

# BRAE AREA EAST BRAE UPPER JACKET

Decommissioning Programme



April 2023 – Revision 04

9030-TAQ-99-PM-RP-00003-000



## DOCUMENT CONTROL

### Approvals

	Name	Date
Prepared by	Louisa Dunn Decommissioning Stakeholder & Compliance Lead Duncan Talbert Consultant	April 2023
Verified by	Chris Wicks CNS Decommissioning Programme Manager	April 2023
Approved by	David Wilson Decommissioning Director	April 2023

### Revision Control

Revision No	Reference	Changes/Comments	Issue Date
1	First Draft		November 2021
2	Second Draft	Addresses OPRED comments on Brae Bravo Upper Jacket DP.	January 2022
3	Third Draft	Addresses OPRED comments on East Brae Upper Jacket DP	September 2022
4	Final Draft	Addresses further OPRED comments on East Brae Upper Jacket DP	April 2023

### Distribution List

Entity
Spirit Energy Resources Limited
Neo Energy Petroleum Limited
TAQA Bratani LNS Limited
OPRED
North Sea Transition Authority (NSTA)

## CONTENTS

	Installation	Pipeline
DOCUMENT CONTROL .....	2	✓
Approvals.....	2	✓
Revision Control.....	2	✓
Distribution List .....	2	✓
FIGURES.....	4	✓
TABLES.....	4	✓
ABBREVIATIONS .....	5	✓
1 Executive Summary .....	6	✓
1.1 Decommissioning Programme .....	6	✓
1.2 Requirement for Decommissioning Programmes .....	6	✓
1.3 Introduction .....	6	✓
1.4 Overview of Facilities Being Decommissioned .....	8	✓
1.5 Summary of Proposed Decommissioning Programme .....	13	✓
1.6 Field Locations Including Field Layouts and Adjacent Facilities.....	14	✓
1.7 Industrial Implications.....	20	✓
2 Description of Items to be Decommissioned.....	21	✓
2.1 Installations: Surface Facilities – Jacket .....	21	✓
2.2 Pipeline Risers.....	21	✓
2.3 Wells .....	21	✓
2.4 Drill Cuttings .....	21	✓
2.5 Inventory Estimates .....	21	✓
3 Removal and Disposal Methods .....	23	✓
3.1 Upper Jacket Decommissioning Overview .....	23	✓
3.2 Upper Jacket Removal Methods .....	25	✓
3.3 Waste Streams.....	26	✓
4 Environmental Impact Assessment .....	28	✓
4.1 Environmental Sensitivities Summary .....	29	✓
4.2 Potential Environmental Impacts and Their Management .....	30	✓
5 Interested Party Consultations.....	31	✓
6 Programme Management .....	33	✓
6.1 Project Management and Verification .....	33	✓



		Installation	Pipeline
6.2	Post-decommissioning Debris Clearance and Verification .....	✓	✓
6.3	Schedule .....	✓	✓
6.4	Long Term Facilities Management .....	✓	✓
6.5	Costs .....	✓	✓
6.6	Close Out .....	✓	✓
6.7	Post-Decommissioning Monitoring and Evaluations.....	✓	✓
6.8	Management of Residual Liability .....	✓	✓
7	Supporting Documents.....	✓	✓
8	Section 29 Holders’ Letters of Support.....	✓	✓

## FIGURES

Figure 1.1: Facilities to be Decommissioned .....	8
Figure 1.2: Brae Area Field Locations within UKCS.....	14
Figure 1.3: Brae Area Facilities Layout .....	15
Figure 1.4: Brae Area Adjacent Facilities .....	16
Figure 2.1: Material Inventory .....	22
Figure 2.2: East Brae Footings.....	24
Figure 5.1: East Brae Jacket Decommissioning Schedule .....	34

## TABLES

Table 1.1: Installations Being Decommissioned .....	9
Table 1.2: East Brae Section 29 Holders.....	10
Table 1.3: Pipelines PL894, PL 895, & PL896 S29 Notice Holders .....	12
Table 1.4: Pipelines PL6120, PL6121, & PLU4216 S29 Notice Holders .....	12
Table 1.5: Summary of Decommissioning Programme .....	13
Table 1.6: Adjacent Facilities.....	16
Table 2.1: Surface Facilities Information .....	21
Table 2.2: Jacket Material Inventory .....	22
Table 3.1: East Brae Jacket Decommissioning Methods.....	25
Table 3.2: East Brae Jacket Waste Stream Management Methods .....	26
Table 3.3: Ultimate Waste Inventory Disposition.....	26
Table 3.4: Reuse, Recycling and Disposal of Waste Material Returned to Shore .....	27
Table 4.1: Environmental Sensitivities Summary .....	29
Table 4.2: Environmental Impacts & Their Management.....	30
Table 5.1: Summary of 2017 Consultation Stakeholder Comments .....	31
Table 5.2: Summary of 2023 Consultation Stakeholder Comments .....	32
Table 6.1: Provisional Decommissioning Costs.....	34

## ABBREVIATIONS

Abbreviation	Explanation
BEIS	Department of Business, Energy, and Industrial Strategy (now the Department for Energy Security and Net Zero)
BTA	Buoyancy Tank Assembly
CNR	Canadian Natural Resources
CNS	Central North Sea
CoP	Cessation of Production
DP	Decommissioning Programme
EIA	Environmental Impact Assessment
ES	Environmental Statement
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
NORM	Naturally Occurring Radioactive Material
NSTA	North Sea Transition Authority
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Oslo Paris Convention
PiP	Pipe in Pipe
PL	Pipeline (as in pipeline number)
PLU	Umbilical (as in umbilical number)
PMS	Power Management System
SAGE	Scottish Area Gas Evacuation (Export pipeline)
SEPA	Scottish Environmental Protection Agency
SFF	Scottish Fishermen's Federation
SLV	Single Lift Vessel
SNS	Southern North Sea
SSIV	Subsea Isolation Valve
TAQA	TAQA Bratani Limited
UK	United Kingdom
UKCS	United Kingdom Continental Shelf

# 1 Executive Summary

## 1.1 Decommissioning Programme

As required by the Petroleum Act 1998, amended by the Energy Act 2008, this document contains three decommissioning programmes, one for the East Brae Upper Jacket and two for the associated pipeline and umbilical risers, and power cable risers (see section 1.4.2). The East Brae Footings will be covered in a separate decommissioning programme.

## 1.2 Requirement for Decommissioning Programmes

In accordance with the Petroleum Act 1998, as amended, TAQA Bratani Limited (TAQA), as operator of the East Brae platform (see Table 1.1), and on behalf of the Section 29 Notice Holders (see Table 1.2, Table 1.3, and Table 1.4), is applying to the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to obtain approval for decommissioning the East Brae Upper Jacket and the associated risers, as detailed in Section 2 of this document. (See also Section 8 – Section 29 Holders’ Letters of Support).

## 1.3 Introduction

The East Brae platform lies in UKCS Block 16/3a, approximately 280km northeast of Aberdeen in a water depth of 116m. The platform sub-structure<sup>1</sup> is a four legged 136m tall, fabricated steel structure with a total weight of 10,577 tonnes. The Upper Jacket covered by this decommissioning programme weighs 8,340 tonnes including the weight of marine growth.

Marathon Oil originally installed and operated the East Brae platform. The operatorship subsequently transferred to RockRose Energy and then to the current operator, TAQA. These different entities have performed various activities associated with East Brae decommissioning. For clarity, the current document refers to the “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 the other companies that have previously been involved in East Brae operations and have decommissioning responsibilities under Section 29 of the Petroleum Act. Therefore, this decommissioning programme refers to “TAQA” in relation to future activities by the East Brae Operator.

