



## Streamlined Decommissioning Programme(s) Template

(Non-Derogation Cases)





### **Document Control**

Insert Tables of Document Revisions as per example below

### **Approvals**

	Name	Signature	Date
Prepared by	K Tucker/G Cooper	letteral	28/09/10
Reviewed by	P. Cooper	X C. COOK	28/09/10
Approved by	J Sewell	THE SERVED	30/09/10

### **Revision Control**

Revision No	Reference	Changes/Comments	Issue Date
0	Develop outline programme		30 Jan 2009
1	First draft		6 Feb 2009
5.5	Final Issued Version		30 Sept 2010

### **Distribution List**

Name	Company	No of Copies





### **Contents**

### Delete options and brackets where appropriate. Remove red help text throughout document

Note: Annotate the Contents table to indicate which sections refer to installation/pipeline				
prog	rammes. INST = Installations P/L = Pipelines		INST	P/L
1 1	executive Summary	5		
1.1	Decommissioning Programme/	5	J	J
	Combined Decommissioning Programmes	5	J	J
1.2	Requirement for Decommissioning Programme(s)	5	J	J
1.3	Introduction	5	J	J
1.4	Overview of Installation(s)/Pipeline(s) Being Decommissioned	6	J	J
1.5	Summary of Proposed Decommissioning Programme(s)	7	J	J
1.6	Field Location Including Field Layout and Adjacent Facilities	8		
1.7	Industrial Implications	10		
2 1	Description of Items to be decommissioned	11		
2.1	Installations: Surface Facilities	11	J	
2.2	Installations: Subsea including Stabilisation Features	11	J	
2.3	Pipelines including Stabilisation Features	13		J
2.4	Wells	15	J	
2.5	Drill Cuttings	15	J	
2.6	Inventory Estimates	16	J	J
3. 1	Removal and Disposal Methods	17		
3.1	Topside	17	J	
3.2	Jacket(s)	19	J	
3.3	Subsea Installations and Stabilisation Features	20	J	
3.4	Pipelines	21	J	
3.5	Pipeline Stabilisation Features	22	J	
3.6	Wells	22	J	
3.7	Drill Cuttings	23	J	
3.8	Waste Streams	24	J	J
4 1	nvironmental Impact Assessment	25		
4.1	Environmental Sensitivities (Summary)	25	J	J
4.2	Potential Environmental Impacts and their Management	26	J	
5 I	nterested Party Consultations	27	J	1
6 1	Programme Management	28		
6.1	Project Management and Verification	28	J	J
6.2	Post-Decommissioning Debris Clearance and Verification	28	J	
6.3	Schedule	29	J	J
6.4	Costs	29	J	J
6.5	Close Out	30	J	J
6.6	Post-Decommissioning Monitoring and Evaluation	30	J	J
7 Supporting Documents 31			J	J
8. Partner Letter(s) of Support 32			J	J





### **Terms and Abbreviations**

Include a table of the terms and abbreviations used in the document (examples in blue below).

Abbreviation	Explanation
DECC	Department of Energy and Climate Change
ES	Environmental Statement
CA	Comparative Assessment

### **Figures and Tables**

Include a table of Figures and Tables used in the document.

### **Appendices**

Include a table of the Appendices which are to be included as part of this document (example in blue below).

Appendix	Description	Page
1	Statutory Consultee Correspondence	32

Note: The Environmental Statement (ES) (otherwise known as the Environmental Impact Assessment or EIA) and any Comparative Assessment (CA) for pipelines are separate, referenced documents in support of the decommissioning programme(s). They should not be included as an Appendix but listed in Section 7 (Supporting Documents).





### 1 EXECUTIVE SUMMARY

## 1.1 Decommissioning Programme/ Combined Decommissioning Programmes

This document contains decommissioning programme(s) forinstallation(s) and
pipeline(s).
Combined Decommissioning Programmes: Please provide a clear statement confirming that there is a separate programme for each set of associated notices served under Section 29 of the Petroleum Act 1998.
1.2 Requirement for Decommissioning Programme(s)
Delete appropriate paragraph below if only one decommissioning programme.
nstallation(s):
n accordance with the Petroleum Act 1998, the Section 29 notice holders of the
nstallation(s)/field (see Table 1.2) are applying to the Department of Energy and Climate Change to
obtain approval for decommissioning the installations detailed in Section 2.1 and 2.2 of this programme.
See also Section 8 - Partner Letter(s) of Support).
Pipeline(s):
n accordance with the Petroleum Act 1998, the Section 29 notice holders of the
pipelines (see Table 1.4) are applying to the Department of Energy and Climate Change to obtain
approval for decommissioning the pipelines detailed in Section 2.3 of this programme. (See also Section 8
- Partner Letter(s) of Support).
n conjunction with public, stakeholder and regulatory consultation, the decommissioning programme(s)
s/are submitted in compliance with national and international regulations and DECC guidelines. The
schedule outlined in this document is for a year decommissioning project plan due to begin in
<del></del>

### 1.3 Introduction

Insert introductory paragraphs outlining the background of the decommissioning proposal with information on topsides, jacket and pipelines (where applicable). Freeform text as per example paragraphs in blue below. (Suggested maximum of 250 words)

The Welland Field is located in the Southern Basin of the UKCS in license block 53/4a. Welland was discovered in 1983 and consists of three gas reservoirs with condensate traces. It received Annex B approval in 1989 for a single platform remotely operated from Thames platform. The platform was installed and production started in 1990. Production ceased in 2003 due to excessive water rates and equipment failures. Cessation of Production notification was submitted in 2004.

