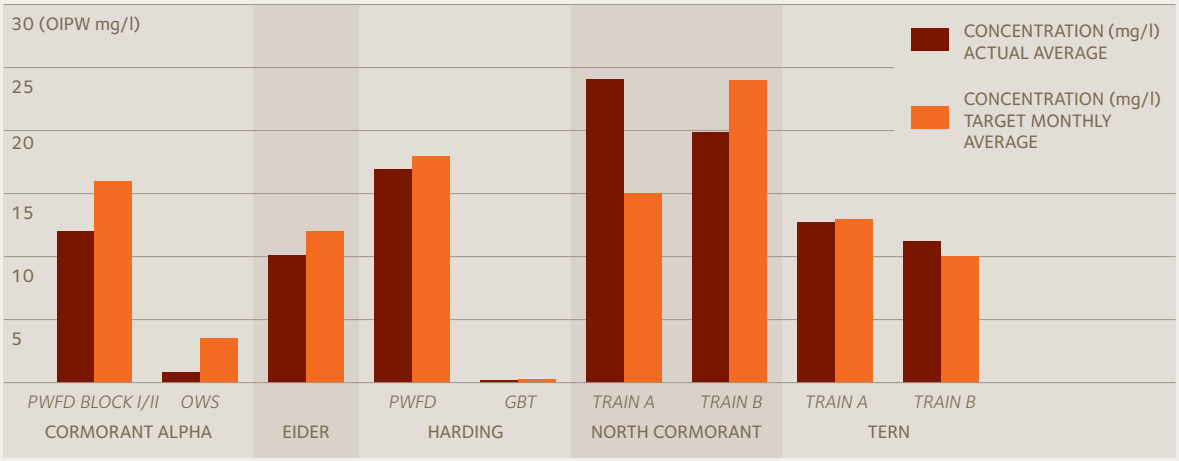


FIGURE 7: TAQA ACTUAL VERSUS TARGET PRODUCED WATER DISCHARGE

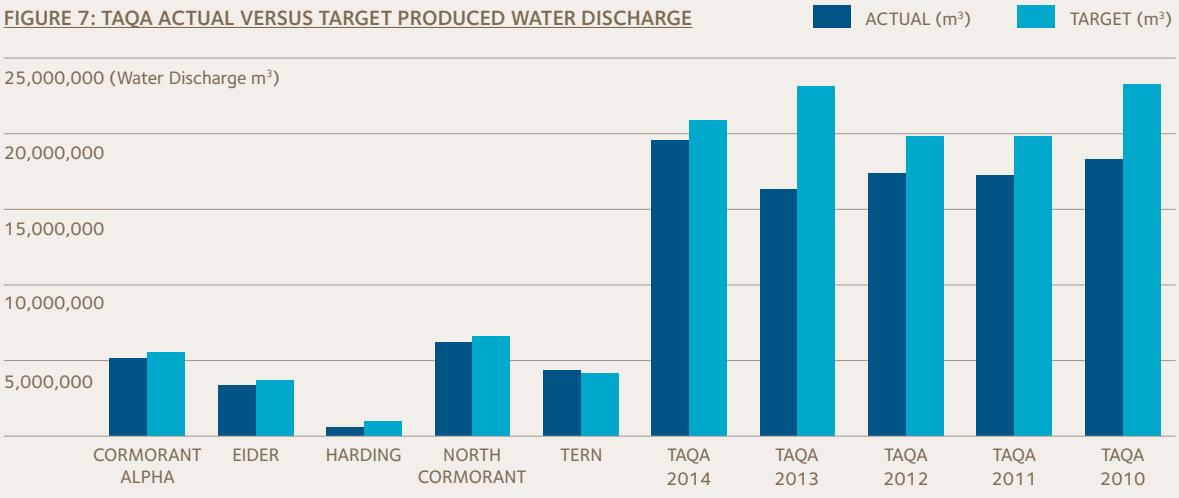
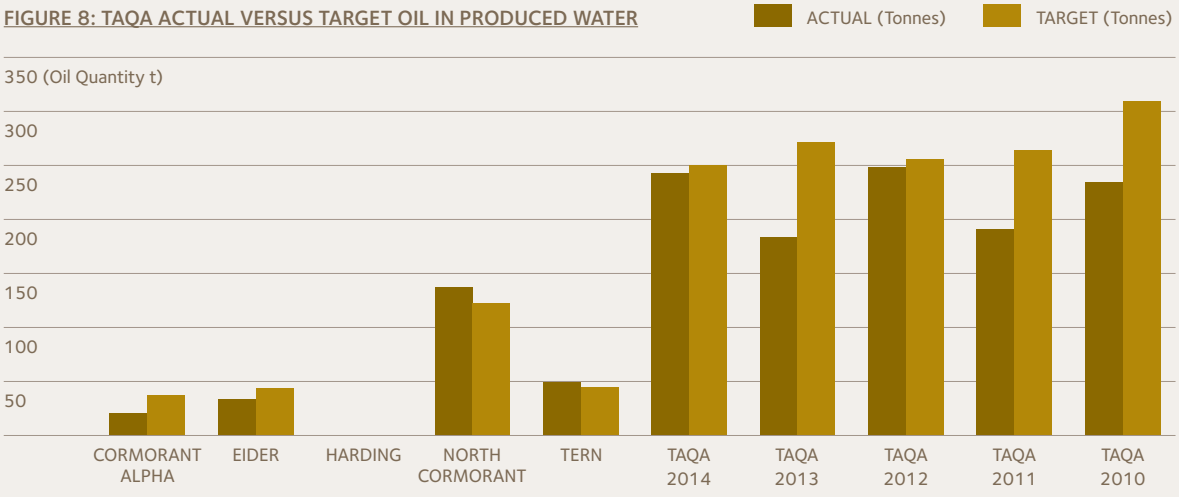


FIGURE 8: TAQA ACTUAL VERSUS TARGET OIL IN PRODUCED WATER



Chemicals

Chemical use and discharge is regulated under the Offshore Chemicals Regulations 2002 (OCR). A permit must be obtained from DECC prior to the use and discharge of chemicals associated with production, drilling, well interventions and pipeline operations offshore.

These permits describe the selection, deployment, discharge route and environmental impact assessment for chemicals that are either used continuously or on an ad-hoc basis.

A key objective of the OCR Regulations is "to identify chemicals that might be considered hazardous and to ensure wherever possible their substitution by less hazardous or non-hazardous chemicals".

Classification of chemicals is undertaken via the Offshore Chemical Notification Scheme (OCNS). This scheme assigns a substance a risk/hazard category, either a colour or a letter (dependent on the method used to model the risk), based on the varying levels of hazard/risk to the receiving environment associated with its discharge (see *Table 1*).

Table 1 shows the relative quantities of chemicals used and discharged according to their classification under the offshore Chemical Notification Scheme (OCNS). The quantity of chemicals used, 11,734 tonnes, and discharged, 4,784 tonnes, cover all those used during 2014 for TAQA's installation operations, mobile drilling and well intervention activities, and pipeline operations.

A substitution warning is assigned to an offshore chemical if it is considered by CEFAS to be harmful i.e. the chemical or a component of it fails to meet set criteria with respect to biodegradation, bioaccumulation potential or toxicity.

It should be noted that of the total 4,784 tonnes of chemicals discharged to sea during 2014, 98% of this was a discharge of either the lowest risk CHARM category gold, or the Non-CHARM lowest risk category E. Furthermore, of the total 4,784 tonnes of chemicals discharged to sea during 2014, only 5.9% of this discharge was comprised of chemicals which carry a substitution warning.

