

Planning Consultation Response

Condition Discharge Application

Environment Section – Contaminated Land

Application Reference:	68608	Discharge Reference:	71805
Site:	Land adjacent to 391 Whalley Road, Ramsbottom, Bury, BL0 0ER		
Approved Development:	Demolition of existing garages and erection of 2 no. semi-detached dwellings with associated parking; Additional off-street parking for residents of Whalley Road		
To:	Tom Beirne	From:	Rebecca Jones
Our Reference:	CL1013.140525.CL1	Date:	14 May 2025

Recommendations

Condition Status Summary

- **Condition 4 (Site Characterisation and Remediation Strategy)** – An updated Remediation Strategy is required which confirms that the full 600mm depth of clean cover will be installed in all private gardens.
- **Condition 5 (Remediation Verification)** – Verification Report and MMP is required.
- **Condition 6 (Imported Soil)** – Details of any imported soil brought to site should be included in the Verification Report.

Outstanding Information

In order for this Section to be satisfied that this development does not pose a risk to human health or the environment, the following information needs to be submitted to the Council for approval:

- An updated Remediation Strategy is required which confirms that the full 600mm depth of clean cover will be installed in all private gardens.
- A materials management plan, if the CL:AIRE Definition of Waste Code of Practice is to be used.
- After completion of site works, a verification report is required to validate that the work undertaken conforms to the remediation proposals received and agreed by this Section.

Desk Study Information	
Current use	On-site: Domestic garages and areas of hardstanding (tarmac and gravel) used for parking. Off-site: Housing, a public house and open land.
Previous contaminating land uses	On-site: A refuse tip (marked on the 1962 map). Off-site: A smithy and an old quarry.
Environmental setting	Geology: Fletcher Bank Grit and Millstone Grit overlain by glacial till. Hydrogeology: Secondary A Aquifers (Fletcher Bank Grit and Millstone Grit). Hydrology: A number of ponds and drainage channels are located within the surrounding area. Mining: Not located within a Coal Mining Development High Risk Area. Landfill/Waste: Not located within 250 metres of a registered landfill site, but a refuse tip is marked on the historical map at the site. Radon: Not located within a Radon Affected Area.
Proposals	2 no. semi-detached houses with front and rear gardens and areas of soft landscaping.

Assessment / Comments	
Information Reviewed	- Final Phase 2 Geo-Environmental Investigation, Risk Assessment and Remediation Strategy. Whalley Road, Ramsbottom, LK Consult, Reference: CL-602-LKC 21 1680-02 Revision 1, 27 March 2025. - Topsoil Analysis Report – Grade 1 Topsoil, Tim O'Hare Associates, Reference: TOHA/23/7826/2/SS, 21 February 2023. The following reports have previously been received and reviewed: - Phase 1: Preliminary Risk Assessment, Whalley Road, Ramsbottom, LK Consult, Reference: CL-602-LKC 21 1680-01, November 2021. - Site Investigation Scope, Whalley Road, Ramsbottom, LK Consult, Reference: LKC 21 1680-SIS, 10 February 2023.
LCRM Stage 1 - Site Characterisation and Risk Assessment	
Preliminary Risk Assessment	A Preliminary Risk Assessment has previously been received and reviewed in letter CL1013.190822.1.

