8.0 LANDSCAPE AND VISUAL

Introduction

- 8.1 This chapter of the ES assesses the likely significant effects of the Proposed Development in terms of landscape and visual elements.
- 8.2 The chapter describes: the assessment methodology; the baseline conditions existing at the Assessment Site and surroundings; the likely significant environmental effects; the mitigation measures required to prevent, reduce or offset any significant adverse effects; and the likely residual effects after these measures have been employed.
- 8.3 This chapter should be read in conjunction with the following figures and appendices:

FIGURES:

- Figure 8.1:Site Context Plan @ 1:25,000
- Figure 8.2:Topographical Features Plan @ 1:25,000
- Figure 8.3:Landscape Character Plan @ 1:25:000
- Figures 8.4, 8.5, 8.6 and 8.7: Site Appraisal Plans @ 1:12,500
- Figures 8.8, 8.9 and 8.10: Visual Appraisal Plans @ 1:10,000

APPENDICES:

- Appendix 8.1: Site Appraisal Photographs and Site Context Photographs
- Appendix 8.2: Landscape and Visual Methodology
- Appendix 8.3: Visual Effect Table
- Appendix 8.4: North York Moors National Park design guide and Landscape Character extracts
- Appendix 8.5: Strategic Woody Vegetation Survey

Planning Policy Context

This section summarises the issues of landscape and visual effects set out in the main policy documents at the national and local levels which apply to the Assessment Site and its surroundings. These policies provide the context against which the landscape and visual effects of the Proposed Development will be considered.

19819/A5/ES2013 129 August 2013

National Planning Policy Framework (NPPF) (March 2012) (Ref. 8.1)

- 8.5 The National Planning Policy Framework (NPPF) was published on 27 March 2012. The NPPF aims to provide one concise document which sets out the Government's planning policies for England by replacing Planning Policy Guidance (PPGs) and Planning Policy Statements (PPSs), and the majority of Minerals Planning Guidance (MPGs) and Minerals Policy Statements (MPSs).
- 8.6 The NPPF, at Paragraph 14, promotes a presumption in favour of sustainable development; this is defined in Resolution 24/187 of the United Nations General Assembly as "meeting the needs of the present without compromising the ability of future generations to meet their own needs". The NPPF sets out how sustainable development can be delivered and particular regard must be given to designated areas such as National Parks in which the Assessment Site is partly located.
- 8.7 Twelve core planning principles are set out in Paragraph 17 which, between them, underpins decision-making. Two are relevant to landscape and visual matters in relation to the Assessment Site, and state that planning should:
 - "take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting the Green Belts around them, recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it;
 - contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework."
- 8.8 The framework states, at paragraph 109, that:

"The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils."
- 8.9 The NPPF makes clear at paragraph 115 that great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty.

19819/A5/ES2013 130 August 2013

8.10 Paragraph 116 refers to major development in designated areas such as National Parks and AONBs and states that:

"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:

- 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;
- the cost of, and scope for, developing elsewhere outside the designated area, or meeting the need for it in some other way; and
- any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated."
- 8.11 In determining planning applications for mineral operations, Local Planning Authorities should:
 - "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;...
 - 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..."
- 8.12 The Technical Guidance to the NPPF (Ref. 8.2) provides further information on minerals policy, and sets out specific guidance on the restoration and aftercare of mineral sites in paragraphs 33 to 48. Landscape strategies, reclamation conditions/schemes and aftercare are also addressed.
- 8.13 Paragraph 34 of the Technical Guidance states that a site specific landscape strategy accompanying an application for a new site should include:
 - "defining the key landscape opportunities and constraints;
 - considering potential directions of working, significant waste material locations, degrees of visual exposure etc;
 - identifying the need for additional screening during operations; and
 - identifying proposed after-uses and preferred character for the restored landscape."

19819/A5/ES2013 131 August 2013

8.14 Paragraph 35 addresses impacts on the existing landscape and states that:

"Landscape and reclamation plans should address the impacts which mineral extraction can have on the existing landscape. These will include the working face and operations at the face, locations of waste tips, and haul roads. Coordination of phasing, provision of temporary or permanent screening, and progressive reclamation can together minimise visual impact and the impact on landscape quality."

Local Planning Policy

North Yorkshire County Council (NYCC)'s Minerals Local Plan (Ref 8.3)

- 8.15 North Yorkshire County Council (NYCC)'s Minerals Local Plan was adopted in December 1997 (CDC1) and contains policies which relate to minerals development. The policies were due to expire on the 27th September 2007, but the Secretary of State has saved certain policies for three years or until policies being developed in the Minerals and Waste Development Framework (MWDF) supersedes them. On the 30th March 2009, the Council received confirmation from the Government Office for Yorkshire and the Humber that the draft Minerals and Waste Core Strategies of the MWDF should be withdrawn. A number of the saved policies from the NYCC Minerals Local Plan are relevant to consideration of landscape in this application.
- 8.16 Policy 4/14 Local Environment and Amenity seeks to avoid any unacceptable impact of mining operations on the local environment or residential amenity.
- 8.17 Policy 4/15 Public Rights of Way has regard to ensuring continuity of public rights of way in the vicinity of mining operations. It states that:

"Proposals for mining operations and the associated depositing of mineral waste which would interrupt, obstruct or conflict with use of a public right of way will only be permitted where satisfactory provision has been made in the application for protecting the existing right of way or for providing alternative arrangements both during and after working."

8.18 Policy 4/18 Restoration to Agriculture refers to the after-use restoration of the landscape. It states that:

"Where agriculture is the intended primary afteruse, the proposed restoration scheme should provide for the best practicable standard of restoration. Such restoration schemes should, where possible, include landscape, conservation or

19819/A5/ES2013 132 August 2013

amenity proposals provided that these do not result in the irreversible loss of best and most versatile land."

8.19 Policy 4/20 Aftercare deals with landscape management to approved standards in the post-restoration period. It states that:

"Planning permissions which are subject to conditions requiring restoration to agriculture, forestry or amenity (including nature conservation) will additionally be subject to an aftercare requirement seeking to bring the restored land up to an approved standard for the specified after-use. Normally this requirement will run for a period of five years following restoration. Additionally, where forestry and amenity (including nature conservation) afteruses are proposed, the Mineral Planning Authority may seek to secure longer term management agreements."

8.20 Policy 7/10 Restoration provides specific conditions for the restoration of different elements of oil and gas sites. It states that:

"Planning permission for the exploration, appraisal or development of oil or gas resources will only be permitted when provision is made for the full restoration of the site and its related means of access to a beneficial after use. In particular, the Mineral Planning Authority will impose:

- i) a 1 year time limit for the restoration of exploration sites or the submission of proposals for continued appraisal work;
- ii) a 2 year time limit for the restoration of appraisal sites or the submission of proposals for development as a production site; and
- iii) a 2 year time limit for the restoration of a production site, to run from the cessation of significant oil or gas production from the site."
- 8.21 Policy 7/11 Retention of Features requires a clear demonstration of benefit in the non-restoration of certain elements of a gas or oil scheme. It states that:

"Proposals to retain sections of access road, hard standings, fencing and screening as an exception to the full restoration of exploration, appraisal or production sites will be approved only where a clear agricultural or other benefit can be demonstrated."

North York Moors National Park Local Development Framework (2008) (Ref 8.4)

8.22 The Adopted Core Strategy and Development Policies Development Plan Document (November 2008) is the key document which forms the North York Moors Local Development

19819/A5/ES2013 133 August 2013

Framework. The policies in this document replace the 'saved' policies in the North York Moors Local Plan (2003) (Ref. 8.5).

- 8.23 Development Policy 1 Environmental Protection focuses on the conservation and enhancement of the special qualities of the North York Moors National Park. It states that development will only be permitted where:
 - "It will not have an unacceptable adverse impact on surface and ground water, soil, air quality and agricultural land;
 - It will not generate unacceptable levels of noise, vibration, activity or light pollution;
 - There will be no adverse effects arising from sources of pollution which would impact on the health, safety and amenity of the public and users of the development; and
 - Land stability can be achieved without causing unacceptable environmental or landscape impact...."
- 8.24 Core Policy E Minerals focuses on the extraction of stone including aggregate production. It does however note that, the extraction of oil and gas:

"should only take place in the Park in exceptional circumstances and will therefore be subject to rigorous examination. Proposals for oil and gas exploration, appraisal and production will be considered against the policy in Annex 4 of Minerals Policy Statement 1, which has since been superseded by the NPPF".

8.25 Core Policy G Landscape, Design and Historic Assets seeks high quality sustainable design:

"...which conserves or enhances the landscape setting, settlement layout and building characteristics of the landscape character areas identified in the North York Moors Landscape Character Assessment. Particular protection will be given to those elements which contribute to the character and setting of:

- Conservation Areas;
- Listed Buildings;
- Historic Parks and Gardens; and
- Scheduled Monuments and other sites of archaeological importance."
- 8.26 Development Policy 3 Design specifies the need for a landscaping scheme as an integral part of development proposals, and sets out seven criteria which development is required to achieve in order to maintain and enhance the character of the Park:
 - "the siting, orientation, layout and density preserves or enhances views into and out of the site, spaces about and

19819/A5/ES2013 134 August 2013

- between buildings and other features that contribute to the character and quality of the environment;
- the scale, height, massing, proportion, form, size, materials and design features of the proposal are compatible with surrounding buildings, and will not have an adverse effect upon the amenities of adjoining occupiers;
- a high standard of design detailing is used which reflects, or complements that of the local vernacular;
- provision is made for adequate storage and waste management facilities;
- good quality sustainable design and construction techniques are incorporated in the development, including measures to minimise energy use and where possible use energy from renewable resources;
- a satisfactory landscaping scheme forms and integral part of the proposal; and
- the design takes account of the safety, security and access needs for all potential users of the development and provides car parking provision in line with the standards adopted by the Authority".

North York Moors National Park - Design Guide Supplementary Planning Documents (SPD) (Ref. 8.6)

- 8.27 In addition to North York Moors Core Strategy and Development Policies Document (2008) discussed above, the North York Moors Design Guide provides further guidance on landscape setting and sustainable design as well as treatment of trees and landscape in development proposals. The promotion of higher standard of design is promoted through:
 - "Ensuring that the design of all development is consistent with the statutory purposes of the National Park.
 - Ensuring that all new development is of a high quality that respects local distinctiveness and conserves and where possible, enhances the character and special qualities of the area.
 - Encouraging good contemporary design where appropriate.
 - Minimising the unsustainable use of resources and the production of waste in the construction of new development.
 - Minimising the requirement for resource use during the operation of the development.
 - Ensuring that conditions for wildlife and natural habitats are maintained or enhanced.
 - Protecting the residential amenity of others.
 - Promoting design that reduces both the causes and effects of climate change".
- 8.28 Extracts of this design guide can be found in **Appendix 8.4**.

19819/A5/ES2013 135 August 2013

North York Moors National Park Management Plan, 2012 (Ref 8.7)

- 8.29 The North York Moors was designated as a National Park in 1952. The 1995 Environment Act (Ref. 8.8) sets out two purposes for National Park Authorities:
 - "To conserve and enhance the natural beauty, wildlife and cultural heritage of the National Parks; and
 - To promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public."
- 8.30 The Management Plan has identified a number of aims for the National Park, and related policies to achieve these. Of relevance to the Proposed Development, and in relation to landscape and visual considerations, are the following:

"AIM: The landscape character and quality will be maintained and reinforced; in particular the distinctiveness of the Landscape Character Areas will be conserved.

POLICIES

- E1. The landscape character of the National Park will be maintained and enhanced
- E2. Traditional farmed landscape features will be conserved, enhanced and reinstated where possible
- E3. New development will not have a detrimental impact on the landscape of the National Park.....

AIM: The archaeological and built heritage of the National Park will be conserved for future generations to understand and enjoy, and for its own intrinsic value.

POLICIES

• ...E7. New development in the National Park will seek to conserve and enhance heritage assets and their settings...

AIM: The North York Moors will continue to support a diverse range of priority species and habitats with increased extent, connection and resilience.

POLICIES

• E15. New development will protect biodiversity and provide enhancements where appropriate....

AIM

The North York Moors will continue to be a place of tranquillity, remoteness and dark night skies, providing opportunities for spiritual refreshment.

19819/A5/ES2013 136 August 2013

POLICIES

- E19. Existing tranquil areas will be protected, and expanded where possible
- E20. Dark skies will be protected and improved. New development in the National Park will not cause unacceptable light or noise pollution...
- E23. New development outside the National Park will not affect tranquillity within the National Park..."

Ryedale Plan: Local Plan Strategy (Ref. 8.9)

8.31 In May 2012, Ryedale District Council submitted the Ryedale Plan: Local Plan Strategy to the Secretary of State for formal examination by an independent Planning Inspector. The document proposes key policies for managing growth and change across the District to 2027. Pending adoption, local planning policies are set out in the 'saved' policies of the Ryedale Local Plan (2002) (Ref. 8.10).

Ryedale Local Plan (2002) saved policies (Ref 8.10)

- 8.32 The Ryedale Local Plan was adopted in March 2002. On commencement of the Planning and Compulsory Purchase Act 2004 (Ref. 8.11), all existing adopted local plans and relevant structure plans were automatically saved for three years. As the progress for adoption of new Local Development Framework has not progressed at the speed envisaged in the Act, Local Planning Authorities wishing to retain specific policies beyond the expiry of the above mentioned three year period i.e. 27th September 2007, needed to receive the Secretary of State's agreement in the form of a direction to save such policies until the Local Development Documents are in place. Pending the adoption of the Ryedale District Local Development Framework, the Secretary of State directed that a number of policies should be saved beyond 27th September 2007. These include the following which are of relevance to the consideration of landscape with regard to the Proposed Development.
- 8.33 Policy ENV3 Development within the Areas of High Landscape Value states that within the Wolds and the Fringe of the Moors Areas of High Landscape Value (in which part of the Proposed Development is located):
 - "(i) Development which would materially detract from the special scenic quality of the landscape will be resisted;
 - (iii) Large-scale development will only be permitted where it can be clearly demonstrated that the proposal would have significant economic or social benefits, is incapable of being located outside the Areas of High Landscape Value and is

19819/A5/ES2013 137 August 2013

designed to do as little damage to the environment as practicable;

- (iv) Non-agricultural buildings and development will be required to reflect the traditional character of buildings and landscape form in terms of siting, design, and use of materials traditional to the area.
- (v) Landscaping schemes will be required to reflect local landscape character in terms of form and extent of planting and in terms of species used;
- (vi) The conservation and appropriate management of features important to the local landscape such as trees, hedges, copses, woodlands and grassland will be encouraged."
- 8.34 Policy ENV7 Landscaping stipulates that development proposals include a high-quality landscape scheme that complements the local environment, does not detract from archaeological or ecological value in the vicinity and includes native, locally appropriate plant species. Existing trees, including veteran trees, should be retained wherever possible, based on survey and tree protection information and method statements where necessary. With regard to the removal of existing trees, the policy states:

"Proposals to remove existing trees or hedges will only be permitted if they represent a material threat to public safety or property, are diseased or dying, involve a species which is detrimental to landscape quality or where the benefits of the development would clearly outweigh the importance of the trees and hedges on the site.

Where it is appropriate to remove a tree or hedgerow, the District Council will require the planting of sufficient replacements to compensate for the detrimental effect on the landscape, on wildlife and on atmospheric quality.

In some cases, off-site landscaping may be required as an alternative to, or in conjunction with, on-site landscaping."

Ryedale Supplementary Planning Guidance (Ref 8.12)

8.35 The Ryedale Rural Design Guide is largely focused on residential development and is therefore not applicable to the Proposed Development. Landscaping on Development Sites (adopted January 2005) contains detailed guidance on hard and soft landscape treatments that are appropriate to the District and prescription on the information relating to landscape proposals that will be required by the council.

19819/A5/ES2013 138 August 2013

Assessment Methodology

Aims of the Assessment

8.36 The aims of the assessment are:

- To carry out a landscape and visual appraisal of the Assessment Site and its surroundings in order to assess its character and visibility, and its relationship with adjacent areas;
- To undertake a landscape and visual impact assessment of the Proposed Development in accordance with current best practice guidelines and to quantify the magnitude and significance of the effects, both before and after mitigation;
- To advise on a landscape strategy for the Assessment Site; and
- To give consideration to the Proposed Development in the context of the planning policy, insofar as they refer to landscape and visual matters.

Methodology

- 8.37 The Scoping Opinion for the Proposed Development was adopted by North Yorkshire County Council on the 2nd July 2012 as discussed in Chapter 2. Responses were received from the county landscape officer and Natural England and these have been taken account of in this assessment.
- 8.38 The Landscape and Visual Impact Assessment (LVIA) has been prepared in accordance with the guidelines set out in the 3rd Edition of the Landscape Institute and Institute of Environmental Management and Assessment's 'Guidelines for Landscape and Visual Impact Assessment' (2013) (Ref. 8.13). LVIA, in common with any assessment of environmental effects, includes a combination of objective and subjective judgements and it is therefore important that a structured and consistent approach is used. The criteria used for determining the significance of effects is included below and the complete methodology is set out in the methodology in **Appendix 8.2**.

Significance of Effects

8.39 Significance is not absolute and can only be identified in relation to each individual development and its unique location. It is important that any assessment of significance adopts an informed and well-reasoned judgement, supported through a clear justification as to how the conclusions about significance for each effect have been derived. It should be emphasised that whilst this methodology is designed to be robust and transparent,

19819/A5/ES2013 139 August 2013

professional judgement is ultimately applied to determine the level of significance applied to each effect.

8.40 The two principal criteria determining the significance of effects are the scale or magnitude of effect, and the environmental sensitivity of the location or receptor. With regard to visual receptors, a high significance of effect would be from high sensitivity receptors such as residential properties and public rights of way where they would receive a major change in the view. A low significance of effect would be from the least sensitive receptors, such as transport corridors, as viewers would be affected for a smaller period of time as they would experience transient views. Where no change is identified the significance of effect is assessed as neutral.

8.41 Example visual assessment categories are listed below:

Major Adverse: Typically proposed changes would cause a pronounced

deterioration in the existing view.

Moderate Adverse: Typically proposed changes would cause a noticeable

deterioration in the existing view.

Minor Adverse: Typically proposed changes would cause a minor deterioration in

the existing view.

Negligible: Typically proposed changes would cause barely discernible

deterioration or improvement in the existing view.

Neutral: No effect (either no change or neutral effect).

Minor Beneficial: Typically proposed changes would cause a minor improvement in

the existing view.

Moderate Beneficial: Typically proposed changes would cause a noticeable

improvement in the existing view.

Major Beneficial: Typically proposed changes would cause a pronounced

improvement in the existing view.

Significance Thresholds

8.42 These thresholds will be determined by considering both sensitivity and magnitude of change, with reference to any general terminology accepted for the whole Environmental Statement. Numerical scoring is not recommended in the Guidelines for Landscape and Visual Impact Assessment.

Limitations, Constraints and Assumptions

- 8.43 8.59 In undertaking the LVIA, there are a number of limitations and constraints affecting the outputs from this work. In addition to those assumptions and limitations set out in Chapter 2, these include:
 - The baseline assessment has been based on information readily available at the time of undertaking the assessment using sources listed in the methodology **Appendix 8.2**;
 - During site visits, weather conditions, the time of day and seasonal factors have influenced the visual assessment and photographic record of the Assessment Site. Every effort has been made to ensure that the photographs and their locations are 'representative' of the Assessment Site and its surroundings; and
 - Access to assess the predicted visual effects from private individual properties has not been possible for all the residential dwellings surrounding the Assessment Site and the assessment of likely visual effects has been made from vantage points and representative views taken from the nearest available public viewpoint.
- 8.44 In undertaking the assessment of landscape and visual effects of the Proposed Development, the following assumptions have been made:
 - That the establishment and growth rates for the landscape mitigation proposals are based on established growth rates set out in the methodology (Appendix 8.2) i.e.

