

UK ENVIRONMENTAL
STATEMENT 2022



At TAQA, we are committed to the highest standards of health, safety, security and environmental (HSSE) performance.

We work to respect the natural environment and to achieve our goals of ensuring that no harm comes to people; 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.

**FOR FURTHER INFORMATION,
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WELCOME TO TAQA UK'S 2022 ENVIRONMENTAL STATEMENT

I am pleased to present the 2022 Environmental Statement for TAQA UK's business and to reiterate our commitment to the highest standards of health, safety, security and environmental (HSSE) performance.

During 2022 we continued to deliver excellence in safe and responsible late-life operations and decommissioning, and many of our activities positively influenced our environmental performance.

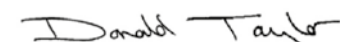
We completed removal of the Brae Bravo upper main jacket and one of two rigs on Brae Alpha, producing 23,346 tonnes of decommissioning based waste, with 96% (22,501 tonnes) either being reused or recycled. As part of our decommissioning activities, we also progressed well plug and abandonment (P&A) activity on East Brae, North Cormorant and Tern.

We improved our waste performance from an operational aspect with a 62% reduction (96 tonnes) of waste being diverted from landfill compared to 2021 performance. Overall, 86% of operational waste was reused or recycled.

With P&A progressing across our assets and production decreasing, this has resulted in a reduction in produced water discharges of 15% (2,637,521m³), but an increase in chemical usage. However, 97% of all permitted chemical discharges were of the lowest risk CHARM (Chemical Hazard Assessment and Risk Management) category or the lowest non-CHARM category of chemical – the most environmentally friendly type of chemical available to TAQA UK.

2022 saw a 5% reduction in CO₂ emissions versus 2021, while all non-CO₂ emissions were within permitted limits. We continued to drive improvement in our emissions performance through implementation of energy saving and emission reduction process reviews across TAQA UK sites, including the creation of Emission Reduction Action Plans (ERAP).

TAQA UK strives to further reduce our impact on the environment as part of ensuring safe and successful operations as we move into the decommissioning phase of the business.



Donald Taylor

Managing Director, TAQA Europe



INTRODUCTION

HEALTH, SAFETY, SECURITY & ENVIRONMENT POLICY

The health, safety and security of our employees, contractors and the public is our highest priority; it is more important than any operational priority.

We must also:

- Ensure that our assets are operated safely.
- Assure the integrity of our assets.
- Respect, protect and understand the natural environment.

HSSE = Health, Personal Safety, Major Accident Prevention, Security and Environment

We strongly believe that excellent business performance requires excellent HSSE performance – we recognise this as a core value.

Employees and contractors are required to focus on these four areas.

LEADERSHIP

- Everyone within TAQA understands their accountabilities for the management of HSSE.
- The structure and resources necessary to achieve and measure HSSE accountabilities are provided.
- Requirements of applicable legislation and standards are identified, understood and complied with.
- Personnel have the required competencies and are fit for work.
- Our workforce is aligned, involved and empowered in the identification and management of HSSE hazards and the achievement of our HSSE goals.
- Key stakeholder groups are identified and good working relationships are maintained (understanding and addressing their issues and concerns).
- Everyone within TAQA demonstrates commitment and accountability to implement this policy and to work in accordance with the TAQA Management System Elements and Expectations.

OPERATIONAL RISK IDENTIFICATION AND ASSESSMENT

- Risks are identified, assessed and appropriately managed.
- Information required to support safe operation is identified, accurate, available and up-to-date.

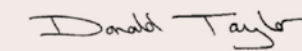
OPERATIONAL RISK MANAGEMENT

- The standards, procedures and operating manuals required to support project, maintenance and operational activities are identified, developed, understood and consistently applied.
- Process and operational status monitoring and handover requirements are defined, understood and carried out.
- Operational interfaces with third parties are identified, assessed and appropriately managed.
- Risks arising from any form of change are systematically identified, assessed and managed.
- A systematic process is in place to verify the safe condition of plant and equipment.
- To ensure that personnel are appropriately prepared (before start-up or return to normal operations) to complete tasks safely.
- We are appropriately prepared for all necessary actions which may be required for the protection of the public, personnel, the environment, plant equipment and reputation in the event of an incident.
- We aim to prevent pollution and protect the environment from the impact of our operations.

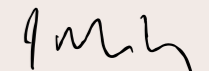
REVIEW AND IMPROVEMENT

- We routinely monitor our activities through internal/ external audits and produce key performance indicators – we review these indicators and intervene as necessary.
- Compliance with our expectations is routinely reviewed and audited to determine whether this policy remains appropriate and is being implemented effectively.
- The management system is routinely reviewed for continual improvement and to enhance HSSE performance.
- All incidents, near misses and opportunities for improvement are consistently reported and investigated, and identified actions and learnings are implemented on a timely basis.

We all have a personal responsibility to work safely and protect the environment. We are all safety leaders, irrespective of our role or location. Everyone is empowered to challenge and stop work if they are in any doubt regarding a job they are involved in or observing.



DONALD TAYLOR
Managing Director



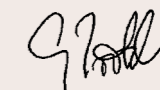
JOHN MULVANY
HSSEQ Director



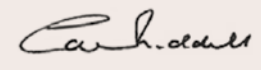
JEREMY KIBBLE
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SANDY HUTCHISON
Legal, Commercial and
Business Services Director




GARY TOOTILL
Technical Director



CALUM RIDDELL
Operations Director



DAVID WILSON
Decommissioning and
Projects Director



CORINNE KELT
Human Resources
Director



NORTH SEA OPERATIONS



TAQA

Our roots are in Abu Dhabi with operations in the UAE and beyond. We're a top 10 integrated utilities champion in the EMEA region with power and water and oil and gas operations in 11 countries around the world.

TAQA was established in 2005; however, our story begins in 1998 with the privatisation of Abu Dhabi's power and water sector, underscoring the importance of water security and provision of power to communities across the UAE. This move paved the way for TAQA's establishment as a publicly listed company on the Abu Dhabi Securities Exchange (ADX) in 2005. Since then, we've grown into a diversified company with operations in the UAE as well as Canada, Ghana, India, Iraq, Morocco, Netherlands, Oman, Saudi Arabia, United Kingdom and the United States.

We are proud to be a company that provides energy and water to communities around the world.

TAQA UK

In the UK TAQA operates seven platforms, which produce from several fields spread across the northern and central North Sea.

TAQA UK has safely and successfully completed its first platform decommissioning project of our Brae Bravo platform during 2021 and 2022; and is working towards Cessation of Production (CoP) of its remaining northern North Sea assets (Cormorant Alpha, North Cormorant and Tern) within the next two years.

The majority of TAQA's UK portfolio is wholly owned and operated. In the northern North Sea it consists of 100% operated interest in the Tern, Kestrel, Eider, Otter, Cormorant Alpha, North Cormorant, South Cormorant, Falcon, Pelican, Cladhan and Hudson fields; and a 60% operated interest in the Cormorant East field. Further interests include a 24.5% non-operated interest in the Sullom Voe Terminal and a 16% interest in the Brent System, which TAQA UK also operates.

In the central North Sea, TAQA UK has a 70% operated interest in the Harding field, 70% in the Morrone field, 88.7% in the Devenick field and 37.04% non-operated interest in the Maclure field. In the Brae area, TAQA UK has operated interests of 76.2% in Brae Alpha (Block 16/7a), 79.3% in East Brae and 87.8% in Braemar. It also has a 38.1% interest in the Scottish Area Gas Evacuation pipeline system (SAGE) pipeline and onshore terminal.

2022 OVERVIEW

TAQA UK continued its journey of delivering excellence in safe and responsible late-life operations and decommissioning in 2022.

Following the landmark decommissioning project of the Brae Bravo platform during 2021 and 2022, TAQA UK now operates seven offshore platforms in the northern and central regions of the UK sector of the North Sea. These are Cormorant Alpha, Eider Alpha, North Cormorant, Tern Alpha, Brae Alpha, East Brae, and Harding.

Following the successful decommissioning of the Brae Bravo platform topsides in 2021, in 2022, TAQA UK safely and successfully removed the 11,000 tonne Brae Bravo upper main jacket and one of the 1,000 tonne drill rigs on the adjacent Brae Alpha. The latter scope was an early element of the overall decommissioning strategy for the platform and was a major accomplishment to complete safely and successfully on an operational platform. The two large-scale scopes were performed within a single offshore campaign which featured the deployment of one of the world's largest semi-submersible crane vessels (SSCV), Heerema's Sleipnir.

As with the Brae Bravo topsides removal project, all removed materials were shipped to an onshore dismantling yard for processing, with TAQA UK's commitment to 95% of the materials being reused or recycled remaining on target.

TAQA UK also progressed several P&A campaigns with rig-based activities on East Brae, Tern Alpha and North Cormorant – completing more than 40 wells in 2022.

Pre-abandonment activities commenced on several wells on Cormorant Alpha, along with the installation of one of the few modular drilling rigs in the North Sea on Cormorant Alpha for well decommissioning. This also included environmental audits during the build of the rig in Norway.

