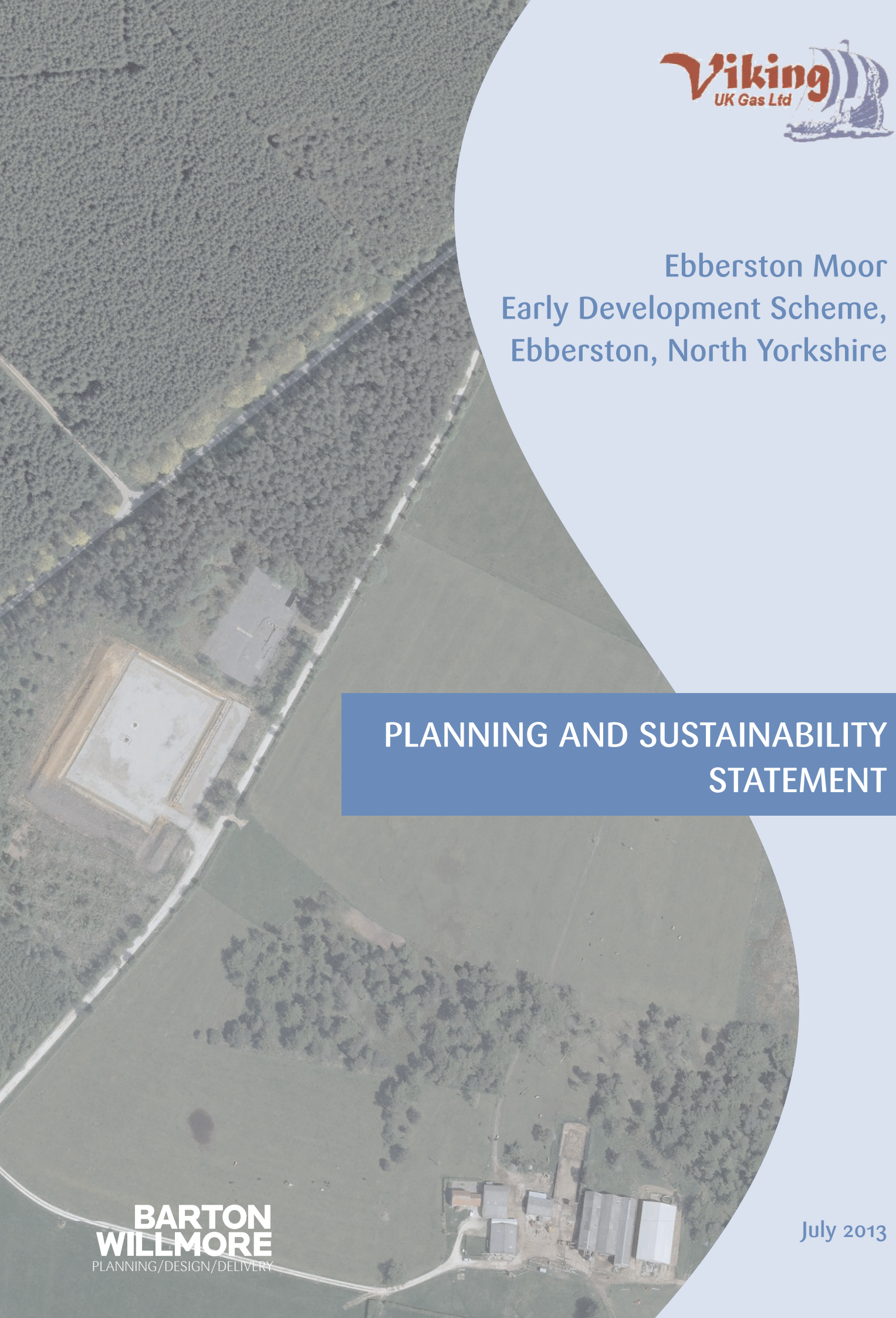

Viking UK Gas Ltd

Ebberston Moor Early Development Scheme, Ebberston, North Yorkshire

PLANNING AND SUSTAINABILITY STATEMENT

BARTON WILLMORE
PLANNING/DESIGN/DELIVERY

July 2013

Planning and Sustainability Statement

Ebberston Moor Early Development Scheme
Ebberston, Snainton, North Yorkshire

Project Ref:	19819/A5/P2a/PF/SO	19819/A5/P2b/PF/SO	
Status:			
Issue/Rev:	01	02	
Date:	April 2013	July 2013	
Prepared by:	PF	PF	
Checked by:	NTH	AJ	

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File Ref: 19819.P5.PSS.PF
Date: July 2013

CONTENTS

1.0 INTRODUCTION

1.1 This Planning and Sustainability Statement has been prepared on behalf of Viking UK Gas Limited (hereby referred to as 'The Applicant') to accompany a planning application submitted to the North York Moors National Park Authority (NYMNPA) under the Town and Country Planning Act 1990 as amended by the Planning and Compulsory Purchase Act 2004 for the Ebberston Moor Early Development Scheme (referred to as 'The Proposed Development'). This application is for the exploitation of conventional gas resources and does not involve any activities targeting shale gas. Planning permission is sought for three principal elements:

1) Gas production from the existing well (Ebberston Moor – 1) which will be side tracked for the purpose of placing a horizontal well bore at the top of the Permian Kirkham Abbey Formation (KAF) reservoir to avoid producing the water underlying the gas reservoir. The side track is proposed to be drilled under planning permission NYM/2013/0068/FL prior to construction commencing on this Proposed Development;

2) Piping the produced gas to the adjacent Lockton Compound, where the gas will be conditioned (i.e. water and hydrogen sulphide content reduced to the required level) in order to meet the standards required for the existing Transmission Zone (LTZ) pipeline; and

3) Flowing the conditioned gas into the neighbouring LTZ pipeline through the existing above ground pipeline connection, within the Northern Gas Network Limited (NGN) AGI, and which is operated by NGN. The gas will then be distributed to meet local demand for gas in the Scarborough and Whitby region of North Yorkshire.

1.2 The Planning and Sustainability Statement sets out the details of the Proposed Development and should be read in conjunction with the accompanying application drawings. The Planning and Sustainability Statement comprises the following sections:

- Section 2: Site and Surroundings
- Section 3: Site Selection
- Section 4: Description of the Proposed Development
- Section 5: Planning Policy Framework
- Section 6: Sustainability Appraisal

- Section 7: Conclusions

Viking UK Gas Limited

1.3 Viking UK Gas Limited is a subsidiary of Third Energy Holdings Limited, an energy company with a comprehensive approach to the development and production of its existing portfolio of gas reserves in the UK. Third Energy Holdings Limited has several wholly owned subsidiaries including, Third Energy Limited, and UK Energy Systems. UK Energy Systems Ltd is the owner of Viking and RGS Energy Limited (RGS). Viking is the 100% license holder of Production, Development and Exploration Licences ('PLs') in North Yorkshire. RGS is the owner of the Knapton Generating Station (KGS) in North Yorkshire.

1.4 Viking's assets in North Yorkshire include licences and oilfields in the Vale of Pickering that have been producing gas for more than 15 years. The hydrocarbons are transferred through underground pipes to the KGS, which was opened on 22 May 1995. The KGS uses gas from the six Vale of Pickering well sites (all of which are operated by Viking) to generate electricity, which is then supplied to local homes and business via the National Grid.

1.5 Viking was acquired by Third Energy Holdings Limited in July 2011. Since acquiring the company, Third Energy Holdings Limited has continued to undertake work on the existing well sites and evaluate the gas fields in the northern part of its exploration and development licence area (PL077), known as Ebberston Moor. Third Energy is using the latest technology to unlock the potential of these gas fields, creating a boost to the local economy and helping to secure UK gas supplies.

1.6 Viking UK Gas Limited has been an operator of the Ryedale Gas Fields (encompassing the accumulations of Kirby Misperton, Malton, Marishes and Pickering) in North Yorkshire since late 2003. The Ryedale Gas Fields were previously owned and operated by a joint venture of Tullow Oil plc (through Tullow UK Gas Limited) and Edinburgh Oil and Gas plc, holding 60% and 40% equity respectively. These fields deliver natural gas to the KGS where it is treated and utilised for power generation in a gas-fired turbine. The KGS is owned by RGS Energy Ltd (following an acquisition from Scottish Power plc in 2006) and operational activities are carried out by Viking UK Gas Limited in the role as a contract operator.

Purpose of the Planning Application

1.7 The aim of the planning application submitted by the Applicant is to develop the Ebberston Moor gas field by re-using an existing well at the Ebberston Moor 'A' well site to produce gas. Significant reserves of gas have been discovered at the well site and elsewhere within the Ebberston Moor gas field. The gas would be piped to the adjoining Lockton Compound where it would be conditioned, that is, the water and hydrogen sulphide content would be reduced, before being transferred into the existing LTZ pipeline, operated by NGN.

1.8 The Proposed Development is part of a phased approach to the development of the Ebberston Moor gas field. Its purpose is two fold: to enable an indigenous supply of gas from the field reservoir to be produced and conditioned as quickly and efficiently as possible in the short to medium term; and to enable an appraisal of the central part of the reservoir in order to demonstrate provable reservoir volumes of gas sufficient to support further investment in the development of the field.

1.9 Regular discussions with senior planning officers at the NYMNPA have taken place over the past 12 months to ensure they are informed about the proposals. These are set out in more detail in the accompanying Statement of Community Involvement. Officers have made clear in correspondence the fact that the well site is already a developed site and that the proposed gas conditioning building would be located within the existing Lockton Compound and that the site is heavily screened within a heavily wooded part of the National Park are all material considerations. These would need to be set against the policy in both the National Planning Policy Framework and the North York Moors Core Strategy which states that proposals for major development in designated areas such as National Parks should be refused except in exceptional circumstances and where it can be demonstrated they are in the public interest. Officers have indicated that they may be willing to support the proposal but on the proviso that:

a) the operation of the gas conditioning facility would be for a temporary period of no longer than 5 years and;
b) the Applicant could demonstrate that a permanent solution comprising a pipeline from Ebberston to the KGS was viable.

1.10 Consequently, the Applicant is seeking planning permission to operate the Proposed Development for a period of up to five years, following construction and commissioning. This period of time is necessary to enable the Applicant to ensure that the field is proven to be economically viable.

1.11 A separate planning application is being prepared and will be submitted to NYMNPA and North Yorkshire County Council, seeking planning permission for a more permanent solution, piping the produced gas and condensate from the Ebberston Moor 'A' Well site to the KGS. In the event that planning permission is granted for the pipeline, and the gas field is proven, the Applicant will construct the pipeline and subsequently remove the gas conditioning facilities on the Lockton Compound site.

1.12 The remainder of this Statement provides the background information for the Proposed Development. However, it should be noted that some of the information contained within this document is informed by the findings of detailed environmental assessments and this Planning and Sustainability Statement should, therefore, be read in conjunction with the supporting Environmental Statement (ES) which has been submitted as part of this planning application.

2.0 SITE AND SURROUNDINGS

Introduction

2.1 The Application Site, shown on **Figure 2.1**, is located within the North York Moors National Park. The existing Ebberston Moor 'A' Well site and the Lockton Compound adjoining the well site to the east are located to the west of Ebberston Common on Ebberston Common Lane at the edge of Dalby Forest.

2.2 The Application Site comprises three key elements:

- the existing Ebberston Moor 'A' Well site, including the landscaping and bunds to the north west and south west of the hardstanding;
- the existing Lockton Compound which lies adjacent to the well site; and
- existing mixed plantation to the south of the well site and within the Lockton Compound.

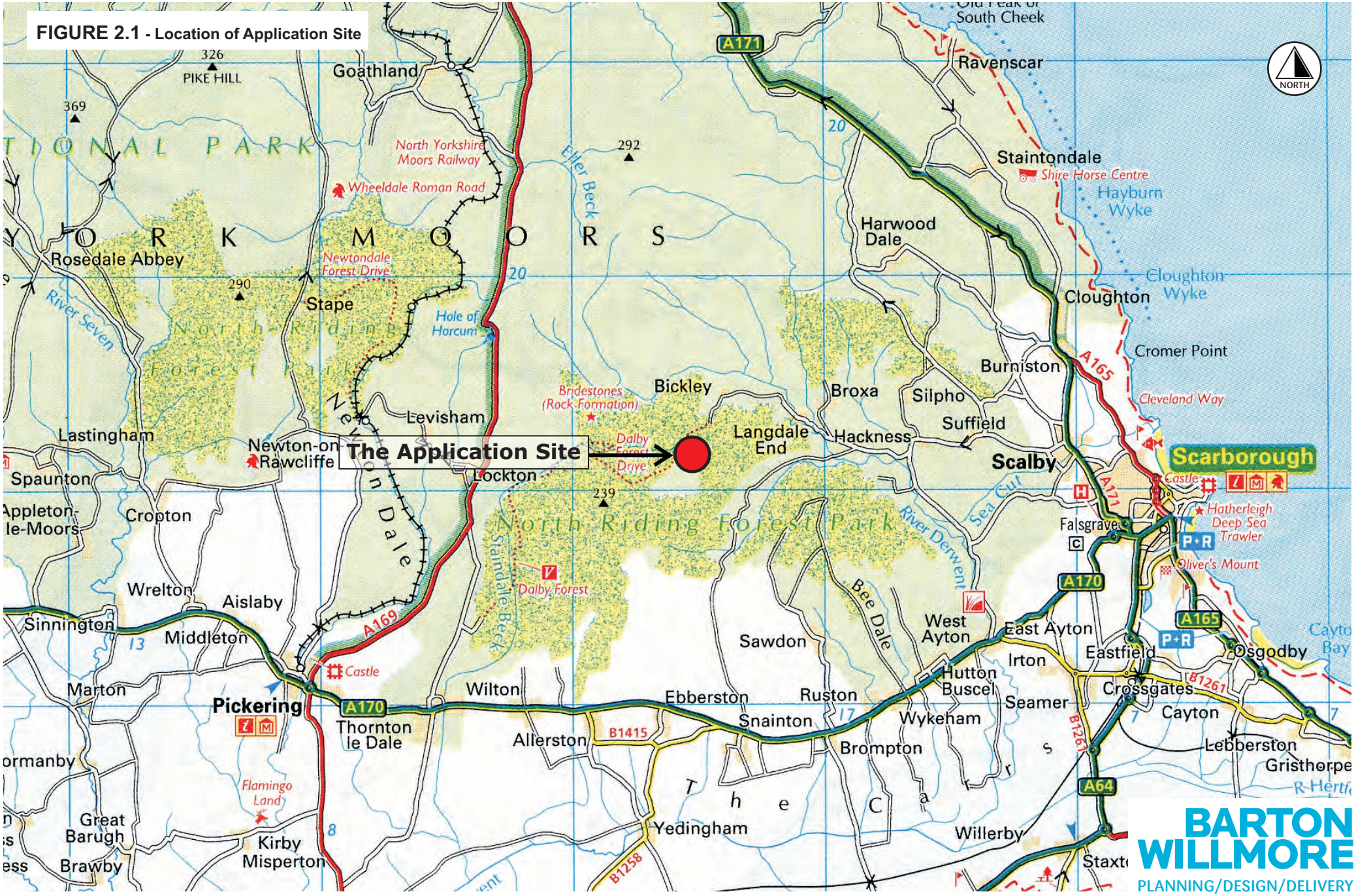
Site Context

2.3 The Application Site is located within the Parish of Allerston approximately 6.5km to the north of the village of Ebberston as shown in **Figure 2.2**. Access is directly off Ebberston Common Lane, an unmade public highway forming the south eastern boundary of the Application Site.

