

3.0 THE ASSESSMENT SITE

Introduction

- 3.1 This chapter of the ES describes the Assessment Site in detail and the context within which the Assessment Site is located.

Assessment Site Context

- 3.2 The Assessment Site, shown on **Figure 1.1**, is located within the North York Moors National Park at grid reference SE 89901 89679. It is approximately 12 km northeast of Pickering and 14 km west of Scarborough at an elevation of approximately 245m AOD.
- 3.3 The Assessment Site comprises the existing Eberston Moor 'A' Well Site and part of the Lockton Compound and is located on the eastern edge of Dalby Forest within an area referred to as the Tabular Hills. The Assessment Site is surrounded to the north, west and south by mature forestry plantation. The eastern boundary of the Assessment Site is defined by Eberston Common Lane. Beyond Eberston Common Lane to the east the land comprises farmland with hedge and fence lined grazing fields.
- 3.4 Notable features within the vicinity of the Assessment Site include: North York Moors National Park; Dalby Forest; Tabular Hills Walk; various Scheduled Monuments; South Moor Farm; Eberston Common Farm; and nearby unmarked roads and Public Rights of Way.
- 3.5 Designated nature conservation sites within the vicinity of the Assessment Site include:
- Troutsdale and Rosekirk Dale Fens Site of Special Scientific Interest (SSSI) which is located approximately 0.6 km from the Assessment Site and comprises two fen systems in the narrow upper reaches of Troutsdale; and
 - North York Moors SSSI, Special Area of Conservation (SAC) and Special Protection Area (SPA) which is approximately 7 km to the north. The designated site contains the largest continuous tract of upland heather moorland in England and supports internationally important breeding populations of merlin (*Falco columbarius*) and golden plover (*Pluvialis apricaria*). It also supports nationally important populations of moorland breeding birds including peregrine, hen harrier, short-eared owl, red grouse, curlew, snipe, redshank, whinchat, wheatear, ring ouzel and lapwing.

The Assessment Site

- 3.6 The Assessment Site presently consists of a modified area of land associated with previous gas exploration activity on Ebberston Moor 'A' Well Site and the adjacent Lockton Compound covering a total area of approximately 2.16 hectares (ha) as shown on **Figure 1.2**.

Ebberston Moor 'A' Well Site

- 3.7 The Ebberston Moor 'A' Well Site comprises 0.66 ha of flat bare ground (drilling platform), an existing borehole with an associated wellhead (Ebberston Moor – 1 well) and a well cellar adjacent to the wellhead in the centre of the well site. The well site is covered with crushed hardcore which is placed over a geotextile membrane and bentonite mat and connected into a lined perimeter drainage ditch. Soil bunds of between 2m and 4m in height are located between the drainage ditch and perimeter fence along the western and southern perimeter of the well site. The bunds comprise a mixture of previously excavated superficial soil and weathered bedrock. The surfaces of the bunds are vegetated with coarse grass and brush. In total the area of the well site including the bunds is 1.1 ha.

Lockton Compound

- 3.8 The adjacent Lockton Compound is 0.24 ha in area and contains an area of flat bare ground covered with crushed hardcore bound by a mesh and concrete post perimeter fencing approximately 2m high capped with barbed wire. Along the south eastern section of the compound are located a small area of concrete hardstanding, a section of above ground pipework and a small concrete building owned and managed by NGN. These structures are associated with the existing Above Ground Installation (AGI) connection to a Northern Gas Network (NGN) pipeline that runs between Pickering and Whitby. The area within the Lockton Compound but outside of the Assessment Site is hereafter referred to as the NGN AGI. The Lockton Compound is separated from Ebberston Common Lane and Dalby Forest Road by a corridor of vegetation.

