

## **SECTION A – MATTERS FOR DECISION**

### **Planning Applications Recommended For Approval**

<b><u>APPLICATION NO:</u> P2015/0031</b>	<b><u>DATE:</u> 20/01/2015</b>
<b>PROPOSAL:</b>	<b>Temporary permission for the drilling of an exploratory borehole to test the Westphalian and Namurian strata for coal bed methane and shale gases (Re-consultation on corrected information within the submitted Exploration Borehole - Method Statement and Planning Statement (in respect of traffic flows and confirmation of 10 weeks for drilling and associated operations))</b>
<b>LOCATION:</b>	<b>Land within, Foel Fynyddau Forest, Near Pontrhydyfen, Cwmavon</b>
<b>APPLICANT:</b>	<b>Mr Oliver Taylor, UK Methane Limited</b>
<b>TYPE:</b>	<b>Full Plans</b>
<b>WARD:</b>	<b>Bryn &amp; Cwmavon; Pelenna</b>

#### **Description of Site and its Surroundings:**

The application site is located on land within Foel Fynyddau Forest, near Pontrhydyfen.

The application site is an irregular shaped parcel of land measuring approximately 0.157 hectares in area. It has an overall width of 55.6m and a depth of 35m. The site lies adjacent to a gravel forestry track some 350m to the west of the village of Pontrhydyfen, and at a level of around 170-180m AOD. The nearest residential dwellings are located at Danybont, which is at a lower level than the application site, at a distance of approximately 300m “as the crow flies”. The area of land is sparsely vegetated, and has previously been utilised as a lay down area by the Forestry Commission (now part of Natural Resources Wales). The site is surrounded by dense conifer woodland on all sides, except the adjacent forestry track. Cwm Pelenna forms the valley feature between the hillside and the village of Pontrhydyfen.

There is an existing forestry access road leading to the site, off the B4286 Pontrhydyfen to Cwmafan Road. There is a Grade II Listed Structure (Pontrhydyfen Viaduct) adjacent to the existing access point.

The site is located outside the settlement limits as defined by Policy H3 of the adopted Neath Port Talbot Unitary Development Plan (UDP) and within the open countryside.

## **Brief Description of Proposal:**

This proposal seeks temporary planning permission for the drilling of an exploratory borehole to test the Westphalian and Namurian strata for coal bed methane and shale gases. This would be under a Petroleum Licence issued by the Department of Energy and Climate Change (DECC). The activity would also be the subject of a Coal Bed Methane Access Agreement from the Coal Authority.

Members should be aware that this application is for exploration test drilling only using conventional drilling techniques, and is **not** an application for hydraulic fracturing (otherwise known as ‘fracking’).

Furthermore, it should be noted that a very similar application (ref. P2014/0217) was refused by Planning Committee on 30<sup>th</sup> September 2014 for the following reason:

- (1) By reason of the level of noise generated from the proposed drilling operations on a 24 hour basis, and given the site-specific circumstances of this valley and the substantial perception of impact on the local community, it is considered that the impacts on the nearest noise sensitive residential receptors would be unacceptable, especially during night-time operations. The proposal is therefore contrary to Minerals Planning Policy Wales and Policy M8 of the adopted Neath Port Talbot Unitary Development Plan.

Since the above application was refused, the applicants have been working on a revised submission in order to try and overcome the above reason for refusal. In this regard, this revised application is essentially for the same development as that proposed under application P2014/0217, but with the addition of a noise management plan and supplementary information in the planning statement in respect of ground-water.

The proposed development will consist of site preparation and set up by importing 7 buildings comprising tool shed, toilet, fuel store, site laboratory, site office, crew office and generator. A drilling rig would also be erected on the site, with associated settling tanks and ancillary pipe work rack. The site would be surrounded by temporary heras fencing fitted with Echo-barrier noise control system.

The proposed portacabins would measure 6.2m in length by 2.7m in depth and reach a height of 2.5m. The drilling rig would have a maximum height of 11-12 metres.

The borehole will be constructed to comply with current legislation and will include an initial 30 cm diameter hole to cement the structure in place. After pressure testing, drilling would be undertaken at approximately 16 cm diameter into the coal bearing strata, utilising suitable well head protection and diversion systems to a suitable venting system. The borehole would be terminated at the Namurian strata at a depth of approximately 1300m. No horizontal drilling is proposed. Furthermore, it should be noted that no flaring is proposed as part of this application.

General set up and activities associated with movements into and out of the site would occur during day time 08.00 to 18.00 hours. However, drilling would be undertaken on a 24 hour basis for a period of **up to 10 weeks**. The applicant has indicated the following time-scales for the proposal:

Site establishment (and site clearance):	4 weeks.
Drilling and associated operations:	10 weeks.
Laboratory testing:	4 weeks.
Gas Testing:	36 weeks.

In respect of the actual drilling, it is to be noted that the proposed 10 weeks is approximately 4 weeks longer than the previous permission ref. P2011/0039, and the same as that proposed under application ref. P2014/0217.

All buildings, drilling rig and associated tanks would be removed at the end of the operation. The borehole would be plugged with concrete and sealed, and the surface restored by grass seeding any areas damaged during the activity (where appropriate).

Members should also note that some exploratory boreholes are normally 'Permitted Development' under Part 22 of the Town & Country Planning (General Permitted Development) Order 1995 (as amended). However, as the regulations specifically exclude boreholes for petroleum exploration, including hydrocarbon gases, planning permission is required for this proposal.

However, in practice, there is little difference in the drilling techniques with this application than those which could be done under 'permitted development'. Furthermore, it should be noted that the technical aspects of the drilling will also have to be assessed and approved in writing by the Health and Safety Executive Oil and Gas Division, The Coal Authority and the DECC before work could commence on site.

Members should also note that planning permission has already been granted for an exploratory borehole on this application site under ref: P2011/0039. The techniques used under that scheme are essentially the same as this proposal, albeit the proposed borehole would be deeper and therefore the length of time for the operation would be an additional 4 weeks.

### **EIA Screening/Scoping Opinion:**

The proposal does not fall within any of the descriptions given in Schedule 1 of *The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999*, as amended. Whilst Schedule 2 of the same regulations includes deep drillings, the site is not in a sensitive area and the applicable thresholds and criteria refer to the area of the works exceeding 1 hectare, which would not be the case with this application. As such, a screening opinion is not required for this application. Accordingly it was concluded that the proposal is **not EIA development**.

It is noted further that the WG guidance letter (referred to in details below and included at **Appendix 1**) clarifies that “MPPW states that EIA is unlikely to be required for exploratory drilling activities. The Welsh Government continues to support this view on the basis that such exploratory drilling does not involve hydraulic fracturing, or is not located on a site that is unusually sensitive to limited disturbance occurring over the short period involved”.

### **Planning History:**

The site has previously been the subject of a previous application for exploratory drilling as follows: -

P2011/0039 To carry out temporary exploratory borehole investigation for coal bed methane into Westphalian coal measures. Approved 25/05/2011.

P2014/0217 Temporary permission for the drilling of an exploratory borehole to test the Westphalian and Namurian strata for coal bed methane and shale gases. Refused 30/09/14.

## **Publicity and Responses (if applicable):**

No properties were consulted directly by letter. However, site notices were displayed on site, and the application was advertised in the Local Press (Neath Port Talbot Courier).

In response the following representations have been received: -

### **Petition of 1233 signatures** objecting on the grounds that:

- This development will adversely affect the amenities of residents as it is within 300metres of homes and schools and carries a significant risk of
  - Disturbance to residents of this normally peaceful area from noise, light and traffic movements arising from 24 hour working
  - Disturbance to local wildlife, in particular badgers and bats
  - Damage to already poorly maintained local roads from constant HGV movements
  - Pollution of water courses as a result of accidents and spillages on the site
- Any development of unconventional gas, including test drilling, is incompatible with our commitment to reduce greenhouse gases in order to mitigate the impact of Climate Change

### **Online petition of 316 names** objecting to the development.

In addition, to date in the region of 105 letters of objection have been received. Given the number of letters received, it is not possible to explicitly detail all objections, but the nature of objections are broadly summarised as follows:

- (1) Concerns that there are no clear cut guidelines on this type of development from WG in respect of safety and impact.
- (2) Concerns over the impact of 24 hour drilling in term of noise and disturbance. The application does not fully explain this, as noise does echo around the valley, and this is much worse since removal of trees on the Foel.
- (3) Echo Barrier Review. The submitted detail is purely an advertisement. Has actual testing of echo been carried out? Oakwood and Pontrhydyfen have recently been subjected to continuous noise from tree felling operations and just the sound of a chain-saw has echoed around and across the valley. New sound tests should be carried out as a lot more trees have been felled since the last test was carried out, so sound would travel further.

- (4) The proposed sound barrier is only 2m high and sound would travel over so it will not make any impact, as the drill rig is a lot taller than 2m.
- (5) The site is in a delightfully scenic area used by walkers and bikers and other tourists. This proposal could impact upon existing and new tourism in the area.
- (6) Concerns over highway and pedestrian safety, including damage to local roads and forestry road, and access issues with large vehicles negotiating bends in the roads. Perhaps a set of traffic lights or a crossing control person will need to be employed to alleviate the potential dangers.
- (7) Potential detrimental impacts upon biodiversity and local wildlife, including badgers, bats and honey buzzards. Concerns that the submitted surveys are out of date.
- (8) Detrimental impact on the morale of the community.
- (9) Potential unacceptable impacts upon the ground conditions, including seismic disturbance or subsidence as a result of the proposal, due to old mine workings in the area, some of which are un-recorded.
- (10) Potential impact on groundwater which drains into the Rivers Pelenna and Afan. Unless it has been proven that there is no risk to groundwater, the precautionary approach should be followed and the application refused
- (11) Concerns over the neighbours consulted. Also, a fortnight for concerned residents to raise any points is by no means long enough considering the amount of objections the last time. Some people may see this as a deliberate attempt to sneak this through, before locals have had a chance to demonstrate their resistance in writing.
- (12) Potential negative impacts upon the property values in the local area, and potential difficulties getting house insurance cover.
- (13) A £1,000,000 bond guarantee should be required from the applicant - as has been done for applications to create landfill sites in the past - so that any remedial work resulting from the applicant's activities on site can be funded without resorting to public funds.
- (14) Potential unacceptable impacts upon the environment, including climate change.
- (15) Failure to assess the impact upon fish and fishing rights. The River Afan is a spawning site for fish including salmonids, brown trout and sea trout (some of which are protected species). 24 hour lighting could also affect nocturnal migration by fish. Errors/accidents could occur during the operation which could result in devastating losses of fish from both the Pelenna and Afan rivers. Furthermore, potentially toxic waste may enter the river either from the surface or underground, as the drilling site is in close proximity to the water table, or methane could escape and released and then enter the river system directly below the drilling site.

- (16) If this development is allowed, it could pave the way for ‘fracking’ and the industrialisation of the countryside.
- (17) There may an increased likelihood of earthquake activity.
- (18) Potential impact upon the school in the local area.
- (19) Impact on wildlife on Foel Mountain which has already been disturbed by deforestation
- (20) Any development of unconventional gas, including test drilling, is incompatible with the Welsh Assembly commitment to reduce greenhouse gases in order to mitigate the impact of Climate Change.
- (21) On Wednesday 4th February the Wales Assembly voted in favour of a Moratorium on Fracking and the Wales Government indicated they supported the motion. This is not a desirable time to consider this application
- (22) An application to test drill is part and parcel of the whole plan to ‘frack’. Shale rock is impermeable and will result in ‘fracking’.
- (23) The valley has now become green again following the industrial pollution that costs so much to the health of residents.
- (24) The developer has not engaged with local residents as required by the UK Onshore Oil and Gas Guidelines.
- (25) There should be a buffer zone of 500m around the nearby settlements where no drilling activities take place.
- (26) Potential impacts on local residents from noise and light pollution.
- (27) Concerns that an EIA has not been undertaken and submitted in support of the application.
- (28) Potential detrimental health impacts on local residents.