East Brae started production in 1993. The East Brae operator extended the life of the fields produced by the platform beyond initial projections. There are no viable hydrocarbon opportunities that could potentially prolong the life of the installation further. Therefore, the East Brae operator made a CoP (Cessation of Production) application to the Oil and Gas Authority (OGA) (now the North Sea Transition Authority (NSTA)), which was accepted in 2017. East Brae CoP is anticipated to be 2025 notwithstanding market conditions and well or process equipment problems.

This decommissioning programme is submitted without derogation and in full compliance with OPRED guidelines. The decommissioning programme explains the principles of the removal activities in accordance with relevant guidance [1]. The decommissioning programme is supported by an environmental statement [2].

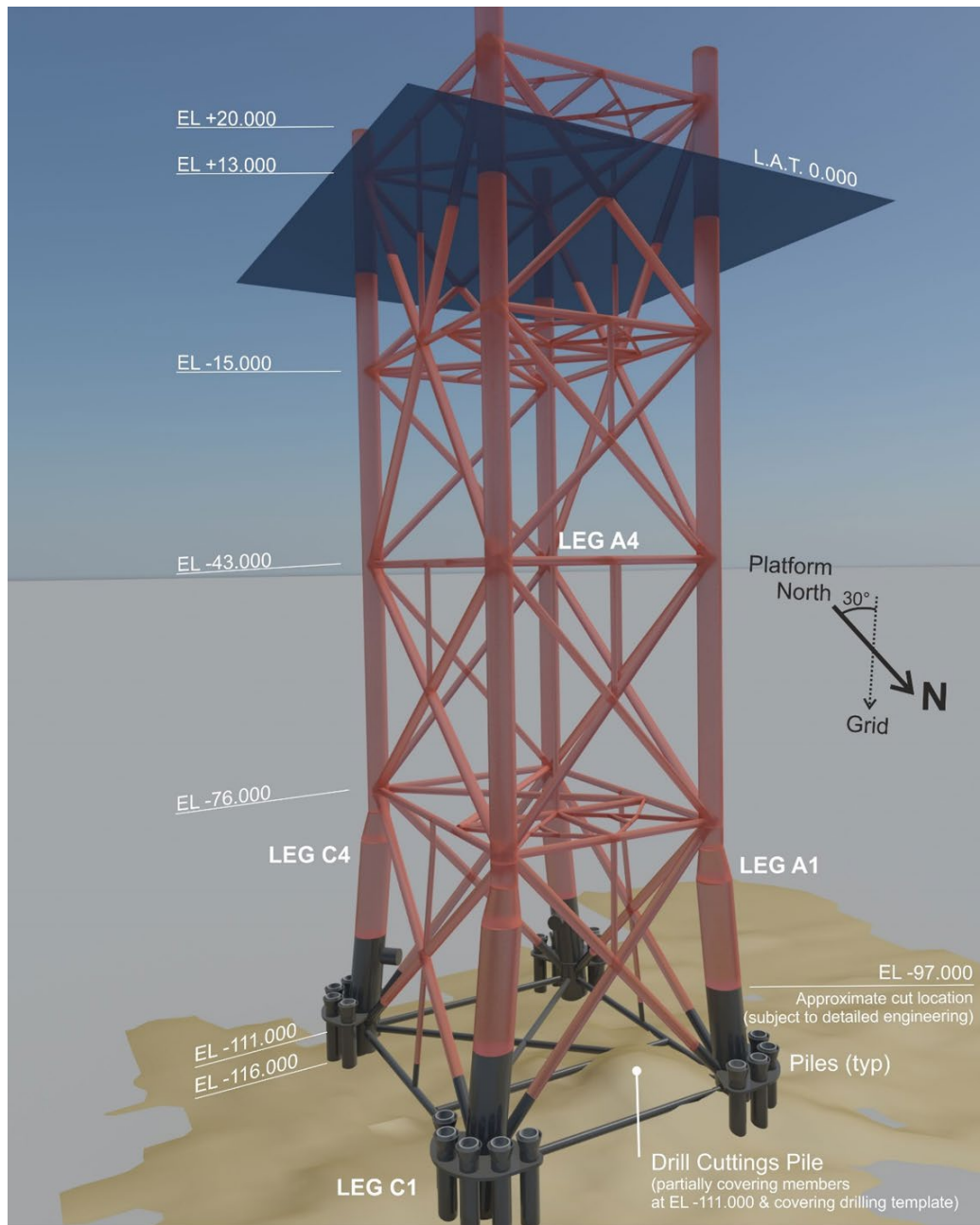
---

<sup>1</sup> For the purposes of this Decommissioning Programme, the term sub-structure describes the entire jacket, i.e. the Upper Jacket and Footings combined.

The Brae Operator conducted public, stakeholder, and regulatory consultation on a previous decommissioning programme which included the East Brae Upper Jacket in 2017. Since then, the proposals for decommissioning the Upper Jacket have not altered. However, the scope of the previous decommissioning programme has been split into three separate programmes. Since the presentation of information regarding decommissioning the East Brae Upper Jacket has changed, TAQA is issuing this Decommissioning Programme for further stakeholder consultation.

### **1.3.1 Scope of Decommissioning Programme**

The scope of this Decommissioning Programme is the removal of the East Brae Upper Jacket from the topsides removal cut height at approximately 19 m above Lowest Astronomical Tide (LAT) to circa 97 m below LAT. The Upper Jacket is 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.



**Figure 1.1: Facilities to be Decommissioned (Shown in Red)**

The pipeline and umbilical riser sections that are attached to the Upper Jacket will be removed with the Upper Jacket. Any remaining parts of these pipelines and umbilicals will be covered in wider Brae Area decommissioning programmes.

The East Brae Topsides and Braemar subsea installation are covered in further Decommissioning Programmes which were approved in September 2020 [3]. Similarly, the Devenick subsea installation is covered in a separate decommissioning Programme [4].

## 1.4 Overview of Facilities Being Decommissioned

The East Brae Upper Jacket covered by this Decommissioning Programme is shown as the structure shaded red in Figure 1.1. The key Upper Jacket data are presented in Table 1.1. The relevant Section 29 notice holders are listed in Table 1.2.



Section 1.4.2 lists the pipeline, umbilical and power cable risers, 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 depths that avoid 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, and Table 1.4.

East Brae is one of the installations in the Brae Area. The other installations are Brae Alpha, Brae Bravo, Central Brae, West Brae, Sedgwick, Braemar and Devenick. East Brae and the other Brae facilities are shown in Figure 1.2 and Figure 1.3.

### 1.4.1 Installations

**Table 1.1: Installations Being Decommissioned**

<b>Field(s)</b>	East Brae	<b>Production Type (Oil/Gas/Condensate)</b>	Gas/Condensate
<b>Water Depth</b>	116 m	<b>UKCS Block</b>	16/3a & 16/3b
<b>Distance to Median</b>	4 km	<b>Distance from Nearest UK Coastline</b>	193 km
<b>Surface Installations</b>			
<b>Number</b>	<b>Type</b>	<b>Topside Weight (tonnes)</b>	<b>Jacket Weight (tonnes)</b>
1	Steel Jacket	N/A	≈ 8,340 <sup>1</sup>

<sup>1</sup> Estimated Upper Jacket Recoverable weight including marine growth covered by this Decommissioning Programme.