2.4 The Application Site is contained within a wedge of established and regenerating forestry bound by Ebberston Common Lane to the east, Dalby Forest Drive to the west and an informal logging track to the south as shown in **Figure 2.3.** Forestry planting includes mature Scots Pine to the northwest, mixed Larch and Spruce to the southwest and pockets of regenerating broadleaf to the west and south. Ebberston Low Moor, a clearing within the forest, lies to the south east.

2.5 The nearest communities to the Application Site are the small, loosely defined farming community of Langdale End (4.25km to the north-east) and the more compact forestry community of Low Dalby (4.75km to the south-west). The latter is an outdoor tourist related centre situated on the Dalby Forest Drive complete with a Forestry Commission information centre encouraging active and passive recreational pursuits within the forest area.

FIGURE 2.1 - Location of Application Site



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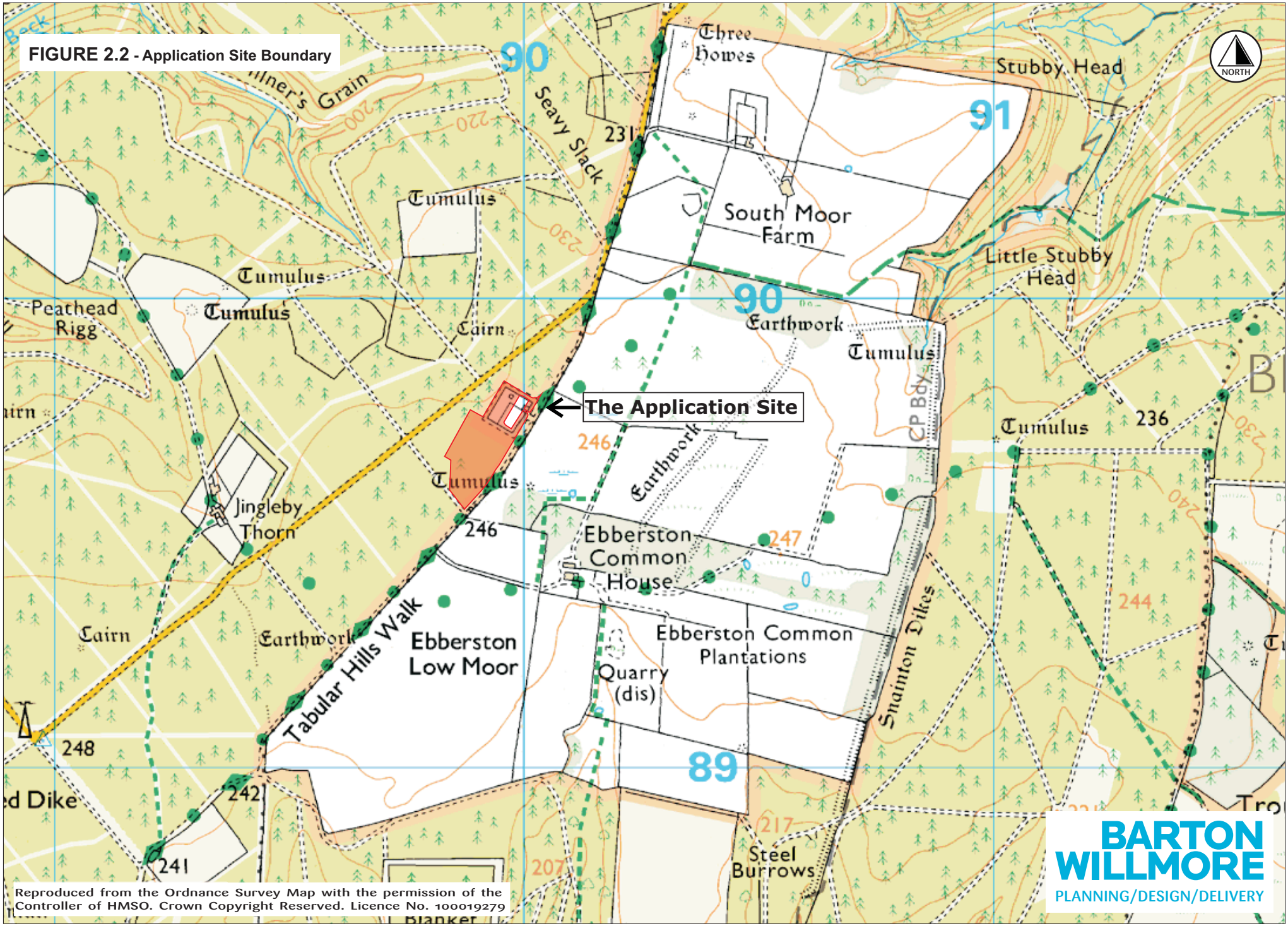
FIGURE 2.2 - Application Site Boundary
NORTH
The Application Site
Three Howes
Stubby Head
South Moor Farm
Little Stubby Head
Seavy Slack
Tumulus
Peathead Rigg
Cairn
Earthwork
Jingleby Thorn
Ebberston Common House
Ebberston Low Moor
Ebberston Common Plantations
Quarry (dis)
Tabular Hills Walk
Snainton Dikes
Steel Burrows
90
91
89
231
246
247
236
244
248
242
241
217
207
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FIGURE 2.3 - Aerial View of the Application Site

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2.6 Existing built development in this area is limited and typically restricted to isolated farm buildings set within pockets of established woodland. The nearest residential development is Ebberston Common Farm located approximately 270 metres to the southeast of the Application Site. This has no direct views into the Application Site given the screening provided by intervening forestry planting.

2.7 The wider landscape represents an elevated plateau established predominately in forestry vegetation. The elevation of the Application Site is 246 metres above ordnance datum (AOD) and appears similar to much of the surrounding land.

Site Description

2.8 Ebberston Moor 'A' well site is located on the eastern edge of Dalby Forest within a clearing. It presently consists of a modified area of landscape associated with previous gas exploration activity covering a total area of 1.1 hectares (ha). The central area of the well site includes a rectangular drilling platform covering a total area of approximately 0.66 ha. This comprises a level impermeable drilling platform covered by 300mm of crushed stone compacted over a geotextile membrane and bentonite mat and contains a capped well structure and an additional cellar in its centre. Surrounding this is a 600mm deep lined drainage ditch which acts to sever drainage within the well site from the surrounding hydrology. Along the western and southern boundaries of the well site, two separate bunds have been formed comprising sub-soil and top-soil respectively.

2.9 To the east of the concrete plinth, where drilling has previously been undertaken, extends a smaller elevated platform of approximately 0.25 ha, used to accommodate temporary parking and buildings associated with drilling operations undertaken within the drilling platform area. This is separated from Ebberston Common Road by a corridor of vegetation. There is a gated access onto Ebberston Common Lane.

2.10 Following the grant of temporary planning permission in 2008 for the retention of the well site, the landscaping and the bunds to the south west, south east and north west of the well site were remodelled to reduce the visual impact of the development from the road. The landscape strategy aimed to improve the quality of the vegetation enclosure, temporarily re-vegetate visible areas of bunding and reduce the visibility of fencing from Ebberston Common Lane.

2.11 The adjacent 0.24 ha Lockton Compound comprises an area of flat bare ground covered with crushed hardcore bound by a mesh and concrete post perimeter fencing

approximately 2m high capped with barbed wire. Along the south eastern section of the compound are located a small area of concrete hardstanding, a section of above ground pipework and a small concrete building owned and managed by NGN. These structures are associated with the existing Above Ground Installation (AGI) connection to the existing NGN LTZ pipeline that runs between Pickering and Whitby. The approximate location of NGN's existing pipeline is shown on **Figure 2.4**. The Lockton Compound is separated from Ebberston Common Lane and Dalby Forest Road by a corridor of vegetation.

2.12 The Application Site is enclosed on three sides (west, north and east) by mature woodland which rises to approximately 20m. Much of the immediate area along the perimeter of the well site has been recently planted following the grant of planning permission in 2008 for the retention and reprofiling of the well site. This comprises structural planting between the well site and the forest track and on the south west and north east boundary outside the existing fence. The access track forms the south eastern boundary, beyond which lies medium sized arable fields.

2.13 The existing security fencing and bunding provide further screening of the well site. The adjacent Lockton Compound, located immediately to the north east of the well site, is surrounded by a combination of woodland and security fencing. Between the access track and The Application Site, some mature deciduous trees are dispersed between more recently planted trees.

The scaling of this drawing cannot be assured

Revision		Date	Drn	Ckd
A	Existing layout amended	04.06.13	SJ/RP	NC
B	Existing notation amended	18.06.13	SJ/RP	NC
C	Boundary line amended	20.06.13	SJ/RP	NC
D	Redrawn to topo survey	26.06.13	SJ/RP	NC
F	Existing pipes shown	09.07.13	SJ/RP	NC
G	Landscaping amended	10.07.13	SJ/RP	NC

Existing Mature Woodland

Existing Mature Woodland

DALBY FOREST DRIVE

Existing Mature Woodland

Existing Mature Woodland

E D

C

A

1 7

Ebberston Moor Wellsite

B

Lockton Compound

B

A

B

A

PATH

6

5

4

2

3

EBBERSTON COMMON LANE

Existing NGN 8" Pipeline to Pickering

Existing NGN 6" Pipeline to Whitby

E D

C

EXISTING PLANTATION WITH ENRICHMENT PLANTING - REGENERATION PHASE MONITORED OVER 5-10YRS

EXISTING FENCE

SUBSOIL BUND (approx. 2300m³) FORMED AT MAXIMUM GRADIENT OF 1:3 TO 3m IN HEIGHT

TOPSOIL BUND (approx. 1300m³) FORMED AT MAXIMUM GRADIENT OF 1:3 TO 2m IN HEIGHT

EXISTING TREES

EXISTING GROUND COVER

EXISTING HEDGE

EXISTING STRUCTURAL PLANTING

1 Existing Gas Well
2 Existing NGN Building
3 Existing Car Parking 11 spaces
4 Existing NGN Entrance
5 Existing LTZ Pipe manifold
6 Existing Well site Entrance
7 Existing Drilling Cellars

Site Boundary 21,604 sqm

Well Site Area A - 11,000 sqm

Lockton Site Area B - 2,387 sqm

Flare site area = 4,323 sqm

Project
EBBERSTON EDS

Drawing Title
FIGURE 2.4
EXISTING SITE LAYOUT

Date	Scale	Drawn by	Check by
June 2013	1:500@A1	SJ/RP	NC

Project No	Drawing No	Revision
19819	P_03	G

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3.0 SITE SELECTION PROCESS

Introduction

Site Selection for the Well site

3.1 The proposed gas production at the existing well site at Ebberston Moor falls within the North York Moors National Park and is defined as major development as it involves the winning and working of minerals. Consequently, it is necessary to assess the proposal for gas production against national policy set out in the NPPF.

3.2 Paragraph 115 of the NPPF advises that great weight should be given to conserving landscape and scenic beauty in National Parks. Paragraph 116 states that:

> **22. "Planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest. Consideration of such applications should include an assessment of:**
>
> **(i) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;**
>
> **(ii) the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and**
>
> **(iii) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated."**

National Significance

3.3 The proposal to produce gas at the existing well site at Ebberston raises issues of national significance for two reasons. First, the estimated reserves at the well site are expected to generate up to 15 mmscfd, limited by the available capacity in the LTZ. The produced gas will make a small but important contribution to the need for gas in future years. Third Energy and its technical and engineering consultants have verified that 15 mmscfd can be expected to meet the annual demand for gas for 75,000 households, which broadly equates to the number of households in the Scarborough and Whitby area.

3.4 Secondly, this is only the second planning application in more than 35 years seeking planning permission for gas production within the North York Moors National Park. In that time, the policy framework against which planning applications are determined has changed considerably. In particular, the need for increased gas supply infrastructure has been clearly identified by the Government in the Energy White Paper of 2003, 'Our Energy Future – creating a low carbon economy'. The Ministerial Written Statement of 16 May 2006 and, most recently, the overarching National Planning Statement for Energy and the National Policy Statement for Gas Supply Infrastructure and Gas and Oil Pipelines confirm that there is a significant need for new major energy infrastructure which will have to be met by projects coming through quickly, given that developments often have long lead in times.

3.5 More recently, there have been changes to the regulatory framework governing the rights for gas producers such as Viking UK Gas Limited, to gain access to low pressure pipeline systems such as the LTZ. As a result, there is now a procedure for negotiating with operators of LTZ pipelines to obtain access to their existing infrastructure.

3.6 The Applicant is of the view that the proposal does not raise issues of national significance in terms of its scale or environmental impact which are considered in the ES. The landscape and visual impact and ecology chapters of the ES which accompanies the planning application demonstrate that the well site will not have any significant adverse effect upon the National Park. The photomontages and the landscape assessment which have been prepared confirm that this is the case.

3.7 Planning permission was granted in March 2006 for the drilling and siting of a temporary borehole and access for exploration, testing and evaluation of hydrocarbons at the well site (ref NYM/2005/0254/FL). The planning application was determined at

Planning Committee on 8 September 2005. The extent of the gas bearing structure and the formation entry point determined the search area for the exploratory well. The whole of the structure falls within the National Park. Two key factors determined the location of the proposed well site – access and the potential ability to produce and export any discovered gas reserves. Gas production operations in the 1970s were centred on the site of the existing Northern Gas Networks (NGN) Above Ground Installation (AGI), known as the Lockton Compound. The Lockton Compound functioned as a pipeline header and pigging facility gathering gas from the former production wells for onward exportation via a pipeline southwards to the former processing plant at Outgang Lane, Pickering. The Lockton Compound has established a "gas industry presence" in this part of the National Park, linked to a defined export route southwards out of the National Park via a pipeline alongside the existing Pickering to Whitby pipeline.