**Peter Hain MP** objects to the application on the grounds of potential noise to local houses and leisure park, concerns over the access and highway safety, potential impacts on unrecorded mines and untold dangers in terms of water, gas release and subsidence, potential impact on biodiversity and tourism and felling of trees on the site, despite no permission being granted.

**Peter Black AM** objects to the development, and raises concerns that the impacts of ‘fracking’ are unknown, and given the problems encountered near Blackpool where an earthquake occurred, a precautionary approach should be taken until further research has been undertaken. He also noted that the test drilling could have an impact on the wider community and result in damage to property and life.

**Bethan Jenkins AM** objects to the development, and raises concerns with relations to highway safety, seismic disturbance, pollution of watercourses, disturbance to local residents and wildlife, impacts on tourism and climate change and concerns with future monitoring of the well.

**Cllr M Ellis** objects to the application on the grounds of potential detrimental impacts on ecology (including badgers), noise, and the lack of consultation with the public by the developer. Also, raises queries whether two borehole have been undertaken in NPT without any incidents/complaints.

**Cllr J Warman** objects to this application on environmental grounds and possible pollution of water courses.

**Pelenna Community Council:** Objection, on the grounds that there will be an impact on the Pelenna Community in terms of noise and water table pollution.

**Natural Resources Wales:** “notes that the proposed development is for the drilling of a single vertical exploration borehole only, to collect rock samples from the Westphalian Coal Measures and Numurian Strata to enable lab testing for coal bed methane and shale gases. The proposed development does not involve any hydraulic fracturing”. They offer no objection to the application, provided that a number of conditions are imposed in respect of a construction method statement, surface water drainage and site restoration.

**The Coal Authority:** No objection.

**Air Pollution Unit:** No objection, subject to conditions.

**Biodiversity Unit:** No objection, subject to conditions.

**Head of Business Strategy & Public Protection (Environmental Health - Noise):** No objection, subject to conditions.

**Head of Engineering & Transport (Highways):** No objection.

**Head of Engineering & Transport (Drainage):** No objection.

**CADW:** No reply, therefore no observations to make.

**Welsh Water:** No objection.



## **Material Considerations:**

The main issues for consideration with this application are as follows:

- The planning policy and principle of development at this site.
- The potential impact of the proposal upon visual amenity.
- The potential impacts on residential amenity, including noise, dust and vibration.
- Any potential highway and pedestrian safety issues, including access.
- Potential impacts upon ecology and biodiversity, including protected species.
- The potential impact upon the water environment, hydrology and drainage.
- The potential impact upon Cultural Heritage and Archaeology.
- Any potential requirements for Restoration and Aftercare.

These are addressed in detail in the report below.

## **Policy Context:**

### National Planning Policy:

Planning Policy Wales (Edition 7, July 2014).

Minerals Planning Policy Wales (MPPW) (2001) sets out the five key principles that LPAs must take into account when making development management decisions. These principles are to:

- Provide mineral resources to meet society's needs and to safeguard resources from sterilisation
- Protect areas of importance to natural or built heritage
- Limit the environmental impact of mineral extraction
- Achieve a high standard of restoration and beneficial after-use
- Encourage efficient and appropriate use of minerals and the re-use and recycling of suitable materials.

Technical Advice Note (Wales) 11, Noise (October 1997)

The Welsh Government's "*Energy Wales: A Low Carbon Transition*" states that gas will be a key transitional fuel because green house gas emissions from gas are significantly less than coal subject to the method of extraction. It goes

on to note that gas is a flexible, responsive and reliable source of energy which can play a key role in the transition to a genuinely low carbon energy system.

Likewise, the Department of Energy and Climate Change's *Overarching National Policy Statement for Energy EN-1* indicates that fossil fuel power stations will continue to play an important role in our energy mix as the UK makes the transition to a low carbon economy.

In addition to the above, Members should note that on the 8th July 2014 the Welsh Government issued a clarification letter on national planning policies that apply for onshore unconventional gas and oil development (CL- 04-14). The WG letter, attached in full at **Appendix 1**, is largely based on the Department for Communities and Local Government document "*Planning practice guidance for onshore oil and gas*" which explains the separate process that runs alongside planning with regard to authorising exploration and extraction of gas.

The letter advises that the Welsh Government has been working with the Office for Unconventional Gas and Oil on the production of the **Regulatory Roadmap** (Onshore oil and gas exploration in the UK: regulation and best practice (December 2013)), which identifies all the regulatory processes that an operator will need to satisfy before drilling for unconventional gas and oil.

Specifically, it advises that the following issues will be addressed by other regulators:

- Seismic risk – the Department of Energy and Climate Change (DECC) is responsible for controls to mitigate seismic risks.
- Well design and construction – the Health and Safety Executive is responsible for enforcement of legislation concerning well design and construction.
- Operation of surface equipment on the Well Pad – these are controlled by Natural Resources Wales and the Health and Safety Executive.
- Mining Waste – Natural Resources Wales is responsible for ensuring that extractive waste is appropriately controlled through issuing an environmental permit.
- Chemical content of fracking fluid (if it is to be used) – Operators are obliged to inform Natural Resources Wales of all chemicals that they propose to use to hydraulically fracture in order to obtain an environmental permit.
- Flaring or venting of any gas – is subject to DECC controls and is regulated by Natural Resources Wales. However planning authorities

may still need to consider any issues of noise and visual impact that this process may create.

- Final disposal of water – Natural Resources Wales is responsible for issuing permits for flowback water, which may contain naturally occurring radioactive materials (NORM). This responsibility extends to ensuring that the final treatment/disposal of flowback water at suitable water treatment facilities is acceptable. Depending on the phase of development and the scale of production there may be significant volumes of water that will require transporting to and from the site. Therefore local planning authorities will need to consider access, traffic generation, and the visual impact of on site storage facilities.

Having regard to the above, it is emphasised that MPPW identifies that the planning system should not conflict with or attempt to duplicate the controls better regulated by other bodies under different consent regimes, a view reinforced in the WG letter of July 2014.

The letter reinforces that in Wales the relevant national planning policies for mineral development are set out in Minerals Planning Policy Wales (MPPW), which provides general guidance which is applicable to all applications for unconventional gas or oil whether it is at the exploratory, appraisal, or production (extraction) phase of development. In terms of limiting the environmental impact of mineral extraction, it emphasises that MPPW identifies that the following issues must be addressed to ensure that minerals proposals do not have an unacceptably adverse impact on the environment and the amenity of nearby residents.

- Access and traffic generation (including the routes to be used for minerals transportation)
- Noise (in terms of limits, type, and location)
- The control of dust, smoke and fumes
- Disposal of mineral waste
- Blasting controls (if relevant to shale or coal bed methane applications)
- Land drainage, impact on groundwater resources and the prevention of pollution of water supplies
- Visual intrusion and general landscaping
- Impact on sites of nature conservation, historic and cultural importance
- Land instability
- Promotion of the use and treatment of unstable, derelict or contaminated land
- Cumulative impact

- Restoration, aftercare, and after-use.

These matters (where relevant) are addressed within the report below.

### **Welsh Government Direction – February 2015**

Members should be aware that the Welsh Government wrote to all Local Planning Authorities in Wales on 13<sup>th</sup> February 2015, and issued “ The Town And Country Planning (Notification) (Unconventional Oil And Gas) (Wales) Direction 2015” regarding applications for unconventional oil and gas development in Wales.

This Direction and guidance explains that any planning application *registered* from the 16<sup>th</sup> February 2015 for the exploration, appraisal, or extraction of unconventional oil and gas which would utilise unconventional techniques (including hydraulic fracturing) must be referred to the Welsh Ministers, where Local Planning Authorities are minded to approve them.

As confirmed by Carl Sargeant AM, this essentially imposes a moratorium on ‘fracking’ in Wales.

It is notable, however, that while the Direction defines ‘unconventional oil and gas development’ as development involving the onshore exploration, appraisal or production of coal bed methane or shale oil or gas using unconventional extraction techniques, including hydraulic fracturing, the Direction states that it does not apply to “..the making of exploratory boreholes which do not involve the carrying out of such unconventional extraction techniques)”.

While Members are advised that the Direction cannot, in any event, apply to this current application, which was registered in advance of the 16<sup>th</sup> February 2015, nevertheless the applicants have confirmed that their proposals do not “utilise unconventional techniques (including hydraulic fracturing), or involve the carrying out of such unconventional extraction techniques)”. Accordingly, this is not an application of the type which must be referred to the Welsh Ministers under the new Direction.

### Purpose of the Application:

Having regard to the strength of local feeling, and notably the local fears that this development is the precursor to further exploratory mining for shale gas extraction, it is emphasised that the proposal relates purely to a borehole to test the geological strata in this area. It does not include extraction, whether by hydraulic fracturing or otherwise (although this is testing for both conventional gas and shale gas), and any such extraction proposals would require a further application. Furthermore, it does not include any flaring of gas.

In this respect, Members are advised of a relevant appeal decision for similar exploratory drilling in Llandow, Vale of Glamorgan, where the decision of the Council to refuse permission was overturned at appeal by the Planning Inspectorate. In his appeal decision (included in full at **Appendix 2**) the Inspector emphasised that the Vale of Glamorgan UDP makes it clear that the grant of planning permission for mineral exploration will not indicate a presumption in favour of future exploitation of any minerals found. In this regard, Policy M1 of the Neath Port Talbot UDP similarly emphasises that “A planning permission to carry out any search or exploration will not in itself create a presumption that planning consent will be granted for the extraction or working of the mineral or fossil fuel”.

The July 2014 WG letter also emphasises that “each stage will involve slightly different processes, timescales, equipment, and vehicle movements. Therefore it is necessary to consider all these matters afresh for each planning application. Consequently, it does not mean that just because it has been appropriate to grant planning permission to explore for the resource it would necessarily be appropriate to allow commercial extraction and hydraulic fracturing in the same location. Each planning application should be determined on its own merits”.

Having regard to the above, it is reiterated that any concerns over the impact of future mineral extraction cannot, therefore, be considered under this application.

### Local Planning Policy:

The Adopted Development Plan comprises the Neath Port Talbot Unitary Development Plan, within which the following Policies are of relevance: -

- GC2 Engineering Works and Operations (including Minerals and waste)
- ENV17 Design

T1	Location, Layout and Accessibility of New Proposals
ENV1	Development in the Countryside
ENV5	Nature Conservation
ENV12	Proposals affecting Water Resources
ENV15	Air Quality
ENV19	Proposals within Conservation Areas or which would affect the setting of a Listed Building
ENV29	Environmental Quality
M1	Mineral Prospecting And Exploration
M8	Criteria for Assessment of Coal Mineral and Gas Applications

The site is located outside the settlement limits defined by Policy H3 and within the open countryside. However, due to the temporary nature of the proposed works and the fact that the borehole would be decommissioned, abandoned and the site restored once testing has completed, there would be no objection to the principle of such development in the countryside.

The primary policies to assess the proposals against are Policies GC2, M1 and M8.

In summary, Policy GC2 requires proposals to have no unacceptable impact on matters including biodiversity, habitats, local communities and their amenity and health (including noise, pollution, blasting, grit, dust, smoke, smell, vibration, illumination, views and cumulative impacts), water supply, water quality or quantity, land drainage and flooding; highways/ rights of way, including movement of materials. It also requires that proposals indicate satisfactorily how the work will be undertaken including: (i) the method, planning and duration; (ii) the control of environmental and other impacts; and (iii) restoration and/or aftercare.

Policy M1 is especially pertinent in relating to Mineral Prospecting and Exploration. It notes that, where planning permission is required for the exploration, search and prospecting of any mineral or fossil fuel, consent will only be granted when the development or temporary activity does not have an unacceptable impact on the site the surrounding environment or residential amenity. It also emphasises that “A planning permission to carry out any search or exploration will not in itself create a presumption that planning consent will be granted for the extraction or working of the mineral or fossil fuel”.

