Consultation Response from: KC Environmental Health (Pollution & Noise Control)		
2026/91300 274 Cumberworth Lane, Denby Dale, Huddersfield. HD8 8QS		
Discharge of details reserved by conditions 3 (Phase I Desk Study Report) and 4 (Phase II Intrusive Site Investigation Report) on previous permission 2025/92634		
Date Responded: 12/06/2026	**Responding Officer: KB**	**Responding Ref: WK/202615570**

Condition 3 – Phase I Desk Study Report (Preliminary Risk Assessment)

For the purpose of discharging condition 3 (Phase I Desk Study Report), a Phase 1 Environmental Desk Study Report by RGS (31/01/2026 - C5759/26/E/8948) has been received.

The report includes geotechnical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspect of the report.

We have read and reviewed these reports and make the following observations.

The Phase 1 Environmental Desk Study provides a comprehensive review of the site history, environmental setting and potential contamination risks associated with the proposed development.

The site comprises previously developed land formerly occupied by a residential property. A site walkover was conducted on 26th February 2026 noting that enabling works had already commenced and the site was clear of buildings and hardstanding with drilling works for a coal mining investigation being completed. RGS found no significant contamination sources were identified during the site walkover.

Historical mapping from 1854 to present identified potentially contaminative land uses within the surrounding area, including former coal mining activities, a coal pit, quarry workings and brickworks with the site being developed in 1929.

The report identified that the site is located within a Coal Authority Development High Risk Area, with evidence of shallow coal workings beneath the site and two capped mine entries immediately south of the site boundary.

Potentially contaminative sources are identified in Table 7 and include artificial/made ground from previous site development at the site and coal mining immediately adjacent and 104m from the site.

A preliminary conceptual site model (pCSM) in Table 8 identifies potential pollutant linkages associated with these sources including a Moderate risk from Hazardous gases and mine gas. The report recommends a Phase 2 Intrusive Investigation is required to further assess ground conditions, contamination risks and potential ground gas associated with former

mining activities This investigation should include three soil sampling locations with sample retrieval for chemical analysis and a minimum of 4/1 gas monitoring.

Comments
We have reviewed the document provided, and the pCSM does not consider the historic landfill recorded 123m west of the site. This should have been identified as a potential contaminative source of ground gases. That aside, we can see that RGS have recommended ground gas monitoring.

For these reasons, there is sufficient information to satisfy the requirements of the condition, and we recommend that the condition is discharged. We expect any gas monitoring programme to be designed and undertaken in accordance with good practice guidance.

Condition 4 – Phase II Intrusive Site Investigation Report
For the purpose of discharging condition 4 (Phase II Intrusive Site Investigation Report) on previous permission 2025/92634, the following reports have been received.

- Phase 2 Geo-Environmental Investigation Report by RGS (April 2026 - C5759/26/E/8950)
- Supplementary gas monitoring letter (RGS Ref. C5759/26/E/8950, dated 11 May 2026)

The reports include geotechnical information, which is outside the remit of Environmental Health, this consultation response therefore only relates to the land contamination aspect of the reports.

We have read and reviewed these reports and make the following observations.

The Phase 2 Geo-Environmental Investigation Report (RGS Ref. C5759/26/E/8950, April 2026) was undertaken following the recommendations of the Phase 1 Desk Study and comprised three windowless sample boreholes, installation of three gas monitoring standpipes and three hand-dug trial pits. The investigation was designed to assess the potential risks to the proposed residential development from land contamination, ground gas and historical mining activities.

The intrusive investigation confirmed that the site is underlain by weathered natural strata associated with the Pennine Lower Coal Measures Formation, with no superficial deposits recorded. RGS reviewed the site investigation findings alongside the previously completed drilling and grouting specification for ground stabilisation works by Haigh Huddleston included in appendix 4 of the report, which identified the presence of historic coal workings beneath the site and within the surrounding area.

Representative soil samples were recovered, subjected to laboratory analysis and compared against Generic Assessment Criteria (GAC) to assess the suitability of the site for the proposed residential end use. Based on the results obtained, RGS consider that no significant contamination was identified.

Ground gas monitoring standpipes were installed within the boreholes to facilitate a programme of gas monitoring. Monitoring was subsequently undertaken between 20th

February, and 13th March 2026 across 4 monitoring rounds. Monitoring was undertaken at atmospheric pressures of between 970mb and 1001mb in rising, falling and steady conditions. The monitoring recorded maximum methane concentrations of 0.1% v/v, maximum carbon dioxide concentrations of 1.5% v/v and a maximum gas flow rate was assumed as 0.1 litres per hour (l/h). Assessment of the monitoring data determined Gas Screening Values (GSVs) consistent with Characteristic Situation 1 (CS1) under CIRIA C665 guidance, indicating a very low risk from ground gas.

