

Title: Janice, James and Affleck - Decommissioning Programmes



Janice, James and Affleck Decommissioning Programmes

Final Version





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Approvals

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Terms and Abbreviations

Abbreviation	Explanation
AHT	Anchor Handling Tug
BEIS	Department for Business, Energy and Industrial Strategy
CA	Comparative Assessment
СОР	Cessation Of Production
CNS	Central North Sea
CSV	Construction Vessel
DD	Drop Down (Spool)
DECC	Department of Energy and Climate Change
DOC	Depth of Cover
DOL	Depth of Lowering
DSV	Dive Support Vessel
EIA	Environmental Impact Assessment
EMT	Environmental Management Team
EoC	Exchange of Correspondence
ES	Environmental Statement
ESIA	Environmental and Societal Impact Assessment
EU	European Union
FPAL	First Point Assessment Limited
FPU	Floating Production Unit
FPSO	Floating Production Storage and Offloading
GMS	Global Marine Systems Ltd
ICES	International Council for the Exploration of the Sea
ITT	Invitation to Tender
JNCC	Joint Nature Conservation Committee
km	Kilometre
LRS	Lateral Restraint Structure
m	Metre
MCZ	Marine Conservation Zone
MOUK	Maersk Oil United Kingdom
MSS	Marine Scotland Science



Abbreviation	Explanation
MWA	Mid Water Arch
m ³	Metres-cubed
N/A	Not Applicable
NCMPA	Nature Conservation Marine Protected Area
NFFO	National Federation of Fishermen's Organisations
NIFPO	Northern Irish Fish Producers Organisation
NORM	Naturally Occurring Radioactive Material
OBM	Oil Based Mud
ODU	Offshore Decommissioning Unit
OGA	Oil & Gas Authority
OGUK	Oil & Gas UK
OSPAR	Oslo Paris (Convention Of The Protection Of The Marine Environment Of The north East Atlantic)
OVI	Offshore Vulnerability Index
PDi	Project Development International
PLANC	Permits, Licences, Authorisations, Notifications & Consents
PLEM	Pipe-Line End Manifold
PLM	Permanently Laid Mooring
PWA	Pipeline Works Authorisation
ROV	Remotely Operated Vehicle
rMCZ	recommended Marine Conservation Zone
SAC	Special Area of Conservation
SDM	Subsea Distribution Module
SEGAL	Shell Esso Gas And Liquids
SFF	Scottish Fishermen's Federation
SIMOPs	Simultaneous Operations
SLV	Single Lift Vessel
SPA	Special Protected Area
SSIV	Subsea Isolation Valve
SUT	Subsea Umbilical Termination
Те	Tonne
ТОР	Top of Pipe



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Abbreviation	Explanation
UKCS	United Kingdom Continental Shelf
UKOP	United Kingdom Official Publication

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1 EXECUTIVE SUMMARY

1.1 Combined Decommissioning Programmes

This document contains six decommissioning programmes, two for the Janice and James offshore installations and four covering the Janice, James and Affleck pipelines. A separate programme for each set of associated notices served under Section 29 of the Petroleum Act 1998 is provided herein.

Potential redevelopment options for the Affleck field are currently being considered, with temporary suspension of production. The Affleck pipelines will not be required for any redevelopment options and so are included within the combined decommissioning programmes herein. The Affleck installations however, may be required, and will be covered by a separate decommissioning programme at the end of field life.

	Table 1.1: Section 29 Notice Holders Summary				
Туре		Notice Holders			
1	lanice – Offshore Installations	Maersk Oil UK Limited (100%), Dyas UK Limited (0%),			
1	Janice – Onshore Installations	Premier Oil Exploration ONS Limited (0%), Ithaca SPL Limited (0%).			
2	Janice – Submarine Pipelines	Maersk Oil UK Limited (100%), Dyas UK Limited (0%), Premier Oil Exploration ONS Limited (0%), Ithaca SPL Limited (0%).			
3	Janice – Submarine Pipelines	Maersk Oil UK Limited (100%),			
4	4 James – Offshore Installations Maersk Oil UK Limited (100%), Premier Oil Exploration ONS Limited (0%), Ithaca SPL Limited (0%).				
5 James – Submarine Pipelines Maersk Oil UK Limited (100%), Premier Oil Exploration ONS Limited (0%), Ithaca SPL Limited (0%).		Dyas UK Limited (0%), Premier Oil Exploration ONS Limited (0%),			
6	Affleck – Submarine Pipelines	Maersk Oil UK Limited (66.67%), Repsol Sinopec North Sea Limited (33.33%)			

A summary of the Section 29 notices is shown in Table 1.1.

1.2 Requirement for Decommissioning Programmes

Installations:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Janice and James installations/fields (see Table 1.3 and Table 1.8) are applying to the Department for Business, Energy and Industrial Strategy (BEIS) to obtain approval for decommissioning the installations detailed in Sections 2.1.1 and 2.2.1 of this programme. (See also Section 8 - Partner Letter of Support).

Pipelines:

In accordance with the Petroleum Act 1998, the Section 29 notice holders of the Janice, James and Affleck pipelines (see Table 1.5, Table 1.10 & Table 1.14) are applying to BEIS to obtain approval for



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decommissioning the pipelines detailed in Sections 2.1.3, 2.2.3 and 2.3.3 of this programme. (See also Section 8 – Partner Letters of Support).

In conjunction with public, stakeholder and regulatory consultation, the decommissioning programmes are submitted in compliance with national and international regulations and DECC guidelines. The schedule outlined in this document is for a 6 year decommissioning project plan, where planning commenced in May 2016.

1.3 Introduction

Maersk Oil UK Limited (MOUK) requested Cessation of Production (COP) on the Janice 'A' Floating Production Unit (FPU) in May 2016. Agreement from the Oil and Gas Authority (OGA) to suspend production on the Janice and James fields was received in April 2016.

MOUK via an Exchange of Correspondence (EoC) with DECC (now BEIS) in May 2016, received approval to remove the Janice 'A' FPU which involves cutting the risers under the FPU and recovery of the mooring chains and anchors to shore. In addition approximately 60m of exposed section of pipeline PL1631 at the Southern Wye location will be cut and recovered (see Appendix D for EoC).

COP approval was received by OGA in July 2016.

The phasing of the decommissioning activities is as follows:

- Phase 1 Janice 'A' FPU Removal: Flushing and cleaning of pipeline facilities, disconnection of all lines from subsea trees, disconnection of the risers and mooring lines at the FPU allowing sail away at the earliest convenience.
- Phase 2 Wells Plug and Abandonment (P&A).
- Phase 3a Removal of subsea infrastructure within the Janice Drill Centre.
- Phase 3b Decommissioning of the remaining subsea infrastructure within the Janice, James and Affleck fields, in accordance with the approved Decommissioning Programme. This will be finalised with trawl sweeps and as-left surveys as required.

In preparation for the full decommissioning of Janice, James and Affleck, work will be completed by end of 2016 to remove certain items from the seabed. The work was planned and executed in agreement with BEIS (see Appendix E for EoC). The items removed during this phase will be:

- Janice 6" Production Risers (PL1656.7, PL1656.8, PL2432, PL2433, PL2434, PL2847, PL2848 & PL2849);
- Janice 10" Water Injection Riser (PL1657);
- Janice Umbilical Riser 'A' (PL1658.1; PL1658.11; PL1658.16; PL1658.17; PL1658.18; PL1658.19; PL1658.20; PL1658.21; PL1658.22; PL1658.23; PL1658.24; PL1658.26);
- Janice Umbilical Riser 'B' (PL1659.1; PL1659.9; PL1659.11; PL1659.17; PL1659.18; PL1659.19; PL1659.20; PL1659.21; PL1659.22; PL1659.23; PL1659.25; PL1659.26);
- Affleck Umbilical Riser (PLU2410).

As these items will have been removed from the above fields they do not form part of this submission; however, as the items were part of the Janice, James and Affleck developments they are part of the total inventory of the field and have been included in the overall inventory of material.



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1.3.1 Asset Overview

The Janice 'A' FPU is located approximately 278km (172 miles) east-southeast of Aberdeen in block 30/17a. It is connected to three subsea well clusters producing from the Janice and James fields in block 30/17a and Affleck field located in block 30/19a, and has been continuously on location since it was installed in 1998. The Janice field was brought online in 1998 with the James field being developed and produced since 2004. The most recent development tieback back to Janice was the Affleck field development (66.7% Maersk & 33.3% Repsol Sinopec) in 2009.

The Janice 'A' FPU itself is a converted H3.2 semi-submersible which supports the production, export and utility systems required to handle the well fluids. The vessel, formerly known as Port Royal was built in 1983 and purchased in 1997 as an existing offshore accommodation support vessel. The vessel is moored using 12 lines (3 per vessel corner) each line comprising of approx. 1500m of chain ending with a 15 Te Stevpris anchor.

1.3.2 Subsea Facilities

The Janice subsea system is based upon a cluster of subsea wells arranged in two groups equally spaced about the drilling centre. The Janice subsea well cluster currently consists of nine oil production wells and four water injection wells. The drilling centre is located 450m south east of Janice.



Figure 1.1: Expanded View of Janice Cluster

The James Field is produced via two subsea wells. The James well is connected to the Janice 'A' via a 5.5km flexible subsea flowline.

The Affleck Field subsea system comprises two producing wells, a four slot subsea manifold containing a production and test header and a multiphase meter. The manifold is connected to an 8in x 12in x 28.5km pipe-in-pipe pipeline via connecting and corrosion monitoring spools.



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Oil export is via a subsea pipeline which ties-in to the Southern Wye-Piece on the J-Block Spur of the Norpipe Ekofisk-Teeside oil pipeline. The Janice Oil Export Pipeline forms part of the Norpipe Oil Pipeline System.

Export of Janice Gas was originally via a subsea pipeline to the ConocoPhillips Judy platform however the Affleck project installed a new gas export flowline to enable the gas to be routed to the Clyde platform and onwards to SEGAL (Shell Esso Gas and Liquids) through a pre-existing tee on the Janice to Judy gas export pipeline

There are two subsea structures on the Janice export subsea system, comprising:

- Gas Export Subsea Isolation Valve (SSIV) skid located at bottom of Janice Riser.
- Oil Export SSIV Skid located at bottom of Janice Riser.

There are a number subsea structures on the Janice in-field subsea system, comprising:

- Eastern Mid-Water Arch (MWA) & clump weight located approx. 50m south of Janice FPU.
- Western MWA & clump weight located approx. 50m south of Janice FPU.
- P4 well cooling skid.
- 3 off subsea umbilical terminations (SUTs), plus 1 off SUT at James drill centre.
- Water Injection Manifold.

There is one subsea structure on the Affleck to Janice subsea system, comprising:

• Affleck SSIV skid located at bottom of Janice Riser.

The other installations and pipelines within the Affleck, Clyde and Judy 500m safety zones (Affleck production manifold, Clyde SSIV, Clyde Tee, Judy gas import SSIV and associated pipelines) will be decommissioned at the time of decommissioning of those installations and will be covered by their own Decommissioning Programmes.

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1.4 Janice Field – Decommissioning Overview

1.4.1 Janice Field - Installations

Table 1.2: Installations Being Decommissioned				
Field:	Janice	Production Type (Oil/Gas/Condensate)	Oil/Gas	
Water Depth (m)	80	UKCS block	30/17a	
Distance to median (km)	N/A	Distance from nearest UK coastline (km)	275	
Drill Cutting Piles	N/A	Number of Wells	13	
	Surface	Installations		
Number	Туре	Topsides Weight (Te)	Jacket Weight (Te)	
1	Semi submersible floating production unit	30600	N/A	
	Subsea Install	ations Janice Field		
ltem	Quantity	Total Length (m)	Total weight (Te)	
Structures	24	N/A	1,123	
Wells	13	N/A	435	
Wellhead Protection Structures	2	N/A	10	
FPU Mooring System	13 (including 1xPLM)	15,540	2,366	

Table 1.3: Installations Section 29 Notice Holders Details			
Section 29 Notice Holders	Registration Number	Equity Interest (%) If zero show 0%	
Maersk Oil UK Limited	00946986	100%	
Dyas UK Limited	04024945	0%	
Premier Oil Exploration ONS Limited	01241035	0%	
Ithaca SPL Limited	01275469	0%	



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1.4.2 Janice Field - Pipelines

Table 1.4: Pipelines Being Decommissioned		
Number of Pipelines	85	(See Table 2.3)

The Janice field has two (2) Section 29 Notices. These are described in Table 1.5 & Table 1.6.

Table 1.5: Pipelines Section 29 Notice Holders Details				
Section 29 Notice Holders	Registration Number	Equity Interest (%) If zero show 0%		
Maersk Oil UK Limited	00946986	100%		
Dyas UK Limited	04024945	0%		
Premier Oil Exploration ONS Limited	01241035	0%		
Ithaca SPL Limited	01275469	0%		

Table 1.6: Pipelines Section 29 Notice Holders Details			
Section 29 Notice HolderRegistration NumberEquity Interest (%)If zero show 0%			
Maersk Oil UK Limited	00946986	100%	

Note: Items within the Judy 500m zone, namely the Judy Gas Import SSIV, SSIV control umbilical, 12" gas export pipeline (PL1632) and associated tie-in spools & riser at Judy platform do not form part of this decommissioning programme and will be addressed at the time of the Judy field decommissioning.



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1.5 James Field – Decommissioning Overview

1.5.1 James Field – Installations

Table 1.7: Installation Being Decommissioned				
Field:	Field: James Production Type (Oil/Gas/Condensate) (Oil/Gas/Condensate) (Oil/Gas/Condensate)			
Water Depth (m)	80	UKCS block	30/17a	
Distance to median (km)	N/A		275	
Drill Cutting Piles	N/A	Number of Wells	2	
	Subsea Install	ations James Field		
Item	Quantity	Total Length (m)	Total weight (Te)	
Wellheads	2	N/A	77	
Wellhead Protection Structures	2	N/A	10	

Table 1.8: Installations Section 29 Notice Holders Details				
Section 29 Notice Holders	Registration Number	Equity Interest (%) If zero show 0%		
Maersk Oil UK Limited	00946986	100%		
Dyas UK Limited	04024945	0%		
Premier Oil Exploration ONS Limited	01241035	0%		
Ithaca SPL Limited	01275469	0%		

1.5.2 James Field – Pipelines

Table 1.9: Pipelines Being Decommissioned		
Number of Pipelines	13	(See Table 2.9)

Table 1.10: Pipelines Section 29 Notice Holders Details				
Section 29 Notice Holders	Equity Interest (%) If zero show 0%			
Maersk Oil UK Limited	00946986	100%		
Dyas UK Limited	04024945	0%		
Premier Oil Exploration ONS Limited	01241035	0%		
Ithaca SPL Limited	01275469	0%		

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1.6 Affleck Field – Decommissioning Overview

1.6.1 Affleck Field – Installations

Table 1.11: Installation Being Decommissioned					
Field:	Field: N/A Production Type (Oil/Gas/Condensate) (Oil/Gas/Condensate) (Oil/Gas/Condensate)				
Water Depth (m)	N/A	UKCS block	N/A		
Distance to median (km)	N/A Distance from nearest UK coastline (km)		N/A		
Drill Cutting Piles	N/A	Number of Wells	N/A		
	Subsea Installations Affleck Field				
Item	Total weight (Te)				
N/A	N/A	N/A	N/A		

Table 1.12: Installations Section 29 Notice Holders Details			
Section 29 Notice HoldersRegistration NumberEquity Interest (% If zero show 0%			
N/A	N/A	N/A	

1.6.2 Affleck Field – Pipelines

Table 1.13: Pipelines Being Decommissioned					
Number of Pipelines	2	(See Table 2.15)			

Table 1.14: Pipelines Section 29 Notice Holders Details								
Section 29 Notice Holders	Section 29 Notice Holders Registration Number							
Maersk Oil UK Limited	00946986	66.67%						
Repsol Sinopec North Sea Limited	01061863	33.33%						

Note: Items within the Clyde and Affleck 500m zones, namely the Clyde SSIV, Clyde Tee, Clyde flexible (PL2411), Clyde umbilical (PLU2412), Affleck manifold, Affleck corrosion spool, Affleck well tie-in spools & umbilical jumpers, do not form part of this decommissioning programme and will be addressed at the time of the Clyde and Affleck fields decommissioning.

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1.7 Summary of Proposed Decommissioning Programmes

	Table 1.15: Summary of Dec	ommissioning Programmes							
Selected Option	Reason for Selection	Proposed Decommissioning Solution							
1. Topsides									
N/A	N/A	N/A							
	2. Jacket(s)/Floating Facility (FPSO etc.)								
Floating Production Unit (FPU) to be removed	To remove the FPU from the field and all associated infrastructure 3. Subsea In								
All subsea installations will be completely removed from the fields.	To remove all seabed structures and leave a clear seabed. Removes potential obstruction to fishing operations and maximises recycling of materials.	Subsea installations including mooring anchors, mooring chains, risers, riser bases, mid-water arches, clumpweights/gravity bases, wellheads & combined wellhead protection structures, production & water injection manifolds, anode skids, tee structures will be disconnected or cut from associated pipelines and completely recovered to shore for reuse or recycling or final disposal.							
	4. Pipelines, Flow	lines & Umbilicals							
	Minimal seabed disturbance, reduced risk to personnel performing operation.	 The following pipelines (i.e. rigid pipelines, flexible flowlines and umbilicals) will be disconnected from their respective tie-in spools/control jumpers and are proposed to be decommissioned in-situ, with rock dump (estimated volume 15,253Te) to be placed over areas of exposure and trench transitions. PL1631 Oil Export Pipeline; PL1632 Gas Export Pipeline; PL2409 Affleck Production Pipeline; PLU2410 Affleck Control Umbilical. Surveys indicate that the pipelines and umbilicals will remain trenched/buried. Although PL1632 shows a DOL of less than the guideline value of 0.6m, the pipeline has been operating in this condition since installation in 1998 and surveys do not indicate any reduction in the DOL since installation. Rockdumping is only proposed for exposed areas and pipeline ends. Degradation will occur over a long period within the seabed sediment and is not expected to represent a hazard to other users of the sea. 							



