CORMORANT ALPHA Derrick Structure Removal & MDR Installation

Decommissioning Programme



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ABBREVIATIONS

ABBREVIATIONS		
Abbreviation	Explanation	
AWMP	Active Waste Management Plan	
ARPS	Aberdeen Radiation Protection Services	
BEIS	Department for Business, Energy and Industrial Strategy	
CGB	Concrete Gravity Base	
СОА	Cormorant Alpha	
CoP	Cessation of Production	
D3	D3 Consulting Ltd	
DP	Decommissioning Programme	
DSM	Drilling Support Module	
EA	Environmental Appraisal	
EMS	Environmental Management System	
EWC	European Waste Catalogue	
ITT	Invitation to Tender	
JNCC	Joint Nature Conservation Committee	
km	Kilometres	
m ²	Kilometres Squared	
LSA	Low Specific Activity Scale	
LQ	Living Quarters	
m	Metres	
m ³	Metres Cubed	
MDR	Modular Drill Rig	
N/A	Not Applicable	
NFFO	National Federation of Fishermen's Organisations	
NIFPO	Northern Ireland Fish Producers Organisation Ltd	
NNS	Northern North Sea	
NORM	Naturally Occurring Radioactive Material	



ABBREVIATIONS (CONT.)		
Abbreviation	Explanation	
OGA	Oil and Gas Authority	
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning	
P&A	Plug & Abandon	
RPA	Radiation Protection Advisor	
SFF	Scottish Fishermen's Federation	
TAQA	TAQA Bratani Limited	
Те	Tonnes	
TFSW	Transfrontier Shipment of Waste	
UKCS	United Kingdom Continental Shelf	
UMC	Underwater Manifold Centre	



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1. EXECUTIVE SUMMARY

1.1 Decommissioning Programme

This document contains the discrete decommissioning programme (DP) for the removal of the drilling derrick structure which is part of the Cormorant Alpha installation and its replacement with a modular drill rig (MDR) which will be installed in place of the existing derrick structure. The MDR will be fully integrated with all required services. Therefore, no work within the drilling support modules will be undertaken.

Removal is required because the drilling facilities are currently unserviceable and uneconomic to return to service in order to execute the future P&A campaign hence the need to install a hired MDR unit.

The infrastructure removed as part of this discrete DP will not prejudice any other future decommissioning solutions for the Cormorant Alpha platform.

Separate decommissioning programmes covering the remainder of the Cormorant Alpha topsides, substructure and associated subsea infrastructure will be submitted at a future, yet to be determined date.

This decommissioning programme is for the Cormorant Alpha drilling derrick structure removal & installation of an MDR with early planning having commenced and the execution window of Q3 2020 as the most likely start date through to project completion by Q3 2021 at the latest.

<u>1.2 Requirement for</u> Decommissioning Programme

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Cormorant Alpha installation (see Table 1.2) are applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning a discrete area of the installation detailed in Section 2.1 of this decommissioning programme.

In conjunction with regulatory consultation, the decommissioning programme is submitted in compliance with national and international regulations and OPRED guidelines. The schedule outlined in this document illustrates that onshore work commenced in Q3 2019 and offshore removal work to start Q3 2020; latest completion by end Q3 2021.

Notwithstanding that the drilling derrick structure removal project is a non-production related pre-CoP activity a Cessation of Production application for the South Cormorant, Central Cormorant and Pelican fields has been discussed with the Oil & Gas Authority (OGA) with submission anticipated during H1 2020.



1.3 Overview of Installation Being Decommissioned

1.3.1 Installation

TABLE 1.1 INSTALLATION TO BE DECOMMISSIONED			
Field:	South Cormorant	Production Type (Oil/Gas/Condensate):	Oil / Gas
Water Depth:	155 m	UKCS Block:	211/26a
Distance to Median (km):	41 km	Distance from Nearest UK Coastline (km):	103 km
Discrete	Area Description	Well Type	Number of Wells
Cormorant Alpha Drilling Derrick Structure		N/A	N/A
Description of work being undertaken			
		arriale atructure is required	bocques the facilities are



TABLE 1.2 INSTALLATION SECTION 29 NOTICE HOLDERS DETAILS		
Section 29 Notice Holders	Registration Number	
TAQA Bratani Limited	05975475	
A/S Norske Shell	914 807 077	
Amoco (U.K.) Exploration Company, LLC	SF000790	
Apache Beryl I Limited	FC005975	
Britoil Limited	SC077750	
Neo Energy (UKCS) Limited (Formerly named Cieco Exploration and Production (UK) limited)	02669936	
CNR International (U.K.) Limited	00813187	
Chrysaor Production (U.K.) Limited (Formerly named ConocoPhillips (U.K.) Limited)	00524868	
ConocoPhillips Skandinavia AS	918 110 127	
Dana Petroleum (E&P) Limited	02294746	
EnQuest Heather Limited	02748866	
EnQuest Thistle Limited	04487223	
Enterprise Oil Norge Limited	01682049	
Enterprise Oil U.K. Limited	02290358	
Esso Exploration and Production UK Limited	00207426	
ExxonMobil Exploration and Production Norway AS	914 048 990	
ExxonMobil Production Norway Inc	924 956 917	
Fairfield Betula Limited	04465204	
Fairfield Fagus Limited	05461823	
Total E&P North Sea UK Limited (Formerly named Maersk Oil North Sea UK Limited)	03682299	
MCX Dunlin (UK) Limited	06451712	
MCX Osprey (UK) Limited	06451720	
MOL UK Facilities Ltd	08824520	



TABLE 1.2 INSTALLATION SECTION 29 NOTICE HOLDERS DETAILS		
Section 29 Notice Holders	Registration Number	
Siccar Point Energy E&P Limited (Formerly names OMV (U.K.) Limited)	01504603	
Shell U.K. Limited	00140141	
Equinor UK Limited (Formerly named Statoil (U.K.) Limited)	01285743	
Equinor ASA (Formerly named Statoil Hydro ASA)	923609016	
Westoil Operations Limited (Note: Company dissolved on 19 April 2016)	03119331	
Wintershall DEA Norge AS (Formerly named Wintershall Norge ASA)	985224323	



<u>1.3.1 Cormorant Alpha Derrick</u> <u>Structure Removal: Project</u> Description

Cormorant Alpha is a fixed installation located in the South Cormorant field in the East Shetland basin of the Northern North Sea and serves as a manned production platform. The platform was installed in 1978 with production starting in December 1979 and stands in 155m water. In addition to installation wells, the Central Cormorant Underwater Manifold Centre (UMC) and the Pelican subsea manifold also produce through Cormorant Alpha. The installation consists of a four-leg Concrete Gravity Base (CGB) with a steel box girder structure supporting two levels of modules. The Living Quarters (LQ) can accommodate 175 persons. The installation was originally designed to fulfil four functions: a production facility, drilling facility, an oil pumping station for the Brent Pipeline System and a centre for telecommunications in the area.