A site-specific Conceptual Site Model (CSM) and risk assessment identified a 'Low to Moderate' risk to Site Operative and End Users from the migration of hazardous gases via permeable strata and shallow mining assuming CS1. This was based on the low concentrations of methane and carbon dioxide detected at the site during the initial 4/1 monitoring period. Given the sensitivity of the end use of the site and in line with CIRIA C665 guidance, RGS recommended a further two monitoring visits over an 8-week period.

All other risks were assessed as 'Low' with no further action required. The report concludes that it is unlikely that remediation will be required subject to completion of the gas monitoring programme.

The supplementary gas monitoring letter (RGS Ref. C5759/26/E/8950, dated 11th May 2026) presents the results of the six gas monitoring visits undertaken between 20th February and the 10th April 2026 (a 3 month period) from the three monitoring locations across the site. Monitoring was undertaken at atmospheric pressures of between 986mb and 1001mb including periods of falling pressure.

RGS recorded maximum methane concentrations of 0.1% v/v, maximum carbon dioxide concentrations of 1.5% v/v and a maximum gas flow rate of 0.1l/hr over the six monitoring visits. The calculated Gas Screening Values (GSVs) for methane and carbon dioxide place the site within Characteristic Situation 1 (CS1) in accordance with CIRIA C665 guidance, indicating a 'very low' risk from ground gas.

The completed gas monitoring programme summarised in the letter supports the conclusions of the Phase 2 Geoenvironmental Investigation Report that the risk posed by ground gas to the proposed development is very low and that no specific gas protection measures are required in relation to land contamination.

Comments

We have reviewed the Phase II Geoenvironmental Investigation Report and supplementary gas monitoring letter and require clarification/further information in relation to the following points.

1. The report and letter state that a 'maximum' flow rate of 0.1l/hr was recorded. However, the monitoring records clearly indicate a peak flow rate of 3.3l/hr at WS03 (20.02.2026) which was recorded at a barometric pressure of approximately 987 mb, which falls within the low-pressure range identified in the letter as representing the most onerous conditions for gas migration. This is relevant, as BS8485 and CIRIA C665 require the maximum recorded flow to be used in the calculation of the Gas Screening Value

(GSV), unless a clear justification is provided for the adoption of lower values. The use of a lower reported flow has the potential to underestimate the calculated GSV and contribute to uncertainty in the Characteristic Situation classification.

2. The supplementary gas monitoring letter states that the maximum methane concentration recorded was 0.1% v/v. However, review of the raw monitoring data indicates that methane concentrations of up to 0.2% v/v were recorded at WS03 (13.03.2026) during the monitoring period. This discrepancy is relevant, as BS8485 and CIRIA C665 require the maximum recorded gas concentration to be used in the calculation of the GSV, unless a clear justification is provided for the adoption of lower values. The use of a lower reported methane concentration therefore has the potential to further underestimate the calculated GSV and contribute to uncertainty in the Characteristic Situation classification.

3. It should be noted that the monitoring results in the main body of the letter are presented as single readings per visit, with no distinction between steady-state and peak concentrations although these are recorded in the site monitoring record sheets. This limits transparency and makes it difficult to confirm that the assessment of risk is based on representative worst-case conditions.

4. With respect to the gas monitoring programme, CIRIA C665 (Tables 5.5a and 5.5b) sets out typical or idealised periods and frequencies of gas monitoring based on both the sensitivity of the proposed development and the generation potential of the source. For residential development with gardens, which represents a high sensitivity end use, the guidance indicates that monitoring periods of approximately three months with a minimum of six visits are typically appropriate even where gas generation potential is very low.

   Whilst six monitoring visits have now been undertaken over a three month period, the inconsistencies noted above, together with the proximity of the site to historic landfill and mining features, suggest that a cautious approach is warranted. CIRIA C665 also recognises that where results are variable, or where uncertainties remain in the interpretation of the dataset, extended monitoring periods or additional visits may be required to more robustly characterise ground gas conditions.

   On this basis, it is considered reasonable to seek clarification of the gas risk assessment and, if necessary, additional monitoring to provide confidence that the monitoring dataset adequately represents worst case conditions and that the conclusions regarding Characteristic Situation are fully supported in line with good practice guidance.

For these reasons, we are not currently able to recommend the discharge of Condition 4. Upon receipt of additional information, we recommend that further consultation with Environmental Health is undertaken.