Preparatory work and assurance activities were also completed to inform future decommissioning plans, including environmental site surveys at the Devenick subsea field and Harding platform.

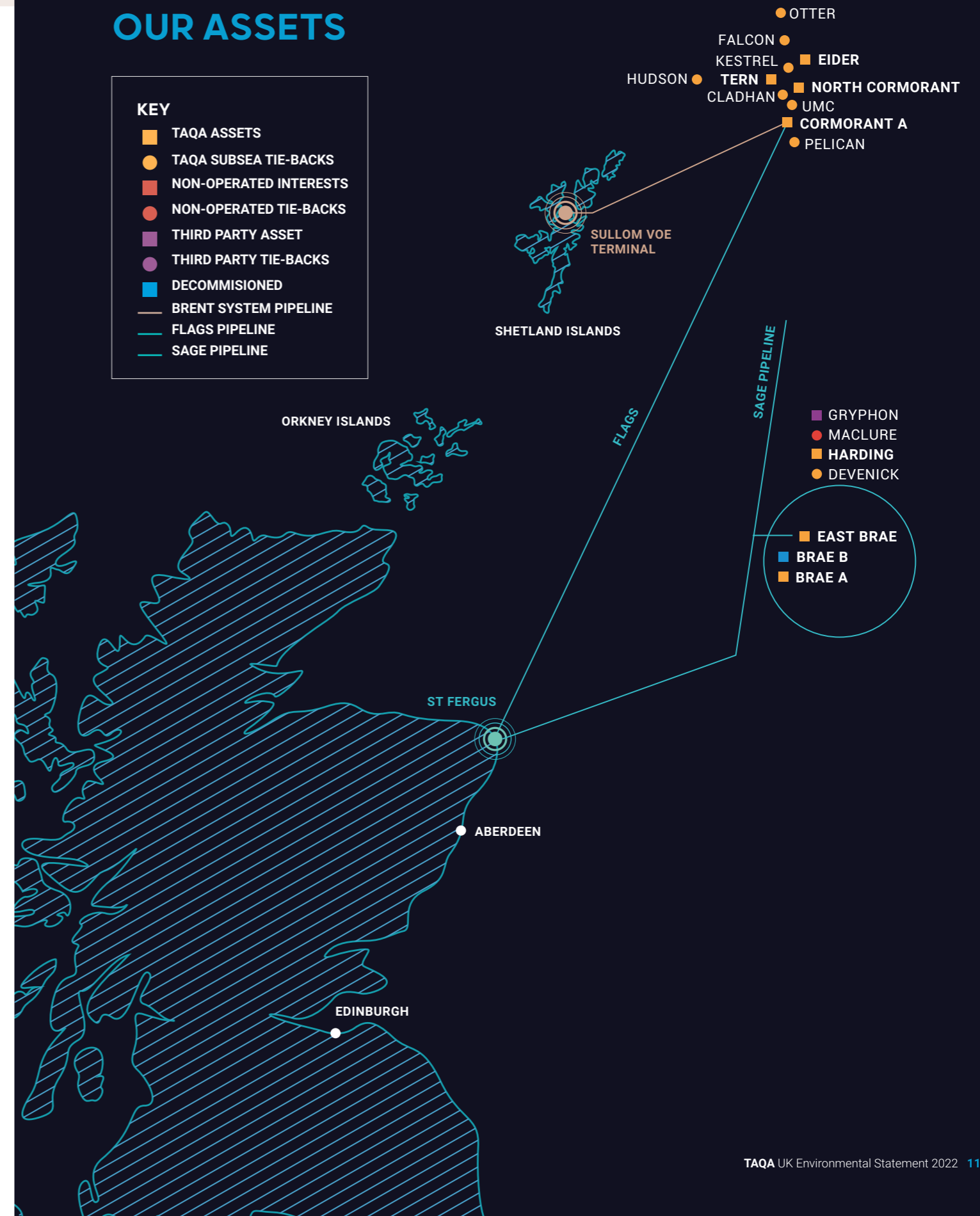
As part of the forward planning for decommissioning in the years ahead, TAQA UK awarded Allseas the contract for the engineering, preparation, removal and disposal (EPRD) of the Eider, Tern, North Cormorant and Cormorant Alpha platforms – the largest single United Kingdom Continental Shelf (UKCS) decommissioning contract to date by weight. We also continued our relationship with Heerema Marine Contractors who supported our decommissioning campaigns to date, awarding them a contract for the removal and disposal of our East Brae facilities.

In 2022, production from TAQA UK's operations averaged 39,900 boed from 18 producing fields. This was a slight increase in production from 38,000 boed in 2021, predominantly driven by strong reliability across TAQA's UK assets, good shutdown delivery on North Cormorant and Brae Alpha and effective management of the balance between production and P&A on East Brae, where the most valuable wells were retained on production for a phased ramp down to COP.

We continued to put safety above all else during 2022, and delivered several workforce safety engagement campaigns including the roll out of Positive Safety Conversation training to everyone who works on TAQA UK's offshore platforms, ensuring a positive and constructive culture around conversations that can enhance HSE performance.

“TAQA UK SUCCESSFULLY COMPLETED ITS FIRST TOPSIDE REMOVAL DECOMMISSIONING PROGRAMME FOR THE BRAE BRAVO PLATFORM OVER TWO SEPARATE CAMPAIGNS.”

OUR ASSETS





BRAE ALPHA

POSITION:

207km (129 miles) east of Sumburgh Head, Shetland

BLOCK NUMBER:

16/7a

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

76.2% TAQA

DISCOVERY DATE:

1975

WATER DEPTH:

112m (367ft)

OIL PRODUCTION:

Oil (and natural gas liquids) are exported through the TAQA operated Brae to Forties pipeline and onwards via the Forties Pipeline System to the Kinneil reception terminal on the Firth of Forth.

GAS PRODUCTION:

Gas from the Brae area is piped to the St Fergus gas terminal via a tie-in to the SAGE pipeline system.

TYPE OF INSTALLATION:

8 legged steel jacket structure

FUNCTION:

The Brae Alpha platform is a single, integrated platform consisting of drilling rig, production, utility and accommodation facilities. Brae Alpha topside facilities process produced fluids from the South, Central and West Brae (including Sedgewick). Field reservoirs plus fluids from the Spirit Energy operated Birch, Larch and Sycamore (Trees) Field reservoirs and Enoch, operated by Repsol Sinopec.

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 owners' interest)

DISCOVERY DATE:

1972

WATER DEPTH:

150m (492ft)

OIL PRODUCTION:

Via Brent System

GAS PRODUCTION:

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

TYPE OF INSTALLATION:

Concrete gravity structure – 4 legs

FUNCTION:

Cormorant Alpha was designed to drill, produce, meter and pump oil and gas. Cormorant Alpha also receives oil via pipelines from North Alwyn and North Cormorant platforms as well as from the Underwater Manifold Centre (UMC) and Pelican subsea tie-backs. Oil from Cormorant Alpha is exported to Sullom Voe Terminal in the Shetlands via the Brent System. Gas from Cormorant Alpha also joins the Western Leg Gas Pipeline link to the Far North Liquids and Associated Gas System (FLAGS).





EAST BRAE

POSITION:

193km (120 miles) east of Sumburgh Head, Shetland

BLOCK NUMBER:

16/3a

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

79.3% TAQA

DISCOVERY DATE:

1980

WATER DEPTH:

116m (380ft)

OIL PRODUCTION:

Oil (and natural gas liquids) are exported through the TAQA operated Brae to Forties pipeline and onwards via the Forties Pipeline System to the Kinneil reception terminal on the Firth of Forth.

GAS PRODUCTION:

Gas from the Brae area is piped to the St Fergus gas terminal via a tie-in to the SAGE pipeline system.

TYPE OF INSTALLATION:

Manned 4 legged steel platform

FUNCTION:

East Brae is a single integrated platform consisting of drilling rig, production, utility and accommodation facilities, to the north of Brae Bravo. East Brae topside facilities process produced fluids from the TAQA operated East Brae and Braemar Field reservoirs. In October 2012, Devenick, was tied-back to the East Brae platform and brought online.

HARDING

POSITION:

320km (200 miles) north-east of Aberdeen

BLOCK NUMBER:

9/23b

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

70% TAQA

DISCOVERY DATE:

1987

WATER DEPTH:

110m (330 ft)

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

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 field. 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 around every 4-6 weeks via a short (2km), 24" pipeline and submerged Offshore Loading System (OLS) to shuttle tankers.





TERN

POSITION:

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

BLOCK NUMBER:

210/25a

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

100% TAQA

DISCOVERY DATE:

1975

WATER DEPTH:

167m (548ft)

OIL PRODUCTION:

Via Brent System

GAS IMPORT/EXPORT:

Via Western Leg and Western Isles

TYPE OF INSTALLATION:

8 legged steel jacket

FUNCTION:

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

NORTH CORMORANT

POSITION:

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

BLOCK NUMBER:

211/21a

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

100% TAQA

DISCOVERY DATE:

1974

WATER DEPTH:

161m (528ft)

OIL PRODUCTION:

Via Brent System

TYPE OF INSTALLATION:

8 legged steel jacket

FUNCTION:

North Cormorant is a drilling and production facility for the North Cormorant field. The oil is then routed to Cormorant Alpha for onward transmission through the Brent System 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 and Fionn fields (non-producing). Since 2017 North Cormorant is also the production facility for the Otter field.