Planting at Year 1: Whips / transplants 60-150cm

Larger stock 3.5-4.5 metres; and

Planting at Year 15: 5 – 9.5 metres;

- That the implementation of the landscape/habitat creation proposals will be phased and implemented either in advance (where possible) or immediately at the end of construction works or phase it relates to.
- 8.45 Consideration should also be given to the seasonal differences in effects arising from the degree of vegetative screening and/or filtering of views that would apply in summer and

19819/A5/ES2013 141 August 2013

winter. Thus assessment may be provided for "average" and "worst-case" situations (the latter being the season with least leaf cover and therefore minimal vegetative screening).

Baseline Conditions

- 8.46 The initial step in any landscape or visual assessment is to review the existing landscape and visual resource in the vicinity of the Proposed Development. The purpose of the baseline studies is to record and analyse existing landscape features and characteristics, and the value or importance of the landscape and visual resources in the vicinity of the Proposed Development. Subsequent field survey work, including the assessment of the approximate visibility of the Assessment Site as existing (its Zone of Visual Influence), identifies and records specific sensitive receptors. The data collected will form the basis from which the magnitude of change and significance of the landscape and visual effects of the development may be identified and assessed.
- 8.47 Landscape effects include the direct and indirect effects of the Proposed Development on individual landscape elements and features, as well as the effect upon the general landscape character and quality of the surrounding area. Visual effects consider the changes in the character of the available views resulting from the Proposed Development and changes in the visual amenity of the visual receptors (which includes residents, users of public open spaces, PROWs, and roads). A study has been carried out which systematically identifies all the visual receptors that are likely to be affected by the Proposed Development and seeks to assess the effect of the Proposed Development on these receptors, including its magnitude of effect and significance. These have been recorded systematically within the visual impact table in Appendix 8.3.

Topography

8.48 Ebberston Moor 'A' Well Site and the northern most section of the pipeline route is located at Ebberston Moor which is set within Dalby Forest and its adjacent open, elevated moorland plateau between approximately 240m – 250m above ordnance datum (AOD) on the southern slopes of the North York Moors National Park as illustrated in **Figure 8.2**. The pipeline route then passes through the southern part of the forest which is divided by a number of valleys creating a 'Rig and Dale' landscape. On leaving the elevated plateau, the pipeline route gradually travels down the escarpment to where it crosses beneath the A170 road at approximately 60m AOD and continues through the Vale of Pickering, falling further to approximately 20m AOD where it enters the Knapton Generating Station (KGS).

19819/A5/ES2013 142 August 2013

North York Moors National Park

8.49 The landscape and seascape of the National Park is a valuable asset in its own right and landscape was the primary reason for National Park designation. The National Park is included within a single National Landscape Character Area, the 'North York Moors and Cleveland Hills'. The area contains a great diversity of landscape which was recognised in the 1947 Hobhouse Report which led to its designation as a National Park:

"within a relatively small compass an amazing wealth and variety of beauty."

- 8.50 This diversity includes open heather moorland, intimate dales, the coast, the open 'big sky' landscape of the Hambleton and Tabular Hills, extensive woodland areas and dramatic geological features such as Sutton Bank, Roseberry Topping, Forge Valley, Newton Dale and the Hole of Horcum. The coastline of the Park forms a distinctive seascape, characterised by high cliffs interspersed with narrow valleys. The National Park also contains a number of designed landscapes which are included on English Heritage's Register of Historic Parks and Gardens. These are Rievaulx Terrace, Duncombe Park, Mulgrave Castle and Arncliffe Hall.
- 8.51 The landscape of the National Park has changed over time. In particular, since designation there has been significant loss of heather moorland and an increase in conifer plantations, and a loss or degradation of traditional field boundaries. Some of these changes have started to be reversed or mitigated over the past twenty years. Large scale change has now largely ceased and the pressures driving change are now different, for example increases in relatively small scale structures such as road signs.
- 8.52 The 2008 Countryside Quality Counts survey18 (Ref. 8.14) identified the North York Moors and Cleveland Hills landscape as 'changing, enhancing' which means that the area's landscape character is being strengthened and improved.
- 8.53 In 2003 the National Park Authority commissioned a Landscape Character Assessment of the North York Moors (Ref. 8.15). This identifies the different landscape character types in the National Park, their characteristics, the pressures for change facing each area and the significance of that pressure. The Assessment has been used to inform plans and actions for the National Park, for example the Local Development Framework (Ref. 8.4) which contains a policy to conserve and enhance the character areas identified in the Landscape Character Assessment as set out below. The Assessment underwent a refresh in 2010 to provide an update on pressures for future changes and establish landscape quality objectives.

19819/A5/ES2013 143 August 2013

Landscape Character

8.54 The Landscape Character Assessment approach is a descriptive approach which seeks to identify and define the distinct character of landscapes that make up the country. This approach recognises the role of all landscapes, not just 'special' landscapes, as contributing factors in people's quality of life, in accordance with the European Landscape Convention. It also ensures that account is taken of the different roles and character of different areas, in accordance with the NPPF Core Principles. The description of each landscape is used as a basis for evaluation in order to make judgements to guide, for example, landscape management or development. Figure 8.3 illustrates the extent of landscape character areas/types in the vicinity of the Assessment Site, as featured in published assessments, extracts from which are included in Appendix 8.4.

National Character Assessment

- 8.55 Natural England have produced a Countryside Character Map of England which includes broad-brush descriptions of the different character areas. The landscape encompassing the Assessment Site is described in the Countryside Character Volume 1: The North East (Ref. 8.16) and Volume 3: Yorkshire and the Humber (Ref 8.17). These Countryside Character Area descriptions produced by the Countryside Agency are now being updated by Natural England who are producing new National Character Area (NCA) profiles and these are considered below (Ref. 8.18).
- 8.56 Ebberston Moor 'A' Well Site and the northern part of the proposed pipeline are located within Character Area 25: North Yorkshire Moors and Cleveland Hills as described in the NCA profiles (Ref. 8.18). The detailed extracts of this assessment are included in **Appendix 8.4** with the key features relevant to this assessment identified below:
 - "Upland plateaux, generally below 400m, dissected by a series of dales – some broad and sweeping but others narrow, steep sided and wooded – creating strong contrasts between open moors and enclosed valleys.
 - Extensive areas of heather moorland on plateaux and hills, largely under sporting ownership, including large expanses of upland heath land and blanket bog habitats, creating a sense of space, expansiveness and openness.
 - Upland plateau landscape underlain mainly by sandstone and mudstone of Middle Jurassic age and calcareous sandstone and limestone of Upper Jurassic age....
 - Some areas of extensive conifer and mixed plantations, especially in the south-east, and broadleaved woodland on steep valley sides.

19819/A5/ES2013 144 August 2013

- Valley landscapes characterised by pastoral farming, with a clear demarcation and strong visual contrast between the enclosed fields with some species-rich grasslands and wetlands, farms and settlements, and the bracken-fringed moorlands above.
- Drystone walls and hedgerows enclosing the small pastures and meadows in dales and fringing farmland, often replaced by fences in arable areas.
- Large-scale arable landscapes to the south and east.
- Jurassic sandstones, mudstones and limestone forming a dramatic coastal landscape of high cliffs, high vegetated maritime slopes, and small coves and bays, with coastal towns and compact fishing villages.
- Sparsely settled, with scattered farmsteads and small villages, and traditional buildings constructed of local sandstone or limestone and with red pan tile roofs, creating a strong visual unity.
- A rich archaeological heritage from many different periods, especially on the moorland plateaux.
- Panoramic views over moorland plateaux, ridges and dales and out over surrounding lowland landscapes and the North Sea".
- 8.57 Within the 'Statements of Environmental Opportunity' section, a number of management opportunity guidelines are provided, of which the following are of relevance to the Assessment Site:
 - "SEO 1: Protect and positively manage the large areas of open, expansive moorland for the internationally important habitats and species that they support, for the sense of wildness and strong character of the areas, for their ability to sequester carbon, and for the benefits that well managed moorland bring for water quality and flood control.....
 - SEO 3: Protect and improve access to and quiet enjoyment of the countryside, particularly in the North York Moors National Park, conserving the sense of tranquillity and relative remoteness, maintaining public access to the landscape, encouraging specialist forms of recreation appropriate to the area, conserving and providing interpretation of its history and numerous archaeological, biological and geological assets, and protecting the strong sense of place."
- 8.58 Further guidelines are provided in the 'Landscape Opportunities' Section, of which the following are of relevance to the Proposed Development:
 - "Conserve and protect the open moorland, extensive views, sense of tranquillity and remoteness and the contrasts between enclosed pastoral and wooded valleys and the open moorland.
 - Maintain clear links between land use and underlying geology and conserve and protect the historic walled and

19819/A5/ES2013 145 August 2013

- hedged field patterns, and the unity of building materials and styles.
- Conserve and protect the mosaics of moorland habitats, existing woodland and veteran trees, species rich grassland, wetlands and other semi-natural habitats.
- Conserve and protect the strong network of public rights of ways, linking key landscape features. Also the extensive archaeological evidence and historic sites.
-Manage access, to protect sensitive sites, avoids impacting on sense of remoteness".
- 8.59 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.
- 8.60 With reference to **Figure 8.3**, the southern half of the pipeline route between the A170 and KGS lies within Character Area 26: Vale of Pickering. The detailed extracts of this assessment are included in **Appendix 8.4**, and key characteristics of this landscape include:
 - A low-lying flat or gently undulating vale with land rising gently to the foothills of the North York Moors and Cleveland Hills in the north, and to the steep scarp of the Yorkshire Wolds and the Howard an Hills in the south and west......
 - Glacial and lacustrine deposits from the former Lake Pickering give rise to largely fertile land which has been substantially drained through history for agricultural improvement.
 - The Vale is a largely farmed landscape, predominantly arable and feed grains, with some livestock.
 - Woodland and tree cover is sparse and comprised of predominantly modern plantations with other trees occurring in hedgerows and along riparian fringes, and in small farmstead copses.
 - In the eastern part of the Vale fields are large and geometric in shape with boundaries of low hedges or fences with drainage ditches in the lowest-lying areas. To the west smaller and more irregular fields are generally earlier in date, with more grassland, and often enclosed by full hedges with hedgerow trees.....
 - The western part of the Vale is drained by the River Rye and its tributaries, and the eastern end by the River Derwent. Glacial deposits dammed the Derwent's natural outflow into the North Sea near Scarborough, resulting in the proglacial Lake Pickering which eventually outflowed at Kirkham Gorge, diverting the River Derwent inland west and south, where it meets the Rye at Malton and flows southwards out of the Vale. The River Derwent has been designated as being of European importance as a Special Area of Conservation.....
 - Settlement pattern of medieval nucleated settlement following spring lines, transport routes and slightly elevated ground, along the A170 on the northern boundary of the Vale and similarly along the A64 in the south and B1257 in the west. In the centre of the Vale settlements are more dispersed and tend to be on slightly higher ground, many

19819/A5/ES2013 146 August 2013

being established after the enclosure and drainage of the land. To the west are concentrated remnants of earlier medieval villages, moated sites and grange farms.

- 8.61 Within the 'Statements of Environmental Opportunity' section, a number of management opportunity guidelines are provided, of which the following are of relevance to the Assessment Site:
 - "...SEO 3: Manage the agricultural landscape to enhance the sustainable future of farming, strengthen landscape character, protect soils and water, and enhance biodiversity through improved connectivity of semi-natural habitats, creating ecological networks that are resilient to environmental change.
 - SEO 4: Ensure that developments are successfully integrated into the landscape, making a contribution to biodiversity and habitat networks, and that they do not compromise the sense of tranquillity and openness of the rural landscape, or delivery of other important ecosystem services, including mitigating and adapting to climate change."
- 8.62 Further guidelines are provided in the 'Landscape Opportunities' Section, of which the following are of relevance to the Proposed Development:
 - "Strengthening the local landscape character and distinctiveness in the three 'sub areas' within the Vale: the eastern, central and western areas, for example by restoring traditional boundary features typical of the locality; hedgerows in the west, ditches in the centre and east.....
 - Restoring and extending unimproved grasslands to achieve a strong habitat network resilient to environmental change...."
- 8.63 Overall, the character area is considered to be of medium sensitivity due to a combination of the above characteristics.
- 8.64 Approximately 1.5 km to the south of KGS is Character Area 27: Yorkshire Wolds. Due to the proximity of this character area and the degree to which views are afforded across the Vale of Pickering from its elevated ridges, the detailed extracts are included in **Appendix 8.4**, and key characteristics of this landscape included below:
 - "A large-scale, expansive, rolling landscape with big skies and long views from the escarpment and plateau, contrasting with the more enclosed, dry, sheltered valleys deeply incised into the Chalk, but with small areas of Lower Cretaceous, Jurassic and Triassic rocks along the western and northern fringes.
 - Thin, chalky soils support mainly arable farming, with a pattern of large, regular fields crossed by long, straight

19819/A5/ES2013 147 August 2013

- drove roads with wide verges dating from Parliamentary enclosures of the 18th century. The arable farmland is a priority area for important farmland bird species, while many of the grass verges have calcareous grassland interest providing valuable wildlife corridors.....
- Remnant tracts of sheep-grazed, unimproved or semiimproved calcareous grassland in steep-sided, dry valleys form distinctive landscapes, with hillsides of floristically rich grasslands which provide specialist habitats for butterflies and moths.
- Woodland cover is generally limited, and often linked to steep slopes within enclosed valleys, although there are a number of estates with more significant woodland areas, including Dalton, Garrowby, Sledmere, Londesborough and Warter Priory. Shelterbelts associated with farmsteads are features on the skyline.
- There are many large estates and designed parklands with large country houses, estate villages, estate woodlands and medieval deer parks.
- Other features include wet flushes, wet meadows and spring-fed fens at the foot of the escarpments, and remnant wetlands and wet meadows adjacent to the chalk streams.
- It is generally a sparsely settled landscape with large, scattered farmsteads on high ground, small villages in valleys and small market towns on fringes. Building materials are predominantly brick with pantiles, but sometimes limestone and chalk.
- Throughout the NCA, there is extensive evidence of a long history of human occupation and landscape change represented by numerous Neolithic, bronze-age and iron-age monuments and medieval settlements.
- A number of chalk, sand and gravel quarries and gravel pits are found throughout the NCA, which are of biodiversity value and provide access for study and education".
- 8.65 Within the 'Statements of Environmental Opportunity' section, a number of management opportunity guidelines are provided, of which the following are of relevance to the Assessment Site:
 - "SEO 3: Improve opportunities to enhance people's enjoyment of the area while protecting high levels of tranquillity by conserving extensive views and intimate, steep-sided valleys which contribute to sense of place, and by protecting and promoting the extensive historic evidence of past human settlement, landscape change and designed landscapes".
- 8.66 Further guidelines are provided in the 'Landscape Opportunities' Section, of which the following are of relevance to the Proposed Development:

19819/A5/ES2013 148 August 2013

- "Protect expansive views of rolling hills and dramatic, heritage coastline for remoteness, tranquillity, geology and recreation.
- Conserve archaeological evidence and ground features such as burial mounds, earthworks, settlement sites, barrows and crop marks.....
- Protect archaeological ground features and historical features, including drove ways and enclosure roads with wide verges....
- Manage disused, chalk quarries for their biodiversity value including seeking opportunities for habitat creation and restoration through minerals planning....
- Avoid impacting on sense of remoteness and obstruction of clear views.....
- Support developments that are sensitive to protecting the expansive views of the Wolds...."
- 8.67 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.

County Character Assessment

North Yorkshire and York Landscape Characterisation Project (2011) (Ref. 8.19)

8.68 The County-wide Landscape Character Assessment was undertaken by Chris Blandford Associates and published in 2011. The Assessment Site is described in four Landscape Character Types (LCT) summarised below. The detailed extracts of this assessment are included in **Appendix 8.4**.

Limestone Foothills and Valleys (4)

- 8.69 Limestone Foothills and Valleys is predominantly situated in the southern part of the North York Moors National Park, encompassing the well site and northern part of the pipeline as far south as the A170. Key characteristics are:
 - Flat, open summits of the Tabular Hills;
 - Ancient woodlands which occupy valley sides;
 - Prehistoric mounds and burial sites preserved within moorland or woodland;
 - Strong visual unity within settlements and sense of harmony with the surrounding landscape;
 - Traditional farm buildings constructed of pale limestone walls and red pantile roofs;
 - Distinctive cultural landscape with medieval villages located at the spring line, common arable fields at the base of the hill, and summer pastures above;
 - Extensive coniferous plantations are a key feature of the current landscape;

19819/A5/ES2013 149 August 2013

- Contrast between the very narrow wooded valleys, giving a very strong sense of enclosure, with the open arable tops of the Tabular Hills.
- 8.70 Sensitivity to change issues include:
 - "Overall high visual sensitivity as a result of extensive long distance views to adjacent Landscape Character Types, strong intervisibility with surrounding landscapes and the flat open summits of the Tabular Hills;
 - Views to and from this Landscape Character Type are sensitive to the introduction of tall vertical structures such as wind turbines or communications masts;
 - High ecological sensitivity as a result of the numerous linear belts of ancient woodland lining the dale sides, coupled with numerous SSSI...
 - High landscape sensitivity as a result of the strong landscape and settlement pattern, with strong visual unity in settlement and distinctive cultural patterns comprising medieval villages located at spring lines."
- 8.71 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.

Chalk Wolds (18)

- 8.72 The Chalk Wolds LCT is located to the south of the Vale of. This LCT lies outside the boundary of the Proposed Development to the south and as such will not be directly affected, however views from the escarpment afford visibility across the Vale of Pickering from this LCT towards the Assessment Site. Key characteristics include:
 - "A series of prominent chalk hills which rise from surrounding lower landscapes and have a predominantly open character;
 - Dispersed, nucleated farmsteads are a key feature of settlement pattern;
 - Fertile soil supports a diverse pattern of arable farming;
 - Winterbourne streams are a key feature, often lined with managed wet grassland;
 - High concentration of historic sites, reflecting prehistoric habitation on the plateau;
 - Visible evidence of medieval villages sites, medieval cultivation terraces and linear earthworks;
 - Historic settlements constructed predominantly of brick or chalk with pantile roofs, often with ponds as central features;
 - Parkland landscapes, estate villages and estate woodlands are a feature in places;
 - Overall strong sense of tranquillity, remoteness and associated dark night skies."

19819/A5/ES2013 150 August 2013

- 8.73 Sensitivity to change issues include:
 - "High visual sensitivity as a result of the panoramic open views can be gained from the tops of hills and plateaux, predominantly open character; and strong intervisibility with adjacent Landscape Character Types (particularly the Chalk Foothills, Broad and Narrow Chalk Valleys);
 - High ecological sensitivity as a result of the swathes of species rich chalk grassland which are a key habitat and small remnant quarries, several of which are designated as SSSIs;
 - High landscape and cultural sensitivity as a result of the predominantly intact landscape pattern of parkland landscapes, interspersed with arable fields and a sparse settlement pattern of historic villages. This is coupled with several deserted medieval villages, historic houses and archaeological sites."
- 8.74 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.