The drilling infrastructure on Cormorant Alpha has not been serviceable since before TAQA's tenure (pre-2008). It had drilled regularly until its latest idle period commenced in 2007. The rig package has been reduced to emergency power for some years due to water ingress to the drilling switch rooms, but it has been available for well services integrity work through the drill floor. Water ingress and reduced power and light has affected the ability to implement any constructive maintenance routines, assess integrity or to add any value to the equipment, systems & fabric of the rig. Following an analysis to return the drilling package to active service, it was considered uneconomic and brought with it an associated prolonged period of high-risk activity and schedule uncertainty.

The facilities to be removed comprise the drill derrick, drill floor, substructure and subbase inclusive of all primary, secondary and tertiary steel sections will be removed. In association with this, equipment such as the crown block, fingerboards, drawworks, drill line drum, hydraulic power unit, Palfinger crane, drag chain and rig skidding equipment will be destructed. All power and control cabling, fire and gas, telecoms and instrumentation will also be removed.

The Modular Drilling Rig (MDR) will be installed after the removal of the facilities aforementioned in order to facilitate the well plug & abandonment (P&A) campaign and after the completion of the ongoing ITT process. The existing drill derrick structure must be removed prior to the installation of the Modular Drilling Unit to enable it to access all the required well slots. The future installation of an MDR will address the needs of the P&A campaign at a later date.

A Modular Drill Rig (MDR) was chosen as the option to meet the business requirements for the planned P&A campaign and current forecasted CoP date. This requires the existing derrick structure to be removed to skid beam level, allowing for direct MDR interface and utilisation. The existing Drilling Support Module (DSM) on Cormorant Alpha will not be required and therefore, none of the planned work will impact this area as part of this project. Refer to figure 2.1 for the location of the drilling package.

Please refer to Section 6.1 for the project schedule.



1.4 Summary of Proposed Decommissioning Programme

TABLE 1.3 SUMMARY OF DISCRETE AREA DECOMMISSIONING PROGRAMME		
Proposed Decommissioning Solution	Reason for Selection	
Installation		
The drilling derrick structure will be removed from Cormorant Alpha. The removal methodology will most likely be by piece small. Although no final decision has been made.	Integrity issues, such as dropped objects, corrosion etc, associated with the derrick are addressed by the proposed solution. The risk profile, timeline and cost associated with the return to service of the existing infrastructure is prohibitive and non-viable with the availability of a commissioned rig too late to meet anticipated P&A timelines. OPRED will be informed when a final decision has	
	been made regarding the chosen removal methodology.	
Interdependencies		
This scope is to remove the drilling derrick structure to facilitate the future installation of a hired		

Modular Drilling Rig (MDR) in its original location, which is proposed as a serviceable, cost effective solution with which to execute future P&A activity.

No TAQA assets or facilities operated by others are impacted by the scope of work covered by this discrete Decommissioning Programme.



1.5 Field Location Including Field Layout and Adjacent Facilities



Figure 1.1 Field Location in UKCS





Figure 1.2 TAQA NNS Field Layout (Discrete DP scope within red circle – rig only)

2. DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

2.1 Installation: Cormorant Alpha Drilling Derrick and Substructure

TABLE 2.1 DISCRETE AREA OF INSTALLATION AND RELATED WORK						
Installation	Description of ringfenced work	Weight (Te) Height (m)		Location	Comments	
The work		Derrick Structure 762.57 Te	WGS84	340° 48' 20"	Includes the steel derrick	
Cormorant Alpha	will be restricted to the drilling derrick structure	be ricted to drilling Derrick Height ick 63.95 m cture		61° 06' 09.411" N 01° 04'22.272" E	structure, lights, cabling signage, access ladders / steps etc	



Figure 2.1 Cormorant Alpha East Elevation showing the Drilling Derrick Structure (highlighted)



Figure 2.2 Drilling Derrick Structure



Figure 2.3 Drilling Derrick & Substructure for removal



Figure 2.4 Drilling Derrick Structure Current Condition



Figure 2.5 Drilling Derrick Structure to Skid Beams



Figure 2.6 Computer Generated Diagram to Show MDR in Position on COA Skid Deck



Figure 2.7 Computer Generated Image to Show Possible MDR in Position

2.2 Inventory Estimates

As part of the planning for decommissioning of the drilling derrick structure within the Cormorant Alpha platform, a Materials Inventory (MI) report has been prepared by D3 Consulting Ltd (D3). This report enables TAQA to establish the waste that will be generated during decommissioning, identifying all materials and classifying them as hazardous or non-hazardous waste to comply with the Duty of Care obligations. It also highlights the materials which have the potential to be hazardous to human health during the decommissioning of the drilling derrick structure (not all materials hazardous to human health will also be classified as hazardous waste), and classifies all materials found on the drilling derrick structure by the relevant European Waste Catalogue (EWC) code.

Platform plant and equipment has been classified by their constituent hazardous and non-hazardous components, where the level of breakdown represents the component level at which the plant and equipment are envisaged to be disposed of at the onshore disposal yard.



Figure 2.8: Drilling Derrick Breakdown by Functional Category

Please refer to Table 2.1 within the Environmental Appraisal for detailed materials inventory data. The total weight of the drilling

derrick 762.57 Te is inclusive of an estimated 2.1 Te of hazardous waste such as paint, etc as shown in Figure 2.9.



Figure 2.9: Drilling Derrick Breakdown by BEIS Category

To identify if the waste has a hazardous property an offshore survey was carried out. Samples were collected for analysis for potentially hazardous materials. The samples collected are representative of residues left behind from cleaning or were of paints and coatings and will not necessarily make the item itself hazardous but gives an indication that more sampling and / or cleaning may be needed before final disposal.

The Materials Inventory report will provide support in determining the most appropriate Active Waste Management Plan (AWMP) for the decommissioning works and informing the selection and contracting of the onshore disposal yard through early engagement.

3. REMOVAL AND DISPOSAL METHODS

During the removal of the drilling derrick structure materials will need to be processed and, where possible, either reused or recycled. Preventing waste is ultimately the most preferential option, achieved through reducing consumption and using resources more efficiently.

