Executive Summary

Application - Retention of the site compound and access track for a further three years to allow pressure testing and seismic monitoring of the Bowland Shale reservoir, followed by plugging and abandonment of the existing exploratory well and site restoration. Grange Road Shale Gas Exploration Site, Land on the south side of Grange Road, Singleton.

Recommendation – Summary

That planning permission be **granted** subject to conditions relating to time limits, working programme, highway matters, control of noise, hours of working, safeguarding of water, restoration and aftercare.

Applicant’s Proposal

Planning permission is sought to retain the drilling platform and associated highways access at the Grange Road Shale Gas Exploration Site for a further three years to undertake pressure testing and seismic monitoring of the Bowland Shale rock formation. Following the testing, the well would be plugged and abandoned and the site restored back to agriculture.

The pressure testing procedure would involve perforating the well casing by the use of a small contained charge. The perforation would extend up to two metres beyond the well casing into the rock formation to allow any gas to flow from natural pathways/ fractures within the rock to the well. The section/s of the perforated well would then be isolated by the use of ‘packers’ to create a pressurised test zone which would then be monitored by equipment within the test zone for a period of approximately 2 years. The process would not involve the injection of fluids into the well but existing fluids within the well would be re-circulated. After the testing period, the packers and monitoring equipment would be removed, the well plugged and
abandoned and the exploration site restored. The seismic monitors would be installed at the same time as the pressure monitors but sealed in packers in separate but adjoining zones in the well.

The pressure testing and monitoring equipment would take 2 weeks to install followed by a monitoring period of approximately 78 weeks (a year and a half). The monitoring equipment would then be removed from the well, checked and the data downloaded. This process would take a maximum of 2 weeks. The monitors would then be re-installed into the well and shut in for a second monitoring period of approximately 56 weeks. After completion of the second pressure monitoring period, the well would be plugged and abandoned taking approximately 4 weeks. This would then be followed by a 12-14 week period to fully restore the site. This would equate to a 3 year total timeframe.

The applicant has stated that the monitoring equipment would (subject to planning permission being granted) be installed in early spring which would allow all site activities including abandonment and restoration works to be undertaken in the summer period.

**Description and Location of Site**

The site is an existing hydrocarbon exploration site located in a field on the south side of Grange Road approximately 460m to the west of its junction with the A585(T), 0.8 km to the north-west of the village of Singleton and 2.6km to the east of Poulton-le-Fylde. The surrounding area is flat and predominantly agricultural.

The surface area of the exploration site measures 0.99ha and consists of the drilling platform, site access and perimeter soil mounds and fencing. Access to the site is via an existing field access and associated track, which have been upgraded with a tarmacadam surface for the first 10m. The edge of the working platform is approximately 25m south of Grange Road, with a 3.5m high soil bund located between the road and the platform.

The nearest residential properties are approximately 450m away to the west and north.

The site does not directly affect any higher tier ecological or landscape designations but is approximately 1.2 km south east of the Wyre Estuary SSSI which in turn forms part of the Morecambe Bay Special Protection Area and Ramsar site.

**Background**

Planning permission for the temporary change of use of land from agriculture to a site for drilling an exploratory borehole and testing for hydrocarbons including the construction of a drilling platform and highways access was granted on the 21st April 2010 (ref. 05/10/0091). Condition 2 of the permission required the site development works, drilling operations and restoration to be completed within a period of eighteen months from the commencement of the development, with the drilling operations to be completed within a period of three months from the date of their commencement.
An application to extend the time periods for the completion of well testing and restoration was submitted on 20th December 2011 (ref. 05/12/0003). The application proposed that the well testing operations by fracking and site restoration be completed by 20th July 2013. This application has now been withdrawn as it has been superseded by the present proposals.

Planning Policy

National Planning Policy Framework (NPPF)

Paragraphs 11 – 14, 17, 56 – 66, 87 – 90, 109, 120 – 125, 142, 144 and 147 are relevant with regard to the requirement for sustainable development, core planning principles, the requirement for good design, conserving and enhancing the natural environment and facilitating the sustainable use of minerals.