Open Carr Vale Farmland (22)

- 8.75 The Open Carr Vale Farmland is predominantly flat landscape at the foot of the Limestone Foothills and Valleys, which provide a sense of enclosure to the north. The central part of the pipeline between the A170 and close to the KGS falls within this LCT.
- 8.76 Key characteristics are:
 - "Predominantly flat, arable farmland which encompasses medium to large scale rectangular fields;
 - The River Derwent is a key feature, the course of which, gently meanders east-west through this Landscape Character Type;
 - Underlain by predominantly peat soils;
 - Fields are delineated by a network of drainage ditches and dikes which are often colonised by reeds and willows;
 - Tree cover is relatively sparse, with few woodlands, other than isolated small plantations, resulting in a strong sense of openness;
 - Historically this landscape would have been dominated by a patchwork of carrs, ings, moors and marshes. The legacy of this is apparent within place names;
 - Human influence is apparent, in the form of straightened drainage channels, cuts and ditches;
 - Settlement pattern comprises isolated, scattered farmsteads."

19819/A5/ES2013 151 August 2013

- 8.77 Sensitivity to change issues include:
 - "High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;
 - Low ecological sensitivity, resulting from the fact that much of this Landscape Character Type encompasses improved agricultural land.
 - Moderate landscape and cultural sensitivity as a result of the presence of a patchwork of historic drainage features (ditches and dikes), moated sites and grange sites."
- 8.78 Overall, the character area is considered to be of medium-high sensitivity due to a combination of the above characteristics.

Sand and Gravel Vale Fringe (30)

- 8.79 This flat to gently sloping Landscape Character Type encompasses a series of sand and gravel superficial deposits which mark the transition between the Vale of Pickering (Enclosed Vale Farmland) to the north and the rising Chalk Wolds to the south. The southern part of the pipeline just north of the railway line to the KGS fall within this character area. Key characteristics include:
 - "Pockets of sand and gravel deposits which form a transition zone between the Vale of Pickering to the north and the Chalk Wolds to the south;
 - Striking settlement pattern with villages located along the spring line;
 - Historic course of roads which are located at the scarp foot;
 - Buildings are predominantly constructed from chalk, reflecting their location in close proximity to supply from the Chalk Wolds to the south;
 - Numerous archaeological sites which attest to previous human activity; and
 - Strong intervisibility with adjacent Enclosed Vale Farmland Landscape Character Type."
- 8.80 Sensitivity to change issues include:
 - "High visual sensitivity as a result of strong intervisibility with the Enclosed Vale Farmland Landscape Character Type and open views along the Sand and Gravel Vale Fringe;
 - Low ecological sensitivity resulting from the fact that this landscape predominantly consists of improved agricultural fields; and

19819/A5/ES2013 152 August 2013

- High landscape sensitivity as a result of the striking settlement pattern of villages located along the spring line, archaeological sites and designed landscapes."
- 8.81 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.

North York Moors National Park Landscape Character Assessment (2003) (Ref 8.15)

- 8.82 White Young Green Environmental in association with North York Moors National Park Authority has produced a Landscape Character Assessment of the area encompassing the Assessment Site. This is dated December 2003 and was adopted in September 2004. This Landscape Character Assessment has also been referred to in the North York Moors National Park Authority Design Guide, Part 3: Trees and Landscape Supplementary Planning Document, Adopted June 2008 (Ref. 8.6). Within the Landscape Character Assessment, the northern portion of the Assessment Site between Warren House Farm and the well site is identified as being contained within the Forest Landscape Character Area, in particular the Dalby Forest (Area 3C). The detailed extracts of this assessment are included in **Appendix 8.4** and identify the following landscape characteristics of the Dalby Forest (Area 3C) which are apparent in the vicinity of the Assessment Site:
 - "A large and diverse area of coniferous and deciduous forest, situated on the Tabular Hills and overlying Middle and Lower Calcareous Grit from the Corallian Group.
 - Landform is typical of the Tabular Hills landscape; a gently graded plateau towards the north of the forest (at a maximum height of 240m) falls away towards the Vale of Pickering in the south. The plateau is deeply incised by river valleys with steep sides and occasional clifflines and by shallow dry valleys mainly orientated in a north east to south west direction. The forest extends down the edge of the north facing scarp with its irregular wavelike form, the top edge of which allows views across Langdale Forest to the north.
 - The extensive forestry includes a large area of recently felled and newly planted areas. The forest contains a diverse range of habitats, including sizable blocks and linear belts of deciduous woodland are present particularly within valleys and on steeper slopes. Species present include larch, Scots pine, birch, cherry, ash, rowan and oak. A small area of upland heath Troutsdale Moor is included to the east of the character area. Small areas of rough pasture and fen occur. In some areas there is an abrupt geometric edge to the forest.
 - Some areas of remnant farmland occur within openings in the forest. Fields of pasture are divided by both stone walls and fences.
 - The public vehicular access to the forest is via Dalby Forest Drive, a toll road, with numerous car parking, picnic areas

19819/A5/ES2013 153 August 2013

- and other facilities for tourists located along its length, or via Ebberston. Tracks through the woodland, in a loose grid pattern, provide access for forestry vehicles.
- The small hamlet of Low Dalby is the main settlement in the area situated in a narrow opening in the forest in the valley of Dalby Beck. Other settlements are limited to very occasional isolated farms within the open areas."
- 8.83 Overall, the character area is considered to be of high sensitivity due to a combination of the above characteristics.

District and Borough Character Assessment

The Landscapes of Northern Ryedale: An Assessment of the Vale of Pickering and the Fringe of the North York Moors National Park, with Management Guidelines for their Future 1999 (Ref 8.20)

- 8.84 Gillespies, in association with Ryedale District Council prepared 'The Landscapes of Northern Ryedale: An Assessment of the Vale of Pickering and the Fringe of the North York Moors National Park, with Management Guidelines for their Future', published in August 1999. The existing Ebberston Moor 'A' Well Site and the start of the pipeline to the edge of the National Park at Warren House Farm is located within Dalby Forest character area (Area 3C) s located in the North York Moors National Park. The remainder of the proposed pipeline route from Warren House Farm to the KGS crosses four landscape types in the High Eastern Farmland (Character Type G) of the Fringes of the Moors, then passes down through the Linear Scarp Farmland (Character Type F) to the Open Vale Farmland (Character Type H) of the Vale of Pickering and terminates at the KGS in the Wooded Open Vale (Character Type J).
- 8.85 A summary of the character types through which the pipeline crosses is set out below and their detailed extracts are included within **Appendix 8.4**.

High Eastern Farmland (Character Type G) of the Fringes of the Moors

8.86 The pipeline from the edge of the National Park north of Warren House to the A170 falls within this character type. The High Eastern Farmland lies at the eastern end of the Tabular Hills and lies above 100m AOD. To the north and west the area is bounded by the North York Moors National Park. The area slopes to the Vale of Pickering, increasing in steepness in the vicinity of the A170. It has been carved into sweeping forms by relatively broad dry valleys, which have eroded the upland to leave undulating ridges extending southwards down the dip slope. Key characteristic features are:

19819/A5/ES2013 154 August 2013

- "Elevated large scale sloping plateau dissected by dry valleys.
- Open rural landscape with generally expansive views;
- Extensive network of drystone walls;
- Isolated farms;
- Woodland generally follow the landform; and
- Shallow and elevated valleys of pasture."
- 8.87 Overall, the character type is considered to be of high sensitivity due to a combination of the above characteristics.

Linear Scarp Farmland (Character Type F)

- 8.88 A small portion of the proposed pipeline route on either side of the A170 is located in this character type. This is an area of sloping and relatively open character, indented by dry valleys, which creates a strong, smoothly undulating profile. Fields are generally of medium size and are bounded by hedgerows with few hedgerow trees. An important characteristic of the escarpment's field mosaic is the relic of an open-field cultivation system which is arranged in a pattern of long linear field orientated north to south on the slopes. Key characteristic features are:
 - "Panoramic views from the escarpment ridge out across the Vale of Pickering to the south;
 - Attractive rural qualities with a medium to large scale field mosaic containing prominent hedgerows and woodland blocks;
 - Settlements concentrated along the foot of the slope;
 - Dynamic, rhythmic quality to the undulating relief;
 - North south orientated dry valleys and roads; and
 - Strong medieval field pattern around Pickering."
- 8.89 Overall, the character type is considered to be of medium-high sensitivity due to a combination of the above characteristics.

Open Vale Farmland (Character Type H) of the Vale of Pickering

8.90 The central section of the pipeline route from the south of the A170 to north of the railway line at the KGS falls within this character type. The open vale farmland covers much of the eastern Vale, generally following the course of the rivers Derwent and Hertford. This is a flat and low lying landscape, lying at approximately 23 to 24 AOD, which forms a visual contrast with the steeply rising chalk escarpment to the south. An intensively farmed landscape, sustains predominantly arable cultivation. An open landscape, with few hedgerows and trees, which allows for long views. Key characteristic features are:

19819/A5/ES2013 155 August 2013

- "Extremely flat terrain;
- Strongly rural character;
- Extensively drained landscape;
- Open and expansive; and
- Sense of relative seclusion and inaccessibility."
- 8.91 Overall, the character type is considered to be of medium sensitivity due to a combination of the above characteristics.

Wooded Open Vale (Character Type J)

- 8.92 The southern section of the proposed pipeline route from just north of the railway line at Knapton to and including the KGS are located in this character type. This character type includes the gently rising land that forms part of the lower slopes of the Wolds escarpment. This is a predominantly low lying landscape of drained arable fields and pastures, bounded by hedgerows with few hedgerow trees. It has few prominent features. Its main differentiating characteristic to the adjacent Open Vale Farmland LCA is the greater number of woodland blocks and shelterbelts. Notable features include Scampston Park surrounded by a formal deer park, designed by Capability Brown in the eighteenth century, and Knapton Hall to the east of Rillington. Key characteristic features are:
 - "Flat low lying terrain;
 - Open countryside; and
 - Long views punctuated by geometric woodland blocks."
- 8.93 Overall, the character type is considered to be of medium-high sensitivity due to a combination of the above characteristics.

Site Appraisal

- 8.94 A number of photographs of the well site, KGS and the pipeline route were taken during site visits which are enclosed in **Appendix 8.1**. These photographs serve to demonstrate the character of the Assessment Site and the locations from which the photographs were taken are shown on **Figures 8.4**, **8.5**, **8.6** and **8.7**.
- 8.95 The well site and route of the pipeline is considered in relation to the features identified in the landscape character assessments described above. Due to the length and nature of the pipeline route, the following paragraphs discuss the assessment of each section of the pipeline route as it progresses from the well site to KGS, addressing the elements such as built form, vegetation, topography and other features accordingly.

19819/A5/ES2013 156 August 2013

8.96 For the purposes of the assessment, two separate baselines are being considered at the well site as described in Chapter 3. The first scenario describes the well site as it is currently. The second scenario describes a future baseline at the Well Site assuming the Ebberston Moor EDS has been built as part of Planning Application NYM/2013/0477/EIA.

Scenario 1 - Ebberston Moor 'A' Well Site

- 8.97 Ebberston Moor 'A' Well Site has previously been developed for the purpose of gas extraction as illustrated with reference to the Site Appraisal Photographs A and B in **Appendix 8.1** and **Figure 8.4**. The well site is set within woodland on the edge of the open moor landscape. It is enclosed on three sides (south-west, west and north) by mature woodland which rises up to a maximum height of 15m. Much of the area immediately surrounding the well site has been planted in accordance with proposals for previous development at the well site. These areas of new vegetation have begun to provide an element of screening in more open views from the east along Ebberston Moor Lane and medium sized agricultural fields within Ebberston Low Moor beyond.
- 8.98 The well site presently consists of a modified area of landscape associated with gas exploration activity. The well site includes a rectangular drilling platform covered by crushed hardcore compacted over a geotextile membrane and bentonite mat connected into a lined drainage ditch which separates drainage within the well site from the surrounding watercourses. Along the boundaries of the well site, two separate vegetated bunds on the southern and western boundaries comprise previously excavated superficial soil and weathered bedrock. The bunding varies in height between approximately 2m on the southwest to 4m along the western boundary.
- 8.99 Immediately to the east of the drilling platform, a gravel surface within the well site was previously used to accommodate temporary parking and buildings associated with drilling operations. This is separated from Ebberston Common Lane by a corridor of semi-mature vegetation approximately 10m wide. The Strategic Woody Vegetation Survey (Appendix 8.5) has identified this area as accommodating whips and semi-mature rowan, goat willow and silver birch trees which provide an element of screening. On the opposite side of Ebberston Common Lane the area opens out to remnant farmland.
- 8.100 Access to the well site is provided from the existing gate on the south-east corner, and the well site is surrounded by a high wire mesh fence set back approximately 10m from the road margin (approximately 2m in height).

19819/A5/ES2013 157 August 2013

Scenario 2 - Ebberston Moor 'A' Well Site

8.101 This second scenario assumes the well site will be developed in 2014 as part of the Ebberston Moor EDS and so will include facilities allowing gas production and transfer to the gas conditioning facilities within the adjacent Lockton Compound and NGN pipeline if planning permission is granted as described in Chapter 3.

Pipeline Route - Ebberston Low Moor to Stonygate Moor

- 8.102 During either scenario the pipeline route exits the well site to the east, crosses Ebberston Common Lane and travels south immediately adjacent to Ebberston Common Lane/Tabular Hills Walk where it enters the woodland at the south-western corner of Ebberston Low Moor.
- 8.103 The character of the immediate area surrounding the initial section of the route is influenced by a number of man-made features including the existing infrastructure on the well site, Ebberston Common Lane, Dalby Forest Drive and farm buildings scattered throughout the area. Immediately south of the well site, the area is clear felled and open views are obtained from Dalby Forest Drive to Ebberston Low Moor as illustrated with reference to Site Appraisal Photograph C. The wider area is undeveloped and its character is of a rural forested landscape with individual properties and farmstead scattered throughout the area.
- 8.104 The pipeline route then leaves Ebberston Common Lane and enters Dalby Forest as illustrated with reference to Site Appraisal Photographs D and E. The photographs demonstrate the enclosed character of the forest where areas of clear felled woodland and regenerating woodland are evident. However, the majority of the area is well enclosed with little intervisibility outside the immediate pipeline route corridor. Close to High Scamridge Farm the pipeline route turns south-west along a forested track set within woodland passing to the west of Givendale Head Farm (Site Appraisal Photograph F). The pipeline route passes through historic earthworks which have been previously ploughed (see Chapter 13 for more details) and then runs along PROW 25.4/6/1 on the edge of a plantation within the Dalby Forest. The pipeline route then follows an existing wide easement through Dalby Forest, extending south-westwards towards Stonygate Moor, where the land slopes down towards the Vale of Pickering. Site Appraisal Photograph G illustrates the enclosed nature of the existing easement corridor, which forms the boundary of the North York Moors National Park in this vicinity and accommodates an existing pipeline and PROW 25.4/6/1.

19819/A5/ES2013 158 August 2013

8.105 The elements described above combine to strongly reflect the landscape character of Area 3C: Dalby Forest as identified in the North Yorkshire Moors Landscape Character Assessment (LCA).

Pipeline Route - Stonygate Moor to the A170 Road

- 8.106 The pipeline route emerges onto an open moor (Stonygate Moor) at the edge of Dalby Forest / North York Moors National Park as illustrated with reference to Site Appraisal Photograph H. This photograph also demonstrates the topographic variation of the dry valleys which are orientated north-east to south-west to the west and east of the pipeline route. These comprise a series of ridges and valleys with woodland on higher ground, while on the valley sides rough pasture and occasional dikes are identified which are characteristic in this part of the North Yorkshire Moors. The elevated ridge is located at approximately 190m AOD and views are panoramic across the moor to adjoining ridges and valleys. The pipeline route traverses south-west across the moor before crossing down the ridge where it turns directly south through woodland at Stonygate Moor. From here the pipeline route passes approximately 100m to the west of Warren House which is located at approximately 170m AOD. The pipeline route then crosses arable fields as it falls comparatively quickly down into the Vale of Pickering, again passing through a series fields bounded by hedgerows, to cross the A170 at approximately 60m AOD.
- 8.107 Although set within a wider forested landscape, the immediate landscape of the pipeline route between Stonygate Moor and the A170 Road is one of open agricultural fields with wide long distance views. These initially are open across the moor towards the surrounding forestry, while closer to Warren House; views are panoramic across the vale landscape to the south.
- 8.108 The agricultural farmland through which the pipeline route traverses is intensively farmed for both arable and grazing the latter requiring electric fences to separate fields into smaller units. The steep escarpment is most pronounced where the forest plateau meets the Vale of Pickering at Wilton Heights to the west of the pipeline route.

Pipeline Route - A170 Road to the River Derwent

8.109 The pipeline route crosses the A170 adjacent to Weasdale Quarry following the field boundary (hedgerow) on the southern side of the road where the landform falls further into the vale towards Wilton Ings Lane/Malton lane (approximately 20m AOD). The road is bound by deciduous hedges on either side. From here, the pipeline route follows the alignment of PROW 25.111/4/1 turning to the south-west where it passes Fox Covert continuing to Friar

19819/A5/ES2013 159 August 2013

Dike where it cuts through a mature hedgerow. On the southern side of Friar Dike, the route again follows the alignment of the field boundaries (hedgerows) to Marishes Lane and beyond to the River Derwent.

- 8.110 Through this section, the pipeline route passes through an intensively farmed open landscape with few hedgerows and trees, which sustains predominantly arable cultivation and allows for long views.
- 8.111 The elements described above combine to strongly reflect the landscape character of Character Type H: Open Vale Farmland of the Vale of Pickering as identified in the North Yorkshire Moors Landscape Character Assessment (LCA).

Pipeline Route - River Derwent to Knapton Power Station

- 8.112 On the southern side of the River Derwent, the pipeline route crosses through a mature hedgerow and from here, the route traverses arable fields following field boundaries where it passes close to Knapton Lodge. At Knapton Lodge the pipeline route crosses close to the mature avenue of trees to where it crosses the B1258/Malton Road.
- 8.113 From Malton Road, the pipeline route is aligned in a south-east direction across arable fields and under a power line to a point where it crosses the Eastfield to Malton railway line close to KGS. At KGS the pipeline route crosses Difford Beck dike to the west where the field is enclosed by dense mature trees on three sides. The densely vegetated boundaries of KGS contain the pipeline route and its point of entry to the KGS.
- 8.114 The landscape surrounding the KGS reflects the landscape character of Character Type J: Wooded Open Vale. This is a predominantly low lying landscape of drained arable fields and pastures, bounded by hedgerows with few hedgerow trees. It has few prominent features. Its main differentiating characteristic to the adjacent Open Vale Farmland LCA is the greater number of woodland blocks and shelterbelts.

Tree Condition Survey

8.115 A Strategic Woody Vegetation Survey of existing vegetation on the pipeline route has been undertaken by Forbes – Laird Arboricultural Consultancy (FLAC), and is appended to this chapter in **Appendix 8.5**. The condition and management recommendations for woodland, tree belts, individual trees and hedgerows has been provided for the vegetation that occurs

19819/A5/ES2013 160 August 2013

at the existing wells site and the KGS, and along the pipeline route. The tree condition survey classifies trees within the Assessment Site according to the following grading system:

Category A - Trees of high quality;

Category B - Trees of moderate quality; and

Category C - Trees of low quality.

8.116 The FLAC survey also confirmed that there are two hedgerows that cross on / or close to the pipeline route that merit the potentially 'important hedgerow' designation under the Hedgerow Regulations, 1997 on arboricultural grounds. All those woodlands, trees, hedgerows and tree groups located within or in close proximity to the pipeline corridor are identified and illustrated with reference to **Appendix 8.5**.

