

Consultation Response from: KC Environmental Health (Pollution & Noise Control)
2025/93061 Land off Hermitage Park, Lepton, Huddersfield, HD8 0JU

Discharge of details reserved by conditions 14 (Phasing Plan), 15 (Ecology), 20 (Phase 2 SI), 21 (site remediation), 22 (remediation changes), 23 (validation report), 24 (surface water), 25 (retaining walls) and 26 (coal legacy) of previous permission 2025/90105 for variation of conditions 6 (PROW), 9 (boundary treatment), 38 (bin collection), 40 (car parking) and 41 (access) of previous outline permission 2022/91735 (with access and layout) for erection of 80 dwellings and associated work

Responding Date:
 17th November 2025

Responding Officer:
 SR

Responding Ref:
 WK202535460

Comments
Condition 20 Phase II Intrusive Site Investigation Report

In support of the discharge of condition 20 the following documents have been submitted: -

- Supplementary Geoenvironmental Appraisal Report by Sirius Geotechnical, dated December 2024 ref: C10281
- Gas Risk Assessment letter, dated 11th April 2025, ref: C10281/GLH/10855
- Phase 2 Ground Investigation by FWS Geotechnical and Environmental Consultants, dated January 2024, ref: 3959OR01Rev03

The reports contain geotechnical information, which is beyond the remit of Environmental Health, this response relates to contaminated land only.

Siruis Geotechnical Report and Supplementary Gas Risk Assessment Letter

The report provides a summary of a previously accepted Phase 1 report by Betts Geo Environmental Ltd, dated October 2020 (Ref: 20FRT010/DS) and a Phase 2 Ground Investigation by FWS Geotechnical and Environmental Consultants, dated January 2024, ref: 3959OR01Rev03.

Site history is described since 1854 informing: *“the site to comprise open fields, with a well shown in the southeast. A possible tree lined ditch is located within the northernmost field, up until 1908. An old air shaft is shown c. 5m west of the site from 1893, up until the mid 1950’s. Victoria Colliery is shown c. 20m to the northeast of the site, later with associated earthworks and pitting. A tramway is shown to cross the northern most area of the site between 1916 and 1948. A cricket ground / pitch and associated pavilion building is shown within the northwest of the site between 1916 and the mid 1960’s. The site appears to have been in use as agricultural land since the early 1970’s”*

British Geological Survey (BGS) mapping, show the site to be underlain by Carboniferous Pennine Lower Coal Measures. A Coal Authority (CA) Consultants Mining Report for the site indicates historic coal mining legacy impacting the site and probable shallow workings.

An intrusive investigation was carried out under the supervision of a Sirius Geo-environmental Engineer between 21st and 25th October 2024 and comprised: Excavation of 20 No. machine-excavated trial pits / trenches to a maximum depth of 3.8m bgl. Drilling of 37 No.

rotary open hole boreholes (BH100 to BH136) to a maximum depth of 30.0m bgl. Permanent monitoring installations for both groundwater and ground gas were installed into natural strata in 10 No. rotary boreholes across the site (ref. BH104, BH105, BH109, BH111, BH114, BH116, BH118, BH125, BH135 and BH136). An exploratory hole location plan is shown as Drawing No. C10281/03 included within Attachment A. The borehole logs are included within Attachment B. the report informs no visual or olfactory evidence of gross hydrocarbon or similar contamination was noted during fieldwork.

Ground conditions were shown to be topsoil recorded across the site to depths of between 0.2m and 0.4m below ground level (bgl). Made ground, comprising reworked clays were encountered within TP104 to a depth of 1.4m bgl, in the locality of the former cricket pitch. Pennine lower coal measures were recorded across the site in all locations. Groundwater was encountered at depths of between 3.06m and 17.63m bgl within monitoring wells during post fieldwork monitoring.

The ground gas monitoring programme comprised nine visits over a 5 month period. We are informed the monitoring data was recorded under atmospheric pressure conditions ranging from 973 to 1009 mbar, with periods of falling, rising and steady pressure trends. The results of the gas monitoring are summarised in Table 1 of the supplementary gas risk assessment, no methane was detected and the maximum carbon dioxide concentration of 5.2% v/v was recorded, the maximum peak gas flow rate: 5.4l/hr. The report author has considered the results of this round of monitoring the earlier monitoring undertaken by the previous FWS investigation, as well as the guidance in CL:AIRE (2021), concluding that the site should be classified as CS2 and treated accordingly with respect to mitigation of potential hazardous gas risk.