	Table 1.15: Summary of Dec	commissioning Programmes
Selected Option	Reason for Selection	Proposed Decommissioning Solution
Complete removal of pipelines, flowlines, umbilicals	Leaves a clear seabed and removes a potential obstruction to fishing operations.	All remaining pipelines, flowlines, umbilicals and associated spools, jumpers, mattresses and grout with the exception of those listed above will be completely recovered to shore for reuse or recycling or final disposal. This covers all the products within the Janice field together with: • PL2057 James Production Flowline • PL2058 James Umbilical
Cut and recovery of pipeline section.	Removes liability and 3 rd party agreements for pipeline at Southern Wye.	Where Oil Export Pipeline (PL1631) transitions out of the trench at Southern Wye location it will be cut within the trench. Cut sections will be recovered and the seabed will be rectified to ensure no snagging hazards remain.
	5. W	/ells
Wells to be abandoned in accordance with Maersk Oil UK Standard and Oil & Gas UK guidelines for the abandonment of wells, Issue 5, July 2015.	Meets the BEIS and HSE regulatory requirements	Operations are subject to on-going engineering and as such, the finalised methods may differ from those described in this document. A final decision on the P&A campaign and schedule will be made following a commercial tendering process and will depend on the MODU market capacity and availability. The well P&A campaign is scheduled to take place from Q3 2016 through to 2018. All appropriate permits and consents under the relevant regulations will be submitted in support of works carried out via the BEIS PETS online Portal, to the HSE and the BEIS Offshore Inspectorate as required.
	6. Drill (Cuttings
Leave in place to degrade naturally	Cuttings pile is within the acceptable thresholds of the Stage 1 screening process as set out in OSPAR Recommendation 2006/5.	Drill cuttings will be left in place on seabed. Studies concluded that for Janice the oil loss and persistence values are below the thresholds stipulated in the OSPAR Recommendation 2006/5 and so no further action is necessary for the management of the cuttings piles at Janice. James and Affleck wells were drilled after 1st January 2001 at which time no discharge of Oil Based Mud (OBM) contaminated cuttings has taken place in any fields operated by Maersk.
	7. Interdep	pendencies
	No	ne.



Title: Janice, James and Affleck - Decommissioning Programmes

1.8 Field Location Including Field Layout and Adjacent Facilities



Figure 1.2: Field Location in UKCS.



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Figure 1.3: Janice Subsea Assets Field Layout (JAN-JA107-SU-LA-0002).



Figure 1.4: Janice Decommissioning Boundary Limits showing adjacent facilities.

Note: Adjacent facilities refer to those potentially impacted by this programme



Table 1.16: Adjacent Facilities							
Owner	Name	Туре	Distance/ Direction	Information	Status		
Platforms				1			
Repsol Sinopec	Clyde	Platform	6.5km North - North East from Janice FPU.	Host for Janice Gas Export via Clyde Tee & Clyde SSIV.	Operational		
Repsol Sinopec	Fulmar	Platform	12km North - North West from Janice FPU.	Host for Fulmar Oil Export Pipeline to Norpipe via Southern Wye.	Operational		
ConocoPhillips	Judy	Platform	34km North - North East from Janice FPU.	Host for Janice Gas Export via Judy SSIV.	Operational		
Subsea Structur	es						
ConocoPhillips	Southern Wye	Structure	15km North East from Janice FPU.	Transfer of Janice Oil Export (PL1631) into Norpipe Oil Export Pipeline.	Operational		
Subsea Pipeline	s			·			
	PL1688 Orion Production	Pipeline		Orion lines (x3) cross over the	Operational		
Repsol Sinopec	PL1689.1 – PL1689.6 Orion Umbilical	Umbilical	Approx. 15.5km (from Clyde Platform to Orion Wells)	Janice Oil Export Pipeline (PL1631) and Janice Gas Export Pipeline (PL1632) at approximately KP6.6 (from Janice	Operational		
	Orion Power	Power Cable		SSIV end).	Operational		
Repsol Sinopec	Fulmar Oil Export	Pipeline	Approx. 14.7km (from Fulmar Platform to Southern Wye)	Fulmar Oil Export line is crossed by the Janice Gas Export Pipeline (PL1632) at approximately KP14 (from Janice SSIV end).	Operational		
ConocoPhillips	Norpipe Oil Export	Pipeline	From Southern Wye to Norpipe Spur	Norpipe Oil Export Pipeline is crossed by the Affleck Production Pipeline (PL2409) and Control Umbilical (PLU2410) at approximately KP17.2 (from Affleck Manifold)	Operational		
Tampnet	BU-1 Fibre Optic Cable	Communica tions Cable	From Clyde to Valhall	Communication Cable crosses over the Janice Oil Export Pipeline (PL1631) and Janice Gas Export Pipeline (PL1632) at approximately KP6.9 (from Janice SSIV end).	Operational		



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Table 1.16: Adjacent Facilities							
Owner	Name	Туре	Distance/ Direction	Information	Status		
Maarek Oil	PL3189 Production	Pipeline	From Clyde to				
Maersk Oli	Лaersk Oil PLU3190 Umbilical	Umbilical	Development app	Export Pipeline (PL1632) at approximately KP7.2 (from Janice SSIV end). Flyndre/Cawdor lines will be rock-dumped.	Ongoing Development		
Impacts of Decommissioning Proposals							
Pipeline crossings at Orion, Fulmar and Norpipe are adequately rock dumped and support the decision to decommission the Oil export, Gas export and Affleck production pipelines as well as the Affleck umbilical in situ.							

1.9 Industrial Implications

In planning and preparing for the decommissioning of the Janice, James and Affleck fields, MOUK as the operator of the fields and on behalf of the Section 29 notice holders has undertaken a contract/procurement and communication strategy as follows:

- The required decommissioning activities will be largely completed from a diving support vessel (DSV), a construction support vessel (CSV) and anchor handling tugs (AHT's) while the well plug and abandonment (P&A) will be performed using a semi-submersible or jack-up rig.
- MOUK have engaged with representatives from BEIS, statutory consultees and associations, inviting those who expressed an interest in attending to the main stakeholder engagement decommissioning options Comparative Assessment (CA) review held on 11th November 2015 at MOUK premises.
- In addition there have been specific stakeholder engagement sessions relating to the decommissioning of the facilities covered under this decommissioning programme. A summary of the stakeholder engagement process and comments are included in Table 5.1.
- First Point Assessment Limited (FPAL) remains the primary source of establishing tender lines for contract/purchases in advance of the invitation to tender (ITT) process.
- With regard to waste management, MOUK intend to ensure that any waste management contractor engaged for these decommissioning activities are competent and meet any regulatory or internal MOUK requirements. The anticipated percentage of recyclable materials is highlighted in Section 3.8.

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2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

2.1 Janice Field

2.1.1 Janice Field Installations: Surface Facilities (FPU)

	Table 2.1: Surface Facilities Information								
				Topsides/Facilities		Jacket (if applicable)			
Name	Facility Type	Location		Weight (Te)	No of Modules	Weight (Te)	Number of Legs	Number of Piles	Weight of Piles (Te)
	Semi- Submersible	WGS84 Decimal	56.397931° 2.250058°						
Janice	Floating Production Unit (FPU)	WGS84 Decimal Minute	56° 23.876′ N 02° 15.004′ E	30,600	n/a	n/a	n/a	n/a	n/a



Figure 2.1: Photograph of Janice 'A' FPU



2.1.2	Janice Field Installations: Subsea including Stabilisation Features
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	۱	able 2.2: Subsea Installa	tions and Stabilisatio	on Features	
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status	
		P1 3.81 x 3.12 x 2.92m 32.5Te P2 3.81 x 3.12 x 2.92m 32.5Te P3	WGS84 Decimal WGS84 Decimal Minute WGS84 Decimal WGS84 Decimal Minute WGS84	56.394731° 2.255378° 56° 23.683' N 02° 15.323' E 56.394828° 2.255208° 56° 23.670' N 02° 15.312' E 56.394836°	
		3.81 x 3.12 x 2.92m 32.5Te	Decimal WGS84 Decimal Minute	2.255122° 56° 23.690' N 02° 15.307' E	
		P4 3.81 x 3.12 x 2.92m 32.5Te	WGS84 Decimal WGS84 Decimal Minute	56.394939° 2.254997° 56° 23.696′ N 02° 15.300′ E	
Wellheads	13	P5 3.81 x 3.12 x 2.92m 32.5Te P6 3.81 x 3.12 x 2.92m 32.5Te P9 3.81 x 3.12 x 2.92m 32.5Te	WGS84 Decimal WGS84 Decimal Minute	56.395033° 2.254814° 56° 23.702' N 02° 15.289' E	Wellheads are mounted on
			WGS84 Decimal WGS84 Decimal Minute	56.395383° 2.255378° 56° 23.723' N 02° 15.323' E	conductors
			WGS84 Decimal WGS84 Decimal Minute	56.395172° 2.255747° 56° 23.710′ N 02° 15.345′ E	
	P10 4.00 x 4.00 x 3.90m 38.6Te	WGS84 Decimal WGS84 Decimal Minute	56.394761° 2.255583° 56° 23.686′ N 02° 15.335′ E		
		P12 4.00 x 4.00 x 3.90m 38.6Te	WGS84 Decimal WGS84 Decimal Minute	56.394575° 2.255661° 56° 23.675′ N 02° 15.340′ E	
		W3 3.81 x 3.12 x 2.92m	WGS84 Decimal	56.395075° 2.255908°	



		able 2.2: Subsea Installa		on reatures	
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status	
		32.6Te	WGS84	56° 23.705′ N	
			Decimal Minute	02° 15.355′ E	
		W4	WGS84	56.394981°	
		3.81 x 3.12 x 2.92m	Decimal	2.256069°	
		32.6Te	WGS84	56° 23.699′ N	
			Decimal Minute	02° 15.364' E	
		W5	WGS84	56.394872°	
		3.81 x 3.12 x 2.92m	Decimal	2.2552°	
		32.6Te	WGS84	56° 23.692' N	
			Decimal Minute	02° 15.312' E	
		W7	WGS84	56.395292°	
		3.81 x 3.12 x 2.92m	Decimal	2.255603°	
		32.5Te	WGS84	56° 23.7180' N	
			Decimal Minute	02° 15.336' E	
		P10 7.9 x 7.9 x 2.5m 5Te 2	WGS84 Decimal	56.394761° 2.255583°	
			WGS84	2.255583 56° 23.686' N	
Wellhead Protection			Decimal Minute	02° 15.335' E	Integral to
Structures	2		WGS84	56.394575°	Wellheads
(P10 & P12)		P12	Decimal	2.255661°	weinieaus
(F10&F12)		7.9 x 7.9 x 2.5m	WGS84	56° 23.675' N	-
		5Te	Decimal Minute	02° 15.340' E	
			WGS84	56.408411°	
		Anchor #1	Decimal	2.246653°	
		6.36 x 6.86 x 3.90m	WGS84	56° 24.505' N	
		15Te	Decimal Minute	02° 14.799' E	
			WGS84	56.408667°	
		Anchor #2	Decimal	2.250108°	
		6.36 x 6.86 x 3.90m	WGS84	56° 24.520′ N	
		15Te	Decimal Minute	02° 15.007′ E	
FPU Mooring	12	A 1 // 2	WGS84	56.408522°	Drag Anchors
Anchors	12	Anchor #3	Decimal	2.251769°	(Stevpris Mk5)
		6.36 x 6.86 x 3.90m	WGS84	56° 24.511′ N	1
		15Te	Decimal Minute	02° 15.106' E	
		Anchor #4	WGS84	56.399739°	
		Anchor #4 6.36 x 6.86 x 3.90m	Decimal	2.268972°	
		6.36 x 6.86 x 3.90m 15Te	WGS84	56° 23.984' N	
		1216	Decimal Minute	02° 16.138' E	
		Anchor #5	WGS84	56.397931°	
	1	6.36 x 6.86 x 3.90m	Decimal	2.269°	



Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status		
		15Te	WGS84	56° 23.876′ N		
			Decimal Minute	02° 16.140' E		
		Anchor #6	WGS84	56.396783°		
		6.36 x 6.86 x 3.90m	Decimal	2.269319°		
		15Te	WGS84	56° 23.807′ N		
		1576	Decimal Minute	02° 16.159' E		
		Anchor #7	WGS84	56.387636°		
		6.36 x 6.86 x 3.90m	Decimal	2.251956°		
		15Te	WGS84	56° 23.258′ N		
		1316	Decimal Minute	02° 15.117′ E		
		Anchor #8	WGS84	56.387369°		
		6.36 x 6.86 x 3.90m	Decimal	2.250053°		
		15Te	WGS84	56° 23.242′ N		
		1516	Decimal Minute	02° 15.003' E		
		Anchor #9	WGS84	56.387656°		
		6.36 x 6.86 x 3.90m	Decimal	2.246689°		
		15Te	WGS84	56° 23.259′ N		
		1516	Decimal Minute	02° 14.801' E		
		Anchor #10	WGS84	56.396036°		
		Anchor #10 6.36 x 6.86 x 3.90m	Decimal	2.230078°		
			WGS84	56° 23. 762′ N		
		15Te	Decimal Minute	02° 13.805' E		
		Anchor #11	WGS84	56.397872°		
		Anchor #11 6.36 x 6.86 x 3.90m	Decimal	2.230658°		
		0.30 x 0.80 x 3.90m 15Te	WGS84	56° 23.872′ N		
		TOLE	Decimal Minute	02°13.840' E		
		Anchor #12	WGS84	56.399875°		
		6.36 x 6.86 x 3.90m	Decimal	2.231003°		
		0.30 x 0.80 x 3.90m 15Te	WGS84	56° 23.993′ N		
		1716	Decimal Minute	02° 13.860' E		
		Length – 1,285m	From each anchor	location – approx.		
nchor Chains	12	(each)	200m of 84mm s	tudless chain and	Connected to	
chemor entities	12	Weight – 2,156Te	1085m of 76mm	studded chain to	anchors	
		(180Te each)	Janice '	A' FPU.		
Permanently		PLMA #1	WGS84	56.414225°		
Laid Mooring	1	6.36 x 6.86 x 3.90m	Decimal	2.258267°	Drag Anchor (Stevpris Mk5)	
PLM) Anchor		15Te	WGS84	56° 24.854′ N		
		1010	Decimal Minute	02° 15.496' E		
		Length – Approx.	Approx. 120m of 76	Smm studded chain	Connected to	
PLM Chain	1	120m		nice 'A' 500m zone.	PLMA	



	Т	able 2.2: Subsea Installa	ations and Stabilisation	on Features	
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status	
Subsea Isolation Valves (SSIV's)	2	Oil Export SSIV 5.3 x 4.3 x 3.3m 12.5Te	WGS84 Decimal WGS84 Decimal Minute WGS84	56.39885° 2.252397° 56° 23.931' N 02° 15.144' E 56.399006°	Each structure is secured to the seabed with two
		Gas Export SSIV 10.1 x 4 x 3.1m 27Te	Decimal WGS84 Decimal Minute	2.252108° 56° 23.940′ N 02° 15.127′ E	steel piles.
Water Injection Manifold	1	5 x 3.5 x 3m 30Te	WGS84 Decimal WGS84 Decimal Minute	56.395247° 2.256044° 56° 23.715′ N 02° 15.363′ E	Gravity base structure
		Anode Skid Type 1 3.5 x 1.8 x 1m 8.4Te	WGS84 Decimal WGS84 Decimal Minute	56.3952° 2.25517° 56° 23.7118′ N 02° 15.3103′ E	
	3. 		Anode Skid Type 1 3.5 x 1.8 x 1m 8.4Te	WGS84 Decimal WGS84 Decimal Minute	56.3949° 2.25532° 56° 23.6958′ N 02° 15.3195′ E
Anode Skids		Anode Skid Type 1 3.5 x 1.8 x 1m 8.4Te	WGS84 Decimal WGS84 Decimal Minute	56.3952° 2.25608° 56° 23.7119′ N 02° 15.3646′ E	Gravity base structures
		Anode Skid Type 3 3.5 x 2.65 x 1m 11.8Te Anode Skid Type 5 2.2 x 1.8 x 0.7m 3.5Te	WGS84 Decimal WGS84 Decimal Minute	56.3954° 2.25529° 56° 23.7242′ N 02° 15.3177′ E	
			WGS84 Decimal WGS84 Decimal Minute	56.39556° 2.25557° 56° 23.7334′ N 02° 15.3345′ E	
Lateral Restraint	6	PF-9 LRS 4.6 x 4.6 x 1.2m 19.4Te	WGS84 Decimal WGS84 Decimal Minute	56.396614° 2.252131° 56° 23.797′ N 02° 15.128′ E	Gravity base
Structures (LRS's)	o	PF-10 LRS 4.6 x 4.6 x 1.2m 19.4Te	WGS84 Decimal WGS84 Decimal Minute	56.396681° 2.252236° 56° 23.801′ N 02° 15.134′ E	structures