The supporting justification to Policy M1 advises that the criteria set out in Policy M7 (which should state M8) will guide the appraisal of such activity. Policy M8 is a criteria-based policy governing the need to ensure no

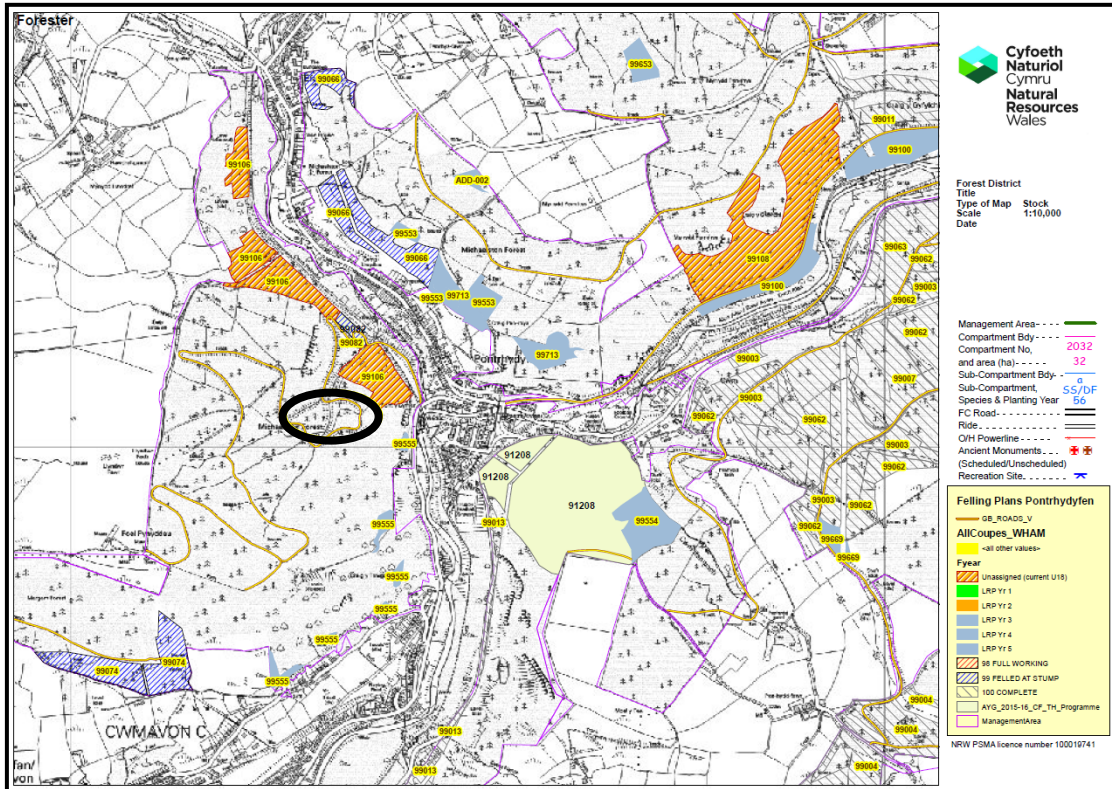
unacceptable impacts on matters including, but not limited to, pollution or disturbance to ground or surface water supply or drainage; landscape; biodiversity; ground stability; contamination; noise, dust, blast, vibration arising from the methods of working; health; traffic generated to and from the site. It also requires that “measures are provided to reduce damage, harm or disturbance to individuals, communities and land uses caused by those issues to acceptable levels”.

Having regard to the above Policy context, it is considered that the principle of the proposed development would be acceptable, having particular regard also to its temporary nature, subject to an assessment against the above issues, and there being no unacceptable impacts identified. Such matters are considered in details in the remainder of the report.

### **Impact on Visual Amenity:**

The proposed drilling compound and application site is in a secluded area of Foel Fynyddau Forest above Pontrhydyfen. The site is a gently sloping area devoid of trees, as it has been used as a log storage area, and is completely surrounded by deciduous trees on its boundary and by a mature conifer plantation to the north east and west and a forestry track and hillside covered with conifer trees to the south. The nature and size of the drilling rig, and associated ancillary buildings and facilities, will be totally screened, and will ensure they are not visible from adjacent settlement areas.

Whilst it is noted that Natural Resources Wales are currently undertaking works in the area to fell diseased trees, they have provided clarification that the trees around the application are not earmarked for felling. This is shown in Figure 1 below. The site would, therefore, remain screened from the local area.



**Figure 1 - NRW Plan of Tree Felling. The approximate position of the application site is circled in black.**

In respect of lighting, it is noted that temporary lighting is proposed on stands up to 3m in height. However, they will be hooded and pointed downwards so that there is no light-spillage, matters which can be controlled by condition. It is considered that the type of lighting proposed and separation distance, including existing tree cover, would ensure there is no unacceptable impact from the development in terms of light pollution.

Having regard to the above, and especially the temporary nature of the works and the requirement to remove all works/operations at the end of the testing process, it is concluded that the temporary siting of the drilling rig and associated equipment/operations would have no unacceptable visual impacts for the duration of the works. Finally, it must be noted that there will be no remaining effect on the appearance or character of the countryside once the site is restored in accordance with the required condition.

### **Impacts on Residential Amenity (including noise, dust and vibration):**

The application site is located some 350m to the west of the village of Ponthrydyfen, and at a level of around 170-180m AOD. The nearest residential dwellings are located at Danybont, which is at a lower level than the application site, at a distance of approximately 300m. As such, there would be



no physical impacts on nearby residential properties, with the only issues of note to assess relating to the impacts of the drilling and associated activities on residential amenity.

### *Noise and Disturbance*

A Noise Impact Assessment has been undertaken and submitted in support of the application to measure and consider if the proposed 24 hour working is likely to have an adverse affect on the amenities of the area and, in particular, local residents.

The submissions identify the nearest noise sensitive residential properties as follows:

- Houses on B4286 – 300m to southeast, 120m lower in elevation
- Queen Street – 350m to the northeast, 100m lower in elevation
- Oakwood Avenue – 360m to the southeast, 130m lower in elevation

In terms of equipment to be used at the site, the submissions indicate that the proposed drill rig has a typical noise level of 79 dB(A) at 1m, with details also provided for the diesel generator, telehandler and shaker/cyclone. The noise report then predicts combined noise levels (from stationary and mobile plant) at the nearest noise sensitive residential property (300m) of 44.0 dB  $L_{Aeq}$ .

As detailed above, the proposed works include drilling, which would be undertaken on a 24-hour basis for 10 weeks. While the daytime levels would be acceptable, MTAN2 (aggregates) refers to the need for night-time working limits to not exceed 42 dB(A) at noise sensitive properties. Accordingly, without additional screening of plant the night time limits would be marginally exceeded at the nearest residential properties.

Having regard to these levels, in order to reduce the site noise to a minimum, additional screening around the noise sensitive equipment will be implemented. This will take the form of soft noise absorbent matting attached to the site fencing and around the main sources of noise - Echo Barriers - with the submissions indicating an acoustic performance with a 15-20dB noise reduction. As a consequence, noise levels at the nearest houses are predicted to fall to around 38.2 dB  $L_{Aeq}$ , which, allowing for a 15DB loss through a partially open window, would fall to below the 30dB(A) World Health Organisation threshold for sleep disturbance.

As part of the previous planning application, the Environmental Health Section considered the noise assessment and was satisfied that the assessment

methodologies and noise impact standards had been correctly applied. The noise impacts at the nearest residential receptors were assessed against limits set out in Mineral Technical Advice Note (Wales) 1: Aggregates, and the report demonstrated that, without noise abatement, the development could achieve the daytime limits, but there was a marginal exceedence of the night time limit. The report recommended a specification for a noise attenuation barrier to reduce noise levels to below the night-time noise limits, and the applicant subsequently submitted details of noise barriers which would achieve greater level of noise attenuation than was required by the noise assessment report. Consequently, the Environmental Health Section were satisfied that significant adverse impacts were not likely and therefore had no objections to the development. To provide additional protection to residential receptors and ensure that noise impacts from the operation of the development were controlled further, a recommendation was made for a condition requiring the applicant to submit a noise management plan.

Notwithstanding the above, the original application P2014/0217 was heard by Members at Planning Committee and was subsequently refused on noise impact grounds. Members expressed concerns that the noise attenuation barrier was lower than the height of the drilling rig; that Mineral Technical Advice Note (Wales) 2: Coal contained the correct noise limits standards for this development; and that the valley containing the application site and the village of Ponrhydyfen suffered from an echo effect that Members believed could amplify noise impacts. It was this last concern that was cited as the primary reason for refusal by Members.

In this new application, the applicant has submitted the same noise assessment report and Noise Barrier specification as the previous application, as the Environmental Health Section were satisfied that this information was still relevant, and as previously, the Environmental Health Section is satisfied that the report demonstrates how Mineral Technical Advice Note (Wales) 1: Aggregates noise limits can be achieved.

With regards to concerns that Mineral Technical Advice Note (Wales) 2: Coal is the more appropriate guidance document, it should be noted that the noise limits contained in the two guidance documents are essentially the same in technical terms, although the wording of the relevant paragraphs does differ slightly. Members should note that all mineral exploration and extraction activities will have an adverse impact on the local noise environment to some degree. Mineral Technical Advice Note (Wales) 1 and 2 acknowledge this, and the noise limits contained within this guidance are set at a level of noise disturbance that is considered acceptable. The Environmental Health Section

is therefore satisfied that the proposed noise limits contained in the noise assessment report are appropriate to this development.

The current application has now been accompanied by a detailed Noise Management Plan (which previously would have been required by condition), which seeks to overcome the reason for refusal of the previous application (P2014/0217). This document contains extracts of the noise impact assessment, together with information on the placement of the noise barriers and management procedures to minimise noise from the drilling operations. The noise management plan states that all the significant noise generating equipment is at a lower height than the noise barrier, and notes that from the drilling rig mast noise is unlikely, with proper maintenance, but does suggest what could be done in the event of a noise issue from the drilling rig.

The noise management plan also addresses the potential for noise echo in the valley. The document correctly notes that a reflecting surface is required to create an echo, and the topography of the valley relative to the application site limits line of sight noise propagation directly to residential properties in Pontrhydyfen, as well as noise propagation to a reflecting surface that could echo back to the village. The noise management plan also details what steps the applicant will take in the event that noise complaints are received, such as additional noise mitigation measures, and instructing an independent noise consultant to investigate potential breach of noise limits.

It should be noted that the Environmental Health Section is satisfied that the Noise Management Plan addresses the issues of concern previously raised by Members in Planning Committee. As such, and as per the previous application, they offer no objection to the proposed development, subject to a condition in respect of the full implementation of the submitted Noise Management Plan.

On this basis, and subject to compliance with the Noise Management Plan through an appropriate condition, it is concluded that the operation of the drill rig on a 24 hour basis will not unacceptably impact upon the overall amenity of residents, including night time conditions, and that there are no reasonable grounds on which an objection could be sustained on noise impact grounds.

### *Dust*

The operations proposed include the use of fluids which should, in all reasonable circumstances, reduce and mitigate the potential for any dust emissions from the site. The Air Quality Section has been consulted on the application and offers no objection to the proposal, but notes that there may be some potential track-out of dust into the public highway, which the developer

should make provision for. In response the applicant has confirmed that, in the event of any dust issues from use of the track, a suitable clean water bowser would be kept on site to damp down the access track. Given that the track is already used by forestry vehicles, it is considered that the dust impacts arising from this development would be minimal. Nevertheless, a condition is recommended which requires a bowser to be available on site in order to address any potential issues arising from the development.

### *Vibration*

While it is acknowledged that drilling can generate vibration, given the distance to any sensitive properties, it is considered that vibration from the proposed drilling operation is highly unlikely.

It should be noted that gas controls and monitoring would be undertaken under the provisions of the licence.

It is considered that the overall development would be acceptable in terms of residential amenity, and should not affect the local amenity of residents within the surrounding area to an extent that would warrant refusal in terms of noise, dust or disturbance.