Tree Preservation Orders

8.117 There are no trees covered by Tree Preservation Orders (TPOs) either within or immediately adjoining the pipeline route, including the existing well site and the KGS.

Visual Appraisal

- 8.118 A visual appraisal has been undertaken to determine the relationship of the Assessment Site with its surroundings and its visibility within the wider landscape. An assessment of the visibility of the Assessment Site from existing properties (nearest publically accessible locations), roads, footpaths and within the National Park was carried out in January, March and May of 2013 and a set of annotated photographic panoramas are included in the supporting illustrative material (Site Context Photographs 1-17 in **Appendix 8.1**).
- 8.119 The effectiveness of vegetation as a screen depends to a considerable extent on its scale. A large mature feature such as Dalby Forest will form a significant screen throughout the year, but a hedge or an intermittent tree belt within the vale landscape may only be effective during the summer months. Whilst smaller features, such as hedgerows and individual trees can be very important, particularly when their cumulative effect is taken into account, they cannot be considered to be substantial or wholly effective screening features or visual barriers, in part due to the seasonal nature of their effect. Of the larger features adjacent to the pipeline route, the coniferous plantation within Dalby Forest and the clusters of woodland within the southern end of the Vale of Pickering and clusters of woodland surrounding farm buildings are considered dense visual barriers within the local landscape.

19819/A5/ES2013 161 August 2013

- 8.120 The visibility study of the pipeline route commenced with desktop identification of areas of land from which potentially there could be views of the pipeline route. This was followed by subsequent site visits to check the extent of the visual envelope, and to confirm the most exposed/contained parts of the pipeline route in visual terms. Due to the degree of screening afforded by Dalby Forest, distant views of the well site and initial sections of the pipeline route are not afforded and visibility is therefore limited to near and middle distance views within this area. Elsewhere along the pipeline route, views are more expansive across the open vale landscape, and this is particularly evident on the escarpment overlooking the vale.
- 8.121 In the sections which follow the character and visibility of the pipeline route are described.

 Figure 8.8, Figure 8.9 and Figure 8.10 illustrate the location of the photographic viewpoints and identify the key views towards and into the proposed pipeline route from properties, roads and main paths within the surrounding landscape. The potential visibility of the pipeline route is largely determined by landform or topography as adjacent areas of elevated land, such as ridgelines, may block or curtail views towards a site. In addition, land cover plays a role in determining potential visibility, as areas of woodland, tree belts or built form within the landscape may contribute further to blocking, filtering or controlling views.

Near Distance Views (0 – 400 metres)

- 8.122 Near distance views of the Assessment Site are obtained from the roads and public paths which abut its boundaries, although the extent of such visibility is contained by intervening vegetation. Site Context Photographs 1, 2, 5, 6, 10 and 13, in **Appendix 8.1** illustrate near distance views.
- 8.123 Site Context Photograph 1 provides open views from Dalby Forest Drive through an area of clear felled woodland to the south of the well site. Views north towards the well Site are however curtailed by remaining forestry and as such, the well site (during either scenario) is screened from view from this location. The pipeline route follows the alignment of Ebberston Common Lane in the background of the view.
- 8.124 Site Context Photograph 2 is taken from the access road along Ebberston Common Lane looking north-east across Ebberston Low Moor towards the well site which is not visible in the view during either scenario due to the screening effect of woodland associated with Ebberston Low Moor Farm and Dalby Forest. The pipeline route follows the alignment of Ebberston Common Lane south into Dalby Forest.

19819/A5/ES2013 162 August 2013

- 8.125 Site Context Photograph 5 is taken from the access road to Warren House Farm on the edge of the escarpment between Dalby Forest and the Vale of Pickering. This is designated an Area of High Landscape Value. To the right of the photograph Warren House Farm is visible at the top of the escarpment; while in the midground Wilton Heights Plantation is visible. To the left there are views out to the Vale of Pickering. The pipeline route will pass between Warren House and Wilton Heights Plantation travelling down the escarpment to where it crosses the road at Weasdale Quarry. This is an arable landscape with open views across the pipeline route and beyond to the Vale of Pickering. Low hedgerows, small woodland plantations and intermittent trees provide some element of screening.
- 8.126 Site Context Photograph 6 is taken from the A170 between Wilton and Allerston to the west of the pipeline route at the base of the escarpment. Travelling along this section of the A170, views are generally open across the Vale of Pickering to the south. To the left of the photograph, the pipeline route will pass behind the wooded copse crossing through arable fields and will then follow the field boundary (hedgerow) to the south of the A170 into the vale.
- 8.127 Site Context Photograph 10 is taken from Marishes Lane looking north close to where the pipeline route crosses the lane. Views along Marishes Lane are enclosed by dense wooded hedgerows limiting the extent to which the vale landscape is perceived. In the distance Dalby Forest is visible on the ridge and from here the pipeline route crosses down the escarpment into the vale between Allerston Cliff and Wilton. Once across the A170 the pipeline route follows field boundaries to the south where it passes in the midground of the photograph to the west of Crake Hall Cottage.
- 8.128 Site Context Photograph 13 is taken from Malton Road close to where the pipeline route crosses at Knapton Lodge. Arable fields are visible in the foreground beyond which the avenue and Knapton Lodge are visible. The pipeline route is visible adjacent to the avenue in the midground.

Middle Distance Views (400 – 1000 metres)

8.129 Middle distance views towards the Assessment Site are limited. This is due mainly to the nature of the undulating topography which the pipeline route occupies in addition to intervening vegetation and built form. Site Context Photographs 3, 4, 7, 8, 11 and 14 in **Appendix 8.1** illustrate middle distance views.

19819/A5/ES2013 163 August 2013

- 8.130 Site Context Photograph 3 is taken from within Dalby Forest at the junction of PROW 500209 and the path along Hawdale Rigg. Along these forest trails woodland curtails views out. The pipeline route crosses PROW 500209 in the background of the photograph to the east and continues south along Givendale Rigg.
- 8.131 Site Context Photograph 4 is taken in the vicinity of Oxmoor Dike, along the access track to Givendale Head and High Scamridge Farms. Open arable fields are found along the length of this local road towards Ebberston. The vegetated bank forming Oxmoor Dike runs across the view, with Dalby Forest and the pipeline route forming the backdrop to the view.
- 8.132 Site Context Photograph 7 is taken from the eastern edge of Wilton off Cliff Lane and provides panoramic views out across the vale landscape and north along the escarpment which is located within an Area of High Landscape Value. Farm buildings and electricity poles are noticeable features in this otherwise open vale landscape. The proposed pipeline crosses down the escarpment from Warren House Farm and then behind the wooded copse in the left of the photograph before continuing down into the vale towards the KGS (not visible in the distance)
- 8.133 Site Context Photograph 8 is taken from Malton Lane looking north-east towards the pipeline route. The photograph is representative of views when travelling along rural lanes within the vale landscape where distant views are afforded towards the escarpment. The elevated open nature of the ridge in this location is evident, from where the low lying vale meets the escarpment to form a prominent ridge within views. The pipeline route runs south down the escarpment close to Dalby Forest passing behind Cliff Edge and Allerston Cliff Farms where it crosses the A170 into the vale. From there it follows field boundaries further south.
- 8.134 Site Context Photograph 11 illustrates the view east from further west along Marishes Lane where views are open across the vale towards the escarpment and Dalby Forest in the background. The view illustrates how the nature of views are influenced by hedgerows and intervening treebelts within the vale. The pipeline route crosses down the escarpment between Dalby Forest and Wilton and into the vale following field boundaries. From this location the pipeline route crosses the vale in the distance beyond a series of intervening hedgerows and treebelts.
- 8.135 Site Context Photograph 14 is taken from the access road to KGS at the junction with PROW 25.81/12/1. Views are contained within the arable field in the foreground by dense hedgerows, treebelts and woodland blocks in this more wooded part of the vale. Distant views are however obtained towards the wooded ridge on the southern side of the vale. The

19819/A5/ES2013 164 August 2013

pipeline route will follow the alignment of the access track to the KGS between Ochre Farm and West Ochre woodland.

Long Distance Views (+1000 metres)

- 8.136 Long distance views towards the pipeline route are obtained from a limited number of publicly accessible locations from the northern escarpment and within the valley floor of the Vale of Pickering looking north along the pipeline route. Long distance views towards KGS are limited by the screening effect of the woodland and the flat nature of the valley floor and the hedgerow and tree-lined field pattern of the Vale of Pickering, respectively. Site Context Photographs 9, 12, 15, 16, 17 and 18 (Appendix 8.1) illustrates long distance views.
- 8.137 Site Context Photograph No. 9 is taken from the entrance to the Vale of Pickering Caravan Park off Allerston Lane looking west across the vale. Distant views to the right of the photograph are afforded to the escarpment while views west are filtered by hedgerows and mature treebelts. Views are open in the immediate foreground across arable fields; however the low lying nature of the topography within the vale combined with mature hedgerows screens views to the west. The pipeline route crosses down the escarpment between Allerston Cliff and Wilton following field boundaries within vale in the distance.
- 8.138 Site Context Photograph 12 is taken from the entrance to Ochre Farm at the junction of Malton Road and PROW 25.81/8/1 looking south-west towards the pipeline route. The view illustrates the nature of views along Malton Road where views across the vale are filtered by dense hedgerows and mature treebelts. Farm buildings and woodland copses are noticeable features in an otherwise flat landscape and the escarpments on both sides of the vale contain distant views. Ings Farm is visible to the foreground. To the left of the photograph KGS is screened within Knapton Wood while transmission lines are visible along the alignment of the railway. The pipeline route follows field boundaries in the distance beyond a series of intervening hedgerows and treebelts emerging to cross Malton Road close to Kanpton Lodge. From here it crosses arable fields follows the alignment of the railway line to KGS.
- 8.139 Site Context Photographs 15 and 16 illustrate the nature of views when travelling along the A64 between Scampston Park Registered Park and Garden and West Heslerton. Travelling west to east, this elevated road provides distant views across the vale landscape to the northern escarpment and Dalby Forest. At Scampston Park, views are curtailed by woodland limiting views into the vale, while further east views open out across the vale as illustrated by the photographs. The wooded nature of the southern section of the vale is apparent in

19819/A5/ES2013 165 August 2013

views and as a result views further north into the vale beyond Knapton Wood are largely curtailed. KGS is screened from view due to the containment provided by woodland. The pipeline route will follow the alignment of the transmission lines beyond East Knapton towards Middle Ochre where it enters KGS.

8.140 Site Context Photograph 17 is taken from the elevated southern escarpment along the Wolds Way National Trail (PROW 25.47/11/1) looking north across the Vale of Pickering. Views along the PROW are curtailed by woodland blocks; however breaks in woodland provide distant panoramic views across the vale to Dalby Forest. The wooded nature of the southern portion of the vale is apparent from this location and the location of the KGS within woodland is also visible. The pipeline route is however difficult to perceive in this expansive view.

Summary of Visual Appraisal

- 8.141 A summary of the visual appraisal is shown on **Figures 8.8**, **8.9** and **8.10**, which demonstrate the features which control views towards the Assessment Site. The visibility study demonstrates that the northern sections of the pipeline route including the well site are generally well screened by mature woodland associated with Dalby Forest. There are however open views of the pipeline route immediately adjacent to where it follows the alignment of the Tabular Hills Walk within the North York Moors National Park. Views from elsewhere within the National Park are screened by forestry (coniferous woodland).
- 8.142 Views in the locality of the well site, and along lengths of the pipeline route within the Dalby Forest are well contained to the immediate vicinity by the existing vegetation. The woodland plantations effectively curtail views to the Assessment Site from within the North York Moors National Park, with views limited to the fringes of the Dalby Forest and a few more open locations on the edge of the North York Moors National Park, such as around Givendale Head and Scamridge High Farms and Warren House Farm.
- 8.143 Where the pipeline crosses the elevated open forest plateau, views to the Assessment Site are again limited to the immediate locality (PROW 25.4/6/1). Land falls sharply to the west and east of the Assessment Site into incised valleys north of Warren House Farm, such that views from the North York Moors National Park are curtailed by the combination of topography and vegetation. Views to the south are influenced by the escarpment between the open forest plateau and the Vale of Pickering which curtails views to immediate elevated locations or long distance views from the valley floor.

19819/A5/ES2013 166 August 2013

- 8.144 As the pipeline traverses down the escarpment, partial views of the Assessment Site are obtained where the orientation of the view, intervening topography and breaks in vegetation allow views such as along the access drive to Warren House Farm. Further south within the vale landscape, distant views are afforded north towards the escarpment, however these are only obtained through breaks in hedgerows and treebelts along local roads. Views from Allerston and Wilton are curtailed by topographic variation which limits views. There are however views from the eastern edge of Wilton across the vale and along the escarpment to the north.
- 8.145 The southern end of the vale is more closely associated with a wooded vale landscape where wooded copses and mature treebelts limit distant views. KGS is enclosed within woodland which curtails views of the facility from the surrounding vale landscape and the elevated escarpment to the south.

Sensitivity of Visual Receptors to Change

8.146 When considering the potential visibility of the Proposed Development, a number of visual receptors have been identified within the visual envelope of the Assessment Site, including residential properties, PROW's and roads with potential to observe the Proposed Development. The methodology used to determine their corresponding sensitivity to visual effects is outlined in **Appendix 8.2** and their sensitivity is identified in **Appendix 8.3**.

Likely Significant Effects

- 8.147 As previously noted, for the purposes of the assessment, two separate baseline scenarios are being considered at the well site as described in Chapter 3.
- 8.148 In this section, an assessment of the landscape and visual effects of the Proposed Development without mitigation beyond that directly incorporated into the design of the Proposed Development has been undertaken for the predicted effects during construction, operation and decommissioning and restoration. In latter sections, the residual effects of the Proposed Development after mitigation are described.
- 8.149 The effects are assessed at three stages during the course of the Proposed Development.

 These include:

19819/A5/ES2013 167 August 2013

- Construction phase including retention and protection of existing vegetation, site clearance, ground clearance, the erection of temporary construction plant and compounds, and the installation of the proposed pipeline;
- Operation Year 1; it is assumed that many of the landscape mitigation measures that have been undertaken will start to establish; and
- Decommissioning and Restoration.

Construction

- 8.150 It is anticipated that the construction of the Proposed Development will include the following which are summarised below and set out in further detail in Chapter 6.
 - Site preparation (including excavation and grading);
 - Provision of infrastructure:
 - Construction; and
 - Landscaping.
- 8.151 As set out in Chapter 6, site preparation whether the Ebberston Moor EDS occurs or not will result in landscape effects which include the temporary erection of a construction compound including site cabins to the southwest of the well site, construction of a laydown area, ground modelling works including topsoil stripping and stockpiling for later use and installation of surface water management measures. In addition, the erection of temporary fences along the boundaries of the working width of the pipeline corridor will be installed as will gates and stiles wherever public access is required.

Construction Scenario 1 – Proposed Development of the Ebberston Moor 'A' Well Site

- 8.152 For the first scenario, the Proposed Development comprises the construction of the facilities on the well site to enable gas production and transfer to the pipeline as well as the construction of the pipeline between the well site and KGS. The elements of the Proposed Development are set out in Chapter 4.
- 8.153 The construction phase will involve ground excavation for foundations of building envelopes for the site office, separation and water holding tanks and inlet separator.
- 8.154 Landscaping will involve the retention of existing earth bunds surrounding the well site.

19819/A5/ES2013 168 August 2013

8.155 The potential effects of construction activities on the surrounding landscape will be reduced to some extent by the retention of existing boundary vegetation surrounding the well site, particularly along Ebberston Common Lane.

Effects on Landscape Features during Construction

8.156 The construction period will generate a number of landscape changes, some of which will be temporary during construction (i.e. stockpiles, machinery and associated construction activity), while some will be longer term and for the operational phase of the Proposed Development. The principle activities that will potentially have an effect upon the fabric, quality and character of the landscape during the enabling works and construction phases of the Proposed Development at the well site are set out in **Table 8.1**. The table facilitates a brief consideration of the potential landscape changes for each identified construction activity.

Table 8.1: Well Site Construction Phase (Scenario 1) – Predicted Landscape Changes and Effects

Identified Activity	Predicted Changes and Consequent Landscape
	Effects (Construction Phase)
Introduction of new temporary elements including material stockpiles, plant and site office.	Introduction of new, contrasting temporary elements within the well site which will form a new landscape pattern and temporary change to the character of the well site.
Increased movement of plant and vehicles on public roads and within the well site and surrounding area.	Increases in movement and noise levels will generate a series of shifting patterns across the well site with a change for the well site, and Ebberston Common Lane.

8.157 As the well site has previously being used for the purposes of gas extraction, the magnitude of landscape change will be low across parts of the well site during construction. The effects of construction works on the landscape will generally be adverse due to the introduction of plant and the increase in vehicular activity associated with construction across the well site. Overall, construction activity will be contained within existing bunds which surround the well site and will not require the removal of vegetation or bunds. Therefore the significance of effect is assessed to have a minor adverse significance of effect on landscape features during construction.

Effects on Landscape Character during Construction

8.158 Construction activity, although discordant with the locality, will not significantly change the character of the wider area due to its localised impact. The well site will however experience a low degree of change due to the introduction of machinery and the movement of materials across the well site. The extent of landscape features affected during construction will be

19819/A5/ES2013 169 August 2013

limited to the area within the existing bunds which surround the well site. It is therefore considered that there will be a minor adverse effect on local landscape character (Area 3C) surrounding the well site during construction due to the ability of surrounding woodland to contain and reduce the extent to which the construction activity will be perceptible from the wider area.

Effects on the North York Moors National Park during Construction

- 8.159 The reasons for designation of the North York Moors National Park are to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park and to promote opportunities for the understanding and enjoyment of the special qualities of the Parks by the public. In addition, the management plan states that the landscape character and quality should be maintained, reinforced and conserved and that the National Park continues to be a place of tranquillity and remoteness.
- 8.160 The National Park, as a place of tranquillity and remoteness will be adversely effected by the Proposed Development; however this change will be contained within the immediate area surrounding the well site due to the degree to which the woodland reduces the ability of the well site to be perceived from elsewhere within the National Park. During construction however a noticeable change will occur over a localised area from the introduction and movement of machinery and vehicles over a temporary period. This will result in a moderate adverse effect on the objectives of the designated National Park landscape including the perception of tranquillity and remoteness.

Visual Effects

- 8.161 The visual effects arising from construction activity will be temporary and of greater significance than that of the operational components of the well site.
- 8.162 Sensitive receptors nearest to the well site are likely to experience the greatest effect to their visual amenities. These include users of Tabular Hills Walk long distance path (Ebberston Common Lane), PROW's on the edge of the North York Moors National Park and within the immediate vicinity of the well site, including those traversing Ebberston Low Moor; residential receptors at Ebberston Common Farm and South Moor Farm and recreational receptors using Dalby Forest Drive within the North York Moors National Park. However, where apparent, these effects will be short term during the construction period. The most noticeable change in views will result from the movement of machinery and the introduction of built form.

19819/A5/ES2013 170 August 2013

Visual Effect on residential properties during Construction

- 8.163 Two residential properties within the visual envelope of the well site (Ebberston Common Farm and South Moor Farm) have the potential to experience adverse visual effects during construction. Views of the well site from South Moor Farm at a distance of 240m are curtailed by landform, stone walls and intervening vegetation, resulting in a very low magnitude of change. The extent to which this will influence the view is considered negligible adverse significance.
- 8.164 Views of the well site from Ebberston Common Farm, located closer at approximately 240m, are screened due to dense intervening vegetation (Ebberston Common Plantation). Visual effects relating to the construction phase will generally be limited to areas surrounding the property and to views from the property's access road where the well site is partially visible through vegetation. The existing bund on the southern boundary of the well site will continue to screen views of the Proposed Development and it is therefore considered that construction of built form (inlet separator, gas fired heater, water storage tank and site office) will also be glimpsed through existing vegetation from Ebberston Common Farm. Ebberston Common Farm is therefore likely to experience short term effects of minor adverse significance.