Gas is imported through the Western Leg via Brent A and the FLAGS Pipeline to St Fergus Terminal. Crude oil, imported from Tern, is exported to Cormorant Alpha.



BRAE BRAVO

POSITION:

191km (119 miles) east of Sumburgh Head, Shetland

BLOCK NUMBER:

16/7a

OPERATOR/DUTY HOLDER:

TAQA

EQUITY:

76.2% TAQA

DISCOVERY DATE:

1976/1977

WATER DEPTH:

99m (324ft)

OIL PRODUCTION:

Production at Brae Bravo ceased in December 2018.

TYPE OF INSTALLATION:

The Brae Bravo topside modules and jacket has been removed and only the footings remain in place.

FUNCTION:

The Brae Bravo platform was a single integrated platform consisting of drilling rig, production, utility and accommodation facilities. Production at Brae Bravo ceased in 2018 and the platform was disembarked in July 2019. Decommissioning activities commenced in 2021 and all topsides were removed, with the platform jacket being removed in 2022.

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:

1976

WATER DEPTH:

157.5m (517ft)

OIL PRODUCTION:

Production at Eider ceased in January 2018

TYPE OF INSTALLATION:

8 legged steel jacket

FUNCTION:

Eider serves as a utility platform providing power, chemical and control systems to support the Multi Phase Pump (MPP) operation for the subsea completed Otter field.

Otter reservoir fluids are produced through the MPP, a subsea pumping station which pumps the fluids along the pipeline to North Cormorant. The fluids are processed on North Cormorant and exported via the Brent System to Sullom Voe Terminal.

BRENT SYSTEM

The Brent System is responsible for transporting around 22k bbls a day from some 10 North Sea fields. This accounts for almost 50% of the oil processed by Sullom Voe terminal and around 3% of UK offshore oil export.

22,000 barrels – Average amount of oil transported per day.

153km – Transportation distance from Cormorant Alpha to Sullom Voe.

16% – TAQA interest.

The Brent System is a joint venture between 11 participants who each own a percentage interest in the system. The Brent System consists of a proportion of the processing system on, and structure of, the TAQA operated Cormorant Alpha platform, as well as the 153km pipeline connecting Cormorant Alpha to the Sullom Voe Terminal in the Shetland Islands.

TAQA has been operator of the Brent System since 2009.

HSSE MANAGEMENT SYSTEM ELEMENTS & EXPECTATIONS

LEADERSHIP

01. Leadership Involvement and Responsibility
02. Compliance with Legislation and Standards
03. Employee Competence
04. Workforce Engagement
05. Communication with Stakeholders

RISK IDENTIFICATION AND RISK ASSESSMENT

06. Hazard Identification and Risk Assessment
07. Documentation, Records and Knowledge

RISK MANAGEMENT

08. Operating Manuals and Procedures
09. Process and Operational Status Monitoring and Handover
10. Management of Operational Interfaces
11. Technical Standards
12. Management of Change and Project Management
13. Operational Readiness and Process Start-up
14. Emergency Preparedness
15. Inspection and Maintenance
16. Management of Safety Critical Devices
17. Work Control, Permit to Work and Task Risk Management
18. Contractor Management

REVIEW AND IMPROVEMENT

19. Incident Reporting and Investigation
20. Audit, Assurance and Management Review

MANAGEMENT SYSTEM HARMONISATION

Following the change in Operatorship of the Brae platforms to TAQA in October 2020, a management system harmonisation process was undertaken which initially saw the adoption of the Responsible Operational Management System (ROMS) for the Brae assets within TAQA. This was followed by a formal process which involved the integration and harmonisation of all the Brae asset processes and procedures into the preexisting TAQA Management System. This process was completed in 2022.



COMMITMENT TO OPERATIONAL EXCELLENCE

HEALTH, SAFETY, SECURITY AND ENVIRONMENT (HSSE) MANAGEMENT PROGRAMME

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 utilises 14 elements to the commitment to operational excellence. The elements correspond to the "Plan-Do-Check-Act" elements of ISO standards for health, safety, environment and quality management systems.

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

- Ensure all TAQA leaders demonstrate leadership and commitment to Commitment to Operational Excellence (COE) throughout the organisation.
 - Work constructively to seek to influence proposed laws and regulations, and consult on emerging issues.
 - To provide assurance that personnel are competent to safely perform their designated work roles, consistently and reliably to, at least, a minimum defined standard of performance. To do this they must possess the required underpinning working knowledge, understanding, skill and attitude to routinely perform their tasks and activities.
 - Identify key stakeholder groups and develop and maintain a good working relationship with them, understanding and addressing their issues and concerns.
 - Perform comprehensive hazard identification and risk assessments, identify control measures, develop and implement plans to manage significant risks to an acceptable level.
 - Identify, maintain and safeguard important information. Ensure personnel can readily access and retrieve information. Promote and encourage constructive dialogue within the organisation to share industry recommended practices and acquired knowledge.
- Design, construct, install, commission, operate, maintain, assure and decommission all TAQA assets in a healthy, safe, secure, environmentally sound, reliable and efficient manner.
 - Prevent incidents by identifying and minimising workplace and personal health risks. Promote and reinforce all safe behaviours.
 - Identify all necessary actions to be taken to protect people, the environment, TAQA's assets and reputation in the event of a crisis and/or an emergency.
 - Maintain operations stability and integrity throughout lifecycle of facility by use of clearly defined and documented operational, maintenance, inspection and corrosion control programs. Seek improvements in process and equipment reliability by systematically eliminating defects and sources of loss. Assessment of the degree to which expectations are met is essential to improve operations Integrity, maintain accountability and reliability.
 - Ensure that risks and exposures from proposed changes are identified, evaluated and managed to remain within pre-set (design) acceptance criteria.
 - Ensure contractors and suppliers perform in a manner that is consistent and compatible with TAQA policies and business performance standards. Ensure contracted services and procured materials meet the requirements and expectations of TAQA standards.
 - Report and investigate all incidents. Learn from incidents and use the information to take corrective action and prevent recurrence.
 - Confirm that TAQA processes are implemented and assess whether they are working effectively. Measure progress and continually improve towards meeting TAQA HSSE objectives, targets and key performance indicators.

ENVIRONMENTAL MANAGEMENT SYSTEM

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

TAQA UK continued to apply the ISO 14001:2015 standard to all operations in 2022. During March 2022, the East Brae and Brae Alpha assets were successfully added to the scope of the ISO 14001:2015 certification. This process was supported by the integration and alignment of the previous externally verified Brae EMS with the pre-existing TAQA UK system.

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 EMS.

The EMS provides a systematic approach to help control processes or activities which may have a potential environmental impact by means of procedures, instructions, training and education. It is designed to minimise the impact to the environment from TAQA UK's day to day operations, ensure compliance with legal obligations and support the business in the event of any emergency scenarios. The key components of TAQA's ISO 14001 certified EMS are:

ORGANISATIONAL CONTEXT

Structure of organisation, which also includes the scope of the EMS. Identifies processes, roles and responsibilities.

MANAGEMENT SUPPORT & REVIEW

Leadership commitment, including the HSSE policy. Management reviews are crucial to the cycle for continuous improvement. Regular management review meetings ensure that environmental improvements continue to be recognised.

LEGAL REQUIREMENTS

Identification of applicable legal regulations is an integral part of the EMS. Confirmation of operations to legal, statutory and regulatory requirements.

ENVIRONMENTAL ASPECTS

Elements or activities that may result in a positive or negative impact on the environment and how to control them.

OBJECTIVES, TARGETS AND PROGRAMMES

TAQA UK's '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 TAQA UK's Learning and Development Programme.

ENVIRONMENT



DOCUMENT CONTROL

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

OPERATIONAL CONTROL

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

COMMUNICATION

Effective external and internal communication of environmental issues by TAQA UK 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.

EMERGENCY PREPAREDNESS AND RESPONSE

Location level response plans are in place and are designed to effectively manage a wide variety of emergency scenarios. Necessary resources are available and exercises carried out to measure effectiveness – including oil spill response and control.