Welland Platform is a 1000t topside minimum facilities structure in 37m water depth. It was designed and operated as a normally unattended satellite installation. Gas was exported to the nearby Thames complex. Subsea tie-backs to 3 remote wells comingle with production from the 2 platform wells.

Following public, stakeholder and regulatory consultation, the decommissioning programme(s) is/are submitted without derogation and in full compliance with DECC guidelines. The decommissioning





programme(s) explains the principles of the removal activities and is supported by an environmental impact assessment.

### 1.4 Overview of Installation(s)/Pipeline(s) Being Decommissioned

### 1.4.1 Installation(s)

Table 1.1: Installation(s) Being Decommissioned				
Field(s):		Production Type		
		(Oil/Gas/Condensate)		
Water Depth (m)		UKCS block		
	Surface I	nstallation(s)		
		( )		
Number	Type*	Topsides Weight (Te)	Jacket Weight (Te)	
Subsea I	nstallation(s)	Number of Wells		
Number	Type**	Platform	Subsea	
	<i>.</i>			
Duill Con	Min and mile (a)	Distance to medica	Distance from a const	
Drill Cu	ttings pile(s)	Distance to median	Distance from nearest	
			UK coastline	
Number of Piles	Total Estimated volume (m <sup>3</sup> )	km	km	

<sup>\*</sup> fixed steel jacket / floating facility / FPSO / etc. \*\*template/manifold / WHPS / manifold etc

Table 1.2 Installation(s) Section 29 Notice Holders Details			
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%) If zero show 0%	





1.4.2 Pipeline(s)

Tal	ole 1.3: Pipeline(s) Being Decommissione	d	
Number of Pipeline(s)			(See Table 2.3)

Table 1.4: Pipeline(s) Section 29 Notice Holders Details			
Section 29 Notice Holder(s)	Registration Number	Equity Interest (%)  If zero show 0%	

### 1.5 Summary of Proposed Decommissioning Programme(s)

Complete Table 1.5, as per examples in blue below.

Table 1.5: Summary of Decommissioning Programme(s)					
Selected Option	Reason for Selection	Proposed Decommissioning Solution			
	1. Topsides				
Complete removal and re-	Perenco subsidiary	Cleaned equipment refurbished for re-use where			
use	indicated that Welland	possible. Remove wholly by HLV. Equipment which			
(or N/A if subsea	installation suitable for	cannot be re-used will be recycled or other disposal			
installation(s) only or	development of new well	routes as appropriate.			
pipeline(s) only programme)	outside UKCS waters.				
	2. Jacket(s)/Floating I	Facility (FPSO etc.)			
Complete removal and	Leaves clean seabed,	May need to be cut at the -11m level (26m above			
recycling	removes a potential	sea-bed) to allow re-use at proposed new location.			
(or N/A if a subsea	obstruction to fishing	Legs will be removed with piles and cut on vessel/			
installation(s) only or	operations and maximises	barge decks or at an onshore location. Lower 26M of			
pipeline(s) only programme)	recycling of materials	the jacket and piles and subsea wellhead protection			
		frames will be transported ashore for recycling.			
	3. Subsea Inst				
Wellhead protection frames	To remove all seabed	Wellhead protection frames will be removed along			
will be removed by HLV or	structures and leave a	with the top sections of piles. Piles for wellhead			
crane vessel with crane (or	clean seabed	protection structures and jacket structure will be			
N/A if none present or		removed to -3 metres.			
pipeline(s) only programme)					
	4. Pipelines, Flowlin				
Flush and leave buried in	Minimal seabed	The 16 inch pipeline, 3inch piggy-back line, three 8			
situ (or N/A if an	disturbance, lower energy	inch flowlines and three 4" umbilicals will be left in			
installation(s) only	usage, reduced risk to	situ, with the cut ends re-buried as recommended			
programme)	personnel	by the Fishermen's Federation. Surveys indicate			
		pipelines and umbilicals will remain buried with			
		flooding. Degradation will occur over a long period			
		within seabed sediment, not expected to represent			
		a hazard to other users of the sea.			





5. Wells				
Abandoned in accordance with Oil & Gas UK Guidelines for the Suspension and abandonment of Wells	Meets DECC regulatory requirements	A PON5/PON15/MCAA application under the relevant regulations will be submitted in support of works carried out.		
	6. Drill Cu	ittings		
Leave in place to degrade naturally	Cuttings pile is small, thin and widely dispersed and falls below both of OSPAR 2006/5 thresholds	Left undisturbed on seabed		
7. Interdependencies				
Dravida (as appropriate) a comment on any interactions between the different elements of the				

Provide (as appropriate) a comment on any interactions between the different elements of the decommissioning programme e.g. drill cuttings/drilling templates etc.

Whole of jacket can be removed; cuttings pile has little influence on jacket options. Jacket piles can be cut with minimal disturbance to the thin layer of cuttings around bottoms of legs. Small amounts of sediment and cuttings may have to be displaced to allow pile cutting.