Planning Context

- 3.9 Ebberston Moor 'A' Well Site is located within the extent of the Applicant's onshore Production Licence area (PL077).
- 3.10 Ebberston Moor 'A' Well Site has been subject to previous planning applications. In 2006 planning permission was granted to drill and test an explanatory borehole on land adjacent to Ebberston Common Lane (NYM/2005/0254/FL). The borehole was drilled in 2006, which

confirmed the presence of gas. The well was subsequently tested and then suspended pending further evaluation of the well data.

- 3.11 Since drilling and testing of the Eberston Moor – 1 well was completed, two further permissions were granted by the North York Moors National Park Authority to extend the duration of the planning consent on the basis that the Applicant was still reviewing the viability of the Eberston Moor Gas Field as a gas producer (NYM/2008/0675/FL and NYM/2011/0761/FL). Most recently, planning permission (NYM/2013/0068/FL) was granted on 18th June 2013 to undertake drilling of a sidetrack from Eberston Moor – 1 well and drill up to two gas appraisal boreholes followed by a period of short term testing for gas. The side track from the existing well will be drilled prior to construction commencing for this Proposed Development. Separate planning permission will be sought to use the existing well cellar to drill a borehole for water disposal use, if required at a later date.

Access

- 3.12 The Assessment Site is located north of the A170 with access off the A170 onto Eberston Lane at a junction within the village of Eberston. Eberston Lane then connects with Eberston Common Lane which provides direct access to the Assessment Site. Access to Eberston Moor 'A' Well Site is currently from the southwest corner while access to the Lockton Compound is from the southeast corner. The access has a 2m high wire mesh gate set back approximately 20m from the road margin within the fencing described above. In addition to vehicular access to the area along Eberston Common Lane and Dalby Forest Drive, pedestrians, cyclists and equestrians use Tabular Hills Walk and other public rights of way (PROW) in the area surrounding the Assessment Site.

Ground Conditions

- 3.13 The Assessment Site overlies calcareous sandstone, mudstone and shelly limestone. The bedrock is overlain by a thin veneer of superficial soil profile consisting of weathered rock and topsoil occurring typically to thicknesses of between 0.3m and 1.5m in the vicinity of the Assessment Site. The gas to be extracted through the Proposed Development is located deep below ground in the Permian Kirkham Abbey Formation (KAF) reservoir.

Flora and Fauna

- 3.14 The Assessment Site is not subject to any statutory or non-statutory nature conservation designations. The vegetation and habitats surrounding Eberston Moor 'A' Well Site and

Lockton Compound are typical of the wider environment and comprise mature commercial forestry plantation with the plant species being common and widespread and the habitats having low species diversity. The habitats are used potentially by breeding birds, bats and reptiles.

Cultural Heritage

- 3.15 There are no statutory or non-statutory cultural heritage designations within the Assessment Site. There are numerous prehistoric sites and finds located within the vicinity of the Assessment Site such as extant earthworks which are in some cases designated as Scheduled Monuments. There are also post-medieval quarries and their associated lime kilns in the area. In addition the nearby parishes, villages and hamlets of Allerston and Ebberston were established in the Saxon Period.

Landscape

- 3.16 The Assessment Site is set on the edge of a clearing (Ebberston Low Moor) on the eastern periphery of Dalby Forest within the North York Moors National Park. It is enclosed on three sides (south, west and north) by mature woodland dominated by coniferous trees. The eastern boundary is defined by Ebberston Common Lane, beyond which Ebberston Low Moor with its remnant farmland, divided by small clusters of woodland surrounding Ebberston Common Farm located 300m south-east of the Assessment Site and low stone walls and fencing, characteristic of the area. Visibility is effectively restricted to its eastern periphery (Ebberston Common Lane). The nearest settlements to the Assessment Site are the rural hamlets of Longdale End and Low Dalby located 4.25km northeast and 4.75km southwest respectively.