### **Impact on highway and pedestrian safety issues, including access**

The application site is accessed via an existing forestry track that has an access point west of Pontrhydyfen and off the B4286 Cwmafan to Pontrhydyfen Road.

All deliveries, including the drilling rig, are proposed to utilise a route along the A4107 from junction 40 of the M4 and then along the B4287 at Pontrhydyfen and onto the B4286. The route is illustrated on Figure 2 below.

The applicant has provided detailed information in support of the application in respect of the drilling rig, indicating that the size of the drilling rig will be very similar to that shown in Figure 3 below, but the engine and mounting on the truck will be changed to make the truck lighter. However, the truck and mast will be the same overall size. The length of the rig will be 12.8m, the width would be 2.50m and the height would be around the 4.65m. They have also indicated that the drill pipe will be delivered on flat bed trailers and off-loaded by crane. These would have a maximum total weight (including load) of 40 tons and measure 10m long by 2.50m wide.

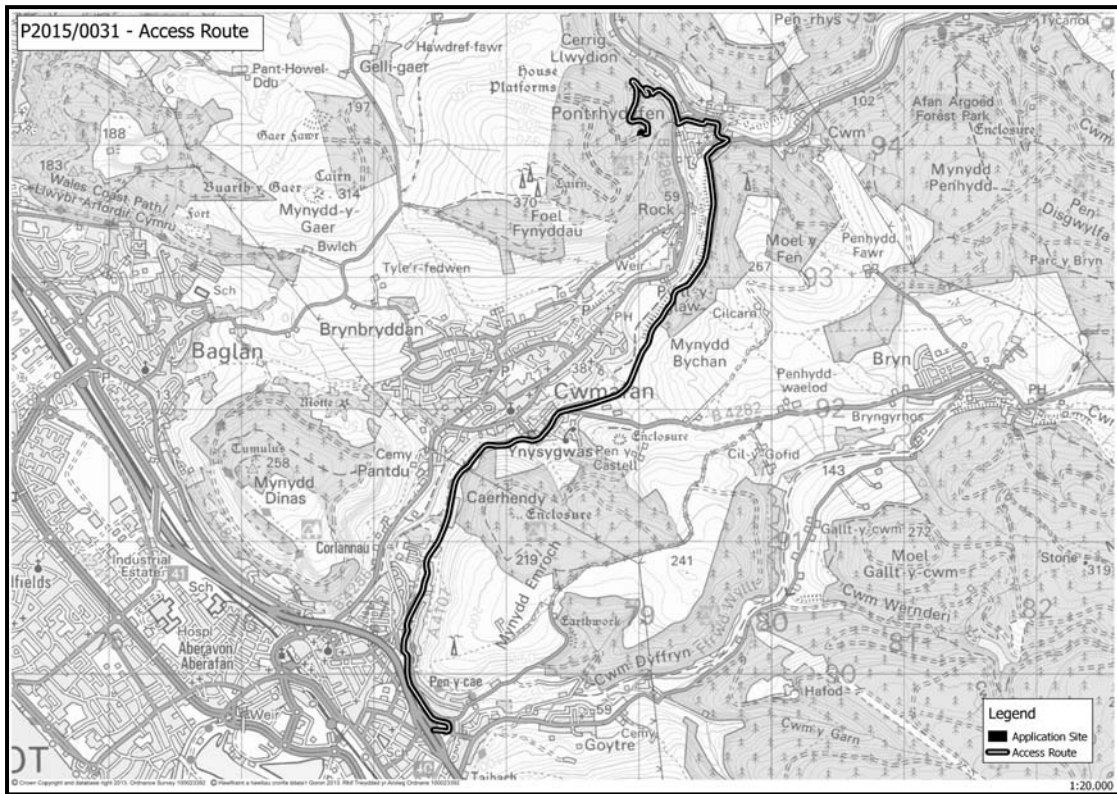


Figure 2 - Proposed Access Route to the Application Site from M4 Jct 40.

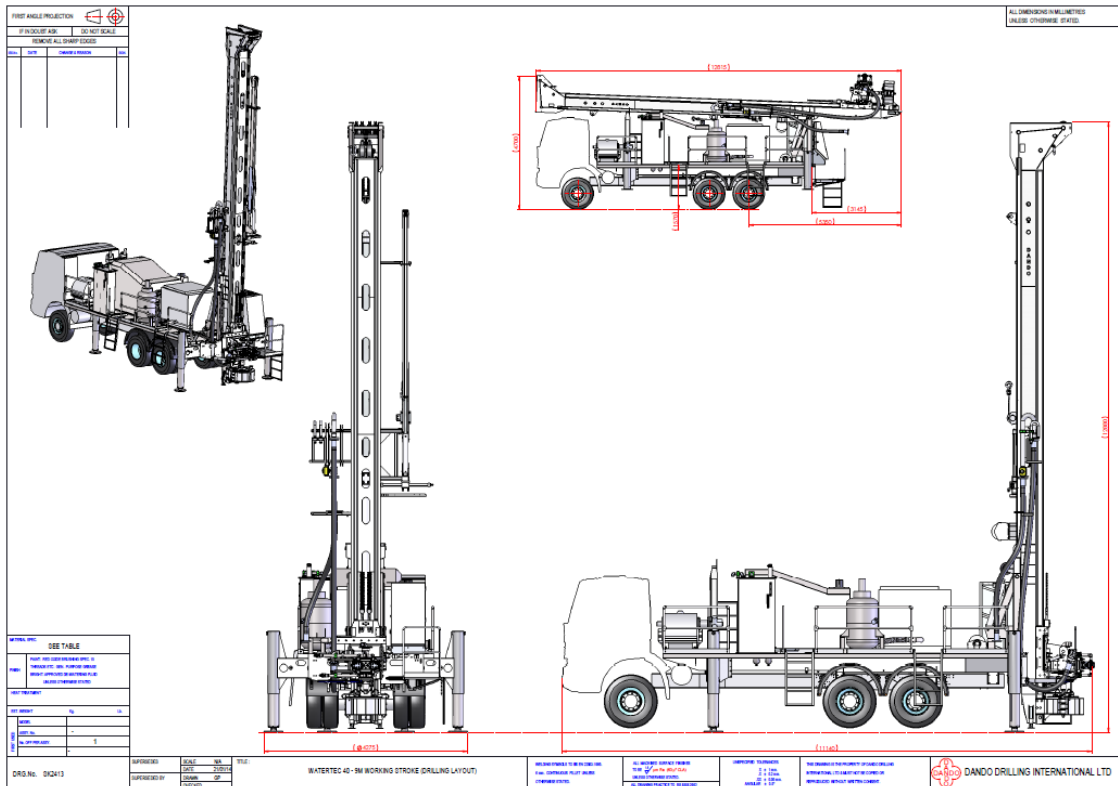


Figure 3 - Plan of proposed rig.

Figure 4 is a photograph of a similar rig to that proposed under this application.



**Figure 4 - Photograph of rig vehicle**

The applicant has stated that two drilling rigs would be utilised, to make the overall drilling process more efficient. They have indicated that the vehicle movements into the site (which should be doubled to take account of overall vehicular movements into and out of the site) would be as follows:

- Drilling Rigs = 2
- Drilling Pipe Vehicles = 4
- Casing vehicles = 5
- Tank vehicles and other equipment = 5
- Survey equipment vehicles = 2
- Cabin vehicles = 5
- Water tankers for used water = 7
- Steel lining vehicles = 2
- Foul sewage tanker = 1 per week
- Tankers to remove excess drilling fluids = 2/3 per week.
- Skips = 4 per week
- Drilling supplies (transit size) = 3 per week
- Personnel vehicles (cars or vans) = 2/3 per 12 hour shift.

Due to the nature of the proposed drilling operations, they have indicated that 24 hour access would be required. However, night time traffic movements would be on an emergency basis only.

Members should note that the Head of Engineering and Transport (Highways Section) has assessed the submitted documents, including access routes and access points. They have also undertaken swept-path analysis (auto-tracking) for the proposed route, and a potential alternative route through Cwmafan village, and have confirmed that they are satisfied with the identified access route for this equipment and associated HGV movements based on the largest vehicle. A detailed site inspection of the access point has also been undertaken by the Highways Officer, who has confirmed they are satisfied that the proposed vehicles can adequately and safely enter and exit the site.

As detailed above, the number of vehicle movements using the access would also be relatively small in comparative terms, noting also that the access is already used by larger HGV's used for the forestry clearance operations.

It is also noted that planning permission ref. P2011/0039 has already been granted for this site for borehole drilling, which includes the use of this access by the same drilling rig, such that it would be difficult to sustain any objection to the scheme on highway safety grounds. It is therefore concluded that the proposal would be acceptable in terms of highway and pedestrian safety.

### **Impacts upon ecology and biodiversity, including protected species.**

Members should note that an ecology survey, including badgers and protected species, has been undertaken and submitted in support of this application. This has been fully assessed by both the Authority's Biodiversity Unit and Natural Resources Wales.

It should be noted that there are no statutorily designated sites within 2km of the site. The application site is primarily composed of a cleared area within the conifer plantation and has been utilised as a lay down area in the recent past by the Forestry Commission (now NRW). As such, vegetation is sparse and does not constitute a significant local resource and any temporary damage or loss is not considered to be significant.

It is proposed to cover most of the site area with terram sheeting, to protect the underlying vegetation store that is anticipated to recover after the removal of the buildings. However, some surface damage may be experienced around the drilling rig and adjacent tank areas.

In respect of trees, the applicant has confirmed that there are no trees on the application site, and no trees are proposed to be felled as part of the development. As such, no impacts are anticipated in terms of the loss of trees.

Although the submissions state that bat flight line surveys are needed, the Council's Biodiversity Unit is satisfied that there is no need for these surveys as the site is very small and isolated within sub-optimal habitat, no trees are to be removed/worked on and the lighting will be directional, therefore, any effect on bats will be minimal and will not need licensing. NRW are similarly satisfied that there would be no adverse impact on bats, subject to a suitable condition covering the lighting on the site in accordance with the submitted ecology report's recommendations.

In respect of Honey Buzzards specifically, the biodiversity officer has confirmed that due to the temporary nature of the proposed works no adverse impacts are anticipated on Honey Buzzards and/or any conditions required in respect of them. Any requests for a full Honey Buzzard survey would be considered disproportionate to the scale and nature of the proposed operations, and therefore would not meet the 'tests' for a condition.

As both the Biodiversity Unit and Natural Resources Wales offer no objection to the proposed development, subject to conditions, it is considered that the proposed development is acceptable in terms of biodiversity and protected species.

### **Water Environment, Hydrology and Drainage:**

As previously stated, the development consists of a single exploratory borehole at a diameter of approximately 16 cm diameter into the Westphalian and Namurian strata to test for coal bed methane and shale gases.

During such drilling operations, there is some potential to affect the hydrology and water environment, unless adequate provisions are undertaken. Information submitted in support of the application, and provided to Natural Resources Wales, indicates that a secure closed loop system (which can be easily monitored for leaks) and specific holding tanks will be provided for waste, together with appropriate secure facilities for storage of oil and fuels. A cut-off ditch will also be provided around the perimeter of the site with an interceptor tank to control any surface water run-off. Measures will also be implemented to protect private water supplies with the installation of steel casings, to prevent any ground water entering the borehole or drilling fluids



leaving the borehole. This demonstrates that any potential discharges into the water environment should be prevented, and there should be little or no surface area disturbance.

Information has also been provided in respect of ground water sources. The applicant has confirmed that there are no publicly listed boreholes in the area used for water extraction, but it is known that farms use the local streams for feeding livestock. In respect of groundwater protection zones, the applicant has confirmed that the Environment Agency's database (now NRW) has been checked. The nearest groundwater source protection zone is 18.4km to the south-east of the site.

The applicant states that there will be no impact on the bedrock groundwater. Furthermore, they state that the selected drilling fluids will break down harmlessly over time. They state that the drilling fluid has been accredited by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) (part of DEFRA) for use in the marine environment. Furthermore, Purebore has been classified as PLONR (Pose Little or No Risk to the Environment) and achieves the best possible environmental rating (gold).