Policy NPPF 1 Presumption in favour of sustainable development
Policy DM2 Development Management

Fylde Borough Local Plan

Policy SP2 Development in Countryside Areas
Policy EP11 Building Design and Landscape Character
Policy EP15 European Wildlife Sites
Policy EP16 Development affecting SSSI's
Policy EP23 Pollution of Surface Water
Policy EP24 Pollution of Ground Water
Policy EP26 Air Pollution
Policy EP27 Noise Pollution
Policy EP28 Light Pollution

Consultations

Fylde Borough Council: No objection but requests that a scheme of appropriate restoration is carried out within the three year development period and that the County Council reconsider the need for the resubmission of an updated EIA.

Natural England (NE): Initially were of the view that the application did not contain sufficient information to determine the impacts on European wildlife sites. In response to further information from the applicant, NE has confirmed that the proposal is unlikely to have a significant effect on the Morecambe Bay Special Protection Area and Ramsar site and can therefore be screened out from any further assessment.

Environment Agency: No objection subject to a condition being imposed regarding well abandonment, including groundwater monitoring, to ensure there would be no discharge of pollutants to groundwater.
Singleton Parish Council: No objection but wish the operations to be conducted as safely as possible.

Health and Safety Executive: No objection.

Department for Energy and Climate Change: No objection. The applicant has a PEDL licence to explore for hydrocarbons. The activities for which permission is sought include well abandonment. DECC will give consent for well abandonment before which they will review the well data in the event that future access is required.

Representations: The application has been advertised in the press and site notice posted on the site. The nearest residential properties have been notified by letter.

Three hundred and one representations have been received objecting to the proposal for the following summarised reasons:-

- The application site and adjacent areas are used by over wintering birds associated with the Wyre Estuary; the proposed development would impact on those birds and the application does not contain sufficient information to allow the impacts to be assessed.
- A full assessment of the impacts of the development should be undertaken through the EIA process. At present there is insufficient understanding about the impacts of the proposal.
- The site is located close to the Preese Hall site where fluids were injected into a fault. The exact location of the fault is not known and the precautionary principle should be adopted until such time as better information has been collected.
- The site has now been active for 7 years and a full assessment of the cumulative impacts has never been carried out.
- What would happen to the fluids that are currently contained within the well.
- There are risks to the nearby ethylene pipeline
- The planning conditions on the previous permission were breached.
- The application does not consider cumulative impacts.
- There is no information on how the site is drained, how leakage of pollutants, gas or fluid will be monitored post restoration or any risk assessment of unpredictable build up of gas or fluid build up.
- There should be priority given to renewable energy projects and not to schemes to further exploit fossil fuels.
- The proposal does not comply with the policies of the Lancashire Minerals and Waste Core Strategy.
- There should be no repeated time extensions to existing sites.
- The development along with other shale gas activities will result in damage to highways and transport of toxic chemicals along the public highway with consequent risks for public safety.
- What would be the impacts of the gas flare?
- There would be contamination of drinking water supplies.

The representations include a letter from REAF (Ribble Estuary Against Fylde Fracking) who object to the application on the basis that it should be subject to
Environmental Impact Assessment, that the testing procedures would result in migration of gas and pollutants into the environment, that the site is located close to the Wyre Estuary SPA and a number of Great Crested Newt ponds and that full information as to the nature of these impacts should therefore be known prior to considering the application.

Approximately 220 of the representations are cyclostyle letters that object to the application for the following summarised reasons:

- The perforation of the well may lead to well failure and the application should therefore be subject to Environmental Impact Assessment.
- The proposed development could result in fluids being injected into a fault which would cause earth tremors similar to those experienced at the nearby Preese Hall site.
- The proposed development along with other shale gas proposals should be considered together as there is a danger of industrialisation and loss of habitat and environmental quality.

Advice

Planning permission (ref 5/10/0093) was granted on 21st April 2010 for the drilling of an exploratory borehole and testing for hydrocarbons on land south of Grange Road. The development provided for the drilling of a borehole into the Bowland Shale horizon together with associated hydraulic fracturing operations to assess the potential for the shale to release gas. The borehole was completed in May 2011 but no hydraulic fracturing was carried out due to the moratorium that was imposed on such operations at that time by the Department for Energy and Climate Change.