TAQA will comply with the Duty of Care requirements under the UK Waste Regulations, The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 and the Waste Framework Directive. The hierarchy of waste management will also be followed at all stages of disposal and industry best practice will be applied. At present TAQA do not intend to ship the recovered material outside the UK; however, in the event that there is a requirement to ship waste outside the UK, a Transfrontier Shipment of Waste (TFSW) permit will be required. In this circumstance, TAQA will liaise with the relevant Waste Authority and ensure that all relevant permits and consents are in place in accordance with the Transfrontier Shipment of Waste Regulation 2007 (as amended).

Please refer to Section 2 of the Environmental Assessment for additional detail on waste management.

TABLE 3.1 WASTE STREAM MANAGEMENT METHODS		
Waste Stream	Removal and Disposal Method if Applicable	
NORM / LSA Scale	Results of the phase 2 hazardous materials inventory indicated no NORM/LSA activity within the derrick. Following the phase 2 inventory survey, further monitoring by the TAQA RPA (ARPS) was conducted & did not identify NORM activity. As per normal offshore breaking of containment activities, once deconstruction commences, tests for NORM will be undertaken by the offshore Radiation Protection Supervisor (RPS). Any NORM encountered will be dealt with & disposed of in accordance with guidelines & company policies & under appropriate permits. Under these conditions NORM may be partially removed offshore.	
Asbestos	Results of the phase 2 hazardous materials inventory indicated less than <1 tonne of asbestos. However, prior to intrusive works a demolition survey will be conducted, either via a survey of any areas to be cut or with a full survey being done onshore at the disposal facility.	
Other Hazardous Wastes	Will be recovered to shore and disposed of in accordance with guidelines and company policies and under the appropriate permits	
Onshore Dismantling Sites	Appropriate licenced site(s) will be selected. TAQA will ensure that the removal contractor has a proven track record and waste stream management throughout the deconstruction process and demonstrate their ability to deliver innovative recycling options. TAQA will carry out audits on any new disposal routes to provide assurance that they are compliant with legislation.	

4 ENVIRONMENTAL APPRAISAL OVERVIEW

4.1 Environmental Sensitivities (Summary)

The environmental impact management and environmental sensitivities in the Cormorant Alpha area have been summarised in the Tables 4.1 and 4.2.

TABLE 4.1 ENVIRONMENTAL SENSITIVITIES		
Environmental Receptor	Main Feature	
Conservation Interests	There are no Nature Conservation Marine Protected Areas, Specia Protection Areas, Special Areas of Conservation, or Demonstration and Research Marine Protected Areas within 40 km of the Cormoran Alpha platform.	
	The ocean quahog (<i>Artica islandica</i>) is listed by OSPAR as a threatened and / or declining species and is also listed as a Scottish Priortiy Marine Feature; records of this species occur over large areas of the central and northern North Sea. A benthic survey of the South Cormorant field in 2019 recorded a single (and juvenille) <i>Arctica islandica</i> individual.	
	Lophelia pertusa may be present in the Cormorant Alpha platform area, but the majority of <i>L.pertusa</i> communities are located in water depths below 200 m and as such it is unlikely to be present in significant numbers. No other features of conservation interest have been recorded in the vincinity of the Cormorant Alpha platform.	
Seabed	The Cormorant Alpha platform is located at a water depth of 155 m. Wave energy at the seabed is moderate, the annual mean wave height within the South Cormorant field ranges from 2.71 m – 3 m and the mean annual wave power is 39.35 kW/m. Survey work shows that the seabed sediments present are poorly to very poorly sorted fine to medium sand with low organic and moderate carbonate content. Although slight differences in the sediment type were observed, the survey area habitat is classified as the EUNIS broadscale habitat A5.27 offshore circa-littoral sandy mud.	
Fish The Cormorant Alpha platform lies within know spawning group of (<i>Gadus morhua</i>), haddock (<i>Melanogrammus aeg</i> Norway pout (<i>Trisopterus esmarkii</i>), saithe (<i>Pollachius vire</i> whiting (<i>Merlangius merlangus</i>). There are no high concerning grounds in the vicinity of the Cormorant Alpha plates Blue whiting is the only species with a high nursery intensity in the Cormorant Alpha platform area. The area is also a low intensity nursery ground for haddock, Norway pout, European hake (<i>Merluccius merluccius</i>), herring (<i>Clupea hat</i> ling (<i>Molva molva</i>), mackerel (<i>Scomber scombrus</i>) and (<i>Squalus acanthias</i>)		

	Published sensitivity maps indicate that the probability of aggregations of juvenile blue whiting, European Hake occurring in the Cormorant Alpha platform area is medium.
Fisheries	The Cormorant Alpha platform is located in an area targeted primarily for demersal species in terms of both landed weights and value. Fishing intensity is considered moderate for demersal fisheries and low for pelagic and shellfish fisheries in comparison with other areas of the North Sea. According to fisheries statistics for the UK provided by Marine Scotland, fishing effort has increased in 2018 in comparison to the two preceding years. Both fishing effort and landings have been low over the last five years of statistics since 2014. Summer months are generally busiest.
Marine Mammals	Harbour porpoise (<i>Phocoena phocoena</i>), white-beaked dolphin (<i>Lagenorhynchus albirostris</i>), white-sided dolphin (<i>Lagenorhynchus acutus</i>) and minke whale (<i>Balaenoptera acutorostrata</i>) are the most abundant species recorded in the survey block covering the Cormorant Alpha platform area. Harbour porpoise and minke whale are the most frequently recorded cetacean in the vicinity of the Cormorant Alpha platform area. Harbour porpoise is the most abundant and widely distributed cetaceans in the North Sea. Both grey and harbour seal densities are known to be low 103 km offshore, and around Cormorant Alpha densities are predicted to be between 0 and 1 seals per 25 km ² for both species, which is considered low.
Birds	The Cormorant Alpha platform is located within or close to hotspots for northern fulmar (<i>Fulmarus glacialis</i>), European storm-petrel (<i>Hydrobates pelagicus</i>), northern gannet (<i>Morus bassanus</i>), Arctic skua (<i>parasitic jaeger</i>), long-tailed skua (<i>Stercorarius longicaudus</i>), great skua (<i>Stercorarius skua</i>), black-legged kittiwake (<i>Rissa tridactyla</i>), great black-backed gull (<i>Larus marinus</i>), common guillemot (<i>Uria aalge</i>), and Atlantic puffin (<i>Fratercula arctica</i>) during their breeding season, when adults of these species can be seen foraging far from their coastal breeding colonies. In addition, after the breeding season ends in June, large numbers of moulting auks (common guillemot, razorbill and Atlantic puffin) disperse from their coastal colonies and into the offshore waters from July onwards. The seabird sensitivity to oil pollution in the region of the Cormorant Alpha platform throughout the year ranges from low from January to August and medium from September to December.
Onshore Communities	The Cormorant Alpha platform is located approximately 103 km from the north-east of Shetland Isles. Due to this distance, no impacts to onshore communities are expected from offshore operations at the Cormorant Alpha decommissioning area. Waste generated from the decommissioning activities will be transported onshore and managed in line with legislation and TAQA's associated Active Waste Management Plan (AWMP).