Visual Effect on Listed Buildings during Construction

8.165 No Listed Buildings will be affected by the Proposed Development.

Visual Effect on other buildings during Construction

8.166 The only buildings in the vicinity of the well site with the potential to experience adverse visual effects include working farm buildings scattered through the surrounding landscape.

No significant adverse visual effects are identified on these receptors.

<u>Visual Effect on PROW and Roads during Construction</u>

8.167 Tabular Hills Walk PROW which adjoins the well site will experience a short term medium magnitude of change due to the introduction of built form and plant machinery. This change however will be localised in its extent and transitory for users passing along the immediate boundary of the well site (approximately 300m). Immediately adjacent to the well site boundary, there will be a clearly perceptible change resulting in a moderate adverse significance of effect on these views.

19819/A5/ES2013 171 August 2013

- 8.168 Recreational users of PROW No. 510509 to the east of the well site will experience transient views of construction activity when travelling between South Moor Farm and Ebberston Common Farm. Due to the temporary and transient nature of views from this location, construction activities at the well site is considered to result in a low magnitude of change due to distance and the screening effect of existing vegetation surrounding the well site and particularly along Ebberston Common Lane. Although views will be partially screened by vegetation on the well site boundary, open views across the moor are afforded and this will inevitably result in a minor adverse significance of effect.
- 8.169 Dalby Forest Drive, the primary road within the study area will experience a low magnitude of change in transient views immediately to the west of the well site. Construction activities may be partially visible; however this will be screened by intervening vegetation along Dalby Forest Drive. This will result in a minor adverse significance of effect due to the extent of visibility afforded through mature woodland and the temporary nature of construction activities.

Construction Scenario 2 - Future scenario at the Ebberston Moor 'A' Well Site

- 8.170 As set out in Chapter 4, if the initial phase of the development (Ebberston Moor EDS) is constructed and operational prior to this Proposed Development, the structures on the well site will already be in place and therefore the construction phase for the second scenario will therefore only involve ground excavation for the connection of the pipeline to the well site.
- 8.171 Landscaping will involve the retention of existing earth bunds surrounding the well site. The existing landscape features including woodland and mature trees immediately adjoining the well site have been incorporated into the design of the Proposed Development.
- 8.172 The potential effects of construction activities on the landscape will therefore be mitigated to some extent by the retention of existing boundary vegetation within the well site, particularly along Ebberston Common Lane, where the construction of the pipeline connection could be accommodated without compromising the existing landscape buffer.
- 8.173 The construction period will generate a number of landscape changes, some of which will be temporary during construction (i.e. stockpiles, machinery and associated construction activity), while some will be longer term and for the operational life of the Proposed Development. The principle activities that could have an effect upon the fabric, quality and character of the landscape during the enabling works and construction phases of the

19819/A5/ES2013 172 August 2013

Proposed Development at the well site are set out in **Table 8.2**. The table facilitates a brief consideration of the potential landscape changes for each identified construction activity.

Table 8.2: Well Site Construction Phase (Scenario 2) – Predicted Landscape Changes and Effects

Identified Activity	Predicted Changes and Consequent Landscape
	Effects (Construction Phase)
Introduction of new temporary elements including material stockpiles, pipeline laying, plant and site office.	Introduction of new, contrasting temporary elements within the well site which will form a new landscape pattern and temporary change to the character of the well site.
Increased movement of plant and vehicles on public roads and within the	Increases in movement and noise levels will generate a series of shifting patterns across the well site with a
well site and surrounding area.	change for the well site and associated access track.

8.174 As the well site will still be in use for the purposes of gas extraction associated with the continuing operation of the Ebberston Moor EDS during construction of the Proposed Development, the magnitude of landscape change will be low across parts of the well site during this phase. The effects of construction works on the landscape will generally be adverse due to the introduction of plant, and the increase in vehicular activity associated with construction activities associated with the pipeline. The construction activity of the pipeline connection will be contained within existing bunds; however the pipeline on leaving the well site will then cross Ebberston Common Lane resulting in the removal of vegetation (30m corridor) along the boundary of the well site. The significance of effect is assessed to have a minor adverse significance of effect due to the short length of maturing vegetation removed during construction.

Effects on Landscape Character during Construction

8.175 Construction activity, although discordant with the locality, will not change the character of the wider area due to its localised impact. The well site will however experience a low degree of change due to the introduction of machinery and the movement of materials across the well site in the context of the already present Ebberston Moor EDS. The extent of landscape features affected during construction works is limited to the area within the existing bunds which surround the well site and to the pipeline corridor immediately adjacent to the well site where it crosses Ebberston Common Lane. It is therefore considered that there will be a minor adverse effect on local character surrounding the well site during construction due to the ability of surrounding woodland to contain and reduce the extent to which the construction activity is perceptible from the wider Dalby Forest character area.

19819/A5/ES2013 173 August 2013

Effects on the North York Moors National Park during Construction

8.176 The National Park, as a place of tranquillity and remoteness will be adversely effected by the Proposed Development; however this change will be contained within the immediate area surrounding the well site due to the degree to which the woodland reduces the ability of the well site to be perceived from elsewhere within the National Park. During construction a noticeable change will occur over a localised area resulting in adverse effects on the perception of tranquillity and remoteness, however the character of the well site with the Ebberston Moor EDS facilities present is one of utilitarian nature and the Proposed Development will be consistent with the Ebberston Moor EDS facilities already on the well site. During construction of the pipeline, the movement of plant will however be a noticeable change over a temporary period and therefore this will result in a minor adverse effect on the objectives of the designated National Park landscape (temporary effect).

Visual Effects

8.177 The visual effects arising from construction activity will be temporary and of greater significance than that of the operational components of the well site.

Visual Effect on residential properties during Construction

- 8.178 Two residential properties within the visual envelope of the well site (Ebberston Common Farm and South Moor Farm) have the potential to experience adverse visual effects during construction of the pipeline connection. Views of the well site from South Moor Farm approximately 660m from the well site are curtailed by landform, stone walls and intervening vegetation, resulting in a very low magnitude of change. The extent to which this will influence the view is considered negligible adverse significance.
- 8.179 Views of the well site from Ebberston Common Farm, located closer at approximately 240m, are screened due to dense intervening vegetation (Ebberston Common Plantation). Visual effects relating to the construction phase will generally be limited to areas surrounding the property and to views from the property's access road where the well site is partially visible through vegetation. The existing bund on the southern boundary of the well site will continue to screen views of the Proposed Development and it is therefore considered that construction of the pipeline connection will be glimpsed through existing vegetation from Ebberston Common Farm. Ebberston Common Farm is therefore likely to experience short term effects of minor adverse significance.

19819/A5/ES2013 174 August 2013

<u>Visual Effect on Listed Buildings during Construction</u>

8.180 No Listed Buildings will be affected by the Proposed Development.

Visual Effect on Other buildings during Construction

8.181 The only buildings in the vicinity of the well site with the potential to experience adverse visual effects include working farm buildings scattered through the surrounding landscape.

No significant adverse visual effects are identified on these receptors.

Visual Effect on PROW and Roads during Construction

- 8.182 Tabular Hills Walk PROW which adjoins the well site will experience a low magnitude of change due to the introduction of plant machinery. This change will be localised in its extent along the immediate boundary of the well site (approximately 300m) and will be seen in the context of the built elements contained within the well site. This will be a transient short term effect immediately adjacent to the well site boundary where, construction activity will be a noticeable change resulting in a minor adverse significance of effect on these views.
- 8.183 Recreational users of PROW No. 510509 to the east of the well site will experience transient views and associated construction activity when travelling between South Moor Farm and Ebberston Common Farm. Due to the temporary and transient nature of views from this location as well as the intervening vegetation along the boundaries of the well site the pipeline connection at the well site is considered to result in a low magnitude of change. Although views will be partially screened by vegetation on the well site boundary, open views across the moor are afforded and this will inevitably result in a minor adverse significance of effect.
- 8.184 Dalby Forest Drive, the primary road within the study area will experience a low magnitude of change in transient views immediately to the west of the well site. Construction activity may be partially visible; however this will be screened by intervening vegetation along Dalby Forest Drive. This will result in a minor adverse significance of effect due to the extent of visibility afforded through mature woodland and the temporary nature of construction activities.

19819/A5/ES2013 175 August 2013

Construction - Ebberston Moor 'A' Well Site to KGS Pipeline

- 8.185 As set out in Chapter 4, the Proposed Development for the pipeline consists of the following activities:
 - Construction of a 15.3km 8" diameter steel underground pipeline from the existing Ebberston Moor 'A' Well Site to the KGS at East Knapton.
- 8.186 It is anticipated that the construction of the proposed pipeline will be progressively built out between the well site and KGS. The landscape effects during construction would therefore progress, section by section, along the pipeline route, with the trench being dug out and then the pipeline being laid in the trench. Once the pipeline is laid, the restoration of completed sections will be undertaken immediately afterwards. Therefore, at any point in time landscape effects arising from construction are likely to affect the entire length of the route. There will also be the temporary erection of construction compound including site cabins within the western portion of the well site, and the temporary erection of fences along the boundaries of the working width of the pipeline corridor (30m).
- 8.187 The potential effects of the construction activities on the landscape will relate to the removal of vegetation along a 30m working corridor. Tree loss will include the removal of the individual trees, woodland, hedgerow and tree groups during the construction of the Proposed Development. All vegetation within the pipeline corridor is illustrated with reference to the tree survey in **Appendix 8.5**.
- 8.188 Two hedgerows considered potentially important under the Hedgerow Regulations 1997 may be adversely affected due to their proximity to the working corridor (HR 9012 and HR9020 **Appendix 8.5**) even though it is the intention that all sections of hedgerow unavoidably removed to accommodate the construction of the proposed pipeline will be reinstated. The removal of hedgerows, woodland and trees within a 30m working corridor will result in a medium magnitude of change on landscape features along the 15.3 km length of the pipeline resulting in a moderate adverse significance of effect.
- 8.189 Upon completion, a 10m easement corridor will be maintained during the operational lifetime of the pipeline for maintenance purposes. However, it is the intention that all sections of hedgerow removed to accommodate the construction of the proposed pipeline will be reinstated.
- 8.190 The construction period will generate a number of landscape changes; however, as much of the Assessment Site is associated with the construction of the pipeline located underground,

19819/A5/ES2013 176 August 2013

the effects are reversible. The principle activities that will potentially have an effect upon the fabric, quality and character of the landscape during the construction phase are set out in **Table 8.3**. The table facilitates a brief consideration of the potential landscape changes for each identified construction activity.

Table 8.3: Ebberston Moor 'A' Well Site to Knapton Pipeline Construction Phase – Predicted Landscape Changes and Effects

Identified Activity	Predicted Changes and Consequent Landscape Effects (Construction Phase)
Loss of landscape elements and features due to construction activities	Loss of some existing elements such as arable crops, isolated trees and sections of existing hedgerow along the length of the proposed pipeline (30m working width). The removal of existing agricultural land uses will create a new temporary landscape of differing landscape character and elements throughout the construction period as construction progresses along the length of the pipeline, with continual change over the construction period.
Introduction of new temporary elements including materials stockpiles, pipeline laying plant and site compound, fencing/hoardings along the route of the proposed pipeline, around the perimeter of the existing well site and KGS.	Introduction of new, contrasting temporary elements within the Assessment Site which will form a new landscape pattern and temporary change to its character. The change will result in a temporary change to different parts of the Assessment Site.
Increased movement of plant and vehicles on pubic/private roads and within the Assessment Site and surrounding area.	Increases in movement and noise levels will generate a series of shifting patterns across the Assessment Site, as works progresses along the pipeline route, with a short term temporary change for much of the route of the pipeline and a long term change for the well site.

Effects on Landscape Character during Construction

- 8.191 Construction activity, although discordant with the locality, will not change the character of the wider area due to its localised effects. The extent of landscape features affected during construction works is limited to the working corridor.
- 8.192 The magnitude of landscape change will be low to medium along the length of the pipeline route during the construction phases. The northern extent of the pipeline, in the vicinity of the well site and passing through the Dalby Forest is located within the North York Moors National Park and pipeline from where it exits the Dalby Forest to the south of the A170 is in the Wolds and Fringe of Moors Areas of High Landscape Value. The pipeline will have a short term effect of moderate adverse significance on surrounding receptors with a high level of sensitivity to such change.
- 8.193 The remaining sections of the pipeline which cross through Landscape Character Types F, H and J within the vale landscape (see **Figure 8.3**) and the effects of construction works on

19819/A5/ES2013 177 August 2013

the landscape will generally be adverse due to the short term temporary and/or long term temporary/ introduction of plant, fencing and the associated increase in vehicular activity associated with the various construction activities phased across the Assessment Site. Overall construction activity is assessed to have moderate adverse significance on landscape character.

Effects on the North York Moors National Park during Construction

- 8.194 The National Park, as a place of tranquillity and remoteness will be adversely effected by the Proposed Development; however this change will be contained within the immediate area surrounding the pipeline's working corridor due to the degree to which the Dalby Forest reduces the ability of the Assessment Site to be perceived from elsewhere within the National Park. During construction however, a noticeable change will occur over a localised area resulting in adverse effects on the perception of tranquillity and remoteness.
- 8.195 During construction of the northern extent of the pipeline on the edge of the National Park boundary where it follows closely to the alignment of Ebberston Common Lane and PROW 25.4/6/1/ within the open moor woodland, the movement of plant will be a noticeable change over a short term temporary period resulting in a moderate adverse effect on the objectives of the designated National Park landscape.

Visual Effects during Construction

- 8.196 The likely visual effects arising from construction of the Proposed Development have been assessed on the basis that the proposed pipeline will be, for the most part, constructed using an open cut method. However, where crossing railways, the River Derwent and roads, auger boring, directional drilling or suitable alternative installation technique will be used to limit surface disturbance (see Chapter 6 for further detail on construction methods).
- 8.197 The visual effects arising from construction activity will be progressive and temporary and, as discussed, of greater effect as for that of the operational phase of the Proposed Development.
- 8.198 Sensitive receptors nearest to the Assessment Site are likely to experience the most severe detrimental impact to their visual amenities. Views from PROW's within and on the edge of the North York Moors National Park, and within the immediate vicinity of the pipeline, will be adversely affected during construction. However, where apparent, these effects will be short term as the Assessment Site will be restored progressively. A few residential properties

19819/A5/ES2013 178 August 2013

within the vicinity of the Assessment Site, in locations where orientation and lack of intervening topography, built form or vegetation allow views of construction activity, will generally experience a moderate adverse effect, with only five properties, Ebberston Moor Farm, Warren House Farm, Grange Farm, Crake Hall and Knapton Lodge experiencing a major adverse effect during construction without mitigation measures.

Operation

8.199 For the purposes of this assessment it is assumed that the facilities/structures during the operation of the Proposed Development for either scenario associated with the development of the well site are identical.

Effects on identified Landscape Character during Operation

- 8.200 As much of the Proposed Development is associated with the development of an underground pipeline, there would be little or no landscape effects during operation along the pipeline route. For the majority of the pipeline route, the objective will be to restore the Assessment Site to its existing landscape character and condition, with a subsequent limited landscape impact.
- 8.201 The change in character of the area accommodating the well site will be from an existing gas processing facility to that of the built forms of utilitarian compounds. The principle activities that could have an effect upon the fabric, quality and character of the landscape during operation are set out in **Table 8.4**.

Table 8.4: During Operation - Predicted Landscape Changes and Effects

Identified Activity	Predicted Changes and Consequent Landscape Effects (During Operation)
Introduction of above ground engineering plant associated with the extraction and transport of gas along the pipeline to the KGS	The arrangement of engineering features on the well site will generate a utilitarian landscape character in contrast to the surrounding landscape character. This will, for the well site, replace an area previously associated with gas extraction
Introduction of a 10m easement corridor	The introduction of an easement corridor along the length of the pipeline route, creating a change to the landscape components in the immediate vicinity, with a subsequent effect on landscape character.

8.202 The long term effects from the well site and pipeline within the Dalby Forest Landscape Character Area are limited to loss of field boundary hedgerows where the pipeline passes through Ebberston Low Moor and any associated woodland along the pipeline easement within the Dalby Forest. Within the easement, the extent of loss of landscape components will not have a significant adverse effect on the wider landscape character and will therefore

19819/A5/ES2013 179 August 2013

result in a low degree of change in the context of the character area within the Dalby Forest – i.e. long term effect of minor adverse significance.

8.203 The magnitude of landscape change would also be low across the remaining length of the pipeline route during the operational phase once the pipeline corridor is reinstated. The length of pipeline from where it exits the Dalby Forest to south of the A170 is located within the Wolds and Fringe of Moors Areas of High Landscape Value. Along this section, the pipeline route traverses arable fields and does not cross any significant hedgerows or tree belts. It does however cross a block of woodland on the edge of Stonygate Moor although it is considered that the route will be contained within woodland without adverse effects on the wider landscape. The operation of the pipeline would therefore result in a low magnitude of change once the arable fields are reinstated resulting in a minor adverse effect on LCT's G and F. Due to the nature of the Proposed Development, the change to landscape character will be temporary until the arable fields are reinstated following construction. The effects during operation on the landscape would generally be adverse due to the gaps in vegetation as a result of tree/hedgerow removal. Overall the operation of the Proposed Development is assessed to have minor adverse significance on landscape character during operation.

Effects on the North York Moors National Park during Operation

- 8.204 The National Park, as a place of tranquillity and remoteness will be adversely affected by the Proposed Development during operation. There will remain a noticeable change during the operational life of the well site and pipeline but this will occur within a localised area surrounding the well site and easement corridor resulting in long term local temporary adverse effects on the perception of tranquillity and remoteness.
- 8.205 The northern extent of the pipeline is located on the edge of the National Park boundary and follows the alignment of Ebberston Common Lane/Tabular Hills Walk south towards Givendale Head Farm before turning south-west into the forest. From here, the pipeline route crosses through woodland close to the alignment of PROW 25.4/6/1 until it leaves Dalby Forest at Stonygate Moor. Throughout the length of this part of the pipeline, the pipeline corridor follows adjacent to an existing area of clear felled woodland and as such the only noticeable change upon completion will be a wider corridor through this part of the Dalby Forest. Clear felling of woodland is a noticeable characteristic of the area and as such, during operation the pipeline corridor will result in a low magnitude of change and a subsequent minor adverse effect on the wider National Park landscape.

19819/A5/ES2013 180 August 2013

Visual Effects

- 8.206 The visual effect of a development on a viewer will depend upon a number of factors. These can be summarised as:
 - The nature of the proposal;
 - Its siting in the landscape;
 - Its size and design parameters; and
 - The position and distance from which it is viewed.
- 8.207 A study has been carried out encompassing all properties or groups of properties, roads and PROW that lie within the visual envelope of the Proposed Development. The visual impact table which quantifies the impact of the Proposed Development on sensitive visual receptors surrounding the Assessment Site is included as **Appendix 8.3** with effects during operation identified in this table described in the following sections.
- 8.208 The visual impact table records the changes to the views from residential properties experiencing visual effects, with accordingly a high magnitude recorded where the Proposed Development has a significant change on the existing view, and low effect where the Proposed Development will cause a barely perceptible change in the existing view. The effect is classified a being either adverse i.e. negative, or beneficial i.e. positive. The effect assessment necessarily takes into account the "worse case" scenario and has recorded all of the impacts on the existing views as adverse, i.e. negative.
- 8.209 This section describes the visual effects of the Proposed Development during operation, but necessarily comments on the proposed mitigation measures, which are an intrinsic part of the Proposed Development. In later sections, the residual effects of development after mitigation are described.
- 8.210 The only above ground elements of the Proposed Development which will be visible during operation will be contained within the well site and at KGS. The pipeline will be buried with a 10m easement corridor remaining during the operational life of the Proposed Development, however all vegetation along this corridor will be reinstated.

