

Brae Area Brae Alpha Upper Jacket and Associated Riser Sections

Decommissioning Programmes

May 2026 – Consultation Draft

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Distribution List

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Table of Abbreviations

Abbreviation	Explanation
AWMP	Active Waste management Plan
BEIS	Department of Business, Energy, and Industrial Strategy (now the Department for Energy Security and Net Zero (DESNZ))
BTA	Buoyancy Tank Assembly
CNR	Canadian Natural Resources
CNS	Central North Sea
CoP	Cessation of Production
DESNZ	Department for Energy Security and Net Zero
DP	Decommissioning Programme
EA	Environmental Appraisal
EIA	Environmental Impact Assessment
ES	Environmental Statement
FPAL	First Point Assessment Limited
HLV	Heavy Lift Vessel
JNCC	Joint Nature Conservation Committee
LAT	Lowest Astronomical Tide
LLC	Limited Liability Corporation
MARPOL	International Convention for the Prevention of Pollution from Ships
MDAC	Methane Derived Autogenic Carbonates
NORM	Naturally Occurring Radioactive Material
NSTA	North Sea Transition Authority
OPEP	Oil Pollution Emergency Plan
OPEX	Operational Expense
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Oslo Paris Convention
PL	Pipeline (as in pipeline number)
PMS	Power Management System
SAC	Special Area of Conservation
SEPA	Scottish Environmental Protection Agency
SFF	Scottish Fishermen's Federation
SLV	Single Lift Vessel
SSIV	Subsea Isolation Valve
TAQA	TAQA Bratani Limited
Te	Metric ton
TJ	Terra Joule (10^{12} Joule)
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
WBS	Work Breakdown Structure
WWF	Worldwide Fund for Nature

1 Executive Summary

1.1 Decommissioning Programme

As required by the Petroleum Act 1998, amended by the Energy Act 2008, this document contains six decommissioning programmes; one for the Brae Alpha Upper Jacket and five for the associated pipeline, umbilical and power cable riser sections (see Section 1.4.2 and Table 2.2 for riser details).

1.2 Requirement for Decommissioning Programmes

In accordance with the Petroleum Act 1998, as amended, TAQA Bratani Limited (TAQA), as operator of the Brae Alpha platform (see Table 1.1), and on behalf of the Section 29 Notice Holders (see Table 1.2, and Table 1.3) is applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the Brae Alpha platform Upper Jacket and the associated risers as detailed in Section 2 of this document. (See also Section 8 – Section 29 Notice Holders’ Letters of Support).

In conjunction with public, stakeholder and regulatory consultation, these Decommissioning Programmes are submitted in compliance with national regulations, international agreements, and OPRED guidance [1]. The potential schedule outlined in this document is for a nine year decommissioning project plan beginning with contract tendering in 2024 and ending with submission of the close out report in 2032.

1.3 Introduction

The Brae Alpha platform is located in UKCS Block 16/7a, approximately 270 km northeast of Aberdeen in a water depth of 112m. The installation is an integrated drilling production and accommodation platform which comprises modular topsides supported by a steel sub-structure or jacket. The jacket is an eight legged 123m tall, fabricated structure with a total weight of approximately 20,000 tonnes. The Upper Jacket covered by this decommissioning programme weighs approximately 12,730 tonnes including marine growth.

The Upper Jacket extends from a cut height approximately 10 m above Lowest Astronomical Tide (LAT) to a cut depth \approx 85.5 m below LAT. Legs A1, A2, D1 and D2 form diesel storage tanks, legs A4 and D4 form desalinated water tanks, and legs A3 and D3 are drill water tanks. The exact cut locations will be determined following detailed engineering considering technical constraints such as sub-structure bracing design, cutting technology and safety impacts. Once the exact planned cut locations are known, OPRED will be advised. The cut locations of individual members achieved in practice may vary from the planned depth by one or two meters. OPRED will be advised of the precise cut depths achieved following Upper Jacket removal.

Marathon Oil originally installed and operated the Brae Alpha platform. The operatorship subsequently transferred to RockRose Energy and then to the current Operator, TAQA. These different entities have performed various activities related to planning and scheduling Brae Alpha Upper Jacket decommissioning. For clarity, the current document refers to “the Brae Operator” for past activities performed by Marathon Oil or RockRose Energy. Going forward, TAQA will decommission the infrastructure as Operator, and on behalf of other companies that have previously been involved in Brae Alpha operations and have decommissioning responsibilities under Section 29

of the Petroleum Act 1998. Therefore, this decommissioning programme refers to “TAQA” in relation to future activities by the current Brae Alpha Operator.

Brae Alpha started production in 1983. The Brae Operator extended the life of the Brae Field beyond initial projections. However, there are no viable hydrocarbon opportunities in the area that could prolong the life of the installation further. Therefore, TAQA anticipates Brae Alpha Cessation of Production (CoP) in the short term, potentially as late as Q4 2027, but no earlier than 2025. Decommissioning planning commenced in 2020.

These decommissioning programmes are submitted without derogation and in full compliance with OPRED guidelines. The decommissioning programmes explain the principles of the removal activities in accordance with relevant guidance [1]. The decommissioning programmes are supported by an environmental statement [2] completed in 2017 and an Environmental Appraisal completed in 2024 [3].

The Brae Operator conducted public, stakeholder, and regulatory consultation on a previous decommissioning programme which included the Brae Alpha Upper Jacket in 2017 [4]. Since then, the proposals for decommissioning the Upper Jacket have not altered. However, the scope of the previous decommissioning programme has been split into a number of separate programmes. Since the presentation of information regarding decommissioning the Brae Alpha Upper Jacket has changed, TAQA is issuing this Decommissioning Programme for further stakeholder consultation. TAQA has also prepared a revised Decommissioning Programme [5] that includes the Brae Alpha topsides, superseding the content in the 2017 Decommissioning Programme [4].

A significant period has elapsed since the preparation of the Brae Alpha Decommissioning Environmental Statement (ES) in 2017 by the Brae Operator [2]. Therefore, in consultation with OPRED, TAQA conducted the Environmental Appraisal (EA) in 2024 [3]. The objectives of the EA were,

- to review the differences in available data, topics of interest and methodology between 2017 and 2024.
- to determine if the conclusions of the original Environmental Statement in 2017 remained sound or required revision.
- to check whether changes to proposed decommissioning operations are required to address any revisions of the conclusions.

The EA [3] determined that there are no changes to the Environmental Statement’s conclusions that require modification of the proposed decommissioning methodology for the Brae Alpha Upper Jacket.

The points of note from the EA [3] are:

- Since the ES was submitted, the Braemar Pockmarks Special Area of Conservation (SAC) boundary has been extended. The Brae Alpha Area is located approximately 28 km from the SAC boundary. Although no data are provided in the recent survey, Fugro (2022), considering historic data used to inform the ES, no methane derived autogenic carbonates (MDACs), which compromise a carbonate cement formed by anaerobic oxidation of vented methane by microbes, were encountered during the surveys used to inform the ES.

- The Environmental Appraisal used more recent data than the ES and therefore identified several species of seabirds likely to be in the Brae Alpha Area that were not identified in the ES. The Environmental Appraisal also considered the variation of the birds' sensitivity to oil pollution during the year. However, this additional information does not invalidate the conclusions of the ES. Similarly, the ES did not consider disturbance of nesting birds by decommissioning operations. However, TAQA has implemented a Seabird Management Strategy to mitigate against birds nesting on the Brae Alpha platform and therefore reduce the risk of seabird disturbance as far as is reasonable. To date, in specific surveys conducted in 2012, 2022, and 2023 there have been no nesting birds identified on the Brae Alpha platform.
- The National Marine Plan was not initially considered in the ES. On review of the Marine Plan objectives and policies, TAQA has addressed ways in which all new policies that have been introduced will be adhered to during the decommissioning operations of the Brae Alpha Area without a requirement to revisit the ES.

The Environmental Appraisal identified several aspects that were not addressed in the 2017 ES, in the way that they would be in 2024. The Environmental Appraisal assessed these areas considering current EA methodologies, current data, and revised policy expectations since the ES submission. This process concluded that these aspects are not significant and that the findings of the Environmental Appraisal do not warrant any substantive change to the conclusions of the ES, or change to the proposed decommissioning solution for the Brae Alpha Upper Jacket.

1.3.1 Scope of Decommissioning Programme

The scope of these Decommissioning Programmes (DPs) is the removal of the Brae Alpha Upper Jacket and the associated sections of pipeline and umbilical risers from the topsides removal cut height at approximately 10 m above Lowest Astronomical Tide (LAT) to a lower cut elevation circa 85.5 m below LAT. The Upper Jacket is shown coloured red in [Figure 1-1](#). The lower part of the sub-structure, which is coloured black in [Figure 1-1](#), is referred to as "Footings" throughout this document. The Footings are outside the scope of this decommissioning programme and will be addressed in a separate decommissioning programme in due course [\[6\]](#). The Brae A well conductors are included in the scope of the Upper Jacket DP. There is a single pile in the Leg D1 cluster at the northeast corner of the platform that sticks up to approximately 14 m above the lower cut elevation of – 85.5 m LAT. The section of this pile above the lower cut elevation will be removed as part of Upper Jacket removal to give access to the cut locations on Leg D1 at the -85.5 m LAT level.

The sections of pipeline, umbilical and power cable riser sections that will be removed with the Upper Jacket are listed in [Section 1.4.2](#). The pipelines and umbilicals will be flushed and purged as far as practicable prior to Topsides removal and electrical cables will be deenergised. Any parts of these pipelines, umbilicals and power cables that remain after Upper Jacket removal are, or will be, covered in wider Brae Area decommissioning programmes. The Open Drains Disposal Caisson and Produced Water Caisson will also be removed with the Upper Jacket. The potential small quantities of oil contained in these Caissons will be minimised as far as practicable before Topsides removal. TAQA will apply for an oil discharge permit prior to Upper Jacket removal although no oil discharge is expected.

The Brae Alpha platform topsides and associated subsea installations are covered by a separate decommissioning programme [\[5\]](#).

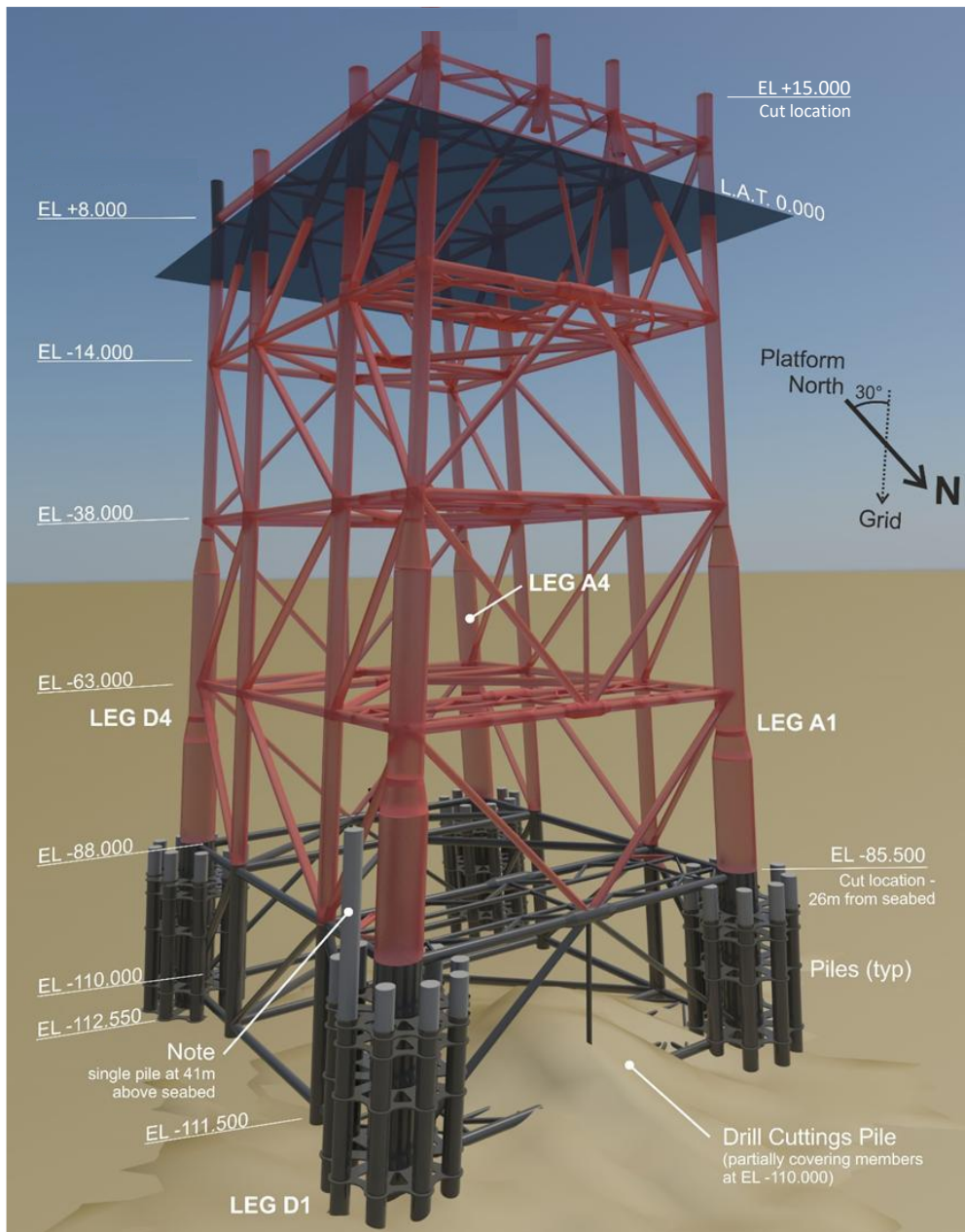


Figure 1-1: Facilities to be Decommissioned (Shown by red shading)