3.8 The advantages of the Lockton Compound are that:

1. **"It is already developed and the new building would be within an existing compound;**

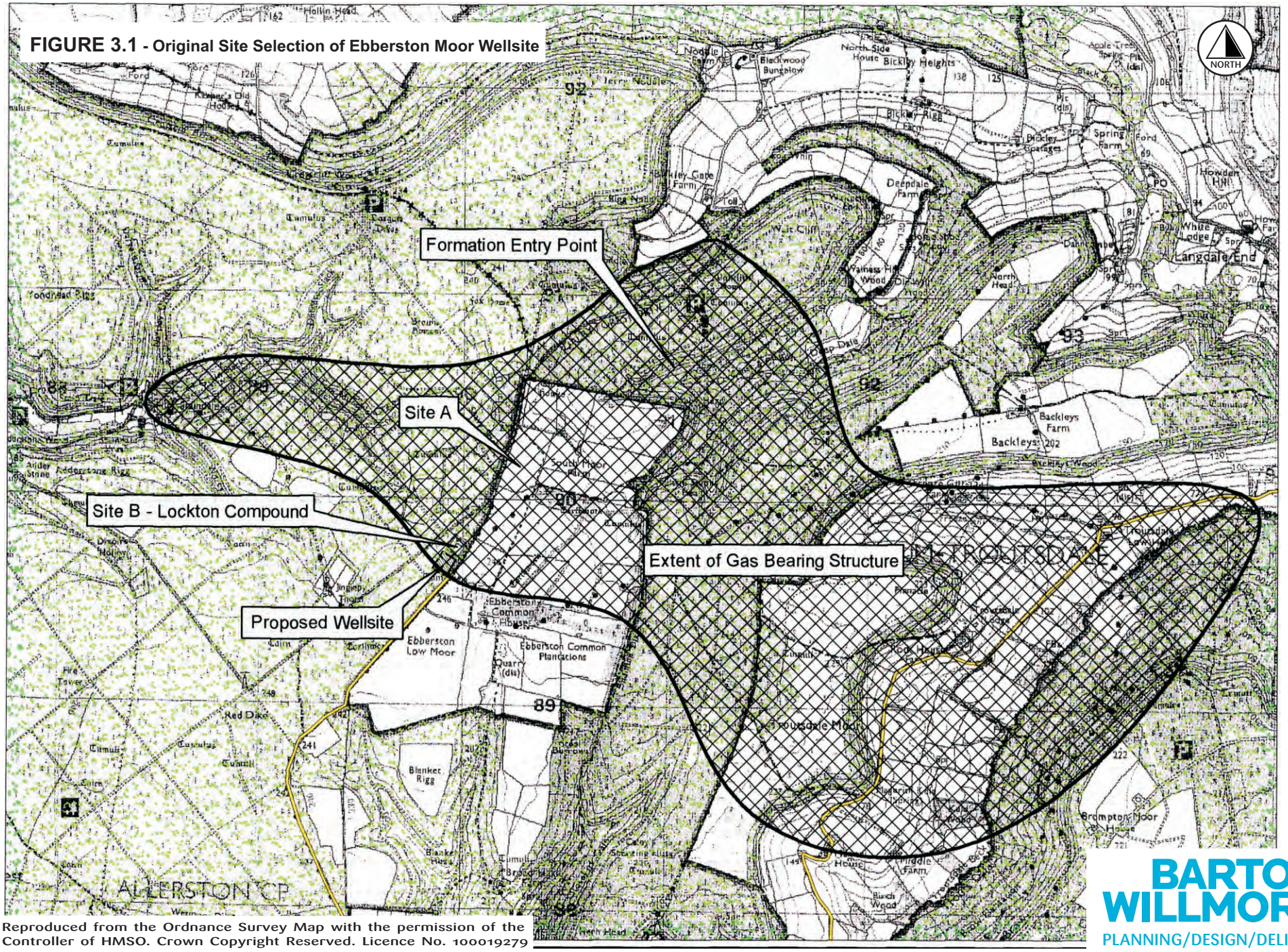
2. **The proposal would be temporary, pending a viable permanent solution to treat the produced gas outside the National Park;**

3. **The existing site is well screened by existing trees."**

3.9 As the extent of the Ebberston gasfield is known with reasonable certainty, the selection of the well site from which to produce gas is determined by a number of inter-related environmental and technical considerations. The environmental factors include transport and access, ecology, archaeology, landscape and visual impact, flood risk, drainage and pollution control and current use of the site in question. The technical considerations include the size of the well site and the ability to condition and export the gas from the well site. These are covered in more detail in paras 3.24-3.32 below.

3.10 Two alternative locations were considered at the time of the original planning application for the well site but both fell within the National Park (**Figure 3.1**). One site, approximately 300m to the south west of South Moor Farm was discounted owing to its openness and the need to gain access to the site from the Dalby Forest Drive, north of Ebberston Common Lane. A 220m length of the Forest Drive would be required

FIGURE 3.1 - Original Site Selection of Ebberston Moor Wellsite



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to gain access from the A170 at Ebberston. This would have had an adverse impact upon the tourist attraction of the Forest Drive during site construction and during drilling and production operations.

3.11 The other site that was considered was the Lockton Compound site. At the time, this depended upon drilling operations being able to be accommodated alongside an operational gas facility and its safety parameters. BG (Transco) were only able to offer the non-operational part of the site for a well site and this, together with the required health and safety requirements, made the remaining area of land available within the compound inadequate.

Public Interest

3.12 Applications for major development proposals within designated areas need to demonstrate that the proposal is in the public interest before being allowed to proceed. The Secretary of State for Trade and Industry issued a Ministerial Written Statement on 16 May 2006 about the need for additional gas supply infrastructure, which continues to remain in force. The Statement is intended to provide assistance in planning on energy infrastructure to both land use planning professionals in local authorities and local councillors involved in land use planning in interpreting implications of Government policy as a material factor in planning decisions on energy infrastructure. It states:

- **"To manage the decline in indigenous gas supplies, new gas supply infrastructure is needed to increase Great Britain's capacity to import, store and transport gas efficiently.**

- **A balance must be struck between meeting the concerns of local authorities and those they represent, and the national need for infrastructure that will provide us with secure energy supplies.**

- **The provision of energy infrastructure is part of a delivery system that provides an essential national service. Business and homes in the UK require a reliable supply of energy, free from disruption and interruption.**

- **New energy infrastructure projects may not always appear to convey any particular local benefit, but they provide crucial national benefits, which all localities share.**

- **Projects add to the reliability of national energy supply, from which every user of the system benefits.**

- **A failure to put energy infrastructure in place will reduce the reliability of energy systems with potentially disastrous consequences. Energy infrastructure projects often have long lead times. Even where new projects may not appear to have any immediate benefits, failure to put them in place may reduce future reliability."**

3.13 The Ministerial Statement is clear in setting out the importance of additional gas supply infrastructure for the next 20 years. The Government welcomes all solutions which could help address this need. Accordingly, the delivery of a sustainable local gas supply from the Proposed Development, including the proposed gas conditioning at the adjacent Lockton Compound, fully accords with the Ministerial Statement and is therefore in the public interest.

Need for the Development, including any national considerations, and the impact of permitting it, or refusing it, upon the local economy.

3.14 The 2006 Ministerial Statement clearly demonstrates the need for new gas infrastructure in the UK. More recently, the Gas Generation Strategy, published in December 2012, makes clear that gas forms an integral part of the UK's generation mix and is a reliable, flexible source of electricity. The Government expects that gas will continue to play a major role in our electricity mix over the coming decades. National Grid Gas forecast declining annual and, to a lesser extent, peak gas demand. However, National Grid Gas expects volatility of gas use to increase in coming years, as volatility of demand is driven by increased intermittency. The UK's gas supply infrastructure will need to be flexible to respond to the changing demand pattern. Given the importance of gas to the energy mix, the UK's gas security of supply is an important factor.

3.15 The impact of the proposed development upon the local economy is explained in detail in chapter 14 of the ES which accompanies this planning application. The impact on employment is likely to be minor beneficial with the creation of some temporary employment during construction.

Cost of and Scope for Developing Elsewhere outside the Designated Area

3.16 There are a number of technical criteria for a site to be considered suitable as a production well site. A site must:

- lie within a drillable distance of the target hydrocarbons;
- have the ability to export and, if appropriate, condition, the gas;
- be reasonably level, with no significant slope;
- be of a suitable size to accommodate a drilling rig, ancillary services and the storage of materials needed to continually produce gas and maintain the well;
- have suitable access for articulated vehicles, including emergency vehicles; and
- ideally be located at least 400m from the nearest residential property to ensure noise is mitigated. Additionally, environmental considerations such as visual impact and ecological factors clearly need to be taken into consideration, not to mention proximity to sites of archaeological importance.

3.17 It is not unusual for wells to be directionally drilled to enable the target accumulations to be accessed from well sites that cannot be sited above the target reservoirs. However, there are limits on the lateral distances that can be achieved, which are largely dependent on the characteristics of the geological formations that the well is drilled through. The Ebberston Moor (EM-1) well was directionally drilled to access an accumulation of gas which lies to the north-east of the well site. The well cost approximately £4 million to drill, including site preparation and a new access, and has been temporarily suspended pending the granting of planning permission for future gas production.

3.18 As the wellbore length increases, so do the technical challenges, and hence risk and therefore cost. Drilling in the Ebberston area is more difficult than in many areas due to faulting and associated extensively fractured rocks. The size and the depth of the prospect is an important factor but, generally, the industry view is that directional drilling in excess of 3.5 km from the well site is generally considered to be uneconomic.

3.19 The selected well site sits on level ground at the top of a plateau in a remote location which is well screened. Mature coniferous forest surrounds the well site to the south west, north west and north east; to the east screening is provided by soil bunds that were installed prior to previous drilling and testing on the well site. A footpath, the Tabular Hills Walk, runs along the eastern boundary of the well site, which overlooks it; however, trees and vegetation beyond this prevent it being seen from further to the south.

3.20 In addition to topographical boundaries, site selection is constrained by the Applicant's Exploration and Development Licence (PL077) boundary, which runs in an east-west orientation. The vast majority of the licence area lies within the National Park. A very small part of the licence area lies just to the south of the Park boundary, north of Sawdon Heights (see **Figure 3.2**). However, this is not suitable for a well site because:

- much of the area outside the National Park falls within 400m of a residential property;
- the area is devoid of any screening and the well site is likely to be highly visible from the surrounding area; and
- it is more than 4km from the target area.

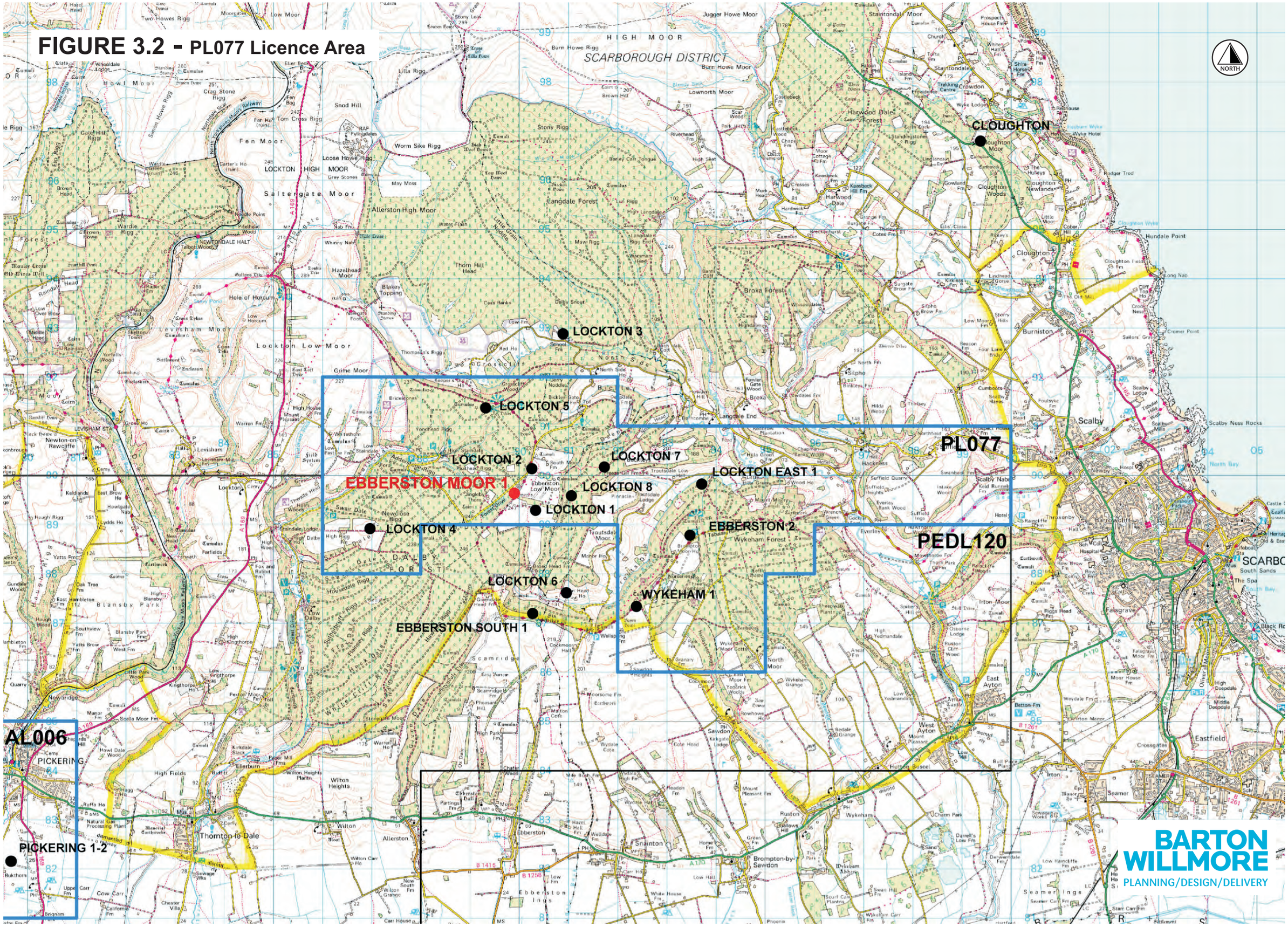
3.21 In summary, there are no alternative well sites within a reasonable distance of the existing well site.

3.22 There is no technical reason for the existing well not to be used for production of the gas which was discovered in accordance with a valid PL, granted by the UK Government. If the Applicant was required to re-drill this well from an alternative location, this would amount to an additional cost of approximately £6m, plus an uplift to account for the additional risk for a new well (because an extended reach well has a higher chance of failure). Further costs would be incurred in design changes, and subsequent planning applications for the alternative site. This is not an economic proposition.

Detrimental Effects upon the Environment

3.23 The selection of the well site within the technical constraints imposed by drilling techniques referred to above is dictated by a number of inter-related environmental considerations, including access, ecology, archaeology, visual impact and residential amenity. The well site is bounded on three sides by coniferous plantations. The proposals will not adversely change the character of the area. The accompanying ES

FIGURE 3.2 - PL077 Licence Area



demonstrates that the effects upon the environment, the landscape and the recreational opportunities arising from proposed gas production at the well site will be negligible.

3.24 In conclusion, the Applicant considers that there is demonstrable evidence to show that the Proposed Development is in the public interest and satisfies the criteria set out in paragraph 115 of the NPPF to fully justify gas production at the Ebberston Moor well site.

Alternative Designs and Design Evolution

3.25 There are two alternative methods of treating the gas produced at Ebberston Moor. A viable alternative is to pipe the gas from Ebberston to the KGS.

3.26 There are a number of potential pipeline routes between the Ebberston Moor 'A' well site, the KGS and the National Transmission System (NTS). The predominant land use in the southern extent of the proposed pipeline route area is agriculture. Although there are relatively few roads in the area, there are a significant number of drains and watercourses particularly south of the A170 within the floodplain of the River Derwent.

3.27 Penspen Limited was appointed in June 2012 by Viking UK Gas Limited to identify potential pipeline corridors between Ebberston Moor 'A' Well site and KGS. Three options were identified, taking account of industry standard pipeline route design and a site reconnaissance survey.

3.28 The options are restricted owing to the proximity along the A170 of settlements such as Thornton-Le-Dale, Ebberston and Snainton.

3.29 In determining the preferred pipeline route, potential disruption has been minimised where possible to the operation of local farms and the local drainage network. The pipeline route has also sought to avoid scheduled monuments and designated ecological sites wherever possible. A planning application will be submitted shortly by the Applicant for the construction of a pipeline from the well site to the KGS which will seek planning permission for a long term solution to gas production from the Ebberston reservoir.

3.30 The only other alternative would be to generate electricity on the NGN site (Lockton Compound), adjacent to the well site. A temporary small-scale electricity generating facility is likely to require no more than 1.6mmscfd (0.045 mcm/d). However, the

Applicant considers that the reservoir has the potential to produce more than 15 mmscfd. A temporary electricity generating plant would therefore be an unsuitable and inefficient option to exploit a gas field which has the potential to supply considerably more gas.

3.31 In addition, small-scale electricity generation could potentially generate noise from the turbines on site and create higher nitrogen oxides emissions compared to a gas conditioning facility. In addition, there would be a requirement for new infrastructure in the form of either a pylon or a buried cable to transfer the electricity to the National Grid.

3.32 The constraints on the Application Site including trees, shrubs, drainage and topography, have informed the design of the Proposed Development. The considerations and constraints within the Application Site which have influenced the design evolution of the Proposed Development are set out in detail in **Table 3.1**.