### 1.6 Field Location Including Field Layout and Adjacent Facilities

Figure 1.1: Field Location in UKCS

Include a figure which shows the field location in UKCS (see example)

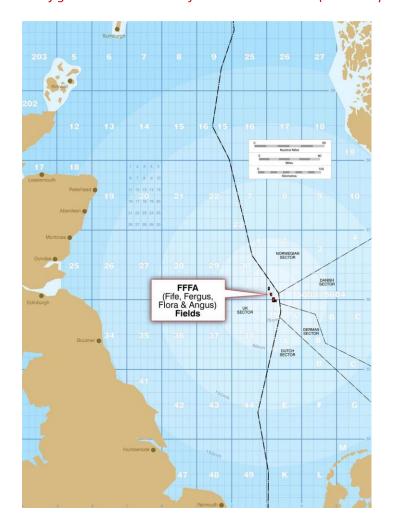
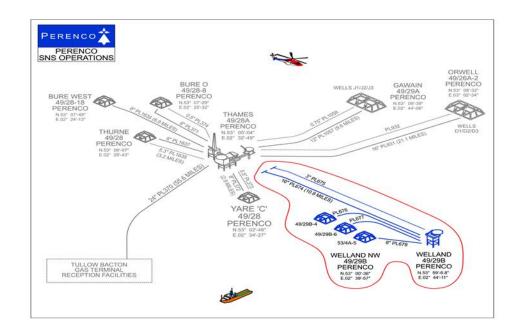






Figure 1.2: Field Layout

Insert a diagram to show the layout of the field, including subsea installation(s) (see example)



Note: Adjacent facilities refer to those potentially impacted by this programme (see DECC Guidance Notes for Industry: Version 6).

Complete Table 1.6 (examples in blue below) listing any adjacent facilities (e.g. platforms, pipelines, pipeline crossings and telephone cables).

	Table 1.6 Adjacent Facilities					
Owner	Name	Туре	Distance/Direction	Information	Status	
Perenco	Thames	Platform	17km North West	Gas/liquids processing, MEG and control system links for Welland, onward export to Bacton	e.g. Operational; Out-of-use; Suspended	
Perenco	PL674	16" Pipeline	From Welland to Thames (17km NW)	Crosses 2 disused cables and Sean 30" gas pipeline to Bacton		
Perenco	Gawain	Subsea Well umbilical	500m	From Gawain to Thames, crosses over Welland/Thames pipeline		

### **Impacts of Decommissioning Proposals**

If appropriate describe any impacts the adjacent facilities may have on the decommissioning proposals. **(Suggested maximum of 50 words)** 





Figure 1.3: Adjacent Facilities

Insert a diagram to show the specified adjacent facilities (see example)



### 1.7 Industrial Implications

Provide a summary describing how the contract/procurement strategy is to be undertaken. (Suggested maximum of 250 words)





### 2 DESCRIPTION OF ITEMS TO BE DECOMMISSIONED

### 2.1 Installation(s): Surface Facilities (Topsides/Jacket(s)/FPSO etc.)

Complete Table 2.1 (example in blue below). Repeat for each installation in the programme. Insert N/A (not applicable) or N/D (no data) as appropriate.

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)	
Welland	Small WGS84 Decimal		58.050772 0.351589	942	1	570	3	3	300	
South fixed steel	WGS84 58° 3.046′ N Decimal Minute 0° 21.095′ E									

<sup>\*</sup>fixed steel jacket / floating facility / FPSO / etc.

### 2.2 Installation(s): Subsea including Stabilisation Features

Complete Table 2.2 Insert n/a if not applicable. See example in blue below

	Table 2.2: Subsea Installations and Stabilisation Features						
Subsea installations* including Stabilisation Features	Number	Size/Weight (Te)	Loc	ation**	Comments/Status***		
Wellheads	2	1 x 31.96 tonnes	WGS84 Decimal WGS84 Decimal Minute	58.050772 0.351589 58° 3.046'N 0° 21.095'E	Both wells are suspended and will undergo plug and abandonment. Neither structure is piled to seabed		
		1 x 4.5 tonnes	WGS84 Decimal	58.049972 0.3495			
			WGS84 Decimal Minute	58° 2.998′N 0° 20.970′E			
Manifold	1	15m x 6m x 5m 105 tonnes	WGS84 Decimal	58.073333 0.436111	Structure is secured to the seabed by four steel piles.		
			WGS84 Decimal Minute	58° 4.400'N 0° 26.166'E			
Protection Frame(s)	n/a						
Concrete mattresses	n/a						
Grout bags	n/a						

<sup>\*\*</sup> Location to be given in WGS84 decimal and WGS84 decimal of a minute (3 decimal places) formats





Formwork	n/a		
Frond Mats	n/a		
Rock Dump	n/a		
Other (describe briefly)	n/a		

<sup>\*</sup>Template/manifold / WHPS / Manifold etc.

<sup>\*\*</sup> Location to be given in WGS84 decimal and WGS84 decimal of a minute (3 decimal places) formats.

<sup>\*\*\*</sup>Indicate in comments/status if piled.





### 2.3 Pipelines Including Stabilisation Features

Complete Tables 2.3 and 2.4 with details of pipelines, flowlines and umbilicals. Lines laid as FEPA Exempt which do not have a PWA Pipeline Number should also be included (example in blue below).