	The consultant concluded that there was a potential risk to human health and the environment at the site. Consequently, an intrusive site investigation was proposed that included: • 5 no. window sample boreholes to 5-6mbgl, all with monitoring installations. • 6 no. visits over 3 months gas monitoring visits. • 8 no. soil samples. • 3 no. groundwater samples.																		
Site Investigation and Generic Quantitative Risk Assessment	A site investigation was undertaken in March 2023 and comprised the following: <table><tr><th>Technique</th><th>No.</th><th>Comments</th></tr><tr><td>Window samples</td><td>5</td><td>Excavated to depths of between 2.7m and 5.3m bgl (WS101-WS105).</td></tr><tr><td>Hand dug pit</td><td>1</td><td>Excavated to 0.6m bgl (HD101).</td></tr><tr><td>Soil sampling</td><td>15</td><td> Samples analysed for a suite of analysis that included metals, speciated PAHs, and asbestos. Visual/olfactory evidence of hydrocarbons noted so 3 no. sample from WS101 and WS104 were also tested for TPH CWG, BTEX, VOCs and SVOCs and 2 no. samples from WS101 and WS104 were subsequently tested for TICs SVOCs and TICs VOCs only. Certificates of analysis: DETS Report No: 23-03215, 17 March 2023 DETS Report No: 23-03858, 28 March 2023 </td></tr><tr><td>Groundwater samples</td><td>3</td><td> Samples analysed for a suite of analysis that included metals, speciated PAHs, TPH CWG, BTEX, VOCs and SVOCs (WS101, WS104, WS105). Certificates of analysis: DETS Report No: 23-0476, 6 April 2023 </td></tr><tr><td>Ground gas monitoring</td><td>6 visits over 3 months</td><td> Monitoring wells installed in WS101-WS105 boreholes with the following response zones: • WS101 (1-3m natural). </td></tr></table>	Technique	No.	Comments	Window samples	5	Excavated to depths of between 2.7m and 5.3m bgl (WS101-WS105).	Hand dug pit	1	Excavated to 0.6m bgl (HD101).	Soil sampling	15	Samples analysed for a suite of analysis that included metals, speciated PAHs, and asbestos. Visual/olfactory evidence of hydrocarbons noted so 3 no. sample from WS101 and WS104 were also tested for TPH CWG, BTEX, VOCs and SVOCs and 2 no. samples from WS101 and WS104 were subsequently tested for TICs SVOCs and TICs VOCs only. Certificates of analysis: DETS Report No: 23-03215, 17 March 2023 DETS Report No: 23-03858, 28 March 2023	Groundwater samples	3	Samples analysed for a suite of analysis that included metals, speciated PAHs, TPH CWG, BTEX, VOCs and SVOCs (WS101, WS104, WS105). Certificates of analysis: DETS Report No: 23-0476, 6 April 2023	Ground gas monitoring	6 visits over 3 months	Monitoring wells installed in WS101-WS105 boreholes with the following response zones: • WS101 (1-3m natural).
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| | | <ul style="list-style-type: none"> • WS102 (0.5-1m made ground). • WS103 (1-3m made ground). • WS104 (3-4m made ground with hydrocarbon odour) – flooded on all visits. • WS105 (1-4m made ground). |
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Ground Conditions and Human Health Risk Assessment: Ground conditions at the site generally comprise of granular/cohesive made ground to between 0.8m bgl (east) and >4.0m bgl (west) containing ash, brick, glass, concrete, clinker and coal. Deposits of organic silt and ashy sand were also encountered. The base of the made ground was not proven in H101 and WS104.

The natural strata comprises of generally of clay, with a band of sand being present in WS101 to 3.0m bgl. Shallow weathered bed rock of sandstone was encountered at between 2.6m to 5.2m bgl.

The soil analysis results have been compared to the Defra C4SLs, CIEH/LQM S4ULs, ATRISK SSVs and CLAIRE GACs for residential with homegrown produce land use.

The following elevated concentrations of contaminants were found in the made ground in the areas of the former refuse tip:

- Arsenic – Samples HD101 0-0.2m (59 mg/kg), WS103 0.2-1.2m (58mg/kg), WS104 0.8-1.5m (186mg/kg) WS104 2.0-3.0m (42mg/kg), WS104 3.0-4.0m (140mg/kg), WS105 3.0-4.0m (47mg/kg) based on C4SL of 37mg/kg.
- Lead – Samples WS101 0.3-0.75m (730 mg/kg), WS102 0.05-0.8m (248mg/kg), WS104 2.0-3.0m (549mg/kg), WS104 3.0-4.0m (656 mg/kg), WS105 3.0-4.0m (453mg/kg) based on C4SL of 200mg/kg.
- Chromium (III) – Samples WS101 0.3-0.75m (7270mg/kg), WS104 3.0-4.0m (3040mg/kg) based on S4UL of 910mg/kg.
- Benzo(a)pyrene - Sample WS104 0.8-1.5m (5.03mg/kg) based on C4SL of 5 mg/kg.

Asbestos (amosite and chrysotile) was encountered in HD01 0-0.2m, WS104 3.0-4.0m and WS105 3.0-4.0m. Quantification found concentrations of <0.001%.

Visual and olfactory evidence of organic contaminants were noted in WS101 and WS104 during the site investigation. The presence of low

levels BTEX, TPH fractions and VOCs /SVOCs were found, however, no elevated concentrations above the relevant GACs were recorded.

The consultant has concluded that there is a potential risk to human health and consequently remedial action is required to deal with widespread heavy metal contamination, presence of asbestos, and localised potentially volatile TPH/VOC/SVOC contamination at WS101 and WS104.

This assessment appears reasonable.