Paragraph 30 of MPPW identifies that the need to protect the quantity and quality of surface and groundwater supplies should be taken into account by Local Planning Authorities. In doing so the Local Planning Authority must consult Natural Resources Wales on these complex issues, and where doubt exists, should adopt the precautionary principle in taking planning decisions.

Natural Resources Wales has responded on the application in respect of the drilling method statement and note that the "method statement includes information on how the borehole will be drilled and cased to protect groundwater. It also includes information on the drilling fluid being used, the methods to be used to minimise the risk of loss of drilling fluid during the drilling process as well as measures for the collection and disposal of drilling fluid". NRW state that they "**agree with the measures included** and request a condition to be included to ensure that the measures are implemented as detailed in the Method Statement for Drilling".

Members should also note that the technical aspects of the proposed operation would also be subject to detailed assessment by Natural Resources Wales as part of a permit application.

It is also notable that in considering such matters at the Llandow appeal in the Vale of Glamorgan (**Appendix 2**), the inspector stated that:

- “The monitoring would ensure that, if any fluid were to be lost, its volume would be extremely limited with high rates of dilution taking place within a limited radius of the borehole such that the risk to private water supplies would be minimal.
- The borehole would be sealed in accordance with guidelines published by the EA in *Decommissioning Redundant Boreholes and Wells* and I have no reason to believe that this would pose a threat to groundwater supplies. The density of the drilling fluid and the blow out preventer required to satisfy HSE guidance would provide adequate safeguards against gas escaping to the surface.”

NRW has also advised that “Our Geoscience team (which includes Groundwater specialists) have reviewed the new information. Providing our recommended conditions and advice are followed and the relevant environmental permits are acquired, we have no concern over groundwater at the site”.

For these reasons, and in light of the absence of any concerns or objections from NRW, it is considered that, subject to the imposition of a condition requiring that the pollution prevention measures are undertaken in accordance with the additional information submitted, the development would not have any adverse or detrimental effect on the hydrology or water environment of the area, including fish in the local watercourses.

### **Cultural Heritage and Archaeology:**

Members should note that there is a Grade II Listed Structure (Pontrhydyfen Viaduct) adjacent to the existing access point. However, as the B4286 already runs underneath this viaduct, and the forestry access onto the B4286 is existing and already used by forestry vehicles, it is considered that this temporary development would not adversely impact upon the setting of the Listed Building/Structure.

CADW were consulted on the previous application (P2014/0217) and noted that no scheduled ancient monuments, historic parks and gardens or historic landscapes were affected by this proposal. As such, they therefore offered no objections.

Finally, it should be noted that under the previous application (P2011/0039), Glamorgan Gwent Archaeological Trust confirmed that there were no archaeological restraints to the development.

It is therefore considered that the proposed development would be acceptable in terms of cultural heritage and archaeology.

### **Restoration and Aftercare:**

During the operational phase of the site little or no surface damage is to occur, with terram being provided as a protective layer to the majority of the site.

However, it is necessary to ensure that the whole of the site is adequately restored to a condition suitable for natural colonisation and regeneration. Given the nature of the temporary operations, it is considered the site can be adequately restored, and a suitably worded condition requiring a restoration scheme can be conditioned as part of the application.

### **Others (including objections):**

While the report above has addressed the main issues relating to the application, in response to matters raised in the significant number of representations received, the following additional comments are made:

- In respect of the concerns that there are no clear cut guidelines on this type of development from WG in respect of safety and impact, it should be noted that there is no specific Technical Advice Note (TAN) from WG. However, they have issued the letter in **Appendix 1**. As stated in the main report though, it is considered that the proposed development would comply with the relevant National and Local Planning Policies, and if planning permission is granted, the developer would also be required to comply with all other relevant legislation (such as permits or licenses).
- Turning to the concerns over the impact of 24 hour drilling in terms of noise and disturbance, it should be noted that this has been addressed previously in the report. The submitted details, including Echo barrier specification, noise assessment and noise management plan have been assessed in detail by the Environmental Health Section. As they offer no objection, subject to conditions, it is considered that this temporary development would not have a detrimental impact in terms of noise sufficient to warrant refusal of the

application, or subsequently justify at appeal stage (if necessary). The issue of light pollution has also been addressed in the main report.

- In respect of the concerns over highway and pedestrian safety, including damage to local roads, and access issues with large vehicles negotiating bends in the roads, it should be noted that this has been addressed previously in the report. The Head of Engineering and Transport (Highways Section) offers no objection, subject to conditions. Traffic light controls or a crossing control person is not considered necessary as part of this temporary permission.
- The potential detrimental impacts upon biodiversity and local wildlife, including badgers and bats has been addressed previously in the ecology section. It should be noted that Natural Resources Wales and the Authority's Biodiversity officer both offer no objection to the development, subject to conditions. It is therefore considered that there would be no detrimental impact upon biodiversity or protected species (including badgers, badgers or honey buzzards), and that the submitted surveys are appropriate given the scale and temporary nature of the proposal. The ecological assessment undertaken in June 2014 would still be considered relevant and not out of date.
- Turning to the potential unacceptable impacts upon the ground conditions, including seismic disturbance or subsidence as a result of the proposal, due to old mine workings in the area, some of which are un-recorded. It should be noted that detailed information in respect of the mining legacy have been submitted in support of the application. The Coal Authority also offers no objection to the proposed application. As there are no proposals for induced 'fracking' operations, it is considered that the scale and nature of the drilling operation would be unlikely to create any issues in terms of seismic disturbance, earthquakes or subsidence.
- Turning to the concerns regarding potential pollution to local watercourses/groundwater and impact upon angling and fish, it should be noted that Natural Resources Wales have confirmed that all contaminated waste and water will be contained and removed from site pending treatment at a suitably authorised waste facility, and that fuels and other polluting substances will be appropriately stored and secured. They accept that there are always a residual pollution incident risks from activities such as this, however best practice procedures on site by the drilling contractors should help to minimise any such risk. As stated in the report above, the proposed development will involve a closed loop system with steel casings, to prevent any ground water entering the borehole or drilling fluids leaving the

borehole. It is therefore considered that the proposal would not have a detrimental impact upon the aquatic environment. As previously stated, the technical aspects of the proposed drilling would also be subject to a permit issued by NRW. Nevertheless, they offer no objection to the proposed development, subject to conditions, and are “satisfied that the advised conditions in our response letter will ensure that fish are protected at the site during and post development”. It is therefore considered that the proposed development would be acceptable in terms of potential pollution.

- Turning to the concerns with the proximity of the site to a Primary School. It should be noted that the current Policy guidance and Regulations do not specify the need for a buffer zone. As such, it would be unjustified to impose a buffer zone under this application, especially as it for a test borehole only and it not ‘fracking’.
- Turning to the potential negative impacts upon the property values in the local area, and potential difficulties getting house insurance cover, it should be noted that these are not material planning considerations so cannot be taken into consideration when determining the application. It should be noted that the Local Planning Authority would not cover the cost of any reasonable damages that occur to people or property, or de-valuation in property prices and any home insurance exclusions or increases in premiums.
- In respect of the comments that this development, if allowed, could pave the way for ‘fracking’ and the industrialisation of the countryside, it should be clear that this application relates to borehole test drilling only, and does **not** relate to ‘fracking’. If such an application were submitted in the future, it would be treated on its individual merits at the time of its submission, including the relevant policies in force at that time. It should also be noted that if this test drilling application is approved, it does not necessarily mean that an application for ‘fracking’ would be approved in the future or set a precedent. Furthermore, as detailed above, it would need to be sent to the Welsh Government for determination if the LPA were minded to grant consent.
- Turning to the concerns over potential unacceptable impacts upon the environment, including climate change, and whether this proposal is contrary to Planning Policy Wales, these are addressed within the main report, together with the Welsh Government Guidance letter in **Appendix 1**.
- In respect of the concerns that the proposal would affect the existing forestry, which is used by walkers, bikers and local tourists. It should be

noted that the proposed development is temporary in nature and once the monitoring has been completed the borehole would be capped and the site restored. As such, it is considered that it would not prejudice the long-term use or future of the area for tourism and other recreational activities. Notwithstanding the above, it should be noted that the public right of way within the area of woodland does not extend into or lie adjacent to the application site.

- In respect of the concerns that there would be a detrimental impact on the morale of the community, this is acknowledged. However, this is not a material planning consideration, and would not constitute a reason for refusal of the application.
- With regards to the concerns regarding the neighbours consulted and the publicity of the application, the Council has met the requirements for statutory publicity with the application advertised by site notices at various locations in Pontrhydyfen, Oakwood and Cwmafan, and in the Neath Port Talbot Courier newspaper. While no specific neighbours were consulted by letter, this is because there are no residential properties immediately adjacent to the application site edged in red. The ‘neighbours’ shown on the system/website relate to the objection letters received only. The statutory consultation period for a planning application is 21 days, which runs from the latest date of the site or press notice. In this case, the press notice was dated 29<sup>th</sup> January 2015, which expires on 19<sup>th</sup> February 2015. A re-consultation was also undertaken for 14 days which ran from 16<sup>th</sup> February 2015 to 2<sup>nd</sup> March 2015. Members will be aware that there has been no attempt to ‘rush’ the application through for determination.
- Turning to the comments that a £1,000,000 bond guarantee should be required from the applicant. It should be noted that financial bonds are only required from developers for large scale operations like opencast quarries. Given the temporary nature and small scale of the proposal, it would not be reasonable for the Local Authority to require a bond in this instance.
- In relation to the comments that the ‘precautionary principle’ should be used with this application, and that the LPA is not applying a precautionary approach in this case, it should be noted that the LPA is satisfied that the proposed development would be acceptable in terms of the relevant planning legislation and policies. Whilst there may be some unknown information or questions, these matters would be outside of the remit of the LPA, as they would be controlled and regulated by other bodies, as detailed in the letter in Appendix 1.

- In relation to the comments that trees are being felled in the area, which means the drilling site will be visible, it should be noted that this has been addressed in the report. The felling being undertaken is by NRW to remove diseased trees. It should be noted that there are no trees on the application site.
- In terms of the comments that the operator should inform people who could be affected and undertake a public consultation as part of the UK Onshore Operators Group (of which the applicant is a member), this is a matter for the developer. In terms of the planning application, the LPA has fulfilled its obligations in respect of publicity, as detailed previously.
- In relation to the comments that two other boreholes have been undertaken without any complaints. The Planning Enforcement Section and Environmental Health Sections have confirmed that no complaints have been received for the exploratory borehole undertaken in Banwen. There are no records of any other borehole from UK Methane or Coastal Oil and Gas.
- In respect of the concerns that an EIA should be undertaken on the application and it should not be granted without one, this has been addressed previously in the report.
- With regards to the future monitoring of the borehole, it should be noted that this would not be material planning consideration, as this would be dealt with under the DECC Licence.
- In respect of the concerns relating to residential amenity and health of local residents in terms of noise, dust and disturbance from 24-hour working and vehicle movements, and toxic chemicals used in the drilling process, it should be noted that this has been covered previously in the report. Due to separation distance, both horizontally and vertically, from residential properties (over 300m and 100m respectively as a minimum), together with the mitigation measures proposed in terms of noise and light, it is considered that this temporary development would not have a detrimental impact sufficient to warrant refusal of the application or subsequently justify at appeal stage if necessary.
- Finally, the comments that shale rock is impermeable and ‘fracking’ would be required. As previously stated above, the developer has categorically confirmed that the drilling operations would use conventional techniques and would not involve ‘fracking’. If it is required in the future, this would

require the submission of a new application and may need to be referred to Welsh Government under the 2015 directive.

### **Conclusion:**

The proposal seeks a temporary consent to undertake an exploratory borehole to establish the potential of coal bed methane and shale gas resources as part of a wider exercise in the region. There will be no unacceptable harm to the local environment to warrant refusal of the application. It is also considered that the proposed access and route would be acceptable in terms of highway and pedestrian safety.