	Т	able 2.2: Subsea Installa	ations and Stabilisatio	on Features	
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status	
		PF-11 LRS 4.6 x 4.6 x 1.2m 19.4Te	WGS84 Decimal WGS84 Decimal Minute WGS84	56.396753° 2.252275° 56° 23.805′ N 02° 15.137′ E 56.396836°	
		PF-12 LRS 4.6 x 4.6 x 1.2m 19.4Te	Decimal WGS84 Decimal Minute	2.252525° 56° 23.810' N 02° 15.152' E	
		PF-13 LRS 4.6 x 4.6 x 1.2m 19.4Te	WGS84 Decimal WGS84 Decimal Minute	56.396514° 2.251956° 56° 23.781′ N 02° 15.117′ E	
		PF-14 LRS 4.6 x 4.6 x 1.2m 19.4Te	WGS84 Decimal WGS84 Decimal Minute	56.396897° 2.252642° 56° 23.814' N 02° 15.159' E	
Mid Water Arches (MWA's)	2	East MWA 11.4 x 9.3 x 6m 73.3Te West MWA 12.1 x 9.3 x 6m 75.2Te	WGS84 Decimal WGS84 Decimal Minute WGS84 Decimal WGS84	56.397378° 2.251564° 56° 23.843' N 02° 15.094' E 56.397106° 2.251086° 56° 23.826' N	Tethered to Clump Weights (listed below)
		East MWA Clump Weight 19.1 x 4.5 x 3m 272Te West MWA Clump Weight	Decimal Minute WGS84 Decimal WGS84 Decimal Minute WGS84 Decimal	02° 15.065' E 56.397378° 2.251564° 56° 23.843' N 02° 15.094' E 56.397106° 2.251086°	Gravity base structures made up of 1x base frame and 2x
Clump Weights	4	19.1 x 4.5 x 3m 277Te Oil Export Riser Clump Weight 6.2 x 2.5 x 1m 52Te	WGS84 Decimal Minute WGS84 Decimal WGS84 Decimal Minute	56° 23.826′ N 02° 15.065′ E 56.398483° 2.251725° 56° 23.909′ N 02° 15.104′ E	clump weights. Gravity base
		Gas Export Riser Clump Weight 6.2 x 2.5 x 1m 52Te	WGS84 Decimal WGS84 Decimal Minute	02 13.104 E 56.398578° 2.251561° 56° 23.915′ N 02° 15.094′ E	structures



Table 2.2: Subsea Installations and Stabilisation Features											
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Comments/ Status							
			WGS84	56.394°							
D4 Cooling Skid	1	7.4 x 5.5 x 1.64m	Decimal	2.253°	Gravity base						
P4 Cooling Skid	Ŧ	40Te	WGS84	56° 23.655′ N	structure						
			Decimal Minute	02° 15.200′ E							
		SDM A	WGS84	56.395164°	Mounted on						
		1.2 x 1 x 1m	Decimal	2.2553°	Subsea Umbilical						
		1.2 X 1 X 111 <1Te	WGS84	56° 23.710′ N	Termination A						
		<11e	Decimal Minute	02° 15.318′ E	(SUT A).						
Subsea		SDM C	WGS84	56.394975°							
Distribution	3	1.2 x 1 x 1m	Decimal	2.255386°	Gravity base						
Modules	5	1.2 X 1 X 1m <1Te	WGS84	56° 23.699′ N	structure						
(SDM's)		<11e	Decimal Minute	02° 15.323′ E							
			WGS84	56.395161°							
		SDM D 1.2 x 1 x 1m	Decimal	2.255236°	Gravity base						
		1.2 X 1 X 1m <1Te	WGS84	56° 23.710′ N	structure						
		< <u></u>	Decimal Minute	02° 15.314' E							



Title: Janice, James and Affleck - Decommissioning Programmes

2.1.3 Janice Field: Pipelines Including Stabilisation Features

Table 2.3: Pipeline/Flowline/Umbilical Information												
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content			
Oil Export Riser		13	0.22	Flexible		Janice 'A' FPU to Janice Oil Export SSIV – Disconnected at SSIV	Surface laid					
Oil Export SSIV Tie-in Spool	PL1631	14	0.06	Steel	Oil	Janice Oil Export SSIV to Oil Export Pipeline	Surface laid	Out of use	Flushed			
Oil Export Pipeline	PLI631	14	16.19	Steel (with corrosion coating 3LPP)	UI	Oil Export SSIV Tie-in Spool to Southern Wye Tie-in Spool	Trenched & Buried	Out of use	Flushed			
Southern Wye Tie-in Spool		14	0.062	Steel		Oil Export Pipeline to Southern Wye – Disconnected	Surface laid					
Gas Export Riser		10	0.20	0 Flexible	Janice 'A' FPU to Janice Gas Export SSIV	Surface laid						
Janice Gas export SSIV Tie-in Spool	PL1632	12	0.05	Steel	Gas	Janice Gas Export SSIV to Gas Export Pipeline	Surface laid	Out of use	Flushed			
Gas Export Pipeline		12	35.91	Steel (with FBE +5mm Polyethylene)		Janice Gas Export SSIV Tie-in Spool to Judy Gas Import SSIV Tie-in Spool	Open trench & natural backfill					
6" Production Riser PF1	PL1656.1	6	0.6	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed			
6" Production Riser PF2	PL1656.2	6	0.58	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed			
6" Production Jumper	PL1656.2JP9	6	0.1	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed			
6" Production Riser PF3	PL1656.3	6	0.57	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed			
6" Production Jumper	PL1656.3JP7	6	0.1	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed			



	Table 2.3: Pipeline/Flowline/Umbilical Information												
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content				
6" Production Jumper	PL1656.3JP10	6	0.1	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed				
6" Production Riser PF4	PL1656.4	6	0.55	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed				
6" Production Jumper	PL1656.4JP1	6	0.055	Flexible	Oil	P5 Co-mingling Spool to P3 DD Spool	Surface laid	Out of use	Flushed				
P3 DD Spool	-	6	0.001	Steel		6" production jumper to P3 Tree							
6" Production Riser PF5	PL1656.5	6	0.53	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed				
6" Production Jumper (P4/P10)	PL1656.5JP2	6	0.0085	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed				
6" Production Riser PF6	PL1656.6	6	0.54	Flexible	Oil	Disconnected and in Janice wet store area.	Surface laid	Out of use	Flushed				
7" Water Injection Jumper (P6)	PL1657.1	7	0.065	Flexible		Disconnected and in Janice wet store area.	Surface laid	Out of use	Water				
7" Water Injection Jumper (W5)	PL1657.2	7	0.091	Flexible		Water Injection Manifold to W5 Tree	Surface laid	Out of use	Water				
7" Water Injection Jumper (W3)	PL1657.3	7	0.021	Flexible]	Water Injection Manifold to W3 Tree	Surface laid	Out of use	Water				
7" Water Injection Jumper (W4)	PL1657.4	7	0.036	Flexible]	Water Injection Manifold to W4 Tree	Surface laid	Out of use	Water				
7" Water Injection Jumper (W7)	PL1657.5	7	0.085	Flexible		Disconnected from W7 & wet-stored	Surface laid	Out of use	Water				



	Table 2.3: Pipeline/Flowline/Umbilical Information												
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content				
Methanol Jumper Gas Lift Jumper Gas Lift Jumper	PL1658.4 PL1658.7 PL1658.9	<2	0.05	Control Jumper	Chemicals/ Gas	SUT A to SUT D	Surface laid	Out of use	Chemicals				
Methanol Line Gas Lift Line (original) ¹ Chemical Line	PL1658.2 PL1658.5 PL1658.13	<2	0.05	Control Jumper	Chemicals/ Gas	SUT A to P4 Tree	Surface laid	Out of use	Chemicals				
Gas Lift Line (addition)	PL1658.5	<2	0.1	Control Jumper	Gas	P4 Tree to P10 Tree	Surface laid	Out of use	Gas				
Methanol Line Gas Lift Line Chemical Line	PL1658.3 PL1658.6 PL1658.14	<2	0.05	Control Jumper	Chemicals/ Gas	SUT A to P5 Tree	Surface laid	Out of use	Chemicals				
Methanol Line Gas Lift Line Chemical Line	PL1658.25 PL1658.8 PL1658.15	<2	0.05	Control Jumper	Chemicals/ Gas	Disconnected from P6 and wet- stored	Surface laid	Out of Use	Chemicals				
CI Jumper	PL1658.10	<2	0.05	Control Jumper	Chemicals	SUT A to W5 Tree	Surface laid	Out of use	Chemicals				
CI Jumper	PL1658.12	<2	0.06	Control Jumper	Chemicals	SUTB to W3 Tree	Surface laid	Out of use	Chemicals				
Methanol Line Gas Lift Line Chemical Line	PL1659.2 PL1659.5 PL1659.13	<2	0.05	Control Jumper	Chemicals/ Gas	SUT B to P1 Tree	Surface laid	Out of use	Chemicals				

¹ PL1658.5 has been included twice as it covers both the original Gas Lift core which served well P4 and was authorised under 33/W/98, plus an additional 100m of gas lift jumper was added to this line when this PL was modified to supply gas lift to well P10 and was consented under 95/V/15.



Table 2.3: Pipeline/Flowline/Umbilical Information											
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content		
Methanol Line Gas Lift Line Chemical Line	PL1659.3 PL1659.6 PL1659.14	<2	0.05	Control Jumper	Chemicals/ Gas	SUT B to P2 Tree	Surface laid	Out of use	Chemicals		
Methanol Line	PL1659.4	<2	0.05	Control Jumper	Chemicals	SUT B to P10 Tree	Surface laid	Out of use	Chemicals		
Gas Lift Line	PL1659.7	<2	0.6	Control Jumper	Gas	ESDV via SUT B to P7 Tree	Surface laid	Out of use	Flushed		
Gas Lift Line Methanol Line Chemical Line	PL1659.8 PL1659.24 PL1659.16	<2	0.05	Control Jumper	Chemicals/ Gas	SUT B to P3 Tree	Surface laid	Out of use	Chemicals		
Cl Jumper	PL1659.10	<2	0.05	Control Jumper	Chemicals	SUT B to W4 Tree	Surface laid	Out of use	Chemicals		
Cl Jumper	PL1659.12	<2	0.05	Control Jumper	Chemicals	SUT B to W3 Tree	Surface laid	Out of use	Chemicals		
Chemical Line	PL1659.15	<2	0.6	Control Jumper	Chemicals	Chemical injection package via SUT B to P7 Tree	Surface laid	Out of use	Chemicals		
Methanol Line Gas Lift Line Chemical Line	PL1659JP7	<2	0.05	Control Jumper	Chemicals/ Gas	SUT B to P3 Tree	Surface laid	Out of Use	Chemicals		
Methanol/CI Jumper	PLU2213	<2	0.045	Control Jumper	Chemicals	SUT B to P10 Tree	Surface laid	Out of use	Chemicals		
Control & Cl Jumper	PLU2214	<2	0.06	Control Jumper	Chemicals	Disconnected from P9 and wet- stored	Surface laid	Out of use	Chemicals		
Hydraulic Jumper	PLU2227	<2	0.06	Control Jumper	Chemicals	SUT B to W7 Tree	Surface laid	Out of use	Chemicals		
P6 DD Spool	PL2434	6	0.003	Steel	Oil	P6 Tree to seabed (blind flange & DB&B fitted)	Surface laid	Out of use	Flushed		
6" Production Jumper	PL2672	6	0.85	Flexible	Oil	P10 Co-mingling Spool to P4 Cooling Skid	Surface laid	Out of Use	Flushed		



Table 2.3: Pipeline/Flowline/Umbilical Information											
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content		
P4 Cooling Loop Tie- in Spool		6	0.01	Steel		P4 Cooling Skid to P4 DD Spool					
P4 DD Spool		6	0.002	Steel		P4 Cooling Loop Tie-in Spool to P4 Tree					
P12 6" Production Jumper	PL2847	6	0.08	Flexible	Oil	Riser PF9 to P12 DD Spool	Surface laid	Out of Use	Flushed		
Electrical Jumper	PLU2866	<2	0.045	Control Jumper	Electricity	SDM D to P6 Tree	Surface laid	Out of use	n/a		
Hydraulic/CI/GL Jumper	PLU2867	<2	0.06	Control Jumper	Chemicals	SUT A to P6 Tree	Surface laid	Out of use	Chemicals		
Electrical Jumper	PLU2868	<2	0.08	Control Jumper	Electricity	SDM D to W4 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2869	<2	0.1	Control Jumper	Electricity	SDM A to P10 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2870	<2	0.085	Control Jumper	Electricity	SDM C to P12 Tree	Surface laid	Out of use	n/a		
Hydraulic/GL Jumper	PLU2871	<2	0.085	Control Jumper	Chemicals/ Gas	SDM C to P12 Tree	Surface laid	Out of use	Chemicals		
Cl Jumper (new)	PLU2871JP12	<2	0.1	Control Jumper	Chemicals	SUT B to P12 Tree	Surface laid	Out of use	Chemicals		
CI Jumper (replaced)	PLU2871JP12 A	<2	0.1	Control Jumper	Chemicals	Disconnected from P12 and wet- stored	Surface laid	Out of use	Chemicals		
Gas Export SSIV Control Umbilical	PLU2872	1.85	0.55	Umbilical	Chemicals	SUT A & SDM D to Gas Export SSIV	Surface laid	Out of use	Chemicals		
Electrical Jumper	PLU2873	<2	0.06	Control Jumper	Electricity	SDM D to W7 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2874	<2	0.038	Control Jumper	Electricity	SDM C to P4 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2875	<2	0.045	Control Jumper	Electricity	SDM C to P3 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2876	<2	0.041	Control Jumper	Electricity	SDM C to W3 Tree	Surface laid	Out of use	n/a		



Table 2.3: Pipeline/Flowline/Umbilical Information											
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content		
Electrical Jumper	PLU2877	<2	0.036	Control Jumper	Electricity	SDM C to P1 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2879	<2	0.025	Control Jumper	Electricity	SDM C to P2 Tree	Surface laid	Out of use	n/a		
Electrical Jumper	PLU2880	<2	0.06	Control Jumper	Electricity	SDM A to W5 Tree	Surface laid	Out of use	n/a		
Choke Position Indicator	PLU2881	<2	0.06	Control Jumper	Chemicals	SDM C to P5 Tree	Surface laid	Out of use	Chemicals		
Electrical Jumper	PLU2882	<2	0.04	Control Jumper	Electricity	SDM D to P5 Tree	Surface laid	Out of use	n/a		
Power Jumper E1 Power Jumper E2	PLU2883	<2	0.08	Control Jumper	Electricity	SDM C to SDM D	Surface laid	Out of use	n/a		
Power Jumper E1 Power Jumper E2	PLU2884	<2	0.05	Control Jumper	Electricity	SUT B to SDM C	Surface laid	Out of Use	n/a		
Electrical Jumper	PLU2885	<2	0.05	Control Jumper	Electricity	SDM C to SDM D	Surface laid	Out of Use	n/a		
Choke Position Indicator	PLU2886	<2	0.07	Control Jumper	Chemicals	SDM C to P10 Tree	Surface laid	Out of Use	Chemicals		
Electrical Jumper Bundle	No PL	<2	0.07	Control Jumper	Electricity	SUT A to SUT D	Surface laid	Out of Use	n/a		
Electrical Jumper Bundle	No PL	<2	0.06	Control Jumper	Electricity	SUT A to SDM C	Surface laid	Out of Use	n/a		
Choke Control Jumper	No PL	<2	0.05	Control Jumper	Chemicals	SDM A to P5 Choke	Surface laid	Out of Use	Chemicals		
Electrical Jumper	No PL	<2	0.03	Control Jumper	Electricity	Disconnected from P6 and wet- stored	Surface laid	Out of Use	n/a		
Choke Control Jumper	No PL	<2	0.06	Control Jumper	Chemicals	Disconnected from P9 and wet- stored	Surface laid	Out of Use	Chemicals		
Tree Sensor Jumper	No PL	<2	0.055	Control Jumper	Chemicals	SDM A to P9 Tree	Surface laid	Out of Use	Chemicals		


	Table 2.3: Pipeline/Flowline/Umbilical Information									
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	Burial Status		Pipeline Status	Current Content	
Choke Control Jumper	No PL	<2	0.07	Control Jumper	Chemicals	Chemicals SUT B to P10 Choke		Out of Use	Chemicals	
Electrical Jumper	No PL	<2	0.06	Control Jumper	Electricity	SDM C to P10 Tree	Surface laid	Out of Use	n/a	
Electrical Jumper	No PL	<2	0.053	Control Jumper	Electricity	Disconnected from W3 and wet- stored	Surface laid	Out of Use	n/a	



		Table 2.4: Janice S	Subsea Pipeline Stabilisation Features	
Stabilisation Feature Total Number		Weight (Te)	Locations	Exposed/Buried/Condition
Concrete mattresses (75 in total)	approx. 48	550	Janice FPU and Drill Centre 500mz	x47 exposed on seabed. x8 partially buried under seabed sediment on pipelines PL1631 and PL1632 close to Janice Oil and Gas Export SSIV's.
	approx. 27	135	Protection for Oil Export Pipeline (PL1631) approach to Southern Wye	x24 exposed on seabed. X3 partially buried under seabed sediment.
Grout bags (135Te total)	approx. 110 x 1Te gabions and 200 x 25kg bags	115	Support for Oil Export Pipeline (PL1631) tie-in spool to Southern Wye	Underneath pipeline to support tie-in spool approach to Southern Wye. Will be exposed following spool removal.
	approx. 20 x 1Te	20	Janice Drill Centre	Exposed (assumed)
Rock Dump	190m	3347	3 locations on the Gas Export Pipeline (PL1632)	Good condition.
Concrete Support (for pipeline crossing)	4	48	Gas Export Pipeline (PL1632) crossing over Fulmar Pipelines	100% burial under rock dump. Rock dump in good condition.

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2.1.4 Janice Wells

	Table 2.5: Wel	l Information	
Platform Wells	Designation	Status	Category of Well
N/A	N/A	N/A	N/A
Subsea Wells Drilling ID (Well ID)	Designation	Status	Category of Well
30/17a-J2Y (P1)	Oil Production	Live*	SS-3-3-3
30/17a-J3Y (P2)	Oil Production	Live*	SS-3-3-3
30/17a-J3 (P3)	Oil Production	Live*	SS-3-3-3
30/17a-J1 (P4)	Oil Production	Live*	SS-3-3-3
30/17a-J9Y (P5)	Oil Production	Live*	SS-3-3-3
30/17a-J6 (P6)	Oil Production	Live*	SS-3-3-3
30/17a-J12 (P9)	Oil Production	Live*	SS-3-3-3
30/17a-J13 (P10)	Oil Production	Live*	SS-3-3-3
30/17a-J14z (P12)	Oil Production	Live*	SS-3-3-3
30/17a-J8 (W3)	Water Injection	Live*	SS-3-3-3
30/17a-J5 (W4)	Water Injection	Live*	SS-3-3-3
30/17a-J10 (W5)	Water Injection	Live*	SS-3-3-3
30/17a-J11 (W7)	Water Injection	Live*	SS-3-3-3

* Hydraulics, chemicals & pipeline disconnected from tree and blind flange installed.