Water Resources and Flood Risk

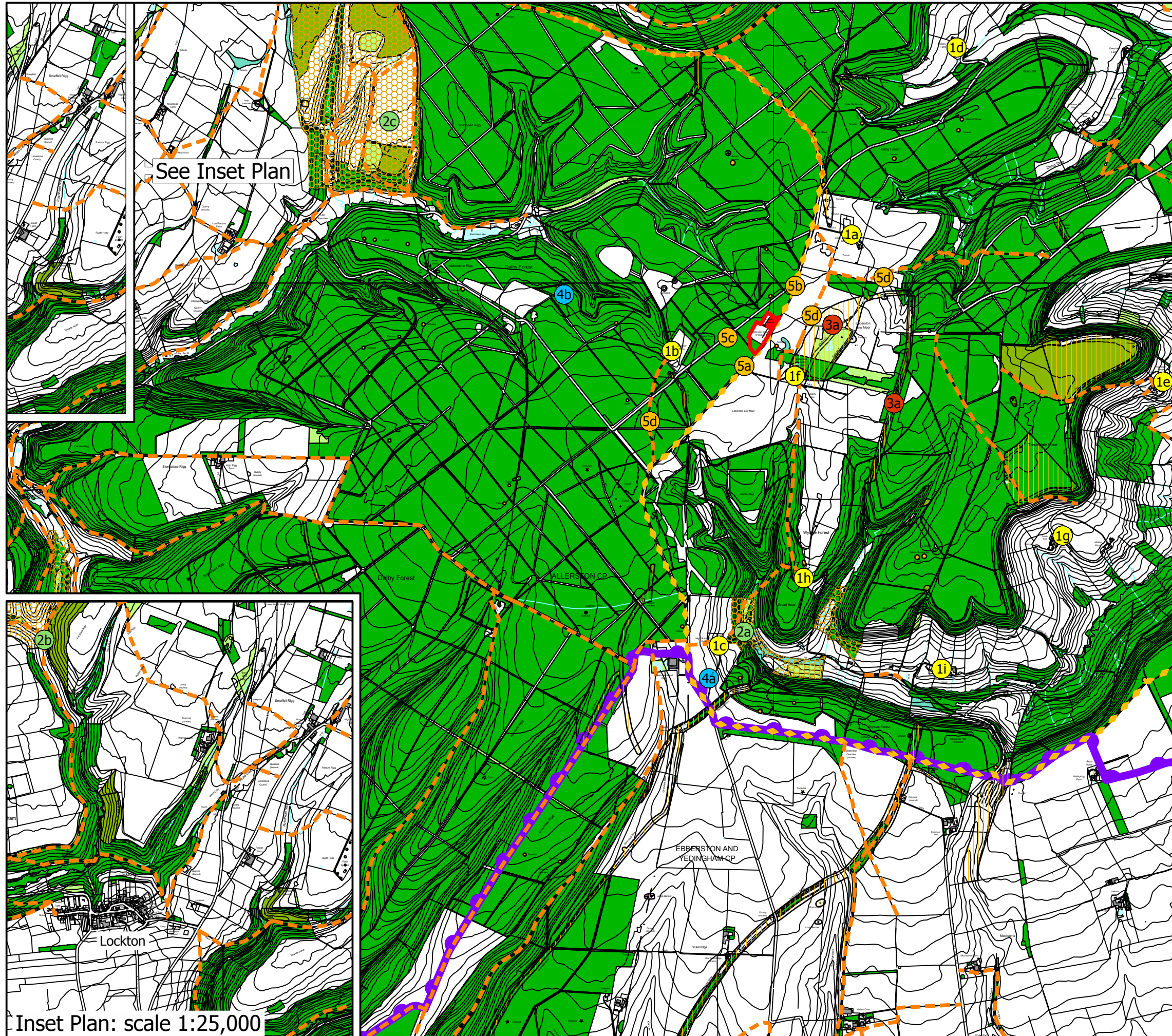
- 3.17 The Assessment Site is situated on permeable sandstones near the crest of a plateau and is effectively free of the risk of flooding, being located in Flood Zone 1 (Ref. 3.1), which has a 1:1,000 annual chance of flooding. The permeability of the bedrock combined with the impermeability of the underlying Oxford Clay Formations creates a shallow aquifer from which groundwater issues as springs to the west and south. The permeability of the ground means that there are no surface watercourses in the vicinity of the Assessment Site and any rainfall soaks into the ground rather than flows away.