MONITORING AND MEASUREMENT

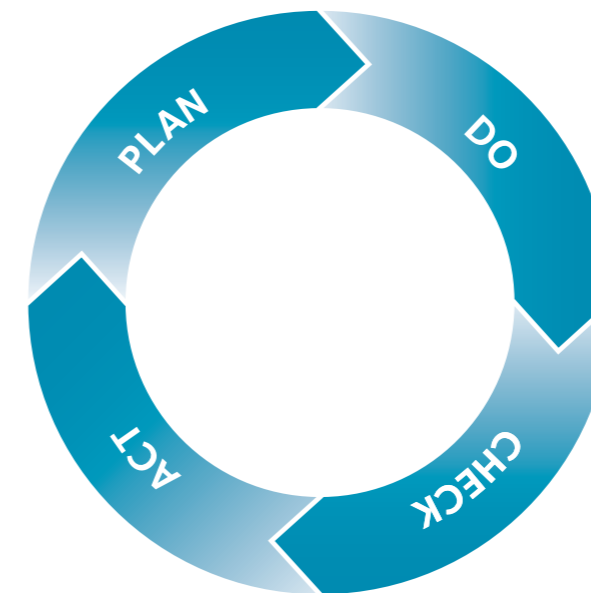
All incident reports, such as near misses, incidents and accidents are systematically recorded, root causes identified and preventative/corrective actions are tracked.

AUDITING

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

PLAN-DO-CHECK-ACT

The ISO 14001 philosophy is based on the **Plan-Do-Check-Act (PDCA)** management model. In continuously going through each individual step, environmental management can result in improved environmental performance. The use of the PDCA cycle helps in keeping the environmental management system a continuous process instead of an individual event.



Plan: tools for identification of targets in environmental performance.

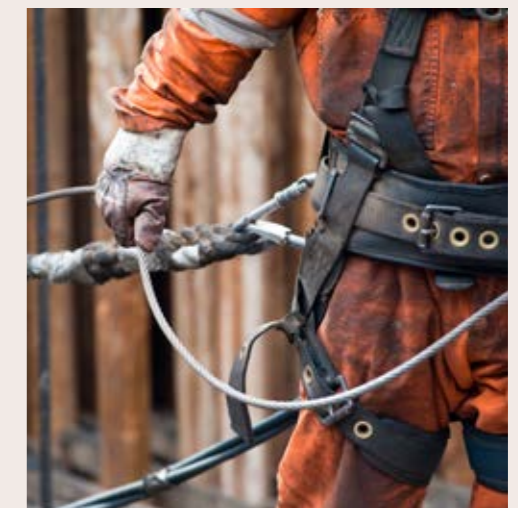
Do: tools for achieving goals of environmental management.

Check: tools for checking the effect of environmental management.

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

Two independent ISO 14001 surveillance audits were undertaken in 2022. Due to travel constraints both audits were conducted virtually, with remote auditing of both onshore and offshore assets (Brae Alpha, East Brae, Tern Alpha, Eider Alpha and onshore office). These audits covered all elements of the ISO 14001 standard. All audits were positive with only a small number of non-conformances and opportunities for improvement being identified. Where possible action was taken immediately to rectify issues, and subsequent actions are in place for the remaining findings.

“ALL AUDITS WERE POSITIVE WITH ONLY A SMALL NUMBER OF NON-CONFORMANCES AND OPPORTUNITIES FOR IMPROVEMENT BEING IDENTIFIED.”



ENVIRONMENTAL PERFORMANCE

In 2022 TAQA UK's focus on safe, efficient and sustainable operations continued, with an increasing focus on decommissioning activities, P&A, De-energisation and Disembarkation (D&D) and removals.

In the context of environmental performance, this focus helped to realise improvements during 2022, for example, a 5% reduction in total carbon dioxide (CO₂) emissions, a 35% reduction in Oil Pollution Prevention Control (OPPC) permitted discharges to sea and 96% of all decommissioning waste being either reused or recycled.

ATMOSPHERIC EMISSIONS

Atmospheric emissions from TAQA UK's offshore activities arise primarily from the combustion of fuel gas and diesel for power generation and the 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 Gas Emissions Trading Scheme (Amendment) Order (2020) is the statutory mechanism used to regulate and reduce CO₂ emissions to atmosphere in the UK. All TAQA UK assets are in scope of the Emissions Trading Scheme (ETS) and are required to obtain and surrender allowances to cover the annual greenhouse gas emissions.

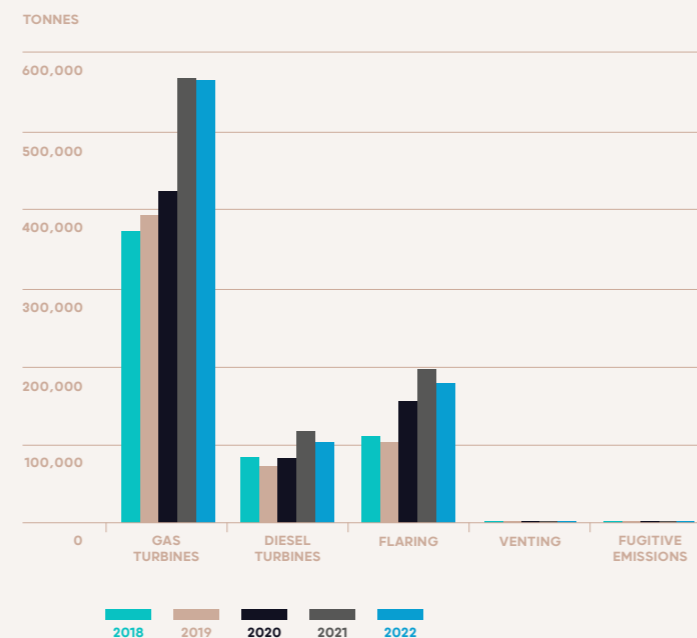
The major combustion processes on TAQA UK platforms resulting in the production of CO₂ are gas turbines which are used for power generation. Flaring and diesel usage are also contributors.

Table 1 shows the actual (full year) quantity of CO₂ emitted against the total ETS allowance.

TABLE 1:
2022 FULL YEAR CO₂ EMISSIONS VERSUS ETS ALLOWANCES

	2021 SUMMARY	2022 SUMMARY
Total	892,932	848,748
ETS Allowances	222,562	200,276
Surplus/Deficit	-670,370	-648,472

FIGURE 1:
TAQA UK'S 2022 CO₂ EMISSIONS BY SOURCE



In Figure 1 the largest proportion (67%) of CO₂ emissions are derived from gas turbine usage. CO₂ emissions from gas turbines increased year-on-year between 2018-2021 but declined in 2022, where there was a small reduction of 2,521 tonnes of CO₂ compared to 2021. The reduction was largely driven by a decline in North Cormorant gas turbine usage. CO₂ emissions in 2022 were also reduced when compared to 2021 for diesel turbines (13%), flaring (10%) and venting (55%) emission sources.