TABLE 1: 2014 CHEMICAL USAGE AND DISCHARGE QUANTITIES ACCORDING TO OCNS CATEGORY

			TOTAL USAGE (KG)	TOTAL DISCHARGE (KG)
NON-CHARM MODEL CHEMICAL CATEGORISATION	A	HIGH HAZARD	1,256.40	0.00
	B	↑	11.50	195.17
	C	↓	20,457.85	0.00
	D	POSES LITTLE OR NO RISK	24,518.32	24,542.32
	E		8,194,749.67	2,053,760.59
CHARM MODEL CHEMICAL CATEGORISATION	PURPLE	HIGH	0.00	0.00
	ORANGE	↑	0.00	0.00
	BLUE	RISK	43,938.72	20,685.58
	WHITE		0.00	0.00
	SILVER	↓	82,997.35	16,834.12
	GOLD	LOW	3,366,370.01	2,668,271.80
			11,734,299.82	4,784,289.58

FIGURE 9: 2014 TAQA CHEMICAL USAGE AND DISCHARGE

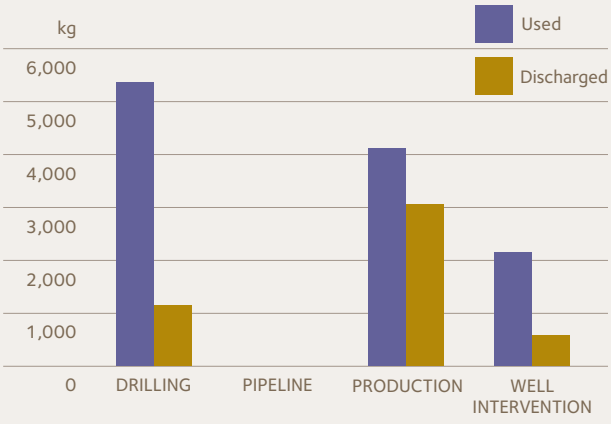


Figure 9 highlights that drilling operations used the largest amount of chemicals during 2014. This was due to a busy drilling campaign which saw 4 wells being drilled between the MODU and platform drilling teams throughout the year. Even though they had the greatest chemical usage the drilling operations discharged 61.8% less chemicals than the production operations. This is due to the majority of drilling chemicals on the MODU being returned to shore for disposal and on the platform they are injected into the formation, whereas the majority of chemicals used during production operations is for oil in water management of the produced water thus they are discharged to sea.

Accidental Spills

All offshore operations must be covered by an approved Oil Pollution Emergency Plan (OPEP). These plans describe the procedures and notifications that should be undertaken in the event of a spill. They are regularly tested and exercised by offshore and onshore response teams to ensure they are fit for purpose. All unplanned discharges to sea of oil and chemical, regardless of volume, must be reported to relevant authorities (DECC, Marine Scotland, MCA and JNCC) via a Petroleum Operations Notice 1 (PON 1).

Although every effort is made to prevent the loss of containment of oil and chemicals there is always the potential for them to occur during offshore operations. At TAQA, there are a variety of systems and procedures in place to mitigate against and reduce the potential of the unplanned releases to sea. If a loss of containment does occur whether it reaches the sea or is recovered at the location, it is captured in the company's incident reporting database. The spill is then subject to investigation to identify the root cause.

Table 2 shows the number of PON1s submitted by TAQA during 2014, detailing if it was an oil or chemical spill and the corresponding quantity.
24 spills took place during 2014 which is an increase on the 18 spills in 2013. Unfortunately there has also been a 40% increase in the volume of oil released to sea, from 2.1 tonnes in 2013 to 3.5 tonnes in 2014. The majority of this volume, 1.7 tonnes, can be attributed to an oil based mud spill during mobile drilling operations which was related to a blockage in a flowline (a piece of a bridge plug got stuck behind a butterfly valve) during a milling job. 2014 also saw an increase in the volume of chemicals released to sea from 1.2 tonnes in 2013 to 7.2 tonnes. A spill of heating medium chemical from pipework on the Tern platform was related to a temporary coupling being used which was nearing its lifespan and the degradation of the internal rubber components. The total volume of chemical spilled was exacerbated by the fact that it took place during the night-time and that there was further spillage during the repair works.

