

GEO-TECHNICAL AND GEO-ENVIRONMENTAL REPORT
PROPOSED RESIDENTIAL DEVELOPMENT
LAND OFF MARCH HYWEL
CLIFREW
NEATH

Prepared for:

Mr Clayton Moore
Credence Finance Limited

October 2006

TERRA FIRMA (WALES) LIMITED

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Report No. 9580

This matter is being dealt with by Paul Heap

GROUND INVESTIGATION LTD,
156 PORT TENNANT ROAD,
PORT TENNANT,
SWANSEA,
WEST GLAMORGAN,
SA1 8JQ

Our Ref: 00033027-06

Your Ref: P520/680

Electronic Ref: EME_00005034310001_005

RRUID: 005.00005034310001

Date: 26 July 2006

Dear Sir,

Coal Mining Report

LAND AT, MARCH HYWEL, CILFREW, NEATH, WEST GLAMORGAN

I refer to the enquiry dated 25th July 2006, received 25th July 2006, in connection with the above.

This report is based on and limited to the records in the possession of The Coal Authority at the time the search is answered.

Ordnance Survey (O.S.) is undertaking a Positional Accuracy Improvement Programme of its mapping data. The Coal Authority (CA) has no control over the timing of issue of Positionally Improved mapping data by O.S. or over users of that data. In some instances the relative position between surface features and coal mining features may alter as a consequence of this programme. The CA will ensure that the integrity of its database is maintained by replotting some mining information to sustain the relationship between that mining information and the improved O.S. surface positions, some of which are now being released. However, mining reports are currently being produced against pre improved O.S. mapping whilst the Authority updates its database in line with the O.S. changes.

Past Underground Mining

According to the records in our possession, the property is not within the zone of likely physical influence on the surface from past underground coal workings.

However you may wish to know that the property is in an area where coal is believed to exist at or close to the surface that may have been worked at some time in the past.

Present Underground Mining

The property is not within the zone of likely physical influence on the surface from any present underground coal workings.

Future Underground Mining

The property is not within a geographical area for which a licence to extract coal by underground methods is awaiting determination by the Coal Authority.

The property is not within a geographical area for which a licence to extract coal by underground methods has been granted.

The property is not within the zone of likely physical influence at the surface from plans of future workings in our possession.

However reserves of coal exist in the locality which could be worked at some time in the future subject to feasibility, licences, and planning consents.

We have no record of any notice of the risk of the land being affected by subsidence being given under S.46 of the Coal Mining Subsidence Act 1991.

Shafts and Adits

We have no knowledge of any mine entries within, or within 20 metres of, the boundary of the property.

The records held by the Coal Authority may be incomplete. Consequently, there may exist in this locality mine entries of which we have no knowledge.

Surface Geology

Records in our possession do not disclose any fault or other line of weakness at the surface as having affected the stability of the property.

Past Opencast Mining

The property is not located within the geographical boundary of an opencast site from which coal has been extracted by opencast methods.

Present Opencast Mining

The property does not lie within 200 metres of the geographical boundary of an opencast site within which coal is being extracted by opencast methods.

Future Opencast Mining

The property is not within 800 metres of the geographical boundary of an opencast site for which a licence to extract coal by opencast methods is awaiting determination.

The property is not within 800 metres of the geographical site boundary of an opencast site for which a licence to extract coal by opencast methods has been granted.

Subsidence

The records in our possession do not disclose any damage notice or claim having been given, made or pursued in respect of the property since 1 January 1984.

The records in our possession do not disclose any current "Stop Notice" affecting the property.

The records in our possession do not show any request having been made to execute preventative works under S.33 of the Coal Mining Subsidence Act 1991.

Withdrawal of Support

The property does not lie within a geographical area in respect of which a notice of entitlement to withdraw support has been published.

The property does not lie within a geographical area in respect of which a notice has been given under S.41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working Facilities Orders

The property is not within a geographical area that is the subject of an Order made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land

The property is not within an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

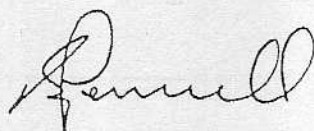
Additional Remarks

In view of the mining circumstances a prudent developer would seek appropriate technical advice before works are undertaken on site. All proposals should have regard to good engineering practice in mining areas as identified in authoritative publications on mining stability problems. In any event, no activities should be undertaken that intersect, disturb, or interfere with any coal or mines of coal without permission of the Coal Authority.

These replies are prepared in accordance with the 2003 editions of the Coal Authority's Terms and Conditions, User Guide and the Law Society's Guidance Notes.

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Yours faithfully



Stephen Pennell

Director of Mining Information and Services



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This is a plan of the boundaries of the property in respect of which this report has been prepared. It is the responsibility of the user to ensure that the boundaries shown correspond with those of the property.

APPROXIMATE POSITION OF ENQUIRY BOUNDARY SHOWN



Executive Summary

The site has previously been used to house chickens and possibly for the grazing of horses. A tennis court was also located in the east of the site. Today the site is grassed field land, surrounded by woodland to the south and west and by residential properties to the north and east. Two streams flow through the site.

The site is underlain by the Brithdir Beds (Sandstone) of the Lower Pennant measures. Glacial Till overlies the sandstone bedrock. The glacial till is further overlain by made ground in the northern and eastern areas.

The development requires basic radon protection measures.

A coal mining report confirms that the site is not within the likely zone of influence on the surface from past underground mining or from the presence of mine entrances. However the report states that coal is believed to exist at or near the surface, which may have been worked at some time in the past.

A site investigation during September 2006, comprising trial pitting and rotary probe hole drilling found Made Ground to 0.5m/0.9m, underlain by Superficial Deposits of variably consistent silty Clay/clayey Gravels, Cobbles and Boulders to 0.6m/4.5m, further underlain by competent Sandstone bedrock, to the maximum investigated depth of 30m. No coal was encountered.

It was concluded that the site is not at risk from past underground mining, as no coal or mining related workings were encountered in the rotary drill holes.

Laboratory chemical testing of the soils indicated measured concentrations of arsenic, cadmium, copper, nickel, zinc, sulphate and total polyaromatic hydrocarbons above comparable guidelines within the Made Ground soils.

It is recommended that the Made Ground be removed from the site and suitably disposed of and replaced with imported inert well-compacted granular materials. Once the remedial measures have been completed there will be no risk to human health or to the aquatic environment.

Based upon the site investigation, it is recommended that for plots 1, 3 and 5 a combination of traditional mass concrete strip and trench foundations be used, founded within the sandstone bedrock. The founding horizon will be found between depths of 0.60m and 2.0m. Variation in these depths should be expected as the bedrock head is irregular. The foundations should achieve a minimum penetration of 200mm into the sandstone. For this foundation solution, an allowable bearing pressure of 150kN/m² may be used for design purposes. Maximum total settlements should not exceed 30mm. Floor slabs should be designed as suspended.

For Plot 2, it is recommended that mini piles be used, founded within the underlying sandstone bedrock installed between depths of 4.10m and 6.5m. Bored steel piles in-filled with concrete and installed by rotary drilling techniques will be appropriate. For a 220mm diameter pile, a safe working load of 500kN should be achieved. Total settlements should not exceed 10mm. Floor slabs should be designed as suspended.

For plot 4, allowances should be made for the use of mini piles, as for plot 2.