A further application (ref 5/12/0003) was then submitted seeking additional time to complete the development including the hydraulic fracturing of the well and testing the flow of shale gas. However, the applicant has now confirmed that it is no longer the intention to fracture this well and has withdrawn this application. The applicant now wishes to retain the well site for a further temporary period of three years to allow it to be used for pressure monitoring and to provide background seismic information.

The purpose of the pressure testing is to understand initial reservoir pressures within the Bowland Shale so as to predict future well performance and the recoverability of the shale gas reserves. The application is also to undertake seismic monitoring to obtain background data that is needed to establish the natural levels of seismicity in the area to be better able to understand and differentiate between seismic events that are naturally occurring and those that are man-made as a consequence of shale gas exploration. The application does not provide for any fracturing of the well or other fracturing of the shale beyond that required to perforate the well casing and a short distance into the shale beyond.

Section 38 (6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the Development Plan, unless material considerations indicate otherwise. In considering the issues that arise from the proposed development, it is necessary to take into consideration the relevant
policies of the Development Plan and the planning history of the site and all other material planning considerations. Government policy is a material consideration that should be given appropriate weight in the decision making process.

Government policy supports the exploration, testing (appraisal) and production of economic onshore hydrocarbon reserves. This application relates to the first two phases; exploration and testing (appraisal). The site would then be restored. The National Planning Practice Guidance in relation to minerals seeks to ensure that minerals sites are reclaimed to a high standard through the imposition of appropriate conditions.

The Development Plan for the site is made up of the Joint Lancashire Minerals and Waste Development Framework Core Strategy Development Plan documents (LMWDF), the Joint Lancashire Minerals and Waste Local (LMWLP) and the Fylde Borough Local Plan.

Policy CS5 of the LMWDF seeks to ensure, amongst other criteria, that our natural resources including water, air, soil and biodiversity are protected from harm and opportunities are taken to enhance them; workings will not adversely contribute to surface water flooding; proposals for mineral workings incorporate measures to conserve, enhance and protect the character of Lancashire’s landscapes; the amenity, health, economic well-being and safety of the population are protected by the introduction of high operating standards, sensitive working practices and environmental management systems that minimise harm and nuisance to the environment and local communities throughout the life of the development, and the sensitive environmental restoration and aftercare of sites take place, appropriate to the landscape character of the locality and the delivery of national and local biodiversity action plans.

Policy DM2 of the LMWLP supports developments for mineral operations (including hydrocarbons) where it can be demonstrated that all material, social, economic or environmental impacts that would cause demonstrable harm can be eliminated or reduced to acceptable levels. In assessing proposals, account will be taken of the proposal's setting, baseline environmental conditions and neighbouring land uses, together with the extent to which its impacts can be controlled in accordance with current best practice and recognised standards. Impacts and issues to be considered are the quality of design, layout, form, scale and appearance of buildings; the control of emissions from the proposal including dust, noise, odour, light and water; the control of the numbers, frequency, timing and routing transport related to the development and, the restoration within agreed time limits, to a beneficial after use and the management of landscaping.

The site is located within a countryside area as designated in the Fylde Borough Local Plan. Policy SP2 requires that development within countryside area will not be permitted except where it relates to that essentially required for agriculture, horticulture or forestry of other uses appropriate to a rural area and development essentially needed for the continuation of an existing enterprise facility or operation of a type and scale which would not harm the character of the surrounding countryside. The development is related to the exploration and exploitation of mineral reserves and since such reserves can only be worked were they are found
must inevitably be undertaken in countryside areas. The development is therefore considered acceptable in terms of policy SP2 of the Fylde Local Plan.

Policy EP10 of the Fylde Local Plan states that the distinct character and important habitats of the Fylde will be protected. Policy EP11 requires that new development in rural areas should be sited in keeping with the distinctive landscape character types and that development must be of a high standard of design and that matters of scale, features and building materials should reflect the local vernacular style.

Policy EP15 states that development proposals which may affect a European wildlife site will be the subject of the most vigorous examination and that development proposals not directly connected with the management of the site and which would affect the integrity of the site will not be permitted unless it can be demonstrated that there is no satisfactory alternative or that there are imperative reasons of overriding public interest for the development. Policy EP16 provides a similar level of protection for SSSI's.