**Table 1.2: East Brae Section 29 Notice Holders**

<b>Company</b>	<b>Registration Number</b>	<b>Equity Interest</b>
TAQA Bratani Limited	05975475	73.29507%
Spirit Energy Resources Limited	02855151	11.58596%
Neo Energy Petroleum Limited	03288689	9.14641%
TAQA Bratani LNS Limited	06230540	5.97256%
BP Exploration Operating Company Limited	00305943	0.0 %
Fujairah Oil and Gas UK 12 Limited	00981126	0.0%
Fujairah Oil and Gas UK LLC	FC009587	0.0%
ENI UKCS Limited	1019748	0.0%
GB Gas Holdings Limited	03186121	0.0%
Neptune E&P UKCS Limited	3386464	0.0%
Repsol Sinopec Resources UK Limited	825828	0.0%
Repsol Sinopec LNS Limited	2483161	0.0%

## 1.4.2 Pipeline Umbilical & Power Cable Risers

Pipeline, umbilical and power cable risers are attached to the East Brae sub-structure. Sections of the risers will be decommissioned with the East Brae Upper Jacket.

The risers will be isolated, de-energised, flushed, and disconnected from the platform topsides as part of East Brae Topsides decommissioning scope.

As part of the East Brae Upper Jacket decommissioning scope, the risers will be severed at the proposed Upper Jacket cut depth approximately 97m below LAT, or deeper if it is practicable to do so. Notwithstanding, the risers will be cut at a point that avoids disturbing the drill cuttings pile at the base of the sub-structure. The Pipeline Works Authorisations will be amended as necessary to reflect the risers' as left status.

The pipeline, umbilical and power cable riser sections attached to the East Brae Upper Jacket are;

- Pipeline and umbilical riser sections serving the Braemar subsea installation.
  - PL1969 – Braemar production flowline
  - PLU1970 – Braemar chemical / control umbilical
  - PLU1977 – Braemar SSIV umbilical

The approved East Brae Topsides and Braemar Decommissioning Programme [3] lists the Section 29 Notice holders for these lines.

- Pipeline and umbilical riser sections serving the Devenick subsea installation.
  - PL2746 – Devenick production pipeline
  - PL2747 – Devenick methanol pipeline
  - PLU2752 – Devenick control and chemical umbilical
  - PLU2754 – Devenick SSIV umbilical

The Devenick Decommissioning Programme [4] lists the Section 29 Notice holders for these lines. The Devenick DP is currently under consideration by OPRED.

- Trunk pipeline, umbilical and power cable riser sections serving the Brae Area platforms.
  - PL894 – Condensate export from East Brae to Brae Bravo subsea Wye
  - PL895 – Gas transfer from East Brae to Brae Alpha
  - PL896 – Gas export from East Brae to the SAGE system
  - PLU4216 – East Brae Crossover / SSIV control umbilical
  - PL6120 – PMS cable from Brae Alpha to East Brae
  - PL6121 – PMS cable from Brae Bravo to East Brae

The Section 29 Notice holders for the pipelines serving the Brae Area platforms are listed in Table 1.3. The Section 29 Notice holders for the PMS cables and umbilical serving the Brae Area platforms are listed in Table 1.4. The decommissioning proposals for the parts of these lines other than the risers will be described in the Brae Area Trunk Pipelines Decommissioning Programme [5] to be published in due course.

Table 1.3: Pipelines PL894, PL 895, & PL896 S29 Notice Holders

Table 1.3: Pipelines PL894, PL895, & PL896 Section 29 Notice Holders		
Company	Registration Number	Equity Interest
TAQA Bratani Limited -	05975475	69.5%
Spirit Energy Resources Limited	02855151	13.33%
Neo Energy Petroleum Limited	3288689	10.50%
TAQA Bratani LNS Limited	06230540	6.67%
BP Exploration Operating Company Limited	00305943	0%
ENI UKCS Limited	01019748	0%
Fujairah Oil and Gas UK LLC	FC009587	0%
GB Gas Holdings Limited	03186121	0%
Neptune E&P UKCS Limited	03386464	0%
Repsol Sinopec LNS Limited	02483161	0%
Repsol Sinopec Resources UK Limited	00825828	0%

Table 1.4: Pipelines PL6120, PL6121, & PLU4216 S29 Notice Holders

Table 1.4: Pipelines PL6120, PL6121, & PLU4216 Section 29 Notice Holders		
Company	Registration Number	Equity Interest
TAQA Bratani Limited -	05975475	69.5%
Spirit Energy Resources Limited	02855151	13.33%
Neo Energy Petroleum Limited	3288689	10.5%
TAQA Bratani LNS Limited	06230540	6.67%
Fujairah Oil and Gas UK LLC	FC009587	0.00%
GB Gas Holdings Limited	03186121	0.00%

## 1.5 Summary of Proposed Decommissioning Programme

The selected decommissioning option for the East Brae Upper Jacket is shown in [Table 1.5](#) below.

**Table 1.5: Summary of Decommissioning Programme**

Selected Option	Reason for Selection	Proposed Decommissioning Solution
<b>East Brae Jacket</b>		
Remove the East Brae Upper Jacket to a depth approximately 97 m below LAT.	Removal complies with OSPAR Decision 98/3 and Regulatory requirements.	The East Brae Upper Jacket will be removed to a point around 97 m below lowest astronomical tide (approximately 19 m above seabed). Recovered material will be returned to shore for recycling or disposal.
<b>Pipeline, Umbilical and Power Cable Risers</b>		
Remove the riser sections attached to the Upper Jacket to a point approximately 97 m below LAT, or deeper.	Removal complies with OSPAR Decision 98/3 and Regulatory requirements.	The riser sections will be removed to a point around 97 m below lowest astronomical tide, or deeper if it is practicable to do so (a maximum of approximately 19 m above seabed). Recovered material will be returned to shore for recycling or disposal. See <a href="#">Section 1.4.2</a> for a listing of the pipeline umbilical and power cable risers.
<b>Interdependencies</b>		
The selected Upper Jacket decommissioning option of removal to a depth of 97 m does not prejudice decommissioning options for the Footings.		
TAQA will liaise with the Section 29 notice holders for the 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.		



## 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 East Brae installation are shown in Figure 1.4 and listed in Table 1.6.