TABLE 4.1 ENVIRONMENTAL SENSITIVITIES (Cont.)		
Environmental Receptor	Main Feature	
Other Users of the Sea	The Cormorant Alpha platform is located in a well-developed area for oil and gas extraction. However, there is little activity from other sea users recorded in the area. Apart from pipelines and cables associated with the Cormorant Alpha platform, there are no other cables or pipelines in the vicinity, no designated military practice and exercise areas, no offshore renewable or wind farm activity. There are two designated wrecks located 9 km south-southwest and 12 km east-southeast of the platform. However, these wreck sites are not protected or dangerous. Shipping density in the NNS in the vicinity of the proposed decommissioning activities is considered moderate. Between 200 – 300 vessels transit through Block 211/26 annually.	
Atmosphere	Emissions from short-term decommissioning activities e.g. vessel and platform fuel combustion emissions are considered small compared to those previously arising from the asset over its operational life.	



4.2 Potential Environmental Impacts and their Management

Environmental Impact Assessment Summary:

A review of potentially significant environmental and social interactions has been completed and, considering the mitigation measures that will be built into the project activities, there is expected to be no significant impact on receptors from Cormorant Alpha drilling derrick decommissioning.

Given the remote offshore location of the Cormorant Alpha platform, there is no potential for the drilling derrick decommissioning to impact any European or nationally designated protected sites.

The Environmental Appraisal has considered the Scottish National Marine Plan adopted by the Scottish Government to help ensure sustainable development of the marine area. TAQA considers that the proposed decommissioning activities are in alignment with its objectives and policies. Therefore, based on the findings of the Environmental Appraisal including the identification and subsequent application of appropriate mitigation measures, and project management according to TAQA's Health, Safety, Security and Environment Policy and Environmental Management System (EMS), it is considered that the proposed Cormorant Alpha drilling derrick decommissioning activities do not pose any significant threat of impact to environmental or societal receptors within the UKCS.

TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT		
Impact	Further Assessment	Management
Emissions to Air	No	The majority of CO_2 emissions associated with this project can be attributed to the recycling of the drilling derrick components. Of a total of 1,639 tonnes of CO_2 , 1,442 tonnes is estimated to originate from recycling of the steel structure. The remaining 197 tonnes of CO_2 can be attributed to the offshore vessel activity associated with the



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)		
Impact	Further Assessment	Management
Emissions to Air (continued)		 installation of the MDR. However, it should be noted that all waste generated from this scope will be transported on supply vessels that will already be in the field (platform support vessels managing operational cargo across the field system). The latest total annual CO₂ emissions estimate for UKCS shipping is approximately 7,800,000 tonnes (for 2017, BEIS 2019). Vessel activity is therefore expected to contribute less than 0.003% of the atmospheric emissions associated with UK offshore shipping activities. Considering the above and as the decommissioning activities proposed are of such short duration this aspect is not anticipated to result in significant impact. Emissions to air therefore do not warrant further assessment.
Disturbance to the Seabed	No	Currently it is envisaged that all vessel undertaking the decommissioning and removal works would be supply vessels. As a result, there will be no direct seabed interaction associated with the decommissioning of the drilling derrick. Should this change following the commercial tendering process and an anchor vessel be required, any potential impact would be assessed and captured in the Consent to Locate application and its supporting Environmental Impact Assessment (EIA) justification within the Portal Environmental Tracking System (PETS). On this basis, no further assessment need be undertaken.



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)		
Impact	Further Assessment	Management
Physical Presence of Vessels in Relation to Other Users of the Sea	No	The drilling derrick removal activities and transport of the associated materials to shore will be carried out using the supply vessels within the scope of current operations. The MDR components will be shipped from Sandnes (Norway) direct to the Cormorant Alpha platform on a supply vessel. This will significantly reduce transportation requirements as the round-trip transit distance is 230 km closer to the platform and will minimise any potential interaction with other sea users, with negligible interaction on the UK coastline and on the UKCS. The small number of vessels required will also generally be in use within the existing 500 m safety zone and will not occupy 'new' areas. If applicable, Notices to Mariners will be made in advance of activities occurring meaning those stakeholders will have time to make any necessary alternative arrangements for the very limited period of operations. Considering the above, temporary presence of vessels does not need further assessment.
Physical Presence of Infrastructure Decommissioned <i>in situ</i> in relation to Others Sea Users		As the drilling derrick will be fully removed, there will be no mechanism for associated long-term impact through physical presence. Considering the above, no further assessment related to long term presence of infrastructure is justified.



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)		
Impact	Further Assessment	Management
Discharges to Sea (Short-term and Long-term)	No	Discharges from vessels are typically well controlled activities that are regulated through vessel and machinery design, management and operation procedures. There would be no planned discharges from the drilling derrick structure and any residual material which remains will be expected to be only trace levels / volumes and therefore would not pose any significant risk. Oil spill modelling conducted for a release of hydrocarbons associated with vessel collision indicates no significant impact due to the remote offshore project location. This was based on a volume of 450 m ³ of diesel, and any hydrocarbon inventories on site are expected to be of a significantly smaller volume than those on the modelled vessel. As the drilling derrick will be fully removed, there will be no potential for releases in the longer term from the facilities.
Underwater Noise Emissions	No	Cutting required to remove the drilling derrick will take place above the waterline, and there will be no other noise generating activities. Vessels which are already supporting the asset are expected to be involved in the decommissioning works, however, if any additional vessels are required, the presence will be limited in duration. The project is not located within an area protected for marine mammals. On this basis, underwater noise assessment does not need to be assessed further.