Visual Effect on Residential Properties during Operation

8.211 No residential properties will experience long term permanent significant adverse visual effects. The nature of these effects is further detailed in **Appendix 8.3**.

19819/A5/ES2013 181 August 2013

Visual Effect on Listed Buildings during Operation

8.212 No Listed Buildings are affected by the Proposed Development.

Visual Effect on Other Properties during Operation

8.213 Other properties in the vicinity of the Assessment Site include farm properties scattered through the surrounding landscape. No significant adverse visual effects are identified on these receptors.

Visual Effect on PROW's and Roads during Operation

- 8.214 The most noticeable adverse visual effects will be apparent from PROW's which traverse or are located close to the Assessment Site. Where these are located close to the pipeline, well site or KGS, including those on the edge of the North York Moors National Park, visual effects will be limited to views of immature restoration proposals along the Assessment Site, representing a low magnitude of change at year 1 with a subsequent moderate adverse effect.
- 8.215 The views from the roads surrounding the pipeline, well site and KGS will generally experience a minor adverse effect at year 1 once the easement corridor is reinstated.

Decommissioning and Restoration

- 8.216 As set out in Chapter 6, there are two potential scenarios for the decommissioning and restoration phase of the Proposed Development at the well site which depend on whether planning permission for future use of the well site is secured prior to the end of the operational life of this Proposed Development (nominally 15 years). For both scenarios, the pipeline between well site and KGS will be left in situ with the ends capped to avoid further disturbance of the ground. There will be no decommissioning at the KGS. Further detail on this is provided in Chapter 6, however for the purposes of the landscape and visual assessment both scenarios at the Well Site have been assessed. This includes:
 - Scenario 1: Future planning permission secured for the future use of Ebberston Moor 'A'
 Well Site e.g. continued gas production from Ebberston Moor 1 well; and
 - Scenario 2: Future planning permission not secured for the future use of Ebberston Moor 'A' Well Site. During this scenario a restoration scheme for the well site will be

19819/A5/ES2013 182 August 2013

agreed in writing with DECC, NYCC and NYMNPA 12 months prior to the decommissioning and restoration commencing.

Scenario 1

8.217 At the end of the operational life of the Proposed Development (15 years) the well site and KGS will remain in situ along with the existing bunds, vegetation and landscape features. The pipeline will be capped at both the well site and the KGS and will no longer be in use. The implications and description of any future development on the well site will be discussed in a separate planning application and is not considered further in this Chapter. For the purposes of this assessment it is assumed that the Proposed Development will remain in situ on the well site and the surrounding vegetation will continue to mature indefinitely.

Landscape Effects

- 8.218 If the well site continues to operate as a well site the proposed vegetation will continue to mature on the boundary, providing an increase in screening currently afforded as vegetation matures, such that any future proposals will be further contained within the existing site boundary.
- 8.219 Once vegetation matures, the effect on local character will remain localised and will be contained within the immediate Well Site boundary.
- 8.220 Accordingly, the effect of Scenario 1 on landscape character and the National Park will have a very low magnitude of change with a minor adverse effect on the designated National Park landscape as it is assumed no additional landscape features will be affected by the continued use of the well site.

Visual Effects

- 8.221 The existing bunds and landscape features will remain in situ which combined with the maturing proposed vegetation will provide further screening of lower elements of the well site from adjacent receptors.
- 8.222 Sensitive receptors nearest to the Assessment Site are likely to experience a low degree of change to their visual amenities if the Proposed Development remains in use. These include users of Tabular Hills Walk long distance path (Ebberston Common Lane); PROWs on the edge of the North York Moors National Park and within the immediate vicinity of the

19819/A5/ES2013 183 August 2013

Assessment Site, including those traversing Ebberston Low Moor; residential receptors at Ebberston Common Farm and South Moor Farm; and recreational receptors using Dalby Forest Drive within the North York Moors National Park.

Visual Effect on residential properties

- 8.223 Two residential properties within the visual envelope of the Assessment Site (Ebberston Common Farm and South Moor Farm) have the potential to experience adverse visual effects. Views of the Assessment Site from South Moor Farm are curtailed by landform, stone walls and intervening vegetation, resulting in a very low magnitude of change. The extent to which this will influence the view is considered negligible adverse due to the temporary nature of effects, changes in topography and distance (approximately 660m) from the Assessment Site.
- 8.224 Views of the Assessment Site from Ebberston Common Farm, located closer at approximately 240m, are screened due to dense intervening vegetation (Ebberston Common Plantation). Visual effects relating to the decommissioning will generally be limited to areas surrounding the property and to views from the property's access road where the Assessment Site is partially visible through vegetation. Ebberston Common Farm is therefore likely to experience glimpsed views of the Proposed Development, seen through maturing vegetation. However, due to the combination of distance and intervening vegetation are considered to be of minor adverse significance.

Visual Effect on Listed Buildings

8.225 No Listed Buildings are affected by the Proposed Development.

Visual Effect on Other buildings

8.226 The only buildings in the vicinity of the well site with the potential to experience adverse visual effects include working farm buildings scattered through the surrounding landscape.

No significant adverse visual effects are identified on these receptors.

Visual Effect on PROW and Roads

8.227 Tabular Hills Walk PROW which adjoins the well site will experience a low magnitude of change due to screening effect provided by maturing vegetation seen filtered by the well site boundary vegetation. This change however will be localised in its extent along the immediate

19819/A5/ES2013 184 August 2013

boundary of the Assessment Site (approximately 300m). This will be a barely perceptible change, resulting in a minor adverse significance of effect on these views.

- 8.228 Recreational users of PROW No. 510509 to the east of the Assessment Site will experience transient views of the well site when travelling between South Moor Farm and Ebberston Common Farm, seen above or through the Assessment Site boundary vegetation. The temporary and transient nature of views from this location results in a very low magnitude of change and a minor adverse significance of effect.
- 8.229 Dalby Forest Drive will experience a low magnitude of change in temporary transient views immediately to the west of the Assessment Site, arising from views of the well site seen through the Assessment Site boundary vegetation. This will result in a minor adverse negligible significance of effect due to the extent of visibility afforded through mature woodland.

Scenario 2

8.230 The effects resulting from decommissioning and restoration are of a similar nature to construction effects and will be for a temporary period.

Landscape Effects

- 8.231 For Scenario 2, at the end of the operational life of the Proposed Development (15 years), all the wells will be plugged and abandoned and the well site will be restored to forestry in a condition as close as practicable to its original state or to a combination of forestry and amenity uses. As described in Chapter 6, it is anticipated that the structures and equipment on the well site will be dismantled, removed and decommissioned.
- 8.232 The decommissioning and restoration of the well site will result in temporary adverse landscape effects arising from the temporary introduction of plant required for the dismantling of structures and the removal of areas of hard standing, and the associated increase in movement of plant and vehicles on the public roads and within the Assessment Site and surrounding area. The replacement of hard standing and structures with restoration proposals, comprising regenerating woodland, will result in the progressive reduction of discordant utilitarian features and an increase in landscape features typical of the surrounding landscape character. For the duration of decommissioning, anticipated to require several months, the effect of Scenario 2 on landscape character and the National Park will

19819/A5/ES2013 185 August 2013

have a noticeable change over a temporary period with a moderate adverse effect on the designated National Park landscape.

Visual Effects

- 8.233 The visual effects arising from decommissioning activity for Scenario 2 will be similar to those of construction but covering a greater extent and of longer duration, although this is still anticipated to be a matter of months. They will therefore also be temporary, of greater significance than that of the operational components of the well site, and of similar magnitude as for the construction period.
- 8.234 The existing bunds and landscape features will remain in situ which combined with the maturing proposed vegetation will provide screening of lower elements of the decommissioning activity from adjacent receptors.
- 8.235 Again, sensitive receptors nearest to the well site are likely to experience the greatest effect to their visual amenities. However, where apparent, these effects will be short term during the decommissioning period.

Visual Effect on residential properties

- 8.236 Two residential properties within the visual envelope of the Assessment Site (Ebberston Common Farm and South Moor Farm) have the potential to experience adverse visual effects during decommissioning. Views of the Assessment Site from South Moor Farm which is approximately 660m from the well site are curtailed by landform, stone walls and intervening vegetation, resulting in a very low magnitude of change and an effect of negligible adverse significance.
- 8.237 Views of the Assessment Site from Ebberston Common Farm, located closer at approximately 240m, are screened due to dense intervening vegetation (Ebberston Common Plantation). Visual effects relating to the decommissioning will generally be limited to areas surrounding the property and to views from the property's access road where the Assessment Site is partially visible through vegetation. Ebberston Common Farm is therefore likely to experience glimpsed views of decommissioning activity, seen through existing vegetation. However these effects are short term and of minor adverse significance.

Visual Effect on Listed Buildings

8.238 No Listed Buildings are affected by the Proposed Development.

19819/A5/ES2013 186 August 2013

Visual Effect on Other buildings

8.239 The only buildings in the vicinity of the Assessment Site with the potential to experience adverse visual effects include working farm buildings scattered through the surrounding landscape. No significant adverse visual effects are identified on these receptors.

Visual Effect on PROW and Roads

- 8.240 Tabular Hills Walk PROW which adjoins the Assessment Site will experience a medium magnitude of change resulting in a moderate adverse significance of effect due to views of the decommissioning activity seen above or through the boundary vegetation and an increase of vehicular activity on Ebberston Common Lane. This change however will be localised in its extent along the immediate boundary of the Assessment Site (approximately 300m).
- 8.241 Recreational users of PROW No. 510509 to the east of the Assessment Site will experience transient views of the decommissioning activity when travelling between South Moor Farm and Ebberston Common Farm, seen above the Assessment Site boundary vegetation. The temporary and transient nature of views from this location results in a low-medium magnitude of change. Although views will be partially screened by vegetation on the Assessment Site boundary, open views across the moor are afforded and this will result in a minor adverse significance of effect.
- 8.242 Dalby Forest Drive will experience a low magnitude of change in temporary transient views immediately to the west of the Assessment Site, arising from views of the decommissioning activity seen above or through the Assessment Site boundary vegetation. This will result in a minor adverse significance of effect due to the extent of visibility afforded through mature woodland and the temporary nature of decommissioning activities.

Mitigation Measures

Construction

8.243 In order to manage environmental issues related to construction, a Construction Environmental Management Plan (CEMP) will be agreed and this is set out in Chapter 6. The design of the Proposed Development has aimed to minimise the height of the Proposed Development within the well site and to set out a sensitive landscape strategy which will be incorporated as part of the Proposed Development during construction.

19819/A5/ES2013 187 August 2013

- 8.244 During construction there are a number of measures which will be incorporated to minimise adverse effects including:
 - Retention of existing hedgerows and woodland between the boundary of the well site and Ebberston Common Lane to keep an established screen between activity within the well site and adjacent sensitive receptors, all trees to be retained will be protected in accordance with BS5837:2012 - Trees in Relation to Construction (Ref. 8.21);
 - Establishment of the landscape proposals at an early stage of the construction phase where possible -i.e. reinstate hedgerows and field boundaries immediately following construction;
 - Location of contractor's compound, pipeline laying and material stockpiles away from nearby sensitive receptors i.e. mature trees;
 - Control of the security lighting of construction compound and machinery to minimise upward and outward light pollution. In addition, ensure that the minimum area only is lit, for the minimum period of time;
 - Limit movements of material between stockpiles so that these do not shift over time thereby adding to the sense of fragmentation and instability of the landscape;
 - Minimisation of the duration of construction activities which require cranes, scaffolding, and use of designated routes within and around the Assessment Site; and
 - Agreeing appropriate working hours as proposed (07:00 to 18:00 Monday to Friday and 07:00 to 13:00 on Saturdays) with NYMNPA and NYCC to ensure that adverse visual effects of construction experienced by the closest residential receptors are minimised at times when they could reasonably expect a cessation of construction activity, for example evenings, weekends and bank holidays.

Operation

8.245 The main landscape features within the context of the Assessment Site is the topographical transition from the elevated plateau of the Dalby Forest to the Vale of Pickering, passing down through a prominent escarpment, and the covering network of woodland, tree belts and hedgerow bounded fields. Landscape proposals will include the replanting of vegetation removed through the construction of the pipeline and additional planting to the well site, between Ebberston Common Lane and the well site (subject to agreement with the NYMNPA). New planting will reinforce and enhance the existing landscape framework and compensate for limited areas of vegetation loss.

19819/A5/ES2013 188 August 2013

Landscape Strategy

- 8.246 The landscape objectives for the landscape strategy are as follows:
 - To retain landscape features such as woodlands, tree belts and hedgerows along the pipeline route, and to ensure the long term management of these features;
 - To restore the agricultural landscape, through which the pipeline route passes, to agricultural land of equivalent quality to that prior to construction, at the earliest opportunity following construction;
 - To reinstate and enhance the landscape features within the Assessment Site in order to
 restore the landscape character to that existing prior to construction, reflecting the
 objectives set out in the guidance provided in the published landscape character
 assessments, and in particular with reference to the Landscape of Northern Ryedale and
 the Area of High Landscape Value;
 - To provide a landscape setting to the Proposed Development, through the retention of a robust landscape infrastructure that reflects the existing landscape framework and assimilates the Proposed Development within the wider landscape;
 - To provide ecological and amenity enhancement through the introduction and appropriate management of new grassland, woodland, tree belt, hedgerow and individual tree planting, linked to existing landscape features wherever possible; and
 - To establish a recessive colour / material pallet for long term temporary or permanent built elements or structures as part of the Proposed Development. Dark Colours (dark green, brown, or dark grey) are generally more acceptable as they complement the natural environment throughout the seasons and the different characteristics of daylight during the year. Consideration will also be given to the general colour of the backdrop against which the building will be seen.
- 8.247 Planting to be included within the overall landscape strategy is predominately native and reflects the native woodland types of the North York Moors as per the recommendation in the North York Moors Supplementary Planning Document Design Guide and Ryedale Rural Design Guide (Ref. 8.6 and Ref. 8.12). In addition, a landscape maintenance programme will be adopted to ensure the long-term survival of existing and proposed features in order to enhance their biodiversity and amenity value. The details of the landscape maintenance programme will be agreed with the relevant LPA at the appropriate time.
- 8.248 Generally smaller plants will establish more quickly than larger plants. Therefore for instant effect and good long term success a number of larger trees (feathered, standards/semi-

19819/A5/ES2013 189 August 2013

mature) will be planted at key locations, with smaller plants (such as transplants, undercuts or cell grown stock) making up the bulk in the planting.

8.249 In addition, a landscape maintenance programme will be adopted to ensure the long-term survival of existing and proposed features in order to enhance their biodiversity and amenity value. The details of the landscape maintenance programme will be agreed with the Local Authorities at the appropriate time.

Management and Monitoring

- 8.250 The monitoring of the successful establishment and growth of the proposed planting measures is a long term process. This will be ensured through the establishment of an ongoing management regime in respect of the landscape infrastructure and open spaces associated with the development. Part of the management regime plan will be to monitor the successful establishment of new planting and to replace plant failures for up to five years until the tree and shrub areas are well established. The long term objectives will be:
 - To allow selected trees to grow on to maturity;
 - To encourage 'wildlife corridors' which will provide important nature conservation benefits; and
 - To create a high degree of screening to the Proposed Development without adversely affecting the character of the National Park.
- 8.251 The aim is to promote a sensitive management approach, which protects and improves landscape and visual amenity value and the nature conservation interests of the Assessment Site in a manner that is compatible with the proposed land uses.

Decommissioning and Restoration

8.252 During decommissioning and restoration there are a number of measures which will be incorporated to minimise adverse effects. These are the same as those identified for construction above.

19819/A5/ES2013 190 August 2013

Residual Effects

Construction – Ebberston Moor 'A' Well Site (Scenario 1)

Landscape Effects

8.253 During construction, retention and protection of existing trees surrounding the Assessment Site in accordance with 'BS5837:2012 - Trees in Relation to Construction' (Ref. 8.21) will reduce the potential for adverse effects on character and the setting of the National Park. Control of movements of material will also reduce adverse effects on both landscape features and landscape character during construction. However, construction activity will remain apparent due to the shifting patterns of machinery and movement within the well site and as such will result in a minor adverse significance of effect on both landscape features and character during construction.

Visual Effects

8.254 Mitigation measures introduced during construction to reduce the potential for adverse effects include the retention of vegetation, careful siting of construction compound/site office and limiting of working hours on site. In addition, the introduction of planting proposals during the construction phase will further limit the potential for adverse visual effects (however these will take time to mature). Views from Ebberston Common Lane and the adjacent residential properties will however be influenced by constriction activity associated with the Proposed Development within the well site. The retention and protection of existing vegetation between the lane and the Assessment Site will limit the extent to which these activities will be visible. There will remain a minor adverse effect on these receptors during construction.

Construction – Ebberston Moor 'A' Well Site (Scenario 2)

Landscape Effects

8.255 As described above in Scenario 1, during construction the additional mitigation measures including the retention and protection of existing trees, control of movements surrounding the Assessment Site will reduce the potential for adverse effects on character and the setting of the National Park. Although much of the development (Ebberston Moor EDS) will already be in place, construction activity will remain apparent due to the shifting patterns of

19819/A5/ES2013 191 August 2013

machinery and movement within the well site and as such will result in a minor adverse significance of effect on both landscape features and character during construction.

Visual Effects

8.256 As described above, mitigation measures introduced during construction to reduce the potential for adverse effects include the retention of vegetation, careful siting of construction compound/site office and limiting of working hours on site. In addition, the introduction of planting proposals (reinstate vegetation removed when connecting the pipeline to the well site) during the construction phase will further limit the potential for adverse visual effects (however these will take time to mature). Although the operation of the Ebberston Moor EDS scheme will be visible, views from Ebberston Common Lane and the adjacent residential properties will however be influenced by constriction activity associated with the Proposed Development within the well site. The retention and protection of existing vegetation and the between the lane and the Assessment Site will limit the extent to which these activities will be visible. There will remain a minor adverse effect on these receptors during construction.

Construction - Ebberston Moor 'A' Well Site to KGS Pipeline

Landscape Effects

8.257 During the construction of the pipeline between the well site and the KGS, the retention and protection of existing trees and the control of movements within the 30m working corridor will reduce the potential for adverse effects on landscape character through which it passes. Although the additional mitigation measure will help reduce the nature of adverse effects, the overall effect on landscape features will remain apparent due to the shifting patterns of machinery and movement within the Assessment Site and as such will result in a moderate adverse significance of effect on both landscape features and character during construction.

Visual Effects

8.258 Mitigation measures introduced during construction to reduce the potential for adverse effects include the retention of vegetation, careful siting and movement of stockpiles within the working corridor and limiting of working hours on site. The reinstatement of vegetation removed at the end of the construction phase will further limit the potential for adverse visual effects (however these will not yet be mature). Due to the nature of effects along the working corridor (removal of trees and hedgerows the nearest residential properties will remain influenced by constriction activity associated with the Proposed Development

19819/A5/ES2013 192 August 2013

(Ebberston Moor Farm, Warren House Farm, Grange Farm, Crake Hall and Knapton Lodge). The implementation of mitigation measures will reduce the significance of effect, at worst, to moderate adverse on these receptors during construction.