1.4 Overview of Facilities Being Decommissioned

The Brae Alpha Upper Jacket covered by this Decommissioning Programme is the structure shaded red in Figure 1-1, plus the single pile that projects to 41 m above the seabed, which will be cut to -85.5 m LAT. Table 1.1 presents the key Upper Jacket data. Table 1.2 lists the Upper Jacket Section 29 notice holders.

Section 1.4.2 lists the pipeline, umbilical and power cable riser sections, which are attached to the Upper Jacket and will be removed with it. The risers will be cut at the Upper Jacket cut depth, or

deeper if it is practicable to do so. In either case, the risers will be cut at a depth that minimises disturbance of the drill cuttings pile at the base of the sub-structure.

The Section 29 notice holders for the pipeline, umbilical, and power cable risers are listed in [Table 1.3](#).

Brae Alpha is one of eight installations in the Brae Area. The other seven installations are Brae Bravo, East Brae, Central Brae, West Brae, Sedgwick, Braemar and Devenick. These facilities and Brae Alpha are shown in [Figure 1-2](#), and [Figure 1-3](#).

1.4.1 Installations

Table 1.1: Installations Being Decommissioned

Field(s)	South Brae (Brae Alpha)	Production Type (Oil/Gas/Condensate)	Oil/Gas/Condensate
Water Depth	112 m	UKCS Block	16/7a
Distance to Median	16 km	Distance from Nearest UK Coastline	190 km (To Fair Isle)
Surface Installations			
Number	Type	Upper Jacket Weight¹ (tonnes)	
1	Steel Jacket	≈ 12,730	

¹ Estimated Upper Jacket recoverable weight covered by this Decommissioning Programme, including marine growth.

Table 1.2: Brae Alpha Section 29 Notice Holders

Company	Registration No.	Equity Interest
TAQA Bratani Limited	05975475	69.5%
Spirit Energy Resources Limited	02855151	13.33%
NEO Next+ Energy Petroleum Limited	03288689	10.50%
TAQA Bratani LNS Limited	06230540	6.67%
BP Exploration Operating Company Limited	00305943	0.0%
Ithaca UKCS Limited	01019748	0.0%
Fujairah Oil and Gas UK LLC ¹	FC009587	0.0%
GB Gas Holdings Limited	03186121	0.0%
Ithaca (NE) UKCS Limited	03386464	0.0%
NEO Next + Energy Resources UK Limited	00825828	0.0%
NEO Next + Energy LNS Limited	02483161	0.0%

1.4.2 Pipeline, Umbilical and Power Cable Risers

The pipeline layout on the approaches to Brae Alpha is shown in [Figure 1-3](#).

There are pipeline, umbilical and power cable risers attached to the Brae Alpha Upper Jacket. Sections of these risers will be decommissioned with the Brae Alpha Upper Jacket.

The total number of risers at the Brae Alpha Jacket is 37. Nineteen of these risers are operated by TAQA and are within the scope of the Decommissioning Programmes described in the current document. The other 18 risers are operated by third parties. The third party risers are covered in the decommissioning programmes for the Heimdal and Trees installations, or will be covered in the Decommissioning Programmes for the Enoch facilities.

The TAQA operated pipeline and umbilical risers will be isolated and flushed, and the Power Management System (PMS) cables will be de-energised and appropriately isolated, as part of the Brae Alpha topsides decommissioning scope.

As part of the Brae Alpha Upper Jacket decommissioning scope, the risers will be severed at the proposed Upper Jacket cut height approximately 10 m above LAT and at the Upper Jacket cut depth approximately 85.5 m below LAT, or deeper if it is practicable to do so. The risers will be cut at a point and removed in a manner that minimises disturbance of the drill cuttings pile at the base of the sub-structure. Pipeline Works Authorisations will be amended as necessary to reflect the risers' as left status. Flexible risers will be pinned in the J-tubes and removed with the Upper Jacket. The lengths of all the riser sections removed with the upper jacket will be approximately 95 m.

¹ Fujairah Oil and Gas UK 12 Limited previously held an S29 notice. This company is now Dissolved.

The pipeline, umbilical and power cable riser sections attached to the Brae Alpha Upper Jacket within the scope of the decommissioning programmes contained in this document are;

- Pipeline and riser sections serving the Central Brae installation installed in a caisson on the north face of the jacket outboard of node C1.
 - PL634 the 10" Central Brae Water Injection riser
 - PL635 the 4" Central Brae Service riser
 - PL636 the 6" Central Brae Production riser (#1)
 - PL6188 the 6" Central Brae Production riser (#2)
- Umbilical Riser sections serving the Central Brae installation, installed in J-tube 20 on the east face of the jacket.
 - PL637 the 5" Brae Alpha to Central Brae Chemical Injection Umbilical riser
 - PLU6190 the 3.5" Central Brae Control Umbilical riser
- Pipeline and umbilical riser sections serving the West Brae installation, and the connected Sedgwick installation. These risers are installed in a dedicated caisson at the north end of the installation, with the exception of PLU4031 which is installed in a caisson on the south face of jacket.
 - PL1441.1 the 12" West Brae Production riser
 - PL1442.1 the 6" West Brae Gas Lift riser
 - PL1445 the 3 ½" Gas Lift riser running from platform topsides to the base of PL1441.1 West Brae Production riser
 - PLU1446 the 5" West Brae Chemical / Control Umbilical riser
 - PLU4031 the 2.75" West Brae Replacement Umbilical riser
- Riser section serving the Miller installation, installed in caisson 18 on the east face of the jacket
 - PL722 the 18" Miller Oil riser

The Section 29 Notice Holders for the lines serving Central, Brae, West Brae, and Sedgwick are listed in [Table 1.3](#).

- Trunk pipeline, umbilical and power cable riser sections serving the Brae Bravo and East Brae Platforms and Brae oil export.
 - PL64, the 30" oil export riser to the Forties System. This riser is on the west face of the platform
 - PL360 the 18" gas transfer riser to East Brae. This riser is located on the west face of the jacket
 - PL361 the 18" redundant condensate transfer riser from Brae Bravo. This riser is located on the west face of the jacket,
 - PLU4203 the failed 2" control umbilical riser for the PL360 and PL361 Gas and Condensate SSIVs. This riser is located in a caisson on the south face of the jacket,
 - PLU5089 the 4" replacement control umbilical riser for the PL360 and PL361 Gas and Condensate SSIVs. This riser is located in a caisson on the south face of the jacket,
 - PL6119 the 5" PMS cable riser to Brae Bravo. This riser is located in a caisson on the south face of the jacket,

-
- PL6120 the 5" PMS cable riser to East Brae, This riser is located in a caisson on the south face of the jacket.

The Section 29 Notice holders for the pipeline, umbilical and power cable riser sections serving the Brae Bravo and East Brae platforms, Brae Area oil export, Central Brae, West Brae and Sedgwick are listed in [Table 1.3](#). The portions of the risers attached to the Brae Alpha Jacket Footings will be addressed in the Footing Decommissioning Programme. . The decommissioning proposals for the parts of the Central Brae, West Brae and Sedgwick pipelines other than the risers are addressed by the Brae Alpha Topsides, Central Brae West Brae and Sedgwick and Decommissioning Programmes [\[5\]](#) The decommissioning proposals for the parts of the trunk pipelines other than the risers will be described in other the Brae Area Trunk Pipelines Decommissioning Programme [\[7\]](#) to be published in due course.

Table 1.3 Riser S29 Notice Holders

Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice: 12.04.06.05-113U Dated: 31/03/2023 (Central Brae Umbilical)				
PLU6190	5/W/89	GB GAS HOLDINGS LIMITED	03186121	0.00%
		NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%

Table 1.3 Riser S29 Notice Holders

Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice: 12.04.06.05/110C Dated: 24/02/2023 (Trunk Pipelines and Central Brae Pipelines and Umbilical)				
PL64	None Allocated ²	BP EXPLORATION OPERATING COMPANY LIMITED	00305943	0.00%
PL360	6/W/86	ITHACA UKCS LIMITED	01019748	0.00%
PL361	5/W/86	FUJAIHAI OIL AND GAS UK LLC	FC009587	0.00%
PL634	5/W/89	GB GAS HOLDINGS LIMITED	03186121	0.00%
PL635	5/W/89	NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
PL6188 ³	334/V/22	ITHACA (NE) UKCS LIMITED	03386464	0.00%
PL637	5/W/89	NEO NEXT+ ENERGY LNS LIMITED	02483161	0.00%
		NEO NEXT+ ENERGY RESOURCES UK LIMITED	00825828	0.00%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%

² In a telecon 30/10/2019, OGA advised refer to PWA dated 20/05/1981 for PL64. PL64 is also covered by subsequent PWAs; e.g. 126/V/12, etc.

³ Renumbered part of PL636.

Table 1.3 Riser S29 Notice Holders

Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice: 12.04.06.05-5U Dated: 17/05/2022 (Trunk Pipeline SSIV Umbilicals and Power Cables)				
PLU4203	6/W/86	FUJAIRAH OIL AND GAS UK LLC	FC009587	0.00%
PLU5089	6/W/86	GB GAS HOLDINGS LIMITED	03186121	0.00%
PL6119	6/W/86	NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
PL6120	6/W/86	SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%
PL6119	6/W/86	FUJAIRAH OIL AND GAS UK LLC	FC009587	0.00%
PL6120	6/W/86	GB GAS HOLDINGS LIMITED	03186121	0.00%
		NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	9.14641%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	11.58596%
		TAQA BRATANI LIMITED	05975475	73.29507%
		TAQA BRATANI LNS LIMITED	06230540	5.97256%

Table 1.3 Riser S29 Notice Holders

Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice: 12.04.06.05/299C Dated: 13/04/2021 (West Brae and Sedgwick Pipelines and Umbilicals)				
PL1441.1	26/W/97	BP EXPLORATION OPERATING COMPANY LIMITED	00305943	0.00%
PL1442.1	26/W/97	FUJAIRAH OIL AND GAS UK LLC	FC009587	0.00%
PL1445	26/W/97	GB GAS HOLDINGS LIMITED	03186121	0.00%
PLU1446	26/W/97	NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
		ITHACA (NE) UKCS LIMITED	03386464	0.00%
		NEO NEXT+ ENERGY LNS LIMITED	02483161	0.00%
		NEO NEXT+ ENERGY RESOURCES UK LIMITED	00825828	0.00%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%

Table 1.3 Riser S29 Notice Holders

Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice Number: MI-OGO5-00091				
Dated: 13/04/2021				
PLU4031	26/W/97	FUJAIRAH OIL AND GAS UK LLC	FC009587	0.00%
		GB GAS HOLDINGS LIMITED	03186121	0.00%
		NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%