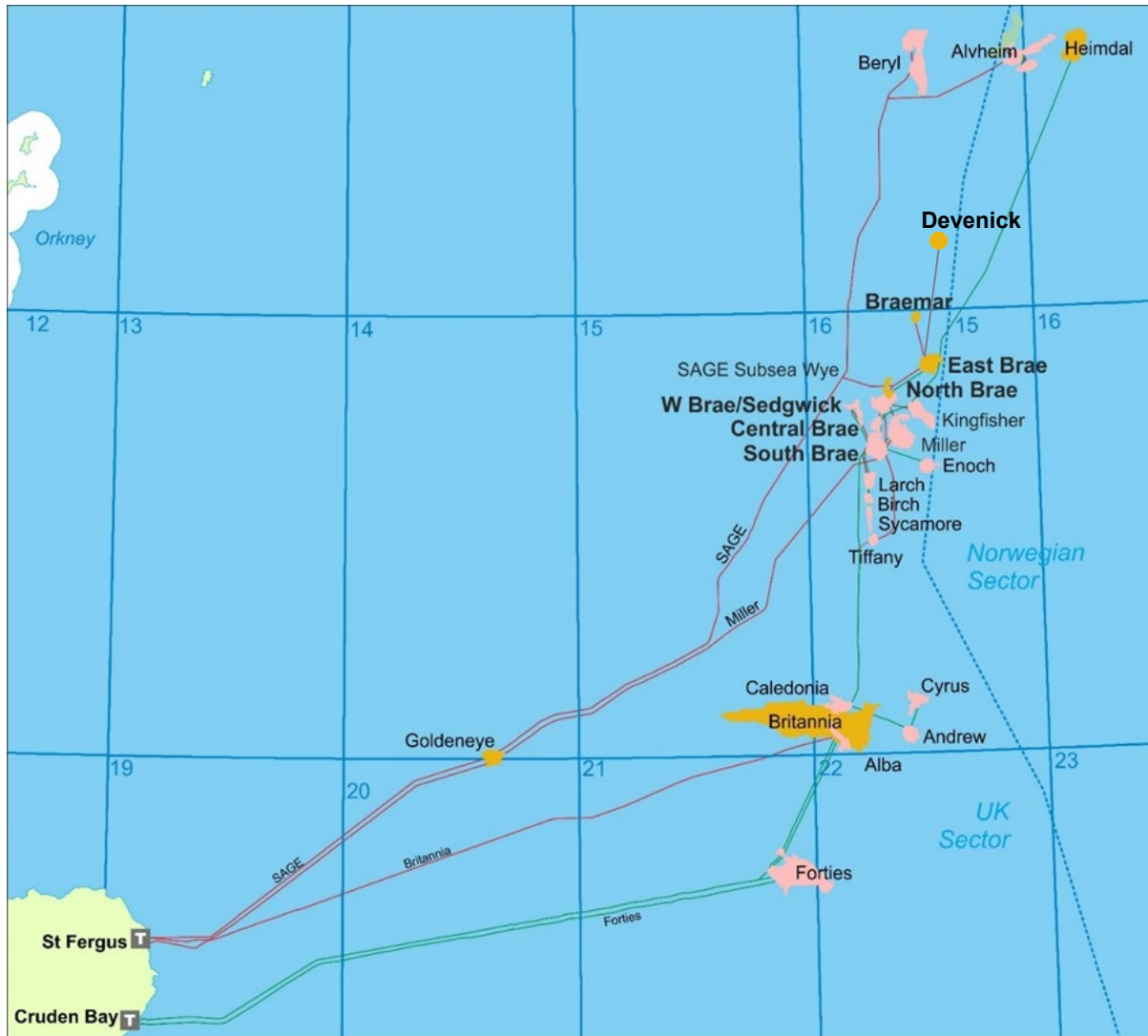


Figure 1.2: Brae Area Field Locations within UKCS



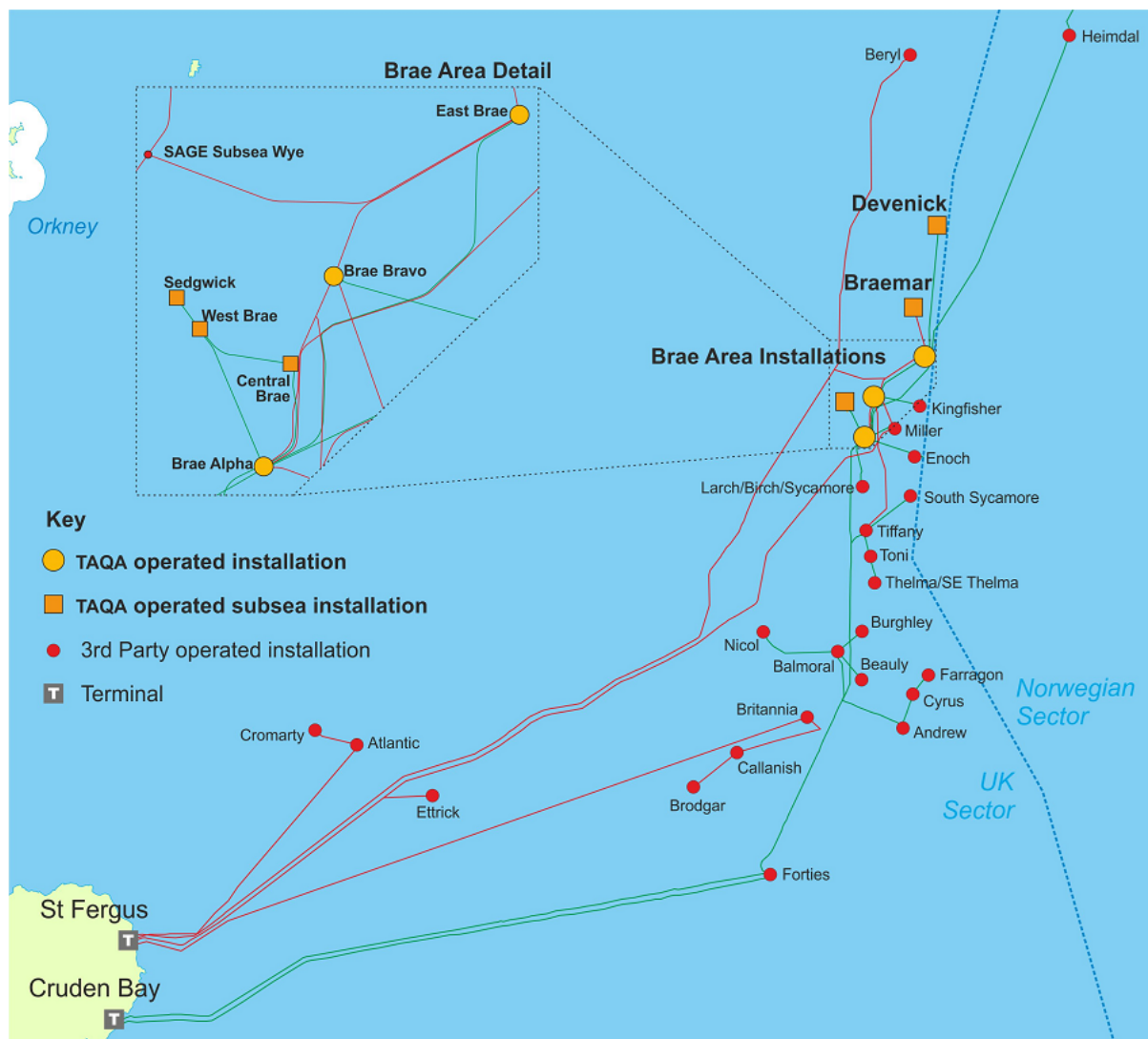


Figure 1.4: Brae Area Adjacent Facilities

Table 1.6: Adjacent Facilities

Owner	Name	Type	Distance / Direction from East Brae	Information	Status
TAQA	Brae Alpha	Platform	23 km south west	Connected to East Brae via power cable	Operational
TAQA	Brae Bravo	Platform	14km south west	Connected to East Brae via power cables	Decommissioned

**Table 1.6: Adjacent Facilities**

Owner	Name	Type	Distance / Direction from East Brae	Information	Status
TAQA	East Brae SSIV / Crossover Structure & Control Umbilical	Subsea Isolation Valve and Crossover, Protection Structure and Control Umbilical	<500m	Protects East Brae installation from hazards associated with PL894 and PL895	Operational
TAQA	PL894	Pipeline	<500m	18" Condensate Pipeline from East Brae to Brae Bravo Subsea Wye / SSIV	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA	PL895	Pipeline	<500m	18" Gas Pipeline from East Brae to Brae Alpha	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA	PL896	Pipeline	<500m	30" Gas Pipeline from East Brae SSIV / Crossover Structure to SAGE Wye	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
BP Exploration (Alpha) Limited	Miller	Platform	19km south west	Ex production platform	Decommissioned
BP Exploration Operating Company Limited	PL1971 Miller to Brae Bravo	16" Gas Pipeline	-	Redundant pipeline	Suspended
BP Exploration (Alpha) Limited	PL722 Miller to Brae Alpha	18" Oil Pipeline	-	Redundant pipeline	Suspended
Repsol Sinopec North Sea Limited	Enoch Wellhead	Subsea well	25km south	Subsea tie-back to Brae Alpha	Operational