For details of well categorisation see OGUK Guidelines for Abandonment of Wells, Issue 5, July 2015.

2.1.5 Janice Drill Cuttings

(See Section 3.7 for further information)

Table 2.6: Drill Cuttings Pile Information						
Location of Pile Centre (Latitude/Longitude)	Seabed Area (m ²)	Estimated volume of cuttings (m ³)				
56° 23.706' 02° 15.316'	3,900	2,975				

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2.1.6 Janice Inventory Estimates

Figure 2.2 shows the inventory for the Janice 'A' FPU, moorings and subsea installations. Steel comprises the majority (~90%) of the material, the largest proportion being attributed to the FPU and its moorings. The remaining ~10% represents components within the controls systems, concrete ballast for clump weights, anodes, coatings, etc.



Figure 2.2: Pie-Chart of Estimated Janice Inventory (Installations)

Figure 2.3 shows the inventory of materials included in the pipelines, umbilicals, jumpers and spools. The majority of the inventory is comprised of steel (~62%), with rockdump at crossings making up ~26%. Smaller quantities of concrete (~6%) for pipeline supports under crossings, mattresses & grout bags, and plastics (~6%) contained within the flexible lines and umbilicals are also present.



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Figure 2.3: Pie-Chart of Estimated Janice Inventory (Pipelines)

NORM is anticipated to be present in the installations and pipelines however the weight of the NORM is thought to be minimal in comparison to the weight of infrastructure within the Janice field. The management of NORM is detailed in Table 3.11 with further information to be found in the EIA.

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2.2 James Field

2.2.1 James Field Installations: Surface Facilities (Topsides/Jacket(s)/FPSO etc.)

	Table 2.7: Surface Facilities Information								
			Topsides/Facilities			Jacket (if applicable)			
Name	Facility Type	Location	Weight (Te)	No of Modules	Weight (Te)	Number of Legs	Number of Piles	Weight of Piles (Te)	
N/A N/A N/A N/A N/A N/A N/A N/A								N/A	

2.2.2 James Field Installations: Subsea including Stabilisation Features

	Table 2.8: Subsea Installations and Stabilisation Features								
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Loca	Location					
		P8	WGS84 Decimal	56.358078° N 2.313919° E					
Wellheads	2	4 x 4 x 4m 38.6Te	WGS84 Decimal Minute	56° 21.485′ N 02° 18.835′ E	Wellheads are mounted on				
weinieaus	2	P11 4 x 4 x 4m 38.6Te	WGS84 Decimal	56.358125° N 2.314022° E	conductors				
			WGS84 Decimal Minute	56° 21.488′ N 02° 18.841′ E]				
Subsea		P8 8 x 8 x 2.5m	WGS84 Decimal	56.358078° N 2.313919° E					
Wellhead Protection	2	5Te	WGS84 Decimal Minute	56° 21.485′ N 02° 18.835′ E	Integral to Wellheads				
Structure	2	2 P12	WGS84 Decimal	56.358125° N 2.314022° E					
(P8 & P11)		8 x 8 x 2.5m 5Te	WGS84 Decimal Minute	56° 21.488' N 02° 18.841' E					



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2.2.3 James Field: Pipelines Including Stabilisation Features

				Table 2.9: Pipelir	ne/Flowline/Un	nbilical Information				
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content	
James Production Flowline		5	5.6	Flexible	e Riser PF12 to James Tee piece naturally backfilled					
James Tee Piece	PL2057	6	0.005	Steel	Oil	James Production Flowline to 1) P11 DD Spool and 2) P8 Joining Spool	Surface laid	Out of use	Flushed	
P11 DD Spool	-	6	0.003	Steel				James Tee piece to P11 Tree	Surface laid	
P8 Joining Spool	DI 205711	6	0.01	Steel		James Tee piece to P8 DD Spool	Surface laid			
P8 DD Spool	PL2057J1	6	0.003	Steel		P8 DD Spool to P8 Tree	Surface laid			
James Umbilical	PLU2058	6	5.6	Umbilical	Chemicals/ Gas	SUT D to SUT C	Trenched & naturally backfilled	Out of use	Chemicals	
Gas/Meth/Hyd Jumper Bundle	PLU2058JA	<2	0.07	Control Jumper	Chemicals/ Gas	SUT A to SUT D	Surface laid	Out of use	Chemicals	
Gas/Hyd Jumper Bundle	PLU2058JB	<2	0.07	Control Jumper	Chemicals/ Gas	SUT A to SUT D	Surface laid	Out of use	Chemicals	
Hyd/Cl Jumper Bundle (SUTC-HClJ1- P11/P8)	- PLU2058JD	<2	0.024	Control Jumper	Chemicals	SUT C to P11 Tree	Surface laid	Out of use	Chemicals	
Hyd/Cl Jumper Bundle (P11-HClJ1- P11)	PLU2U30JD	<2	0.024	Control Jumper	Chemicals	P11 Tree to P11 Tree	Surface laid	Out of use	Chemicals	



				Table 2.9: Pipelin	e/Flowline/Ur	nbilical Information			
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content
Hyd/Cl Jumper Bundle (P11-HClJ1- P8)		<2	0.024	Control Jumper	Chemicals	P11 Tree to P8 Tree	Surface laid	Out of use	Chemicals
Hyd/Cl Jumper Bundle (SUTC-HClJ2- P11/P8)	PLU2058JE	<2	0.024	Control Jumper	Chemicals SUT C to P11 Tree		Surface laid	Out of use	Chemicals
Hyd/Cl Jumper Bundle	PLU2058JF	<2	0.07	Control Jumper	Chemicals	SUT A to SUT D	Surface laid	Out of use	Chemicals
1" Flexible Gas Lift Jumper		1	0.02	Control Jumper		SUT C to P8 GL Tee Spool	Surface laid		
P8 Gas Lift Tee Spool	PL2418	2	0.005	Steel	Gas	1" Flexible GL jumper to 1) P8 Tree 2) 1.5" GL Jumper (PL2418J1)	Surface laid	Out of use	Flushed
1.5" Gas Lift Jumper		1.5	0.02	Control Jumper		P8 GL Tee Spool to P11 GL DD Spool	Surface laid		
P11 Gas Lift DD Spool	PL2418J1	2	0.004	Steel		1.5" GL Jumper to P11 Tree	Surface laid		
Monitoring Jumper (M2-ELJ1)	No PL	<2	0.015	Control Jumper	Chemicals	SUT C to P11 Tree	Surface laid	Out of use	Chemicals
Monitoring Jumper (M2-ELJ-P8)	No PL	<2	0.015	Control Jumper	Chemicals	P11 Tree to P11 Tree	Surface laid	Out of use	Chemicals
Monitoring Jumper (M2-ELJ-M2)	No PL	<2	0.015	Control Jumper	Chemicals	P11 Tree to P8 Tree	Surface laid	Out of use	Chemicals



	Table 2.10: James Subsea Pipeline Stabilisation Features									
Stabilisation Feature	Total Number	Weight (Te)	Locations	Exposed/Buried/Condition						
Concrete mattresses	Approx. 6	60	Stabilisation for James Flowline (PL2057) and James Umbilical (PLU2058) at Janice Drill Centre.	Exposed						
(28 in total)	Approx. 22	150	Protection for James Flowline (PL2057) and James Umbilical (PLU2058) on approach to James Drill Centre.	Exposed						
Grout bags	32 x 1Te gabions	32	James Drill Centre	Exposed (assumed)						
Rock Dump	0	0	N/A	N/A						

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2.2.4 James Wells

Table 2.11: James Well Information							
Platform Wells	Designation	Status	Category of Well				
N/A	N/A	N/A	N/A				
Subsea Wells Drilling ID (Well ID)	Designation	Status	Category of Well				
30/17a-M1 (P8)	Oil Production	Live*	SS-3-3-3				
30/17a-M2 (P11)	Oil Production	Live*	SS-3-3-3				

* Hydraulics & pipeline disconnected from tree and blind flange installed.

2.2.5 James Drill Cuttings

(See Section 3.7 for further information)

Table 2.12: Drill Cuttings Pile Information						
Location of Pile Centre (Latitude/Longitude)	Seabed Area (m ²)	Estimated volume of cuttings (m ³)				
N/A	No oil based mud (OBM) disc 01/01/2001 when OBM disch	•				

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2.2.6 James Inventory Estimates

Figure 2.4 shows the inventory for the James Drill Centre. Steel comprises the majority (~96%) of the material, the largest portion being attributed to the tree and wellhead protection structures. The remaining ~4% represents anodes, coatings, etc.



Figure 2.4: Pie-Chart of Estimated James Inventory (Installations)

Figure 2.5 provides a breakdown of the materials included in the pipelines, umbilicals, jumpers and spools. The majority (~40%) of the inventory is comprised of steel, with ~37% being made up by concrete protection mattresses and ~15% being made up by plastics contained within the flexible lines and umbilicals.



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Figure 2.5: Pie-Chart of Estimated James Inventory (Pipelines)

NORM is anticipated to be present in the recovered pipelines and installations however weight of the NORM is thought to be minimal in comparison to the weight of infrastructure within James field. The management of NORM is detailed in Table 3.11, with further information to be found in the EIA.

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2.3 Affleck Field

2.3.1 Affleck Field Installations: Surface Facilities (Topsides/Jacket(s)/FPSO etc.)

	Table 2.13: Surface Facilities Information								
			Topsides/Facilities			Jacket (if applicable)			
Name	Facility Type	Location	Weight (Te)	No of Modules	Weight (Te)	Number of Legs	Number of Piles	Weight of Piles (Te)	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

2.3.2 Affleck Field Installations: Subsea including Stabilisation Features

Table 2.14: Subsea Installations and Stabilisation Features					
Subsea installations including stabilisation features	Number	Size/Weight (Te)	Location		Comments/ Status
			WGS84	NI / A	N/A
N/A	NI / A	NI / A	Decimal	N/A	
	N/A N/A	WGS84		N/A	
			Decimal Minute	N/A	



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2.3.3 Affleck Field: Pipelines Including Stabilisation Features

	Table 2.15: Pipeline/Flowline/Umbilical Information								
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts	Product Conveyed	From – To End Points	Burial Status	Pipeline Status	Current Content
7" Production Riser		7	0.275	Flexible		Janice 'A' FPU to Affleck SSIV	Surface laid		
Affleck SSIV		8	0.007	Steel gravity base structure containing SSIV		Affleck SSIV Tie-in Spool to Affleck Riser	Surface Laid		
Affleck SSIV Tie-in Spool	8	8	0.047	Steel		Affleck SSIV to Affleck Production PIP	Surface laid		
Affleck Production Pipe-in-Pipe	PL2409	12 & 8	28.02	Steel	Oil	Affleck SSIV Tie-in Spool to Expansion Spool	Trenched & Buried	Out of use	Flushed
Expansion Spool		8	0.03	Steel		Affleck Production PIP to Corrosion Monitoring Spool	Surface laid	-	
Connecting Spool		8	0.007	Steel		Corrosion Monitoring Spool to Affleck Production Manifold - disconnected	Surface laid		
Affleck Riser Clump Weight		N/A	0.0062	Steel and concrete gravity base	N/A	Connected to Affleck Riser	Surface Laid	N/A	N/A
Control Umbilical	PLU2410	4	28.20	Umbilical	Chemicals	Affleck SSIV to Affleck Production Manifold	Trenched & backfilled	Out of use	Chemicals



Table 2.16: Affleck Subsea Pipeline Stabilisation Features					
Stabilisation Feature	Total Number	Weight (Te)	Locations	Exposed/Buried/Condition	
Concrete mattresses	14	140	Stabilisation for Affleck PIP (PL2409) and Affleck Umbilical (PLU2410) at Janice Drill Centre	Exposed	
(17 in total)	3	30	Beneath Affleck PIP (PL2409) and Affleck Umbilical (PLU2410) at Norpipe Crossing	100% burial under rock dump. Rock dump in good condition.	
Concrete crossing supports (for pipeline crossing)	4	60	Beneath Affleck PIP (PL2409) at Norpipe Crossing	100% burial under rock dump. Rock dump in good condition.	
Grout bags	Approx. 280 x 25kg bags	7	Support and protection for Affleck Riser (PL2409) and Affleck Umbilical (PLU2410) between Janice FPU and the Affleck SSIV	Exposed (assumed)	
Rock Dump	1078m	9000	Norpipe Crossing & spot rock dumping on Affleck PIP (PL2409) to mitigate UHB.	Good Condition	

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2.3.4 Affleck Wells

	Table 2.17: Well Information					
Platform Wells	Designation	Status	Category of Well			
N/A	N/A	N/A	N/A			
Subsea Wells	Designation	Status	Category of Well			
N/A	N/A	N/A	N/A			

2.3.5 Affleck Drill Cuttings

(See Section 3.7 for further information)

Table 2.18: Drill Cuttings Pile Information				
Location of Pile Centre (Latitude/Longitude)	Seabed Area (m ²)	Estimated volume of cuttings (m ³)		
N/A	N/A	N/A		

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2.3.6 Affleck Inventory Estimates

Figure 2.6 shows the inventory of materials included in the pipelines, umbilicals, riser, jumpers & spools, riser clump weight and SSIV. The majority of the inventory is comprised of rockdump at crossings and for upheaval buckling mitigation (~57%). Steel makes up ~39% of the inventory and ~2.5% is attributed to concrete protection mattresses.



Figure 2.6: Pie-Chart of Estimated Affleck Inventory (Pipelines)

NORM is anticipated to be present in the recovered pipelines and installations however weight of the NORM is thought to be minimal in comparison to the weight of infrastructure within the Affleck field. The management of NORM is detailed in Table 3.11, with further information to be found in the EIA.

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3 REMOVAL AND DISPOSAL METHODS

In line with the waste hierarchy, the re-use of an installation (or parts thereof) is first in the order of preferred decommissioning options. Options for the re-use of installations (or parts thereof) are currently under investigation. Waste generated during decommissioning will be segregated by type and periodically transported to shore in an auditable manner through licensed waste contractors. Steel and other recyclable metal are estimated to account for the greatest proportion of the materials inventory.

3.1 Topsides (Janice only)

The Janice 'A' FPU will be towed from the field to AF Offshore Decom AS yard for decommissioning. Prior to tow from field the topside process systems will be flushed along the flowlines, risers and umbilicals. Following conditioning of the topsides systems, flowlines etc. the risers and mooring chains will be disconnected, releasing the FPU.

Topsides Description: The Janice FPU comprises of 4 decks and has a total weight of 30,600Te. The FPU is a converted semi-submersible which supports the production, export and utility systems required to handle well fluids. The main deck has a length of 90m, breadth of 64.4m and sits approximately 34.5m above sea level.



Figure 3.1: Diagram of Janice Topsides

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Preparing/Cleaning:

	Table 3.1: Cleaning of Topsides for Removal					
Waste Type	Composition of Waste	Disposal Route				
Onboard hydrocarbons	Process fluids, fuels and lubricants	Hydrocarbons filtered and discharged into water disposal wells.				
Other hazardous materials	NORM, LSA Scale, Any radioactive material, instruments containing heavy metals, batteries	Transported ashore for re-use/disposal by appropriate methods				
Original paint coating	Lead-based paint	May give off toxic fumes / dust if flame-cutting or grinding/blasting is used so appropriate safety measures will be taken				
Asbestos and Ceramic Fibre		Appropriate control and management will be enforced				

Removal Methods:

Table 3.2: Topsides Removal Methods					
1) HLV (semi-submersible c	1) HLV (semi-submersible crane) 🗌 2) Monohull crane vessel 🗌 3) SLV 🗌 4) Piece Small 🗌 5) Other 🔀				
Method	Description				
Proposed removal method and disposal route	The Janice 'A' FPU will be released from its moorings with all risers flushed, cleaned and disconnected. The FPU will then be towed directly to AF Offshore Decom AS yard for recycling. The application for the trans-frontier shipment of waste has been applied for and shall be in place prior to sail-away.				

3.2 Jacket(s)

There are no jackets associated with the Janice, James or Affleck fields.

Table 3.3: Jacket Decommissioning Methods					
1) HLV (semi-submersible crane) 🗌 2) Monohull crane vessel 🗌 3) SLV 🗌 4) Piece Small 🗌 5) Other 🗌					
Method	thod Description				
N/A	N/A				

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3.3 Subsea Installations and Stabilisation Features

Table 3.4: Subsea Installations and Stabilisation Features					
Subsea installations and stabilisation features	Number	Option	Disposal Route (if applicable)		
Structures	26	Full recovery to vessel by lifting as complete unit.	Return to shore for reuse or recycling.		
Wellheads	15	Full recovery	Return to shore for reuse or recycling.		
Wellhead Protection Structures	4	Full recovery	Return to shore for reuse or recycling.		
FPU Mooring System	13	Full recovery by AHT.	Return to shore for reuse or recycling.		
Structure piles	4	Leave in-situ. Any piles will be cut below the natural seabed level at such a depth to ensure that any remains are unlikely to become uncovered.	Recovered sections of piles will be returned to shore for recycling.		

3.4 Pipelines

All surface laid pipelines including rigid pipelines, flexible flowlines and umbilicals which have not been trenched or buried will be completely recovered from the seabed and taken to shore for re-use or recycling or final disposal. Six pipelines as detailed in Table 3.5 below have been considered for in-situ decommissioning and as such have been subjected to the CA process.