Table 1.3 Riser S29 Notice Holders				
Riser Pipeline No.	Pipeline PWA Ref.	Notice Holder Name	Company No.	Equity
S29 Notice Number: TBC ^{Note 1} Dated: TBC				
PL722	HOLD	BP EXPLORATION (ALPHA) LIMITED	01021007	0.00%
		BP EXPLORATION OPERATING COMPANY LIMITED	00305943	0.00%
		CHRYSAOR PRODUCTION (U.K.) LIMITED	00524868	0.00%
		NEO NEXT+ ENERGY PETROLEUM LIMITED	03288689	10.5%
		SHELL U.K. LIMITED	00140141	0.00%
		SPIRIT ENERGY RESOURCES LIMITED	02855151	13.33%
		TAQA BRATANI LIMITED	05975475	69.5%
		TAQA BRATANI LNS LIMITED	06230540	6.67%

Note 1: The Section 29 notice for the PL722 riser is currently in the process of being served. TAQA 's interest is from and not including Pipeline Flange (Brae 'A') to and including Pig Receiver (Brae 'A')

In addition to the risers in the scope of the decommissioning programmes contained in this document, the following third party risers are also attached to the Upper Jacket;

- PL301 liquid line from Heimdal. This riser is in the scope of the overall Heimdal pipeline Decommissioning Programme. The Operator of this pipeline is Equinor Energy AS. The riser runs through a J-tube on the east face of the jacket. The DP for the Heimdal pipeline was approved in April 2021.
- PL1161, PL1162, PL1163, PL1164.1 to PL1164.10 inclusive and PL1531 serving the Trees subsea facilities. PL1164.1 to PL1164.10 inclusive are 10 cores of a single umbilical. The Trees risers are in the scope of the Trees Decommissioning Programme. The Operator of the Trees Pipelines is Spirit Energy Resources Limited. The pipeline risers are installed in a caissons at the north end of the jacket. The umbilical risers are installed in a caisson on the south face of the jacket.
- PL2336, PL2337, and PLU2338 serving the Enoch subsea facilities. These will be covered in the Decommissioning Programmes for the Enoch facilities. The Enoch Operator is Bridge Petroleum 3 Limited. These risers are installed in a caisson at the north east corner of the jacket.

1.5 Summary of Proposed Decommissioning Programme

The selected decommissioning options for the Brae Alpha Upper Jacket and associated pipeline and umbilical riser sections are shown in [Table 1.4](#) below.

Table 1.4: Summary of Decommissioning Programme

Proposed Decommissioning Solution	Reason for Selection
Brae Alpha Upper Jacket	
Remove the Brae Alpha platform Upper Jacket between approximately 10 m above LAT and 85.5 m below LAT, approximately 26.5 m above seabed. Recovered material will be returned to shore for recycling or disposal.	Removal complies with OSPAR Decision 98/3 and Regulatory requirements.

Table 1.4: Summary of Decommissioning Programme

Proposed Decommissioning Solution	Reason for Selection
Pipeline Riser Sections	
<p>There are seven pipeline risers directly installed on the Upper Jacket, and three risers installed in caissons. The upper sections of these risers and associated caissons will be removed with the Upper Jacket. The riser cut elevations will be aligned with the Upper Jacket cuts at approximately 10 m above LAT and 85.5 m below LAT, circa 26.5 m above the seabed, or deeper if practicable. The risers will be removed in a manner that minimises disturbance of the cuttings pile. Recovered material will be returned to shore for recycling or disposal.</p>	<p>Removal of the pipeline riser sections between approximately 10 m above LAT and 85.5 m below LAT complies with OSPAR Decision 98/3 and Regulatory requirements.</p>
Umbilical Riser Sections	
<p>There are two umbilical risers installed in J-tubes, and four umbilical risers and two power cable risers installed in caissons. The upper sections of these risers and associated caissons and J-tubes will be removed with the Upper Jacket. The riser cut elevations will be aligned with the Upper Jacket cuts at approximately 10 m above LAT and 85.5 m below LAT, circa 26.5 m above the seabed, or deeper if practicable. The risers will be removed in a manner that minimises disturbance of the cuttings pile. Recovered material will be returned to shore for recycling or disposal.</p>	<p>Removal of the pipeline riser sections between approximately 10 m above LAT and 85.5 m below LAT complies with OSPAR Decision 98/3 and Regulatory requirements.</p>
Well Conductors	
<p>The Upper Jacket DP scope includes the upper section of the well conductors between topsides, approximately 10 m above LAT and 85.5 m below LAT.</p> <p>The well conductors may be removed as part of the Topsides decommissioning offshore works, or may be removed as part of the Upper Jacket decommissioning works. In either case, the conductors will be cut above the seabed, at approximately the same elevation as the Upper Jacket, 85.5 m below LAT, or deeper. Irrespective, the conductors will be cut at an elevation that minimises disturbance of the drill cuttings pile. The sections that are removed will be transported to shore for recycling.</p>	<p>Aligns with regulatory and industry guidance for well decommissioning.</p>

Table 1.4: Summary of Decommissioning Programme

Proposed Decommissioning Solution

Reason for Selection

Interdependencies

Decommissioning the Brae Alpha Upper Jacket will not impact any pipelines or installations as there will be no operational facilities connected to the Brae Alpha Upper Jacket following Topsides decommissioning.

The selected Upper Jacket decommissioning option of removal to a depth of 85.5 m below LAT will not preclude any feasible future proposals for decommissioning the Brae Alpha Footings.

TAQA will liaise with the Section 29 notice holders for the Brae Alpha Upper Jacket and the associated pipeline, umbilical, and cable risers to ensure that the Section 29 notice holders are fully aware of the selected decommissioning options. This liaison will include the Operators of third party pipelines that terminate as Brae Alpha. These Operators are aware of the schedule for the CoP and ultimate removal of the Brae Alpha installation.

1.6 Field Locations Including Field Layouts and Adjacent Facilities

The locations of the Brae Area fields within the UKCS are shown in Figure 1-2. More details of the Brae Area facilities layout are shown in Figure 1-3. The facilities adjacent to the Brae Alpha installation are shown in Figure 1-4 and the significant adjacent facilities are listed in Table 1.5.

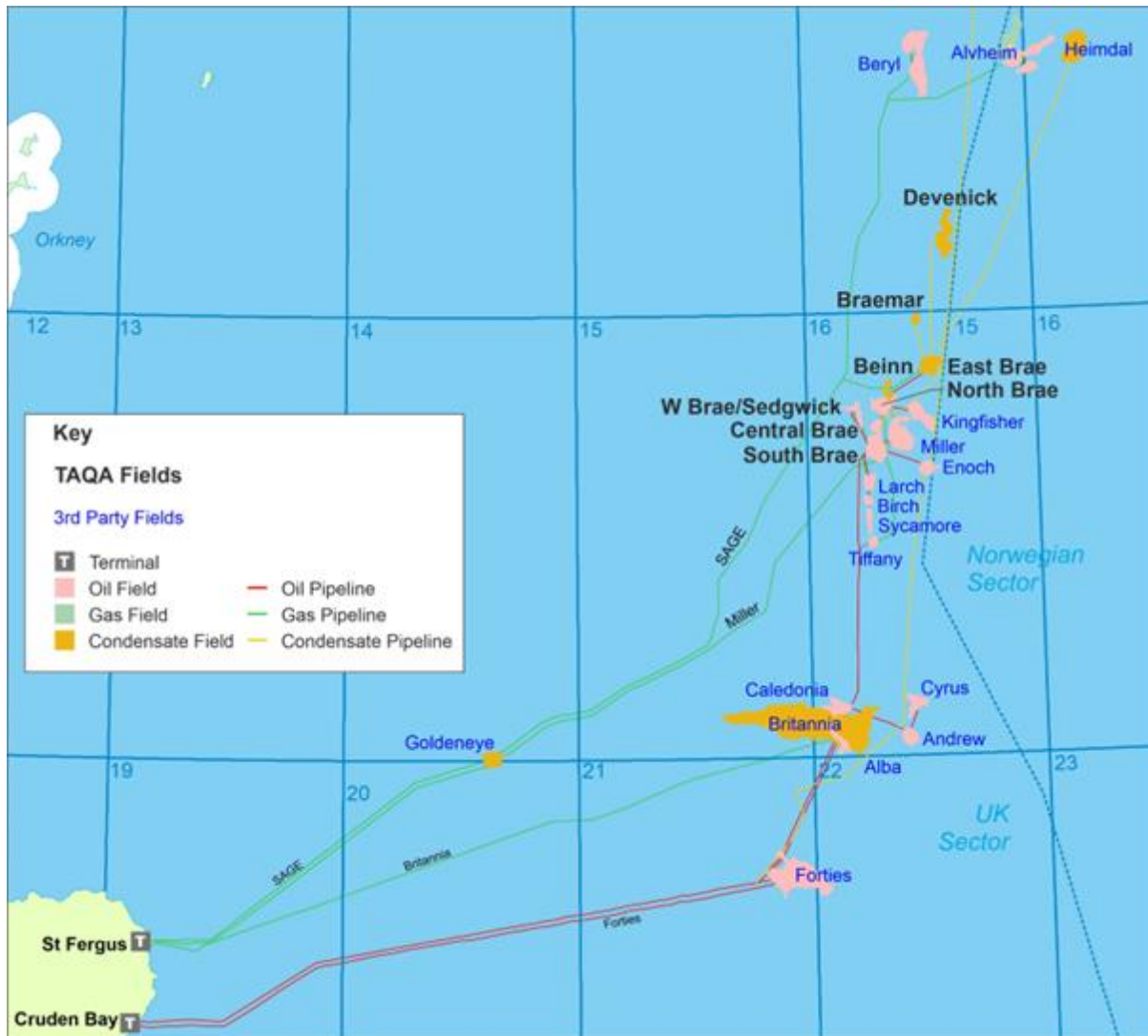


Figure 1-2: Brae Area Field Locations within UKCS

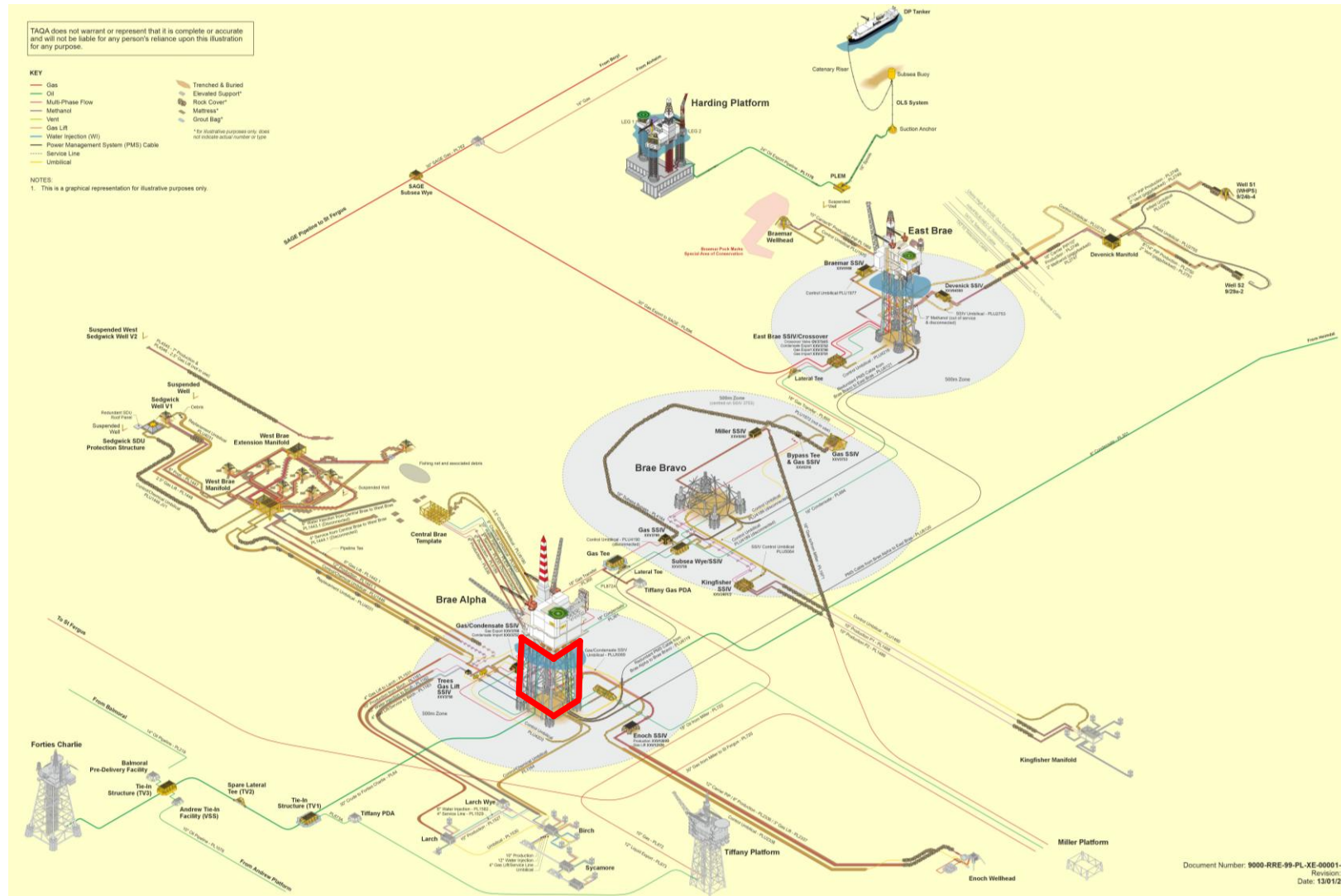


Figure 1-3: TAQA CNS Facilities Layout including Brae Area (Scope of these DPs highlighted in red)