**Table 1.6: Adjacent Facilities**

Owner	Name	Type	Distance / Direction from East Brae	Information	Status
Repsol Sinopec North Sea Limited	PL2336 Enoch to Brae Alpha Flowline	8" Flowline in 12" carrier pipe	-	Pipeline	Operational
Repsol Sinopec North Sea Limited	PL2337 Brae Alpha to Enoch Gas Lift Line	3" Flowline in 12" carrier pipe	-	Pipeline	Operational
Repsol Sinopec North Sea Limited	PLU2338 Brae Alpha to Enoch Control Umbilical	Electro/Hydraulic Control Umbilical	-	Pipeline	Operational
CNR International (U.K.) Limited	Tiffany	Platform	47km south south west	Production Platform	Operational
CNR International (U.K.) Limited	PL872 Tiffany to PL360 Gas Export Line	10" Gas Pipeline	-	Pipeline	Operational
CNR International (U.K.) Limited	PL873 Tiffany to PL064 Oil Export Line	12" Oil Pipeline	-	Pipeline	Operational
Spirit Energy North Sea Oil Limited	Birch, Larch, Sycamore	Subsea manifolds and wellheads	35km south west	Subsea Production Installation	Operational
Spirit Energy North Sea Oil Limited	PL1161 Birch to Brae Alpha	10" Production Pipeline	-	Pipeline	Operational
Spirit Energy North Sea Oil Limited	PL1162 Brae Alpha to Birch	12" Water Injection Line	-	Pipeline	Operational
Spirit Energy North Sea Oil Limited	PL1531 Brae Alpha to Larch	4" Gas Lift Line	-	Pipeline	Operational
Spirit Energy North Sea Oil Limited	PL1163 Brae Alpha to Birch	4" Gas Lift Line	-	Pipeline	Operational
SAGE North Sea Limited	PL762 SAGE Pipeline	30" Gas Export Line	-	Connects to East Brae via the SAGE Subsea Wye structure	Operational



**Table 1.6: Adjacent Facilities**

Owner	Name	Type	Distance / Direction from East Brae	Information	Status
Shell UK Limited	Kingfisher	Subsea manifold and wells	12km south south west	Ex Subsea Production Installation	Out of Use
TAQA Bratani Limited	Devenick	Subsea template	13km north east	Subsea Production Installation	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA Bratani Limited	Devenick SSIV Structure	Subsea Isolation valve	<500m	Protects East Brae installation from hazards associated with PL2746	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA Bratani Limited	Devenick SSIV umbilical	Umbilical controlling Devenick SSIV	0km	Runs from East Brae platform to Devenick SSIV structure	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA Bratani Limited	PL2746 Devenick production flowline	16"/10" PiP production pipeline.	0km	Production pipeline from Devenick to East Brae	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA Bratani Limited	PL2747 Devenick Methanol line	3" Pipeline	0km	Methanol pipeline from East Brae to Devenick	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
TAQA Bratani Limited	PLU2752 Devenick control / chemical umbilical	Chemical / Control umbilical	0km	Control umbilical from East Brae to Devenick	Operational at time of DP submission. Will be suspended as part of the wider Brae Area decommissioning
Century Link	AC1	Telecoms. Cable	≈ 15 km north	Transatlantic cable.	Operational

**Table 1.6: Adjacent Facilities**

Owner	Name	Type	Distance / Direction from East Brae	Information	Status
Aqua Comms	Havfrue / AEC-2	Telecoms. Cable	≈ 28 km north	Transatlantic cable	Operational
Deutsche Telekom AG	TAT10	Telecoms. Cable	≈ 11 km north	Transatlantic cable	Disused
Telia Carrier	TAT14	Telecoms. Cable	≈ 21 km north	Transatlantic cable	Disused

**Impacts of Decommissioning Proposals**

TAQA has been, and will continue to be, in contact with operators and owners of adjacent facilities. The adjacent facilities have no known impacts on the East Brae Upper Jacket decommissioning programme. Similarly, this decommissioning programme has no known impacts on the operation of adjacent facilities.

TAQA will liaise with the S29 notice holders for the East Brae 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 is developing the East Brae Upper Jacket decommissioning contract and procurement strategy, on behalf of the Section 29 Notice Holders. TAQA has, and will continue to:

- Publish East Brae Upper Jacket decommissioning project information, 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.
- Engage with the NSTA and the decommissioning supply chain on any future issues relating to the East Brae Upper Jacket decommissioning programme and schedule.
- Use the FPAL (First Point Assessment Limited) 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 – Jacket

Key information regarding the East Brae Upper Jacket is presented in [Table 2.1](#).

**Table 2.1: Surface Facilities Information**

Name	Type	Location	Jacket				
			Weight (tonnes)	Number of Legs	Number of Piles	Weight of Piles (tonnes)	
East Brae Platform	Steel Jacket (Cut at 97 m below LAT, see <a href="#">Figure 1.1</a> )	WGS84 Decimal	58.880650°N 1.518067°E	≈ 8,340 <sup>1</sup>	4	N/A	N/A
		WGS84 Decimal Minute	58° 52.839'N 1° 31.084'E				

1. Recoverable Upper Jacket weight covered by this Decommissioning Programme, including marine growth (See [Table 2.2](#)).

### 2.2 Pipeline Risers

The East Brae Upper Jacket supports pipeline, umbilical and power cable risers. Portions of the pipelines 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. In either case, the risers will be cut at a depth that avoids disturbance of the drill cuttings pile at the base of the sub-structure.

### 2.3 Wells

There are no wells in the scope of this Decommissioning Programme. For information on the East Brae wells refer to East Brae Topsides and Braemar Combined Decommissioning Programme [\[3\]](#).

### 2.4 Drill Cuttings

There are no drill cuttings in the scope of this Decommissioning Programme. Information regarding the drill cuttings will be included in the scope of Footings Decommissioning Programme.

### 2.5 Inventory Estimates

The approximate amounts of materials that make-up the East Brae 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.