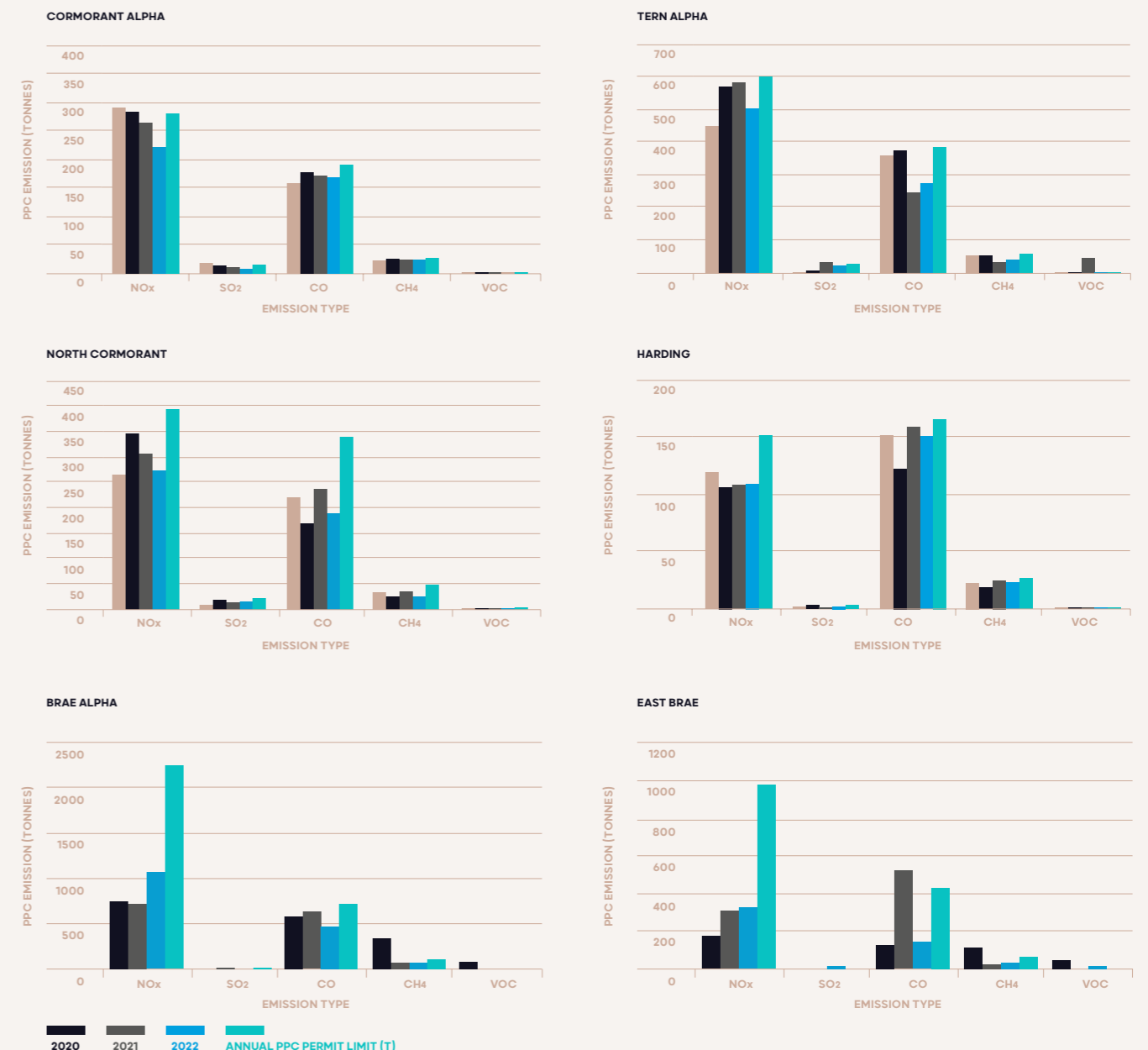
OTHER ATMOSPHERIC EMISSIONS

The main combustion emission from TAQA UK's operations is CO₂, however emissions of nitrous oxide (NO_x), sulphur dioxide (SO₂), carbon monoxide (CO), methane (CH₄) and volatile organic compounds (VOC) are also produced as part of TAQA UK's production activities. Non-CO₂ atmospheric emissions from TAQA UK installations are also regulated.

Figure 2 shows the non-CO₂ atmospheric emissions for TAQA UK's operated assets. All platforms were within the permitted allowance. These emissions are permitted through the TAQA UK Pollution Prevention Control (PPC) permits which are asset specific.

It is noted that Eider is the only platform that does not have a PPC permit because the installed combustion plant on board is below the threshold required to hold a permit.

FIGURE 2:
2022 TAQA UK'S ACTUAL NON-CO₂ ATMOSPHERIC EMISSIONS VS PERMIT ALLOWANCE



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, 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; therefore, it can contain 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 these discharges must be permitted by the Offshore Petroleum Regulator for Environmental and Decommissioning (OPRED). OPRED place strict limitations on both the concentration and quantity of oil discharged within the produced water to protect the marine environment.

The six producing TAQA installations report a total of 11 individual discharge streams – two on Cormorant Alpha, two on North Cormorant, three on Tern, two on Harding, one on East Brae and one on Brae Alpha – all of which must meet the legal monthly oil in water discharge average

of 30mg/l. The exception to this is the second discharge stream on Harding which comprises of displacement water discharged from the Buffer Cell (during oil production, water is displaced through the Buffer Cell and discharged to sea in compliance with a legislative limit of 40mg/l).

Reporting discharge streams on an individual basis ensures that a constant focus can be maintained on the quality of each discharge stream via the required sample regime. If any deterioration in quality is observed, then subtle process adjustments can be made (e.g., skimming produced water flash drums or changing vessel liquid interface levels) to minimise the overall quantity of dispersed oil being discharged to sea.

Figure 3 shows that TAQA UK's internal targets for average oil in produced water (OIPW) concentration were within internal targets for 9 of the 11 discharge streams associated with life permits. The discharge streams which exceeded TAQA UK's internal targets were Cormorant Alpha's Oily Water Separator (OWS) and Harding's Produced Water Flash Drum (PWFD) streams which record values of 23% and 7% above the internal targets. Overall, TAQA UK was 40% below the annual permitted total for oil in produced water discharged in tonnes.

FIGURE 3:
2022 TAQA UK'S ACTUAL VERSUS TARGET OIPW CONCENTRATIONS

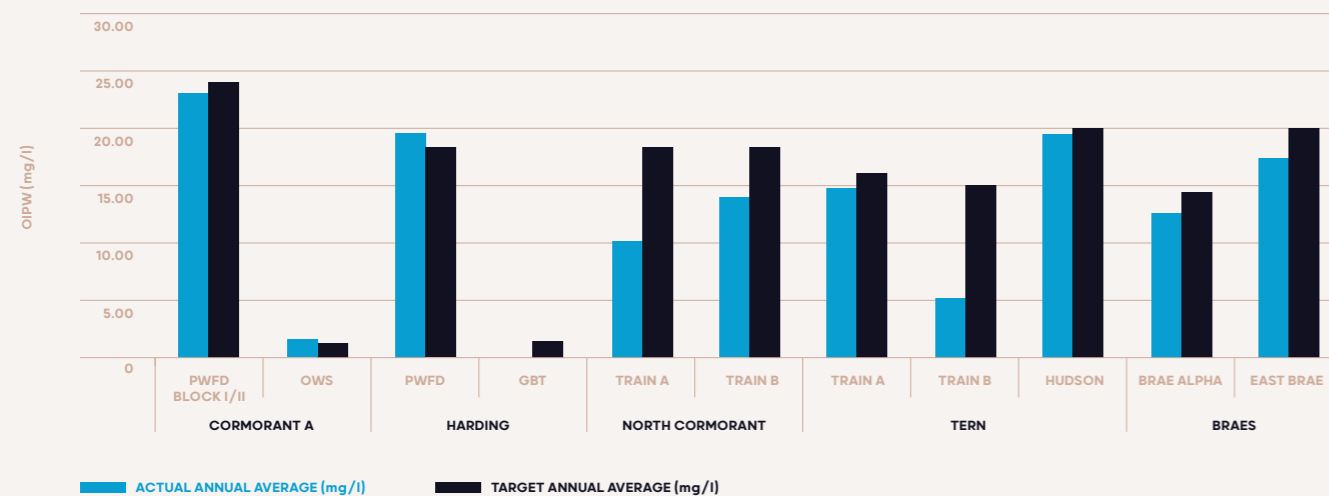


FIGURE 4:
2022 TAQA UK'S ACTUAL VERSUS PRODUCED WATER DISCHARGE

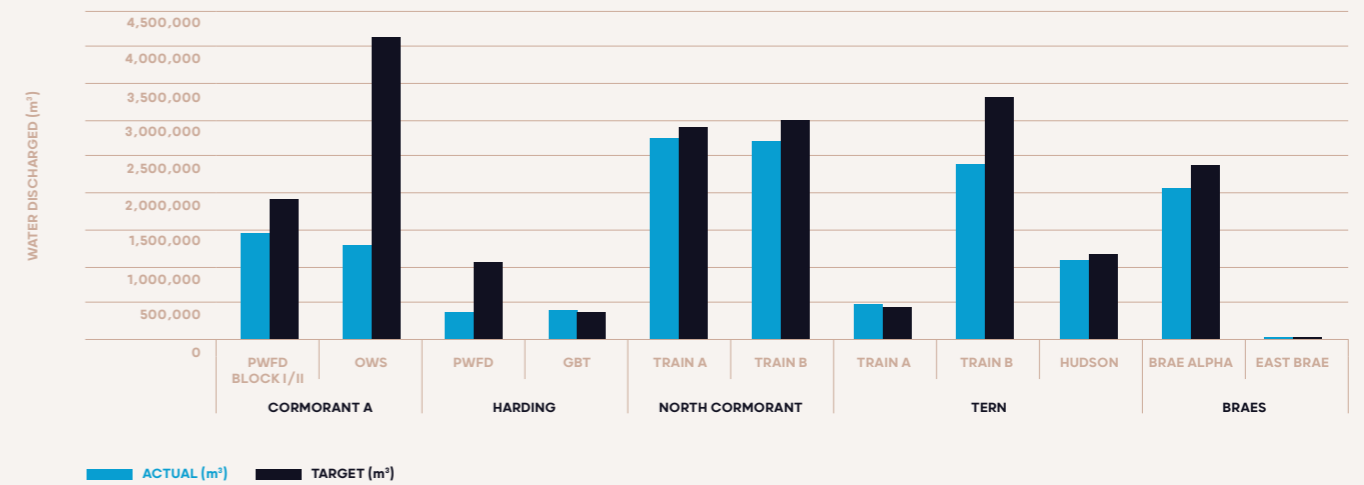


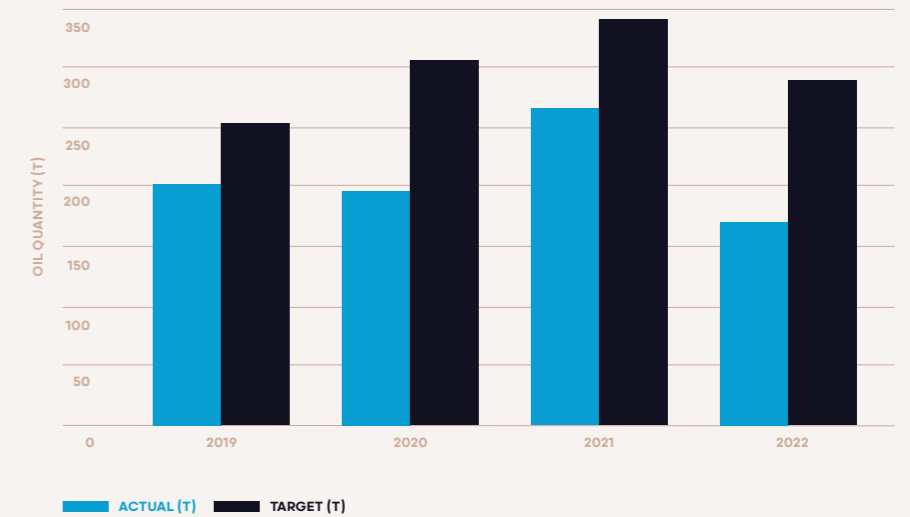
Figure 4 compares the volume of produced water discharged vs. TAQA UK's internal target for each asset. The internal target was achieved for 9 of the 11 discharge streams. The discharge streams which exceeded TAQA UK's internal targets were the Harding Gravity Base Tank (GBT) and Tern Train A streams. The Harding GBT stream surpassed the internal target for produced water volume by 6% (no oil was discharged) while the Tern Train A stream was 4% over the target.