	Table 2.3: Pipeline/Flowline/Umbilical Information								
Description	Pipeline Number (as per PWA)	Diameter (inches)	Length (km)	Description of Component Parts <sup>1</sup>	Product Conveyed <sup>2</sup>	From – To End Points	Burial Status <sup>3</sup>	Pipeline Status <sup>4</sup>	Current Content <sup>5</sup>
Export line	PL674	16"	17.5	Concrete coated steel	Gas	Welland South Platform – SSIV on Thames AW Platform	Trenched with 7m section exposed	Operational	Hydrocarbon
MEG line	PL675	3"	17.5	Composite Flexible	Chemicals	Thames AW Platform – Welland South Platform	Surface laid No freespans	Operational	Chemicals
Well 2 Subsea flowline	PL678	8"	4.2	Concrete coated steel	Gas	Well-53/04a- 5 – Welland South Platform	Trenched and buried	Operational	Hydrocarbon
Well 2 Subsea control umbilical & MEG line	PL681	4" & 0.75"	4.2	Composite Flexible	Chemicals	Welland South Platform - Well-53/04a- 5	Trenched and buried	IPR	Chemicals
FTP	FEPA Exempt		0.17	Composite Flexible		DC1 – U61R		Out of Use	

<sup>&</sup>lt;sup>1</sup>e.g. Concrete; Steel; Umbilical; Flexible; Bundle

<sup>&</sup>lt;sup>2</sup> e.g. Oil; Gas; Water; Chemicals

<sup>&</sup>lt;sup>3</sup> e.g. Laid on seabed; Trenched; Trenched and Buried; Spanning

<sup>&</sup>lt;sup>4</sup>e.g. Operational; Out-of-use; Interim Pipeline Regime (IPR)

<sup>&</sup>lt;sup>5</sup> e.g. Cleaned; Flushed; Hydrocarbons and/or Chemicals in line





	Table 2.4: Subsea Pipeline Stabilisation Features					
Stabilisation Feature	Total Number	Weight (Te)	Location(s)	Exposed/Buried/Condition		
Concrete mattresses	5	6 tonnes each	At Pipeline crossing points	Can only be recovered when cross over lines are decommissioned		
Concrete mattresses	20	10 x6 tonnes 10 x 8 tonnes	PL674	Exposed		
Grout bags	80	25kg each		Exposed		
Formwork	n/a					
Frond Mats	n/a					
Rock Dump	n/a	2000	2 Locations on PL674			
Other (describe briefly)	n/a					





### 2.4 Wells

Complete Table 2.5 (examples in blue below)

Table 2.5 Well Information				
Platform Wells	Designation <sup>1</sup>	Status	Category of Well	
211/19a-M69	Oil Production	Live	PL 1-1-3	
211/19a-M56	Water Injection	Live	PL 2-3-3	
Subsea Wells				
211/19-MS4	Oil Production	Abandoned	SS 1	
211/19-MS2	Oil Production	Suspended	SS4	

<sup>&</sup>lt;sup>1</sup> e.g. Production; Injection; Oil; Gas

For details of well categorisation see OGUK Guidelines for the Suspension or Abandonment of Wells. Issue 4, July 2012.

### 2.5 Drill Cuttings

(See Section 3.6 for further information)

Complete Table 2.6 for each cuttings pile (examples in blue below)

Table 2.6: Drill Cuttings Pile(s) Information				
Location of Pile Centre (Latitude/Longitude)	Seabed Area (m²)	Estimated volume of cuttings (m³)		
Schiehallion Central	8371	11352		
Schiehallion West	6731	7224		
Schiehallion North	4476	1548		
Loyal	5501	4128		





### 2.6 Inventory Estimates

Provide a table or graph (see pie chart example shown) giving the inventory estimates for the decommissioning programme(s) contained in this document. Refer to tables or data in the supporting Environmental Statement.

Estimated Inventory: Installation(s)

3%
6%
43%

© Steel
© Concrete
© Plastic
© Non-Ferrous
© NORM/Haz
© Other

Insert Total Mass in Tonnes [= x Te]

Figure 2.1: Pie Chart of Estimated Inventories (Installations)

Reference the Environmental Statement for detailed data. NORM/Hazardous Waste - reference the supporting evidence in ES.

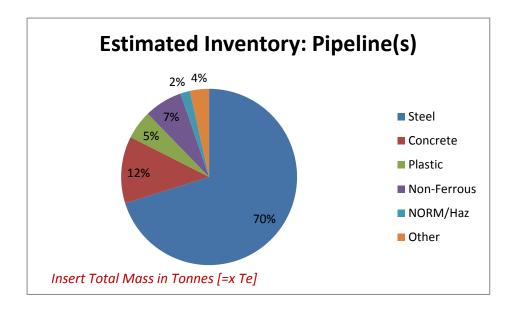


Figure 2.2: Pie Chart of Estimated Inventory (Pipelines)

Reference the Environmental Statement for detailed data NORM/Hazardous Waste – reference the supporting evidence in ES.





### 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. DECC is keen to encourage the re-use of facilities wherever this is practical and will expect the decommissioning programme(s) to demonstrate that the potential for re-use has been examined fully.