However, it is noted that WS104 is located outside the red line boundary for Application: 68608.

Site Water Conditions and Controlled Waters Risk Assessment:

Groundwater strikes were encountered at between 2.0m and 3.0m bgl during the investigation. Groundwater monitoring found levels were between 0.66m and 2.5m bgl with WS102 being dry on one occasion.

The groundwater analysis results have been compared to relevant standards including the UK Drinking Water Standards as the main controlled waters receptor is groundwater. No elevated contaminants above detection limits or free product were identified in any of the samples. Additionally, it is proposed to remove the potentially hydrocarbon impacted soils in the vicinity of WS101 and WS104. Consequently, the consultant considers that the risks to controlled water are low.

This assessment appears reasonable. However, please note that the Environment Agency is the regulator of controlled waters.

Site Ground Gas Conditions and Risk Assessment: A total of 6 visits have been carried out over a period of 3 months with atmospheric pressure less than 1000mb and falling on 3 occasions. Slightly elevated concentration of methane (maximum 0.8%v/v), elevated carbon dioxide (maximum 9.6%v/v) and depleted oxygen (minimum 0.1%v/v) with flow rates up to 6.5 l/h were recorded in WS101. Elsewhere on-site low concentrations of methane and carbon dioxide and low rate were generally found.

The consultant has used the methodology set out in CIRIA 665 and BS8485:2015 to assess the gas regime at the site. Worst case Gas Screening Values have been calculated for each borehole, suggesting Characteristic Situation 2 conditions in WS101 and Characteristic Situation 1 in the other four borehole. However, the ternary plot suggests that the source of gas is microbial respiration of organic material in the soil, rather than from a landfill gas source. Such a

	source is unlikely to produce a significant amount of gas. Consequently, the consultant considers that the gas regime at the site is representative of Characteristic Situation 1 and that no special gas protection measures are required. This assessment appears reasonable.
Detailed Quantitative Risk Assessment	Not required.
LCRM Stage 2 - Options Appraisal	
Remediation Strategy & Verification Plan	The following measures are proposed so that the contamination identified on site no longer presents a risk: Enabling/Earthworks Phase • Watching Brief for previously unforeseen contamination. • Hydrocarbon hotspot removal in vicinity of WS101 and WS104. • Asbestos Management Plan to be developed and adopted to protect site workers and local residents. Build Phase • Clean Cover System in garden areas: ○ 600mm in rear gardens (500mm topsoil/subsoil and 100mm physical break layer) ○ 300mm in front gardens and soft landscaped areas (200mm topsoil/subsoil and 100mm physical break layer). ○ Where TPOs are in place the cover depth will be reduced and a geotextile membrane will be used. • United Utilities water pipeline risk assessment to determine whether barrier pipe is required. I have the following comments to make: • This Section requires that all private gardens have the full 600mm depth of clean cover. An updated Remediation Strategy is required which confirms that the above changes have been made. Full verification of all remedial actions detailed in the Remediation Strategy will be required and reported upon in a Verification Report produced by a suitably qualified person.
Materials Management	Recommendation to register U1 and T5 exemptions to allow the re-use/importation of suitable soils and crushed concrete/stone/brick. If the limits set out in the exemptions are exceeded, the CL:AIRE Code

	of Practice will be used and a Materials Management Plan developed.
LCRM Stage 3 - Remediation and Verification	
Verification	A copy of a Topsoil Analysis Report has been provided, dated 21 February 2023. It is understood that the development has not yet commenced, and no topsoil imported. Details about the actual topsoil brought to site should be included in the Verification Report. A Verification Report is required.

Notes	
- Bury Council's Developers Guide for Contaminated Land provides an overview of the assessment of contaminated land in Planning and developing potentially contaminated land. - The Environment Section has used all reasonable endeavours to determine the risk from contaminated land and ground gas based upon the information available to it. However, the comments made above should not be taken to imply that the land is safe or otherwise suitable for this or any other development. The ultimate responsibility for safe implementation of the development scheme resides entirely with the landowner and/or Planning Applicant. - Developments that are brought into use prior to the requirements of pre-occupation conditions being satisfied, would be result in breach of condition and could result in the site being considered under Part 2A. - All parties involved with waste and soil movement at the site should be aware that materials illegally deposited or deposited at inappropriate sites may be subject to relevant landfill taxes, payable by all parties. Only robust due diligence is a defence against joint liability. Illegal deposits can include moving waste soil material on sites, or between sites, without the appropriate permits, exemptions or duty of care.	