Operation

Landscape Effects

- 8.259 The existing structure of woodlands on the boundaries of the Assessment Site, particularly through the Dalby Forest will be retained providing a landscape framework encompassing the Proposed Development. A number of elements of the Proposed Development will ensure that the positive landscape structure will be retained and enhanced once mitigation measure have established. These include (with the consent of landowners) the reinforcement of the existing landscape pattern with the reinstatement of planting removed during construction; the gapping-up of existing hedgerows adjacent to the pipeline with respect to local landscape character, and the appropriate management of existing landscape features. When combined these measures will ensure that the existing landscape structure will be retained and enhanced. As a result, the pattern or "grain" of the landscape will be retained and reflected within the mitigation proposals for the Assessment Site, and this will serve to reinforce local distinctiveness and landscape character.
- 8.260 The mitigation measures proposed will assist in assimilating the Proposed Development into its landscape setting and reinstate tree cover over the area encompassing the Assessment Site. Accordingly the residual effect of the Proposed Development on landscape character is assessed as having a low magnitude of change on an area of high / medium sensitivity. Once established the overall landscape improvements proposed are assessed as having no detrimental effect minor adverse.

Visual Effects

- 8.261 The effectiveness of the proposed landscape strategy in mitigating the effects on the view from properties, roads and PROW's is demonstrated by comparing the visual effects during operation, i.e. Year 1 with the effects when the proposed structure planting have matured to a greater degree, i.e. by Year 10 residual effects (after mitigation). The visual effect of Proposed Development during Year 1 and at Year 10 are summarised in **Appendix 8.3**.
- 8.262 The comparison between Year 1 and Year 10 demonstrates that there will be a reduction in the significance of effect on views from receptors in close proximity to the Assessment Site

19819/A5/ES2013 193 August 2013

as proposed landscape measures, including the restoration of agricultural land and, in particular, new woodland and hedgerow planting reaches maturity. At maturity, the planting across the pipeline's working corridor and around the well site will either reinstate the existing landscape character so that there was no significant change in view, or the landscape buffers will provide an effective screen in views towards the Proposed Development during both the summer and in winter months and remove significant adverse visual effects.

8.263 From longer distance views, in particular, from the south (within the Vale of Pickering) across the Assessment Site to the North York Moors National Park, it is considered that the significance of the effect of the Proposed Development will generally be minor adverse to negligible, even at Year 1 once arable field and hedgerows are reinstated. This is due primarily to the distance of identified properties, roads and footpaths from the Assessment Site. Intervening vegetation and topography within the landscape surrounding the Assessment Site are also of considerable assistance in curtailing views towards the Proposed Development. No significant adverse effects have been identified after mitigation has established at 10 years.

Decommissioning and Restoration

Scenario 1

8.264 As previously stated, Scenario 1 relates to securing a future planning permission for the use of Ebberston Moor 'A' Well Site e.g. continued gas production from Ebberston Moor – 1 well. Therefore at the end of the operational life of the Proposed Development (15 years) the well site will remain in situ along with the existing bunds and landscape features so no decommissioning will occur at this point and will form part of a future planning application. The implications and description of any future development or decommissioning on the well site will be discussed in a separate planning application.

Scenario 2

Landscape Effects

8.265 During decommissioning, retention and protection of existing trees surrounding the Assessment Site in accordance with 'BS5837:2012 - Trees in Relation to Construction' (Ref. 8.21) will reduce the potential for adverse effects on character and the setting of the National Park. Control of movements of material will also reduce adverse effects on both

19819/A5/ES2013 194 August 2013

landscape features and landscape character during construction. However, decommissioning activity will remain apparent due to the shifting patterns of machinery and movement within the well site.

- 8.266 Following decommissioning and the implementation of restoration measures, it is considered that the landscape proposals, although not fully mature, will be of a sufficient size to enable the restored site to assimilate into the surrounding woodland. The effect on local character is considered to be no greater than existing areas of clear felled woodland which are a common feature throughout Dalby Forest. Accordingly the effect of decommissioning on landscape character and the National Park is assessed as having a very low to very low beneficial magnitude of change on an area of high sensitivity.
- 8.267 In time, the proposed landscape measures will mature, allowing the Assessment Site to form part of the adjacent woodland and will result in beneficial effects once the landscape proposals have matured and the well site returned to forestry i.e. an improvement from the current baseline.
- 8.268 Along the pipeline route the reinstated development will return the Assessment Site to its original condition so that no change will be noticeable i.e. neutral.

Visual Effects

8.269 Following the restoration of the Assessment Site and the removal of plant, built form and associated development, the visual effects resulting from the Proposed Development will be reduced such that the Assessment Site will be barely perceptible in wider views. As noted the Assessment Site will visually appear as an area of clear felled woodland, however the existing and proposed planting measures introduced as part of the Proposed Development will have begun to mature in so far as they will provide a greater degree of screening from adjacent receptors. Views from Ebberston Common Lane and the adjacent residential properties of the cleared area within the Assessment Site boundary will be partially screened. As a result of the restoration of the Assessment Site it is considered that there will be a minor beneficial effect on these receptors following restoration i.e. the Assessment Site will be returned to its initial state (forestry).

Cumulative Effects

8.270 In terms of landscape and visual effects, there are two schemes with potential to result in cumulative effects. These include the Ryedale Gas Project and the Ebberston Moor EDS.

19819/A5/ES2013 195 August 2013

Ryedale Gas Project

8.271 Due to a combination of distance, intervening forestry and steep changes in topography between the well site, KGS and the Ryedale 'Ebberston South Well Site' and Ryedale Processing Facility, it is considered that throughout the majority of the Assessment Site there will be no cumulative landscape and visual effects as a result of the Proposed Development at the well site or KGS. However, the proposed pipeline which forms part of this development will intersect with the Ryedale Gas Project south of Warren House Farm. As a result there are likely to be adverse effects on both landscape and visual receptors in this location and these are identified below.

Landscape Effects

- 8.272 The proposed pipeline route will cross the route of the Ryedale Gas Project pipeline immediately to the south-west of Warren House Farm within an area of arable fields on the edge of the escarpment. Should both developments occur simultaneously there will be an increase in the land affected by construction activity where both routes intersect. It is however considered that the land directly affected at the point of intersection will be arable fields and as such can be easily replaced following construction. It is therefore considered that the cumulative landscape effects will be moderate adverse if both projects are constructed at the same time.
- 8.273 Should the projects be constructed at separate points in time there is unlikely to be any cumulative landscape effects. The arable fields which define the escarpment edge would be reinstated following construction of both developments so no adverse cumulative effects are likely to occur.

Landscape Effects

8.274 Due to the elevated nature of the escarpment, distant views are obtained from the Vale of Pickering towards the escarpment and also from the escarpment out across the vale. The degree to which views of the escarpment are visible in views increases the magnitude of change if both pipelines are constructed simultaneously. In particular residential receptors at Warren House Farm will experience moderate adverse effects. Due to distance, receptors within the Vale of Pickering with visibility of the escarpment are likely to experience minor adverse effects as a result.

19819/A5/ES2013 196 August 2013

8.275 Should the projects be constructed at separate points in time there is unlikely to be any cumulative landscape effects as once the arable fields are reinstated there will be no evidence of the Ryedale Gas Project crossing at this point.

Ebberston Moor EDS Scheme

- 8.276 There is also potential for cumulative effects to occur should the Ebberston Moor EDS be operational prior to the construction of the pipeline (i.e. Scenario 2) during construction and operation of the Proposed Scheme. If this scenario arises the Ebberston Moor EDS (including the gas conditioning facilities and flare) will remain operational during the construction of the pipeline. Once the pipeline is operational then the gas will be diverted away from the gas conditioning facilities and NGN network on the Lockton Compound into the pipeline to KGS.
- 8.277 Once this has happened during the operation of the proposed pipeline to the KGS (the Proposed Development) the gas conditioning facilities on the Lockton Compound and the flare will be decommissioned and restored as part of the Ebberston Moor EDS. Therefore for the purposes of the cumulative assessment the following scenarios are assumed to occur:
 - Pipeline construction and EDS (including Lockton Compound and flare) operation; and
 - Pipeline operation and part of the EDS (Lockton Compound and flare) decommissioning and restoration.

Pipeline construction and EDS (including Lockton Compound and flare) operation

Landscape Effects

8.278 The construction of the pipeline at the well site will require the removal of vegetation along Ebberston Common Lane which will result in a loss of landscape features that help to screen the Ebberston Moor EDS within the well site. Although this will be for a temporary period, the loss of landscape features (up to 30m working width) where the pipeline enters the well site will result in adverse effects as any reinstatement of vegetation upon completion will inevitably take time to mature. The overall effect on character of the National Park and the Dalby Forest Character Area (3C) will be of minor adverse significance due to the low degree of change on landscape features i.e. removal of a 30m corridor of regenerating woodland and maturing vegetation.

19819/A5/ES2013 197 August 2013

Visual Effects

8.279 The construction of the pipeline at the well site will open up views of the operational Ebberston Moor EDS when a 30m corridor of vegetation is removed along Ebberston Common Lane. Due to the short length of the working corridor, views of the Ebberston Moor EDS from Ebberston Common Lane and from users of the PROW and surrounding residential receptors will largely remain unaffected by the construction of the pipeline within the well site (minor adverse at worst). This is due to the extent of existing vegetation along the boundary of the well site which will have matured further by the time the pipeline is constructed.

Pipeline operation and part of the EDS (Lockton Compound and flare) decommissioning and restoration

Landscape Effects

8.280 At the well site, the pipeline easement will result in a 30m gap in vegetation which will be reinstated at the point where the pipeline exits the well site and crosses Ebberston Common Lane. Due to the nature of the development (underground) the pipeline will not be visible and so there will be no landscape effects aside from a 30m wide corridor of maturing vegetation immediately adjacent to the well site. In the context of the surrounding National Park and character area, this is not considered to result in significant adverse effects – minor adverse.

Visual Effects

8.281 The decommissioning of parts of the EDS will be visible alongside the operation of the pipeline at the well site during the initial stage in the life of the pipeline. The decommissioning of the EDS will be visible in views for a temporary period from Ebberston Common Lane and from users of the PROW and Ebberston Common Farm. Views of decommissioning will be further influenced by a 30m corridor of vegetation removed during construction which will not yet have matured along Ebberston Common Lane. The proposed landscape strategy for the Ebberston Moor EDS will reduce the extent to which decommissioning will be visible, however it will be apparent from the nearby receptors listed above i.e. Tabular Hills Walk PROW and Ebberston Common Farm resulting in a moderate adverse effect on views for a temporary period while the flare and Lockton Compound are decommissioned.

19819/A5/ES2013 198 August 2013

Summary

- 8.282 The Proposed Development will cross through 15.3km of the North Yorkshire Moors and Vale of Pickering landscape passing through a number of different landscape character types. The northern section of the pipeline route between the Ebberston Moor 'A' Well Site and the A170 road is considered the most sensitive in landscape terms as it is located within both the National Park (Dalby Forest) and the Wolds and the Fringe of the Moors Area of High Landscape Value. The Area of High Landscape Value adjoins the southern boundary of the National Park and covers the land across the escarpment and further south beyond the A170. The remaining landscape types within the Assessment Site between the A170 sand the KGS encompass the character types of the Linear Scarp Farmland, Open Vale Farmland and the Wooded Open Vale.
- 8.283 Due to the densely wooded character of the area within the National Park which the pipeline route traverses, views are contained and the effects limited to the immediate boundary of the Assessment Site. There are however open views of the pipeline route immediately adjacent to where it follows the alignment of Tabular Hills Walk at the well site. Views from elsewhere within the National Park are screened by forestry (coniferous woodland) which effectively curtail views to the Assessment Site from within the North York Moors National Park, therefore limiting open views to the fringes of the Dalby Forest such as near Givendale Head and Scamridge High Farms and Warren House Farm.
- 8.284 Where the pipeline route crosses the elevated open forest plateau north of Stonygate Moor, views of the Assessment Site are limited to PROW 25.4/6/1 where it crosses the moor. From the edge of the National Park views to the south are influenced by the escarpment edge at Warren House Farm which curtails views to the south. As the pipeline route traverses down the escarpment, partial views of the Assessment Site are obtained where the orientation of the view, intervening topography and breaks in vegetation allow views such as along the access drive to Warren House Farm. Further south within the vale landscape, distant views are afforded north towards the escarpment, however these are only obtained through breaks in hedgerows and tree belts along local roads. Views from Allerston and Wilton are curtailed by topographic variation and intervening vegetation. There are however open views from the eastern edge of Wilton across the vale and along the escarpment to the north.
- 8.285 The southern end of the vale is more closely associated with a wooded vale landscape where wooded copses and mature tree belts limit distant views. The KGS is enclosed within woodland which curtails views of the facility from the surrounding vale landscape and the elevated escarpment to the south.

19819/A5/ES2013 199 August 2013

- 8.286 It is considered that the Proposed Development will not change the character of the existing Ebberston Moor 'A' Well Site as it already functions as a gas well site. The landscape effects resulting from the pipeline are limited to loss of field boundary hedgerows and any associated trees along its 30m working corridor. However, as the majority of the Proposed Development is associated with the construction of the pipeline which is located underground, the effects are reversible, as on completion the land will be restored to a similar condition to that prior to construction, and all of the landscape features reinstated.
- 8.287 Once operational the Proposed Development comprises the Ebberston Moor 'A' Well Site and a 15.3km pipeline between the well site and the KGS. The only above ground elements of the Proposed Development will be contained within the well site which is enclosed by the Dalby Forest and as such screens views from within close proximity. The extent of the well site affected is limited and contained within existing bunds and existing landscape framework, such that the overall effect on landscape character during operation is assessed as having minor adverse significance. The pipeline will be buried and vegetation will be reinstated and so will not be readily apparent once vegetation begins to mature resulting in a residual effect of negligible to minor adverse significance.
- 8.288 The National Park, as a place of tranquillity and remoteness will be adversely effected by the Proposed Development due to the removal of a 30m working corridor of woodland within Dalby Forest; however this change will be contained due to the degree to which the woodland reduces the ability of the Assessment Site to be perceived from elsewhere within the National Park. During operation, a noticeable change will remain during the life of the pipeline but this will occur within a localised area resulting in adverse effects of minor significance on the perception of tranquillity and remoteness as the pipeline route broadly follows existing corridors reducing the need for woodland clearance in places.
- 8.289 The northern extent of the pipeline is located on the edge of the National Park boundary and broadly follows the alignment of Ebberston Common Lane/Tabular Hills Walk south towards Givendale Head Farm before turning west into the forest. From here the route runs adjacent to the alignment of PROW 25.4/6/1 until it leaves Dalby Forest. Throughout the length of this part of the pipeline route, the proposed pipeline will be adjacent to an existing area of clear felled woodland and as such the only noticeable change will be a wider corridor through the forest at Givendale Rigg. Following completion, the effects of the pipeline will result in a low magnitude of change once the landscape is reinstated and a subsequent minor adverse effect on the objectives of the designated National Park landscape.
- 8.290 The well site, pipeline and KGS are generally well screened from sensitive receptors.

 Therefore there are limited views obtained from publicly accessible locations in the

19819/A5/ES2013 200 August 2013

immediate proximity to the Assessment Site and from publicly accessible locations (generally PROW's and roads which traverse the pipeline route) from open locations close to Warren House Farm on the elevated escarpment and on the elevated forest plateau, or from more distant locations to the south on the valley floor of the Vale of Pickering.

- 8.291 No residential properties experience permanent significant adverse visual effects as the pipeline is contained underground. Where PROW's are located in close proximity to the well site (Tabular Hills Walk), visual effects will represent at most a minor/moderate magnitude of change at year 1, operation. The views from the roads surrounding the Assessment Site will generally, at most, experience a minor adverse effect at year 1 which will reduce over time as replacement vegetation matures along the pipeline route.
- 8.292 In summary, it is considered that the Proposed Development will be effectively assimilated within the landscape and visual context, with no long term significant landscape or visual adverse effect.
- 8.293 **Table 8.5** provides a summary of the likely significant effects.

19819/A5/ES2013 201 August 2013

Table 8.5: Table of Significance – Landscape and Visual

	Nature of	Significance	Nature or 5					Geographical Importance*							
Potential Effect	Effect (Permanent/ Temporary)	(Major/Moderate/Mi nor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures	ı	UK	E	R	С	D/ NP	L (Beneficial/Ad	(Major/Moderate/ Minor) (Beneficial/Adverse/ Negligible)				
Construction - Well Si	te Scenario 1														
Landscape Features	Short term temporary	Minor Adverse	Retention of existing vegetation and control movement of							*	Minor Adverse				
Landscape Character	Short term temporary	Minor Adverse	stockpiles and materials and limiting working hours.					*	*	*	Minor Adverse				
National Park	Short term temporary	Moderate Adverse					*	*	*	*	Moderate Adverse				
Visual Effects – Residential Properties	Short term temporary	Negligible to Minor Adverse								*	Negligible to Minor Adverse				
Visual Effects - Roads	Short term temporary	Minor Adverse								*	Minor Adverse				
Visual Effects - PROW	Short term temporary	Moderate Adverse							*	*	Moderate Adverse				
Construction - Well Si	te Scenario 2														
Landscape Features	Short term temporary	Minor Adverse	Retention of existing and proposed vegetation (as part of							*	Minor Adverse				
Landscape Character	Short term temporary	Minor Adverse	EDS) and control OF movement of stockpiles and materials and limiting working hours.					*	*	*	Minor Adverse				
National Park	Short term temporary	Minor Adverse	inniting working nours.				*	*	*	*	Minor Adverse				
Visual Effects – Residential Properties	Short term temporary	Negligible to Minor Adverse								*	Negligible to Minor Adverse				
Visual Effects - Roads	Short term temporary	Minor Adverse								*	Minor Adverse				
Visual Effects - PROW	Short term temporary	Minor Adverse							*	*	Minor Adverse				

	Nature of	Significance			Geog	raphi		Residual Effects			
1100000		(Major/Moderate/Minor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures		UK	Е	R	С	D/ NP	L	(Major/Moderate/ Minor) (Beneficial/Adverse/ Negligible)
Construction - Pip	eline				,		•	_	,		
Landscape Features	Short term temporary	Moderate Adverse	Proposed vegetation beginning to mature and bund along							*	Moderate Adverse
Landscape Character	Short term temporary	Moderate Adverse	eastern boundary of the Assessment Site providing an element of screening.					*	*	*	Moderate Adverse
National Park	Short term temporary	Moderate Adverse					*	*	*	*	Moderate Adverse
Visual Effects – Residential Properties	Short term temporary	Negligible to Major Adverse								*	Negligible to Major Adverse
Visual Effects - Roads	Short term temporary	Major Adverse								*	Negligible to Major Adverse
Visual Effects - PROW	Short term temporary	Major Adverse							*	*	Negligible to Major Adverse
Operation											
Landscape Features	Long term temporary	Minor Adverse	Reinstated vegetation surrounding the Assessment							*	Minor Adverse
Landscape Character	Long term temporary	Minor Adverse	Site (pipeline) continues to mature providing a higher degree of visual containment.					*	*	*	Minor Adverse
National Park	Long term temporary	Minor Adverse	degree of visual containment.				*	*	*	*	Minor Adverse
Visual Effects – Residential Properties	Long term temporary	Negligible to Minor Adverse								*	Negligible to Minor Adverse
Visual Effects - Roads	Long term temporary	Negligible to Minor Adverse								*	Negligible to Minor Adverse
Visual Effects - PROW	Long term temporary	Negligible to Minor Adverse							*	*	Negligible to Minor Adverse

