

Condition 4 - 2013/00333/FUL

Coastal Oil and Gas Limited

Unit 9
Bridgend Business Centre
Bridgend
CF31 3SH

St Nicholas Exploration Borehole Information supplied for Condition 4 of Planning 2013/00333/FUL Mitigation of Noise Impacts December 2014

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Appendices

Description	Reference
Noise Impact Assessment	APPENDIX I

1. Introduction

Coastal Oil and Gas Limited have an approved planning application 2013/00333/FUL:-

- **Drill a single vertical exploration borehole at Site located in field 400m along an unnamed road between the A4266 and Duffryn (grid ref 308215 : 171623)**

The purpose of this document is to provide a noise mitigation scheme for the nearest residential and commercial properties together with the bat roost to the west of the site.

1.1 Site Location

The site is located near Dyffryn, South West of Cowbridge in the St Nicholas and Bonvilston community council's areas of Vale of Glamorgan Borough Council. The national grid co-ordinates for the site are:-

Eastings 308215 Northings 171623



2. Nearest Noise Sensitive Properties



Figure 2: Location of Noise Sensitive properties

In the Noise Impact Assessment undertaken by Hunter Acoustics in March 2013 they identified a number of noise sensitive properties.

Locations of critical residential noise properties are shown in Figure 2.

The nearest critical noise sensitive property appears to be a house at Whitton Bush located approximately 650m west of the proposed drill site. Other NSPs appear to be at least 1km away.

2.1 Predicted Noise Levels

Condition 3 of the planning consent states:-

- *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 79 dB(A).*

Hunter Acoustics have used this noise level to predict using the CONCAWE model what the noise levels would be at residential NSPs:

Taking a distance loss of 650m east, the noise level of the drill rig at the residence is predicted to be approximately 32.3dB(A) L_{Aeq} .

Note: These predictions do not account for any soft ground absorption or screening losses that are likely to occur and can therefore be classed as a worst case prediction.

These levels meet the night-time limits set in MPS2.

Allowing for a 15dB loss through a partially open window should result in noise levels in bedrooms below the World Health Organisation (WHO) night-time sleep disturbance noise criteria of 30dB(A).

3. Noise Mitigation Scheme

The detailed noise impact assessment states that the noise from the drilling equipment will not have an impact on the local environment.

The site will also be protected by the use of a noise abatement barrier that will reduce the noise away from the site. Echo Barrier is noise absorbent matting that is attached to the site fencing. Rather than reflecting the noise back towards the noise source it adsorbs the noise making onsite and off site noise reductions. The Echo Barrier will also be placed around the larger noise generating plant to reduce the noise impacts.

If any site operative feels that the noise on site is near levels that are likely to exceed the predicted noise level then this will be highlighted to the team and drilling will either be stopped, apparatus repaired or additional noise protection measures will be brought to use.

The Echo Barrier noise absorbent matting will be inspected on a daily basis and any repairs will be undertaken immediately.

4. In the Event of a Noise Complaint

In the event of any noise complaints made directly to the site operators, the source of the noise will be investigated. Following an investigation, if substantiated, additional noise reduction measure will be brought into place or the source of the noise will be stopped until such time the noise levels are reduced. Any complaints via the Local Authority, if necessary, arrangements will be made to measure the noise levels at the source of the complaint and if required, appropriate action will be undertaken to reduce noise to acceptable levels.

5. Noise Management Plan

- There will be no unnecessary revving of engines
- All equipment will be switched off when not required.
- All plant and vehicles will be properly maintained, all faults to be repaired
- All silencers and bearings will be regularly checked.
- Any directional noise will be located to point the source away from noise-sensitive locations – e.g. exhausts and mudpuppy.
- The plant will be started up sequentially rather than together.
- All plant will be operated with noise control hoods closed.
- Echo Barrier will be placed around the site and around noisy equipment
- At night the telehandler will only be used for emergency work when required, a banksman will be used at night instead of the reversing beeper.