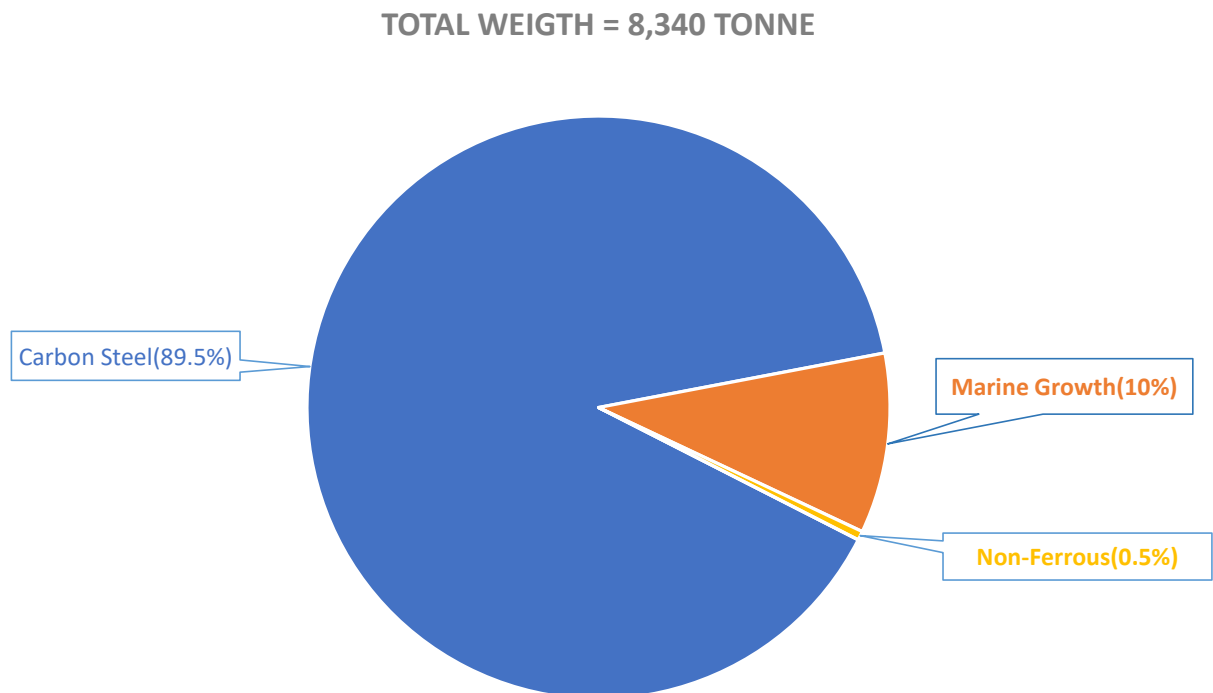
A summary of the material inventories for East Brae Upper Jacket is presented in [Table 2.2](#) and [Figure 2.1](#).

**Table 2.2: East Brae Jacket Material Inventory**

Material	Weight (tonnes)	% of Total
Carbon Steel	7,479	~90%
Marine Growth	834	10%
Non-Ferrous	28 <sup>1</sup>	0.3%
Other	2 <sup>2</sup>	<0.1%
Total	≈ 8,340	100%

Table 2.2 Notes:

- 1 The sacrificial anodes on the Upper Jacket make up the Non-Ferrous inventory.
- 2 The other material associated with the Upper Jacket mainly consists of paint in the splash zone.



**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 internal review of options for reusing the Brae Area platforms and sub-structures, including the East Brae Upper Jacket, and concluded there are no technically viable reuse options.

The majority of the East Brae Upper Jacket is steel, which will be recovered and recycled. The small proportion of materials remaining after reuse and recycling will be disposed of appropriately in accordance with TAQA policies and the relevant regulatory requirements.

#### 3.1 Upper Jacket Decommissioning Overview

The East Brae Upper Jacket will be removed to a depth of approximately 97 m below LAT which is circa 19 m above the seabed. The portion of the structure shaded red in [Figure 1.1](#) constitutes the Upper Jacket. The footings will be the subject of a separate decommissioning programme.

The exact cut depth will be determined following detailed engineering, considering technical constraints. These constraints are;

- The jacket design. This impacts where it is possible to cut the jacket and retain the required structural integrity in the resulting sections of the jacket. The design also dictates whether there is access for tooling to make cuts.
- Cutting technology. The size of cutting tools and the size of ROVs and deployment aids dictate 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 extreme circumstances.
- Environmental factors. Cutting operations should avoid locations that will disturb the seabed and the cuttings pile or cause other unreasonable environmental disturbance.

TAQA will notify OPRED once the exact cut depth has been determined.

The Brae Operator conducted technical studies on removal techniques for the East Brae sub-structure in accordance with OSPAR 98/3 [\[6\]\[7\]](#). For clarity, “sub-structure” relates to the complete jacket, that is, Upper Jacket and Footings combined. These technical studies considered various methods for removal of the sub-structure. These included removing the sub-structure as a single entity, and also removing the Upper Jacket and Footings as separate sections. Removing the sub-structure as a single entity presents a number of technical constraints and challenges;

1. The sub-structure is so tall that there are no crane vessels available capable of lifting it vertically clear of the water and onto a barge.
2. Turning the sub-structure from its installed vertical orientation to a horizontal orientation is problematic in terms of installing lift points, attaching suitable rigging, managing buoyancy, and carrying out the lift.
3. Transporting the partially submerged sub-structure in one piece hanging on a crane vessel’s hooks imposes additional drag on the vessel and potentially comprises the integrity of the sub-structure. In addition, it would not be possible to transfer it directly to the quayside for dismantling, because of the crane hook height limit. The sub-structure would have to be set down in shallow water and broken down into sections.



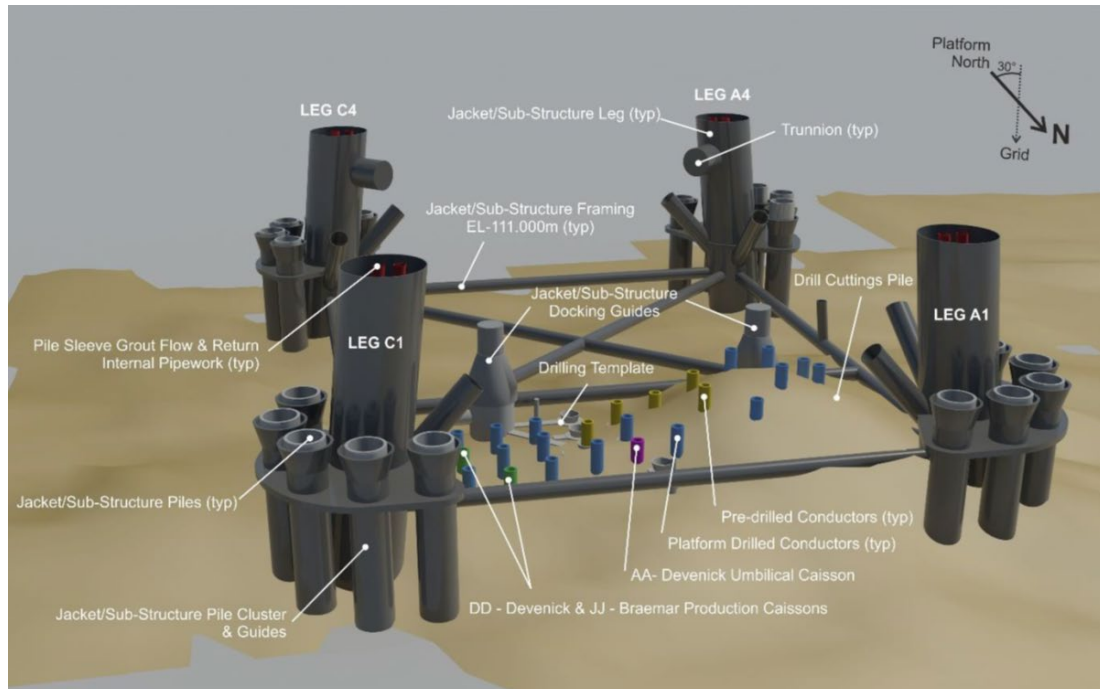
Therefore, the Brae Operator concluded that in all conceptual scenarios for removal of the sub-structure, the separation of the Upper Jacket from the Footings would be a pre-requisite for any Footings removal methodology.

The Footings that will remain after the removal of the Upper Jacket are shown in [Figure 3.1](#). The Footings will be the subject of a separate decommissioning programme. The footings may be left in situ if derogation is granted under OSPAR Decision 98/3.