It is also considered that refusal of the application could not be substantiated at appeal, in light of the Welsh Government Guidance letter of July 2014, and given that planning permission has already been granted for a test borehole on this site. Finally, Natural Resources Wales continues to raise no objections or concerns with the application, and the applicant has addressed the reason of refusal on the previous application (P2014/0217) with the submission of a Noise Management Plan which has been assessed in detail by the Environmental Health Section, and concluded to mitigate the impacts of the development to an acceptable degree. As such, it is considered that refusal could not be substantiated at appeal on this ground.

By virtue of this relatively secluded location and short period of operation, it is therefore considered that the development can be operated in an environmentally acceptable manner, subject to conditions, and in accordance with Policies GC2, ENV17, T1, ENV1, ENV5, ENV12, ENV15, ENV19, ENV29, M1 and M8 of the Neath Port Talbot Unitary Development Plan, together with the Welsh Government Policy Guidance.



**RECOMMENDATION:      Approval with Conditions**

**CONDITIONS**

(1) The development hereby permitted shall be begun before the expiration of five years from the date of this permission.

Reason

To comply with the requirements of Section 91 of the Town and Country Planning Act 1990.

(2) At least 48 hours prior to the commencement of drilling operations on site, the Local Planning Authority shall be notified in writing of the intended date of commencement.

Reason

To allow the Local Planning Authority an opportunity to check that requirements relating to matters to be dealt with prior to the commencement of drilling operations have been complied with and to arrange for the inspection and monitoring of the initial stages of the development.

(3) The drilling operations hereby approved shall be restricted to a maximum period of 10 weeks following the commencement of drilling operations on the site, as notified to the Local Planning Authority under Condition 2 of this consent.

Reason

In the interests of amenity.

(4) Notwithstanding the submitted details, all lighting installed on site shall be in line with plan PEDL215/PLANNING/CWMAVON/LIGHTLAYOUT080114 to a maximum height of 3m, hooded and pointing downwards and inwards to the site only, in accordance with the recommendations within Section 7 of the Acer Ecology Report (June 2014).

Reason

In the interests of biodiversity.

(5) Prior to any other development on the site, terram sheeting or other similar covering shall be laid on all areas not subject to disturbance or excavation to prevent soil removal and damage and the preservation of underlying vegetation, and retained as such throughout the operational phase of the development.

Reason

In the interest of local biodiversity.

(6) The application site shall be fenced in heras mesh fencing at all times throughout the operational phase of the approved development.

Reason

To ensure that the site is secured and to prevent badgers or any other mammals entering the site.

(7) Prior to the commencement of any development on site, a further check and consideration for the presence of badgers within or immediately adjacent to the site shall be undertaken by a suitably qualified ecologist.

Reason

To ensure that badgers are not present when development commences.

(8) No development shall take place until a construction method statement /construction environmental management plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The development shall be carried out in strictly in accordance with the approved construction method statement /construction environmental management plan only.

Reason

The construction phase of any proposed development poses potential risks to controlled waters, specifically diffuse pollution to the water environment arising from ground works.

(9) All works on site shall be undertaken strictly in accordance with the approved Method Statement for Drilling and Planning Statement received on 9th February 2015 only.

Reason

In the interests of the amenity of the area and pollution of the environment.

(10) Notwithstanding the submitted details, prior to any works commencing on site a detailed scheme for the disposal of surface water drainage shall be submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be implemented on site throughout the course of the development, including site preparation.

Reason

To prevent pollution to the water environment.

(11) Vehicular access to the site shall only be made in accordance with Section 7.6 of the submitted Planning Statement (January 2015) and, in particular heavy traffic (such as the rig, drill pipe and cabins) shall approach and leave the site only from / to the east via Queen Street / Dan-Y-Bont.

Reason

In the interests of highway safety.

(12) The development hereby approved shall be undertaken strictly in accordance with the submitted Noise Management Plan only, including the noise complaint investigation procedures, and this shall be fully implemented throughout the course of the approved development.

Reason

In the interest of adequate noise mitigation and residential amenity.

(13) A water bowser shall be available at all times throughout the duration of the development hereby approved, and shall be used to deal with any dust issues arising from the development.

Reason

In the interests of local amenity.

(14) Within three months of the completion of drilling and testing operations, all plant, machinery, buildings and the bund compound shall be removed from the site and the site shall be restored in accordance with a detailed scheme to be first submitted to and agreed in writing by the Local Planning Authority.

Reason

To ensure the site is restored to the a suitable condition.

(15) No part of the development hereby approved shall be undertaken on site between 1st March and 31st July in any calendar year.

#### Reason

In the interest of biodiversity and in order to prevent disturbance to nesting birds.

#### REASON FOR GRANTING PLANNING PERMISSION

The decision to grant planning permission has been taken in accordance with Section 38 of the Planning and Compulsory Purchase Act 2004, which requires that, in determining a planning application the determination must be in accordance with the Development Plan unless material considerations indicate otherwise.

The proposal seeks a temporary consent to undertake an exploratory borehole to establish the potential of coal bed methane and shale gas resources as part of a wider exercise in the region. There will be no unacceptable harm to the local environment to warrant refusal of the application. It is also considered that the proposed access and route would be acceptable in terms of highway and pedestrian safety.

It is also considered that refusal of the application could not be substantiated at appeal, in light of the Welsh Government Guidance letter of July 2014, and given that planning permission has already been granted for a test borehole on this site. Finally, Natural Resources Wales continues to raise no objections or concerns with the application, and the applicant has addressed the reason of refusal on the previous application (P2014/0217) with the submission of a Noise Management Plan which has been assessed in detail by the Environmental Health Section, and concluded to mitigate the impacts of the development to an acceptable degree. As such, it is considered that refusal could not be substantiated at appeal on this ground.

By virtue of this relatively secluded location and short period of operation, it is therefore considered that the development can be operated in an environmentally acceptable manner, subject to conditions, and in accordance with Policies GC2, ENV17, T1, ENV1, ENV5, ENV12, ENV15, ENV19, ENV29, M1 and M8 of the Neath Port Talbot Unitary Development Plan, together with the Welsh Government Policy Guidance.

Department for Housing and Regeneration  
Adran Tai ac Adfywio



Llywodraeth Cymru  
Welsh Government

Our ref:

To all Chief Planning Officers

8<sup>th</sup> July 2014

Dear Colleague,

**CL- 04-14 – Clarification on the national planning policies that apply for onshore unconventional gas and oil development**

The extraction of gas and oil, whether by conventional or unconventional (i.e. hydraulic fracturing) methods, is classed as mineral development.

In Wales the relevant national planning policies for mineral development are set out in Minerals Planning Policy Wales (MPPW). Part one of MPPW provides general guidance which is applicable to all applications for unconventional gas or oil whether it is at the exploratory, appraisal, or production (extraction) phase of development.

**Stages of onshore unconventional gas and oil development**

**Exploration** is the use of seismic surveys to provide information about geological structures and exploratory drilling to verify the presence or absence of oil or gas reserves.

**Appraisal** is the assessment of exploration prospects using extended well tests and additional drilling to determine if reservoir development is economically feasible.

**Development and production** cover the development of field infrastructure and the production of hydrocarbons from the reservoir until economically feasible reserves are depleted.

**Decommissioning, restoration and aftercare** refer to operations for the abandonment of wells, the removal of surface installations and the restoration of the site.

Each stage will involve slightly different processes, timescales, equipment, and vehicle movements. Therefore it is necessary to consider all these matters afresh for each planning application. Consequently it does not mean that just because it has been appropriate to grant planning permission to explore for the resource it would necessarily be appropriate to allow commercial extraction and hydraulic fracturing in the same location. Each planning application should be determined on its own merits.

### **Minerals Planning Policy Wales**

Part One of MPPW sets out the five key principles that local planning authorities must take into account when making development management decisions. These principles are to:

- Provide mineral resources to meet society's needs and to safeguard resources from sterilisation
- Protect areas of importance to natural or built heritage
- Limit the environmental impact of mineral extraction
- Achieve a high standard of restoration and beneficial after-use
- Encourage efficient and appropriate use of minerals and the re-use and recycling of suitable materials.

#### **Providing mineral resources to meet society's needs**

MPPW identifies that the contribution that a resource could make to regional and UK demand must be taken into account, and policies which seek to meet only local needs or which rule out all forms of mineral working in an area will only rarely be acceptable.

MPPW identifies that in respect of energy minerals there is limited information about the resources that are likely to be commercially viable for extraction, and that planning authorities should therefore consider all available information on the extent of energy mineral resources.

#### **Protect areas of importance to the natural and built heritage from inappropriate mineral development**

Minerals development should not take place in National Parks and Areas of Outstanding Natural Beauty, save in exceptional circumstances. Paragraph 21 of MPPW identifies what assessment would need to take place in order to demonstrate that the development would be in the public interest.

Paragraphs 23 – 29 of MPPW provide guidance on mineral proposals within, or likely to affect Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsars, SSSI's, and locally designated sites.

Paragraph 30 identifies that the need to protect the quantity and quality of surface and groundwater supplies should be taken into account by local planning authorities. In doing so the local planning authority must consult Natural Resources Wales on

these complex issues, and where doubt exists, should adopt the precautionary principle in taking planning decisions.

Paragraph 31 provides guidance to local planning authorities in respect of historic buildings, landscapes, parks and gardens, conservation areas, and ancient monuments.

Paragraph 32 provides guidance in respect of consideration of agricultural land, farm water supply, surface water, and field drainage. MPPW identifies that the objective should be, wherever possible, to minimise any adverse effects on agriculture occurring as a result of mineral development.

#### Limit the environmental impact of mineral extraction

MPPW identifies that the following issues must be addressed to ensure that minerals proposals do not have an unacceptably adverse impact on the environment and the amenity of nearby residents.

- Access and traffic generation (including the routes to be used for minerals transportation)
- Noise (in terms of limits, type, and location)
- The control of dust, smoke and fumes
- Disposal of mineral waste
- Blasting controls (if relevant to shale or coal bed methane applications)
- Land drainage, impact on groundwater resources and the prevention of pollution of water supplies
- Visual intrusion and general landscaping
- Impact on sites of nature conservation, historic and cultural importance
- Land instability
- Promotion of the use and treatment of unstable, derelict or contaminated land
- Cumulative impact
- Restoration, aftercare, and after-use.

MPPW identifies that the planning system should not conflict with or attempt to duplicate the controls better regulated by other bodies under different consent regimes.

The Welsh Government has been working with the Office for Unconventional Gas and Oil on the production of the Regulatory Roadmap, which identifies all the regulatory processes that an operator will need to satisfy before drilling for unconventional gas and oil. The roadmap can be downloaded from the following address:

<https://www.gov.uk/government/publications/regulatory-roadmap-onshore-oil-and-gas-exploration-in-the-uk-regulation-and-best-practice>

Consequently the following issues will be addressed by other regulators:

- Seismic risk – the Department of Energy and Climate Change (DECC) is responsible for controls to mitigate seismic risks.
- Well design and construction – the Health and Safety Executive is responsible for enforcement of legislation concerning well design and construction.
- Operation of surface equipment on the Well Pad – these are controlled by Natural Resources Wales and the Health and Safety Executive.
- Mining Waste – Natural Resources Wales is responsible for ensuring that extractive waste is appropriately controlled through issuing an environmental permit.
- Chemical content of fracking fluid (if it is to be used) – Operators are obliged to inform Natural Resources Wales of all chemicals that they propose to use to hydraulically fracture in order to obtain an environmental permit.
- Flaring or venting of any gas – is subject to DECC controls and is regulated by Natural Resources Wales. However planning authorities may still need to consider any issues of noise and visual impact that this process may create.
- Final disposal of water – Natural Resources Wales is responsible for issuing permits for flowback water, which may contain naturally occurring radioactive materials (NORM). This responsibility extends to ensuring that the final treatment/disposal of flowback water at suitable water treatment facilities is acceptable. Depending on the phase of development and the scale of production there may be significant volumes of water that will require transporting to and from the site. Therefore local planning authorities will need to consider access, traffic generation, and the visual impact of on site storage facilities.