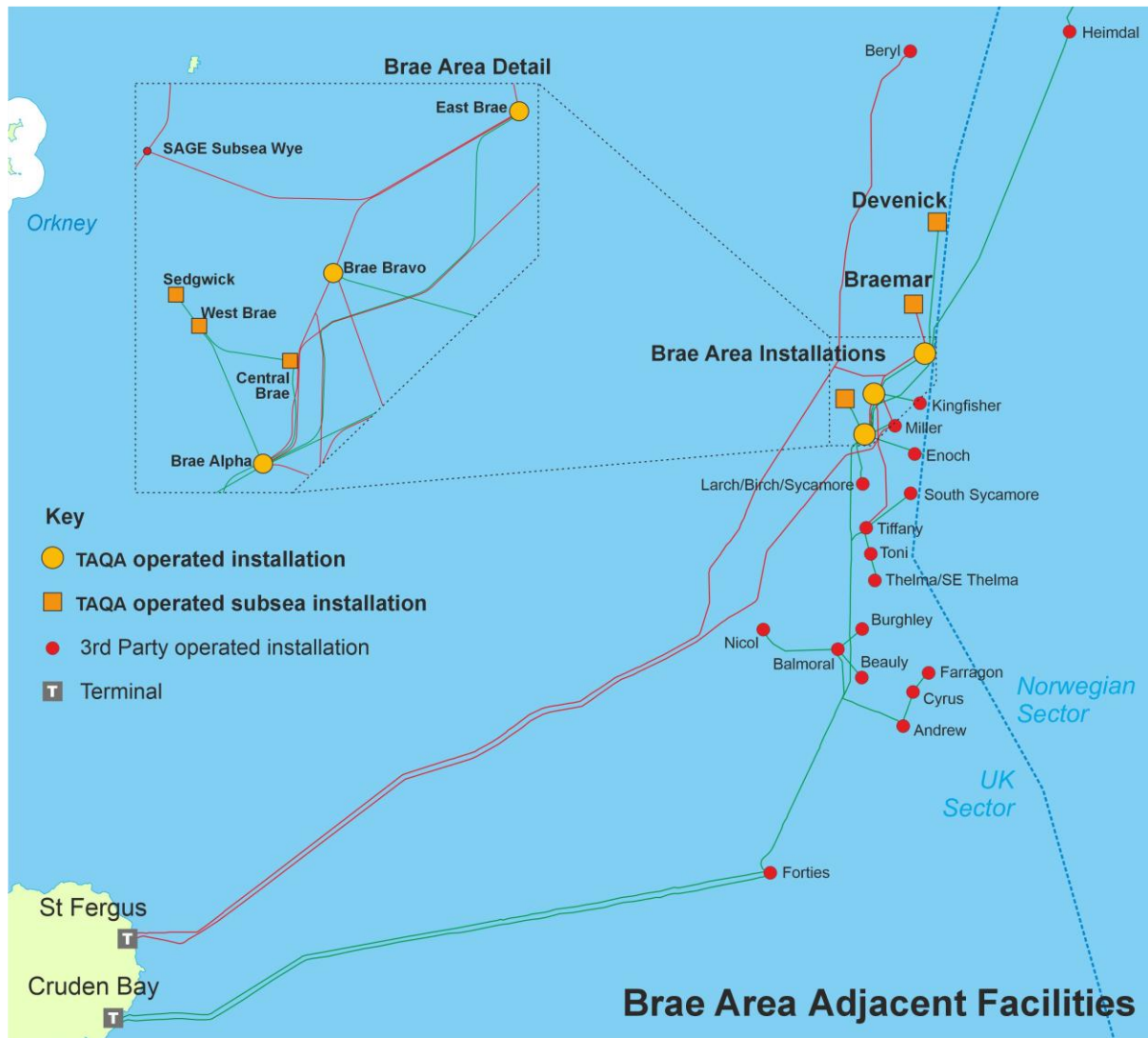


Figure 1-4: Brae Area Adjacent Facilities

Table 1.5: Adjacent Facilities

Owner	Name	Type	Distance / Direction from Brae Alpha	Information	Status
TAQA Bratani Limited	Brae Bravo	Platform	12 km North-north-east	Connected to Brae Alpha via power cable and pipelines	Decommissioned. (Topsides removed 2019. Upper jacket removed 2022).
TAQA Bratani Limited	East Brae	Platform	25km North-east	Connected to Brae Alpha via power cable and pipelines	Non-operational, CoP Q1 2025. (Planned Topsides removal 2026, Upper Jacket removal 2027).

Table 1.5: Adjacent Facilities

Owner	Name	Type	Distance / Direction from Brae Alpha	Information	Status
BP Exploration (Alpha) Limited	Miller	Platform	8 km North-east	Redundant production platform	Decommissioned (Topsides and Upper jacket Removed in 2017/2018. Footings remain in place)
BP Exploration Operating Company Limited	PL1971 Miller to Brae Bravo	Pipeline	8 km North-east	16" Redundant gas pipeline	Suspended under Interim Pipelines Regime
Bridge Petroleum 3 Limited	Enoch Wellhead	Subsea well	15 km East-south-east	Subsea tie-back to Brae Alpha	Operational at time of submission, will cease production with Brae Alpha CoP
CNR International (U.K.) Limited	PL872 Tiffany to PL360 Gas Export Line	Pipeline	3 km East	10" Gas Pipeline	Operational at time of submission, will cease production with Brae Alpha CoP
Spirit Energy North Sea Oil Limited	Birch, Larch, Sycamore	Subsea Production Installation	10 km South	Subsea manifolds and wellheads tied back to Brae Alpha	Non-operational
Equinor AS	PL301 Heimdal to Brae Alpha liquids line.	Pipeline	-	-	Non Operational

Impacts of Decommissioning Proposals

These Decommissioning Programmes cover the Brae Alpha Upper Jacket and associated riser sections. TAQA has been, and will continue to be, in contact with adjacent facilities' operators and owners. The third party installations connected to Brae Alpha will all cease production prior to removal of the Brae Alpha topsides, which will precede removal of the Upper Jacket and associated riser sections covered by the Decommissioning Programmes in this document. Hence, there is no interaction between decommissioning the Brae Alpha Upper Jacket and associated risers sections and any third party installations.

TAQA will liaise with the S29 notice holders for the Brae Alpha Upper Jacket and associated pipeline and umbilical riser sections regarding the planning and execution of decommissioning, dismantling and disposal of the installation and associated riser sections.

1.7 Industrial Implications

TAQA developed the Brae Alpha Upper Jacket decommissioning contract and procurement strategy, on behalf of the Section 29 Notice Holders. TAQA has, and will continue to:

- Publish Brae Alpha Upper Jacket decommissioning project information, including the high level project schedule, on the TAQA decommissioning website:
<https://eu.taqa.com/decommissioning-consultations-and-projects/>
- Publish project information and contact details on the NSTA (North Sea Transition Authority) Pathfinder website:
[Pathfinder \(nstauthority.co.uk\)](https://pathfinder.nstauthority.co.uk)
- Engage with the NSTA and the decommissioning supply chain on any future issues relating to the Brae Alpha Upper Jacket decommissioning programme and schedule.
- Use the FPAL database as the primary source for establishing tender lists for any future contracts and purchases with a value of £250,000 or more.

2 Description of Items to be Decommissioned

2.1 Installations: Surface Facilities – Upper Jacket

Key information regarding the Brae Alpha platform Upper Jacket is presented in [Table 2.1](#). The extent of the Upper Jacket is shown in [Figure 1-1](#).

Table 2.1: Surface Facilities Information

Name	Type	Location	Upper Jacket				
			Weight (tonnes)	Number of Legs	Number of Piles	Weight of Piles (tonnes)	
Brae Alpha Platform	Steel Jacket (Cut at 85.5 m below LAT, and approx. 10 m above LAT see Figure 1-1)	WGS84 Decimal	58.692799°N 1.281446°E	≈ 12,730 ¹	8	N/A	N/A
		WGS84 Decimal Minute	58° 41.568'N 1° 16.888'E				

¹ Recoverable Upper Jacket weight covered by this decommissioning programme, including the weight of marine growth. Subject to confirmation during detailed engineering.

2.2 Pipeline Umbilical and Power Cable Riser Sections

The Brae Alpha Upper Jacket supports pipeline, umbilical, and power cable risers. Portions of the pipelines, umbilicals, and power cables outwith the Upper Jacket, i.e. attached to the Footings or on the seabed, are beyond the scope of this decommissioning programme.

Section [1.4.2](#) lists the pipeline, umbilical, and power cable risers, sections of which are attached to the Upper Jacket and will be removed with it. The risers will be cut at the Upper Jacket cut depth, or deeper if it is practicable to do so. The risers will be cut at a depth and removed in a manner that minimises disturbance of the drill cuttings pile at the base of the sub-structure. The sections of the riser attached to the Brae Alpha Footings will be decommissioned with the Footings, and will form part of the scope of a future Decommissioning Programme [\[6\]](#).

Table 2.2: Risers Information

Pipeline No.	Description	Length (km)	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Content
PL634	Central Brae Water Injection	0.095	Injection Water	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Sea water
PL635	Central Brae Service Line	0.095	Services	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Sea water
PL636	Central Brae Production	0.095	Produced fluids	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Oil
PL6188 ¹	Central Brae Production	0.095	Produced fluids	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Oil
PL637	Central Brae Chemical Injection Umbilical	0.095	Chemicals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Chemicals
PLU6190	Central Brae Control Umbilical	0.095	Hydraulic fluid / electric signals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Hydraulic Fluid, Power and Signal
PL1441.1	West Brae Production	0.095	Produced fluids	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Production Fluids
PL1442.1	West Brae Gas Lift	0.095	Lift Gas	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Production Fluids
PL1445	West Brae Riser Gas Lift	0.095	Lift Gas	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Lift Gas
PLU1446	West Brae Chemical / Control Umbilical	0.095	Chemicals / Hydraulic fluid / electric signals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Various

Table 2.2: Risers Information

Pipeline No.	Description	Length (km)	Product Conveyed	From – To	Burial Status	Pipeline Status	Current Content
PLU4031	West Brae Replacement Umbilical	0.095	Chemicals / Hydraulic fluid / electric signals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Others
PL64	Oil Export to Forties	0.095	Produced Oil	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Operational	Production Fluids
PL360	PL360 East Brae Gas Transfer	0.095	Gas	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Operational	Gas
PL361	PL361 East Brae Condensate Transfer	0.095	Condensate	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Treated Sea water
PLU4203	Control Umbilical for PL360 / PL361 SSIV	0.095	Hydraulic fluid / electric signals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Various
PLU5089	Control Umbilical for PL360 / PL361 SSIV	0.095	Hydraulic fluid / electric signals	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Operational	Various
PL6119	PMS cable to Brae Bravo	0.095	Electric Power	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Power and Signal
PL6120	PMS cable to East Brae	0.095	Electric Power	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Operational	Power and Signal
PL722	Miller Oil Export	0.095	Produced Oil	Top of Upper Jacket – Cut Point (~85.5m LAT)	N/A	Out of Use	Sea water

Note 1 - PL6188 was originally part of PL636.