The removal of the Upper Jacket will be carried out such that it does not preclude the full removal of the Footings. Should removal of the Footings be required:

1. The structural arrangement of the Footings maintains significant inherent global structural strength to enable numerous removal options utilising a range of decommissioning vessels and methodologies.
2. Due to the structural geometry and weight distribution, the Footings would be removed in multiple sections. This was evaluated as part of the full removal scope within the comparative assessment process.
3. Both the global strength of the structural sections and local strength at the lift point locations would be appropriately engineered during detailed design to ensure sufficient strength is maintained during Footings removal operations.

Note that the potential Footings removal methodology does not consider the technical challenges associated with the excavation and cutting of the structural piles, breaking the footings and pile stubs free from the seabed and displacement of the drill cuttings.



**Figure 3.1: East Brae Footings**

## 3.2 Upper Jacket Removal Methods

The removal methods considered by the Brae Operator for the East Brae Upper Jacket are listed in [Table 3.1](#). The Upper Jacket will be removed by HLV as a single component. The removal method selection considered semi-sub type lift vessels, as these offer greater capacity and flexibility than conventional monohull “ship shaped” crane vessels.

**Table 3.1: East Brae 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 East Brae Upper Jacket can be achieved by cutting the Upper Jacket at the - 97m level and retrieving the Upper Jacket as a single component or multiple components by an SLV or HLV. However, transport and handling of the Upper Jacket in a single 97 m tall section presents several technical challenges, and the Upper Jacket is more likely to be removed in a number of sections.
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 Upper Jacket removal method and disposal route		<p>The Upper Jacket will be removed in one or more pieces by an SLV or HLV and taken ashore and dismantled at an appropriate facility. Most of the material recovered will be recycled.</p> <p>The final decision on removal method will be made by TAQA in consultation with the selected removal contractor. The tender evaluation and contractor selection process considers safety, environmental, socio-economic, and technical metrics as well as cost. TAQA and the selected decommissioning contractor(s) will address any trans-frontier shipment of waste issues to ensure that these are appropriately managed. TAQA will inform OPRED once the dismantling site(s), dismantling method, and recycling and disposal routes have been selected.</p>

### 3.3 Waste Streams

The methods for managing the waste streams from the East Brae Upper Jacket are listed in [Table 3.2](#). The ultimate disposition of the waste materials is described in [Table 3.3](#), and the proportions of materials that TAQA envisages reusing, recycling, and discarding are given in [Table 3.4](#).

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].

**Table 3.2: East Brae Jacket Waste Stream Management Methods**

Waste Stream	Removal and Disposal Method
Carbon Steel	Carbon steel will be recycled.
Non-Ferrous Metals	Non-ferrous metals, principally material from sacrificial anodes will be recycled.
Other Material	Other material, principally paint, will be removed, and disposed of in accordance with relevant regulations and guidance.
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 be disposed of either offshore under a 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 selected site have proven abilities 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 that they are compliant with applicable legislation.

**Table 3.3: Ultimate Waste Inventory Disposition**

	<b>Total Inventory</b>	<b>Planned Material to Shore (tonnes)</b>	<b>Planned Material Left in Situ (tonnes)</b>
<b>East Brae Jacket</b>	≈ 8,340 <sup>1</sup>	≈ 8,340 <sup>1</sup>	0

<sup>1</sup>Includes a conservative estimate of 834 tonnes of marine growth to provide safe margins for lifting. Marine growth may be removed or become detached at sea and may dry out before the Upper Jacket reaches the dismantling yard. Therefore, the weight of marine growth recovered at the yard may be significantly less than this estimate.

**Table 3.4: Reuse, Recycling, and Disposal of Waste Material Returned to Shore (by Weight)**

	<b>Reuse</b>	<b>Recycle</b>	<b>Disposal</b>
<b>East Brae Jacket</b>	<b>0</b>	<b>90%</b>	<b>10%<sup>1</sup></b>

<sup>1</sup> The bulk of the material that will be disposed of is marine growth. This may be removed and disposed of at sea or sent for composting or landfill onshore.

TAQA's intent is to maximise the reuse and recycling of materials that are returned to shore, and thereby minimise disposal of material in landfill. The material returned to shore will predominantly be structural steel, which is eminently recyclable and the proportion of the returned material that will be disposed of, rather than recycled, is very low.

TAQA recognises that there will be large quantities of material returned to shore for recycling, and disposal. Regardless of the ultimate destination of recovered materials, 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 Impact Assessment

The Brae Operator originally completed an Environmental Impact Assessment (EIA) for decommissioning the East Brae installation, including the platform Upper Jacket and Footings in 2017. This assessment was based on survey data collected in 2015. TAQA has environmental survey data for the East Brae Area from before the platform was installed 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 East Brae Upper Jacket decommissioning operations will not involve any planned disturbance of the drill cuttings pile. Given these factors, TAQA does not propose to conduct additional environmental assessment work to support the current revision of the Decommissioning Programme. Prior to commencing 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 Impact Assessment process considered the potential for significant environmental effects resulting from 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 (OPRED), JNCC, Marine Scotland 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

The environmental sensitivities in the Brae Area are summarised in [Table 4.1](#). The environmental assessment has not identified any significant residual environmental effects resulting from activities described within this Decommissioning Programme. However, TAQA is committed to the schedule of environmental management measures set out in the ES 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**

<b>Environmental Receptor</b>	<b>Main Features</b>
<b>Conservation Interests</b>	The Braemar Pockmarks Special Area of Conservation (SAC) is approximately 12km north north west of East Brae. A Marine Life Study of the Brae Area infrastructure has not identified the presence of the cold water coral ( <i>Lophelia</i> spp).
<b>Seabed</b>	The seabed community in the Brae Area is classed as representative of the Central North Sea and is dominated by the bristle worm ( <i>Paramphinone jeffreysii</i> ), with other species such as <i>Spiophanes bombyx</i> , <i>Galthowenia oculata</i> , <i>Tharyx killariensis</i> and <i>Pholoe assimilies</i> also present.
<b>Fish</b>	Several fish species are present in the Brae Area and use it for spawning and/or nursery grounds. These species include Norway pout, Nephrops, mackerel, haddock, and blue whiting. Basking shark, tope, porbeagle, common skate and angel shark may also be present in low numbers.
<b>Fisheries</b>	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.
<b>Marine Mammals</b>	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. Pinnipeds have also been recorded in the form of grey and harbour seals.
<b>Birds</b>	Seabirds are present in the central North Sea throughout the year, though densities in the Brae Area tend to be lower 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.
<b>Onshore Communities</b>	Onshore communities are potentially sensitive to disturbance from cleaning, dismantling and disposal activities. TAQA will select onshore decommissioning facilities that comply with all regulatory requirements to ensure that potential impacts are appropriately controlled.
<b>Other Users of the Sea</b>	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 present in the area. No designated wreck sites or marine archaeological features are located within the area.
<b>Atmosphere</b>	The primary source of atmospheric emissions will be from vessel activity during decommissioning activities.



## 4.2 Potential Environmental Impacts and Their Management

The EIA 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 to further reduce the potential for environmental effects. These management measures are summarised in [Table 4.2](#).

**Table 4.2: Potential Environmental Impacts & Their Management**

Activity	Main Impacts	Management
<b>Upper Jacket Removal</b>	Energy Usage and Atmospheric Emissions	All vessels will comply with MARPOL 73/78 Annex VI on air pollution and machinery will be maintained in an efficient state.
	Underwater Noise	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. There are no plans to use explosives. However, should the use of explosives be necessary TAQA will complete appropriate evaluations and consultations prior to their use.
	Wild Birds	Management of wild birds in the vicinity of the Upper Jacket is achieved through the TAQA Wild Birds Management Strategy.
	Seabed Disturbance	No seabed disturbance is anticipated during the removal of the East Brae Upper Jacket.
	Accidental Events	The potential for spills, dropped objects or other contaminants to impact the ecosystem has been assessed. This assessment is documented in the Environmental Statement [2].