Table 3.1 - Key Considerations and Constraints

Category	Sensitive Receptor/Land Use
Ecological Features	• Troutsdale and Rosekirk Dale Fens Site of Scientific Interest (SSSI); • North York Moors (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA); and • Flora and fauna within the Assessment Site and its vicinity.
Cultural Heritage	• Scheduled Monuments; and • Archaeology.
Landscape and Views	• North York Moors National Park; • Dalby Forest; • Trees and hedgerows within and surrounding the Assessment Site; • Ditches within the Assessment Site; and • Views towards the Assessment Site.
Water Resources	• Ditches within the Assessment Site; and • Corallian aquifer.
Transport Infrastructure	• Vehicles, pedestrians and cyclists using local highway infrastructure including:

Category	Sensitive Receptor/Land Use
	- Ebberston Common Lane; - Ebberston Lane; - A170; - Unmarked roads; - Tabular Hills Walk; - Dalby Forest Drive; and - Public Rights of Way.
Noise	• Ebberston Common Farm; • South Moor Farm; and • Jingleby Thorn.
Air Quality	• High Farm; • South Moor Farm; • Bickley Gate Farm; • Troutsdale Lodge; • Ebberston Common Farm; • Manor House; • Broad Head Farm; • Hern Head House; • Troutsdale And Rosekirk Dale Fens SSSI; • High Scamridge Farm; and • Jingleby Thorn.

3.33 In addition to the constraints on the Application Site, the public exhibitions held on 7 June 2013 at Allerston Village Hall revealed that the principal concerns were:

- Volumes of traffic on the proposed access road which is used as a short cut, for horse riding and walking by the local residents;
- Potential problems caused by a shortage of passing places along the road;
- The safety and practicality of the junction off the A170;
- Large vehicle movements during installation of processing equipment;
- Ebberston Common Lane already has heavy levels of traffic using the Givendale Head Farm and the recycling centre; and
- The unmade up road from Givendale Head to the site.

Summary and Conclusions

3.34 In the site selection process, the consideration of alternatives sites has been carried out in a proportionate manner. Where there is only a relatively modest impact arising from proposed infrastructure which is in the national interest, a decision-maker will need to be satisfied that there is a very clear advantage in a potential alternative site before refusing consent in order to avoid that impact.

3.35 The decision-maker also needs to take into account whether there is a realistic prospect of any alternative site delivering the necessary infrastructure, bearing in mind the need and urgency for new major energy infrastructure.

3.36 The ES which accompanies the planning application includes an outline of the main alternatives studied by the Applicant and an indication of the main reasons for the choice, taking into account environmental, social and economic effects, and including, where relevant, technical and commercial feasibility.

3.37 National Parks have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. In addition, the conservation of wildlife and cultural heritage and the conservation of the natural beauty of the landscape are specific purposes for National Parks. National planning guidance applies a public interest test for major development in such areas. Any assessment must demonstrate the need for the development, the cost and scope for locating the development outside the National Park and any detrimental effect on the environment, the landscape and recreational opportunities.

3.38 There are no realistic alternative locations for the well site outside the National Park. The Ebberston Moor 'A' Well site was granted temporary planning permission in March 2006 and temporary permission has been renewed on two occasions in 2008 and 2011. Licence PL077 was granted to Home Oil of Canada in January 1963 and includes the Ebberston Moor 'A' Well site. Only a very small part of the licence area lies outside the Park boundary. However, there are no sites available for both environmental and commercial reasons:

1. There are no suitable areas outside the 400m buffer zone around residential properties;
2. The area is absent from any form of screening and consequently, the well site would be highly visible from the surrounding area; and
3. The distance of any new well site outside the National Park would be more than

4 km from the target area, significantly reducing the risk of hitting the target and making the viability of the well site unviable.

3.39 The existing well site is well screened on three sides by existing coniferous forest. Although the south eastern boundary lies adjacent to an existing footpath which forms part of the Tabular Hills Walk, the 2008 planning permission included proposals to reconfigure the well site in order to improve screening along this frontage. Abandoning the well site and drilling from an alternative site could also result in a cost of up to £6million to the Applicant. Consequently, the Applicant considers that there are no realistic alternatives to producing gas at the existing Ebberston Moor well site.

3.40 A report prepared by Penspen Limited identified alternative pipeline routes between the Ebberston well site and the existing Knapton generating plant. The report recommended a central alignment as opposed to routes which take a more westerly and easterly route

3.41 A planning application will be submitted shortly by the Applicant for a pipeline from the Ebberston Moor well site and the KGS which will provide a long term solution to gas production from the Ebberston gas reservoir.

4.0 PETROLEUM EXPLORATION AND DEVELOPMENT LICENCE AND PLANNING HISTORY

4.1 Under the provisions of the Petroleum Act 1998, the Secretary of State for Energy and Climate Change has granted an area designated as Petroleum Exploration and Development Licence "Semay A" which allows the Applicant to "search, bore for and get petroleum" within the boundaries of Semay A (**Figure 4.1**). The proposal to which this planning application relates falls within this licence area.

4.2 The Semay A licence is located in the north of the Cleveland Sedimentary Basin, within the county of North Yorkshire extending northwards into urban Teesside. The wells in the fields of the licences produce gas from the Permian Zechstein limestones (Kirkham-Abbey Formation - KAF) and the Carboniferous sandstones (Namurian formation). The Brotherton formation (Magnesium limestone) is present and gas bearing in most of the wells but has not proven to be commercially productive.

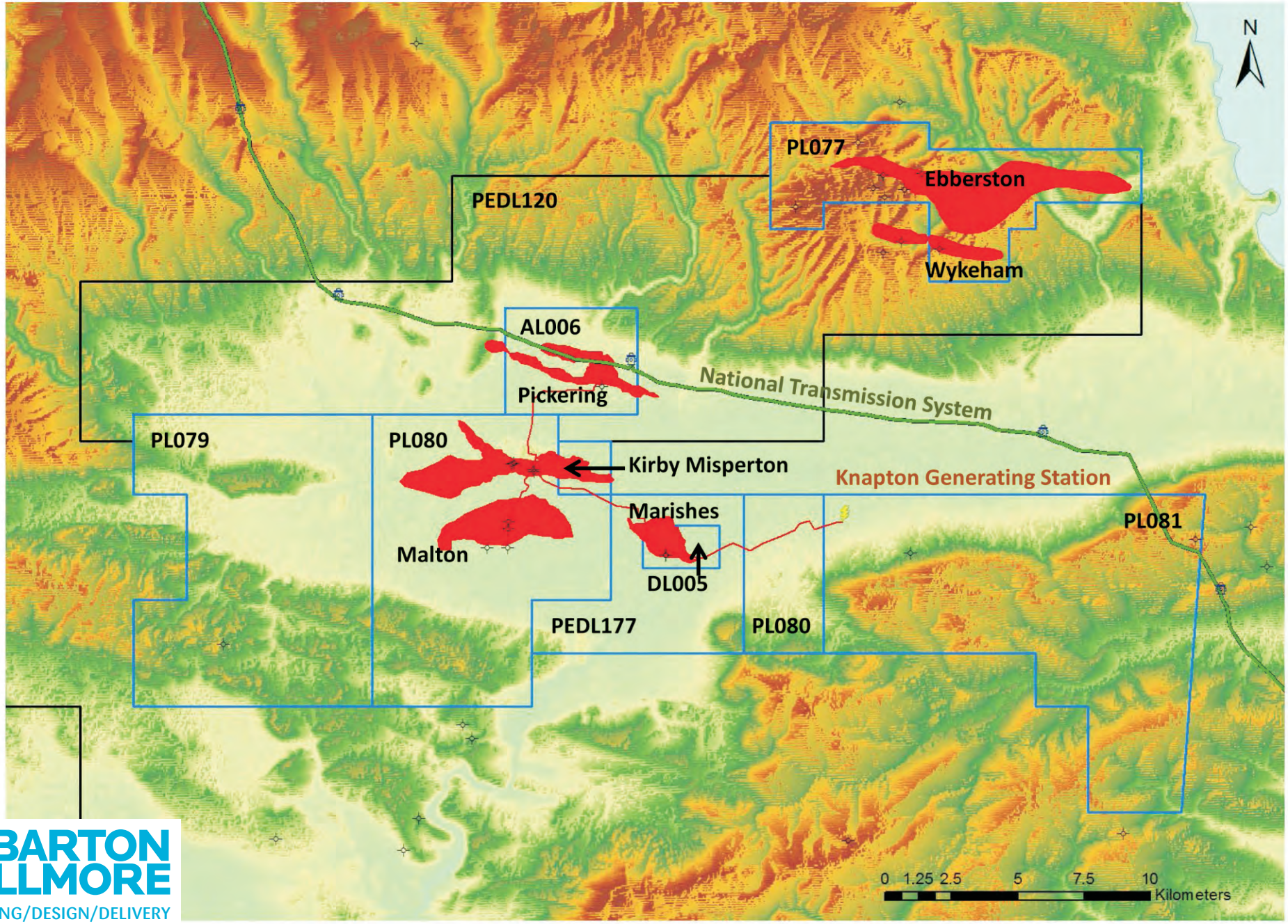
4.3 Semay A was assigned to Licence Blocks

- AL006 (Pickering)
- DL005 (Marishes)
- PL077 (Lockton and Wykeham)
- PL079 (no field)
- PL080a (Malton and Kirby-Misperton)
- PL080b (no field)
- PL081 (Knapton Plant site)

4.4 Home Oil of Canada discovered Lockton, Wykeham and Malton in the period between 1966 and 1971. Lockton was developed in 1971 via a sour gas processing plant sited at Pickering with sales to the British Gas main line. Reservoir performance deviated from the anticipated forecasts when the wells began producing water from an early stage. This factor, in addition to the poor contractual terms of a take or pay contract, led Home Oil to abandon the assets after producing only 11.3 bscf (billion standard cubic feet) of gas. A study of the Lockton Field by Viking UK Gas has shown that the reservoir is likely to contain additional commercial volumes of recoverable gas.

4.5 The Knapton Electricity Generating Station (KGS) was granted planning permission by the Secretary of State on 25 March 1993. The Knapton plant was commissioned by Scottish Power in 1994 with its gas source supplied by the Vale of Pickering discoveries

FIGURE 4.1 - Licences held by Viking UK Gas Limited



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to be developed by Kelt (the successor to Taylor Woodrow Energy Limited - TWEL), which in turn became Viking UK Gas Limited.

4.6 Malton was further appraised by the three wells drilled in 1976 (Candecca), 1980 and 1985 (TWEL). The field was brought into production in 1995 and to date has produced a cumulative 8.7 bscf from two wells, Malton 1 and Malton 4 (MN-1 & MN-4). The field remains in production today from one well, MN-1, with MN-4 currently suspended. The Applicant considers that there is further development drilling potential within the field.

4.7 Gas was discovered at Kirby Misperton in 1985 by TWEL. KM-1 found commercial gas in the Carboniferous Namurian sandstone. KM-2 subsequently found gas in the KAF. The third well, KM-3, tested wet (water-bearing) and this well is now used for water and condensate disposal. KM-1 and KM-2 were brought into production in 1995 (KM-2 was later sidetracked to form KM-4 by Viking UK Gas). To date approximately 6.7 billion standard cubic feet (bscf) has been produced from the Namurian and 3.8 bscf from the KAF. Again, The Applicant considers there is further development drilling potential within the field.

4.8 Kelt, the successor to TWEL, discovered gas at Marishes in 1988 and Pickering in 1992. Kelt subsequently developed Malton, Kirby Misperton, Marishes and Pickering to supply gas to Knapton.

4.9 The Marishes field was brought into production in 1995 and to date three wells (MS-1, MS-2, MS-3) have developed ~3.2 bscf from the KAF. One well remains in production as an occasional supply well. Further development potential of the field is under evaluation by The Applicant.

Relevant Planning History

4.10 Tullow and Edinburgh were the successors to Kelt in 1999. During this period, very little exploration, development or workover activities were performed with a resulting impact on the available daily gas production rate. After succeeding Tullow in 2003, planning permission was granted to the Applicant in March 2006 for the sinking of an exploratory borehole on land adjacent to the Gas Valve Compound at Ebberston, Common Lane (Ref: NYM/2005/0254/FL). The borehole was drilled in 2006 and was subsequently suspended following testing and evaluation.

4.11 A further application (Ref: NYM/2008/0675/FL) was submitted in September 2008 on behalf of the Applicant for remodelling of the existing exploratory gas well site on land adjacent to the Gas Valve Compound at Ebberston and retention of it for a period of three years. As part of extending the duration of this consent, a landscape strategy formed part of the application to ensure that any existing visual impacts of development were effectively reduced. The application was approved under delegated powers on 25 November 2008.

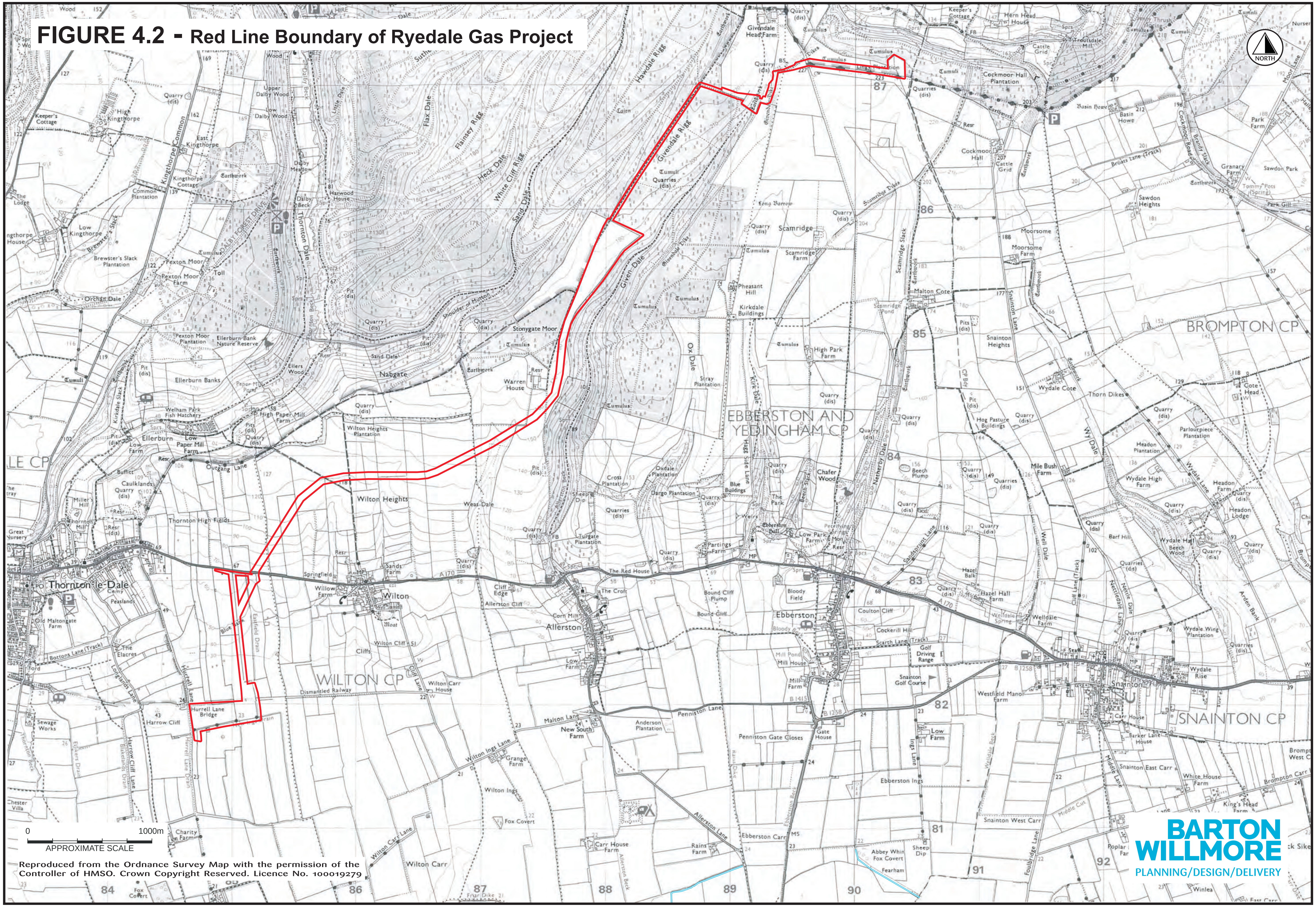
4.12 The Applicant submitted a planning application in October 2011 (Ref: NYM/2011/0761/FL) to retain the Ebberston Moor 'A' Well site for a further three years because the well site continues to have potential value to the company. The Applicant made the case that the gas reserves in the Ebberston Moor area (containing both the Lockton and Wykeham gas fields in Licence PL077) required further appraisal drilling to assess the commercial viability of any future development. Depending on the results of the sub surface studies being conducted, The Applicant considers that the well site could potentially be used to drill one or more future appraisal wells. Planning permission was granted by the NYMNPA on 9 January 2012.