2.3 Wells

There are no wells in the scope of this Decommissioning Programme. The Brae Alpha wells are described in the Brae Alpha Topsides, etc. Decommissioning Programmes [5].

2.4 Drill Cuttings

There are no drill cuttings in the scope of this Decommissioning Programme. The Brae Alpha drill cuttings are described in the Brae Alpha, Brae Bravo, etc. Decommissioning Programmes [5]. The drill cuttings will be included in the scope of the Footings Decommissioning Programme [6].

2.5 Inventory Estimates

The approximate amounts of materials that make-up the Brae Alpha Upper Jacket have been evaluated. A focused review of the inventories of materials will be conducted during the detailed engineering phase of decommissioning. The quantities of waste materials will be tracked through the dismantling, reuse, recycling, and disposal phases of the project.

A summary of the material inventories for Brae Alpha Upper Jacket is presented in [Table 2.3](#) and [Figure 2-1](#).

Table 2.3: Brae Alpha Upper Jacket Material Inventory

Material	Weight (tonnes)	% Of Total
Carbon Steel ^{Note 1}	≈ 13,983	≈ 79%
Concrete	≈ 2,000	≈ 11%
Marine Growth	≈ 1,396	≈ 8%
Non-Ferrous ^{Note 2}	≈ 380	≈ 2%
Other ^{Note 3}	≈ 1	≈ 0%
Stainless Steel	≈ 1	≈ 0%
Total	≈ 17,761	100%

Table 2.2 Notes:

- 1 Carbon Steel weight includes the weight of the riser sections attached to the Upper Jacket.
- 2 The sacrificial anodes on the Upper Jacket and elements of the portions of umbilical risers that will be removed with the Upper Jacket make up the Non-Ferrous inventory.
- 3 The other material associated with the Upper Jacket is principally paint in the splash zone.

The weights reported in [Table 2.3](#) and [Figure 2-1](#), include c. 3000 Te of steel and c. 2000 Te of concrete that make up the well conductors from the topsides to the point at which they will be cut above the drill cuttings pile. These well conductors are included in the scope of the Brae Alpha Upper Jacket DP. In practice, the conductors may either be removed with the Brae Alpha Upper Jacket , or with the Topsides.

Total Weight \approx 17,761 Te

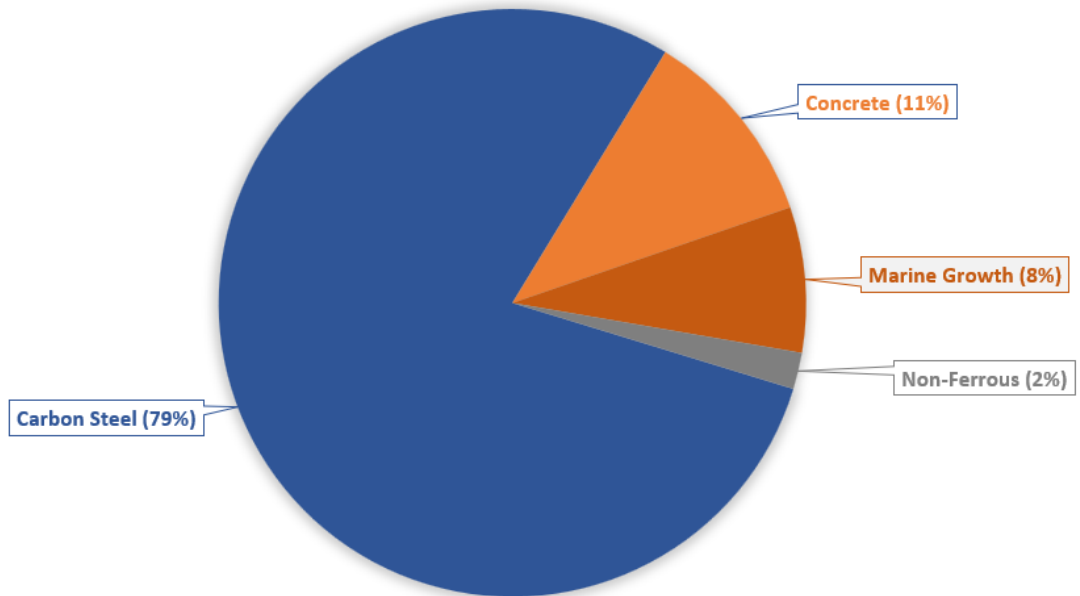


Figure 2-1 Material Inventory

3 Removal and Disposal Methods

The reuse of an installation or its constituent parts is the preferred decommissioning option. The Brae Operator carried out a qualitative review of options for reusing the Brae Area platforms and jackets, including the Brae Alpha Upper jacket, and concluded there are no technically viable reuse options.

The Brae Alpha Upper jacket will be brought to shore for dismantling, and subsequent recycling or disposal. The majority of the Upper Jacket is steel, which will be recycled. Other materials, for example non-ferrous metals, will also be recycled. The small proportion of materials remaining after recycling will be disposed of appropriately in accordance with TAQA policies and the relevant regulatory requirements.

3.1 Upper Jacket Decommissioning Overview

The Brae Alpha Upper Jacket will be removed from the topsides cut height at approximately 10 m above LAT to a depth of approximately 85.5 m below LAT which is c. 26.5 m above the seabed. The portion of the structure shaded red in [Figure 1-1](#) constitutes the Upper Jacket. TAQA will determine the exact cut depth during detailed engineering and inform OPRED accordingly.

The Upper Jacket legs form bulk liquid storage tanks as follows;

- Legs A1, A2, D1, D2 are diesel tanks extending from +8 m to -39 m, with a volume of approximately 210 m³.
- Legs A3 and D3 are drill water tanks that extend from +8 m to -39 m, with a volume of approximately 210 m³.
- Legs A4 and D4 are desalinated water tanks extending from + 8 m to -50 m, with a volume of approximately 260 m³.

The diesel tanks will be emptied prior to decommissioning. The Upper Jacket cut depth at approximately 85 m below LAT is below the bottom of the tanks. There is a possibility that the Upper Jacket may be removed in more than one section. Even if the Upper Jacket is removed in more than one section, the cut separating the top section from the lower section(s) is likely to be at around 68 m below LAT. Therefore the tanks will not be cut through during removal. However, there remains a small possibility of a spill of residual tank contents. Therefore, TAQA will apply for an oil discharge permit prior to Upper Jacket removal and comply with all regulatory requirements.

The exact removal methodology will be determined following detailed engineering, considering technical constraints. TAQA will notify OPRED once the exact removal methodology has been determined. The cut removal methodology constraints are;

- Jacket design: This impacts where it is possible to cut the jacket and retain the required structural integrity in the resulting jacket sections. The design also dictates access for Remotely Operated Vehicles (ROVs), tools, etc. to make cuts.
- Cutting technology: The size of cutting tools and the size of ROVs and aids that may be used to deploy cutting tools constrain where it is possible to make cuts.
- Safety: The selected cut locations must be safe for both planned operations and contingencies such as recovery of failed tools, etc., which may involve deployment of divers in some circumstances.

- Environmental factors: Cutting operations must avoid locations that will disturb the seabed and the cuttings pile or cause other unreasonable environmental disturbance.

The weight of the Upper Jacket is approximately 12,730 Te including the risers, etc. that will be removed as part of the upper jacket.

The Brae Alpha Upper Jacket is very similar to the Brae Bravo Upper Jacket in terms of design, size, and configuration. The Brae Operator conducted various studies on removal techniques for the Brae Bravo Upper Jacket and Footings in accordance with OSPAR 98/3. These are captured in the removal assessment and in further detailed technical studies completed for the Brae Bravo sub-structure. Given the similarities between the Brae Bravo and Brae Alpha Upper Jackets and Footings, the conclusions from the Brae Bravo assessments and studies are applicable to the Brae Alpha Upper Jacket and Footings. The Brae Alpha Operator also conducted specific studies for removal of the Brae Alpha Upper Jacket. The studies considered a range of options for decommissioning the Upper Jacket and Footings. These options included removing the Upper Jacket and Footings as a single structure, and potentially removing the Upper Jacket and Footings separately. The studies identified that removing the Brae Alpha Upper Jacket and Footings as a single structure presents several technical constraints and challenges;

1. The Upper Jacket and Footings are so tall that if they were lifted as one piece it would not be possible to lift them clear of the water and onto a barge in an upright orientation.
2. Transporting the Upper Jacket and Footings as one piece on its side on a barge or other vessel is a project risk, as the structure may not be able to support its self-weight in this orientation. Specifically the weight of pile off-cuts and grout in the pile guides may cause collapse of the structure during transportation. Consequently, there is a risk of collapse during transportation or unloading.
3. Transporting the Upper Jacket and Footings in one piece hanging on a crane vessel's hooks approaches the limit of the largest available crane vessel's capacity.
4. The Upper Jacket and Footings cannot be lifted onto a quayside in one piece due to the size of the structure and limits on crane vessel lift heights. Therefore, the jacket would have to be set down in inshore waters and dismantled in pieces using a crane vessel.

Therefore, the Brae Operator concluded that in all conceptual scenarios for removal of the Upper Jacket and Footings, the separation of the Upper Jacket from the Footings would be a pre-requisite for any potential Footings removal methodology. TAQA has conducted a study on similar steel jackets to Brae Alpha to determine if removal of an Upper Jacket would preclude potential decommissioning options for the Footings. The study concluded that removal of an Upper Jacket will not prejudice Footings decommissioning, and that this conclusion is valid even in the event of a delay of the order of years or decades between the removal of an Upper Jacket and decommissioning of Footings. Following removal of the Upper Jacket the Footings have sufficient inherent structural integrity to allow a variety of decommissioning options utilising a range of decommissioning vessels and methodologies to be considered.

Following Upper Jacket removal, TAQA will conduct an as left survey of the Footings, to confirm that Upper Jacket removal is in accordance with the DP. TAQA will notify the presence of the Footings to the UK Fisheries Offshore Oil and Gas Legacy Trust Fund Ltd for inclusion in the FishSAFE system. TAQA will also pass details of the footings to the United Kingdom Hydrographic Office for inclusion on Admiralty charts and notices to mariners. The notifications to FishSAFE and the Hydrographic Office will be made in a timely manner, i.e. as soon as practicable after removal of the Upper Jacket. The

Consent to Locate for the Brae Alpha platform will be modified following Upper Jacket removal. The modified Consent to Locate will remain in place until final decommissioning of the installation, which will occur when the platform footings are removed, or when derogation is granted for the footings to be decommissioned in situ. Following complete field decommissioning, TAQA will agree a post removal monitoring scheme will be agreed with OPRED. This will typically include an independent verification of the seabed, two environmental baseline surveys, at least two pipeline surveys, and two surveys of the Brae Alpha platform location.

The Footings and drill cuttings pile that will remain after removal of the Upper Jacket are shown in [Figure 3-1](#). The Footings will be the subject of a separate Decommissioning Programme that will also address the fate of the cuttings pile. The Brae Alpha substructure is a candidate for derogation under OSPAR 98/3. If derogation is granted, the Footings and cuttings pile may be left in situ.

The recovered Upper Jacket will be returned to shore for recycling or disposal. TAQA will select a recycling and disposal facility considering safety, environmental, socio-economic, availability and cost factors. If a dismantling yard outside the UK is selected, TAQA will comply with the trans-frontier waste regulatory regime pertaining at that time. Notwithstanding, TAQA will inform OPRED of the selected removal method and disposal route.