### Environmental Impact Assessment

Paragraph 38 of MPPW states that planning authorities must consider whether proposed development requires EIA, including development which would otherwise be permitted in accordance with the General Permitted Development Order. The Regulatory Roadmap states that applications for the exploratory and appraisal phase for unconventional gas development will fall under Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 if they exceed the applicable threshold, or if any part of the development is to be carried out in a sensitive area. An EIA is only required if the project is likely to have significant environmental effects. Schedule 3 of the 1999 regulations identifies the selection criteria for screening Schedule 2 development.

MPPW states that EIA is unlikely to be required for exploratory drilling activities. The Welsh Government continues to support this view on the basis that such exploratory drilling does not involve hydraulic fracturing, or is not located on a site that is unusually sensitive to limited disturbance occurring over the short period involved. The Regulatory Roadmap states that where an Environmental Statement is not required operators may still need to submit technical reports including ecology, noise, and archaeology.



Where it is determined that an EIA is required the Regulatory Roadmap identifies that the EIA must cover the geographical area where the impact occurs, both above and below ground. Therefore this is likely to be a larger area than just the surface development site, especially if horizontal drilling is to be used.

Achieve a high standard of restoration and beneficial after-use

MPPW states that unless mineral extraction provides satisfactory and suitable restoration planning permission should be refused. Properly worded and relevant planning conditions should be able to secure the restoration, aftercare, and after use of sites for unconventional gas development, whether this is for exploration, appraisal or production phases.

In conclusion paragraph 64 of MPPW states that where oil and gas operations can be carried out in an environmentally acceptable way and consistent with the principles of sustainable development, there is no case in land use planning terms for placing more restrictions on the development than are necessary to ensure the protection of the environment.

The guidance provided in MPPW, in conjunction with this clarification letter, should be taken into account by local planning authorities in Wales when making decisions on applications for unconventional oil and gas proposals.

Yours sincerely,



**Carl Sargeant AC/AM**  
Y Gweinidog Tai ac Adfywio  
Minister for Housing and Regeneration

## APPENDIX 2 – LLANDOW APPEAL STATEMENT



The Planning Inspectorate  
Yr Arolygiaeth Gynllunio

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### Penderfyniad ar yr Apêl

Ymchwiliad a gynhaliwyd ar 22&23/05/12  
Ymweliad â safle a wnaed ar 11/06/12

gan Emyr Jones BSc(Hons) CEng  
MICE MCMI

Arolygydd a benodir gan Weinidogion Cymru  
Dyddiad: 06/07/12

### Appeal Decision

Inquiry held on 22&23/05/12  
Site visit made on 11/06/12

by Emyr Jones BSc(Hons) CEng MICE  
MCMI

an Inspector appointed by the Welsh Ministers  
Date: 06/07/12

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**Appeal Ref: APP/Z6950/A/11/2167112**

**Site address: Unit 1 Llandow Industrial Estate, Cowbridge CF71 7PF**

**The Welsh Ministers have transferred the authority to decide this appeal to me as the appointed Inspector.**

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
  - The appeal is made by Coastal Oil and Gas Limited against the decision of The Vale of Glamorgan Council.
  - The application Ref 2011/00812/FUL, dated 13 August 2011, was refused by notice dated 21 October 2011.
  - The development proposed is to drill and test the insitu lower limestone and associated strata for the presence of gas.
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### Decision

1. The appeal is allowed and planning permission is granted to drill and test the insitu lower limestone and associated strata for the presence of gas at Unit 1 Llandow Industrial Estate, Cowbridge in accordance with the terms of the application, Ref 2011/00812/FUL, dated 13 August 2011, and the plans submitted with it, subject to the following conditions:
  - 1) The development hereby permitted shall begin not later than five years from the date of this decision.
  - 2) No operations authorised by this permission, with the exception of the site restoration works set out in Section 7.10 of the supporting statement submitted with the application, shall take place after a period of 10 weeks following the commencement of drilling operations on the site, unless otherwise agreed in writing with the local planning authority.
  - 3) The drill rig and all other items of plant and equipment to be used in the drilling operations hereby approved shall each have a typical noise level at 1 metre not exceeding 74 dB(A).
  - 4) No operations authorised by this permission shall take place until details of a scheme to mitigate noise impacts at the nearest residential and commercial properties, as well as the bat roost to the west of the site, has been submitted to and approved in writing by the local planning authority. All operations shall subsequently be carried out in accordance with the approved details.
  - 5) Notwithstanding the submitted documents, prior to any drilling taking place, a detailed working method statement for the drilling operation, to include methods

- to minimise the risk of the loss of drilling fluid to ground water resources during the drilling process and monitoring for any loss of drilling fluid, as well as measures for the collection and disposal of spilt drilling fluid, shall be submitted to and approved in writing by the local planning authority. All operations shall thereafter be carried out in accordance with the approved details.
- 6) Monitoring and assessment of vibration from the operations shall be carried out in accordance with the vibration methodology below unless otherwise agreed in writing with the local planning authority.
    - i) An acceptable datum level of vibration will be agreed with the local planning authority prior to drilling commencing.
    - ii) The inherent vibration of the drill rig will be monitored before transporting to site.
    - iii) Normal prevailing vibration over the drilling area will be measured at the nearest residential and commercial properties before drilling commences.
    - iv) From the commencement of the drilling operation, vibration will initially be continuously monitored without interruption; at times when the drill is both in use and not in use. Monitoring will take place at both the nearest residential and commercial properties. The duration of continuous monitoring will be agreed with the local planning authority once representative vibration data has been compiled and assessed.
    - v) Once the recorded vibration level approaches 10% below the agreed datum level, drilling will cease.
  - 7) Any facilities for the storage of oils, fuels and chemicals shall be sited on impervious bases and surrounded by impervious bund walls. The size of the bunded compound shall be at least equivalent to the capacity of the tank plus 10%. If there is multiple tankage, the compound shall be at least equivalent to the capacity of the largest tank plus 10%. All filling points, vents and sight glasses shall be located within the bund. There shall be no drain through the bund floor or walls.
  - 8) Full details of a scheme for the disposal of foul and surface water drainage shall be submitted to and approved in writing by the local planning authority and the approved scheme shall be fully implemented prior to any drilling operations or site preparation taking place. The submitted scheme shall include proposals for the treatment and disposal of suspended solids from surface water runoff and shall include emergency procedures to be implemented where any failure results in the pollution of controlled waters.
  - 9) Within three months of the completion of drilling and testing operations, all plant, machinery, buildings and the bund compound shall be removed from the site and the site shall be restored in accordance with the details set out in Section 7.10 of the statement entitled Accompanying information submitted with the application or any alternative scheme that may first be agreed in writing with the local planning authority.
  - 10) The works to prepare the site for drilling, construct and dismantle the drill and equipment, and restore the site shall not take place outside the hours of 08:00 to 18:00.
  - 11) Any lighting shall be in accordance with details previously submitted to and approved in writing by the local planning authority.
  - 12) Any drilling shall only be carried out between the months of October to March inclusive.

### Application for costs

2. At the Inquiry an application for costs was made by Coastal Oil and Gas Limited against The Vale of Glamorgan Council. This application is the subject of a separate Decision.

### Main Issue

3. I consider the main issue in this case to be the effect of the proposal on the quantity and quality of groundwater supplies in the vicinity of the site.

### Preliminary matters

4. A significant number of objectors raise concerns as to possible future proposals for gas extraction and the process known as hydraulic fracturing in particular. Whilst I understand these concerns, the proposal before me does not include extraction, whether by hydraulic fracturing or otherwise. Any extraction proposals would require a further application and the *Vale of Glamorgan Unitary Development Plan* (UDP) makes it clear that the grant of planning permission for mineral exploration will not indicate a presumption in favour of future exploitation of any minerals found. I cannot, therefore, take these concerns into account in my determination of the appeal.
5. It was suggested that UDP mineral policies do not apply to gas as no reference is made to it. However, the UDP notes that surveys for hydrocarbon resources were carried out over much of the western Vale in the early 1990's and one of its objectives is to encourage the best and most efficient use of all available resources. It acknowledges that, in the event of renewed exploration activity, it will clearly be necessary to address the policy issues raised in a review of the plan. In the meantime, it recognises that the existing policies will provide an adequate framework for decision-making.
6. The UDP safeguards land at the Llandow Trading Estate for uses falling within Use Classes B1, B2 and B8. Nonetheless, the proposal relates to a temporary development lasting no more than 10 weeks, including contingencies, such that there would be no real conflict with the underlying objective of securing adequate provision of employment land. Interested persons draw attention to lease clauses which may preclude exploratory drilling on the site, but this is essentially a private matter between the appellants and the landlord.
7. Some objectors questioned the need to explore for gas reserves at all. Nevertheless, the Welsh Government's *Energy Wales: A Low Carbon Transition* states that gas will be a key transitional fuel because green house gas emissions from gas are significantly less than coal subject to the method of extraction. It goes on to note that gas is a flexible, responsive and reliable source of energy which can play a key role in the transition to a genuinely low carbon energy system. Likewise, the Department of Energy and Climate Change's *Overarching National Policy Statement for Energy EN-1* indicates that fossil fuel power stations will continue to play an important role in our energy mix as the UK makes the transition to a low carbon economy.
8. It has also been suggested that the proposal should have been subject to Environmental Impact Assessment (EIA), but it was screened by the Council and it was determined that EIA was not required. The proposal does not fall within any of the descriptions given in Schedule 1 of *The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999*, as amended. Whilst Schedule 2 of the same regulations includes deep drillings, the site is not in a sensitive area and the applicable thresholds and criteria refer to the area of the works exceeding 1 hectare which would not be the case here.

9. Schedule 3 of the Regulations refers to the need to consider the characteristics of the development having regard in particular to, amongst others, the cumulation with other development. However, it is only when development meets the threshold within Schedule 2 that one should go on to consider Schedule 3. The assessment of whether an application relates to a Schedule 2 application or not is to be decided by reference to the application for development consent applied for and not any development contemplated beyond that. I, therefore, conclude that the proposal is not EIA development.

## Reasons

### Groundwater

10. The application was refused planning permission on the basis of Dŵr Cymru/Welsh Water's (DCWW) belief at the time that there would be a very small risk of contamination of their reserve groundwater sites in the Vale of Glamorgan from the proposed exploratory drilling. They also indicated that, if there was an excessive loss of drilling fluid to the aquifer during the drilling procedure due to unforeseen geological features being met, then this level of risk would increase. However, DCWW have subsequently confirmed that they did not object to the planning application and, following further discussions with the appellants, now believe that there would be an insignificant risk of pollution of their sources given the nature of the drilling operation.
11. It is also of particular significance that DCWW indicated that they would expect the Environment Agency (EA) to consider the vulnerability of their groundwater sources and wider impact upon the water environment as part of the permitting process. The EA is the relevant regulatory authority insofar as groundwater pollution is concerned. The supporting text to UDP policy ENV 29 notes that advice will be sought from the relevant regulatory authorities, including the EA, and *Minerals Planning Policy Wales* emphasises the need to consult the EA. In this particular case, the EA did not object to the proposals, subject to the imposition of appropriate planning conditions.
12. The abstraction points for the reserve groundwater resource are some 7.8km and 8.6km from the appeal site and the nearest point of the resource's catchment is located over 3.7km away. Over this distance, the geology generally dips to the south (away from the resource) and then up and over a large anticline. Any drilling fluid lost would have to rise over the anticline, flow against the hydraulic gradient, and cross a series of faults with throws of at least 20-30m and around 1.5m of broken material between the fault planes, to reach the reserve groundwater resource. The most significant aquifer in the resource is the carboniferous limestone. This is known to have a low primary porosity with the flow being dominated by fracture/fissure flow and, because of overburden pressure, only the uppermost 100m or so is likely to be effective in transmitting water. As a result, I am satisfied that the risk of drilling fluid being transported towards the reserve groundwater sources, should there be any losses, would be negligible.
13. Furthermore, the risk of drilling fluid being lost to the formation in the first place would be minimised by using fluid of an appropriate density/viscosity and steel casing cemented in place in the carboniferous limestone forming the main aquifer. The use of a closed loop system would facilitate monitoring for any loss of drilling fluid through observation of the levels in the tanks, with excessive losses being addressed by the addition of materials that would swell and block the fractures where water was being lost.