4.13 Most recently, planning permission was granted in June 2013 (Ref: NYM/2013/0068/FL) by NYMNPA for 12 months for the construction of two appraisal boreholes for the purposes of petroleum appraisal at the well site.

4.14 The other grant of planning permission which has a bearing upon the determination of the current planning application is the Ryedale Gas Project (RGP). Planning permission was granted by the Secretary of State in June 2012 for the RGP, following a public inquiry in October and November 2011. **Figure 4.2** shows the location of the RGP as approved. The permission, granted to Moorland Energy Limited, permits:

- gas production from the existing Ebberston South well site near Givendale Head Farm, Ebberston;
- the construction of two underground gas pipelines from the existing well site to a new Gas Processing Facility;
- a new access road between the A170 and the proposed Gas Processing Facility
- a Gas Processing Facility at Hurrell Lane, Thornton-le-Dale; and
- an Above Ground Installation (AGI) which allows connection into the existing National Transmission System (NTS) pipeline to the south of the Hurrell Lane Gas Processing Facility on land off New Ings Lane.

FIGURE 4.2 - Red Line Boundary of Ryedale Gas Project



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4.15 The planning permission was granted for a period of five years and a number of planning conditions were attached which require further information to be submitted to and approved by NYMNPA and NYCC before works can progress. At the present time, it is understood that Moorland Energy Limited has not submitted any further information to the two mineral authorities to enable the discharge of these conditions. This planning permission does not affect the current planning application.

5.0 DESCRIPTION OF PROPOSED DEVELOPMENT

Introduction

5.1 The development phases envisaged for the Ebberston Moor gas field consist of:

1. Appraisal of the Ebberston Moor gas field volumes east of the original Lockton development area and an initial development based around existing facilities at the Ebberston Moor 'A' well site and the KGS; and
2. Assuming a successful first phase and confirmation of the eastern extension of the Ebberston Moor gas field, additional wells and facilities will be developed to deliver higher annual volumes of production, including exports into the National Transmission System (NTS), and enhanced recovery.

5.2 This planning application seeks permission for an early phase of the development, outlined in item 1 above (referred to as 'The Proposed Development') where gas is delivered into the LTZ operated by NGN. Item 2 will be addressed through a separate planning application.

5.3 The Proposed Development aims to carry out the following activities:

1. Gas production from the existing well (Ebberston Moor-1) which will be side tracked for the purpose of placing a horizontal well bore at the top of the Permian Kirkham Abbey Formation (KAF) reservoir to avoid producing the water underlying the gas reservoir. The side track is proposed to be drilled under planning permission NYM/2013/0068/FL prior to construction commencing on this Proposed Development;
2. Piping the produced gas to the adjacent Lockton Compound, where the gas will be conditioned (i.e. water and hydrogen sulphide content reduced to the required level); and
3. Flowing the conditioned gas into the neighbouring LTZ pipeline through the existing above ground pipeline connection within the Northern Gas Networks (NGN) AGI, and which is operated by NGN. The gas will then be distributed to meet local demand for gas in the Scarborough and Whitby region of North Yorkshire.

5.4 The current project schedule anticipates planning and field development plan approval will be in 2013, construction commencing in January 2014, once the 'side-track' to

Ebberston Moor-1 well has been drilled under planning permission NYM/2013/0068/FL, and gas production start-up after July 2014. The Proposed Development is expected to be operating for up to 5 years. If this Proposed Development is successful, a pipeline will be constructed in order to deliver gas and associated liquids from the existing Ebberston Moor 'A' Well Site to the Knapton Generating Station (KGS). The pipeline will be the subject of a separate planning application and is not considered further in the ES.

Description of the Proposed Development

5.5 The Ebberston Moor 'A' Well Site and the adjacent Lockton Compound lie within the Parish of Allerston at the edge of Dalby Forest on the forestry land approximately 6.5 km to the north of Ebberston. Access is directly off the unmade public highway bordering the Well Site.

5.6 The existing Well Site and compound will be developed to allow for gas production and conditioning to meet the gas quality specification of the neighbouring LTZ. It is anticipated that the volume of gas to be produced will be at an annual average rate of 15 million standard cubic feet per day (mmscf/d), sufficient to supply the gas needs to approximately 75 thousand homes. In order to facilitate the construction and development of The Proposed Development, the following facilities listed below will be required as shown in **Figure 5.1**:

- Construction compound;
- Laydown area for pipes, material and associated equipment;
- Fabrication shed;
- Workforce facilities – messing, catering and offices;
- Security cabin;
- Parking spaces;
- Potable water tank; and
- 1000 kw natural gas fuelled electric generator.

5.7 The main equipment to enable the produced gas to be conditioned will include:

- Inlet separator complete with measurement devices for gas and liquids;
- 200kw Gas fired heater;
- Sulphur removal module (Amine);
- Dew point control unit;
- Storage tanks for lean and rich amine and glycol;

The scaling of this drawing cannot be assured

Revision		Date	Drn	Ckd
A	Site Area Amended	04.06.13	SJ/RP	NC
B	Redline & Metering skid amended	14.06.13	SJ/RP	NC
C	Note 4, 18 & Flare added	18.06.13	SJ/RP	NC
D	Flare relocation and client amends	20.06.13	SJ/RP	NC
E	Redrawn to Topo Survey	27.06.13	SJ/RP	NC
F	Landscape Proposal amended	03.07.13	SJ/RP	NC
G	Drainage Proposals amended	05.07.13	SJ/RP	NC
H	Flare gravel surface removed	10.07.13	SJ/RP	NC

DALBY FOREST DRIVE

EMERGENCY GATE

Access to Flare

EMERGENCY GATE

French Drain

EMERGENCY GATE

Access to Flare

PATH

DUCT

French Drain

French Drain

Well Site Entrance

18 Car Park Spaces

EBBERSTON COMMON LANE

Proposed new bund to flare. NOTE: 706 m³ to be displaced to form new bund.

Existing gravel surface

Existing bund reprofiled

TEL Exit

Proposed gravel surface to match existing

Proposed concrete surface

NGN Entrance

Existing gravel surface

TEL Entrance

Proposed gravel surface to match existing

LEGEND

- SITE BOUNDARY 21,604 sqm (approx) (New development within 'green' area : 13,198 sqm [1.3 Ha])
- EXISTING FENCE
- PROPOSED FENCE
- Existing Planting to be Retained
- Proposed Canopy Tree
- Proposed Whip and Transplant Planting
- Proposed Grassland mix

Note: Drawing to be read in conjunction with Landscape Strategy Plan : 19819/L207

1. Indicative Gas Well
2. Indicative Water Disposal Well
3. Drainage Interceptor Pit
4. Drainage Soakaway
5. Site Office
6. Gas Conditioning Building (20m x 34m x 8.5 m): Separation and Water Handling Unit, Amine and Glycol Contactors, Auxillary Equipment, Produced Liquid Drum, Dew Point Control Unit, Pig Launcher.
7. Fire Water Tank: 50 Cubic Meters
8. Pipeline Pig Trap Area
9. Lean Rich Amine and Glycol Storage
10. Metering Skid (10m x 5m)
11. Indicative existing LTZ Pipe Manifold
12. Indicative existing NGN Building
13. Flare (footprint 225 sqm)
14. Loading Area
15. Water Separator Building
16. Gas Fired Heater
17. Water Storage Tank
18. Gas Generator

Project
EBBERSTON EDS

Drawing Title
FIGURE 5.1
PROPOSED SITE LAYOUT

Date	Scale	Drawn by	Check by
June 2013	1:500@A1	SJ/RP	NC

Project No	Drawing No	Revision
19819	P_12	H

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C:\Users\GARY~1.SJH\AppData\Local\Temp\Rar$DIa0.700\P_12 Proposed Site Plan.dwg - P_12

- Produced condensate storage;
- Hydrate inhibitor (methanol) storage and injection package;
- Corrosion and/or scale inhibitor storage and injection package;
- Fire water tank;
- Metering skid;
- Flare;
- Pipe track between the well and the flare;
- Utility systems;
- Natural gas fuelled electric generator;
- Interconnecting pressure pipework and valves;
- High Integrity Pressure Protection System (HIPPS) valves and pipelines tie-in arrangement,); and
- Site office.

5.8 All storage tanks, loading and unloading areas and all gas conditioning equipment will be sited on an impermeable and curbed surface with suitable drains, catchment and hydrocarbon separation equipment. A specially designed interceptor will be provided to clean rain and surface water within the site drains before leaving the Assessment Site through the soakaway.

5.9 The separation and water handling unit, amine and glycol contactors, produced liquid drum, dew point control unit, and some auxiliary equipment will be enclosed within the Gas Conditioning Building. The building will be 20mx34mx8.5m and has been designed to accord with the guidelines set out in Design Guide 5 (New Agricultural Buildings), published by NYMNPA in February 2013 (Ref. 4.1).

5.10 In addition there will be a new loading bay and impermeable hardstanding. The existing parking area for 18 vehicles at the well site entrance will remain. Within the adjacent NGN AGI, the existing neighbouring LTZ Pipe Manifold operated by NGN, the existing administration building and the existing access into the Lockton Compound will also remain in their current condition as they are located outside of the Assessment Site boundary.

Gas Conditioning/Treatment Facility

5.11 The gas conditioning/treatment process is illustrated in **Figure 4.2**. The gas, associated water and condensate will flow from the well head on the Ebberston Moor – 1 well through a flow line and a line heater into the three phase inlet separator. The inlet separator and gas conditioning modules will operate at the LTZ pipeline pressure.

Condensate and water from the inlet separator will be routed to their respective storage tanks prior to removal from site.

5.12 The water saturated gas from the inlet separator will flow through the amine contactor to enable removal of hydrogen sulphide. The rich amine (containing the hydrogen sulphide removed from the gas) will be routed to the rich amine storage tank from where it will be loaded onto road tankers for transport to a remote amine regenerating plant to avoid being released into the atmosphere as sulphur dioxide inside the North York Moors National Park.

5.13 The still water saturated gas from the amine contactor will then flow into the Dew-Point control module for removal of excess water and condensate through contact with lean glycol and refrigeration. Lean glycol will be pumped from the lean glycol storage while the rich glycol (containing the water extracted from the gas) will be routed to the rich glycol storage tank, from where it will be loaded to a road tanker and transported to a remote glycol regeneration plant.

5.14 Once conditioned, the gas will be routed to the metering module where the export gas volume will be measured along with other quality parameters prior to the gas being delivered into the existing neighbouring NGN AGI pipeline connection on the Lockton Compound. At this point, it will flow into the NGN gas distribution system and will be distributed to the local gas market in the Scarborough and Whitby area.

5.15 Methanol will be stored in the well site storage tank and will be injected by pump immediately downstream of the wellhead and upstream of the choke valve and possibly into the gas conditioning/treatment facility to reduce the risk of corrosion and hydrate formation.

5.16 The Proposed Development will be monitored by a System Control and Data Acquisition (SCADA) system and safety systems will be remotely operated via a telephone or satellite link to KGS. The operation of the Proposed Development will be carried out by the KGS management. It will be able to be remotely operated with operators available at KGS to respond to alarms and to carry out routine inspection and maintenance.

Re-generation of Gas Treatment Fluids

5.17 The gas treatment fluids will be transported off site for regeneration.

Produced Water Disposal

5.18 Any water produced during the production of gas will be disposed of via a water disposal well within the well site. Planning permission has already been granted for two gas appraisal wells and it is intended that one of the wells will be used for water disposal. Therefore separate planning permission will be sought to use the existing well cellar to drill a borehole for water disposal use, if required at a later date. The use of the borehole through the existing cellar will not be assessed further as part of this ES.

Flare

5.19 A flare system will be provided to assist start and stop operations and eliminate fugitive emissions. Flaring will occur when gas needs to be routed to the flare until it is of an acceptable quality before transfer into the NGN facilities.

5.20 The flare knock-out drum will be located inside an open pit with an area of 225 sqm so that all free liquids drain to it. A liquid level control will ensure that any liquid is maintained at a low level. Liquid (hydrocarbons) from the drum will be pumped to the produced liquid separator. Any rain water inside the open pit will be pumped to the drain system by a submersible pump.

Heights

5.21 **Table 4.1** provides the approximate heights of the tallest structures on the Assessment Site during operation.

Table 4.1: Approximate Heights of Structures/Buildings during Operation

Structure/Buildings	Height (m)
Inlet separator	1.8m
Gas fired heater	1.8m
Water storage tank	4.8m
Gas Conditioning Building	8.5m
Flare stack	8.5m

Access

5.22 Access to the Assessment Site is from the A170 via Ebberston Common Lane. No unauthorised vehicles associated within the Proposed Development will use the Dalby Forest Drive. Ebberston Common Lane is an unclassified road with passing places.

Approximately 100m north of Givendale Head Farm, the road becomes an unimproved public highway (gravel track) as shown on **Figure 4.1**. There is already an established access using this route to Ebberston Moor 'A' Well Site and the Lockton Compound.

5.23 A new access with a gated entrance will be created from Ebberston Common Lane to enable transport tankers to enter the Lockton Compound. Vehicles will exit the Lockton Compound via a separate gated new access. Two emergency exit gates will be located along the north western fence line of the Lockton Compound. The well site and Lockton Compound will be fenced.

Parking

5.24 Eighteen car parking spaces are already provided at the Ebberston Moor 'A' Well Site and these would be retained and used during all phases of the Proposed Development.

Landscaping

5.25 The landscape strategy for the Proposed Development has been designed with particular consideration to the topography, landscape and ecological constraints and opportunities identified on the Assessment Site. Landscaping works will involve some ground modelling works associated with careful felling of woodland and the creation of new bunds surrounding the flare within the Assessment Site. Elsewhere within the Assessment Site, works will include soil preparation, tree and vegetation planting and seeding. The existing screening along the frontage with the Ebberston Common Lane will be retained and enhanced where possible, with the exception of a small number of trees and a section of hedgerow which will be lost to create the two new entry points into the Assessment Site. A distance of 5m radius from the flare will need to be cleared of vegetation to mitigate fire risk.

Sustainable Drainage Measures

5.26 Sustainable Drainage Systems (SuDS) will be used to reduce flood risk, improve water quality, assist groundwater recharge whilst also providing amenity and wildlife benefits.

5.27 The existing drainage system at Ebberston Moor 'A' Well Site and Lockton Compound will be upgraded to ensure that the Assessment Site is capable of safely containing, separating and disposing of both rainwater and any fluid spills from the tanks and piping. A closed drain system will recover and store any liquids drained from the process equipment, which will be disposed of in an approved manner. Surface water site

drains will be sent to a receiving interceptor and then routed to a clean water discharge point. See Chapter 12 of the ES for more details.