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)		
Impact	Further Assessment	Management
Resource Use	No	Generally, resource use from the proposed activities will require limited raw materials and be largely restricted to fuel use. The estimated worst-case total energy usage for the project is 18,700 GJ. Material will be returned to shore as a result of drilling derrick decommissioning activities. The expectation is to recycle at least 97% of this returned material. There may be instances where infrastructure returned to shore is contaminated and cannot be recycled (items will be assessed on a case-by-case basis by the waste management contract for cleaning), but the weight / volume of such material is not expected to result in substantial landfill use. The MDR will be leased which will minimise the impact on resource use. Considering the above, resource use does not warrant further assessment.
Onshore Activities	No	The onshore waste management process is likely to have negligible consequences for the human population in terms of an increase in dust, noise, odour and reduced aesthetics. It should be noted that, through TAQA's Waste Management Strategy, only licenced contractors will be considered who can demonstrate they are capable of handling and processing the material to be brought ashore (e.g. permitted capacity to accept the relevant waste streams). This will form part of the commercial tendering process, including duty of care audits and due diligence on the successful contractor. Approval is determined through due-diligence assessment comprising site visits, review of permits and consideration of the facilities design and construction has been developed to minimise environmental impact. TAQA understands that dismantling sites will also require consents and approvals from onshore regulators such as the Scottish Environmental Protection Agency (SEPA) and the Environment Agency, who apply conditions relating to mitigation, management and who are responsible for the provision of permits for such work.



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)		
Impact	Further Assessment	Management
Waste	No	It is waste management, not generation, that is the issue across DPs, with capacity to handle waste within the UK often cited as a stakeholder concern. There will be limited routine waste created as a result of the drilling derrick decommissioning which will be brought to shore. This will be managed in line with TAQA's Waste Management Strategy, using approved waste contractors.
		There will be no waste to be brought to shore following the commissioning of the MDR as it will be leased.
Employment	No	The drilling derrick has been idle since 2007 and subsequently the removal of the drilling derrick will make no material change to the number of personnel required for the ongoing operation of the platform. Therefore, there will be no impact on employment as part of this work. Furthermore, the introduction of the MDR will have a positive impact on employment during the P&A campaign. Further assessment is therefore not warranted for this aspect.
Unplanned Events	No	Supply vessels are to be used for removing the drilling derrick. The fuel inventory for a supply vessel is likely to be less than the worst-case crude oil spill from loss of well containment modelled and assessed in the relevant oil pollution emergency plan (OPEP). In addition, the vessel's fuel inventory is likely to be split between a number of separate fuel tanks, significantly reducing the likelihood of an instantaneous release of a full inventory. Overall, therefore, the potential impact from fuel inventory release will be at worst equivalent to that already assessed and mitigated.
		Oil spill modelling conducted for a release of hydrocarbons associated with vessel collision indicates no significant impact due to the remote offshore project location (TAQA, 2018f). This was based on a volume of 450 m3 of diesel, and any hydrocarbon



TABLE 4.2 ENVIRONMENTAL IMPACT MANAGAMENT (Cont.)					
Impact	Further Assessment	Management			
		inventories on site are expected to be of significantly smaller volume than those on the modelled vessel.			
		As the methodology for the removal to shore of the drilling derrick has not been defined in detail, there exists the possibility that during transport of the drilling derrick sections, elements of the materials removed via the piece-small decommissioning method may dislodge and drop from the transport vessel. Dropped object procedures are industry- standard and there is only a very remote probability of any interaction with any live infrastructure. If any items are lost to sea during the removal works an assessment will be made as to whether a PON2 notification is required, to be submitted to the regulator within six hours.			
Unplanned Events (continued)		Considering the above, the potential impacts from accidental chemical/hydrocarbon releases during decommissioning activities do not warrant further assessment.			
		Although the risk of oil spill is remote, an OPEP is in place for the Cormorant Alpha Decommissioning activities. Any spills from vessels in transit and outside the 500 m zone is covered by a separate Shipboard Oil Pollution Emergency Plan (SOPEP).			
		Any dropped objects of significant size to potentially impact shipping and subsea infrastructure will be removed (i.e. those reported to OPRED via PON2 notifications). Any small non-significant objects will be marked and will be within the safety zone of the substructure. These dropped objects will be addressed during the debris clearance survey post decommissioning activities associated with the substructure decommissioning activities.			



5 INTERESTED PARTY CONSULTATIONS

TABLE 5.1 SUMMARY OF STAKEHOLDER COMMENTS						
Who	Comment	Response				
	Informal Stakeholder Consultations					
Public	No comments received	N/A				
	Statutory	Consultations				
National Federation of Fisherman's Organisations	28th January 2020 email to provide high level summary of the scope & intent of the project Consultation Period March	NFFO thanked TAQA for the information provided. However, as the infrastructure in question lays in Scottish Waters NFFO believe the Scottish Fisherman's Federation, who they work very closely with, are best placed to take the lead role in commenting.				
	2020	No comments received during consultation period.				
Scottish Fisherman's	provide high level summary of the scope & intent of the project	SFF thanked TAQA for the information provided. As the DP is focusing on topside removal work, they may provide comment at consultation.				
	Consultation Period March 2020	No comments received during consultation period.				
Northern Irish Fish Producers Organisation28th January 2020 email to provide summary of the scope & intent of the projectConsultation Period March		A specific location map was requested to gauge what, if any impact there might be for NIFPO. NIFPO confirm that the location of the proposed decommissioning programme is out with their geographical area of interest.				
	2020	No comments received during consultation period.				
Global Marine Systems Limited	28 ^{er} January 2020 email to provide high level summary of the scope & intent of the project	No comments received.				
	Consultation Period March 2020	No comments received during consultation period.				



6 PROGRAMME MANAGEMENT

6.1 Project Schedule

Onshore project management for the drilling derrick structure removal has already commenced, the tender strategy development is complete, with tender award the next stage in the schedule. A period of offshore survey and planning is then required prior to drilling derrick structure removal.

As shown in Figure 6.1 below, the current schedule anticipates offshore work to remove the drilling derrick structure to commence in Q3 2020 (earliest start date) and complete during Q3 2021.

	2019		2020			2021			2022			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	H1	H2
Derrick Removal Tender Strategy Development & Market Engagement												
MDR Tender Strategy Development & Market Engagement												
Derrick Removal Tender Award												
MDR Contract Award												
MDR Engineering & Construction Define Phase												
MDR Offshore Survey												
Derrick Removal Offshore Survey Work												
Derrick Removal Offshore Planning Phase												
Derrick Destruct From Crown to Drillfloor												
Destruct From drillfloor to Subbase												
Destruct of Subbase												
Destruct of ancilliary items												
MDR Mobilisation & Installation												
Closeout Report Submitted To OPRED												



Figure 6.1 Derrick Structure Removal Project Plan



6.2 Costs

TABLE 6.1 PROVISIONAL DECOMMISSIONING PROGRAMME COSTS				
Item	Estimated Cost (£m)			
Operator Project Management				
Facility Running / Owner Costs				
Well Plug & Abandonment	Provided to OPPED in			
Facilities Make Safe				
Topside Preparation				
Topsides Removal	confidence			
Jacket / Substructure Removal				
Topside & Jacket / Substructure Onshore Recycling				
Site Remediation				
Monitoring				
TOTAL	Provided to OPRED			

6.3 Close Out

In accordance with the OPRED guidelines, a close out report will be submitted to OPRED within 1 year of the completion of the offshore decommissioning scope. The report will detail the removal of the Cormorant Alpha drilling derrick structure, installation of the MDR and any major variances from the programme.