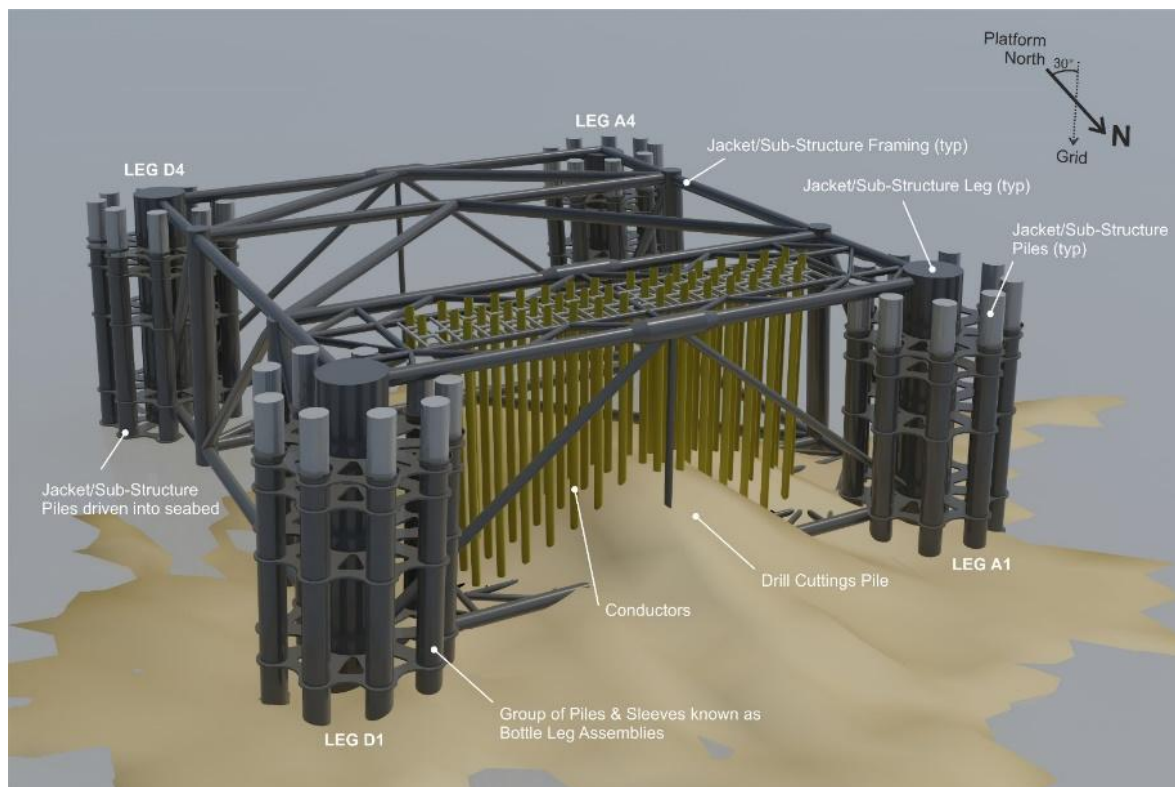


Figure 3-1: Brae Alpha Footings

3.2 Upper Jacket Removal Methods

TAQA has conducted studies on various techniques for the complete removal of the Brae Alpha Upper Jacket and Footings as a prerequisite to carrying out a Comparative Assessment in accordance with OSPAR 98/3. Due to the complexities of the Footings, all current proven methodologies require removal of the Upper Jacket separately from the Footings. The removal of the Upper Jacket will be carried out such that it does not preclude the possible future removal of the Footings.

The removal methods considered by TAQA for the Brae Alpha Upper Jacket are listed in [Table 3.1](#). The removal method selection considered Semi-submersible lift vessels, and a Single Lift Vessel (Pioneering Spirit). The lift capacity and flexibility of this type of vessel means they are more appropriate for removal of assets of Brae Alpha's size than smaller, less capable, monohull "ship shaped" crane vessels. Buoyancy Tanks were also considered, as this method has previously been applied by another Operator. TAQA will make the selection of decommissioning method in collaboration with the selected removal contractor. TAQA will inform OPRED of the selected method.

Table 3.1: Brae Alpha Upper Jacket (Large Steel Jacket) Decommissioning Methods

1) HLV (Semi-submersible Heavy Lift Vessel) Cut and Lift	✓
2) Monohull crane vessel	
3) SLV (Single Lift Vessel)	✓
4) Piece Small – included as part of HLV Cut and Lift assessment	
5) Other; BTA (Buoyancy Tank Assembly)	✓

Scope	Method	Description
Remove Upper Jacket	SLV or HLV	Removal of the Brae Alpha Upper Jacket can be achieved by cutting the Upper Jacket 85.5m below LAT and retrieving the Upper Jacket as a number of components, or potentially as a single component by an HLV or SLV.
Remove Upper Jacket	BTA	The use of BTAs is impracticable, as significant additional effort and resources are required to fabricate and install the BTAs, with little or no benefit in terms of schedule or overall resources required to execute Upper Jacket Removal.
Proposed removal method and disposal route		The recovered Upper Jacket will be taken ashore for recycling and disposal. TAQA will select a removal contractor following a tender evaluation process that considers safety, environmental, technical, and socio-economic factors. TAQA will select removal methods and disposal routes in collaboration with the removal contractor. OPRED will be informed once the removal method and recycling and disposal routes have been selected.

3.3 Pipelines

Table 3.2: Riser Decommissioning Options

Riser	Condition	Whole or Part	Decommissioning Options Considered
PL634	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL635	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL636	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL6188 ¹	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL637	Flexible riser in J tube on jacket east face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PLU6190	Flexible riser in J tube on jacket east face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL1441.1	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between + 10 m LAT and – 85 m LAT
PL1442.1	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL1445	Rigid riser in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PLU1446	Flexible riser in J tube in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PLU4031	Flexible riser in J tube in caisson on jacket north face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT

Table 3.2: Riser Decommissioning Options

Riser	Condition	Whole or Part	Decommissioning Options Considered
PL64	Rigid riser on jacket west face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL360	Rigid riser on jacket west face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL361	Rigid riser on jacket west face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PLU4203	Flexible riser in J tube on jacket south face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PLU5089	Flexible riser in J tube on jacket south face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL6119	Flexible riser in J tube on jacket south face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL6120	Flexible riser in J tube on jacket south face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT
PL722	Rigid riser in caisson on jacket east face	Part of riser between approx. + 10 m LAT and approx. – 85 m LAT	Full removal with Upper Jacket between approx. + 10 m LAT and approx. – 85 m LAT

3.4 Waste Streams

The Upper Jacket will be dismantled at an appropriate onshore facility in accordance with an Active Waste Management Plan (AWMP) that will be developed for the project. The methods for managing the waste streams from the Brae Alpha Upper Jacket are listed in [Table 3.3](#). The ultimate disposition of the waste materials is described in [Table 3.4](#), and the proportions of materials that TAQA envisages reusing, recycling, and discarding are presented in [Table 3.5](#).

Onshore cleaning and disposal will be carried out at appropriately licensed sites, in accordance with relevant legislation, including pertinent transboundary shipment controls. The potential discharges from the decommissioning process are discussed in Technical Appendix 4.1 of the Environmental Statement [2]. Processing of paint and other materials that are potentially hazardous to people or the environment will be controlled by the site operators' management systems.

Table 3.3: Brae Alpha Upper Jacket Waste Stream Management Methods

Waste Stream	Removal and Disposal Method
Carbon / Stainless Steel	Carbon / Stainless steel will be recycled.
Concrete	Concrete will be recycled as aggregate where possible.
Non-Ferrous Metals	Non-ferrous metals, principally material from sacrificial anodes will be recycled.
Other Material	Other material will be removed, and disposed of in accordance with relevant regulations and guidelines.
NORM / Hazardous Materials	The Upper jacket primarily consists of steel. Significant quantities of NORM and hazardous materials are not anticipated. Appropriate checks will be carried out offshore and at onshore dismantling sites to confirm whether NORM and Hazardous Materials are present. If these materials are found appropriate safety, environmental and waste controls will be implemented.
Marine Growth	Marine growth will either be disposed of offshore under marine licence, or onshore. Notwithstanding, marine growth will be disposed of in accordance with relevant regulations and guidelines.
Onshore Dismantling Sites	The removal contractor will use appropriately licenced dismantling and disposal sites. TAQA will ensure that the removal contractor and any selected sites have proven ability to manage waste streams throughout the deconstruction process. The process will follow the "reduce, reuse, recycle" paradigm. TAQA will conduct assurance activities of the dismantling yard(s) and disposal site(s) to confirm compliance with applicable legislation.

Table 3.4: Ultimate Waste Inventory Disposition

	Total Inventory (tonnes)	Planned Material to Shore (tonnes)	Planned Material Left in Situ (tonnes)
Brae Alpha Upper Jacket	≈ 17,760 ^{Note 1}	≈ 17,760 ^{Note 1}	0

Note 1: The Upper Jacket Total Inventory includes a conservative estimate (i.e. a probable overestimate) of 1396 tonnes of marine growth to provide safe margins for lifting. Because of this, and the possibility that marine growth may be removed or become detached at sea or may dry out before the Upper Jacket reaches the dismantling yard, the weight of marine growth recovered at the yard may be significantly less than this estimate.

Table 3.5: Reuse, Recycling, and Disposal of Waste Material Returned to Shore (by Weight)

	Reuse	Recycle	Disposal
Brae Alpha Upper Jacket	0	>91 %	< 9 % ¹

Note 1: the disposal figure includes material sent for energy recovery / composting. If this material is taken not account the Disposal figure is < 1%.

Recovered material will be landed ashore around 2030. It is not possible to fully define the available recycling and waste disposal sites and treatment options, which will be determined through a competitive tendering process. Therefore, the following is a summary of the general waste disposal strategy.

On removal and where practical, TAQA will follow the AWMP to ensure the principles of the waste hierarchy will be met in the handling of materials from the Upper Jacket decommissioning to maximize the quantities of reused and recycled material.

Preventing waste is the most preferred option. This will be achieved through reducing consumption and using resources efficiently. TAQA will comply with the Duty of Care requirements under the UK Waste Regulations and The Environmental Protection (Duty of Care) (Scotland) Regulations 2014. The project will follow industry good practice at all stages of reuse, recycling, and disposal.

The project will target options at the top of the waste hierarchy. Based on the current materials breakdown, TAQA aims to recycle > 95 % of the waste generated from these programmes that is returned to shore. The possibility for the recovered material to contain concrete, marine growth, hydrocarbons, paints etc may limit the recovered material that can be successfully recycled.

Waste management activities will be conducted in full compliance with all relevant legislation and regulatory controls. Disposal to landfill will be the option of last resort when there are no other options and the environmental disadvantages of alternatives to landfill outweigh any benefits. For example, alternatives to landfill may involve additional transportation mileage or additional waste treatment emissions and discharge impacts.

TAQA recognises that there will be large quantities of material returned to shore for recycling or disposal. Regardless of the ultimate destination there will be sufficient notice provided to ensure that there is suitable capacity for processing landed material, taking cognisance of destination handling

capacity and availability, and to allow all applicable regulatory bodies, stakeholders, and contractors to be engaged appropriately.

4 Environmental Appraisal Overview

The Brae Operator originally completed an Environmental Impact Assessment (EIA) for decommissioning the Brae Alpha installation, including the platform Upper Jacket and Footings in 2017. This is described in the Environmental Statement [2]. This assessment was based on survey data collected in 2015. TAQA has environmental survey data for the Brae Area from before the Brae Alpha platform was installed in 1982 up to the 2015 data. These data show that seabed contamination as a consequence of the presence of the cuttings pile is diminishing over time. The Brae Alpha Upper Jacket decommissioning operations will not involve any planned disturbance of the drill cuttings pile.

The 2017 Environmental Impact Assessment (EIA) process considered the potential for significant environmental effects and interactions between the proposed decommissioning activities and sensitive environmental receptors. The EIA was developed by means of a multistage scoping process with the aim of delivering a focused and proportionate EIA and Environmental Statement (ES) [2]. The process was developed in consultation with key stakeholders including, BEIS (now the Department for Energy Security and Net Zero (DESNZ) Offshore Petroleum Regulator for the Environment and Decommissioning(OPRED)), JNCC, Marine Scotland (now the Scottish Government Marine Directorate) and SEPA.

Following the scoping stage, the key issues identified for further detailed assessment were:

- Seabed disturbance effects
- Underwater noise effects
- Cumulative and transboundary effects

Given the length of time that had elapsed since completion of the original EIA in 2017, TAQA carried out an Environmental Appraisal in 2024 [3]. This considered the reduced scope of work involved in removing the Upper Jacket in comparison to the entire installation, changes in data concerning the environment around Brae Alpha, and other relevant factors.