For CS2 conditions, ground gas protection measures providing a minimum protection “score” of 3.5 points are required for private houses (Type A buildings) in accordance with Table 4 of BS8485. The applicant must identify any enclosed structures that form part of the overall development.

2 Samples were sent for chemical testing as part of the supplementary investigation; no determinants were found to exceed the relevant generic assessment criteria (GAC).

The revised conceptual site model for the site is presented identifying a risk in regard to gas.

Phase 2 Ground Investigation Report by FWS Consultants Ltd

We previously commented on a Phase 2 Ground Investigation Report by FWS Consultants Ltd, dated May 2022 (ref: 3959OR01Rev01/May 2022) in August 2022, we raised questions in regard to completion of gas monitoring, the geographical extent of the investigation and the soil organic matter content of samples. The applicant has provided a revised Phase 2 Ground Investigation by FWS Geotechnical and Environmental Consultants, dated January 2024, ref: 3959OR01Rev03.

Supplementary ground investigations were undertaken on 13 October 2023, including but not limited to mini percussion boreholes and hand dug pits are shown on Drawing 3959OD08, Appendix 1.1 and the exploratory logs are provided in Appendix 2. Reinstallation of monitoring

wells in 5no mini percussion boreholes (WS01, WS02, WS04, WS06 and WS10) to enable subsequent groundwater and gas measurements. 19no hand dug inspection pits (TP01A and TP01B, TP02A and TP02B, TP03A to TP03E, WS04A to WS04E and TP06A to TP06E) were excavated in the vicinity of arsenic hotspots to depths of between 0.25 to 0.40 m bgl. 5no hand dug inspection pits (HDP01 to HDP05) were excavated in the proposed Biodiversity area to a depth of 0.25 m bgl.

The report draws together the chemical sampling results across the site from both reports; no visual or olfactory contamination was noted during sample collection no asbestos was found in any of the samples tested. Of the 31 samples, 6 demonstrated elevated arsenic. Statistical analysis was undertaken the author concludes; *“no outliers have been identified associated with the marginal exceedances and as such the results are considered to represent one data-set / population for the purposes of this assessment. As no made ground was identified associated with these marginal exceedances and as the 95th Percentile for the data-set is below the GAC limit, it is considered that these marginal exceedances are representative of the natural background concentrations in the area and do not present a significant risk of harm to the proposed development”*

Following reinstatement of monitoring wells and further monitoring the gas characterisation for the site is given as CS2. This was further investigated in the Sirius report commented on above and both reports and authors conclude gas characterisation for the site of CS2, thus requiring gas protection measures to structures.

Section 8 provides commentary on the updated conceptual site model, which is presented in schematic form in Drawing 3959OD07, Appendix 1.1. The report concludes no potentially unacceptable health risks have been identified to construction workers or end users in garden areas. Gas monitoring undertaken has determined Characteristic Situation 2 conditions in relation to mine gas emissions from shallow workings and migration via the air shaft on the western site boundary. No specific remedial measures are required during the site preparatory works.

Having considered the new information in relation to contaminated land we make the following recommendations.

Recommendations

Condition 20 Phase II Intrusive Site Investigation Report

On the basis of the professional judgement of the report authors and the evidence and interpretations presented in the Supplementary Geoenvironmental Appraisal Report by Sirius Geotechnical, dated December 2024 ref: C10281, Gas Risk Assessment letter, dated 11th April 2025, ref: C10281/GLH/10855 and the Phase 2 Ground Investigation by FWS Geotechnical and Environmental Consultants, dated January 2024, ref: 3959OR01Rev03, Environmental Health have no objection to the discharge of condition 20.

Conditions 21 (site remediation), 22 (remediation changes), 23 (validation report)

No remediation strategy has been provided for review and therefore condition 21 must remain. A remediation strategy should contain any measures required within the phase 2 reports including the finalised gas protection measures and information on the control of export/import of materials to site.

Condition 22 includes the potential for unexpected contamination being found during construction and must remain until construction is completed.

Condition 23 No validation report has been submitted for consideration, thus the condition must remain.