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Decommissioning Options:

Table 3.5: Pipeline or Pipeline Groups Decommissioning Options							
Pipeline or Group (as per PWA)	Condition of line/group (Surface laid/Trenched/ Buried/ Spanning)	Whole or part of pipeline/group	Decommissioning Options* considered				
PL1631 (Oil Export) PL1632 (Gas Export) PL2057	Trenched and buried at installation. Pipeline is stable in trench. Trenched and allowed to backfill naturally. Pipeline is stable in trench. Laid into an open trench and allowed to backfill naturally. Spanning present	14" Oil Export Pipeline only. 12" Gas Export Pipeline Only 5" Production Flexible Flowline	1, 2a, 2b, 2c, 3a, 3b, 3c, 4 & 5 1, 2a, 2b, 2c, 3a, 3b, 3c & 4 1, 2a, 2b, 2c, 3a, 3b, 3c & 4				
(James Production) PLU2058 (James Umbilical)	along the line (although under reportable limits). Laid in same trench as production flowline (PL2057) in an open trench and allowed to backfill naturally. Trends show umbilical is moving closer to the mean seabed level.	6" Gas Lift & Control Umbilical	4 1, 2a, 2b, 2c, 3a, 3b, 3c & 4				
PL2409 (Affleck Production)	Trenched post lay and subsequently backfilled following umbilical (PLU2410) installation. Pipeline is stable in trench.	8"x12" Production Pipe- in-Pipe Line	1, 2a, 2b, 2c, 3a, 3b, 3c & 4				
PLU2410 (Affleck Umbilical)	Laid in same trench as production pipeline (PL2409) and mechanically backfilled. Umbilical is stable in trench.	Chemical Injection & Control Umbilical	1, 2a, 2b, 2c, 3a, 3b, 3c & 4				

*Key to Options:

1) Leave in-situ with no intervention

2a) Leave in-situ & trench/bury

exposed sections 3a) Remove exposed sections & bury

ends

2b) Leave in-situ & rock dumpexposed sections3b) Remove exposed sections & rockdump ends

2c) Leave in-situ & mattress exposed sections

3c) Remove exposed sections & mattress ends

4) Complete removal

5) Leave in-situ & remediate seabed

CA Method:

A CA of the feasible decommissioning options was performed based on the guidance set out in the DECC guidance notes. In order to reach the feasible decommissioning options, an options screening session was held. The CA discussed each option qualitatively as well as allocating a quantitative score to each of the options discussed. Further details of the method can be found in the Comparative Assessment Report (COPD-JAN-000-SU-RE-0008).



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Outcome of CA:

A weighting was applied to the CA scoring to provide further differentiation between results and allow them to be more easily interpreted. The outcomes of the CA have been summarised in Table 3.6 below. Further details of the outcomes can be found in the Comparative Assessment Report (COPD-JAN-000-SU-RE-0008).

	Table 3.6: Outcomes of CA					
Weighted Ranking	Option*	Comments				
1	2b (Leave In-Situ & Rock Dump Exposed Sections)	Rock should be avoided around features of the Fulmar recommended Marine Conservation Zone (rMCZ) ² .				
2	3a (Remove Exposed Sections & Bury Ends)	No restrictions.				
3	4b (Complete Removal of Pipelines (Flexibles & Umbilicals)	Should only be considered for James Flexible Flowline (PL2057) and James Umbilical (PLU2058).				
4	5 (Leave In-Situ & Infill Seabed Depressions with Existing Grout/Mattresses)	May be considered for seabed depressions such as man- made exposures to the Oil Export Pipeline (PL1631).				
5	2a (Leave In-Situ & Trench/ Bury Exposed Sections)	Should only be considered for exposures at pipeline ends and not free-spans along the lines.				
6	3b (Remove Exposed Sections & Rock Dump Ends)	Rock should be avoided around features of the Fulmar recommended Marine Conservation Zone (rMCZ).				

² Note that since the CA, the Fulmar recommended Marine Conservation Zone (rMCZ) has now been designated a Marine Conservation Zone (MCZ).

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Proposed Decommissioning Methods for Pipelines:

	Table 3.7: Proposed Decommissioning Methods for Pipelines:				
Pipeline or Group (as per PWA)	Recommended Option*	Justification			
All Surface Laid Pipelines	4 (complete removal)	Removed in line with DECC Guidance Notes.			
PL1631 (Oil Export)	2b (Leave In-Situ & Rock Dump Exposed Sections) & 3a (Remove Exposed Sections & Bury Ends)	Spools and mattresses will be removed at the Janice SSIV and Southern Wye ends. Rock dump is to be placed on the pipeline where it exits its trench at Janice SSIV as well as 3 locations of man-made exposure to make safe a potential snagging hazard on the seabed. Where the pipeline transitions out of the trench at the Southern Wye it will be cut within the trench (min. 0.6m to top of pipe if possible). The cut sections will be recovered and the seabed will be rectified to ensure there are no remaining snagging hazards. The remainder of the pipeline will be decommissioned in-situ, with an average depth of cover of 1.22m (2013 survey). This provides minimal seabed disturbance, a reduced safety risk and represents a lower cost. Refer to Figure 8.1 and Figure 8.2 in Appendix A for pipeline trenching/burial profile graphs.			
PL1632 (Gas Export)	2b (Leave In-Situ & Rock Dump Exposed Sections) & 3a (Remove Exposed Sections & Bury Ends)	Spools and mattresses will be removed at the Janice SSIV and Judy SSIV ends, and rock is to be placed where it exits the trench to make safe a potential snagging hazard on the seabed. Where the pipeline exits its trench at the Clyde Tee it will be cut either side of the Tee and remaining sections of pipeline will be covered with rock, again to make safe a potential snagging hazard. ³ The remainder of the pipeline will be decommissioned in-situ. Although PL1632 shows a DOL of less than the guideline value of 0.6m over a length of around 16km, the pipeline has been operating in this condition since installation in 1998 and surveys do not indicate any reduction in the DOL since installation. This provides minimal seabed disturbance, a reduced safety risk and represents a lower cost. Should this reduced DOL be deemed unacceptable then the proposal would be to rockdump this section, however this additional rock has not been included within the EIA. Refer to Figure 8.3, Figure 8.4, Figure 8.5 & Figure 8.6 in Appendix A for pipeline trenching/burial profile graphs.			

³ Decommissioning sections of the Gas Export Pipeline (PL1632) which lie within the Clyde and Judy 500m exclusion zones is proposed to be deferred to such a time to coincide with the decommissioning of Clyde and Judy.

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Table 3.7: Proposed Decommissioning Methods for Pipelines:			
Pipeline or Group (as per PWA)	Recommended Option*	Justification	
PL2057 (James Production)	4 (complete removal)	Both of these lines share a trench and as such the proposed decommissioning method is applicable to both lines. The flexible flowline and umbilical as well as all spools, control jumpers and concrete mattresses associated with these lines will be completely removed. This avoids the introduction of approximately 10,000Te of rock and leaves a clear seabed for other users of the sea. The economic comparison is	
PLU2058 (James Umbilical)	4 (complete removal)	similar to that of rock dumping the exposures and avoids any future monitoring and maintenance regime. The average depth of cover (DOC) for the flowline is 0.35m with 19 areas of exposure along its length. Some of the exposed areas are caused by spanning of the flowline, however all spans are less than the reportable limits. The average depth of cover (DOC) for the umbilical is 0.49m however the depth of lowering (DOL) shows a decreasing trend which suggests the umbilical is moving out of the trench, and provides further justification for its removal. Refer to Figure 8.7, Figure 8.8, Figure 8.9 & Figure 8.10 in Appendix A for pipeline trenching/burial profile graphs.	
PL2409 (Affleck Production)	2b (Leave In-Situ & Rock Dump Exposed Sections)	Both of these lines share a trench and as such the proposed decommissioning method is applicable to both lines. Spools, control jumpers and concrete mattresses associated with these lines will be completely removed at the Janice SSIV and Affleck Manifold ends. Rock dump will be placed on the pipeline where it exits its trench at both Janice and Affleck to make safe a potential snagging hazard on the seabed. The mattresses and concrete supports covered by rock dump at the	
PLU2410 (Affleck Umbilical)	2b (Leave In-Situ & Rock Dump Exposed Sections)	 Norpipe crossing will be decommissioned in-situ to avoid disturbance of the rock profile. The remainder of the pipeline and umbilical will be decommissioned in situ, with an average depth of cover (DOC) greater than 1.3m for both lines (2013 survey). This provides minimal seabed disturbance, a reduced safety risk and represents a lower cost. Refer to Figure 8.11 Figure 8.12, Figure 8.13 & Figure 8.14 in Appendix A for pipeline trenching/burial profile graphs. 	

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3.5 Pipeline Stabilisation Features

Table 3.8: Pipeline Stabilisation Features			
Stabilisation Features	Number	Option	Disposal Route (if applicable)
Concrete Mattresses	120	Full recovery	Recovered to shore for disposal to landfill*. 3 mattresses to remain in-situ under existing rock dump
Grout	174Te	Full recovery	Recovered to shore for disposal to landfill.
Rock Dump (existing)**	12,347Te	Leave In-situ	n/a
Concrete Supports	8	Leave in-situ	In-situ under existing rock dump

*Opportunities for the reuse or recycling of concrete mattresses will be explored, however previous experience shows the majority of recovered concrete mattresses are disposed of to landfill.

**This is the existing rockdump in the fields. Additional rockdump for decommissioning (pipeline ends and rectification of freespans and exposures) is estimated to be 15,253Te (10,963Te Janice, 4,290Te Affleck).

3.6 Wells

Table 3.9: Well Plug and Abandonment

The Janice and James fields comprise a total of 15 wells split between the Janice Drill Centre (13) and the James Drill Centre (2). At Janice there are 9 oil producing wells and 4 water injection wells as listed in Section 2.1.4 (Table 2.5). James has 2 production wells as listed in Section 2.2.4 (Table 2.11).

The wells will be plugged and abandoned in accordance with Maersk Oil Standard for Well Barriers as well as the Oil and Gas UK Guidelines for the Abandonment of Wells, Issue 5, July 2015.

Conductor strings will be cut in accordance with Oil and Gas UK Guidelines for the Suspension and Abandonment of Wells, Issue 5, July 2015.

All appropriate permits and consents under the relevant regulations will be submitted in support of works carried out via the BEIS PETS online Portal, to the HSE and the DECC Offshore Inspectorate as required.

A final decision on the P&A campaign and schedule will be made following a commercial tendering process. P&A operations are not expected to begin before September 2016 with an anticipated 412 day period to abandon all the Janice and James wells.

Given the variables involved in planning P&A activities including, but not limited to, a fluid exploration and development schedule, jack-up/drill rig availability and rig rates it is unrealistic to provide a P&A schedule other than a milestone date for completion of all P&A activities.

3.7 Drill Cuttings

In 2008 MOUK commissioned a study to review drill cuttings for all of their North Sea fields in response to the OSPAR Recommendation 2006/5 (Management Regime for Offshore Cuttings Piles). This report consisted of two studies; the first presented the results of a preliminary screening process required to determine which fields required further investigation under the stipulations of the OSPAR Recommendation 2006/5 (Section 2). The second, larger study focused on the Stage 1 screening process outlined in Recommendation 2006/5: to collate all available MOUK environmental monitoring data; evaluate the available data; assess if the data are adequate to be used for the screening process; and evaluate the data in context with the thresholds specified in the OSPAR Recommendation 2006/5.

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The preliminary screening concluded that the Affleck and James fields need no further assessment due to the drilling of their wells after 1 January 2001, at which time it is definitively known that no discharge of oil based mud (OBM) contaminated cuttings has taken place in any fields operated by MOUK. The drilling history of Janice however, shows that OBM cuttings had been discharged to sea for 10 of the 16 wells drilled in close proximity, resulting in the Janice field being subjected to further assessment.

The second study or Stage 1 screening process as defined in the OSPAR Recommendation was applied to the Janice field and presents an analysis of data used to predict the likely levels of *oil loss* and *persistence* over time, as outlined in the OSPAR Recommendation. Selected results are presented below:

- Theoretical hydrocarbon leaching rate (oil loss to water column) = **0.74Te/year** (10Te/year threshold);
- Theoretical persistence of contaminate seabed = **142km²year** (500km²year threshold).

The study concludes that for the Janice field, the *oil loss* and *persistence* values calculated are below the thresholds stipulated in the OSPAR Recommendation 2006/5. It is noted that despite being based on overestimates of contamination levels it is highly unlikely that they breach the thresholds and no further action is necessary for the management of offshore cuttings piles for the Janice, James and Affleck fields.

Furthermore, the assessments were based on data gathered from a number of sources, particularly environmental survey reports specific to the Janice cuttings. These have been included in Appendix B.

Drill Cuttings Decommissioning Options:

Table 3.10: Drill Cuttings Decommissioning Options			
How many drill cuttings piles are present?	1		
Tick options examined: Remove and re-inject Leave in place			
Relocate on seabed Remove and treat onshore Remove and Other Remove and treat onshore Remove and	treat offshore		
Review of Pile characteristics	Pile 1		
How has the cuttings pile been screened? (desktop exercise & actual samples taken)	Yes		
Dates of sampling (if applicable)	1997		
Sampling to be included in pre-decommissioning survey?	No		
Does it fall below both OSPAR thresholds?	Yes		
Will the drill cuttings pile have to be displaced in order to remove the jacket?	n/a		
What quantity (m ³) would have to be displaced/removed?	n/a		
Will the drill cuttings pile have to be displaced in order to remove any pipelines?	No		
What quantity (m^3) would have to be displaced/removed?	n/a		
Have you carried out a CA of options for the Cuttings Pile?	No		

CA Method: n/a

Outcome of CA: n/a



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3.8 Waste Streams

Table 3.11: Waste Stream Management Methods			
Waste Stream	Removal and Disposal method		
Bulk Liquids	Removed from vessels and transported to shore. Vessels, pipework and lumps will be drained prior to removal to shore and shipped in accordance with maritime transportation guidelines. Further cleaning and decontamination will take place onshore prior to recycling / re-use.		
Marine Growth	Removed onshore. Disposed of according to Oil and Gas UK Management of Marine Growth during Decommissioning (2013).		
NORM/LSA Scale	NORM may be partially removed offshore under appropriate permit. Any pipeline sections found to contain NORM or LAS during recovery will be quarantined and taken to shore for disposal under the appropriate permit.		
Asbestos	Will be contained and taken onshore for disposal.		
Other hazardous wastes	Will be recovered to shore and disposed of under appropriate permit.		
Onshore Dismantling sites	Appropriate licenced sites will be selected. Facility chosen must demonstrate proven disposal track record and waste stream management throughout the deconstruction process and demonstrate their ability to deliver innovative recycling options.		

Table 3.12: Inventory Disposition			
	Total Inventory Tonnage	Planned tonnage to shore	Planned left <i>in situ</i>
Janice Installation	34,534Te	34,506Te	28Te
Janice Pipelines	13,086Te	2,146Te	10,940Te
James Installations	87Te	87Te	0
James Pipelines	661Te	661Te	0
Affleck Pipelines	15,881Te	324Te	15,557Te
Total Inventory	64,249Te	37,724Te	26,525Te

Table 3.12 above details the split of materials that are planned to be decommissioned in-situ and those planned to be recovered to shore. Of the total 64,249Te of materials in the Janice, James and Affleck fields, it can be seen that approximately 59% of the inventory tonnage are planned to be recovered. The remaining 41% of inventory tonnage is proposed to be decommissioned in-situ. Although this figure appears high, it actually accounts for just 3 rigid pipelines and 1 umbilical which are presently trenched and buried, as well as 4 steel piles which will be cut below the natural seabed level at such a depth to ensure that any remains are unlikely to become uncovered.



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Of the 37,724Te of material to be returned to shore, Figure 3.2 below shows the planned disposal route for the decommissioned material by percentage.



Figure 3.2: Pie Chart of Planned Disposal Route of Recovery Inventory (tonnage).

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4 ENVIRONMENTAL IMPACT ASSESSMENT

4.1 Environmental Sensitivities

An Environmental and Societal Impact Assessment (ESIA) has been undertaken as part of the planning and consents process for the decommissioning of the Janice and James fields and Affleck pipelines. The purpose of the ESIA is to identify, understand and communicate the likely significance of the environmental and social impacts and risks associated with the proposed project, to inform the decision making process. A summary of the environmental sensitivities for the Janice, James and Affleck fields decommissioning is provided in Table 4.1.

Table 4.1: Environmental Sensitivities		
Environmental Receptor	Main Features	
	The Janice, James and Affleck Developments are located within the Fulmar Marine Conservation Zone (MCZ). This MCZ is protected for its subtidal sand, subtidal mixed sediments, subtidal muds and <i>Arctica islandica</i> (ocean quahog) aggregations. The site is also an important foraging area for seabirds including fulmar and gannet.	
	The nearest Special Area of Conservation (SAC) is the Dogger Bank which is located <i>c.</i> 100 km south of the developments and designated for its 'sandbanks which are slightly covered by seawater all the time'.	
Conservation interests	The nearest Nature Conservation Marine Protected Area (NCMPA) is the East of Gannet and Montrose Fields, <i>c</i> . 60 km north of the blocks. This area is designated for its <i>A.islandica</i> aggregations and their supporting habitat' and 'offshore deep sea muds'.	
	The nearest onshore protected site is the Fowlsheugh Special Protection Area (SPA), which is over 270 km northwest of the developments.	
	The proposed decommissioning activities will have an impact on the Fulmar MCZ. These impacts have been discussed with BEIS, Marine Scotland and the Joint Nature Conservation Committee (JNCC) and by applying suitable mitigation for example using dynamically positioned vessels these impacts are anticipated to not be significant. The planned activities are not anticipated to impact on any other designated areas.	
	Survey reports from the area categorise the sediments as nutrient poor, moderately stable, fine sands possessing background hydrocarbon and metal concentrations and faunal assemblages typical of shallow water sites in the Central North Sea.	
Seabed	No species or habitats of conservation significance under the UK's Offshore Petroleum Activities (Conservation of Habitats) Regulations 2001 (which implement the EC Habitat Directive 92/43/EEC) are known to occur in the area.	
	It is anticipated that the proposed decommissioning activities will not have a significant impact on the seabed.	