Policy EP19 requires that proposals which would have an adverse impact upon protected wildlife species will not be permitted.

Policy EP23 and EP24 requires that proposals that would have an adverse impact on surface or ground water resources will not be permitted and that where development is permitted, the resources will be protected through appropriate planning conditions.

Policies EP26 and EP27 relates to air and noise pollution and require that development that would give rise to unacceptable noise or air quality impacts will not be permitted.

**General Amenity and Visual Impact Issues**

The drilling compound and well has now been present on this site since 2010. The site compound is surrounded by fencing with a soil mound on its northern side which provides some screening of the site from Grange Road. The proposed development would involve the retention of the existing hardcore compound perimeter fencing and soil mound for a further three year period. The installation of the monitoring equipment including the perforation of the existing well casing would require various infrastructure, including a work over rig, temporary office and welfare facilities, a mud tank and service rig. Whilst some of this equipment, in particular the work over rig, would be of substantial scale, it would only be required for two weeks at the commencement of the development and for a further two weeks during the mid-point equipment check and during well abandonment and therefore the major visual impacts of the development would be of a short term temporary nature. The other visual impacts relate to the retention of the site compound for a further three year period. Whilst the overall compound is visible from certain viewpoints including from local footpaths and from some locations on Grange Road, the landscape of the area is generally flat which limits the visual impacts of the compound surface and surrounding fencing. The proposed development would not increase the difficulties of restoring the site adequately and provided that any permission is subject to the same restoration conditions as those attached to planning permission 5/10/0093, it is
considered that the site can be adequately restored to its previous use as an agricultural field.

The applicant estimates that active operations on the site would be take place for 25 days over the total 3 year testing period (not including the restoration works). The 25 day timescale would consist of two periods each lasting approximately two weeks over which a rig and other infrastructure would be present on the site. These operations would be likely to generate some noise and traffic but such impacts would be considerably reduced compared to when the drilling of the original borehole took place. Given their relatively small scale, distance of the site from residential properties and short duration, it is considered that the noise levels from the testing and monitoring activities would not be unacceptable. The active operations relating to the installation of testing and monitoring equipment would be undertaken during normal working hours and which can be the subject of a planning condition. Some noise would also result from the restoration operations but such impacts would occur in any event as a result of the implementation of the restoration requirements contained in the existing planning permission. Provided that conditions are also imposed regarding silencing of plant and the retention of the existing earth screening mounds, the development is considered acceptable in terms of noise and local amenity and complies with policy DM2 of the Lancashire Minerals and Waste Local Plan.

Highways

The main traffic impacts of the development would occur during the mobilisation of the plant required to install and remove the monitoring equipment. These operations would generate a maximum of 20 HGV trips per day with 12 light vehicles associated with site personnel. Over the monitoring period there would be a requirement for personnel to visit the site on an occasional basis. The other main traffic impacts would relate to the restoration of the site including the removal of the aggregate surfacing materials for the compound and other equipment. However, these vehicle movements would have to take place in any event in order to comply with the restoration conditions of the existing planning permission.

The site is located only a short distance from the A585 and the road junction with Grange Road is of a relatively high standard with good visibility. This access was used when the site was first developed and therefore it is considered that the highway network could accommodate the levels of traffic now proposed without causing detriment to highway safety or capacity. Provided that conditions are imposed regarding wheel cleaning during the restoration operations, it is considered that the development is acceptable in terms of highway issues.

Nature Conservation interests

In relation to nature conservation interests, the site is located in an area of agricultural land used for arable / grazing purposes. In addition there are a number of ponds in the area which may be of value for Great Crested Newts.

The site has already been constructed and the proposal does not involve the size of the compound being extended or require the removal of any further vegetation or
landscape features. The development is of a temporary nature after which the site can be restored to its previous use as agricultural grazing / arable land. Great Crested Newt surveys were undertaken as part of the original planning application for this site and no such species were recorded at that time. Given that the proposed operations would all take place within the boundaries of the existing exploration compound which is contained, there would be no possibility of Great Crested Newts being affected even in the event that their distribution has changed since the original surveys were undertaken.