The programme(s) should therefore include a statement of how the principles of the waste hierarchy will be met, including the extent to which the installation(s) (or parts thereof) will be reused, recycled or scrapped. (Suggested maximum 250 words)

### 3.1 Topsides

Indicate N/A if no topsides. Briefly describe the topsides and decommissioning methodology (see example in blue below). Insert a diagram to illustrate. Repeat for each topside in the programme(s). Note: For Floating Facilities, provide a brief description of the decommissioning method. (Suggested maximum 150 words)

**Topsides Description:** The Welland Topside Structure comprises three levels and weighs 942 Te. The lower level is the cellar deck with process, hydraulic pressure equipment and wells. The 20m x 14m main deck supports the control room, generation and temporary accommodation facilities with a pedestal crane and vent boom. The main deck is 25.6m above sea level. A helideck is located at the upper level.

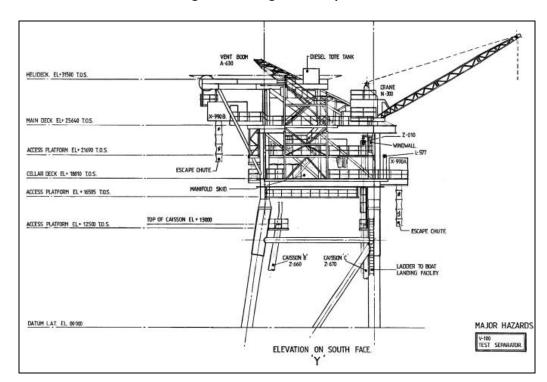


Figure 0.1: Diagram of Topsides





**Preparation/Cleaning:** Outline in Table 3.1 the methods that will be used to flush, purge or clean the topsides offshore, <u>prior to removal to shore</u>, (see examples in <u>blue</u> below).

	Table 3.1: Cleaning of Topsides for Removal				
Waste Type	Composition of Waste	Disposal Route			
Onboard hydrocarbons	Process fluids, fuels and lubricants	Drained and transported ashore for re- use/disposal			
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:** Topsides must be completely removed and returned to shore. Possible methods should be outlined in Table 3.2 (see examples in blue below). Tick which methods you are considering for topsides decommissioning. Then briefly describe those applicable to your project.

	Table 3.2: Topsides Removal Methods			
' '	1) HLV (semi-submersible crane vessel)   2) Monohull crane vessel   3) SLV   4) Piece small   5) Other (describe briefly)			
Method	Description			
Single lift removal by SLV/HLV	Removal of topsides as complete units and transportation to shore for re-use of selected equipment, recycling, break up, and/or disposal			
Modular removal and re-use/recycle by HLV	Removal of parts/modules of Topsides for transportation and reuse in alternate location(s) and/or recycling/disposal			
Offshore removal 'piece small' for onshore reuse/disposal	Removal of topsides by breaking up offshore and transporting to shore using work barge. Items will then be sorted for re-use, recycling or disposal			
Proposed removal method and disposal route (Make sure this section appears in BOLD font)	State the method you propose for removing and disposing of the topsides, recognising any potential issues regarding trans-frontier shipment of waste. Highlight if more than one option is being carried forward into competitive tendering. If applicable add the phrase – "A final decision on decommissioning method will be made following a commercial tendering process." (Suggested maximum of 50 words).			





### 3.2 Jacket(s)

### 3.2.1 Jacket Decommissioning Overview

Indicate N/A if no Jacket. Provide an overview of the Jacket(s) Decommissioning methods. See example in blue below. Outline any special considerations affecting the options. Insert a diagram to illustrate. Repeat for each jacket in the programme(s). (Suggested maximum 150 words)

The jacket legs may need to be cut at the -11m level (26m above sea-bed) to allow re-use of the topsides by a Perenco subsidiary at a proposed new location. Although the full engineering process is not yet finalised, it is envisaged that the Legs will be removed with piles in completeness and then cut on the Vessel/barge decks or at an onshore location to the required length. The lower 26M of the jacket and piles and the subsea wellhead protection frames will be transported ashore for recycling.

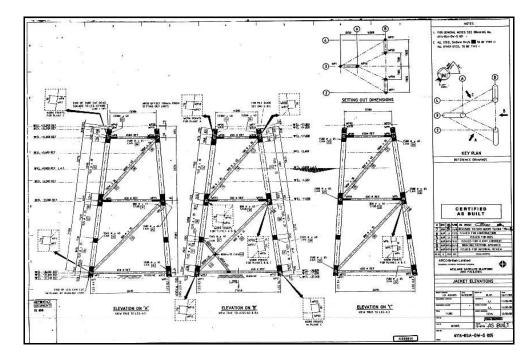


Figure 3.2: Jacket Elevation





### 3.2.2 Jacket Removal Methods

Tick the different methods that you are considering for the removal and disposal of the jacket. Complete Table 3.3 (examples in blue below) to describe how the jacket would be removed completely and returned to shore. Any piles should be severed below the natural seabed level at such a depth to ensure that any remains are unlikely to become uncovered. The depth will in the main depend upon the prevailing seabed conditions and currents (typically 2-3 metres).