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Table 4.1: Environmental Sensitivities			
Environmental Receptor	Main Features		
Fish	Several fish species use the area for nursery and/or spawning grounds at different times of the year. Fish species known to use the area as a nursery ground include haddock, whiting, anglerfish, blue whiting, cod, European hake, herring, ling, mackerel, plaice, sandeel and spotted ray. Species known to spawn in the area include lemon sole, mackerel, sprat, cod, plaice, sandeel and whiting.		
	As fish species found within the North Sea tend to be widely distributed with large, scattered spawning and nursery grounds any potential impacts of the proposed decommissioning activities on fish populations are anticipated to not be significant.		
FisheriesThe Janice, James and Affleck Developments occur wit Council for the Exploration of the Sea (ICES) rectangle 41 within ICES rectangle 41F2 can be considered to be approximately 22 days recorded effort in 2014. Given thi fishing days in the vicinity and MOUKs ongoing engage Scottish Fisherman's Federation, the proposed activities ar to significantly impact on fishing. In addition, following and trawl sweeps of the area to confirm that there are no the 500 m exclusion zones at the FPU and the three dri removed to allow access by fishing vessels to the previously			
	Atlantic white-sided dolphin, common dolphin, harbour porpoise, minke whale and white-beaked dolphin have been recorded in the Janice, James and Affleck Development area.		
Marine Mammals	Two species of seal live and breed in UK waters: the grey seal and the harbour (also called common) seal. Both species are considered to be Annex II species protected under the European Union (EU) Habitats Directive. Based on their foraging ranges a low density of grey seals is anticipated in the vicinity.		
	Given the nature of the proposed decommissioning activities (including no use of explosives and no piling activities) no significant impact on marine mammals is anticipated.		
Seabird vulnerability to surface pollution within each measured using the JNCC Offshore Vulnerability Index (OV block, the vulnerability of seabirds varies throughout th seasonal fluctuations, such as the number of species present. Annual seabird vulnerability in the area is consid The planned activities are therefore anticipated to not sign on the bird populations associated with the area.			
Onshore Communities	Waste generated during decommissioning will be segregated by type and periodically transported to shore in an auditable manner through licensed waste contractors		
	MOUK intend to use competent approved waste management contractors, 66		

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Table 4.1: Environmental Sensitivities		
Environmental Receptor	Main Features	
	who will be engaged to deal with any and all waste as a result of the decommissioning activities.	
	Shipping activities in the North Sea are categorised by DECC to have either: very low; low; moderate; high; or very high shipping density. The Janice and James area (Block 30/17) is classified as low and the Affleck area (Block 30/19) is classified as very low.	
Other Users of the Sea	There are no renewable energy developments or wind farm zones in the vicinity of the Janice, James and Affleck Development.	
	There are no military exercise areas within UKCS Blocks 30/17 or 30/19.	
	The proposed decommissioning activities are not anticipated to significantly impact on other sea users.	
Atmosphere	Emissions to atmosphere will arise from the vessels used to decommission the Janice, James and Affleck infrastructure. The impacts are expected to be localised and there are no identified areas of sensitivity to atmospheric emissions in the area. The proposed decommissioning activities are therefore anticipated to not significantly impact on the atmosphere.	



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4.2 Potential Environmental Impacts and their Management

Environmental Impact Assessment Summary:

Although there is expected to be some environmental impact during the decommissioning of the Janice and James fields and Affleck pipelines (Blocks 30/17a and 30/19a), long term environmental impacts from the decommissioning operations are expected to be low provided identified mitigation and control measures are adhered to. Impacts from discharges to sea, seabed disturbance, emissions to air, underwater noise, waste production and socio-economic interactions were each found to have a low environmental / socio-economic impact. Transboundary and cumulative impacts were also identified as low. It is acknowledged that emissions resulting from fuel use by the vessels and during recycling of recovered materials will produce greenhouse gases and make a very small contribution to climate change, however this will be minimised where possible e.g. through vessel optimisation. The anticipated potential unplanned activities i.e. accidental events were found to present a low risk to the environment. A large scale spill of crude or diesel would have the potential to result in slight transboundary environmental impacts.

Table 4.2: Environmental Impact Management			
Activity	Main Impacts	Management	
Vessel activities	 Physical presence impacting other users of the sea (fishing and shipping) Emissions to air from fuel combustion Discharges to sea (sewage, grey and black water) Underwater noise (general vessel noise including DP) Accidental events such as vessel collision 	 Minimise use of vessels where possible Use of hybrid supply vessels. Auditing of vessels prior to control as part of vessel assurance process. All vessels will have emergency response plans in place. Most activities within the 500 m exclusion zones. Vessels will have radar, navigation and communication equipment and will comply with International Maritime Organisation Collision Regulations. 	



Table 4.2: Environmental Impact Management			
Activity	Main Impacts	Management	
Plug and abandonment of wells	 Physical presence of drilling rig Emissions to air from power generation on rig Discharges to sea (sewage, grey and black water, machinery space drainage from rig, discharges during cutting operations) Seabed disturbance from anchors and anchor chains, from wellhead severance and from lifting of wellheads/protective structures Waste generation from wellheads and protective structures Accidental events (e.g. loss of diesel inventory from rig) 	 Rig located within existing 500 m exclusion zone. The rig will be registered as a navigation hazard to shipping with the HM Coastguard and Hydrographic Office. Pre lay seabed surveys and detailed anchoring plans. Waste disposed of in line with current regulations. Recycled where possible. Use of permitted recycling and disposal facilities. 	
Well blowout	Accidental events (loss of well control)	 Rig selection process; Blow out preventer will be in place; Approved OPEP in place; Trained and competent personnel; Mobilisation of Oil Spill Response Limited in the event of a large spill in order to provide trained personnel, equipment and additional logistics. 	
Topsides modifications	 Emissions to air during depressurisation of topsides/gas export pipeline Discharges to sea from draining and flushing of process train and topsides Solid waste generation from modifications to FPU, potential for NORM to be present. 	 Flaring undertaken under existing consent. Minimise use of chemicals. All chemicals to be permitted under Offshore Chemical Regulations. NORM discharged to sea under existing permit, remainder brought to shore for disposal at licensed site. Waste Management Plan in place. 	



Table 4.2: Environmental Impact Management			
Activity	Main Impacts	Management	
Disconnection and sail away of FPU	 Discharges to sea during flushing activities Seabed disturbance during laydown of risers, laydown/recovery of mid water arches, disconnection and recovery of mooring lines and anchors Emissions to air (nitrogen from buoyancy tanks on mid water arches) Solid waste generation from recycling and disposal of FPU Noise from mechanical cutting of mooring lines 	 Discharges covered by oil discharge permit Waste Management Plan in place. Marine licences in place. Recycling rather than disposal wherever possible. 	
Recovery of risers and dynamic umbilicals	Solid waste generation	 Waste Management Plan in place. Recycling rather than disposal wherever possible. 	
Pipeline sections to be decommissioned in situ / Rockdumping	 Physical presence of remaining pipelines Seabed disturbance from rock dumping at pipeline ends and at 3 other locations along Janice oil export pipeline 	 Liaison with SFF. Overtrawlability trials post decommissioning. Minimise quantity of rock dump / fall pipe rockdump vessel used. 	
Pipeline sections, jumpers and spools to be recovered	 Seabed disturbance from jetting at pipeline ends Discharges to sea of small quantities of flushing fluids Solid waste generation, including NORM 	 Waste Management Plan in place. Recycling rather than disposal wherever possible. Permitted disposal sites will be used. All chemical assessed and permitted. 	
Recovery of structures e.g. wellhead protective structures, manifolds etc.	 Seabed disturbance as a result of jetting/excavation and during recovery operations Solid waste generation 	 Selection of suitably sized jetting tools Lifting procedures in place Waste Management Plan in place. Recycling rather than disposal wherever possible. Permitted disposal sites will be used. 	
Decommissioning of protective structures	 Seabed disturbance during lifting of mattresses and grout bags Solid waste generation – concrete cannot be recycled 	Permitted disposal sites will be used	



Table 4.2: Environmental Impact Management			
Activity	Main Impacts	Management	
Decommissioning yard operations	 Solid waste generation / use of resources Emissions to air Discharges to water Noise and vibration Traffic Odour 	 Use of existing permitted sites Disposal in line with waste regulations Little evidence of marine growth on ROV footage. 	
Decommissioning of drill cuttings left in-situ	 Long term presence of hydrocarbons in sediments Leaching of hydrocarbons into the surrounding sediments and water column 	 Studies concluded that for Janice the oil loss and persistence values are below the thresholds stipulated in the OSPAR Recommendation 2006/5 and so no further action is necessary for the management of the cuttings piles at Janice. James and Affleck wells were drilled after 1st January 2001 at which time no discharge of Oil Based Mud (OBM) contaminated cuttings has taken place in any fields operated by Maersk. Consider overtrawlability trial post-decommissioning. 	

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5 INTERESTED PARTY CONSULTATIONS

Consultations Summary:

Table 5.1: Summary of Stakeholder Comments		
Who	Comment	Response
Informal Consultations		
Department for Business, Energy and Industry Strategy (BEIS), formerly Department of Energy & Climate	The DECC Offshore Decommissioning Unit (ODU) and Environmental Management team (EMT) were first contacted in September 2015 with a kick-off meeting held on the 7 th September. DECC were subsequently invited to both the decommissioning options screening session (refer to COPD-JAN-000-SU-RE-0004) and the CA workshop (refer to COPD-JAN-000-SU-RE-0008).	DECC ODU & EMT were able to attend both the options screening session and the CA workshop, latterly in attendance as observers only.
Change (DECC)	Following the options screening session DECC ODU & EMT advised that the option for 'full removal' of concrete mattresses is required to be included in the CA in order to make it a purposeful exercise.	The option for full removal of concrete mattresses and grout was included within the CA as advised by DECC ODU & EMT.
Marine Scotland Science (MSS)	MSS were contacted in October 2015 and invited to attend the CA and briefing sessions.	MSS were unable to attend the briefing session however were in attendance at the CA workshop. Refer to report COPD-JAN-000-SU-RE-0008 for further details.
Joint Nature Conservation Committee (JNCC)	The JNCC were engaged in October 2015 and invited to attend the CA and briefing sessions. During the briefing session they advised that their main area of concern is in the protection of the Fulmar recommended Marine Conservation Zone (rMCZ) ⁴ features, which includes subtidal sand, subtidal mixed sediments, subtidal mud, mud habitats in deep water and the Ocean quahog (Arctica islandica). JNCC also advised that a preferred option is one which poses a temporary but recoverable change to the seabed (burial) as opposed to a permanent one (rock	JNCC were able to attend the briefing session but not the CA workshop. Due consideration has been (and will be) given as to where rock dump will be placed over pipelines decommissioned in situ in relation to the listed features of the Fulmar MCZ. Further assessment of the features of the MCZ potentially affected by the rockdump has been performed in the
	dump). The addition of rock dump therefore should give due consideration for the features of the rMCZ (listed above) and aim to avoid installing rock where these are present.	EIA in response to JNCC comments to the consultation draft of this DP. The updated assessment concludes that "the overall significance of the impact of seabed disturbance as a result of the decommissioning of JJ&A is considered to be low."

⁴ Note that since the CA, the Fulmar recommended Marine Conservation Zone (rMCZ) has now been designated a Marine Conservation Zone (MCZ).
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	Table 5.1: Summary of Stakeholder Comments				
Who	Comment	Response			
Statutory Consultations					
Scottish Fishermen's Federation (SFF)	 The SFF were engaged in October 2015 and invited to attend the CA and briefing sessions. The SFF advised that any preferred decommissioning option is dependent upon seabed conditions and fishing activity local to each of the pipelines. The most favourable option is one which provides a return of the natural seabed, with rock dump being the next best option. It was advised that any option to leave concrete mattresses exposed on the seabed would pose a high risk to fishermen. 	The SFF were in attendance at both the briefing session and the CA. During the CA any option discussed to relocate exiting mattresses to provide pipeline protection was discounted in line with the views of the SFF.			
	In May 2016 the Exchange of Correspondence (EoC) documentation and approval for the removal of the FPU was forwarded for information.	Receipt of EoC acknowledged. No further comments.			
	Statutory Consultation of the Draft Decommissioning Programme commenced in July 2016. Summarised comments from the SFF are as follows, with the detailed email correspondence included in Appendix C.1: "The Scottish Fishermen's Federation (SFF) appreciates the clearly laid out and detailed explanation of Maersk Oil's proposals for the decommissioning of the aforementioned fields and place on record our appreciation of the information provided and discussions held at the earlier Comparative Assessment and briefing sessions.	Comments are noted and furthe discussions will be held at a suitable time to agree the scope for the pos decommissioning trawl sweeps.			
	As highlighted previously, the concerns of fishermen remain primarily that of safety and the physical impact on the fishing grounds of the long term presence of oil industry infrastructure on the seabed.				
	We are therefore pleased to note that it is Maersk Oil's intention to sail away the Janice FPU, Plug and Abandon all wells (Janice and James), remove all subsea infrastructure (including concrete mattresses) and all surface laid pipelines covered by these particular decommissioning programmes.				
	In relation to buried in-situ pipelines, we accept that to minimise seabed disturbance, it is probably best to leave these in-situ, with rock dumping of exposed sections being acceptable as long as the size and profile of the rock follows normal industry standards. As you will be aware, any pipelines left on the seabed will be a legacy issue and will require on going monitoring – such rock dump berms could be incorporated into the post decommissioning debris clearance trawl sweeps to verify that, at the time of				

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Table 5.1: Summary of Stakeholder Comments					
Who	Comment	Response			
	The Federation having stated the above position, would reaffirm its continued appreciation of the openness of the dialogue hitherto and its wish to continue to work closely and positively with Maersk Oil and your Project Team, as you work through the challenges before you."				
National Federation of Fishermen's Organisations (NFFO)	In May 2016 the EoC documentation and approval for the removal of the FPU was forwarded for information. No comments received.	n/a			
	Statutory Consultation of the Draft Decommissioning Programme commenced in July 2016. Comments received as follows with email correspondence included in Appendix C.2.:	No response/action required.			
	"As the installation is in Scottish waters our counterparts in Scotland the Scottish Fishermen's Federation are far better placed to advise and add comment if required on this project, their decommissioning policy is parallel to ours and the NFFO only get involved and comment when necessary on any works In waters south of the border."				
Northern Irish Fish Producers Organisation (NIFPO)	In May 2016 the EoC documentation and approval for the removal of the FPU was forwarded for information. No comments received.	n/a			
	Statutory Consultation of the Draft Decommissioning Programme commenced in July 2016. No comments, as recorded in Appendix C.3.	No response/action required.			
Global Marine Systems Limited	In May 2016 EoC documentation and approval for the removal of the FPU was forwarded for information. Receipt of EoC acknowledged. No further comments.	n/a			
	Statutory Consultation of the Draft Decommissioning Programme commenced in July 2016. Comments received as follows with email correspondence included in Appendix C.4.: <i>"I have discussed the decommissioning proposal with</i> <i>Tampnet, and they are already in discussions regarding</i> <i>the proposal as it directly affects their asset. Any</i> <i>operations will need to be carried out with due regard</i> <i>to any requirements that they may have.</i> <i>I have not received any further comments from</i> <i>colleagues, and don't have any specific comments on</i> <i>the programme of works itself as no further submarine</i> <i>cables should be directly affected in the immediate</i> <i>vicinity, and if any interaction were unexpectedly to be</i> <i>necessary in the course of engineering the project, then</i> <i>it would be necessary to liaise with specific cable</i> <i>owners. Contact details and general cable information</i>	Comments are noted and all notifications will be made as required.			



Table 5.1: Summary of Stakeholder Comments				
Comment	Response			
for most systems can be found using KIS-ORCA cable awareness charts/interactive map <u>http://www.kis- orca.eu/map#.VPmDJHZFDIU</u> I also request that when notice to mariners are arranged for any offshore works, that the kingfisher fortnightly bulletin be updated to include details of the works to inform sea users as well as additional notification to the relevant authorities and UKHO."				
Notices placed in Edinburgh Gazette and Aberdeen Press & Journal.	n/a			
	Commentfor most systems can be found using KIS-ORCA cableawareness charts/interactive map http://www.kis-orca.eu/map#.VPmDJHZFDIU I also request that when notice to mariners arearranged for any offshore works, that the kingfisherfortnightly bulletin be updated to include details of theworks to inform sea users as well as additionalnotification to the relevant authorities and UKHO."Notices placed in Edinburgh Gazette and Aberdeen			

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6 PROGRAMME MANAGEMENT

6.1 **Project Management and Verification**

A Maersk Oil Project Management team will be appointed to manage suitable sub-contractors for the removal of the Janice FPU and associated export pipelines, Janice field, James field & Affleck field. Maersk standard procedures for operational control and hazard identification will be used. Where possible the work will be coordinated with other decommissioning or construction operations in the Central North Sea (CNS). Maersk will monitor and track the progress of consents and the consultations required as part of this process. Any changes in detail to the offshore removal programme will be discussed and agreed by DECC.

6.2 Post-Decommissioning Debris Clearance and Verification

As-left surveys will be performed after each phase of the decommissioning, with any significant seabed debris marked and recovered for onshore disposal or recycling in line with existing disposal methods.

A post decommissioning site survey will be carried out on final completion of all decommissioning works. Independent verification of the seabed state will be obtained by trawling the open trenched pipelines areas post completion, and will be followed by a statement of clearance to all relevant governmental departments and non-governmental organisations.