TABLE 2: ACCIDENTAL SPILLS TO SEA

PLATFORM	DESCRIPTION OF OIL SPILL	MIN – MAX QUANTITY OF OIL SPILLED (TONNES)	DESCRIPTION OF CHEMICAL SPILL	MIN – MAX QUANTITY OF OIL CHEMICAL SPILLED (TONNES)
Cormorant A	Oily waste release from drains pipework	0.001 – 0.01	Leak testing dye spilled to sea via drains	0.0005
	Subsea leak of hydraulic oil from UMC P2 hose	0.345		
	Lifeboat gearbox seal leak	0.025		
	Diesel leak from emergency generator return line	0.0009		
Eider				
North Cormorant	Diesel spill during destruct of diesel bunkering line	0.00416 – 0.00832	Demulsifier chemical spill during tank filling operations	0.611
Tern	Rapeseed oil leak during annulus integrity testing on TA19	0.0046 – 0.0184	Leak from heating medium pipework	4.535
	Diesel spill during bunkering operations	0.48		
	Lube oil leak from gas compressor pipework	0.2		
	Diesel spill from diesel dispensing nozzle	0.44958 – 0.4956		
	Crude oil spill from hydrocyclone vent line	0.0001		
Mobile Drilling	OBM spill due to blocked flowline – oil	1.7	OBM spill due to blocked flowline – chemicals	2.03
			BOP yellow pod leak	0.01044
Harding	Crude oil spill from well flowline	0.001		
	Hydraulic oil leak to sea due to seal failure on conductor tensioner slot 20	0.005		
	Hydraulic oil leak to sea due to seal failure on conductor tensioner slot 23	0.003		
	Hydraulic oil leak to sea due to seal failure on conductor tensioner slot 23	0.00431		
	Hydraulic oil leak to sea due to seal failure on conductor tensioner slot 5	0.014		
	Hydraulic oil leak to sea due to seal failure on conductor tensioner slot 16	0.0225		
	Hydraulic oil hose leak on actuator	0.19338		
	Diesel spill to sea via drains	0.000238		
	Wellhead hydraulic umbilical failure	0.024		


RSPB

Onshore Initiatives

As a responsible energy company, TAQA continually looks to support the communities in which we operate. We have an active corporate social responsibility programme which looks to achieve three overarching goals: protect the environment from the impact of our operations; support the local communities where we operate; and increase education, potential and creativity.

Royal Society for the Protection of Birds (RSPB)

In 2014, with sponsorship from TAQA, the RSPB devised an outdoor learning programme that will run in schools throughout Aberdeen and Aberdeenshire from March - June 2015. The programme raises awareness of the importance of outdoor learning and gives children the opportunity to learn about and interact with nature.

There is increasing evidence to show that when young people are connected to nature, it has a positive impact on their education, physical health, emotional wellbeing and personal and social skills, which in turn, helps them to become responsible citizens.

World Environment Day

TAQA invited several charities and organisations to showcase their work at TAQA's offices to mark World Environment Day in June.

The RSPB, British Divers Marine Life Rescue and Sea-Changers, who are all actively supported by TAQA, all took part. Staff also had the chance to view the work of transport partnership Nestrans, wood waste management charity Wood RecyclAbility and specialist waste sub-contractor Keenan Composting.

Guest speaker for the event was Sea-Changers patron Guy Grieve. The writer and marine campaigner spoke about the importance of protecting the marine environment.

TAQA Beach Clean

In August 2014, 40 volunteers from TAQA in partnership with Sea-Changers charity took part in a beach clean at Aberdeen beach and collected more than a quarter of a tonne of waste.

