

## Development Control Committee

Meeting to be held on 11th September 2019

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| Electoral Division affected:<br>West Lancashire West |
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**Site Visit - West Lancashire Borough: application number LCC/2019/0037 – Construction of a temporary wellsite and associated access track, drill, hydraulically stimulate and test two petroleum exploration boreholes including drilling rig (maximum height 60m) and associated plant and equipment, followed by wellsite restoration.**

**Land off Sutton's Lane, Great Altcar**

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### **Executive Summary**

Application - Construction of a temporary wellsite and associated access track, drill, hydraulically stimulate and test two petroleum exploration boreholes including drilling rig (maximum height 60m) and associated plant and equipment, followed by wellsite restoration.

Land off Sutton's Lane, Great Altcar

### **Recommendation – Summary**

That members of the Committee visit the site before considering the application.

### **Applicant's Proposal**

The application is for the construction of an exploration well site to allow for the drilling and hydraulic fracturing of two boreholes to test for the presence of gas. The proposed development consists of eight principal phases as follows:-

- 1) Construction of an access track and the actual wellsite – the proposed wellsite would be accessed by following the existing Suttons Lane and then a new section of access track created across agricultural fields. The wellsite measuring 110 metres by 70 metres would then be constructed by laying lining membranes and aggregate material to provide a hard standing area suitable to accommodate the drilling rig, hydraulic fracturing and well testing equipment.
- 2) Drilling and coring of a vertical borehole. This well would be drilled to a depth of around 3000 metres below ground level using a rig with a height up to 60

metres. The borehole would allow cores to be taken at certain intervals (primarily in Carboniferous shales) for analysis and testing.

- 3) A second borehole would then be drilled using the same rig. The borehole would be drilled vertically to the target horizon selected on the basis of the cores taken from the first borehole and then drilled horizontally within this zone for up to 1500 metres. The works in phases 2 and 3 would take up to 10 months and drilling operations would be undertaken on a 24 /7 basis.
- 4) Phase 4 would involve the hydraulic fracturing of both boreholes. This would comprise a hydraulic fracturing fluid (comprised chiefly of water and sand) being pumped into the well at sufficiently high pressure to fracture the rock formation and push the fluid and sand into the fractures. Upon release of the pressure, a portion of fluid would flow back to the surface leaving the sand to prop open the fractures thereby allowing any hydrocarbons to flow to the surface via the borehole. These works would require a rig up to 37 metres in height and would take a maximum of 60 days.
- 5) Following fracturing, the wells would be subject to an initial flow test to determine whether natural gas and other hydrocarbons can flow to the surface and at what pressures and flow rates. Any gas would be flared and returned water and liquid hydrocarbons (oil) would be separated and sent for treatment or refining as relevant. The initial flow test would take up to 60 days to complete.
- 6) Depending on the results of the initial flow test, an extended flow test might be undertaken. The works would be similar to the initial flow test but would take up to 90 days to complete.
- 7) Following the extended flow test, the site would be decommissioned and the boreholes abandoned by plugging and sealing in accordance with relevant guidance. These works would take around 4 weeks to complete.
- 8) Upon the phase 7 works being completed, the site would be restored by removing all surface aggregate materials and sealing membranes. The topsoil would then be respread and cultivated to allow the existing agricultural use to resume. These works would take around 8 weeks to complete following which there would be a five year aftercare period.

A full description of the development including the traffic movements that would relate to each phase will be provided when the application is reported to Committee for determination.

### **Description and Location of Site**

The application site is located in an arable field immediately northwest of Suttons Lane, Great Altcar in West Lancashire. Suttons Lane is an agricultural track crossing agricultural land to the north of Great Altcar, a small settlement located approximately 9 km west of Ormskirk and 3 km east of Formby. The nearest properties to the site are located in Great Altcar approximately 1 km from the site.

Access to the site is gained from the A565 Formby Bypass and then via the B5195 in an easterly direction to the junction with Suttons Lane.

The site is located in Flood Zone 3 (area at highest risk of flooding). An area of agricultural land immediately to the north of the site is a Biological Heritage Site

designated for its over wintering bird interests. Land to the north is also a geological Site of Special Scientific Interest. The application site is also grade 2 agricultural land (best and most versatile).

### **Advice**

The applicant company holds a Petroleum Exploration and Development Licence (PEDL 164) which covers a large area of West Lancashire between Ormskirk and Formby. The licence requires the applicant to undertake a 3d geophysical survey over part of the licence block and to drill a well to test for the presence of hydrocarbons within the Carboniferous shales and associated strata at a depth of between 2000 to 3000 metres below ground level. A 3d survey of part of the licence block including the application site was undertaken in 2016

This area of Lancashire has a history of oil production in the 1930's and 40's although all the hydrocarbons that were extracted during this time were from shallow strata. However, the source rock for these discoveries is thought to be in the Carboniferous hence the current interest in exploring these strata using modern drilling and reservoir stimulation techniques.

The application for drilling and testing of two hydrocarbon exploration boreholes will give rise to a wide range of planning issues. Members will be aware of the level of public interest that has been generated by such proposals elsewhere in Lancashire and therefore it is considered that Members should visit the site before determining the application.

### **Recommendation**

That Members of the Committee visit the site before considering the application.

### **Local Government (Access to Information) Act 1985 List of Background Papers**

None

Reason for Inclusion in Part II, if appropriate

N/A