## 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 decommissioning programme. These included:

- BEIS (now the Department for Energy Security and Net Zero) Environmental Management Team
- BEIS Offshore Decommissioning Unit
- Greenpeace
- HSE (Health and Safety Executive)
- Joint Nature Conservation Committee
- Marine Conservation Society
- Marine Scotland
- National Federation of Fishermen’s Organisations
- Oil and Gas Authority
- SEPA
- Scottish Fishermen’s Federation
- 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 Brae Operator conducted public, stakeholder, and regulatory consultation on a previous decommissioning programme that included the East Brae Upper Jacket in 2017. Since then, the proposals for decommissioning the Upper Jacket have not changed. However, the information regarding decommissioning the East Brae Upper Jacket has been extracted and presented separately in the current Decommissioning Programme. Because of this change, TAQA is issuing the Decommissioning Programme for further consultation.

Table 5.1 summarises comments received from stakeholders, and the Brae Operator’s responses.

**Table 5.1: Summary of 2017 Consultation Statutory Stakeholder Comments**

UK		
Stakeholder	Comment	Response
The National Federation of Fishermen’s Organisations	No comments received	

**Table5.1: Summary of 2017 Consultation Statutory Stakeholder Comments**

**UK**

<b>Stakeholder</b>	<b>Comment</b>	<b>Response</b>
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 clear seabed.	The East Brae Upper Jacket will be removed to shore for recycling and disposal.
Northern Irish Fish Producers' Organisation	No comments received	
Global Marine Systems Limited	No comments received	

**Table5.2: Summary of 2023 Consultation Statutory Stakeholder Comments**

**UK**

<b>Stakeholder</b>	<b>Comment</b>	<b>Response</b>
The National Federation of Fishermen's Organisations		
Scottish Fishermen's Federation		
Northern Irish Fish Producers' Organisation		
Global Marine Systems Limited		

## 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 the East Brae Upper Jacket decommissioning. 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 changes to this decommissioning programme will be discussed and agreed with OPRED.

### 6.2 Post-decommissioning Survey, Debris Clearance, and Verification

Following Upper Jacket removal, TAQA will visually confirm the Upper Jacket cut depth is 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.

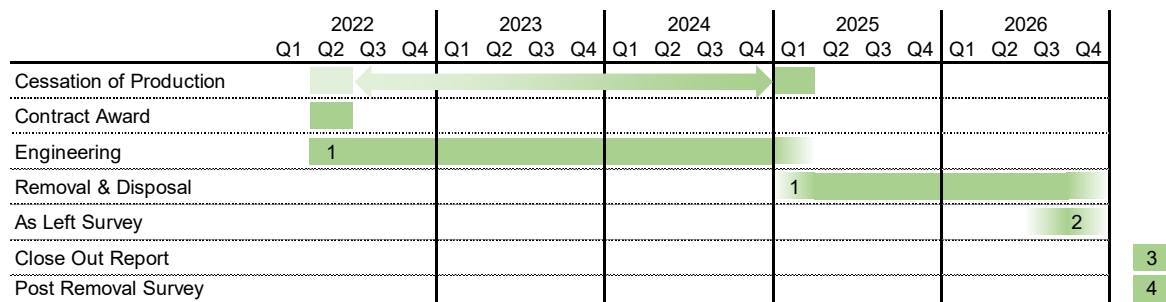
Following full field decommissioning of the wider Brae Area facilities, TAQA will conduct a minimum of two post decommissioning environmental surveys, and two surveys of the area around the platform and connected pipelines. TAQA will also commission an independent debris clearance survey. TAQA will agree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

### 6.3 Schedule

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

- East Brae cessation of production: Q1 2025
- East Brae platform topsides removal: 2025/26
- East Brae Upper Jacket removal: 2025/26
- Post Upper Jacket Removal visual cut depth confirmation 2026
- Post removal survey: Post 2027  
(Subject to overall Brae Area decommissioning completion)

The East Brae Upper Jacket decommissioning schedule is shown in [Figure 6.1](#). This 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.



Planned Activity Window  
1 Engineering, Removal and Disposal timings are dependent on the selected Decommissioning Contractor  
2 As Left Survey will be scheduled to coincide with the completion of the Upper Jacket removal operations  
3 Close out Report issued after East Brae Jacket removal activities described in this DP  
4 Post Removal Survey conducted after Brae Area decommissioning completion  
 Note: Actual execution windows will be subject to contractor portfolio and market capacity, and removal may be accelerated should CoP occur earlier than anticipated

**Figure 6.1: East Brae 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 Brae 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 presented in [Table 6.1 \[8\]](#) to develop cost estimates for the East Brae Upper Jacket decommissioning programme. 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	
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 East Brae Upper Jacket offshore decommissioning work scopes and 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 East Brae Upper Jacket decommissioning activities detailed in this document and the wider Brae Area activities described in the associated decommissioning programmes [9], TAQA will carry out the following monitoring and survey activities as a minimum;

- Following East Brae 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 connected pipelines.

Copies of the survey results will be forwarded to OPRED for review. TAQA will then agree a post monitoring 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 Footings that are left in place following the completion of the Upper Jacket Decommissioning Programme will remain the property and responsibility of the East Brae section 29 Notice Holders and will be subject to a separate decommissioning programme.

The East Brae Operator recognises that the parties to the Decommissioning Programme will continue, post completion of the programme, to retain ownership of, and residual liability for any infrastructure left in place.

The presence of the East Brae Footings will be communicated and published through bulletins and the FishSAFE electronic hazard charting system and by marking the structures on Admiralty charts as appropriate.

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 November 2018, BEIS
- [2] East Brae and Braemar Combined Decommissioning Programmes, Environmental Statement: Main Report, 9030-MIP-99-EV-RT-00002-000, Marathon Oil Decommissioning Services, June 2017
- [3] East Brae Topsides and Braemar Decommissioning Programmes, 9030-RRE-99-PM-RT-00001-000, RockRose Energy LLC, July 2020
- [4] Devenick Decommissioning Programme, TB-DEVDEC01-X-AD-0001, TAQA
- [5] Future Brae Area Trunk Pipelines Decommissioning Programme, 9000-TAQ-99-PL-TB-00001-000
- [6] East Brae Jacket Removal Options – Technical Review, 9030 GEN 99 PM RT 00001 000, Genesis, October 2015.
- [7] East Brae Jacket Removal Study Re-assessment, J75362A-A-RT-00001/B2, Genesis, August 2020.
- [8] Decommissioning Work Breakdown Structure Guidelines, Oil and Gas UK (now Offshore Energies UK), October 2019.
- [9] Brae Alpha, Brae Bravo, Central Brae, West Brae, and Sedgwick Combined Decommissioning Programmes, 9000-MIP-99-PM-RP-00003-000, I02, Marathon Oil UK LLC, June 2017

---

## 8 Section 29 Holders' Letters of Support

## CONTACT

TAQA Bratani Limited  
TAQA House  
Prime Four Business Park, Kingswells,  
Aberdeen, AB15 8PU,  
Scotland UK

Tel: +44 (0)1224 275275

[www.taqa.com](http://www.taqa.com)