Utilities

5.28 The Proposed Development will connect into the existing telephone network in close proximity to the Assessment Site, with new infrastructure installed beneath roads, and verges wherever possible. Electric power will be generated on site by a natural gas fuelled engine driven generator. Use of natural gas as fuel instead of diesel for power generation reduces the carbon footprint of the Proposed Development. Natural gas will also be used to fuel a 200kw heater to keep the gas from forming hydrates in the plant inlet.

Lighting

5.29 The facility will not be lit at night except in emergencies or for urgent maintenance. During the winter months, it will be necessary for part of the Assessment Site to be lit during late afternoon and early evening when deliveries and loading takes place for health and safety reasons. A lighting assessment is provided in Chapter 8 of the ES and its accompanying **Appendix 8.6**.

Waste Management

5.30 The Proposed Development will provide an appropriate plan and facilities for the efficient collection, storage and transport of waste to an approved and licensed waste company for recycling or disposal. Adequate space for refuse storage and collection will be provided within the Proposed Development as required by NYMNPA.

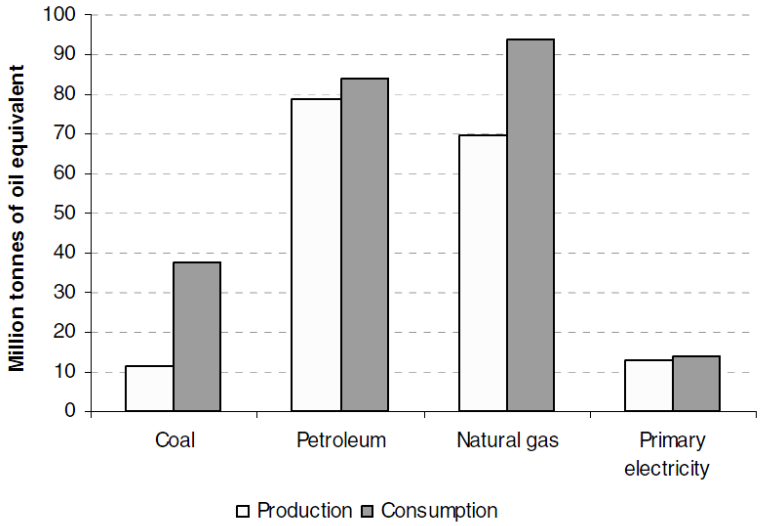
6.0 NATIONAL AND REGIONAL ENERGY POLICY

6.1 Natural gas is an essential component in the supply of energy to homes, business and other premises. The UK is highly dependent on gas supplies and is the third largest gas consumer in the world.

6.2 Natural gas is primary sources of energy and accounts for 40% of the UK's energy requirement. It is estimated that more than twenty million households use gas directly for cooking and heating, whilst a great number of consumer goods and products are made from the chemical processing of gas.

6.3 **Figure 6.1** illustrates the Primary Demand by Fuel Type according to the DECC 'Digest of UK Energy Statistics' (2009). The need to reduce carbon emissions whilst ensuring secure energy supplies means that for the forcible future gas will be a primary source of energy in the UK. As natural gas, in particular, is used to generate electricity, the already high demand for the National Gas Transmission System is set to grow at a peak rate of around 2.1% per annum (National Grid, Gas Transportation Ten Year Statement 2009).

Figure 6.1 - Production and Consumption of Primary Fuels 2008



Note: Includes non-energy use of petroleum and gas. Differences between consumption and production are made up by foreign trade, marine bunkers and stock changes.

Source: DECC, Digest of UK Energy Statistics, 2009

National Energy Policy

6.4 There are a number of specific references that have been made in national energy policy on the need for additional gas supply infrastructure in the UK in improving energy security and market efficiency. Gas supplies also plays a role in supporting the development of renewable energy sources, and in particular wind power. The need for additional gas supply infrastructure is urgent and this is recognised in national policy including the Statement of Need issued by the Energy Minister to Parliament on 16 May 2006.

Energy White Paper – "Our energy future – creating a low carbon economy"

6.5 The Energy White Paper was published by the Department for Trade and Industry (DTI) in February 2003. Its purpose was to generate a debate about a new energy policy for the UK. It states that the government's goal is for people and businesses to be able to rely upon secure supplies of energy, including gas, at predictable prices through the market. To achieve this, the White Paper states that the UK needs a resilient and diverse energy system based upon a mix of fuel types, and much of the UK's energy infrastructure will need to be updated.

Energy White Paper "Meeting the Energy Challenge"

6.6 The Energy White Paper was published by the DTI in May 2007. It sets out the Government's international and domestic energy strategy in response to growing evidence of the impact of climate change and the need to cut greenhouse gases, rising fuel prices, a growing awareness of the risks of relying upon oil and gas imports from a small concentration of countries and the need for the market to make substantial new investment in power stations, the electricity grid and gas infrastructure.

6.7 The need to reduce carbon emissions whilst ensuring secure energy supplies means that the UK cannot rely on renewables alone. In terms of promoting a diverse energy mix, it is stressed by the White Paper that fossil fuels will continue to play an essential role in the UK's energy system for the foreseeable future. To ensure 'security of the supply' a crucial element of the Government's energy strategy is to maximise the economic production of our domestic energy sources which, together with the UK's energy saving measures, will help reduce our dependence on energy imports.

Ministerial Written Statement - Secretary of State for Trade and Industry - Energy Statement of Need for Additional Gas Supply Infrastructure - 16th May 2006

6.8 The statement clarifies the Government policy context for planning and consent decisions on gas supply infrastructure projects. The statement confirms that the provision of energy infrastructure is part of a delivery system that provides an essential national service. To deliver a reliable supply of energy to UK homes and businesses new energy projects will have to be encouraged. It is acknowledged that these new projects 'may not always appear to convey any particular local benefit, but they provide crucial national benefits which all localities share'.

6.9 In the context of the key goals of energy policy the statement also outlines the broad means by which the UK's energy infrastructure will be updated. There will be a requirement for:

- An expansion in infrastructure (e.g. overhead power lines and underground cables, and pipelines);
- new forms of infrastructure; and
- infrastructure development in areas that have not previously seen such development.

6.10 The continued exploitation of domestic resources is one of the methods by which the reliability of energy supplies can be improved. However the statement reiterates that:

> **"failure to put energy infrastructure in place will reduce the reliability of energy systems, with potentially disastrous consequences for the local, regional and national community and economy"**

Demand

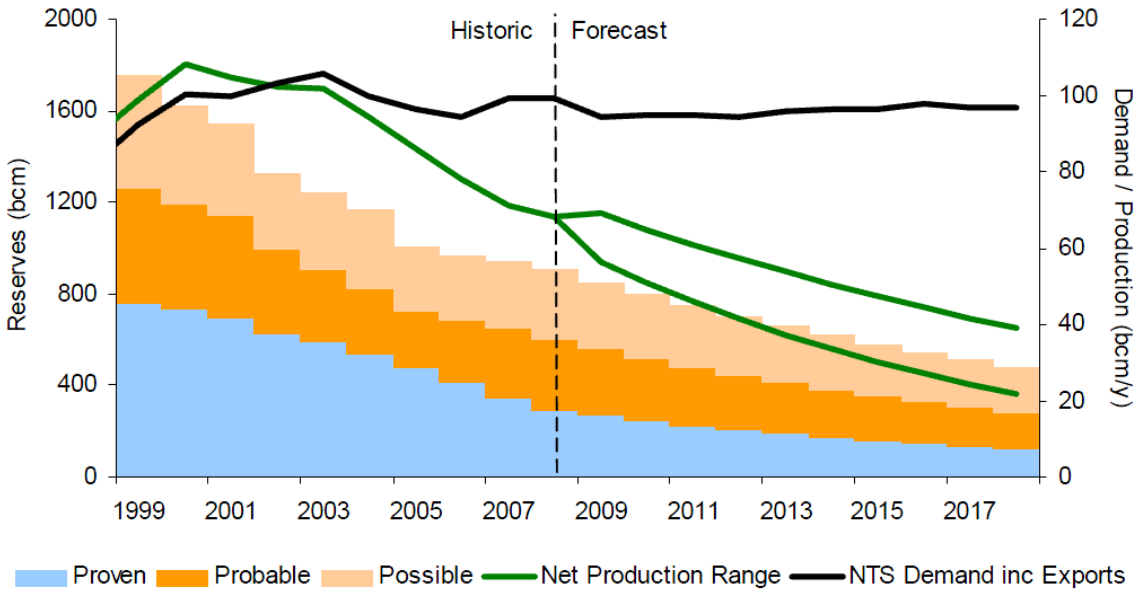
6.11 As indicated by **Figure 6.1** the UK is highly dependent on gas as source of energy. Natural gas plays an important role in most aspects of everyday life, it was traditionally used for the domestic, industrial and commercial markets but since the early 1990's electricity generation has dominated growth in consumption and caused a rapid growth in the use of gas. In 2005 natural gas accounted for 32.7% of the primary fuel used in

electricity generation (DCLG, Onshore Oil and Gas, 2006). It offers higher generation efficiency and lower carbon dioxide emissions than convention coal technology.

6.12 The UK's reserves of oil and gas are declining making it a net importer. Figure 6.2 shows the latest projections published by National Grid indicated that by 2011 46% of the UK's gas would be imported and this figure would rise to 77% by 2018 (Gas Transportation Ten Year Statement, 2009). As part of the national energy strategy to ensure 'security of supply' and reduce the dependency of the UK on gas imports one of the Government's priorities is to maximise the economic production of domestic energy sources.

6.13 Even under National Grid's Gone Green Scenario (2009) for energy generation the demand for natural gas is predicated to increase in order to accommodate for any energy shortages arising through 'wind intermittency'. These latest demand forecasts highlight the importance of maximising the potential productivity of the UK's remaining gas reserves and the need for new gas supply infrastructure to help ensure security of supply.

Figure 6.2 - UKCS Remaining Gas Reserves



Source: Gas Transportation Ten Year Statement, 2009

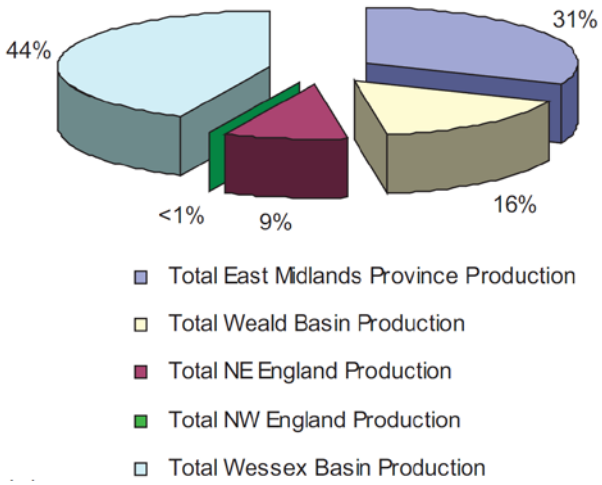
Supply

6.14 Although it has been widely reported that domestic reserves are declining the UK still has considerable oil and gas resources with the potential to contribute to national energy requirements. In 2006 the DTI published a background paper for the Energy Review which estimated that the oil and gas remaining to be produced *'range from 21 to 27 billion barrels of oil equivalent – this compares with production of some 35 billion barrels of oil equivalent by the end of 2005*'. 1 barrel of oil equivalent equates to approximately 6000 scf. Furthermore the Paper suggests that:

> **"If estimates of the remaining geological potential are right and if investment in exploration and development can be maintained near current levels then production in 2020 could be equivalent to a million barrels or more a day higher than if investment falls away (split roughly between oil and gas production)"**

6.15 Ensuring that the UK's indigenous resources are used to their full potential is crucial to securing the reliability of energy supplies. The systematic search for onshore oil and gas began in 1918, following concerns about supply disruptions during the First World War, with peak natural gas production reaching 800mcm/d in 2000, representing about 0.6% of total UK production. In terms of regional supply, **Figure 6.3** illustrates the important contribution the North East makes to total onshore gas production, which dates back to the development of Eskdale Gasfield in the 1960s.

Figure 6.3 - Total Gas Production



Source: DCLG, Onshore Oil and Gas Production, 2006

6.16 In light of concerns relating to the risks arising from the concentration of fossil fuel reserves in fewer and further away places the viability of onshore gas reserves is becoming increasingly important. With improving exploration technology onshore discoveries are continually being made and gasfields such as the Proposed Development can make an important contribution to the nation's energy needs.

The Role of Onshore Gas

6.17 As empathised in the 2007 Energy White Paper security of energy supply is a key issue for the UK which will affect all localities. Ensuring that the UK's indigenous resources are used to their full potential plays an essential part in delivering this security, providing a reliable supply and reducing the need for imported oil and gas.

6.18 In the last two decades changes in consumption practices has increased the role of onshore gas in the UK energy market. Although gas was traditionally used for the domestic, industrial and commercial markets since the early 1990's electricity generation has dominated growth in consumption and caused a rapid growth in the use of gas. With factors, such as the introduction of 13.6GW of new CCGT plant, National Grid in their 2009 'Ten Year Statement' forecasted that the demand for gas is going to continue to increase, making the need for reliable gas supplies and new infrastructure a key issue of national importance.

6.19 With the expansion of gas consumption, concerns relating to supply interruptions have become more prominent for the UK energy sector. The Energy Challenge published by Government in 2006 warned that if infrastructure is not forthcoming or is delayed, there is a risk of price rises, costing consumer hundreds of millions of pounds. As an indigenous resource The Proposed Development will be in operation for up to 5 years during which period it will contribute to the delivery of reliable gas supplies and help to reduce the UK's susceptibility to fluctuations in the global market.

6.20 The UK is a major producer of oil and gas, the total value of which was £27.2bn in 2005. Although a major proportion of the total output was from offshore fields, onshore gas production makes a modest, but important contribution to supply with the additional advantage of proximity to demand. There are a number of gasfields in North Yorkshire that make an important contribution to total onshore production, which was valued at £363m in 2005. The Proposed Development will help to ensure that the Region can achieve their energy goals by offering a reliable supply of gas which will strengthen the role of Yorkshire and the Humber within the UK energy sector.

Gas Generation Strategy

6.21 DECC published its Gas Generation Strategy in December 2012. The Strategy acknowledges that gas is a flexible source of generation and emits half the carbon dioxide of coal. It states that gas is an integral part of the UK's generation mix and is a reliable source of electricity. Gas will be needed to help balance the inflexible and intermittent low-carbon generation and provide crucial capacity to keep the lights on and the economy working.

6.22 The Government expects that gas will continue to play a major role in the UK's electricity mix. Para 1.2 notes that gas generation is an efficient form of thermal generation, meaning that more electricity can be produced from less fuel than is the case with other fossil fuel technologies.

Summary

6.23 In light of the UK's growing dependency for imported fuel onshore gas production makes an important contribution to the national energy market. Ensuring that the UK's domestic resources are used to their full potential is especially important considering the increased competition for energy resources in the face of growing global energy demand.

6.24 The Proposed Development supports the Government's regional energy strategy by maximising the economic production of domestic energy sources and introducing new gas infrastructure. Furthermore onshore gas production helps to increase the reliability of the UK's energy supply arrangements and prevent interruptions to supply which could ultimately have harmful consequences for local, regional and national communities and economies.

7.0 PLANNING POLICY FRAMEWORK

Introduction

7.1 The Proposed Development broadly consists of production from the existing Ebberston Moor 'A' Well site and gas conditioning facility.

7.2 For the purposes of this application the determining authority is the North York Moors National Park and this assessment has considered the appropriateness of the proposals in relation to policies contained within the North York Moors National Park Core Strategy and Development Policies (2008).

7.3 The remainder of this Section presents an assessment of the relevant national and local planning policy framework in relation to The Proposed Development.