However, the site is located relatively close to the Wyre Estuary SPA and therefore due to this proximity, the area around the site may be of value as supporting habitat to the SPA particularly to the various over wintering bird species for which the SPA is designated. Some of these bird species use areas of the surrounding agricultural land as grazing and foraging habitat and development which affects the ability of the birds to use this supporting habitat can therefore impact upon the special interest features of the SPA. The noise, general disturbance arising from the installation of testing and monitoring equipment together with the retention of site compound for a longer period would have the potential to affect such species by reason of disturbance or physical loss of grazing habitat.

Natural England initially raised objection to the application due to an absence of information to demonstrate the value of the site and surrounding areas to birds interests associated with the SPA. Without such information Natural England considered it would not possible to determine that the proposals would not have a likely significant effect on the interest features for which the SPA is designated. Natural England therefore requested the applicant to submit data showing the value of the site and surrounding areas to bird life prior to them developing the exploration site. Whilst the applicant has been able to source some data from organisations such as the Fylde Bird Club, the information is not comprehensive and does not demonstrate to the required degree of confidence that the site and surrounding areas are not of value to the protected bird species. The Habitats Regulations which apply to development affecting European Wildlife sites and their qualifying features requires that projects may only by authorised where authorities have made certain that there will be no adverse impact on the integrity of such sites and where no reasonable scientific doubt remains as to the absence of such effects.

The ecological issues on this site relate to the possible use of surrounding land by over wintering wildfowl associated with the SPA. These constraints can be overcome by timing of works likely to generate noise and disturbance such that they are undertaken at times of the year outside of the over wintering periods. Such controls could be imposed through conditions to any planning permission. However, the legal framework within the Environmental Impact Assessment Regulations and Habitats Directive requires that the assessment as to whether development would have a likely significant effect cannot have regard to whether it would simply be possible to impose conditions to remove the likelihood of such an effect; the mitigation measures must be part of the development itself so that there is some certainty as to the likely impacts of the development when assessed at the screening stage.

To address this legal requirement, the applicant has therefore provided further information in support of the application regarding the phasing of the proposed works
to demonstrate how the activities can be managed to avoid the overwintering period. The applicant proposes to install the monitoring equipment in early spring following which there would be a 78 week monitoring period, then a 2 week mid-point equipment check followed by a further 56 week monitoring period followed by a further 11 weeks for well abandonment and site restoration. Such a timescale would allow the intrusive works including site restoration to be undertaken outside of the overwintering period. As there would still be some activity on the well site during the overwintering period (small numbers of personnel visiting the site to check equipment), the applicant is also proposing to erect fine mesh netting on the existing security fencing to obscure site activities together with a number of other good practice measures.

The proposal would involve the site compound being present for a further 3 year period which by itself could result in the ongoing loss of bird habitat. However, the site is located immediately adjacent to Grange Road and therefore has historically been subject to disturbance through passing road traffic which will have restricted its use by birds associated with the SPA.

On the basis of the further information submitted by the applicant, Natural England consider that the project is unlikely to have a significant effect on the Morecambe Bay Special Protection Area and Ramsar site and therefore can be screened out from any requirement for further assessment. Therefore subject to conditions being imposed in relation to the mitigation measures being implemented, the development is considered acceptable in terms of ecology and complies with Policy DM2 of the LMWLP and policies EP15 and EP16 of the Fylde Borough Local Plan.

**Pollution of surface and ground water resources**

The site construction involved laying an impermeable membrane over the whole compound area to prevent any accidental spillage and rainwater from entering the underlying soils, groundwater and nearby water courses. The working platform is bound by an open ditch, for the purpose of pollution prevention control, on all sides except for the northern side where the majority is piped and covered to allow access on to the platform.

The well has been drilled to a particular design to avoid affecting any ground water resources through which it passed. To prevent surface water pollution, conditions are proposed for the provision for the collection, treatment and disposal of all water entering or arising on the site, that all foul drainage shall be discharged to either a public sewer or to a sealed watertight tank and that any chemical, oil or fuel storage containers on the site shall be sited on an impervious surface with bund walls. Subject to the imposition of such conditions, the development is considered to be acceptable in relation to pollution control matters and would accord with Paragraphs 109, 120 – 121 and 123 – 125 of the NPPF.