	Table 3.3: Jacket I	Decommissioning Methods			
1) HLV (semi-subme	rsible crane vessel) $\;\square$	2) Monohull crane vessel $\ \square$			
3) SLV □	4) Piece small	5) Other − ( <i>describe briefly)</i> □			
Method	Description				
Removal and re- use	•	Removal of jacket for transportation to alternate site. Removal and disposal/recycling onshore of the lower 26m and piles to -10ft below sea-bed.			
Onshore Disposal using HLV	Removal of the jacket as complete unit and transport ashore for break up, recycling and/ or disposal. Re-use of selected equipment would take place where practicable.				
Onshore disposal using 'piece small'	Remove jacket in several pieces using attendant work barge and transport to shore yard.				
Proposed removal method and disposal route (this section should appear in BOLD font)	recognising any potentia Highlight if more than on tendering. If applicable of	opose for removing and disposing of the jacket, I issues regarding the trans-frontier shipment of waste. The option is being carried forward into competitive and a phrase similar to — "A final decision on a will be made following a commercial tendering			

### 3.3 Subsea Installation(s) and Stabilisation Feature(s)

Outline in Table 3.4 how the items will be decommissioned (examples in blue below). If mattresses are buried to a depth of 0.6m DECC would consider a proposal in the form of a comparative assessment to leave the mattresses in situ (robust evidence of the mattress burial status should be submitted with the comparative assessment).

Table 3.4: Subsea Installation(s) and Stabilisation Feature(s)				
Subsea installation(s) and stabilisation feature(s)	Number	Option	Disposal Route (if applicable)	
Wellhead(s)	2	Full recovery as part of MODU campaign to P&A wells	Return to shore for reuse or recycling	
Manifold(s)	1	Full recovery	Return to shore for reuse or recycling	
Template(s)				
Protection Frame(s)				
Concrete mattresses				
Grout bags				





Formwork		
Frond Mats		
Rock Dump		
Other (describe briefly)		

### 3.4 Pipelines

**Decommissioning Options:** In Table 3.5 summarise the pipeline(s) or pipeline groups that fall within the decommissioning programme. (See examples in blue below). Include a cross reference to Table 2.3. Remedial rock-dump is not DECC's preferred decommissioning solution and should only be selected following discussion with DECC and if a comparative assessment shows this is the best outcome and other options are not feasible.

\*Key to Options:

1) Remove - reverse reeling2) Remove - Reverse S lay3) Trench and bury4) Remedial removal5) Remedial trenching6) Partial Removal7) Leave in place8) Other (describe briefly)9) Remedial rock-dump

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	
PLX	Untrenched	Part. Section within 500m zone of the Thames AW Platform will be decommissioned at a later date.	Show which options are being considered by inserting relevant number(s) from the list above i.e.  1, 3, 6	
PLXX, PLXXX	Trenched, buried	Whole of pipelines	2, 5, 9	

**Comparative Assessment Method:** Briefly outline the method used to undertake a Comparative Assessment in line with the requirements of DECC Guidelines. Cross reference to Comparative Assessment document. (Suggested maximum of 100 words)

**Outcome of Comparative Assessment:** Produce a table similar to example in Table 3.6 below for each pipeline or pipeline group, summarising the outcome of the Comparative Assessment. Identify the recommended option, and briefly present your justification for this recommendation. Cross-reference any separate Comparative Assessment document. **Repeat for each pipeline/pipeline group.** 

Table 3.6: Outcomes of Comparative Assessment			
Pipeline or Group Recommended Option*  Recommended Justification			
PLX	Option 3	Line condition made lifting impractical; burial will remove snagging risk for fishermen.	
PLXX, PLXXX	Option 9	Already trenched and buried to 0.7m, stable, no snagging hazards	





### 3.5 Pipeline Stabilisation Feature(s)

Outline in Table 3.7 how the items will be decommissioned (examples in blue below). If mattresses are buried to a depth of 0.6m DECC would consider a proposal in the form of a comparative assessment to leave the mattresses in situ (robust evidence of the mattress burial status should be submitted with the comparative assessment).

Table 3.7: Pipeline Stabilisation Feature(s)				
Stabilisation feature(s)	Number	Option	Disposal Route (if applicable)	
Concrete mattresses	20 5	Full recovery.  To remain in situ until pipeline crossings decommissioned.	Recover to shore. n/a.	
Grout bags	80	Full recovery.	To shore for disposal in landfill.	
Formwork				
Frond Mats				
Rock Dump (te)	2000te	To remain in place.	n/a.	

### 3.6 Wells

Provide a short statement, similar to the example in <u>blue</u> below, to indicate your approach to well plug and abandonment. (Suggested maximum of 150 words)

# Table 3.8: Well Plug and Abandonment The wells which remain to be abandoned, as listed in Section 2.4 (Table 2.5) will be plugged and abandoned in accordance with Oil and Gas UK Guidelines for the suspension and abandonment of wells. A PON5/PON15/MCAA Application will be submitted in support of any such work that is to be carried out.





### 3.7 Drill Cuttings

**Drill Cuttings Decommissioning Options:** OSPAR recommendation 2006/5 has indicated that if the oil release rate from a cuttings pile is less than 10Te/yr and the area persistence is less than 500 km²years then the best environmental option for the management of the pile is to leave it in place undisturbed to degrade naturally.

Complete Table 3.9 to give details of each of the cuttings pile(s). Repeat for each pile and delete or add extra columns as appropriate. Note any interactions between the cuttings pile(s) and jacket removal.