Sensitive Receptors








3.18 The features which are considered potentially sensitive to the construction, operation, and decommissioning and restoration of the Proposed Development have been identified and the likely significant effects on these potential receptors have been considered by the various technical studies and chapters of this ES. The potential sensitive receptors are identified in **Table 3.1** and are shown on **Figure 3.1**.

Table 3.1: Potential Sensitive Receptors

Category	Sensitive Receptor/Land Use
Ecological Features	<ul style="list-style-type: none"> • Troutsdale and Rosekirk Dale Fens Site of Special Scientific Interest (SSSI); • North York Moors SSSI, Special Area of Conservation (SAC) and Special Protection Area (SPA); and • Flora and fauna within the Assessment Site and its vicinity.
Cultural Heritage	<ul style="list-style-type: none"> • Scheduled Monuments; and • Archaeology.
Landscape and Views	<ul style="list-style-type: none"> • North York Moors National Park; • Dalby Forest; • Trees and hedgerows within and surrounding the Assessment Site; • Ditches within the Assessment Site; and • Views towards the Assessment Site.
Water Resources	<ul style="list-style-type: none"> • Ditches within the Assessment Site; and • Corallian aquifer.
Transport Infrastructure	<ul style="list-style-type: none"> • Vehicles, pedestrians and cyclists using local highway infrastructure including: <ul style="list-style-type: none"> - Ebberston Common Lane; - Ebberston Lane; - A170; - Unmarked roads; - Tabular Hills Walk; - Dalby Forest Drive; and - Public Rights of Way.
Noise	<ul style="list-style-type: none"> • Ebberston Common Farm; • South Moor Farm; and • Jingleby Thorn.
Air Quality	<ul style="list-style-type: none"> • High Farm; • South Moor Farm; • Bickley Gate Farm; • Troutsdale Lodge; • Ebberston Common Farm; • Manor House; • Broad Head Farm; • Hern Head House; • Troutsdale And Rosekirk Dale Fens SSSI; • High Scamridge Farm; and • Jingleby Thorn.



LEGEND

-  Assessment Site Boundary
-  Residential Dwellings
Individual properties including;
 - a. South Moor Farm;
 - b. Jingleby Thorn; and
 - c. High Scamridge Farm;
 - d. Bickley Gate Farm;
 - e. Troutdale Lodge;
 - f. Eberston Common Farm;
 - g. Manor House;
 - h. Broad Head Farm;
 - i. Hern Head House.
-  Ecological Features
 - a. Troutdale and Rosekirk Dale Fens SSSI; and
 - b. North York Moors Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA)
 - c. Bridestones SSSI
-  Cultural Heritage
 - a. Embanked pit alignments, linear earthworks, round barrows and cairns on Eberston Low Moor
-  Landscape and Views
 - a. North York Moors National Park;
 - b. Dalby Forest;
-  National Park Boundary
-  Roads and Public Rights of Way
Vehicles, pedestrians and cyclists using local highway infrastructure including:
 - a. Eberston Common Lane;
 - b. Tabular Hills Walk;
 - c. Dalby Forest Drive; and
 - d. Public Rights of Way.

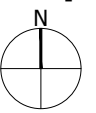


Figure 3.1

Project
**Eberston Moor EDS,
 North Yorkshire**

Drawing Title
Sensitive Receptors Plan

Date 03.07.2013	Scale 1:25,000 @A3	Drawn by ML	Check by MC
Project No 19819	Drawing No E001		Revision A



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