The Gap Analysis considered the following main topics, inter alia;

1. Expansion of the Braemar Pockmarks SAC boundaries
2. Application of the Wild Birds Directive to offshore oil and gas operations
3. Findings from recent Brae Area environmental surveys
4. Net Zero considerations
5. Energy use and atmospheric emissions
6. The Scottish Marine Plan
7. Changes in Commercial Fisheries

The Environmental Appraisal [3] concluded that there have been significant changes in some environmental factors that are relevant to the Brae Alpha Decommissioning Programmes. However, these changes either have no significant bearing on the project, or are adequately mitigated by TAQA's existing management measures. The expansion of the Braemar Pockmarks SAC from approximately 5.2 km², to 11.4 km² is an example of a substantive issue with no significant bearing on the project. The smallest separation between the enlarged SAC and Brae Alpha is more than 30 km, and removal of the upper jacket is very unlikely to impact the SAC in any way. Therefore, there is no significant change to the conclusions of the 2017 Environmental Assessment, and no requirement to

modify the proposed Brae Alpha Upper Jacket decommissioning methodology as a consequence of this change. The application of the Wild Birds directive is an example of a change that has an impact on Brae Alpha Upper Jacket decommissioning operations. However, this issue has been highlighted by TAQA's other decommissioning projects in the Northern North Sea and therefore TAQA has already implemented a Wild Birds Management strategy that effectively mitigates any potential impact.

Overall, the Environmental Appraisal concluded that there is no need to modify the proposed Brae Alpha Upper Jacket decommissioning methodology in light of changes to environmental data, or changes to the environmental assessment process.

Prior to starting the decommissioning work, TAQA will obtain the necessary permissions including those relating to the Marine Licence regime, including any environmental survey and risk assessment requirements. Any necessary mitigation measures identified by this process will be implemented as required.

The environmental sensitivities in the Brae Area are summarised in [Table 4.1](#). The Environmental Appraisal has not identified any significant residual environmental effects resulting from the activities described in this Decommissioning Programme. However, TAQA is committed to the schedule of environmental management measures set described in the Environmental Appraisal to further reduce the potential for environmental effects. These management measures are summarised in [Table 4.2](#).

4.1 Environmental Sensitivities Summary

Table 4.1: Environmental Sensitivities Summary

Environmental Receptor	Main Features
Conservation Interests	<p>The Braemar Pockmarks Special Area of Conservation (SAC) is > 30 km north-north-east of Brae Alpha.</p> <p>A Marine Life Study of the Brae Area infrastructure has not identified the presence of the cold water coral (<i>Lophelia spp</i>). This review specifically sought to identify any evidence of the presence of scleractinian coral. This species is not expected at Brae Alpha as it is normally found further North and in deeper water. The Brae substructure is considered unsuitable for significant cold-water coral due to their location and age of the structure. Additionally, no evidence of cold-water coral has been noted on other structures close to the Brae field.</p>
Seabed	<p>The seabed community in the Brae Area is classed as representative of the Central North Sea and is dominated by the bristle worm (<i>Paramphipone jeffreysii</i>), with other species such as <i>Spiophanes bombyx</i>, <i>Galthowenia oculata</i>, <i>Tharyx killariensis</i> and <i>Pholoe assimilis</i> also present.</p>
Fish	<p>Several fish species are present in the Brae Area. These species use the area for spawning and/or nursery grounds. These species include Norway pout, Nephrops, mackerel, haddock, and blue whiting. The basking shark, tope, porbeagle, common skate and angel shark may also be present in low numbers.</p>
Fisheries	<p>Commercial fishing in the Brae Area is dominated by demersal and shellfish fisheries, with fishing effort peaking during spring and autumn. Gear types used are trawls and seine nets. Peterhead is the main landing port for the area.</p>
Marine Mammals	<p>The seven most commonly sighted species of cetacean in the Brae Area are the harbour porpoise, Atlantic white-sided dolphin, white-beaked dolphin, Risso's dolphin, killer whale, minke whale and long-finned pilot whale. Grey and harbour seals have also been recorded.</p>
Birds	<p>Seabirds are present in the central North Sea throughout the year, though densities in the Brae Area tend to be relatively low due to the distance from coastal colonies. Seabird densities in the Brae Area are at their lowest in late spring/early summer during the breeding season. After this, diversity, and density of seabirds offshore increases. Seabirds are particularly vulnerable to surface pollutants during moulting (July) when the birds are flightless.</p>
Onshore Communities	<p>Onshore communities are potentially sensitive to disturbance from cleaning, dismantling and disposal activities.</p>
Other Users of the Sea	<p>There are no ferry routes and no known military users in the vicinity of the Brae Area. Recreation activity in the offshore North Sea is limited to occasional yachts in passage. Telecommunications cables are charted more than 35 km north of the Brae Alpha platform. There are no designated wreck sites or marine archaeological features in the area.</p>
Atmosphere	<p>The primary source of atmospheric emissions will be from vessel activity during decommissioning activities.</p>

4.2 Potential Environmental Impacts and Their Management

The Environmental Appraisal has not identified any significant residual environmental effects as a result of activities described within this Decommissioning Programme. However, TAQA is committed to the schedule of environmental management measures set out in the ES [2] to further reduce the potential for environmental effects. These management measures are summarised in [Table 4.2](#).

Table 4.2: Potential Environmental Impacts and Management

Activity	Main Impacts	Management
Upper Jacket Removal Offshore	Energy and Emissions	<p>All vessels will comply with MARPOL 73/78 Annex VI on air pollution and machinery will be maintained in an efficient state.</p> <p>The total estimated Carbon Dioxide Equivalent emissions generated by the decommissioning operations is \approx 26,200 Te.</p> <p>Carbon Dioxide Equivalent emissions for the UK Oil and Gas sector in 2022 amounted to 14,300,000 Te [8]. In the context of the whole sector, the emissions associated with these operations would equate to approximately 0.2% of the 2022 annual total. These emissions have been calculated assuming worst case vessel emissions across the duration of the decommissioning project across all types of vessels which will participate in a variety of activities.</p>
Upper Jacket Removal Offshore	Seabed Disturbance	<p>Cutting the jacket will be carried out using abrasive water jet or diamond wire. Both techniques will generate swarf, and abrasive water jet will release spent abrasive media. Any swarf, abrasive media, etc. that falls to the seabed will fall within a footprint that extends some 15 m from the base of the jacket. Any such discharges are unlikely to cause significant disturbance to the seabed or cuttings pile. Following award of contract and selection of cutting methodology, any such disturbances will be quantified and assessed in the Marine Licence application submitted in support of the execution of decommissioning works.</p>
Upper Jacket Removal Offshore	Underwater Noise	<p>Noise modelling has been conducted to identify the impacts of noise on marine mammals and potential mitigation measures. The results are documented within the Environmental Statement [2]. Procedures for vessel operations and underwater cutting will incorporate mitigation measures identified by the noise study.</p> <p>There are no plans to use explosives at this time. However, should the use of explosives be necessary TAQA will complete appropriate evaluations and consultations.</p>
Upper Jacket Removal Offshore	Physical Presence of Vessels in Relation to other Users of the Sea	<p>The physical presence of vessel offshore will be limited in duration.</p> <p>The vessel will be similar to those currently deployed for oil and gas installation, operation, and decommissioning activities.</p> <p>Vessel activity will be focussed within the existing 500 m safety zone and will not occupy “new” areas.</p> <p>Other sea users and relevant authorities will be notified in advance of and subsequent to operations.</p>

Table 4.2: Potential Environmental Impacts and Management

Activity	Main Impacts	Management
Upper Jacket Removal Offshore	Physical presence of infrastructure decommissioned in situ in relation to other sea users	The Consent to Locate for the platform will be modified to reflect Upper Jacket removal. TAQA will also advise the hydrographic office and the FishSafe organisation, so that the presence of the footings can continue to be marked on Admiralty charts and in the FishSafe system .
Upper Jacket Removal Offshore	Discharges to Sea	<p>Discharges from vessels are typically well-controlled activities that are regulated through vessel and machinery design, management, and operational procedures.</p> <p>Any marine growth present on subsea installations may be removed prior to removal. This will be fully assessed in the relevant environmental permit applications under the Marine Licence regime. Marine growth remaining on subsea installations and lengths of pipelines and umbilicals that are taken onshore will be appropriately disposed of.</p> <p>The Open Drains Disposal Caisson and Produced Water Caisson will also be removed with the Upper Jacket. The potential small quantities of oil contained in these Caissons will be minimised as far as practicable before Topsides removal. TAQA will apply for an oil discharge permit prior to Upper Jacket removal although no oil discharge is expected.</p>

Table 4.2: Potential Environmental Impacts and Management

Activity	Main Impacts	Management
Upper Jacket Removal Offshore	Wild Birds Disturbance	<p>All nesting birds and nesting activities are protected from damage by conservation legislation. Under the Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2017, it is an offence to:</p> <ul style="list-style-type: none"> • take, damage, or destroy the nest of any wild bird while that nest is in use or being built, or • take or destroy an egg of any wild bird. <p>TAQA has in place a proactive Seabird Management Strategy. This includes a suite of remedial strategies that can be used, if required, to prevent birds from nesting.</p> <p>Part of the strategy includes conducting independent annual nesting bird surveys on each of TAQA’s offshore platforms. Since 2021 there has been no evidence of nesting birds on Brae Alpha. In addition, monthly surveys are conducted on the platform by trained personnel to provide a summary of bird activity and presence throughout the year. Again, this has not identified any nesting birds.</p> <p>Prior to disembarkation, an asset specific survey will be undertaken to identify those areas of higher risk of nesting birds and appropriate deterrent measures will be put in place.</p> <p>In addition to the ongoing annual surveys, a dedicated survey will be conducted prior to the arrival of the HLV in the field to re-confirm there remains no nesting birds.</p> <p>In the event nesting birds are encountered, TAQA will engage with OPRED to agree any necessary licensing obligations at that time and to obtain the appropriate licence</p>
Upper Jacket Removal Offshore	Resource Use	<p>The decommissioning operations will use limited quantities of materials, largely restricted to steel for lifting aids and fuel.</p> <p>The estimated total energy usage for the decommissioning activities is 1,260 TJ.</p> <p>Material will be returned to shore as a result of project activities, expectation is to reuse or recycle c.95 % of this returned material. There may be instances where infrastructure returned to shore is contaminated and cannot be recycled, but the weight/volume of such material is not expected to result in substantial landfill use.</p>
Upper Jacket Removal Offshore / Processing Onshore	Waste	<p>The waste to be brought to shore will be managed in line with TAQA’s Waste Management Strategy and the Waste Hierarchy, as part of the project Active Waste management Plan (AWMP), using approved waste contractors and in liaison with the relevant Regulators.</p>

Table 4.2: Potential Environmental Impacts and Management

Activity	Main Impacts	Management
Upper Jacket Processing Onshore	Disturbance of Onshore Communities	In collaboration with the selected decommissioning contractor, TAQA will select onshore decommissioning facilities that comply with all regulatory requirements to ensure that potential impacts are appropriately controlled.
Upper Jacket Removal Offshore / Processing Onshore	Accidental Events	<p>Offshore, the potential for spills, dropped objects or other contaminants to impact the ecosystem has been assessed. This is documented in the Environmental Statement [2].</p> <p>The Brae Alpha Oil OPEP (Oil Pollution Emergency Plan) will be revised to incorporate decommissioning activities. The Brae Alpha OPEP also covers the Central Brae, West Brae, and Sedgwick subsea facilities. The Brae Alpha topsides will be drained down and cleaned prior to any removal activities. The vessels used for the decommissioning operations will each have a SOPEP (Shipboard Oil Pollution Emergency Plan).</p> <p>Onshore, in collaboration with the decommissioning contractor, TAQA will select processing sites, with appropriate emergency response arrangements including spill response and pollution control.</p>

5 Interested Party Consultations

The Brae Operator consulted a wide range of interested parties during the decommissioning planning stages, preparation of the environmental statements, and compilation of the original 2017 decommissioning programme [3]. These included:

- BEIS (now DESNZ OPRED) Environmental Management Team
- BEIS (now DESNZ OPRED) Offshore Decommissioning Unit
- Global Marine Systems
- Greenpeace
- Health and Safety Executive (HSE)
- Joint Nature Conservation Committee (JNCC)
- Marine Conservation Society
- Marine Scotland (now the Scottish Government Marine Directorate)
- National Federation of Fishermen’s Organisations (NFFO)
- Oil and Gas Authority (OGA) (now the North Sea Transition Authority NSTA)
- Scottish Environment Protection Authority (SEPA)
- Scottish Fishermen’s Federation (SFF)
- World Wide Fund for Nature WWF

The Brae Operator also made information regarding decommissioning of the Brae Area available to other interested parties and the general public. This information is published via the TAQA Brae Decommissioning website, <https://eu.taqa.com/decommissioning-consultations-and-projects/>.