Table 3.9 Drill Cuttings Decommissioning Options					
How many drill cuttings piles are present?					
Tick options examined:					
☐Remove and re-inject ☐	Leave in place		over		
☐ Relocate on seabed ☐	Remove and treat onshore	e □Re	emove an	d treat of	fshore
☐ Other (describe briefly)					
Review of Pile characteristics		Pile 1	Pile 2	Pile 3	Pile 4
How has the cuttings pile been screened? samples taken) – <i>delete as necessary</i>	(desktop exercise/actual	Y/N	Y/N	Y/N	Y/N
Dates of sampling (if applicable)					
Sampling to be included in pre-decommiss	sioning survey?	Y/N	Y/N	Y/N	Y/N
Does it fall below both OSPAR thresholds?		Y/N	Y/N	Y/N	Y/N
Will the drill cuttings pile have to be displ the jacket?	aced in order to remove	Y/N	Y/N	Y/N	Y/N
What quantity (m <sup>3</sup> ) would have to be displ	aced/removed?				
Will the drill cuttings pile have to be displ any pipelines?	aced in order to remove	Y/N	Y/N	Y/N	Y/N
What quantity (m <sup>3</sup> ) would have to be displ	aced/removed?				
Have you carried out a Comparative Asses Cuttings Pile?	sment of options for the	Y/N	Y/N	Y/N	Y/N

**Comparative Assessment Method:** Briefly outline the method used to undertake a Comparative Assessment in line with requirements of OSPAR recommendation 2006/5 (if applicable). Cross reference to the Comparative Assessment document. (Suggested maximum of 100 words)

**Outcome of Comparative Assessment:** Provide a brief summary of the outcome of the Comparative Assessment for each cuttings pile and of the proposed action to deal with the pile. (Suggested maximum of 100 words for each pile)





### 3.8 Waste Streams

Provide a summary in Table 3.10 (similar to example in blue below) describing how the main waste streams arising from the proposed programme(s) would be managed. If applicable, recognise any potential issues regarding the trans-frontier shipment of waste. Also complete Table 3.11 detailing the planned final disposition of the inventories from the installation(s) and pipeline(s).

	Table 3.10: Waste Stream Management Methods			
<b>Waste Stream</b>	Removal and Disposal method			
Bulk liquids	Removed from vessels and transported to shore. Vessels, pipework and sumps 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 guidelines.			
NORM/LSA Scale	NORM may be partially removed offshore under appropriate permit.			
Asbestos	Will be contained and taken onshore for disposal.			
Other hazardous	Will be recovered to shore and disposed of under appropriate permit.			
wastes				
Onshore	Appropriate licenced sites will be selected. Facility chosen by removal contractor			
Dismantling sites	must demonstrate proven disposal track record and waste stream management			
	throughout the deconstruction process and demonstrate their ability to deliver			
	innovative recycling options.			

Table 3.11 Inventory Disposition			
	Total Inventory Tonnage	Planned tonnage to shore	Planned left in situ
Installations			
Pipelines			

Include a statement/graph/table giving your aspirations for the percentages of materials recovered to shore that will be reused, recycled or disposed of to landfill. Refer to the appropriate sections of the ES to provide additional detail. (Suggested maximum of 100 words)





### 4 ENVIRONMENTAL IMPACT ASSESSMENT

### 4.1 Environmental Sensitivities

Complete Table 4.1 to describe the important/sensitive features of the receiving environment(s) in the area(s) in which the decommissioning activities will take place. Reference details in the ES, which should be cited as a supporting document. (Discuss with DECC whether an area- or a field-specific ES is required). (Suggested maximum of 100 words for each section)

Т	Table 4.1: Environmental Sensitivities		
<b>Environmental Receptor</b>	Main Features		
Conservation interests			
Seabed			
Fish			
Fisheries			
Marine Mammals			
Birds			
Onshore Communities			
Other Users of the Sea			
Atmosphere			





### 4.2 Potential Environmental Impacts and their Management

### **Environmental Impact Assessment Summary:**

Provide a summary of the main impacts identified in the ES, taking into account feedback from consultees - see example in blue below. (Suggested maximum of 250 words)

**Overview:** Although there is expected to be some environmental impact during the decommissioning of the Welland infrastructure (53/4a, 49/28a and 49/29b), long term environmental impacts from the decommissioning operations are expected to be negligible. In addition, incremental cumulative impacts and transboundary effects associated with the planned decommissioning operations are expected to be negligible. There will be no planned use of explosives during these activities. We acknowledge that there will be a requirement for an environmental protection plan to be produced and submitted to DECC should this plan change.

Complete Table 4.2 identifying the main environmental impacts associated with decommissioning each of the facilities and summarising how these impacts will be managed. (Suggested maximum of 100 words for each section)

Table 4.2: Environmental Impact Management			
Activity	Main Impacts	Management	
Topsides Removal			
Jacket(s) /Floating Facility Removal			
Subsea Installation(s) Removal			
Decommissioning Pipelines			
Decommissioning Stabilisation Features			
Decommissioning Drill Cuttings			





### 5 INTERESTED PARTY CONSULTATIONS

Consultations Summary: (This section should be updated when the consultation phase is completed)

- 1) Summarise key comments received to date from statutory consultees (similar to example in blue below). Provide copies of the public notice and correspondence from statutory consultees as an Appendix.
- 2) Include brief summaries of other consultations you have undertaken to date and reference any supporting documents. Under "Response" indicate how stakeholder concerns have been addressed and/or influenced your decision-making process. Updates should be provided to DECC as consultations progress.

