

Our Ref: 16750

Your Ref:

Contact: J Rhys-Williams

24th November 2021

CJ Construction Wales Ltd
PO Box 71
The Builders yard
Somerset Ln
Port Talbot
SA13 1UA

For the attn. of Alex Holland

Dear Alex

GROUND GAS MONITORING RESULTS AND ASSESSMENT: BAGLAN WAY

Further to our Geotechnical and Geoenvironmental Investigation Report. No.16750, Ref. 230821-16750-1 for the above site, we confirm that all in-situ gas monitoring visits have now been completed. The results are enclosed.

Three shallow ground gas monitoring wells were installed in boreholes BH01 to BH03.

Six rounds of gas monitoring have been carried out. The installations were tested for carbon dioxide, methane, oxygen, carbon monoxide and hydrogen sulphide using a Gas Analyser GA5000.

Recorded gas concentrations are appended and summarised in **Table 1.1**.

Table 1.1 Measured Gas Concentration Summary

Gas	Minimum (% V/V)	Maximum (% V/V)
Methane	0.0	0.9
Carbon Dioxide	0.0	0.7
Oxygen	7.8	20.9

The gas flow rate from the boreholes was also assessed, no flow was recorded.

Based on the limit of detection flow rate of 0.1l/hr and the highest recorded methane concentration of 0.9%, a gas screening value of 0.009l/hr is calculated, as follows:

$$(0.9/100) \times 0.1 = 0.009 \text{ l/hr}$$

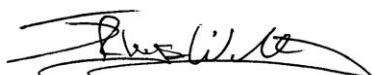
When this result is compared with Table 8.5 of CIRIA report C665, the site is classified as 'Gas Characteristic Situation 1' (CS1).

Sites classified as CS1 require no special ground gas protection.

Initial elevated carbon monoxide levels dissipated to negligible levels after the second monitoring visit. A maximum level of 4ppm was recorded which does not exceed short term or long term levels for Work Place Exposure Limits (EH40/2005) or the EA assessment levels for air (EA 2003a). Furthermore, at these recorded levels carbon monoxide is not deemed to be flammable. Therefore, the potential risk from toxic inhalation or explosion of carbon monoxide is considered negligible and need not be considered for further assessment.

Yours sincerely

For: Terra Firma (Wales) Limited



Mr J. Rhys-Williams

Enc.

In-situ Gas Monitoring Results

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