Overall, TAQA UK's assets discharged 14,994,786 m³ of produced water during 2022. The total volume of produced water discharged during 2022 was 28% below the total permitted values and 15% lower than the volume discharged during 2021. This is due to the decrease in production on assets where P&A operations occurred. The reduction in oil discharged to sea (illustrated in Figure 5) is also linked to P&A operations and a drop in production on some assets such as North Cormorant.

Figure 5 shows the actual quantity of oil discharged to sea via produced water for all TAQA UK's platforms during 2022 compared to permitted targets. A total of 174 tonnes of dispersed oil was discharged to sea, which is 40% below permitted levels.

There was a notable decrease in the quantity of oil discharged to sea during 2022 when compared to 2021 (269 tonnes).

FIGURE 5:
TAQA UK'S 2010 - 2022 ACTUAL VERSUS TARGET TOTAL OIL IN PRODUCED WATER



WASTE

The Merchant Shipping (Prevention of Garbage) Regulations 1998 prohibits overboard discharge of offshore waste. All waste is therefore segregated offshore and disposed of onshore via an array of routes including reuse, recycling, waste-to-energy (WtE), landfill and incineration.

A variety of solid and liquid hazardous wastes are produced from TAQA UK's offshore operations, including drill cuttings, waste chemicals, tank washings, waste oil, paper, scrap metal, glass and wood. To ensure legal compliance, all TAQA UK's platforms actively segregate their waste streams which reduces contamination of disposal routes and minimises environmental impact by reusing, recycling and using waste in waste-to-energy plants (where possible), following the waste hierarchy, as shown in Figure 6.

FIGURE 6: TAQA UK'S WASTE DISPOSAL HIERARCHY



Figure 7 details the method of disposal for TAQA UK's operational waste produced during 2022. Decommissioning waste data is presented in Figure 8. A total of 6,629 tonnes of waste was produced from operational activities, of which 86% or 5,723 tonnes of all waste produced was either reused or recycled. A significant component of the total waste reused was from P&A activities on North Cormorant. During 2022 0.9% of operational waste was disposed of by landfill. TAQA UK's continued focus on minimising waste landfilled resulted in a significant quantity of waste being sent for WtE rather than landfill. As a result, the tonnage of operational waste disposed of by this method in 2022 (59 tonnes) was 62% lower than the corresponding value recorded during 2021 (155 tonnes). A total of 632 tonnes of waste was disposed of by WtE in 2022 which accounted for 9% of all operational waste. The remaining 215 tonnes of waste produced by operational activities during 2022 was either sent for incineration (105 tonnes) or treatment (110 tonnes), which is recorded under the 'Other' disposal method category.

FIGURE 7: TAQA UK'S 2022 OPERATIONAL WASTE DISPOSAL ROUTE BY LOCATION

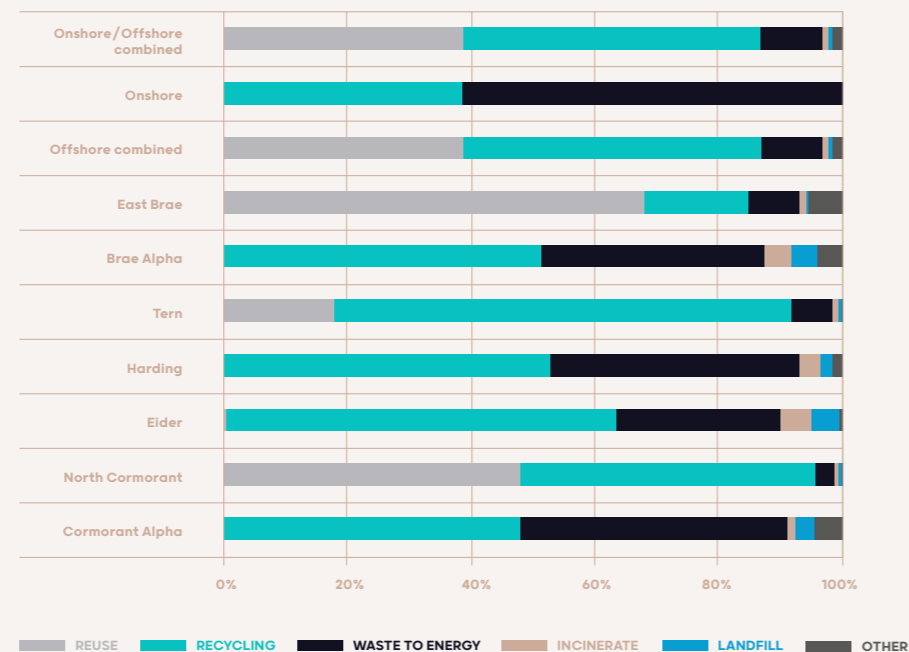
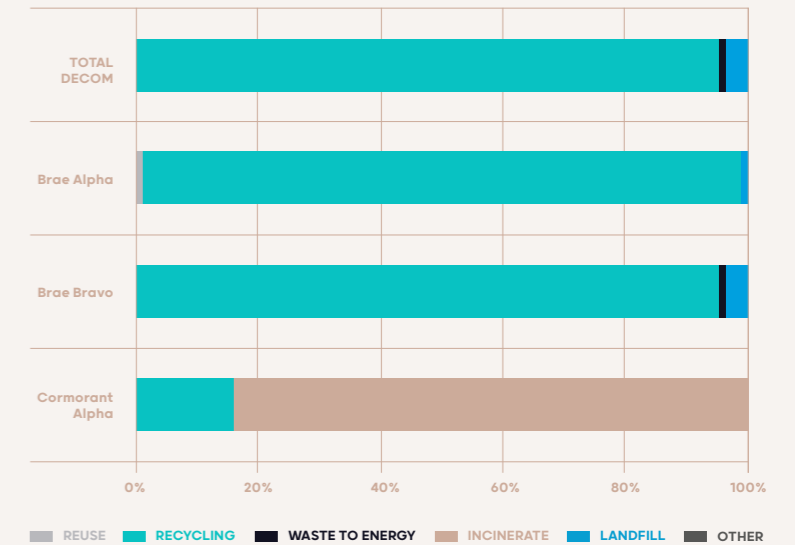


FIGURE 8: TAQA UK'S 2022 DECOMMISSIONING WASTE DISPOSAL ROUTE BY LOCATION

Figure 8 presents the decommissioning waste produced from each asset and the associated disposal routings. A total of 23,346 tonnes of waste was produced from decommissioning activities during 2022. This is an increase from the 15,535 tonnes of decommissioning waste produced in 2021 and was largely due to the Brae Bravo upper main jacket and topside removal which accounted for 22,418 tonnes of waste produced in 2022. Of all decommissioning waste produced, 96% (22,501 tonnes) was reused or recycled, 3% (694 tonnes) was landfilled and the remaining 1% (151 tonnes) was disposed of via the WtE and incineration disposal routes. Where possible, all waste was reused or recycled. However, there were no reuse or recycle disposal routes available for certain waste streams, such as asbestos and concrete.



CHEMICALS

Chemical use and discharge are regulated under the Offshore Chemical Regulations 2002 (as amended) (OCR). A permit must be obtained from OPRED 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 a batch (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. This is either a colour or 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 2).

Table 2 shows the relative quantities of chemicals used and discharged in 2022, according to their classification under the OCNS. The quantities of chemicals used (12,631 tonnes) and discharged (6,111 tonnes) cover all activities and

pipeline operations. There was an increase of 6,118 tonnes of chemicals used overall. The quantity of chemicals discharged also increased in 2022 by 1,372 tonnes when compared to 2021 data. The higher quantity of chemicals used and discharged during 2022 was due to the volume of well intervention work TAQA UK completed during 2022. This is expected to continue during 2023 as TAQA UK progresses with de-energisation and disembarkation of its UK oil and gas assets.