19819/A5/ES2013 203 August 2013

	Nature of	Significance			Geog	aphi	Residual Effects				
Potential Effect	Effect (Permanent/ Temporary)	(Major/Moderate/Mi nor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures		UK	Е	R	С	D/ NP	L	(Major/Moderate/ Minor) (Beneficial/ Adverse/ Negligible)
Decommissioning and	Restoration -	- Scenario 1					1				<u> </u>
Landscape Features	Permanent	Minor Adverse	Continued use of the Well Site with forestry and vegetation continuing to mature providing a high degree of visual containment – improvement of current condition of the Assessment Site.							*	Minor Adverse
Landscape Character	Permanent	Minor Adverse						*	*	*	Minor Adverse
National Park	Permanent	Minor Adverse					*	*	*	*	Minor Adverse
Visual Effects – Residential Properties	Permanent	Negligible to Minor Adverse								*	Negligible to Minor Adverse
Visual Effects - Roads	Permanent	Negligible to Minor Adverse	Continued use of the Well Site with forestry and vegetation continuing to mature providing a high degree of visual containment – improvement of current condition of the Assessment Site.							*	Negligible
Visual Effects - PROW	Permanent	Minor Adverse							*	*	Minor Adverse
Decommissioning and	Restoration -	- Scenario 2									
Landscape Features	Temporary	Negligible	Reinstatement of the							*	Minor Beneficial
Landscape Character	Temporary	Moderate Adverse	Assessment Site to its original state i.e. forestry and vegetation continuing to mature					*	*	*	Minor Beneficial
National Park	Temporary	Moderate Adverse	providing a high degree of visual containment — improvement of current condition of the Assessment Site.				*	*	*	*	Minor Beneficial
Visual Effects – Residential Properties	Temporary	Minor Adverse								*	Minor Beneficial
Visual Effects - Roads	Temporary	Minor Adverse								*	Minor Beneficial
Visual Effects - PROW	Temporary	Moderate Adverse							*	*	Minor Beneficial

19819/A5/2013 204 August 2013

	Nistana sf	Significance			Geog	raphi		Residual Effects			
Potential Effect	Nature of Effect (Permanent/ Temporary)	(Major/Moderate/Mi nor) (Beneficial/Adverse/ Negligible)	Mitigation / Enhancement Measures	I	UK	E	R	С	D/ NP	L	(Major/Moderate/ Minor) (Beneficial/ Adverse/ Negligible)
Cumulative - Ryedale	Gas Project										
No cumulative effects											
Cumulative - Construc	tion Ebbersto	on Moor EDS & Pr	oposed Development								
Landscape Features	Temporary	Minor Adverse	Retention of existing vegetation							*	Minor Adverse
Landscape Character	Temporary	Minor Adverse	and control movement of stockpiles and materials and					*	*	*	Minor Adverse
National Park	Temporary	Minor Adverse	limiting working hours.				*	*	*	*	Minor Adverse
Visual Effects – Residential Properties	Temporary	Minor Adverse								*	Minor Adverse
Visual Effects - Roads	Temporary	Minor Adverse								*	Minor Adverse
Visual Effects - PROW	Temporary	Minor Adverse							*	*	Minor Adverse
Cumulative - Operation	n Ebberston N	Moor EDS & Propo	sed Development								
Landscape Features	Temporary	Minor Adverse	Retention of existing vegetation							*	Minor Adverse
Landscape Character	Temporary	Minor Adverse	and control movement of stockpiles and materials and					*	*	*	Minor Adverse
National Park	Temporary	Minor Adverse	limiting working hours.				*	*	*	*	Minor Adverse
Visual Effects – Residential Properties	Temporary	Moderate Adverse								*	Minor Adverse
Visual Effects - Roads	Temporary	Minor Adverse	Retention of existing vegetation							*	Negligible
Visual Effects - PROW	Temporary	Moderate Adverse	and control movement of stockpiles and materials and limiting working hours.						*	*	Minor Adverse

* Geographical Level of Importance

I = International; UK = United Kingdom; E = England; R = Regional; C = County; D = District; NP = National Park; L = Local

Legend Figure 8.1 Ebberston Moor 'A' Well Site to Application Site Boundary Public Rights of Way * North York Moors National Park #**Knapton Gas Pipeline** Drawing Title Site Context Plan Wolds Way National Trail #Existing Woodlands, Copses and Tree Belts ^ Listed Buildings ~ Drawn by Check by 1:25,000 @ A1 14.08.2013 Ancient Woodland # Scheduled Monument \sim Area of High Landscape Value + Project No Drawing No Revision 19819 L101 Registered Parks and Gardens ~ Existing Scrub ^ Sources:

OS Mapping

Matural England GIS Data Set

English Heritage National Monument Record GIS Data Set

North Yorkshire County Council

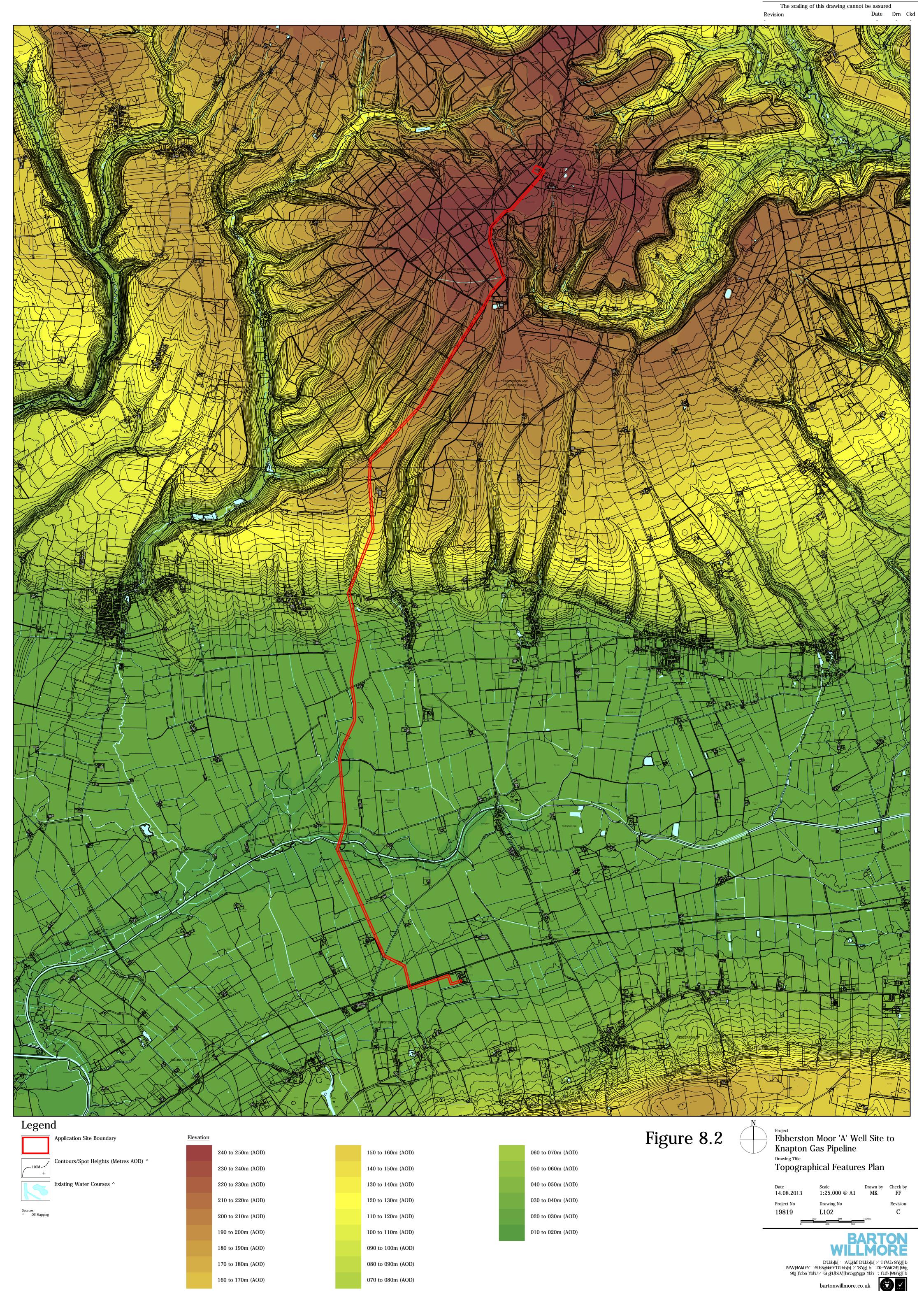
Rydale District Council Local Plan Proposals Map 2002 Existing Water Courses ^ Sites of Special Scientific Interest # D'Ubb||b[`AUghtf'D'Ubb||b[/ I fVUb`8Yg|| b 5fW||hYMafY` @UbXgWdY'D'Ubb||b[/ '8Yg|| b 'Dfc'YMaGYfj ||Wg 9bj |fcba YbHU'/ 'Gi gHJ|bUV|`|hm5ggYgga Ybhi '; fUd\ ||W8Yg|| b Contours/Spot Heights (Metres AOD) ^ Special Area of Conservation #

The scaling of this drawing cannot be assured

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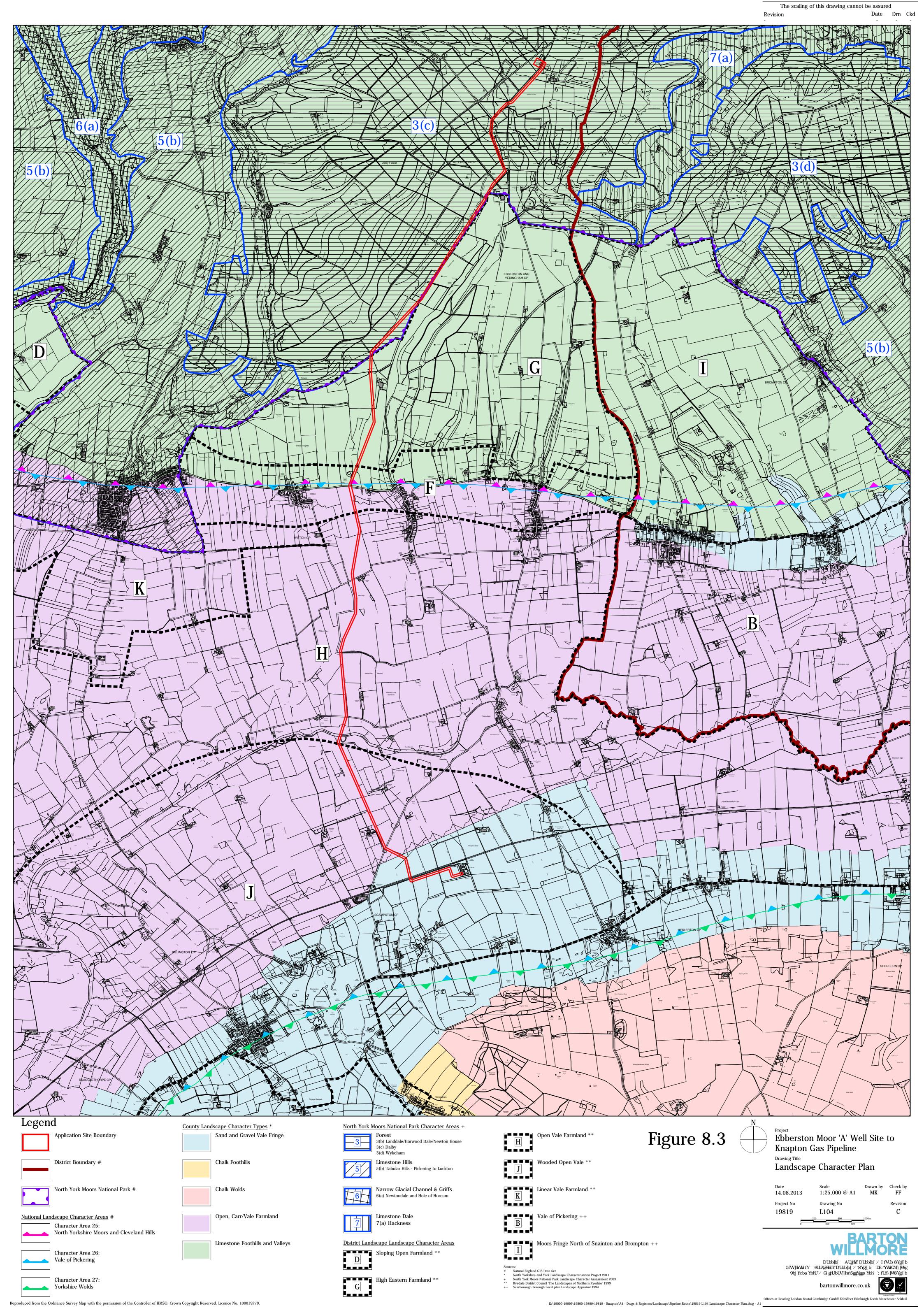
Offices at Reading London Bristol Cambridge Cardiff Ebbsfleet Edinburgh Leeds Manchester Solihull

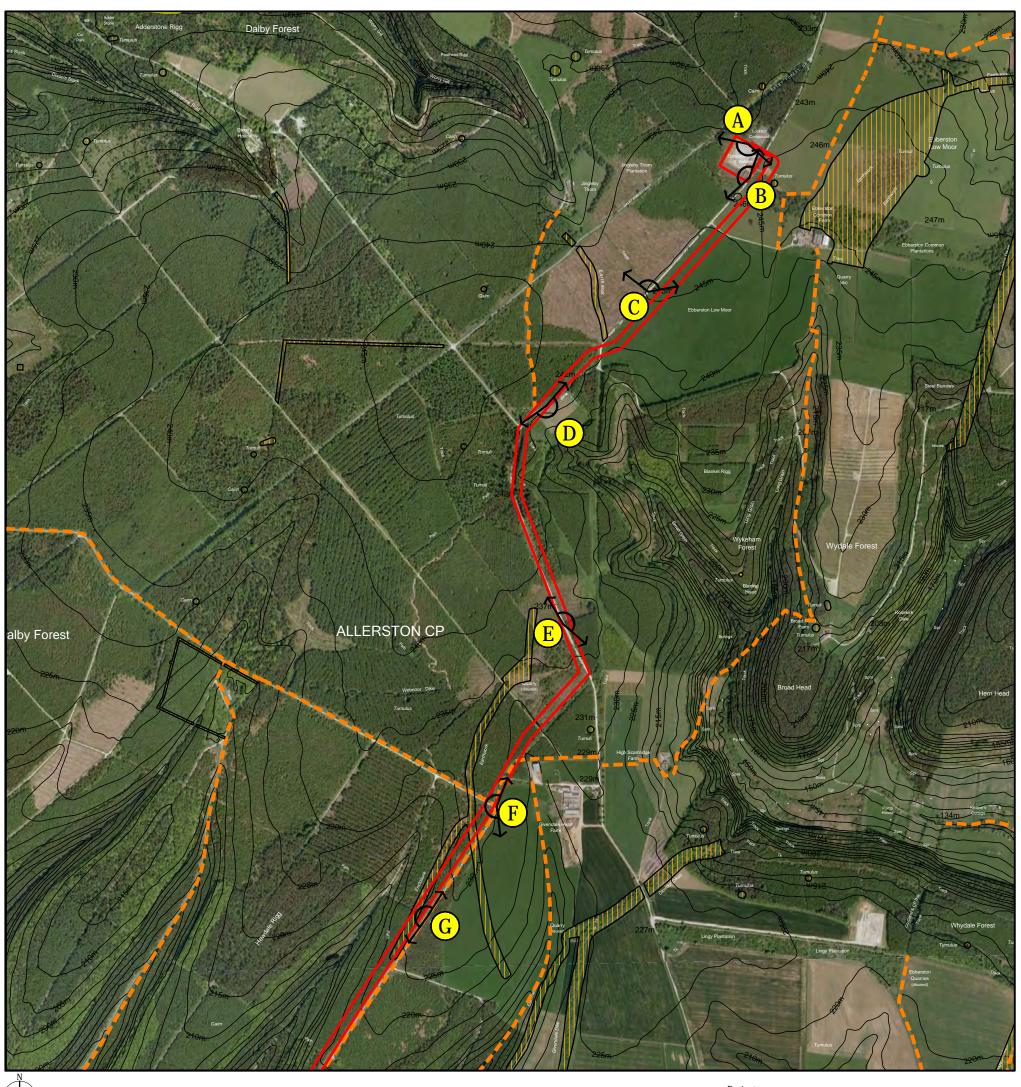
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Application Site Boundar





Scheduled Monument ~



Listed Buildings ~

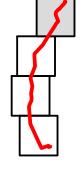




(Site Appraisal Photographs A-G)

^ OS Mapping
-- English Heritage National Monument Record GIS Data Set
-- North Yorkshire County Council

Figure 8.4



Ebberston Moor 'A' Well Site to Knapton Gas Pipeline

Drawing Title

Site Appraisal Plan - Sheet 1

Date 14.08.2013	Sca 1:1	le 2,500 @ A3	Drawn by MK	Check by FF
Project No	Dra	wing No		Revision
19819	L1	05		C
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Legend





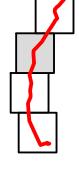








Figure 8.5



Ebberston Moor 'A' Well Site to **Knapton Gas Pipeline**

Drawing Title

Site Appraisal Plan - Sheet 2

Date 14.08.201	3	Scale 1:12,500) @ A3	Drawn by MK	Check by FF
Project No		Drawing N	О		Revision
19819		L105			C
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Legend

Application Site Bo

Contours/Spot Heights (Metres AOD) ^



Ç v





Location of Photographic Viewpoin

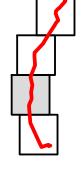
Sources:

^ OS Mapping

~ English Heritage National Monument Record GIS Data S

* North Vockshire County Council

Figure 8.6



Ebberston Moor 'A' Well Site to Knapton Gas Pipeline

Drawing Title

Site Appraisal Plan - Sheet 3

 Date
 Scale
 Drawn by
 Check by

 14.08.2013
 1:12,500 @ A3
 MK
 FF

 Project No
 Drawing No
 Revision

 19819
 L105
 C



D'Ubb|b[' 'A Ughhf D'Ubb|b[' / I fVUb'8Yg|[b 5fW|hhhi fY' '@UbXgNudY D'Ubb|b[/ '8Yg|[b' 'Dîc^1\hiGYf] |Mvg 9bj |fcba YbHU'/ 'Gi ghU|bUh]|hm5ggYgga Ybhi '; fUd\]M8Yg|[b

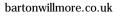






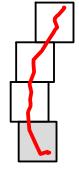








Figure 8.7



Ebberston Moor 'A' Well Site to **Knapton Gas Pipeline**

Drawing Title

Site Appraisal Plan - Sheet 4

Date 14.08.2013		Scale 1:12,500 @		Drawn by MK	Check by FF
Project No		Drawing No			Revision
19819		L105			C
	100	300		<u>5</u> 00m	
0		200	400		



D'Ubb|b[' 'A Ughhf D'Ubb|b[' / I fVUb'8Yg|[b 5fW|hhhi fY' '@UbXgNudY D'Ubb|b[/ '8Yg|[b' 'Dîc^1\hiGYf] |Mvg 9bj |fcba YbHU'/ 'Gi ghU|bUh]|hm5ggYgga Ybhi '; fUd\]M8Yg|[b