The consultation on the previous decommissioning programme [3] in 2017 covered the Brae Alpha Upper Jacket and the associated environmental assessment [2]. Since then, the proposals for decommissioning the Upper Jacket have not changed. However, to reflect the schedule for decommissioning operations, the information regarding decommissioning the Brae Alpha Upper Jacket has been presented separately in the current Decommissioning Programmes document. Because of this change, TAQA is issuing these Decommissioning Programmes for further consultation.

Table 5.1 summarises comments received from stakeholders in 2017, and the Brae Operator’s responses. Comments received in 2025 are presented in **Table 5.2**.

Table5.1: Summary of 2017 Stakeholder Comments

Statutory Consultees		
Stakeholder	Comment	Response
The National Federation of Fishermen's Organisations	No comments received.	
Scottish Fishermen's Federation	The SFF sent its comments to Marathon Oil in a letter dated July 17th, 2017. The letter acknowledged Marathon Oil's engagement with the SFF regarding decommissioning of the Brae Area facilities. The SFF reiterated its overarching principal of return to clean seabed.	The Brae Alpha Upper Jacket will be removed to shore for recycling or disposal. The Brae Alpha Footings will be the subject of a separate decommissioning programme.
Northern Irish Fish Producers' Organisation	No comments received	
Global Marine Systems Limited	No comments received	
Other Consultees		
Public	No comments received	

Table5.2: Summary of 2025 Stakeholder Comments

Statutory Consultees		
Stakeholder	Comment	Response
The National Federation of Fishermen's Organisations		
Scottish Fishermen's Federation		
Northern Irish Fish Producers' Organisation		
Global Marine Systems Limited		
North Sea Transition Authority	TAQA Bratani Limited has consulted with the North Sea Transition Authority under S29(2A) of the Petroleum Act	
Other Consultees		
Public		

6 Programme Management

6.1 Project Management and Verification

TAQA, on behalf of the Section 29 Notice Holders, has appointed a project management team to manage the planning and execution of this decommissioning programme. TAQA health, environmental and safety management principles will govern hazard identification, risk management and operational controls. The work will be coordinated with due regard to interfaces with other operators' oil and gas assets and with other sea users. TAQA will control and manage the progress of all permits, licences, authorisations, notices, consents, and consultations required. Any significant changes to this decommissioning programme will be discussed and agreed with OPRED.

6.2 Post-decommissioning Debris Clearance and Verification

Following Upper Jacket removal, TAQA will visually confirm that the Upper Jacket cut depth and footings as left configuration are in accordance with the approved decommissioning programme. TAQA will agree a schedule with OPRED for further post decommissioning monitoring beyond the initial as left visual survey.

TAQA will pass the cut depth information to the UK Fisheries Offshore Oil and Gas Legacy Trust Fund Ltd for inclusion in the FishSAFE system. TAQA will also forward the cut depth to the United Kingdom Hydrographic Office for inclusion on Admiralty charts and notices to mariners. The notifications to FishSAFE and the Hydrographic Office will be made in a timely manner, i.e. as soon as practicable after removal of the Upper Jacket.

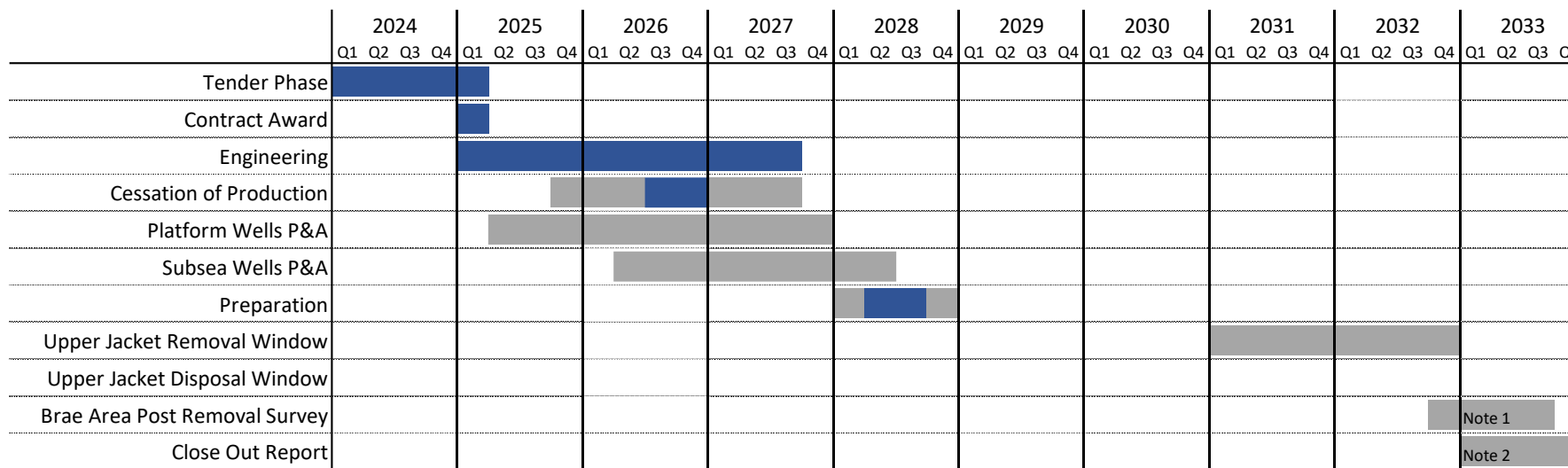
Following full field decommissioning of the wider Brae Area facilities, TAQA will conduct a minimum of two post decommissioning environmental surveys, and two surveys of the area around the platform and connected pipelines. TAQA will also commission an independent debris clearance survey. TAQA will agree requirements for further monitoring beyond these initial surveys and verification with OPRED.

6.3 Schedule

The main milestones in the Brae Alpha Upper Jacket decommissioning process are anticipated to be:

- Brae Alpha cessation of production: 2026
- Brae Alpha platform topsides removal: 2031-2032
- Brae Alpha Upper Jacket removal: 2033
- Brae Alpha Upper Jacket Close Out Report: 2033
- Brae Area post decommissioning removal survey: Post 2033
(Subject to overall Brae Area decommissioning completion)

The expected Brae Alpha Upper Jacket decommissioning schedule is shown in [Figure 6-1](#). This schedule reflects the bulleted points above but also includes uncertainty bars. The schedule may change to maximise economic recovery, or to exploit opportunities to minimise decommissioning impacts by combining Brae Area decommissioning activities into campaigns, or by combining Brae Area decommissioning operations with third-party decommissioning projects.



Note 1: The Brae Area Post Removal Survey will be conducted in alignment with the overall Brae Area decommissioning schedule

Note 2: The Close Out Report will be submitted within 12 months of the completion of offshore works.

Activity window
 Most likely schedule

Figure 6-1: Brae Alpha Upper Jacket Decommissioning Schedule

6.4 Long Term Facilities Management

The planned decommissioning of the Brae Area will take place over an extended period. Throughout this period, the Brae platforms and subsea installations will be in various stages of decommissioning and remediation. At all times, the facilities will be maintained to a standard that enables completion of the programmes safely and in compliance with regulations and TAQA's corporate standards.

6.5 Costs

TAQA has used the work breakdown structure [9] presented in Table 6.1 to develop cost estimates for the Brae Alpha Upper Jacket decommissioning programme following relevant industry guidance [10]. The provisional estimated costs have been provided to OPRED in confidence.

Table 6.1: Provisional Decommissioning Costs

Item	Estimated Cost (£Million)
WBS 1 – Operator Project Management	Provided to OPRED in confidence
WBS 2 – Post CoP OPEX	
WBS 3 – Well Abandonment	
WBS 4 – Facilities & Pipelines Permanent Isolation & Cleaning	
WBS 5 – Topsides Preparation	
WBS 6 – Topsides Removal	
WBS 7 – Substructure Removal	
WBS 8 – Onshore Recycling	
WBS 9 – Subsea Infrastructure	
WBS 10 – Site Remediation	
WBS 11 – Monitoring	

6.6 Close Out

A close out report will be submitted to OPRED within twelve months of the completion of the Brae Alpha Upper Jacket offshore decommissioning work scopes and material disposal. Any variances from the approved decommissioning programme will be described and explained in the close out report.

6.7 Post-Decommissioning Monitoring and Evaluations

Following completion of the Brae Alpha Upper Jacket decommissioning activities detailed in this document and the wider Brae Area activities described in the associated decommissioning programmes [6][7], TAQA will carry out the following monitoring and survey activities as a minimum:

- Following Brae Alpha Upper Jacket removal
 - Initial as left visual confirmation that the Upper Jacket has been removed in accordance with the decommissioning programme.

- Following completion of Brae Area decommissioning
 - An independent debris clearance verification survey.
 - Two post decommissioning environmental surveys, focusing on chemical and physical disturbances resulting from decommissioning with reference to the findings of pre decommissioning surveys.
 - Two surveys of the area around the platform footings and the 500 m zone, and
 - Two surveys 50 m either side of the Brae Area pipelines.

Copies of the survey results will be forwarded to OPRED for review. TAQA will then agree a post removal survey schedule with OPRED taking account of the findings of previous surveys and continuing liabilities. The schedule will apply a risk based approach to planning the frequency and scope of further surveys.

6.8 Management of Residual Liability

The Brae Alpha platform footings that are left in place following the completion of the Upper Jacket Decommissioning Programme will remain the responsibility of the Brae Alpha Section 29 Notice holders and will be subject to separate decommissioning programmes.

The Brae Alpha Operator recognises that the parties to the Brae Alpha Upper Jacket Decommissioning Programmes will continue, post completion of the programmes, to retain residual liability for any infrastructure left in place.

TAQA will pass information regarding the Brae Alpha substructure and footings to the UK Fisheries Offshore Oil and Gas Legacy Trust Fund Ltd for inclusion in the FishSAFE system. TAQA will also forward the cut depth to the United Kingdom Hydrographic Office for inclusion on Admiralty charts and notices to mariners. The notifications to FishSAFE and the Hydrographic Office will be made in a timely manner, i.e. as soon as practicable after removal of the Upper Jacket.

TAQA will engage with OPRED on all future legacy and liability matters relating to the Brae Area facilities.

7 Supporting Documents

- [1] Guidance Notes Decommissioning of Offshore Oil and Gas Installations and Pipelines, BEIS, November 2018
- [2] Brae Alpha, Brae Bravo, Central Brae, West Brae, and Sedgwick Combined Decommissioning Programmes, Environmental Statement: Main Report, 9000-MIP-99-EV-RT-00001-000, Marathon Oil Decommissioning Services, June 2017
- [3] Brae Alpha, Central Brae, West Brae, and Sedgwick Environmental Appraisal Technical Note, 77IFS-219936-F99-0001, TAQA, 2024.
- [4] Brae Alpha, Brae Bravo, Central Brae, West Brae, and Sedgwick Combined Decommissioning Programmes, 9000-MIP-99-PM-RP-00003-000, I02, Marathon Oil Decommissioning Services, June 2017
- [5] Brae Alpha Topsides, Central Brae, West Brae, and Sedgwick Decommissioning Programmes, TB-BRADEC01-X-AD-0001-000, TAQA.
- [6] Future – Brae Bravo Footings Decommissioning Programme TB-BRBDEC01-X-AD-0001-000, TAQA.
- [7] Future – Brae Area Trunk Pipelines Decommissioning Programmes, TB-BRFDEC01-X-AD-0001-000, TAQA
- [8] OEUK (Offshore Energies United Kingdom), 2023. Emissions Report 2022.
- [9] Decommissioning Work Breakdown Structure Guidelines, Oil and Gas UK (now Offshore Energies UK), October 2019.
- [10] Guidelines on Decommissioning Cost Estimation, Oil and Gas UK, (now Offshore Energies UK) Issue 3, October 2013

8 Section 29 Holders' Letters of Support

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