Overarching National Policy Statement for Energy (EN-1) (2011)

7.4 On 18th July 2011 the House of Commons debated and approved the six National Policy Statements for Energy (NPS). The energy NPSs set out national policy against which proposals for major energy projects will be assessed. Paragraph 1.2.1 states that the NPS is likely to be a material consideration for developments which fall outside the remit of the 2008 Planning Act and which are determined under the Town and Country Planning Act 1990 (as amended).

7.5 In terms of future energy supply the Government states that fossil fuel plays a vital role in providing reliable electricity supplies and:

> **"….provides diversity in our energy mix. They will continue to play an important role in our energy mix as the UK makes the transition to a low carbon economy, and Government policy is that they must be constructed, and operate, in line with increasingly demanding climate change goals".**

7.6 In view of the continued demand for oil, the NPS stresses that the UK needs to ensure it has safe and secure supplies. Paragraph of the NPS 3.9.3 states that:

"Sufficient fuel and infrastructure capacity are necessary to avoid socially unacceptable levels of interruption to physical supply and excessive costs to the economy from unexpectedly high or volatile prices. These requirements can be met by sufficient, diverse and reliable supplies of fuel, with adequate capacity to import, produce, store and distribute these supplies to customers."

National Planning Policy Guidance

7.7 The National Planning Policy Framework (NPPF) was published in March 2012 and sets out the Government's requirements for the planning system. The principle objective of the NPPF is a presumption in favour of sustainable development, which should be seen as a 'golden thread' running through both plan-making and decision-taking. In regard to the determination of planning applications this means:

- **"approving development proposals that accord with the development plan without delay; and**
- **where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:**
  - **any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or**
  - **specific policies in this Framework indicate development should be restricted."** (para 14)

7.8 Paragraph 115 of the NPPF advises that great weight should be given to conserving landscape and scenic beauty in National Parks. Paragraph 116 states that:

22. "Planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest. Consideration of such applications should include an assessment of:

(i) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

(ii) the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and

(iii) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated."

7.9 With the exception of waste, the NPPF replaces most of the planning policy guidance notes and planning policy statements including Minerals Policy Statement 1 (Planning and Minerals) and Minerals Policy Statement 2 (Controlling and Mitigating the Environmental Effects of Minerals Extraction in England).

7.10 Paragraph 142 of the NPPF covers minerals development and stresses the essential role that minerals play in supporting sustainable economic growth and quality of life. The Framework seeks to ensure that there is 'sufficient supply of material to provide the infrastructure, buildings and energy and goods that the Country needs'. The NPPF also acknowledges that 'minerals are a finite resource' and can 'only be worked where they are found'.

7.11 At paragraph 144, the NPPF provides guidance to MPA's when determining planning applications for mineral extraction the following of which is of relevance to the development of an exploratory well site:

- **"give great weight to the benefits of the mineral extraction, including to the economy;**

- **ensure, in granting planning permission for mineral development, that there are no unacceptable adverse impacts on the natural and historic environment, human health or aviation safety, and take into account the cumulative effect of multiple impacts from individual sites and/or from a number of sites in a locality;**

- **ensure that any unavoidable noise, dust and particle emissions and any blasting vibrations are controlled, mitigated or removed at source and establish appropriate noise limits for extraction in proximity to noise sensitive properties;**

- **provide for restoration and aftercare at the earliest opportunity to be carried out to high environmental standards, through the application of appropriate conditions, where necessary. Bonds or other financial guarantees to underpin planning conditions should only be sought in exceptional circumstances;"**

7.12 Further to the considerations above the NPPF states at paragraph 147 that, when planning for on-shore oil and gas development, Minerals Planning Authorities should:

> **"…clearly distinguish between the three phases of development (exploration, appraisal and production) and address constraints on production and processing within areas that are licensed for oil and gas exploration or production."**

Compliance with the NPPF

7.13 Chapter 3 of the Planning Statement demonstrates that the proposal development is acceptable notwithstanding the fact that it is major development and lies within the National Park. There are exceptional circumstances which justify gas production from the Ebberston Moor well site and the construction and operation of a temporary gas conditioning facility.

7.14 In light of the UK's growing dependency for imported fuel, onshore oil and gas production makes an important contribution to the national energy market. Ensuring that the UK's domestic resources are used to their full potential is especially important, considering the increased competition for energy resources in the face of growing global energy demand.

7.15 The Proposed Development supports the Government's national energy strategy by maximising the economic production of domestic energy sources and introducing new gas infrastructure. Furthermore, onshore oil and gas exploration helps to increase the reliability of the UK's energy supply arrangements and prevent interruptions to supply which could ultimately have harmful consequences for local and national communities and economies.

7.16 As acknowledged at paragraph 142 of the NPPF, minerals can only be worked where they are found. In accordance with national planning guidance the planning application is supported by a number of detailed environment assessments to ensure that The Proposed Development will not have a detrimental impact of the surrounding built and natural environment.

Technical Guidance to the National Planning Policy Framework

7.17 The document provides additional guidance to Local Planning Authorities to ensure the effective implementation of the planning policy set out in the NPPF in relation to mineral extraction.

7.18 Paragraph 20 of the technical guidance states that MPAs are 'expected to ensure that plan proposals do not have an unacceptable adverse effect on the natural or historic environment or human health'. The guidance advises that a programme of works should be agreed 'which takes account, as far as is practicable, of the potential impacts on the local community over the expected duration of operation'.

7.19 Paragraph 23 of the technical guidance makes it clear that 'unavoidable dust emissions are controlled, mitigated or removed at source'. It is not anticipated that The Proposed Development will give rise to significant dust emissions. However standard industry measures such as wheel washing will be employed to ensure compliance with appropriate environmental standards. Measures to control dust are outlined in the Project Description and the supporting transport assessment.

7.20 Paragraph 31 of the technical guidance recognises that all minerals operations will 'have some particularly noisy short term activities that cannot meet the limits set for normal operations'. In accordance with the NPPF the application is supported by a detailed noise assessment to ensure that unavoidable noise emissions are controlled, mitigated or removed at source. In summary the findings of the noise assessment show that the

predicted noise levels from on-site operations are below the proposed noise limits for all phases of The Proposed Development.

7.21 To demonstrate that a site can be restored to an acceptable standard and after use, the technical guidance advises that the 'applicant prepares at the outset a working plan which includes restoration proposals and is based on the findings from the site investigation'. Further details of the restoration programme is provided in the landscape and visual assessment as part of the Environmental Statement.

North York Moors National Park Core Strategy and Development Policies

7.22 The proposed development falls within the administrative control of the North York Moors National Park Authority. The adopted development plan for the National Park is the Core Strategy and Development Policies (November 2008). This Development Plan Document supersedes all the policies contained in the former North York Moors Local Plan (2003).

7.23 The document comprises a mixture of Core Policies and Development Policies which seek to further the National Park purposes towards a more sustainable future. Under Core Policy C '*Natural Environment, Biodiversity and Geodiversity'* all developments, projects and activities will be expected to:

a) Provide an appropriate level of protection to legally protected sites and species;
b) Maintain, and where appropriate enhance, conditions for priority habitats and species identified in the Moor York Moors Local Biodiversity Action Plan;
c) Maintain and where appropriate enhance recognised geodiversity assets;
d) Maintain and where appropriate enhance other sites, features, species or networks of ecological or geological interest and provide for the appropriate management of these;
e) Maximise opportunities for enhancement of ecological or geological assets; and
f) Mitigate against any necessary impacts through appropriate habitat creation, restoration or enhancement on site or elsewhere.

7.24 As part of the ES for the proposed development detailed assessments have been undertaken and cover areas such as ecology, archaeology and visual impact. Within the National Park the main environmental effects are associated with the construction of the Proposed Development. With the implementation of standard industry measures, the effects on existing habitats, which may arise during the construction period, are not

considered to be significant. In regard to the operational phase the Proposed Development has been carefully designed in order to minimise the impact on the National Park. Where possible new plant and storage facilities have been accommodated within buildings of an agricultural type design, similar in scale to that of surrounding developments. In addition, the proposals will include a high quality landscaping scheme which takes into account the sensitivity of the locality.

7.25 Under Core Policy D, activities in the National Park will address the causes of:

"Activities in the National Park will address the causes of climate change and contribute to reducing greenhouse gas emissions, by:

1 Reducing the use of energy and the need to use energy.

2 Generating energy from renewable sources where these are of a location, scale and design appropriate to the locality and which contribute towards meeting domestic, community or business energy needs within the National Park.

3 Requiring residential developments of 5 or more houses and other uses of 200 sqm or more to generate energy on-site from renewable sources to displace at least 10% of predicted CO_2 emissions.

The impacts of climate change on the National Park will be mitigated by:

4 Directing development away from flood risk areas.

5 Facilitating necessary coastal and flood protection works.

6 Addressing the management of upland areas to assist in flood storage and carbon retention.

7 Encouraging enhancements for biodiversity to buffer, extend and connect habitats."

7.26 Criterion 3 requires all buildings of 200 sq m or more to generate energy to displace 10% or more of predicted carbon dioxide emissions. Only one of the four buildings proposed on the site exceeds this threshold. The gas conditioning facility building will be 680 sq m in area and will therefore in accordance with the policy need to displace at least 10% of energy. However, the building will be temporary in nature and therefore, incorporating measures such as solar panels will not be const effective. The generator on site will use the gas produced from the well site without requiring diesel deliveries to be made to the site. Therefore, CO2 emissions will be reduced during the operation of the site. Therefore, it is not possible to incorporate other measures to reduce gas emissions.

7.27 Under Core Policy E minerals extraction will be permitted within the National Park if it satisfies the following criteria:

a) It is of a scale appropriate for its location in the National Park;
b) There are no suitable sources of previously used materials to meet the identified need;
c) Any waste materials from extraction will be re-used or recycled wherever possible; and
d) A scheme for restoration and after-use of the site based upon protecting and enhancing the special qualities of the National Park forms an integral part of the proposal.

7.28 The Application Site currently comprises an area of hard standing and existing gas infrastructure enclosed by parameter planting. In March 2006 temporary planning permission was granted on the well site for an exploratory borehole and new access road. For this application new plant and storage facilities are required at the well site for the extraction, conditioning and transportation of gas. It is anticipated that the well site will be in operation in respect of this planning application for up to 5 years. The plant and machinery and buildings on the site will be removed and the well site decommissioned and a programme of restoration will be undertaken. A scheme for restoration will be agreed in writing with North York Moors National Park Authority. The Applicant is intending to submit a separate planning application for the continued use of the well site for gas production for up to 25 years, together with a gas pipeline to the Knapton Generating Station.

Planning Advice 8 – Policies for Oil and Gas Exploration, Appraisal and Production

7.29 The NYMNPA published a planning advice note in January 2013 which summarises the advice in Annex 4 of MPS1 regarding oil and gas exploration, appraisal and production. The Core Strategy does not contain specific policies in respect of oil and gas development on the basis of Government guidance at the time about avoiding repetition of policies. MPS1 was deleted in March 2012 and was replaced by the NPPF. The advice note states that there is nothing in the NPPF which conflicts with the Annex 4. This is an interim measure until the policies are included in a forthcoming Local Plan.

7.30 The advice note states that:

> **"It will usually be necessary for a MPA to attach certain conditions to any grant of planning permission for a gathering station or an export terminal, or to seek an agreement with the operator using section 106 of the 1990 Act for matters that fall outside planning control.**
>
> **Policies should make clear that conditions are likely to be imposed governing, amongst other matters:**
>
> - **timing and method of gas flaring, (also controlled by DTI under the Energy Act 1976);**
> - **access;**
> - **the direction of vehicles leaving the site;**
> - **noise emissions;**
> - **prevention of pollution associated, for example, with possible spillages;**
> - **the means of disposal of unwanted gas; and**
> - **the method by which the end product is to be transported from the well site or gathering station.**
>
> **Operators should address all of these points in their planning applications and, where necessary and appropriate, in supporting environmental statements."**

7.31 The supporting documentation covers each of these matters in detail.

Conclusions

7.32 This Section has demonstrated how the proposals for the Proposed Development have taken into account and accord with national and local planning policies. In addition to this Statement, an Environmental Statement has been prepared in support of the application and covers the following environmental aspects:

- Ecology
- Landscape and Visual Impact
- Air Quality
- Noise and Vibration
- Traffic and Transportation
- Flood Risk, Hydrology and Drainage
- Archaeology and Cultural Heritage
- Lighting
- Geology
- Socio-Economic

7.33 As part of the Environmental Statement a number of detailed environment assessments have been undertaken to ensure that The Proposed Development will not have a detrimental impact of the surrounding built and natural environment. These assessments, in combination with this Statement, illustrate that no significant adverse impacts will occur as a result of the development or that where applicable, mitigation measures have been proposed to limit impacts.

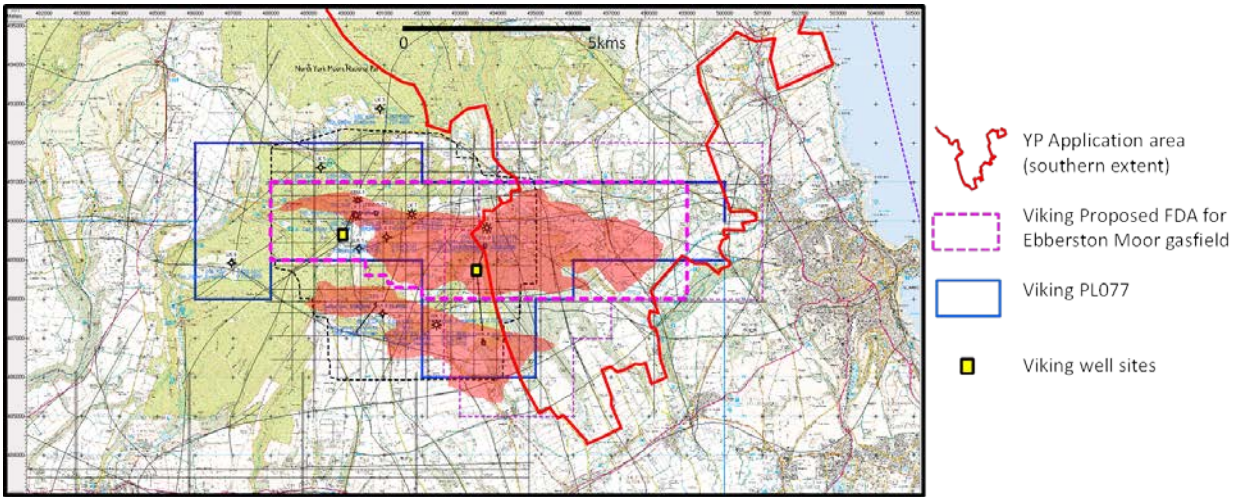
8.0 OTHER PLANNING CONSIDERATIONS

8.1 The preparation of the planning application has evolved as a result of regular consultations with both the Park Authority officers and other consultees. These are described in the Statement of Community Involvement. As a result, a number of planning considerations have arisen which are likely to be material considerations in the determination of the planning application.

Potential Conflict with York Potash

8.2 The mapped extent of the Ebberston Moor gas reservoir (based on interpretation of 3D seismic acquired in 2012) overlaps with the area of interest specified by York Potash for poly halite mining operations. Viking UK Gas continues to engage in technical discussions with York Potash to share geoscience knowledge of the respective areas of interest. York Potash are aware of the overlap between their area of interest and the proposed Ebberston Moor gas field determined area. In the interests of Health and Safety, it would be inadvisable to mine a potential mineral resource (such as polhalite/potash) in close proximity to a known hydrocarbon accumulation (e.g. the Ebberston Moor KAF gas reservoir) whether or not the hydrocarbon accumulation had been exploited.