The pressure monitoring procedure would first involve re-circulating the existing fluid (sodium chloride brine) within the well to ensure that there is sufficient pressure within the well to prevent it from collapsing. If pressure within the well is required to be increased, then more fluids in the form of clean water or brine fluid would be added to the well. The suspension fluid is not required to undertake the pressure
monitoring although the fluid would remain in the well throughout the monitoring period.

The process of pressure monitoring does not involve the use of fracking fluids and does not require the pressurising of the well to create fractures in the surrounding rock. There would therefore be no increased risk of gas migrating to and contaminating ground water.

The well is designed to prevent, on a permanent basis, the transfer of any gas from the underground rock formations via the well and so avoid fugitive gas emissions to the air and the contamination and pollution of ground and surface waters.

Paragraph 122 of the NPPF requires that planning authorities should not seek to control processes or emissions were these are subject to approval under separate pollution control regimes and that LPA's should assume that these regimes will operate effectively. In this case, the impacts and techniques of well abandonment are regulated through other legislation and it is considered that the planning system should focus on ensuring that the site is restored in a manner that allows the former agricultural activities on this site to resume.

The Environment Agency have requested that a condition be imposed relating to the details of the well abandonment schedule including groundwater monitoring to be undertaken in order to ensure there will be no discharge of pollutants into groundwater bearing strata during the well abandonment process. The details of the well abandonment process would normally be controlled by DECC and the HSE under their relevant regimes. However a condition can be imposed to address this issue in order to ensure that the abandonment of the borehole including any cementing and capping works do not give rise to a risk of pollution from any fluids that might be retained in the well.

Seismic activity

A number of representations have commented upon the seismic (earthquake) impacts that arose from the shale gas exploration operations that were undertaken at the nearby Preese Hall site and are concerned that similar impacts would be created by the current proposals. However, the proposed pressure monitoring process would not create fractures in the surrounding rock in the same manner as those generated by full hydraulic fracturing operations. It is therefore very unlikely that the proposed testing would result in any form of earth movement that would result in ground vibrations other than those which may be experienced with the perforation of the well casing with a small charge and which would be minor.

Representations

A number of representations have been received from individuals and groups objecting to the proposal and which are set out above.

The concerns about the proximity of the proposal to ecological designations are understandable as is the potential risks of pollution to such. However, it is considered that the development contains mitigation measures to minimise the
impacts on ecology and particularly wintering wild fowl and which could be reinforced through conditions. An assessment of the impact on ecology has been carried out and which concludes the proposal would not have any adverse impact and which is acceptable to Natural England.

In relation to impacts on water resources, only water and brine will continue to be used in the well and which is acceptable. No fracking is proposed and there is no flaring, flow testing exploitation of shale gas, merely pressure testing to establish the presence and pressure of any gas. There would be no risk of unacceptable earth tremors given there would be no fracking. Minor amounts of vibration may be generated associated with the perforation of the well but it is highly unlikely that such vibration would be experienced at the surface. Health and safety procedures on the site are a matter for the HSE.

The site is close to an existing ethylene pipeline but the site would not encroach closer to the pipeline nor would the proposed activities have any greater impacts on the pipeline over those that have previously taken place at this site. It should be noted that the HSE have not raised objection to the application in relation to pipeline impacts.

With regards to Environmental Impact Assessment, the proposal would be for a further temporary period and would not generate significant environmental effects of a level to require EIA including when considered alongside other existing and proposed shale gas or other developments in the vicinity of the site.

**Conclusion**

The proposed pressure monitoring and testing of the rock formations within the borehole at this site is part of a hydrocarbon exploration activity which is generally supported by Government policy. The development is for a temporary period of three years following which the site can be restored to its former agricultural use. The development would not have any significant unacceptable impacts in terms of seismic activity, traffic, noise, visual impacts or pollution. The development incorporates mitigation measures to ensure that there would be no impacts on ecological interests associated with the nearby European protected wildlife sites. On that basis the development is considered to comply with the policies of the NPPF and those of the development plan.

In view of the scale, location and nature of the proposed development it is considered no Convention Rights as set out in the Human Rights Act 1998 would be affected.