Due to the potential for another Operator to tie-in to the Southern Wye slot vacated by the Maersk Janice Oil Export pipeline, a grout bag support up to the tie-in point is proposed to be left in-situ. As such, a detailed as-left survey in planned to be carried out at this location in place of over-trawl trials.

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6.3 Schedule

Project Plan:





6.4 Costs

Table 6.1: Provisional Decommissioning Programmes costs				
Item	Estimated Cost (£m) ⁵			
Janice Floating Production Unit - Preparation / Removal and Disposal	Provided to BEIS			
Janice & James Facilities & Pipelines Decommissioning	Provided to BEIS			
Affleck Pipelines Decommissioning	Provided to BEIS			
Well Abandonment	Provided to BEIS			
Continuing Liability – Future Pipeline and Environmental Survey Requirements	Provided to BEIS			
TOTAL	Provided to BEIS			

⁵ Costs for the listed decommissioning workscopes contain commercially sensitive information which MOUK will submit to BEIS directly.



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6.5 Close Out

In accordance with the DECC (now BEIS) Guidelines, a Close Out Report will be submitted to BEIS within 4 months of the completion of the offshore works in their entirety, explaining any variations from the Decommissioning Programmes including debris removal and independent verification of seabed clearance and the first post-decommissioning environmental survey.

6.6 Post-Decommissioning Monitoring and Evaluation

A post decommissioning environmental seabed survey, centred on sites of the wellheads and installation, will be carried out. The survey will focus on chemical and physical disturbances of the decommissioning and compared with the pre decommissioning survey. Results of the survey will be included within the Close Out Report. All pipeline routes and structure sites will be the subject of surveys when decommissioning activity has concluded. After the results of the survey and Close Out Report have been reviewed by BEIS, a post monitoring survey regime will be agreed by both parties, typically one (or more) post decommissioning environmental surveys and structural pipeline surveys.

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7 SUPPORTING DOCUMENTS

	Table 7.1: Supporting Documents				
Item	Document Number	Document Title			
1.	COPD-JAN-000-EV-RE-0001	Janice, James and Affleck Fields. Decommissioning EIA.			
2.	COPD-JAN-000-SU-RE-0008	Comparative Assessment Report			



Title: Janice, James and Affleck - Decommissioning Programmes

8 PARTNER LETTER OF SUPPORT



Department for Business, Energy & Industrial Strategy 3rd Floor, Wing C, AB1 Building Crimon Place Aberdeen AB10 1BJ

Attn.: Debbie Taylor, Senior Decommissioning Manager

Maersk Oil UK Limited Maersk House Crawpeel Road Altens Aberdeen AB12 3LG

Phone: +44 1224 242000 Fax: +44 1224 242116

Registered office: 13th Floor Aldgate Tower 2 Leman Street London E1 8FA

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Date: 20 October 2016 Page: 1/1

Dear Sir/Madam

JANICE, JAMES AND AFFLECK DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your letter dated 22 September 2016 with reference MI-OGO5-00097.

We, Maersk Oil UK Limited, on behalf of ourselves and Repsol Sinopec North Sea Limited hereby submit the Janice, James and Affleck Decommissioning Programmes dated 26 September 2016 as directed by the Secretary of State on 22 September 2016.

The Janice, James and Affleck Decommissioning Programmes dated 26 September 2016, are submitted by Maersk Oil UK Limited on behalf of the Section 29 Notice Holders, Maersk Oil UK Limited and Repsol Sinopec North Sea Limited under section 29 of the Petroleum Act 1998.

Yours faithfully

Thomas Tildesley For and on behalf of Maersk Oil UK Limited



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Department for Business, Energy & Industrial Strategy 20 October 2016 3rd Floor, Wing C REF: RSRUK/COM/16/296 AB1 Building Crimon Place Aberdeen AB10 1BJ

Dear Sir/Madam

JANICE, JAMES AND AFFLECK DECOMMISSIONING PROGRAMMES

We acknowledge receipt of your letter dated 22 September 2016 with reference MI-OGO5-00097.

We, Repsol Sinopec North Sea Limited, confirm that we authorise Maersk Oil UK Limited to submit on our behalf an abandonment programme relating to the decommissioning of the Affleck equipment which is not required for an Affleck redevelopment project as directed by the Secretary of State on 22 September 2016.

We confirm that we support the proposals detailed in the Janice, James and Affleck Decommissioning Programmes dated 26 September 2016, which is to be submitted by Maersk Oil UK Limited in so far as it relates to those facilities in respect of which we are required to submit an abandonment programme under section 29 of the Petroleum Act 1998.

Yours faithfully

For and on behalf of Repsol Sinopec North Sea Limited

John Want Director



Title: Janice, James and Affleck - Decommissioning Programmes

Appendix A: Pipeline Trenching/Burial Profile Graphs

PL1631 – Oil Export Pipeline:



Figure 8.1: PL1631 Depth of Cover (DOC) Graph



Figure 8.2: PL1631 Depth of Lowering (DOL) Graph



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PL1632 – Gas Export Pipeline:



Figure 8.3: PL1632 Depth of Cover (DOC) Graph – KP0.0-KP15.0



Figure 8.4: PL1632 Depth of Cover (DOC) Graph – KP15.0-KP35.9

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Figure 8.5:: PL1632 Depth of Lowering (DOL) Graph – KP0.0-KP15.0



Figure 8.6: PL1632 Depth of Lowering (DOL) Graph – KP15.0-KP35.9







Figure 8.7: PL2057 Depth of Cover (DOC) Graph.



Figure 8.8: PL2057 Depth of Lowering (DOL) Graph



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PLU2058 – Gas Lift & Control Umbilical to James:

Figure 8.9: PLU2058 Depth of Cover (DOC) Graph.



Figure 8.10: PLU2058 Depth of Lowering (DOL) Graph

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PL2409 – Production Pipeline to Affleck (Pipe-in-Pipe System):

Figure 8.11: PL2409 Depth of Cover (DOC) Graph.



Figure 8.12: PL2409 Depth of Lowering (DOL) Graph



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PLU2410 – Control & Chemical Injection Umbilical to Affleck:

Figure 8.13: PLU2410 Depth of Cover (DOC) Graph.



Figure 8.14: PLU2410 Depth of Lowering (DOL) Graph

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Appendix B: Drill Cuttings Survey Data for Janice

General information				
Field	Janice			
Platform	Janice Alpha FPSO			
Block number	30/17			
Location	56°26'56.4"N 2°15'0"E			
Total number of wells drilled	22			
Start of drilling activity	1990			
Drilling fluids used	OBM,WBM			
Estimated total cuttings discharged (m ³)	2,975			

Survey year	1997
Operator	Kerr McGee
Survey contractor	Gardline
Survey date	Nov 93
Report date	Nov 93
Operational time (Yr)	15
Maximum distance of survey (km)	10
Number of stations	17
Chemistry sampler type	Day
Hydrocarbons (Y/N)	Y
PAH (Y/N)	Y
Metals (Y/N)	Y
Sediment characterisation (Y/N)	Y
Biology sampler type	Day
Number of replicates per station	4
Mesh size 1 mm (Y/N)	N
Mesh size 0.5 mm (Y/N)	Y
Univariate statistics (Y/N)	Y
Multivariate statistics (Y/N)	Y

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	Site Numbers						
Analytical results (sediments)	JANICE	JANICE	JANICE	JANICE	JANICE	JANICE	
	9701	9702	9703	9704	9705	9706	
Distance (m)	100	200	500	800	1,200	2,510	
Sediment mean particle diameter (μm)	5.38	2.43	2.82	2.36	2.33	2.25	
Silt/clay content	N/A	N/A	N/A	N/A	N/A	N/A	
Organic content	N/A	N/A	N/A	N/A	N/A	N/A	
Total hydrocarbon content (THC)	5,265	1,402	157	65	5	157	
Oil by IR	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by UV	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by UV-FC	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by gravimetrics	N/A	N/A	N/A	N/A	N/A	N/A	
n-alkanes	N/A	N/A	N/A	N/A	N/A	N/A	
СРІ	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes ultrasonic	N/A	N/A	N/A	N/A	N/A	N/A	
4 ring PAH (202 m/z)	N/A	N/A	N/A	N/A	N/A	N/A	
4 ring PAH (228 m/z)	N/A	N/A	N/A	N/A	N/A	N/A	
5 ring PAH	N/A	N/A	N/A	N/A	N/A	N/A	
6 ring PAH	N/A	N/A	N/A	N/A	N/A	N/A	
Barium	998	987	1,005	693	431	306	
Total Barium	N/A	N/A	N/A	N/A	N/A	N/A	
Cadmium	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chromium	77	54	61	36	66	62	
Copper	24	4	4	3	2	3	
Nickel	19	7	7	5	7	6	
Lead	52	11	7	9	5	14	
Vanadium	48	24	26	22	26	26	
Zinc	128	21	21	16	15	14	
Iron	12,950	5,424	5,882	5,608	6,249	6,421	
Mercury	0.16	<0.04	<0.04	<0.04	<0.04	<0.04	
Biology data (Y/N)	Y	Y	Y	Y	Y	Y	
Biology statistics (Y/N)	Y	Y	Y	Y	Y	Y	

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	Site Numbers						
Analytical results (sediments)	JANICE JANICE JANICE JANICE JANICE JANICE						
	9707	9708	9709	9710	9711	9712	
Distance (m)	5,000	80	170	470	780	200	
Sediment mean particle diameter (µm)	2.39	6	3.35	2.61	2.72	2.46	
Silt/clay content	N/A	N/A	N/A	N/A	N/A	N/A	
Organic content	N/A	N/A	N/A	N/A	N/A	N/A	
Total hydrocarbon content (THC)	129	13,874	1,759	711	148	638	
Oil by IR	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by UV	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by UV-FC	N/A	N/A	N/A	N/A	N/A	N/A	
Oil by gravimetrics	N/A	N/A	N/A	N/A	N/A	N/A	
n-alkanes	N/A	N/A	N/A	N/A	N/A	N/A	
СЫ	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Naphthalenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Phenanthrenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes (soxhlet)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes (saponification)	N/A	N/A	N/A	N/A	N/A	N/A	
Dibenzothiophenes ultrasonic	N/A	N/A	N/A	N/A	N/A	N/A	
4 ring PAH (202 m/z)	N/A	N/A	N/A	N/A	N/A	N/A	
4 ring PAH (228 m/z)	N/A	N/A	N/A	N/A	N/A	N/A	
5 ring PAH	N/A	N/A	N/A	N/A	N/A	N/A	
6 ring PAH	N/A	N/A	N/A	N/A	N/A	N/A	
Barium	311	1,103	2,443	1,251	522	4,219	
Total Barium	N/A	N/A	N/A	N/A	N/A	N/A	
Cadmium	<0.5	<0.5	<0.5	1.0	0.5	0.5	
Chromium	59	93	87	115	65	89	
Copper	2	71	7	14	9	8	
Nickel	5	60	10	17	10	9	
Lead	7	59	11	23	13	13	
Vanadium	25	148	35	32	25	33	
Zinc	13	250	45	16	19	29	
Iron	5,793	38,850	8,444	6,777	5,340	7,229	
Mercury	<0.04	0.42	0.04	<0.04	<0.04	< 0.04	
Biology data (Y/N)	Y	Y	Y	Y	Y	Y	
Biology statistics (Y/N)	Y	Y	Y	Y	Y	Y	

Doc No: COPD-JAN-000-SU-PA-0001

Analytical results (sediments)	JANICE	JANICE	JANICE	JANICE	JANICE
	9713	9714	9715	9716	9717
Distance (m)	500	200	500	8,000	10,010
Sediment mean particle diameter (µm)	2.46	2.47	2.47	2.63	2.78
Silt/clay content	N/A	N/A	N/A	N/A	N/A
Organic content	N/A	N/A	N/A	N/A	N/A
Total hydrocarbon content (THC)	114	182	198	110	86
Oil by IR	N/A	N/A	N/A	N/A	N/A
Oil by UV	N/A	N/A	N/A	N/A	N/A
Oil by UV-FC	N/A	N/A	N/A	N/A	N/A
Oil by gravimetrics	N/A	N/A	N/A	N/A	N/A
n-alkanes	N/A	N/A	N/A	N/A	N/A
СЫ	N/A	N/A	N/A	N/A	N/A
Naphthalenes (soxhlet)	N/A	N/A	N/A	N/A	N/A
Naphthalenes (saponification)	N/A	N/A	N/A	N/A	N/A
Naphthalenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A
Phenanthrenes (soxhlet)	N/A	N/A	N/A	N/A	N/A
Phenanthrenes (saponification)	N/A	N/A	N/A	N/A	N/A
Phenanthrenes (ultrasonic)	N/A	N/A	N/A	N/A	N/A
Dibenzothiophenes (soxhlet)	N/A	N/A	N/A	N/A	N/A
Dibenzothiophenes (saponification)	N/A	N/A	N/A	N/A	N/A
Dibenzothiophenes ultrasonic	N/A	N/A	N/A	N/A	N/A
4 ring PAH (202 m/z)	N/A	N/A	N/A	N/A	N/A
4 ring PAH (228 m/z)	N/A	N/A	N/A	N/A	N/A
5 ring PAH	N/A	N/A	N/A	N/A	N/A
6 ring PAH	N/A	N/A	N/A	N/A	N/A
Barium	949	1,408	572	353	318
Total Barium	N/A	N/A	N/A	N/A	N/A
Cadmium	<0.5	1.0	<0.5	0.6	<0.5
Chromium	71	69	127	58	63
Copper	6	6	8	4	4
Nickel	7	6	8	5	6
Lead	9	7	10	4	3
Vanadium	24	25	29	25	26
Zinc	19	23	22	14	14
Iron	5,886	5,802	6,831	5,464	5,939
Mercury	<0.04	<0.04	<0.04	<0.04	<0.04
Biology data (Y/N)	Y	Y	Y	Y	Y
Biology statistics (Y/N)	Y	Y	Y	Y	Y



Title: Janice, James and Affleck - Decommissioning Programmes

Appendix C: Statutory Consultee Correspondence

Appendix C.1 SFF Correspondence

See email correspondence on the pages to follow.

Steph Kiltie

From: Sent: To: Cc: Subject:	Steven Alexander <s.alexander@sff.co.uk> 09 August 2016 12:53 Steph Kiltie; John Watt 2188 – Maersk Janice; PDi DCC; Bean, Marcus; Peter West RE: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation</s.alexander@sff.co.uk>
Categories:	DP Comments

Dear Steph,

I refer to the Janice, James and Affleck Decommissioning Programmes documentation provided in your email of 18th July 2016.

The Scottish Fishermen's Federation (SFF) appreciates the clearly laid out and detailed explanation of Maersk Oil's proposals for the decommissioning of the aforementioned fields and place on record our appreciation of the information provided and discussions held at the earlier Comparative Assessment and briefing sessions.

As highlighted previously, the concerns of fishermen remain primarily that of safety and the physical impact on the fishing grounds of the long term presence of oil industry infrastructure on the seabed.

We are therefore pleased to note that it is Maersk Oil's intention to sail away the Janice FPU, Plug and Abandon all wells (Janice and James), remove all subsea infrastructure (including concrete mattresses) and all surface laid pipelines covered by these particular decommissioning programmes.

In relation to buried in-situ pipelines, we accept that to minimise seabed disturbance, it is probably best to leave these in-situ, with rock dumping of exposed sections being acceptable as long as the size and profile of the rock follows normal industry standards. As you will be aware, any pipelines left on the seabed will be a legacy issue and will require on going monitoring – such rock dump berms could be incorporated into the post decommissioning debris clearance trawl sweeps to verify that, at the time of deposit, they did not pose a risk to fishing.

One point we would appreciate clarification on at this stage is with regard to drill cuttings. Page 18 of the document states that the proposed decommissioning solution is for the drill cuttings to be left undisturbed on seabed – how could this be guaranteed once the 500 metre Safety Zones are removed? We have noted that preliminary screening at Affleck and James fields and a second study applied to the Janice field concluded that all drill cuttings are below the required thresholds stipulated in the OSPAR Recommendation 2006/5, but it would also be appreciated if Maersk could provide details on what would be the estimated height and footprint of the drill cutting piles.

The Federation having stated the above position, would reaffirm its continued appreciation of the openness of the dialogue hitherto and its wish to continue to work closely and positively with Maersk Oil and your Project Team, as you work through the challenges before you.

Kind regards,

Steven

Steven Alexander Offshore Liaison **Scottish Fishermen's Federation** 24 Rubislaw Terrace Aberdeen AB10 1XE

Tel: 01224 646944 Fax: 01224 647058 Mob: 07803 894734 Website: <u>www.sff.co.uk</u>



From: Steph Kiltie [mailto:steph.kiltie@pdi-ltd.com]
Sent: 18 July 2016 11:39
To: John Watt <<u>J.Watt@sff.co.uk</u>>; Steven Alexander <<u>S.Alexander@sff.co.uk</u>>
Cc: 2188 – Maersk Janice <<u>2188-Maersk.Janice@pdi-ltd.com</u>>; PDi DCC <<u>dcc@pdi-ltd.com</u>>; Bean, Marcus
<<u>marcus.bean@maerskoil.com</u>>
Subject: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Good morning John/Steven,

The Draft Decommissioning Programmes for Maersk Janice, James and Affleck have been approved for consultation by DECC ODU and Public Notices issued on Friday 15th July 2016.

The Programmes are now attached for your review as Statutory Consultee and the associated Comparative Assessment and EIA documents are available for review/information on the DECC website (<u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u>).

Should you have any questions or comments to the documentation, please address these to myself and Marcus Bean (Integration Manager – Janice Decommissioning Project) as cc'd above.

Kind regards,

Steph Kiltie Project Manager





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Title: Janice, James and Affleck - Decommissioning Programmes

Appendix C.2 NFFO Correspondence

See email correspondence on the pages to follow.