Figure 8.1 – York Potash application area and Viking Proposed FDA for the Ebberston Moor gasfield



Traffic Generation

8.3 The Traffic chapter of the ES sets out the likely increase in traffic numbers during both the construction and the operation of the EDS. For ease of reference, these are set out below.

Construction, decommissioning and restoration.

Personnel and Vehicles

8.4 A mixture of light and heavy goods vehicle traffic (including some abnormal loads) will be generated during the construction phase. The anticipated construction personnel and traffic to be generated is outlined in **Tables 11.4** and **11.5** below, with the numbers of personnel based on previous experience of similar activities.

Summary of Personnel

Project Activity	Personnel on site each week			
	Project Duration weeks (no.)	Max (no.)	Min (no.)	Average (no.)
Upgrading Ebberston Moor 'A' Well Site	5	15	6	10
Up-grading Lockton Compound for conditioning/treatment of gas	10	10	6	8

Summary of Construction Vehicle Movements

Project Activity	Vehicle Movements (no.)		Time period
	HGV	Others	
Ebberston Moor 'A' Well Site	6	35	Weekly
	2	7	Daily
Gas Conditioning Site	10	50	Weekly
	2	10	Daily

Operation

8.5 Once the construction phase is complete, the effect of traffic relating to the operation of the Proposed Development is much reduced. **Table 11.7** summarises the anticipated traffic effect relating to the day to day operation of the Proposed Development and regular deliveries and removals.

Summary of Vehicle Movements

Site Operation			
Day time (07:30-18:00)	**Night Time (18:00-07:30)**		
1/2 operational staff	None.		
Other operational vehicles and deliveries		**Average Traffic Flows**	**Maximum Traffic Flows**
Operational vehicles	**Regular External Deliveries/ Removals**		
1nr 4x4 maintenance staff vehicle	**Gas Conditioning Facility**		
	Water/condensate removal - articulated road tanker (HGV)	1nr weekly two-way removal	2nr weekly two-way removal
	Amine and glycol removal (by products) – articulated road tanker (HGV)	1nr two-way daily deliveries and removals.	2nr two-way daily deliveries and removals.
	Contaminated rainwater (HGV)	1nr two-way monthly removals.	1nr two-way weekly removals.
	Well Site		
	Corrosion inhibitor delivery – delivery by site pick up/4x4	1nr two-way monthly deliveries and removals.	2nr two-way monthly deliveries and removals.
	Methanol delivery - delivery by site pick up/4x4	1nr two-way monthly deliveries and removals.	2nr two-way monthly staff movements

Comparison of Average Base Traffic Flows and Worst Case Operational Traffic Flows along Ebberston Common Lane and Ebberston Lane

Direction of Travel	M'bike		Cars Class		LGVs, 2 Axles		HGV 3/4 axles		HGV 4/5/6 axles	
	Base flow	Op* Flow	Base flow	Op* Flow	Base flow	Op* Flow	Base flow	Op* Flow	Base flow	Op* Flow
Southbound	2	-	69	2	14	2	2	5	2	-
Northbound	3	-	71	2	12	2	4	5	2	-

***** maximum daily number

Red Line Boundary

8.6 The Planning Application shows the red line boundary above ground and does not include the area below the surface where gas will migrate to enable production from the well site to take place. This follows the standard procedure within the oil and gas industry in the UK. Of most relevance is the Ryedale Gas Project which was granted planning permission by the Secretary of State in June 2012. The planning permission applies to a red line boundary which includes all proposed infrastructure above ground, together with the pipeline between the Ebberston South well site and the proposed Gas Processing Facility at Thornton le Dale. The area of the gas reservoir from which gas will be produced and brought to the surface at the Ebberston South well site was not part of the planning application. The Secretary of State was therefore satisfied that the planning application documentation was correct and that the red line boundary showing the proposed development above ground was acceptable before granting planning permission. Accordingly, the red line boundary adheres to the Secretary of State's direction by including all above ground works in the red line boundary.

9.0 SUSTAINABILITY APPRAISAL

9.1 The planning system seeks to deliver sustainable development within the UK and sustainability appraisals are carried out by local planning authorities (LPA) as part of the preparation of their plans and sustainability assessments often accompany planning applications for development. In order to assist those considering or interested in this planning application, this section carries out a Sustainability Appraisal (SA) of the Proposed Development, having regard to the principles of sustainable development set out at the national and local level.

9.2 The North York Moors National Park Authority published its 'Sustainability Statement, Core Strategy and Development Policies Development Plan Document' in November 2008. As part of these sustainability appraisals, SA objectives were developed against which the emerging development plan would be tested. The remainder of this Chapter considers the sustainability of the Proposed Development in relation to these objectives.

National Sustainability Strategy

9.3 In 2005, the Government published a new national sustainability strategy 'Securing the Future' which built upon the 1999 strategy entitled 'A Better Quality of Life – A Strategy for Sustainable Development'. The aim of the strategy is to meet the needs of current and future generations and five guiding principles have been identified to meet this aim which include:

- Living within environmental limits;
- Ensuring a strong, healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and
- Using sound science responsibly.

9.4 The Government's sustainability strategy 'Securing the Future' (2005) aims to evolve and develop, rather than depart from, the aims of the 1999 sustainability strategy 'A Better Quality of Life – A Strategy for Sustainable Development'. The 2005 strategy has stronger international and societal dimensions with an explicit focus on environmental limits and four agreed priorities including sustainable consumption and production, climate change, natural resource protection and sustainable communities.

9.5 NPPF recognises the importance of minerals in achieving sustainable development through the provision of an adequate and steady supply of materials for buildings, infrastructure and goods that society, industry and the economy needs. For the reason that minerals can only be extracted from where they occur, there can often be conflicts between mineral extraction and the benefits to society. Therefore, an integrated approach is required to consider the social, environmental and economic factors to meeting the nation's need for minerals in a sustainable manner.

Local Sustainability Strategy

9.6 In 2008 the North York Moors National Park prepared a sustainability appraisal to accompany the North York Moors National Park Core Strategy and Development Plans Document. The purpose of this statement was to show how sustainability considerations have formed an integral part of the production of the Core Strategy and how the document is consistent with meeting sustainability objectives. The objectives used as part of this appraisal process are outlined in **Table 9.1** below:

Table 9.1 - Detailed Appraisal Objectives

Objective No	Objective
1	Maintain and enhance the special landscape, local distinctiveness and settlement character
2	Minimise pollution releases to levels that do not damage natural systems, human health and quality of life.
3	Reduce the causes and manage the effects of climate change.
4	Reduce the risk of flooding ensuring development and land use changes are not vulnerable to flooding, or increases the risk of flooding elsewhere in the catchment area/coastal zone.
5	Avoid damage to designated sites and protected species maintaining and enhancing where appropriate biodiversity; avoiding irreversible losses.
6	Encourage consumers to meet their needs with less energy input and through the use of renewable energy technologies.
7	Preserve and enhance the archaeological and historic environment
8	Promote concepts of design orientation and aspects of development that improve energy efficiency and encourage the use of sustainable resources.
9	Encourage waste reduction, reuse, recovery and recycling.

Objective No	Objective
10	Protect and enhance human health.
11	Protect and enhance access to key community facilities and services including leisure and recreation services including leisure and recreation services by means which minimise environmental impacts on the Park and its communities.
12	Support the provision and retention of key facilities and services ensuring that local needs are met locally whenever possible.
13	Quality employment opportunities available to all that create a vibrant local economy.
14	Maintain and enhance the viability and vitality of local communities.
15	Develop a tourism product that provides sustainable benefits to the local community and its economy.
16	Manage natural resources in a way, which sustains their environmental qualities as well as their productive (or economic) potential.

(Source: Moor York Moors National Park Authority 'Sustainability Statement' to accompany the Core Strategy and Development Policies Development Plan Document (November 2008)

9.7 The detailed sustainability objectives raised in **Table 9.1** form the basis for the appraisal of the Proposed Development as set out in **Table 9.2** below.

Table 9.2 - Summary of the impact of Proposed Development against the detailed sustainability objectives

Objective No	Objective	Impact of the Proposed Development
1	Maintain and enhance the special landscape, local distinctiveness and settlement character	A high level of consideration has been given to local landscape character and in particular the National Park when determining the design, siting and layout of the Proposed Development. To protect local distinctiveness a detailed landscape and visual assessment has been undertaken as part of the supporting ES. It is anticipated that the majority of the visual impacts will occur

Objective No	Objective	Impact of the Proposed Development
		temporarily. The proposals for the Gas Conditioning Facility also include a high quality landscaping scheme which takes into account the sensitivity of the locality and when implemented will minimise the change in views experience from the surrounding countryside.
2	Minimise pollution releases to levels that do not damage natural systems, human health and quality of life	A detailed geology assessment has been undertaken as part of the ES and a comprehensive Management Plan will be prepared to prevent the risk of contamination as a result of any spillages at the well site and the adjoining compound.
3	Reduce the causes and manage the effects of climate change	The Proposed Development will ensure that there is an improved supply of gas in the UK which will assist in reducing the need for imports from abroad. Gas has the lowest carbon index of all fossil fuels and supports renewable generation through its flexibility and rapid start-up.
4	Reduce the risk of flooding ensuring development and land use changes are not vulnerable to flooding, or increases the risk of flooding elsewhere in the catchment area/coastal zone	The ES provides a flood risk assessment which concludes that the proposals will not exacerbate or add to the risk of flooding.
6	Encourage consumers to meet their need with less energy input and through the use of renewable energy technologies	In addition to the development of renewable energy technologies, the exploitation of domestic gas reverses forms an integral part of the UK's national energy strategy. The Proposed Development seeks to contribute to the supply of gas to help meet national

Objective No	Objective	Impact of the Proposed Development
		requirements and reduce the dependence on energy imports.
7	Preserve and enhance the archaeological and historic environment	Where possible the proposals have sought to avoid and preserve heritage sites of a national or local importance.
8	Promote concepts of design orientation and aspects of development that improve energy efficiency and encourage the use of sustainable resources	The design proposals make the most efficient use of natural resources and incorporate the use of modern plant and machinery to improve energy efficiency.
9	Encourage waste reduction, reuse, recovery and recycling	Not relevant to the proposals
10	Protect and enhance human health	To ensure that the health and safety of the local community is not being compromised a comprehensive and robust health and safety report has been prepared for the proposed development. This report covers areas such as the identification of potential risks, health and safety procedures and the maintenance and monitoring of all plant machinery.
11	Protect and enhance access to key community facilities and services including leisure and recreation services including leisure and recreation services by means which minimise environmental impacts on the Park and its communities	It is anticipated that the Proposed Development will have positive socio-economic benefits that support the provision and retention of key facilities. These benefits are likely to include the use of local services and leisure facilities by construction workers and other site operatives.
12	Support the provision and retention of key facilities	

Objective No	Objective	Impact of the Proposed Development
	and services ensuring that local needs are met locally whenever possible	
13	Quality employment opportunities available to all that create a vibrant local economy	In the context of a declining manufacturing industry both regional and local development plans have highlighted the need to strengthen and diversify the local economy. The Proposed Development would generate construction and operation jobs. Other than specialist personnel, the development of the conditioning facility will require skilled and semi-skilled personnel who could be sourced locally. The development, particularly during construction, would provide a broad range of employment opportunities including site managers, engineers, technicians, landscapers and hauliers.
14	Maintain and enhance the viability and vitality of local communities	The Proposed Development will improve the quality of life for local residents through the provision of employment and industry diversification. The proposals are also likely to enhance the viability of local communities through the use of local services and leisure facilities by construction workers.
15	Develop a tourism product that provides sustainable benefits to the local community and its economy	Where practicably feasible the construction works will be undertaken outside of peak tourist seasons. When operational the majority of the development will be screened from view and it is anticipated that the impacts on the tourism industry will be negligible. The site for the gas processing facility at

Objective No	Objective	Impact of the Proposed Development
		Lockton is well screened from the surrounding countryside by changes in topography and existing vegetation, whilst the proposals incorporate additional landscaping to minimise any visual change from sensitive receptors. The use of local leisure facilities and services by construction workers will provide positive benefits for the local tourism industry, which is likely to give a boost to the local economy outside of peak tourist seasons.
16	Manage natural resources in a way, which sustains their environmental qualities as well as their productive (or economic) potential	This project promotes the principles of sustainability through the exploitation of the UK's existing reserves to meet national gas requirements. An Environmental Statement has been prepared as part of this planning application to assess the environmental implications of the proposed development. Where impacts cannot be avoided the ES has provided suitable mitigation measures to ensure the protection of the environment and local amenity.

9.8 As illustrated in **Table 9.2** the Proposed Development is consistent with regional and local sustainability objectives as it will unlock the potential productivity of a domestic gas reserve, whilst incorporating design solutions and migration measures which will protect the environment and local amenity. In addition to the benefits listed in **Table 9.2** natural gas also plays an integral role in renewable energy strategies for energy generation. Under National Grid's Gone Green (2009) scenario there is additional need for gas supply as the primary back up for wind intermittency. Therefore it is clear that for the forcible future gas will be crucial to the UK's energy requirements and furthermore to the delivery of sustainability objectives at both national and local levels.

9.10 The proposals have sought to meet many of the sustainability objectives set out in **Table 9.2** by making best use of existing resources and landscape. The proposals seek to enhance the landscape and nature conservation attributes of the site and ensure that the amenity, health and economic well being of the population are protected. Sustainable development is about protecting future generations from the adverse consequences of current actions and secure energy supply is vital to the well being of all households and businesses.

10.0 SUMMARY AND CONCLUSIONS

10.1 Government policy promotes the principle of recovering the nation's hydrocarbon reserves wherever possible, providing that environmental issues are identified and appropriate mitigation measures are established. It is for the industry to demonstrate that adverse environmental effects have been removed altogether or reduced to a level acceptable to the local community and relevant statutory bodies and agencies.

10.2 Consultation with the three local Parish councils of Wilton and Allerston and Ebberston and Yedingham were also undertaken to engage and inform the local community of The Proposed Development. On 7 June 2013 a public exhibition was held by Third Energy at Allerston Village Hall. The event provided an opportunity for local residents to ask questions about The Proposed Development and address any concerns which they had.

10.3 Extensive consultation has been undertaken with North York Moors National Park Authority and relevant statutory consultees to ensure that the Environmental Impact Assessment assesses all known likely environmental effects arising from The Proposed Development. The Environmental Statement concludes that the Proposed Development will not have a significant adverse environmental effect, subject to the implementation of appropriate mitigation measures. Planning policy recognises that mineral reserves can only be mined where they naturally occur and an Alternative Sites Assessment was undertaken and is presented in Chapter 5 of the ES, to illustrate the assessments and conclusions which have been drawn in locating the proposed gas processing facility and pipeline route. A more detailed explanation of the pre-application consultations that have been undertaken with the local planning authorities, statutory consultees and local community is presented in the Statement of Community Involvement which has been prepared in support of this planning application.

10.4 This Planning and Sustainability Statement has demonstrated how the proposals for the Proposed Development have taken into account and accord with national and local planning policies. The Planning and Sustainability Statement in conjunction with the supporting ES have demonstrated how the Proposed Development has made the best use of natural resources and how environmental effects have been reduced to an acceptable level. The applicant trusts that the local community and relevant statutory bodies and agencies concur with the evidence outlined in this Statement, to the extent that its proposals can be supported.

10.5 In conclusion, The Proposed Development forms part of a sustainable energy supply for the UK. It assists in ensuring that the UK has a long-term sustainable energy supply that reduces reliance on the import of gas with its financial and political uncertainties. The UK needs to ensure, as part of a sustainable development strategy, that it has security of supply and a less volatile energy market. Without the development of onshore gasfields such as those proposed in the Ebberston field, the UK will be subject to volatile energy prices and, at worst energy shortages.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