7 SUPPORTING DOCUMENTS

TABLE 7.1 SUPPORTING DOCUMENTS				
Document Number	Title			
1	Cormorant Alpha Derrick Decommissioning Environmental Appraisal (77IFS-156680-H99-0004)			
2	Materials Inventory – Cormorant Alpha Rig Package (77IFS-155036-L99-0005-000)			



APPENDICES

Public Notice

PUBLIC NOTICE PETROLEUM ACT 1998

Removal of Cormorant Alpha Derrick Structure

TAQA Bratani Limited ("TAQA") has submitted, for the consideration of the Secretary of State for Business, Energy and Industrial Strategy, a draft decommissioning programme for the removal of the Cormorant Alpha derrick structure and installation of a temporary modular drill rig, in accordance with the provisions of the Petroleum Act 1998 (The Act). It is a requirement of the Act that interested parties be consulted on such proposals.

The facilities covered by the Cormorant Alpha derrick structure removal draft decommissioning programme are in Block 211/26a in the northern North Sea, approximately 104km north east of Shetland and 41km from the UK/Norwegian median line. The facilities to be removed comprise the drill derrick, drill floor, substructure and subbase inclusive of all primary, secondary and tertiary steel sections. A modular drill rig will be installed in the footprint of the former structure to facilitate the future plug and abandonment of well stock.

TAQA hereby gives notice that the Cormorant Alpha derrick structure removal draft decommissioning programme is available from the following location during office hours or can be requested by email as indicated:

TAQA Bratani Limited TAQA House Prospect Road Arnhall Business Park Westhill Aberdeenshire AB32 6FE

Contact Alastair MacLean, Decommissioning Stakeholder Manager: 01224 275275 stakeholderdecomuk@tagaglobal.com

Representations regarding the draft decommissioning programme should be submitted in writing to Alastair MacLean at the above address where they should be received by the consultation closing date, 24th March 2020, and should state the grounds upon which any representations are being made.

The decommissioning programme can be viewed via the OPRED website: <u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u> Or via the TAQA website: <u>https://www.tagaglobal.com/our-regions/united-kingdom/oil-gas</u>



Letters of Support



A/S Norske Shell Hovedkontor (Head Office) Tankvegen 1 Postboks 40 N-4098 Tananger Narway Tel: +47 51 69 30 30 Fax: +47 51 69 30 30 Internett: www.shell.no

Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJx Attn. FAO Jade Jones,

Date 25.05.2020

LETTER OF SUPPORT

Dear Jade,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION

DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your communication dated 22nd April 2020.

We, A/S Norske Shell confirm that we authorise TAQA Bratani Limited to submit on our behalf the abandonment programmes relating to the Cormorant Alpha Derrick Structure Removal and Modular Drill Rig Installation as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998

Yours faithfully/sincerely, For A/S Norske Shell

5. Q. Neme

Svein Olaf Nesse Asset Manager



bp

Britoil Limited 1 Wellheads Avenue Dyce AB21 7PB

Direct: +44 1224 942 551 Mobile: +44 7824 894 228 andy.mcdionald@uk.bp.com

Attention: Ruth Ledingham Senior Decommissioning Manager Offshore Petroleum Regulator for Environment & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

Sent by email to ruth.ledingham@beis.gov.uk

21 May 2020

Andy Mcdonald Area Commercial Operations Manager

Dear Ruth,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG (MDR) INSTALLATION DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

I write on behalf of Britoil Limited and Amoco (U.K.) Exploration Company, LLC, each in their capacity as recipient of a section 29 notice relative to the Cormorant Alpha Installation (part of the Brent System) (hereafter referred to together as "BP").

We, BP, confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure Removal and MDR Installation facilities as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programme dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

The support we provide in this Letter is without prejudice to existing contractual rights and obligations between BP as Brent System owners and TAQA Bratani Limited as the operator and owner of the Cormorant field.

Yours faithfully

A. Mille

Andy Mcdonald Area Commercial Operations Manager For and on behalf of Britoil Limited and Amoco (U.K.) Exploration Company, LLC

Britoil Limited Registered in Scotland No. SC077750 Registered Office: 1 Wellheads Avenue Dyce, Aberdeen AB21 7PB Amoco (U.K.) Exploration Company, LLC Incorporated in Delaware, USA (company number SF000790) UK Establishment Number BR005086 UK Establishment Office Address: 1 Wellheads Avenue, Dyce, Aberdeen AB21 7PB

Confidential





19 May 2020

Offshore Petroleum Regulator For Environment & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1JB

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, NEO Energy (UKCS) Limited confirm that we authorise TAQA Bratani Limited ("TAQA") to submit on our behalf abandonment programme relating to the Cormorant Alpha Derrick Structure Removal & MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Decommissioning Programme in relation to the Cormorant Alpha Derrick Structure Removal & MDR Installation dated May 2020, which is to be submitted by TAQA in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Robert Adams Interim CFO

For and on behalf of NEO Energy (UKCS) Limited

Level 32, The	8th Floor, The Silver Fin	e	+44 1224 659120
30 St Mary Axe	455 Union Street		info@neweuropeanoffshore.com
London EC3A 8BF	Aberdeen AB11 6DB		www.neweuropeanoffshore.com





24 April 2020

Offshore Petroleum Regulator for the Environment and Decommissioning Department for Business, Energy and Industrial Strategy 3rd Floor, Wing C AB1 Building Crimon Place ABERDEEN AB10 1BJ

FAO: Ruth Ledingham

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, CNR International (U.K.) Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick structure removal and MDR installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programme dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Ron ASNA

Roy Aspden Decommissioning Projects Manager

For and on behalf of CNR International (U.K.) Limited

CNR International (U.K.) Limited	Company Number 00813187	(England and Wales)
St Magnus House, Guild Street, Aberdeen, AB11 6NJ United Kingdom	Switchboard	+44(0)1224 303600
Registered office: c/o Pinsent Masons LLP, 30 Crown Place, London, EC2A 4ES Unite	d Kingdom. Fax	+44(0)1224 303888



From: Richard Tocher		
Sent: 15 May 2020 10:06		
To:		
Cc: Dominic Cruickshanks		
	Michael Wade	Paul Davis

Subject: CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, Chrysaor Production (U.K.) Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure facilities as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Richard Tocher SVP Decommissioning & Major Projects

For and on behalf of Chrysaor Production (U.K.) Limited

7: M: E Rubislaw House | Anderson Dr | Aberdeen | AB15 6FZ





Offshore Petroleum Regulator for Environment & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building, Crimon Place Aberdeen AB10 1BJ UK

Your date 22 Apr 2020 Your reference

Our date 23 Apr 2020 Our reference TS

PETROLEUM ACT 1998

DECOMMISSIONING OF THE CORMORANT ALPHA DERRICK STRUCTURE AND INSTALLATION OF MODULAR DRILL RIG

We acknowledge receipt of your letter dated 22 April 2020.