**Recommendation**

That planning permission be granted subject to the following conditions:

**Time Limits**

1. The development shall commence not later than 3 years from the date of this permission.
Reason: Imposed pursuant to Section 91 (1)(a) of the Town and Country Planning Act 1990.

2. The testing and monitoring operations authorised by this permission shall cease and the site be restored in accordance with condition 18 by not later than 3 years from the date of this permission.


Working Programme

3. The development shall be carried out, except where modified by the conditions to this permission, in accordance with the following documents:

   a) The Planning Application and supporting statement received by the County Planning Authority on 23rd May 2014 as amended by the letter from Arup Ltd dated 30th January 2015.

   b) Submitted Plans and documents:

      Figure 1
      Figure 2
      Figure 3
      Drawing showing stratigraphy in Grange Road borehole

   c) All schemes and programmes approved in accordance with this permission.


4. No works involving the installation, removal or maintenance of the pressure and seismic monitoring equipment or well abandonment and site restoration operations shall take place except between 31st March and 31st October in any year. Outside of those times, visits to the site shall be limited to those occurrences described in the letter from Arup Ltd dated 30th January 2015.

The mitigation measures for ecology described in the letter from Arup Ltd dated 30th January 2015 shall be employed at all times during works undertaken during the over wintering period.

5. No topsoils or subsoils shall be exported from the site. All such soils shall be retained for use in the restoration of the site and shall be stored in mounds retained in a fully grassed weed free condition throughout the duration of their storage.

Reason: To ensure the proper removal and storage of soils to ensure satisfactory restoration and to conform with Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan.

Hours of Working

6. No delivery or removal of materials, plant or equipment, site development or well abandonment or restoration works shall take place except between the hours of:

07.30 to 18.30 hours Mondays to Fridays (except public holidays)
07.30 to 13.00 hours on Saturdays (except Public Holidays)

No delivery or removal of materials, plant or equipment, site development or well abandonment or site restoration works shall take place at any time on Sundays or public holidays.

This condition shall not apply to operations requiring the installation of a work over rig including installation and removal of monitoring equipment and perforation of the casing or to the carrying out of essential repairs to plant and equipment used on the site.


Highway Matters

7. Heavy goods vehicle traffic to and from the site shall follow the route provided in accordance with the submitted Transport Assessment throughout the lifespan of the development.

Works and routing signage shall be provided in accordance with the submitted Transport Assessment throughout the lifespan of the development.

8. All vehicles associated with the development, operational or restoration phase of the development shall park in the site. No vehicles associated with the development shall park on Grange Road.


9. All vehicles shall enter or leave the site in a forward direction.


10. Measures shall be taken at all times during the site construction, operational and restoration phases of the development to ensure that no mud, dust or other deleterious material is tracked onto the public highway by vehicles leaving the site.


**Control of Noise**

11. All plant, equipment and machinery used in connection with the operation and maintenance of the site shall be equipped with effective silencing equipment or sound proofing equipment to the standard of design set out in the manufacturer's specification and shall be maintained in accordance with that specification at all times throughout the development.

Reason: To safeguard the amenity of local residents and adjacent properties/landowners and land users and to conform with Policy DM2 of the Lancashire Minerals and Waste Local Plan and Policy EP27 of the Fylde Borough Local Plan.

12. Noise from site operations between the hours of 23.00 – 07.00 shall not exceed a level of 42dB(A) Leq free field when measured at the boundary of the following properties at a point closest to the noise source.

   a) Pointer House, Fleetwood Road
   b) Singleton Grange, Grange Road.

Reason: To safeguard the amenity of local residents and adjacent properties/landowners and land users and to conform with Policy DM2 of the Lancashire Minerals and Waste Local Plan and Policy EP27 of the Fylde Borough Local Plan.
Floodlighting

13. Flood lighting shall only be utilised at the site during the works necessary to install and remove the pressure and seismic monitoring equipment and those works associated with the perforation of the borehole. At such times the floodlighting of the site shall be managed so that it is the minimum necessary to illuminate the working area and shall be orientated to minimise light spill to locations outside of the site boundary.

Reason: To minimise light pollution from site activities and to conform with policy DM2 of the Lancashire Minerals and Waste Local Plan.