A substitution warning is assigned to an offshore chemical if it is considered by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) to be harmful to the environment, i.e., the chemical or one of its components fails to meet set criteria with respect to biodegradation, bioaccumulation potential or toxicity.

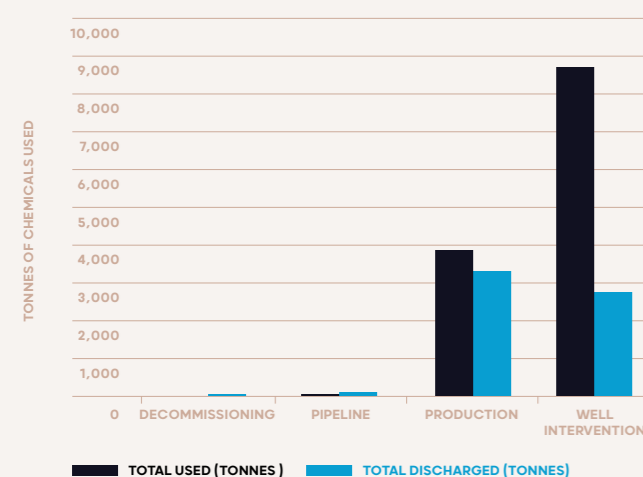
It should be noted that of the 6,111 tonnes of chemicals discharged during 2022, 97% of this was a discharge of either the lowest risk CHARM (Chemical Hazard Assessment and Risk Management) category Gold, or the Non-CHARM lowest risk category E. This is an increase of 2% from the values of chemical discharged for these categories when compared to 2021. Of all chemicals discharged to sea, only 7% had a substitution warning and of this grouping of chemicals, 75% were classified as Gold (lowest risk) on the CHARM classification system.

TABLE 2:
2022 CHEMICAL USAGE AND DISCHARGE QUANTITIES ACCORDING TO OCNS CATEGORY

CHEMICAL RANKING	TOTAL USAGE (kg)	TOTAL DISCHARGE (kg)
A	1,060	1,060
B	1,415	1,415
C	76,679.23	60,264.05
D	18,801.82	18,801.82
E	9,026,535.39	3,027,504.08
White	0.00	0.00
Silver	142,104.46	95,724.57
Gold	3,364,361.56	2,906,335.11
TOTAL (kg)	12,630,957.46	6,111,104.63

Figure 9 shows TAQA UK's chemical use and discharge for each activity type. A total of 12,630.96 tonnes of chemicals were used during 2022 whilst 6,111.10 tonnes were discharged. The increase in chemical usage from 2021 (6,513.14 tonnes) was mainly due to the increased well intervention chemicals such as calcium chloride brine used in abandonment work completed on North Cormorant. A total of 8,781.71 tonnes of well intervention chemicals were used during 2022 which represented 70% of all chemical use for the year. Pipeline activities accounted for a relatively small usage of chemicals (6.04 tonnes) whilst chemical discharge was split between decommissioning (2.67 tonnes), pipeline (101.64 tonnes), production (3,266.50) and well intervention (2,740.29 tonnes) work scopes.

FIGURE 9:
2022 TAQA UK'S CHEMICAL USAGE AND DISCHARGE



ACCIDENTAL SPILLS

All offshore operations must be covered by an approved Oil Pollution Emergency Plan (OPEP). These plans describe the procedures and notifications that must be undertaken in the event of a release. They are regularly tested and exercised by offshore and onshore response teams to ensure they are robust and fit for purpose. All unplanned discharges to sea of oil and chemicals, regardless of volume, must be reported to relevant authorities (OPRED, Marine Scotland, Maritime Coastguard Agency (MCA) and Joint Nature Conservation Committee (JNCC)) via a Petroleum Operations Notice 1 (PON1).

At TAQA UK, there are a variety of systems and procedures in place to mitigate against and reduce the potential of 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 release is then subject to investigation to identify the root cause.

Table 3 shows the number of Petroleum Operations Notices (PON1s) submitted by TAQA UK during 2022, detailing if it was an oil or chemical release and the corresponding quantity. A total of 24 releases occurred from TAQA UK's operations in 2022, one less than 2021. Of these spills, 11 were of oil and totalled 0.29 tonnes. This is 6% lower than the corresponding 2021 value. Chemical spills accounted for 5.16 tonnes of non-permitted discharge recorded during 2022. The majority (96%) of chemicals spilled were due to the loss of hydraulic fluid from a Brae Alpha subsea well and a brine release during a skidding operation at North Cormorant.

TABLE 3:
ACCIDENTAL SPILLS TO SEA

OIL SPILL CHEMICAL SPILL

PLATFORM	DESCRIPTION OF OIL (GREY ENTRIES) OR CHEMICAL SPILL (BLUE ENTRIES)	MAX QUANTITY SPILLED (TONNES)
BRAE ALPHA	IRS/2022/1596/PON1 Loss of Hydraulic fluid from hydraulic control system for Central Brae Subsea Well C3	1.770
	IRS/2022/1692/PON1 Diesel release from drain point valve on the diesel supply line to the power generation unit	0.00003
CORMORANT ALPHA	IRS/2022/2022/PON1 Hydraulic oil lost to sea from hydraulic saw connections	0.00001
EAST BRAE	IRS/2022/1356/PON1 Hydraulic oil released from hydraulic koomey unit pipe fitting	0.0003
	IRS/2022/1558/PON1 Water based mud released to sea via side of drilling structure	0.0100
EIDER	IRS/2022/1806/PON1 Oil lost to sea during fire pump operations	0.00901
	IRS/2022/1911/PON1 Oil lost to sea during hazardous drains recycling operation	0.0000172
HARDING	IRS/2022/1175/PON1 Loss of oil to sea due to seal failure in the crude heater plate pack	0.00045
	IRS/2022/1304/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit slot 7 cylinder 3 and slot 12 cylinder 4	0.0228
	IRS/2022/1403/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 18 cylinder 3	0.0304
	IRS/2022/1423/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 20 cylinder 3	0.0379
	IRS/2022/1439/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 15 cylinder 4	0.0190
	IRS/2022/1534/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 1 cylinder 4 and slot 8 cylinder 1	0.0326
	IRS/2022/1542/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 17 cylinder 3	0.0157
	IRS/2022/1640/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 3 cylinder 4	0.0071
	IRS/2022/1661/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 19 cylinder 2	0.0103
	IRS/2022/1691/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit slot 8 cylinder 4	0.0211
NORTH CORMORANT	IRS/2022/2228/PON1 Erifon 818 was lost to sea from Conductor Tensioner Unit on slot 22 cylinder 1	0.00795
	IRS/2022/1152/PON1 Brine released during skidding operation due to active pit 1 holding a volume of brine in excess of the bleed line	3.180
	IRS/2022/1541/PON1 Oil lost to sea from fire pump hydraulic system during operation of the fire pump	0.0375
TERN	IRS/2022/1544/PON1 Diesel lost to sea during bunkering due to diesel storage tank overflowing	0.0048
	IRS/2022/1905/PON1 Diesel released to sea due to overflow from drilling emergency generator day tank	0.211
	IRS/2022/2034/PON1 Hydraulic oil released from hydraulic hose during diving operations	0.001702
	IRS/2022/2007/PON1 Diesel lost to sea during pump testing	0.025

ENVIRONMENTAL OBJECTIVES

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

The table below provides an overview of the status of the 2022 objectives at year end.

2022 ENVIRONMENTAL OBJECTIVES SUMMARY

OBJECTIVE		STATUS																																
1	Environmental project/assurance activities	99%																																
2	Offshore operations improvements	100%																																
3	Waste management continuous improvements: Reduction of waste to landfill for offshore only (see below):	100%																																
	<table border="1"> <thead> <tr> <th></th> <th>Diverted Waste Target</th> <th>Landfill Limit</th> <th></th> </tr> </thead> <tbody> <tr> <td>Harding (HAR)</td> <td>92%</td> <td><8%</td> <td>HAR (92%/<8%)</td> </tr> <tr> <td>Cormorant Alpha (COA)</td> <td>91%</td> <td><9%</td> <td>COA (91%/<9%)</td> </tr> <tr> <td>North Cormorant (NCO)</td> <td>94%</td> <td><6%</td> <td>NCO (94%/<6%)</td> </tr> <tr> <td>Tern Alpha (TEA)</td> <td>94%</td> <td><6%</td> <td>TEA (94%/<6%)</td> </tr> <tr> <td>Eider Alpha (EIA)</td> <td>94%</td> <td><6%</td> <td>EIA (94%/<6%)</td> </tr> <tr> <td>Brae Alpha (BRA)</td> <td>90%</td> <td><10%</td> <td>BRA (90%/<10%)</td> </tr> <tr> <td>East Brae (EBR)</td> <td>89%</td> <td><11%</td> <td>EBR (89%/<10%)</td> </tr> </tbody> </table>		Diverted Waste Target	Landfill Limit		Harding (HAR)	92%	<8%	HAR (92%/<8%)	Cormorant Alpha (COA)	91%	<9%	COA (91%/<9%)	North Cormorant (NCO)	94%	<6%	NCO (94%/<6%)	Tern Alpha (TEA)	94%	<6%	TEA (94%/<6%)	Eider Alpha (EIA)	94%	<6%	EIA (94%/<6%)	Brae Alpha (BRA)	90%	<10%	BRA (90%/<10%)	East Brae (EBR)	89%	<11%	EBR (89%/<10%)	
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Harding (HAR)	92%	<8%	HAR (92%/<8%)																															
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Eider Alpha (EIA)	94%	<6%	EIA (94%/<6%)																															
Brae Alpha (BRA)	90%	<10%	BRA (90%/<10%)																															
East Brae (EBR)	89%	<11%	EBR (89%/<10%)																															
4	Brae assets integration plan	75%																																
5	Environmental Management System continuous improvements	96%																																