Steph Kiltie

From:	Ian Rowe <irowe@nffo.org.uk></irowe@nffo.org.uk>
Sent:	04 August 2016 08:39
То:	Steph Kiltie
Cc:	2188 – Maersk Janice; Bean, Marcus; Alan Piggott
Subject:	RE: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Good morning Steph

Thankyou for the email regarding the Janice decommissioning program.

As the installation is in Scottish waters our counterparts in Scotland the Scottish Fishermen's Federation are far better placed to advise and add comment if required on this project, there decommissioning policy is parallel to ours and the NFFO only get involved and comment when necessary on any works In waters south of the border.

Best regards lan

lan Rowe

NFFO Services Limited 30 Monkgate York YO31 7PF Switchboard 01904 635 430 DD Tel:01904 635 432 Mob:07887 476202 Email:irowe@nffo.org.uk Website:www.nffoservices.com

From: Steph Kiltie [mailto:steph.kiltie@pdi-ltd.com]
Sent: 03 August 2016 16:17
To: Barrie Deas; NFFO; info@nffoservices.com
Cc: 2188 – Maersk Janice; Bean, Marcus
Subject: RE: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Dear Sirs,

Could you please confirm if you received this email and attachment?

The end of the consultation period is approaching (15th August) and we would like to be able to address any comments as quickly as possible, or resend the documentation if you have not received it.

Kind regards,

Steph Kiltie Project Manager

 Tel:
 +44 (0) 1224 269060

 Direct:
 +44 (0) 1224 562193

 Mob:
 +44 (0) 7767 446637

 Email:
 steph.kiltie@pdi-ltd.com



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From: Steph Kiltie
Sent: 18 July 2016 12:02
To: 'barrie@nffo.org.uk'; 'nffo@nffo.org.uk'; 'info@nffoservices.com'
Cc: 2188 – Maersk Janice; Bean, Marcus; PDi DCC
Subject: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Dear Sirs,

Further to the earlier correspondence below, we are writing to advise that the Draft Decommissioning Programmes for Maersk Janice, James and Affleck have been approved for consultation by DECC ODU and Public Notices were issued on Friday 15th July 2016.

The Programmes are now attached for your review as Statutory Consultee and the associated Comparative Assessment and EIA documents are available for review/information on the DECC website (<u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u>).

Should you have any questions or comments to the documentation, please address these to myself and Marcus Bean (Integration Manager – Janice Decommissioning Project) as cc'd above.

We would be grateful if you could confirm receipt of this correspondence and look forward to hearing from you soon.

Kind regards,

Steph Kiltie Project Manager

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 Email:
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From: Steph Kiltie Sent: 25 May 2016 11:47 To: 'barrie@nffo.org.uk' Cc: 2188 – Maersk Janice Subject: Maersk Janice Decommissioning - FPU Removal Dear Sir,

We (PDi Ltd) are assisting Maersk Oil UK Ltd (MOUK) with the development of the Decommissioning Programme for the decommissioning of the Janice, James and Affleck fields which include the Janice 'A' FPU and associated subsea facilities. We are writing to advise that MOUK have received approval from DECC ODU to remove the Janice FPU and perform certain subsea activities associated with this removal, prior to the Decommissioning Programme being approved.

The Exchange of Correspondence (EoC) Doc No. COPD-JAN-000-SU-RE-0018 Rev A2 "Request for Approval to Remove Janice 'A' FPU" together with the associated letter of approval from DECC ODU are attached for your information.

In addition, we are currently addressing comments from DECC ODU to the Draft Decommissioning Programme and I anticipate that this may be issued for consultation in mid-June 2016.

As a statutory consultee you will be engaged further once the Decommissioning Programme is issued for consultation, however should you have any questions or wish further clarification in the meantime, please do not hesitate to contact me.

Kind regards,

Steph Kiltie Project Manager

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Title: Janice, James and Affleck - Decommissioning Programmes

Appendix C.3 NIFPO Correspondence

See email correspondence on the pages to follow.

Steph Kiltie

From:	FP Offshore Services (NI) Ltd <waynes@fpoffshoreservices.co.uk></waynes@fpoffshoreservices.co.uk>	
Sent:	16 August 2016 11:19	
То:	Steph Kiltie	
Cc:	nifpo@btconnect.com; 2188 – Maersk Janice; Bean, Marcus	
Subject:	Re: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for	
	Consultation	

Hi,

Apologies for the delay in responding. I have no comments on the draft at this time.

Kind Regards Wayne Sloan Offshore Manager FP Offshore Services (NI) Ltd +44(0)7590580500

On 10 Aug 2016, at 11:16, Steph Kiltie <<u>steph.kiltie@pdi-ltd.com</u>> wrote:

Hi Wayne,

Could you let me know if you/NIFPO have any comments to the above Decommissioning Programmes, as the end of the consultation period is approaching (Monday 15th August).

We have received responses from SFF and NFFO and would be grateful if you could advise so we can update the documentation accordingly.

Should you have any questions please do not hesitate to contact me.

Kind regards,

Steph Kiltie <image004.png>Project Manager

Tel:	+44 (0) 1224 269060
Direct:	+44 (0) 1224 562193
Mob:	+44 (0) 7767 446637
Email:	steph.kiltie@pdi-ltd.com

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From: Wayne Sloan [mailto:waynes@fpoffshoreservices.co.uk]
Sent: 18 July 2016 14:07
To: Steph Kiltie
Cc: 2188 – Maersk Janice; Bean, Marcus; PDi DCC
Subject: Re: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Hi Steph,

Thanks for the email.

Regards Wayne Sloan Offshore Manager FP Offshore Services (NI) Ltd +447590580500

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On 18 July 2016 at 12:07, Steph Kiltie <<u>steph.kiltie@pdi-ltd.com</u>> wrote:

Dear Sirs,

Further to the earlier correspondence below, we are writing to advise that the Draft Decommissioning Programmes for Maersk Janice, James and Affleck have been approved for consultation by DECC ODU and Public Notices were issued on Friday 15th July 2016.

The Programmes are now attached for your review as Statutory Consultee and the associated Comparative Assessment and EIA documents are available for review/information on the DECC website (<u>https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines</u>).

Should you have any questions or comments to the documentation, please address these to myself and Marcus Bean (Integration Manager – Janice Decommissioning Project) as cc'd above.

We would be grateful if you could confirm receipt of this correspondence and look forward to hearing from you soon.

Kind regards,

Steph Kiltie

<image001.png>Project Manager

- Tel: +44 (0) 1224 269060
- Direct: +44 (0) 1224 562193
- Mob: +44 (0) 7767 446637
- Email: <u>steph.kiltie@pdi-ltd.com</u>

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From: Steph Kiltie Sent: 25 May 2016 11:50 To: '<u>nifpo@btconnect.com</u>' Cc: 2188 – Maersk Janice Subject: Maersk Janice Decommissioning - FPU Removal

Dear Sir,

We (PDi Ltd) are assisting Maersk Oil UK Ltd (MOUK) with the development of the Decommissioning Programme for the decommissioning of the Janice, James and Affleck fields which include the Janice 'A' FPU and associated subsea facilities. We are writing to advise that MOUK have received approval from DECC ODU to remove the Janice FPU and perform certain subsea activities associated with this removal, prior to the Decommissioning Programme being approved.

The Exchange of Correspondence (EoC) Doc No. COPD-JAN-000-SU-RE-0018 Rev A2 "Request for Approval to Remove Janice 'A' FPU" together with the associated letter of approval from DECC ODU are attached for your information.

In addition, we are currently addressing comments from DECC ODU to the Draft Decommissioning Programme and I anticipate that this may be issued for consultation in mid-June 2016.

As a statutory consultee you will be engaged further once the Decommissioning Programme is issued for consultation, however should you have any questions or wish further clarification in the meantime, please do not hesitate to contact me.

Kind regards,

Steph Kiltie

<image001.png>Project Manager

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Title: Janice, James and Affleck - Decommissioning Programmes

Appendix C.4 Global Marine Systems Ltd Correspondence

See email correspondence on the pages to follow.

Steph Kiltie

From: Sent:	Wrottesley, John (GMSL) <john.wrottesley@globalmarinesystems.com> 09 August 2016 12:11</john.wrottesley@globalmarinesystems.com>
То:	Steph Kiltie
Subject:	RE: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for
	Consultation

Hi Steph,

I have discussed the decommissioning proposal with Tampnet, and they are already in discussions regarding the proposal as it directly affects their asset. Any operations will need to be carried out with due regard to any requirements that they may have.

I have not received any further comments from colleagues, and don't have any specific comments on the programme of works itself as no further submarine cables should be directly affected in the immediate vicinity, and if any interaction were unexpectedly to be necessary in the course of engineering the project, then it would be necessary to liaise with specific cable owners. Contact details and general cable information for most systems can be found using KIS-ORCA cable awareness charts/interactive map http://www.kis-orca.eu/map#.VPmDJHZFDIU.

I also request that when notice to mariners are arranged for any offshore works, that the kingfisher fortnightly bulletin be updated to include details of the works to inform sea users as well as additional notification to the relevant authorities and UKHO.

Please let me know if you need any further information or clarification.

Kind regards,

John

-----Original Message-----From: Steph Kiltie [mailto:steph.kiltie@pdi-ltd.com] Sent: 09 August 2016 11:47 To: Wrottesley, John (GMSL) Subject: RE: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Hi John,

Sorry to bother you again, but did you receive any feedback from Tampnet, or do you have any comments that I could start addressing?

Many thanks,

Steph

-----Original Message-----From: Wrottesley, John (GMSL) [mailto:John.Wrottesley@globalmarinesystems.com] Sent: 03 August 2016 16:24 To: Steph Kiltie Cc: 2188 - Maersk Janice; Bean, Marcus Subject: Re: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Hi Steph,

Thanks for your email.

Apologies for not responding sooner. I did receive the below and had been discussing with colleagues, and was awaiting some feedback from Tampnet to ensure they were already aware.

I will be in touch with further comments this week.

Kind regards,

John

On 3 Aug 2016, at 16:17, Steph Kiltie <steph.kiltie@pdi-ltd.com<mailto:steph.kiltie@pdi-ltd.com>> wrote:

John,

Could you please confirm if you received this email and attachment?

The end of the consultation period is approaching (15th August) and we would like to be able to address any comments as quickly as possible, or resend the documentation if you have not received it.

Kind regards,

Steph Kiltie <image005.png><http://www.pdi-ltd.com/>Project Manager

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From: Steph Kiltie Sent: 18 July 2016 11:35 To: 'Wrottesley, John (GMSL)' Cc: 2188 - Maersk Janice; Bean, Marcus; PDi DCC Subject: Maersk Janice, James and Affleck Decommissioning Programmes - Draft for Consultation

Good morning John,

The Draft Decommissioning Programmes for Maersk Janice, James and Affleck were approved for consultation by DECC ODU and Public Notices issued on Friday 15th July 2016.

The Programmes are now attached for your review as Statutory Consultee and the associated Comparative Assessment and EIA documents are available for review/information on the DECC website (https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines).

Should you have any questions or comments to the documentation, please address these to myself and Marcus Bean (Integration Manager - Janice Decommissioning Project) as cc'd above.

Kind regards,

Steph Kiltie <image008.png><http://www.pdi-ltd.com/>Project Manager

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 Email:
 steph.kiltie@pdi-ltd.com<mailto:steph.kiltie@pdi-ltd.com>

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Doc No: COPD-JAN-000-SU-PA-0001 Title: Janice, James and Affleck - Decommissioning Programmes

Appendix D: Exchange of Correspondence: Janice, James and Affleck Field(s) Decommissioning – Request for Approval to remove Janice "A" FPU (Phase 1 Decommissioning Activities).

See letter on the pages to follow.



Mr Marcus Bean Maersk Oil UK Limited Maersk House Crawpeel Road Altens Aberdeen AB12 3LG Department of Energy & Climate Change AB1 Building Wing C, 3rd Floor 48 Huntly Street Aberdeen AB10 1SH

T: +44 (0)1224 254034

F: +44 (0)1224 254089

E: ruth.ledingham@decc.gsi.gov.uk www.gov.uk/decc

13 May 2016

Dear Mr Bean

Exchange of Correspondence: Janice, James and Affleck Field(s) Decommissioning – Request for Approval to remove Janice "A" FPU (Phase 1 Decommissioning Activities)

Thank you for your e-mail submission of 12 May 2016 entitled '*Request for approval to remove Janice* 'A' FPU – COPD-JAN-000-SU-RE-0018, REV A2' in which you provide details of your plans for the demobilisation and removal of the Janice "A" FPU ("FPU") from the Janice, James and Affleck Field(s) and Phase 1 decommissioning activities.

We have now completed our review and can confirm that the Department of Energy and Climate Change (DECC) are content with Maersk Oil UK Limited's proposals that the Janice "A" FPU is removed from the fields on, or after, 14 May 2016 and that the Janice, James and Affleck subsea facilities (excluding those detailed below in section (b)) will remain in place pending approval of the Decommissioning Programmes.

The Phase 1 decommissioning operations listed below can be executed prior to decommissioning programme approval.

- (a) Flushing and Cleaning of Pipeline facilities
 - Disconnection of all lines from subsea trees
 - Disconnection of the risers and mooring chains at the FPU
 - Removal of the Janice "A" FPU
 - Removal of a number of concrete mattresses and grout bags

In addition, following further discussions and the provision of more information, DECC agree that the activities listed below, normally requiring Decommissioning Programme approval to be in place before they can be carried out, can be included in the Phase 1 decommissioning activities.

- (b) Approximately 60m of exposed section of PL1631 to be recovered to shore
 - Mooring chains and anchors to be recovered to shore

I have outlined below DECC's requirements and expectations of the next steps in the process.

- DECC will require regular updates on the progress of activity and we will ensure DECC colleagues and the Oil and Gas Authority (OGA) are updated accordingly.
- Any material changes to the activities outlined in your submission dated 12 May 2016 must be discussed and agreed with DECC.

Acceptance of your proposals for the Janice "A" FPU float off and associated Phase 1 decommissioning activities by the Offshore Decommissioning Unit, as outlined in your submission dated 12 May 2016, should not be taken as constituting or implying any further approvals or authorisations, which may be required in connection with the cessation of production of the Janice, James and Affleck facilities and the float off of the FPU. Permits and consents required in preparation for the demobilisation and for Phase 1 of the campaign, in particular pipeline flushing and cleaning activities, should ensure they achieve their objectives and goals and be prioritised accordingly.

We are aware that you have had discussions with the appropriate regulators regarding the consents required in relation to the demobilisation activities and a copy of this correspondence will be passed to DECC's Offshore Environment Unit and Offshore Environmental Inspectorate, the Oil and Gas Authority, and Health and Safety Executive for their information.

Please do not hesitate to get in touch with Ruth Ledingham or myself should you have any queries or wish to discuss any of the above.

Yours sincerely

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Fiona Livingston Senior Decommissioning Manager Offshore Decommissioning Unit (ODU)

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DECC Environmental Management Team DECC Offshore Environmental Inspectorate Oil & Gas Authority Health & Safety Executive



Doc No: COPD-JAN-000-SU-PA-0001 Title: Janice, James and Affleck - Decommissioning Programmes

Appendix E: Exchange of Correspondence No.2: Janice, James and Affleck Field(s) Decommissioning – Request for Approval to Remove Janice Risers and Affleck Umbilical Riser.

See letter on the pages to follow.

Department for Business, Energy & Industrial Strategy

Mr Marcus Bean Maersk Oil UK Limited Maersk House Crawpeel Road Altens Aberdeen AB12 3LG Department for Business, Energy & Industrial Strategy 3rd Floor, Wing C AB1 Building Crimon Place Aberdeen AB10 1BJ T: 01224 254082 E: debbie.taylor@beis.gov.uk www.gov.uk/beis

29 August 2016

Dear Mr Bean

Exchange of Correspondence No. 2: Janice, James and Affleck Field(s) Decommissioning – Request for Approval to Remove Janice Risers and Affleck Umbilical Riser

Thank you for your e-mail submission of 26 August 2016 entitled 'Request for Approval to remove Janice Risers and Affleck Umbilical Riser' – COPD-JAN-000-SU-RE-0019, REVA2' in which you provide details of your plans to perform the recovery of those risers which are installed over the 2 x Mid Water Arches at Janice in advance of final approval of the Decommissioning Programmes.

This work scope is in addition to the already agreed Phase 1 decommissioning operations listed in the Exchange of Correspondence Letter issued to Maersk Oil UK Limited on 13 May 2016.

We have now completed our review and can confirm that the Department for Business Energy & Industrial Strategy (BEIS) is content with Maersk Oil UK Limited's proposals to remove the Risers using the Maersk Achiever commencing 1st September 2016 and that the Janice, James and Affleck subsea facilities will remain in place pending approval of the Decommissioning Programmes.

I have outlined below BEIS's requirements and expectations of the next steps in the process.

- BEIS will require regular updates on the process of activity and we will ensure BEIS colleagues and the Oil & Gas Authority (OGA) are updated accordingly.
- Any material change to the activities outlined in your submission dated 26 August 2016 must be discussed and agreed with BEIS.

Acceptance of your proposals for the Janice Risers and Affleck Umbilical Riser decommissioning activities by the Offshore Decommissioning Unit as outlined in your submission dated 26 August 2016, should not be taken as constituting or implying any further approvals or authorisations, which may be required in connection with the cessation of production of the Janice, James and Affleck facilities. Permits and consents required in preparation for the Risers removal, should ensure they achieve their objectives and goals and be prioritised accordingly.

We are aware that you have had discussions with the appropriate regulators regarding the consents required in relation to the decommissioning activities and a copy of this correspondence will be passed to BEIS's Offshore Environmental Unit and Offshore Environmental Inspectorate, the Oil & Gas Authority and the Health and Safety Executive for their information.

Please do not hesitate to get in touch with Jennie Smith, Lisa Yates or myself should you have any queries or wish to discuss any of the above.

Yours sincerely,

Debbie Taylor Senior Decommissioning Manager Offshore Decommissioning Unit