We, ConocoPhillips Skandinavia AS confirm that we authorise TAQA Bratani Ltd to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure facilities as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Ltd Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Ltd in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours sincerely on behalf of ConocoPhillips Skandinavia AS

Tanja Smith

Tanya J Smith COMMERCIAL ADVISOR

Postal address Visiting P.O. Box 3 Ekofiskv N-4068 STAVANGER N-4056 NORWAY NORWA E-mail: contact@conocophillips.com

Visiting address Ekofiskvegen 35 N-4056 Tananger NORWAY Telephone +47 52 02 00 00 Telefax +47 52 02 66 00 Business Enterprise No. ConocoPhilips Skandinavia AS

NO 918 110 127

Page 1 of 1





Dana Petroleum (E&P) Limited King's Close 62 Huntly Street Aberdeen AB10 1RS United Kingdom

t: +44 (0) 1224 616 000 f: +44 (0) 1224 616 001 www.dana-petroleum.com

Offshore Petroleum Regulator for Environmental & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ United Kingdom

11 May 2020

Dear Sir or Madam,

PETROLEUM ACT 1998 DECOMMISSIONING OF THE CORMORANT ALPHA DERRICK STRUCTURE AND INSTALLATION OF MODULAR DRILL RIG

We acknowledge receipt of your letter dated 22 April 2020.

We, Dana Petroleum (E&P) Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf an abandonment programme relating to the Cormorant Alpha Derrick Structure and installation of Modular Drill Rig as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully,

Digitally signed by elkovandalenedana-petroleum.com DN: cn=elkovandalene/danapetroleum.com Date: 2020.05.11 13:45:31

Eiko van Dalen Chief Operating Officer





Cunard House 5th Floor 15 Regent Street London SW1Y 4LR United Kingdom T +44 (0)20 7925 4900 F +44 (0)20 7925 4936 www.enguest.com

Offshore Petroleum Regulator for Environment and Decommissioning AB1 Building (Wing C) Crimon Place Aberdeen AB10 1BJ

Date: 11 May 2020

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter 22 April 2020.

We, EnQuest Heather Limited confirm that we authorise TAQA Britani Limited hereby to submit the abandonment programme dated May 2020 relating to Cormorant Alpha Derrick Structure Removal and MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the Cormorant Alpha Derrick Structure Removal and MDR Installation Decommissioning Programme dated May 2020, that is to be submitted by TAQA Britani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Ales.

Mr Paul Massie Director, EnQuest Heather Limited For and on behalf of EnQuest Heather Limited

EnQuest Heather Ltd Company No 82748866 Incorporated in England

Registered office unard House, 5th Floor 15 Regent Stree Londor SW1Y 4LF





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Offshore Petroleum Regulator for Environment and Decommissioning AB1 Building (Wing C) Crimon Place Aberdeen AB10 1BJ

Date: 11 May 2020

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter 22 April 2020.

We, EnQuest Thistle Limited confirm that we authorise TAQA Britani Limited hereby to submit the abandonment programme dated May 2020 relating to Cormorant Alpha Derrick Structure Removal and MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the Cormorant Alpha Derrick Structure Removal and MDR Installation Decommissioning Programme dated May 2020, that is to be submitted by TAQA Britani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Mr Paul Massie Director, EnQuest Thistle Limited For and on behalf of EnQuest Thistle Limited

EnQuest Thistle Lts Company No 0448722 Incorporated in England

Registered office Funard House, 5th Floor 15 Regent Street Londor SW1Y 4LP





A/S Norske Shell

Tankvegen 1 Postboks 40 N-4098 Tananger Norway Tel: +47 51 69 30 00 Fax: +47 51 69 30 30

Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJx Attn. FAO Jade Jones,

Date 25.05.2020

LETTER OF SUPPORT

Dear Jade,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION

DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your communication dated 22nd April 2020.

We, Enterprise Oil Norge Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf the abandonment programmes relating to the Cormorant Alpha Derrick Structure Removal and Modular Drill Rig Installation as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998

Yours faithfully/sincerely, For Enterprise Oil Norge Limited

S. C. Wene

Svein Olaf Nesse Asset Manager





Shell U.K. Limited 1 Altens Farm Road Nigg Aberdeen AB12 3FY United Kingdom Tel +44 1224 883089 Internet http://www.shell.co.uk

FAO Jade Jones, Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

Date: 30th April 2020

Dear Jade,

LETTER OF SUPPORT

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your communication dated 22nd April 2020.

We, Enterprise Oil UK Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf the abondement programmes relating to the Cormorant Alpha Derrick Structure Removal and Modular Drill Rig Installation as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

RINNUM

Name: Rob Maxwell Position in Company: JV Asset Manager For and on behalf of Enterprise Oil UK Ltd

Shell U.K. Limited, Registered in England number 140141, Registered office Shell Centre London SE1 7NA, VAT reg number GB 235 7632 55



Esso Exploration and Production UK Limited Ermyn House Ermyn Way Leatherhead Surrey KT22 8UX +44 (0) 1372 222000 Telephone +44 (0) 1372 222622 Facsimile

ExonMobil

Ruth Ledingham Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

11th May 2020

Dear Ruth,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22nd April 2020.

We, Esso Exploration and Production UK Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure facilities as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

— Docussigned by: Jair & Hairsein — SESFDES31035455...

Jan Age Hansen

For and on behalf of Esso Exploration and Production UK Limited

Registered in England Number: 207426 Registered Office: Ermyn House, Ermyn Way Leatherhead, Surrey KT22 8UX

An ExxonMobil Subsidiary



ExxonMobil Exploration and Production Norway AS Vestre Svanholmen 24 4313 Sandnes Norway

ExonMobil

Ruth Ledingham Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1BJ

11th May 2020

Dear Ruth,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22nd April 2020.