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



In summary, five of the objectives in 2022 were fully or partially completed. A summary of each is provided below:

- **Environmental project/assurance activities** involved supporting several business units, including the Cormorant Alpha Substructure Abandonment (CASA) project, implementation of the Nesting Bird Management Strategy, Brae Bravo jacket removal and P&A operations.
- The **offshore operations improvements** were focussed on maintaining and improving offshore E-Rep communication and engagement.
- The **waste management targets** were based on diversion of waste from landfill as this option is the least favoured within the waste hierarchy. All offshore assets achieved the targets, which resulted in less than 1% of all 2022 waste going to landfill for disposal. A change of the Brae assets waste contractor and greater availability of energy from waste for all assets contributed to this improved performance.
- The **Brae assets integration plan** in 2022 involved completion of the final alignment of documents within the Environmental Management System to include the Brae assets, coaching provided for the roll out of Collabro Tracker for F-Gas recording on the Brae assets and alignment of all OPEPs to one consistent format (this was partially completed).

- **EMS continuous improvements** included successful completion of the integration of the Brae assets into the ISO 14001 certificate, establishing an emissions reduction workgroup, developing Greenhouse Gas Emissions Reduction Action Plans (ERAPs) which included methane action plans and development of a general environmental training plan for offshore supervisors.

In 2023, TAQA UK is again continuing its efforts on focussed objectives in five key areas:

1. Environmental projects/assurance activities
2. Offshore operations continuous improvement
3. Environmental engineering control improvement
4. Waste management continuous improvement
5. Environmental Management System continuous improvement

DECOMMISSIONING

During 2022, progress was made on decommissioning scopes in the Northern North Sea (NNS) and Central North Sea (CNS). The following sections summarise the main activities.

NNS OVERVIEW

Decommissioning activities as part of the define project phase included:

- Environmental baseline and habitat surveys.
- Decommissioning Programme and Environmental Appraisal support (NNS topsides/upper jacket reviews).
- Waste, materials and environmental evaluation recommendation support for removal contract award.
- Subsea materials inventory creation and Environmental Appraisal and Comparative Assessment support.
- Cormorant Alpha Substructure Retirement (CASR) materials inventory development.
- Cormorant Alpha attic oil recovery statement of requirements for cell cuttings disturbance.

Decommissioning projects as part of the execute project phase included:

- Cormorant Alpha derrick removal and Modular Drilling Unit (MDU) installation support, including environmental permits and audit of the MDU at Sandnes, Norway.
- Final Cormorant Alpha derrick removal active waste management plan, reconciliation, lessons learnt report and decommissioning waste returns submitted to the regulator.
- Cormorant Alpha permanent isolation for storage support, including environmental permits and waste management.
- Environmental permit and waste management support for NNS P&A operations.



HARDING AND DEVENICK

- Devenick environmental baseline and habitat survey complete.
- Harding environmental baseline and habitat survey in progress.

BRAE BRAVO

- Permit support for upper jacket removal by Semi-Submersible Crane Vessel (SSCV) Sleipnir in summer 2022.
- Annual decommissioning waste returns submitted to OPRED.
- Over 95% reuse and recycling rate achieved for platform topsides.
- PL4164 / PL895 gas line bypass rock placement environmental permit.

BRAE ALPHA

- Rig 1 removed via SSCV Sleipnir in summer 2022.
- Rig 1 disposal environmental assurance audit completed at Vats, Norway.
- Topside materials inventory developed.
- Rig 2 return to service project for well P&A.

EAST BRAE

- De-energisation and Disembarkation project support including permit, license, application, notification and consent register development.
- Environmental permit support for well P&A operations.



DECOMMISSIONING



ONSHORE INITIATIVES



“WITH OUR SUPPORT, THE AQUARIUM HAS INSTALLED A NEW TANK THAT SHOWCASES THE LIFECYCLE OF COMMON SHARKS AND RAYS THAT CAN BE FOUND IN OUR NATIVE UK COASTAL WATERS.”

MACDUFF MARINE AQUARIUM

As part of the company’s community investment programme, TAQA UK continued its long-standing relationship with the Macduff Aquarium in Aberdeenshire. With our support, the Aquarium has installed a new tank that showcases the lifecycle of common sharks and rays that can be found in our native UK coastal waters.

RIVER DEE TRUST EDUCATION PROGRAMME

The River Dee Trust is a conservation charity that works to preserve and communicate the importance of the River Dee. Through our community investment programme, TAQA UK and others provided funding for an Education Support Officer to deliver a programme to build environmental awareness to children and young people. In 2022, the programme was delivered to 66 classes, over 108 visits to schools and the riverbank, engaging a total of 1,700 pupils.

GREYHOPE BAY

TAQA UK is a founding ‘Admiral’ funder of the Greyhope Bay project at Torry Battery – a site with a unique heritage and views of the local bottlenose dolphins. The project seeks to engage communities on marine ecosystems. The building and facility operations act as a flagship in sustainable practice, modelling innovation in technology, the circular economy and low-impact behaviours with the aim of sharing understanding and emulating changes we can make to protect our marine environment.

AGILE WORKING

TAQA UK remains committed to its Agile Working model that allows flexible working for its employees and provides the additional benefit of minimising transport time for employees and therefore fuel combusted. This model includes an option to work from home, which has reduced commuter transport by both removing it on those days when an employee works fully from home and minimising it on those days they come into the office as the time of commute can be moved outside the traditional ‘rush hours’.

SCRAP METAL DONATION

Scrap metal recycling from a maintenance activity on TAQA UK’s Cormorant Alpha platform raised £3000. This was donated to TAQA UK’s chosen Charity of the Year, AberNecessities, a charity that provides disadvantaged families with the essential and basic necessities that no child should go without.

GLOSSARY

ADX

Abu Dhabi Securities Exchange

AWMP

Active Waste Management Plan

boepd

Barrels Oil Equivalent per Day

BRA

Brae Alpha Platform

BRE

East Brae Platform

CASA

Cormorant Alpha Storage cells Abandonment

CASR

Cormorant Alpha Substructure Retirement

CEFAS

Centre for Environment, Fisheries and Agricultural Science

CH₄

Methane

CHARM

Chemical Hazard Assessment and Risk Management

CNS

Central North Sea

CO

Carbon Monoxide

CO₂

Carbon Dioxide

COA

Cormorant Alpha Platform

COE

Commitment to Operational Excellence

CON

North Cormorant Platform

CoP

Cessation of Production

D&D

De-energisation and Disembarkation

EIA

Eider Platform

EMS

Environmental Management System

EPRD

Engineering, preparation, removal and disposal

ERAP

Emissions Reduction Action Plan

ETS

Emissions Trading Scheme

FLAGS

Far North Liquids and Associated Gas System

GBT

Gravity Base Tank

HAR

Harding Platform

HSSE

Health, Safety, Security and Environment

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

mboe/d

Thousand Barrels Oil Equivalent per Day

MCA

Maritime and Coastguard Agency

MDU

Modular Drilling Unit

MI

Materials Inventory

MPP

Multi Phase Pump

NNS

Northern North Sea

NO_x

Oxides of Nitrogen

OCR

Offshore Chemicals Regulations (2002) (as amended)

OCNS

Offshore Chemical Notification Scheme

OIPW

Oil in Produced Water

OLS

Offshore Loading System (oil export system installed at the Harding Field during 2016)

OPEP

Oil Pollution Emergency Plan

OPPC

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

OPRED

Offshore Petroleum Regulator for Environment and Decommissioning

OWS

Oily Water Separator

P&A

Plug & Abandonment

PDCA

Plan-Do-Check-Act cycle for environmental management and improvement

PIFS

Permanent Isolation for Storage

PLANC

Permit, Licence, Application, Notification & Consent

PON

Petroleum Operations Notice

PPC

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

PWFD

Produced Water Flash Drum

ROMS

Responsible Operations Management System

SAGE

Scottish Area Gas Evacuation pipeline system

SSCV

Semi-submersible Crane Vessel

SO₂

Sulphur Dioxide

SoR

Statement of Requirements

SSCV

Semi-Submersible Crane Vessel

TEA

Tern Platform

UKCS

United Kingdom Continental Shelf

UMC

Underwater Manifold Centre

VOC

Volatile Organic Compound



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