Safeguarding of Watercourses and Drainage

14. Provision shall be made for the collection, treatment and disposal of all water entering or arising on the site to ensure that there shall be no discharge of contaminated or polluted drainage to ground or surface waters.

Reason: To safeguard local watercourses and drainages and avoid the pollution of any watercourse or groundwater resource or adjacent land and to conform with policy DM2 of the Lancashire Minerals and Waste Local Plan.

15. All foul drainage shall be discharged to a public sewer or else to a sealed watertight tank fitted with a level warning device to indicate when the tank needs emptying. Upon emptying the contents of the tank shall be removed from the site completely.

Reason: To safeguard local watercourses and drainages and avoid the pollution of any watercourse or groundwater resource or adjacent land and to conform with policy DM2 of the Lancashire Minerals and Waste Local Plan.

16. Any chemical, oil or fuel storage containers on the site shall be sited on an impervious surface with bund walls; the bunded areas shall be capable of containing 110% of the container or containers’ total volume and shall enclose within their curtilage all fill and draw pipes, vents, gauges and sight glasses. There must be no drain through the bund floor or walls. Double skinned tanks may be used as an alternative only when the design and construction has first been approved, in writing, by the County Planning Authority.

Reason: To safeguard local watercourses and drainages and avoid the pollution of any watercourse or groundwater resource or adjacent land and to conform with policy DM2 of the Lancashire Minerals and Waste Local Plan.

17. Prior to the commencement of the abandonment of the well and the ground water monitoring boreholes, full details of the proposed abandonment schedule, including any ground water monitoring, must be submitted to, and approved in writing by, the local planning authority. The scheme shall be implemented as approved.
Reason: To safeguard local watercourses and drainages and avoid the pollution of any watercourse or groundwater resource or adjacent land and to conform with Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan

Restoration

18. Site restoration shall take place in accordance with the following:-

a) All plant, buildings, hardstandings, aggregates/ hardcore, lining systems and fencing shall be removed from the land.

b) The upper layers of the subsoil material shall be subsoiled (rooted) to a depth of 600mm with a heavy-duty subsoiler (winged) prior to the replacement of topsoils to ensure the removal of material injurious to plant life and any rock, stone, boulder or other material capable of preventing or impeding normal agricultural land drainage operations, including mole ploughing and subsoiling.

c) Following the treatment of the subsoil, topsoil shall be placed over the site to a minimum depth of 150mm and shall be ripped, cultivated and left in a state that will enable the land to be brought to a standard reasonably fit for agricultural use.

d) Measures to relieve compaction or improve drainage

e) The access from Grange Road shall be removed and reinstated to an agricultural access including the reinstatement of any roadside hedge.

Reason: To secure the proper restoration of the site and to conform with Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan.

Aftercare

19. Within 3 months of the certification in writing by the County Planning Authority of the completion of restoration, as defined in this permission, a scheme and programme for the aftercare of the site for a period of five years to promote the agricultural afteruse of the site shall be submitted to the County Planning Authority for approval in writing.

The scheme and programme shall contain details of the following:

a) Maintenance and management of the restored site to promote its agricultural use.

b) Weed control where necessary.

c) Measures to relieve compaction or improve drainage.
d) Management of any tree of hedge planting including replacement of failed plants, maintenance of protection measures and weed control.

e) An annual inspection to be undertaken in conjunction with representatives of the County Planning Authority to assess the aftercare works that are required in the following year.

Reason: To secure the proper restoration and aftercare of the site and to conform with Policy DM2 of the Joint Lancashire Minerals and Waste Local Plan.

Definitions

Completion of Restoration: The date the County Planning Authority certifies in writing that the works of restoration in accordance with condition 18 have been completed satisfactorily.

Notes

The grant of planning permission does not remove the need to obtain the relevant statutory consents/licences from the Environment Agency.

Local Government (Access to Information) Act 1985

List of Background Papers

<table>
<thead>
<tr>
<th>Paper</th>
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<tbody>
<tr>
<td>LCC/20140084</td>
<td>05/12/0003</td>
<td>Jonathan Haine/Environment/54130</td>
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Reason for Inclusion in Part II, if appropriate

N/A