14. The anticipated drilling fluid is a proprietary product known as 'Pure-Bore'. This is a biopolymer which biodegrades naturally within 8 to 52 weeks and is commonly used to drill water wells without contamination problems arising. It has been accredited by the Centre for Environment, Fisheries and Aquaculture Science (part of DEFRA) for use in the marine environment.
15. I have no reason to believe that bacteria, which would treat the product as a food source, are not found in the aquifer, particularly the uppermost layer which is likely to be effective in transmitting water. In any event, the manufacturer reports that it is still capable of breaking down in connate water (water trapped in sediment or rock at the time of deposition). Assessment using juvenile *Daphnia Magna* shows a minimal toxicity indistinguishable from the degree of error involved in the test at a 1:10,000 dilution. Whilst 42% of the organisms were immobile after 48 hours at a 1:1,000 dilution, this is likely to be due to the product's oxygen demand rather than any chemical toxicity.
16. Although not recorded on any public registers, there are private boreholes much nearer the site than DCWW's which are used to extract drinking water for consumption by humans and farm animals. Nevertheless, the process would be comparable to that used in the drilling of an additional water abstraction borehole. The monitoring would ensure that, if any fluid were to be lost, its volume would be extremely limited with high rates of dilution taking place within a limited radius of the borehole such that the risk to private water supplies would be minimal.
17. The site has a long history of military aviation and industrial use such that it is possible that some of the land is contaminated. Nevertheless, the top section of the borehole would be sealed after a day or so and before drilling progressed into the underlying limestone thereby preventing any contaminated groundwater near the surface from migrating downwards. I note that the concrete slab on the site is broken in places such that additional measures may be required to ensure that spilled drilling fluid can be collected and disposed of. Nonetheless, that is a matter of detail which could be adequately addressed by modifying the agreed condition relating to a detailed working method statement for the drilling operation.
18. The borehole would be sealed in accordance with guidelines published by the EA in *Decommissioning Redundant Boreholes and Wells* and I have no reason to believe that this would pose a threat to groundwater supplies. The density of the drilling fluid and the blow out preventer required to satisfy HSE guidance would provide adequate safeguards against gas escaping to the surface.
19. For the above reasons, I conclude that the proposal would not harm the quantity and quality of groundwater supplies in the vicinity of the site.

Other matters

*Noise and vibration*

20. The application proposes 24 hour working during the drilling, testing and restoration phases, but no justification was given for this. At the Inquiry, the appellants' geologist explained that the need arose from the significant extension in drilling time that would result from having to carry out additional operations at the start and end of each shift and the need not to compromise the structural integrity of the borehole.
21. The application was accompanied by a Noise Assessment which shows that the night time background noise level at the nearest dwelling (Six Wells Cottage) approximately

260m away is 20 dB(A) $L_{90}$ . This is well below the level at which it would be appropriate to use BS4142:1997 'Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas' for assessment purposes. It also predicts that, taking account of distance and screening losses, the noise at Six Wells Cottage from the drilling rig would have an equivalent continuous level of 25 dB(A) $L_{Aeq}$  and, taking account of the characteristic features of the noise, a rating level of 30 dB(A) $L_{Ar,Tr}$ . Allowing for a 15dB loss through a partially open window, noise levels would, therefore, be well below the 30 dB(A)  $L_{Aeq,8hr}$  limit for sleep disturbance given in World Health Organisation (WHO) 'Guidelines for Community Noise – 1999'.

22. However, the Noise Assessment only considers the drilling rig whilst the operation would also require such items as a shaker screen, pump and generator. Nonetheless, I have no reason to doubt the evidence of the appellants' geologist that the drilling rig is by far the noisiest item of equipment. The drill rig used in the assessment generates a typical noise level of 74 dB(A) at 1m and an unshielded 30Kva generator has a rating of around 65 dB(A). Even if the shaker screen and pump were individually as noisy as the rig, overall noise levels at the site would only be a few dB(A)'s higher, and could be controlled by the good practice suggested in the assessment. Given that the predicted levels from the rig inside bedrooms with windows partially open are well below the WHO guidance figure for sleep disturbance, I am satisfied that the overall level would also be below the limit such that residential living conditions would not be materially harmed.
23. The nearest offices are around 60m away and the appellants' noise consultants predict that the noise from the drilling rig would be some 48 dB(A) outside the nearest office, with a 15dB reduction through a partially open window giving 33 dB(A) inside. This can be compared with the 40-50 dB(A) quoted for offices in *BS8233 Sound Insulation and Noise Reduction for Buildings*. For the same reasons as given for Six Wells Cottage above, I consider that overall levels would also be below the lowest figure quoted in BS8233 and there would not be an unacceptable impact on businesses on the business park/industrial estate. It has been suggested that some businesses would relocate if the appeal was allowed but, given that I have not identified an unacceptable impact, there would be no reason for such action.
24. I recognise that tents and caravans would not achieve the 15dB reduction through a partially open window previously referred to and that customers are attracted to the neighbouring Caravan Park by the relatively quiet night time environment. Nevertheless, the Caravan Park is in the region of 800m away with the Noise Assessment predicting an equivalent continuous level of 15 dB(A) $L_{Aeq}$  (which is lower than the minimum consistent  $L_{A90}$  background noise levels measured) and a rating level of 20 dB(A) $L_{Ar,Tr}$ . Even allowing for a slight increase to reflect the contribution from other plant and equipment, overall levels would still be relatively low such that there would be no material impact on the Caravan Park or tourism in general.
25. An interested person raised the issue of noise impacts on persons with brain and central nervous system conditions. Although they may well be more susceptible to noise, I have no evidence that would lead me to conclude that the noise generated would be sufficient to significantly harm the living conditions of any such persons living in the immediate vicinity of the site. I also note that the Council's Environmental Health Officer offered no objection on noise grounds.
26. Concerns were also raised as to vibration, but the appellants' geologist has never experienced any problems in that regard. In view of the intention to use rotary rather than percussive drilling methods and the existence of up to 5m of made ground and

glacial till which would absorb surface vibrations, I have no reason to believe that vibration levels would pose any particular problems. The agreed condition would provide further safeguards in this respect.

*Protected species*

27. The Countryside Council for Wales notes that the site is within 800m of a known lesser horseshoe bat maternity roost site and in an area where great crested newts are known to occur. It indicates that the nature of the proposals and resultant effects such as noise, vibration and lighting have the potential to affect both species. The appellants Ecological Assessment demonstrates that the site has negligible potential as dispersal, foraging and hibernating grounds for great crested newts, and offers very low potential for supporting commuting and foraging bats - as confirmed by the results of the single night's survey undertaken. It is also noted that the high level of existing lighting on the industrial park is a contraindicative factor for foraging and commuting lesser horseshoe bats.
28. It states that the effect of noise on bats is very complicated and difficult to predict with numerous studies showing that noise levels decrease foraging efficiency and in some situations even very low changes in noise levels can lead to roost abandonment. Conversely, provided background levels are consistent, lesser horseshoe bats have been found roosting in large numbers beneath motorway bridges and in the middle of industrial complexes. There does not appear to be any published literature suggesting that great crested newts are particularly sensitive to increased noise levels and there is very limited published information documenting vibration impacts on bats or great crested newts.
29. The Noise Assessment predicts an equivalent continuous level of 15 dB(A) $L_{Aeq}$  (which is lower than the minimum consistent  $L_{A90}$  background noise levels measured) and a rating level of 20 dB(A) $L_{Ar,Tr}$  from the rig at the lesser horseshoe bat roost and great crested newt ponds. Even allowing for a slight increase to reflect the contribution from other plant and equipment, noise impacts would still be low, and vibration levels at these locations would not be significantly higher than background levels.
30. On the basis of the evidence before me, I am satisfied that the proposal would not harm protected species.

*Traffic, visual impact, and dust*

31. Interested persons are concerned as to the volume of traffic that would be generated. However, the site is on a business park/industrial estate which is likely to generate a substantial volume of traffic including HGVs, which would be further increased if all the plots/units were occupied. In contrast, the proposal would involve around 18 HGV movements to bring plant and equipment to the site at the start, a similar number to take them away at the end, together with around 8 regular HGV servicing movements per week. This is unlikely to be significant in the context of overall HGV movements to the business park/industrial estate.
32. The site is in relatively poor condition and is largely surrounded by industrial/commercial buildings. In such circumstances, the temporary siting of a 12m high rig and associated equipment would not have an unacceptable visual impact. Given the intention to use a drilling fluid, I have no reason to doubt the Council's view that there are no objections to the scheme on the basis of dust.



Conditions

33. The Statement of Common Ground includes a list of conditions with reasons agreed between the Council and appellants. Subject to the specific matters addressed below and minor modifications in the interests of clarity and precision; I am satisfied that these are necessary and should be imposed for the reasons given.
34. *Minerals Planning Guidance Note: The Control of Noise at Surface Mineral Workings* (MPG 11) advocates setting limits at noise sensitive properties. However, given the very discrete area of the proposed operations, as compared to most mineral extraction sites, the Council's Environmental Health Officer favours setting limits on individual items of plant in this case. I accept his reasoning and agree that the limit should be set at that of the drilling rig used in the Noise Assessment.
35. I have already referred to good practice recommended in the Noise Assessment and adherence thereto, as well as measures such as acoustic enclosures, could be secured by an additional condition requiring a noise mitigation scheme to be subject to prior approval and thereafter complied with. I have also referred to the need to modify the agreed condition requiring the detailed working method statement for the drilling operation to incorporate measures to collect and dispose of spilt drilling fluid.
36. The agreed condition on transporting the rig, drill pipes, cabins and other equipment to the site conflicts with guidance in Circular 35/95 on *The Use of Conditions in Planning Permissions* to the effect that planning conditions are not an appropriate means of controlling the right of passage over public highways. Furthermore, the business park/industrial estate is likely to attract a substantial number of HGV movements throughout the day. Those associated with the proposal would be unlikely to result in a significant increase such that I see no reason to restrict these movements to night time.
37. The submitted Ecological Assessment includes a number of recommendations to mitigate the potential impacts on protected species. Those relating to lighting could be addressed by requiring lighting to be subject to prior approval, which would also control light pollution in general. Limiting drilling operations to the period between October and March to coincide with the period of lowest bat activity should be conditioned. This would also ensure that drilling operations would not coincide with the holding of the National Eisteddfod in the vicinity during August of this year and that they would take place when there is less likelihood of bedroom windows being left open at night and the Caravan Park being at its busiest. The six recommendations on operational procedures could be covered by the noise mitigation scheme previously referred to.
38. The suggested monitoring at the bat roost would require the agreement of the appropriate landowner and there is no guarantee that this could be obtained. In any event, the predictions are that noise levels at the bat roost would be very low with vibration not being significantly above background levels. Subject to limiting drilling to certain months and the noise mitigation scheme, monitoring is not necessary.
39. Because the proposed drilling fluid is a standard one accredited by DERFRA, the EA sees no need for it to be subject to an ecological assessment. As spent drilling fluid is to be treated as controlled waste and disposed of accordingly, the EA does not consider it necessary for it to be tested to see if mobilisation of hazardous substances from underlying strata has taken place. I accept the advice of the Agency and will not impose conditions relating to these matters.

Overall conclusion

40. For the reasons given above, I conclude that the proposal does not conflict with UDP policies MIN 1 and ENV 29 and that the appeal should be allowed.

*E Jones*

Inspector