The beach looked great when the clean-up was complete and it was a significant achievement that so much waste was removed from the beach and will not end up back in the sea.

Carshare

The TAQA CarShare programme allows personnel based at TAQA House to share journeys with colleagues who have a similar route to work. Car-pooling leads to a reduction in the environmental impact of commuting to work as well as reducing the number of cars requiring a parking space at TAQA House. TAQA also shares commuter transport with neighbouring companies in the industrial estate at Westhill in order to limit the number of buses needed for the same route.

Environmental Objectives

Each year a number of key objectives are set. The purpose of these objectives is to help achieve and demonstrate continual improvement in the environmental performance of TAQA in the UK. Each objective is made up of a number of individual targets.

The table below provides an overview of the status of the 2014 objectives at year end.

OBJECTIVE		STATUS
1	Environmental Studies/Assurance Activities	
2	Offshore Operations Continuous Improvements	
3	Environmental Engineering Control Improvements	
4	Waste Management Continuous Improvements: Reduction of waste to landfill both onshore and offshore (see below):	
	a) Reduce percentage of offshore waste by 2% (Harding 5%)	
	b) Reduce percentage of onshore waste by 10%	
5	Environmental Management System Continuous Improvements	

COMPLETED/ACHIEVED (>90%) PARTIALLY COMPLETE (>75%) INCOMPLETE/NOT ACHIEVED (<75%)

Overall four of the seven objectives in 2014 were achieved, one was partially completed (>75%) and two were not fully completed. The majority of objective 3 targets were completed, which included the implementation of offshore energy management plans and an offshore drains and bunds study, however the objective was not met due to a large ongoing environmental critical element project which overran into 2015. Additionally objective 4 was partially meet by the Eider, North Cormorant and Harding platforms reaching the waste minimisation targets but Tern and Cormorant Alpha were unable to reach it due to an increase in personnel on the platform throughout the year. The other objectives were not achieved due to unforeseen time constraints and so have been rolled forward into the 2015 objectives.

In 2015, TAQA in the UK is concentrating its efforts on focussed objectives in the same five key areas:

1. Environmental Studies/Assurance Activities
2. Offshore Operations Continuous Improvements
3. Environmental Engineering Control Improvements
4. Waste Management Continuous Improvement
5. Environmental Management System Continuous Improvements

Glossary

CEFAS
Centre for Environment, Fisheries and Agricultural Science

CH_4
Methane

CHARM
Chemical Hazard Assessment and Risk Management

CO
Carbon Monoxide

CO_2
Carbon Dioxide

DECC
Department of Energy and Climate Change

EMS
Environmental Management System

ETS
Emissions Trading Scheme

FLAGS
Far North Liquids and Associated Gas System

GBT
Gravity Base Tank

HSSEQ
Health, Safety, Security, Environment and Quality

ISO 14001
International Standards Organisation 14001 – specifies the requirements for an environmental management system

JNCC
Joint Nature Conservation Committee

LWIV
Light Well Intervention Vessel

mboe/d
Thousand Barrels Oil Equivalent per Day

MCA
Maritime and Coastguard Agency

MODU
Mobile Offshore Drilling Unit

NO_x
Oxides of Nitrogen

OCR
Offshore Chemicals Regulations (2002) (as amended)

OCNS
Offshore Chemical Notification Scheme

OIPW
Oil in Produced Water

OPPC
Offshore Petroleum Activities (Oil Pollution Prevention and Control) Regulations (2005) (as amended)

OWS
Oily Water Separator

PON
Petroleum Operations Notice

PPC
Offshore Combustion Installations (Pollution Prevention and Control) Regulations (2013)

PWFD
Produced Water Flash Drum

SO_2
Sulphur Dioxide

UKCS
United Kingdom Continental Shelf

UMC
Underwater Manifold Centre

VOC
Volatile Organic Compound

Designed & produced by **Hampton Associates**, Aberdeen.

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