We, ExxonMobil Exploration and Production Norway AS confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure facilities as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

— Docusigned by: Jair & Hainsein — SESFDE031035456...

Jan Age Hansen

For and on behalf of ExxonMobil Exploration and Production Norway AS

An ExxonMobil Subsidiary





Fairfield Betula Limited 19 Abercrombie Court, Prospect Road Arnhall Business Park Westhill, AB32 6FE, UK

5 May 2020

Offshore Petroleum Regulator For Environment & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1JB

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, Fairfield Betula Limited confirm that we authorise TAQA Bratani Limited ("TAQA") to submit on our behalf an abandonment programme relating to the Cormorant Alpha Derrick Structure Removal & MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Decommissioning Programme in relation to the Cormorant Alpha Derrick Structure Removal & MDR Installation dated May 2020, which is to be submitted by TAQA in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully For and on behalf of Fairfield Betula Limited

John Wiseman Director

Fairfield Betula Limited Cannon Place, 78 Cannon Street, London, EC4N 6AF T +44 (0)1224 320500 F +44 (0)1224 320501 Registered in England and Wales 4465204





Fairfield Fagus Limited 19 Abercrombie Court, Prospect Road Arnhall Business Park Westhill, AB32 6FE, UK

5 May 2020

Offshore Petroleum Regulator For Environment & Decommissioning Department for Business, Energy & Industrial Strategy AB1 Building Crimon Place Aberdeen AB10 1JB

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MDR INSTALLATION DECOMMISSIONING PROGRAMME PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, Fairfield Fagus Limited confirm that we authorise TAQA Bratani Limited ("TAQA") to submit on our behalf an abandonment programme relating to the Cormorant Alpha Derrick Structure Removal & MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Decommissioning Programme in relation to the Cormorant Alpha Derrick Structure Removal & MDR Installation dated May 2020, which is to be submitted by TAQA in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully For and on behalf of Fairfield Fagus Limited

John Wiseman Director

Fairfield Fagus Limited Cannon Place, 78 Cannon Street, London, EC4N 6AF T +44 (0)1224 320500 F +44 (0)1224 320501 Registered in England and Wales 5461823





MCX DUNLIN (UK) LTD.

Mid City Place, 71 High Holborn London, WC1V 6BA, United Kingdom

7th May 2020

Offshore Petroleum Regulator for Environment & Decommissioning Offshore Decommissioning Unit AB1 Building Crimon Place Aberdeen AB10 1BJ

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE & MDR INSTALLATION DECOMMISSIONING PROGRAMME

We acknowledge receipt of your letter dated 22nd April 2020.

We, MCX Dunlin (UK) Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure & MDR Installation as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the Cormorant Alpha Derrick Structure Removal & MDR Installation Decommissioning Programme dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

awamati

Michio Kawamata Director MCX Dunlin (UK) Limited





MCX OSPREY (UK) LTD.

Mid City Place, 71 High Holborn London, WC1V 6BA, United Kingdom

7th May 2020

Offshore Petroleum Regulator for Environment & Decommissioning Offshore Decommissioning Unit AB1 Building Crimon Place Aberdeen AB10 1BJ

Dear Sir or Madam

CORMORANT ALPHA DERRICK STRUCTURE & MDR INSTALLATION DECOMMISSIONING PROGRAMME

We acknowledge receipt of your letter dated 22nd April 2020.

We, MCX Osprey (UK) Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf abandonment programmes relating to the Cormorant Alpha Derrick Structure Removal & MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the Cormorant Alpha Derrick Structure Removal & MDR Installation Decommissioning Programme dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under Section 29 of the Petroleum Act 1998.

Yours faithfully

Michio Kawamata Director MCX Osprey (UK) Limited



From: Pringle Bob (MOL Energy UK)
Sent: 20 May 2020 16:29
To: Ledingham, Ruth (Energy Development & Resilience)
Cc: Jones, Jade (Energy Development & Resilience)
Marcus Herbert
Sam (Energy Development & Resilience)
Subject: RE: Cormorant Alpha Derrick Structure Removal and Modular Drill Rig installation - Calling
Letter

Dear Ruth,

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL & MDR INSTALLATION DECOMMISSIONING PROGRAMME

PETROLEUM ACT 1998

We acknowledge receipt of your letter dated 22 April 2020.

We, MOL UK Facilities Limited, confirm that we authorise TAQA Bratani Limited ("TAQA") to submit on our behalf an abandonment programme relating to the Cormorant Alpha Derrick Structure Removal & MDR Installation as directed by the Secretary of State on 22 April 2020.

We confirm that we support the proposals detailed in the TAQA Decommissioning Programme in relation to the Cormorant Alpha Derrick Structure Removal & MDR Installation dated May 2020, which is to be submitted by TAQA in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

Name: Bob Pringle Position in Company: Financial Analyst

For and on behalf of MOL UK Facilities Limited

Best regards, Bob.

Bob Pringle | Financial Analyst MOL Energy UK Limited, 2nd Floor Suite 4, Union Plaza, 1 Union Wynd, Aberdeen, AB10 1SL t: molgroup.info MOLGROUP







Shell U.K. Limited 1 Altens Farm Road Nigg Aberdeen AB12 3FY United Kingdom Tel +44 1224 883089 Internet http://www.shell.co.uk

FAO Jade Jones,

Department for Business, Energy & Industrial Strategy

AB1 Building

Crimon Place

Aberdeen

AB10 1BJ

Date: 23rd April 2020

Dear Jade,

LETTER OF SUPPORT

CORMORANT ALPHA DERRICK STRUCTURE REMOVAL AND MODULAR DRILL RIG INSTALLATION DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your communication dated 22nd April 2020.

We, Shell UK Limited confirm that we authorise TAQA Bratani Limited to submit on our behalf the abondement programmes relating to the Cormorant Alpha Derrick Structure Removal and Modular Drill Rig Installation as directed by the Secretary of State on 22nd April 2020.

We confirm that we support the proposals detailed in the TAQA Bratani Limited Decommissioning Programmes dated May 2020, which is to be submitted by TAQA Bratani Limited in so far as they relate to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

RINNUM

Name: Rob Maxwell

Position in Company: JV Asset Manager

For and on behalf of Shell UK Ltd

Shell U.K. Limited, Registered in England number 140141, Registered office Shell Centre London SE1 7NA, VAT reg number GB 235 7032 55

CONTACT

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Tel: +44 (0)1224 275275 www.taqaglobal.com