Table 5.1 Summary of Stakeholder Comments				
Stakeholder	Comment	Response		
National Federation of Fishermen's Organisations	"Dismantling process presents an ongoing danger to fishermen Perenco must ensure arrangement in place which updates risk assessment"	Regular risk assessments to be agreed and discussed with NFFO		
Scottish Fishermen's Federation				
Northern Irish Fish Producers Organisation				
Global Marine Systems Limited				
Public				





### 6 PROGRAMME MANAGEMENT

### 6.1 Project Management and Verification

Provide a summary of the project management/verification which will be undertaken, similar to the example in blue below. (Suggested maximum of 100 words)

A Perenco Project Management team will be appointed to manage suitable sub-contractors for the removal of the installation. Perenco standard procedures for operational control and hazard identification and management will be used. Where possible the work will be coordinated with other decommissioning operations in the SNS. Perenco will monitor and track the process of consents and the consultations required as part of this process. Any changes in detail to the offshore removal programme will be discussed with DECC.

### 6.2 Post-Decommissioning Debris Clearance and Verification

Include a statement similar to the example in <u>blue</u> below. See DECC Guidance Notes (Section 12) for further details. (Suggested maximum of 100 words)

A post decommissioning site survey will be carried out around 500m radius of installation sites and 200m corridor along each existing pipeline route. Significant seabed debris will be recovered for onshore disposal or recycling in line with existing disposal methods. Independent verification of seabed state will be obtained by trawling the platform area. This will be followed by a statement of clearance to all relevant governmental departments and non-governmental organisations.





### 6.3 Schedule

**Project Plan:** Insert a Gantt chart version of the simplified project plan, with key dates and defined milestones, as per example below.

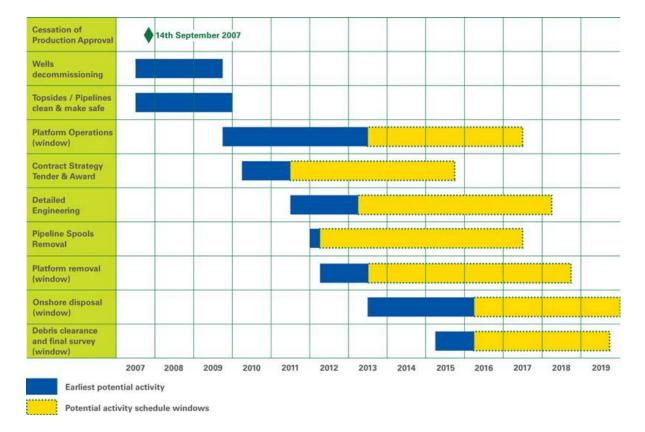


Figure 6.1: Gantt Chart of Project Plan

### 6.4 Costs

An overall cost estimate (example format shown in table below) should be provided to DECC, following UK Oil and Gas Guidelines on Decommissioning Cost Estimation. Updated estimates must be provided in confidence to DECC at the 'define' stage as appropriate.

Table 6.1 – Provisional Decommissioning Programme(s) costs			
Item	Estimated Cost (£m)		
Platform(s) /Jacket(s) - Preparation / Removal and Disposal	Provide to DECC		
Pipeline(s) Decommissioning	Provide to DECC		
Subsea Installation(s) and Stabilisation Feature(s)	Provide to DECC		
Well Abandonment	Provide to DECC		
Continuing Liability – Future Pipeline and Environmental Survey Requirements	Provide to DECC		
TOTAL	Provide to DECC		





### 6.5 Close Out

Include a statement similar to the example in blue below. (Suggested maximum of 100 words)

In accordance with the DECC Guidelines, a close out report will be submitted to DECC explaining any variations from the Decommissioning Programme(s) (normally within 4 months of the completion of the offshore decommissioning scope) including debris removal and independent verification of seabed clearance and the first post-decommissioning environmental survey.

### 6.6 Post-Decommissioning Monitoring and Evaluation

Provide a statement, similar to the example in <u>blue</u> below, which details your proposed monitoring and evaluation programme. See DECC Guidance Notes (Section 12) for further details. (<u>Suggested</u> maximum of 100 words)

A post decommissioning environmental seabed survey, centred around 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 this survey will be available once the work is complete, with a copy forwarded to DECC. All pipeline routes and structure sites will be the subject of surveys when decommissioning activity has concluded. After the surveys have been sent to DECC and reviewed, a post monitoring survey regime will be agreed by both parties, typically one (or more) post decommissioning environmental surveys and structural pipeline surveys.





### **7** SUPPORTING DOCUMENTS

Provide a list of supporting documents (and supporting diagrams, graphics or other material) that you have referenced in the programme(s) which are not presented in the Appendices. See examples in blue below.

Table 7.1: Supporting Documents	
Document Number	Title
1	Environmental Statement
2	Comparative Assessment

For latest document versions provide a web link for all stakeholder/interested parties (or access to other document control mechanism).





### 8 PARTNER LETTER(S) OF SUPPORT

Copies of letter(s) of support from current equity holders in the field should be provided here. Originals should be submitted with final version of the Programme(s).