

Planning Consultation Response

Condition Discharge Application

Environment Section – Contaminated Land

Application Reference:	69463	Discharge Reference:	72782
Site:	Station Works, Bury Road, Radcliffe, Manchester, M26 2UA		
Approved Development:	Development for 30 no. dwellings with associated access road, landscaping and infrastructure works		
To:	Helen Pressley	From:	Rebecca Jones
Our Reference:	CL659.030626.CL1	Date:	3 June 2026

Recommendations	
Condition Status Summary	
Condition 14 (Pre-commencement: Site Characterisation and Remediation Strategy) – This Section is satisfied that the requirements of this condition have been met and that Condition 14 can be recommended for discharge. Condition 15 (Prior to first use: Remediation Verification) – A Materials Management Plan and Verification Report will be required, see items (i) and (ii).	
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: (i) A materials management plan, if the <u>CL:AIRE Definition of Waste Code of Practice</u> is to be used. (ii) 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: Vacant and overgrown following the demolition of the former works after a fire in August 2012.

	Off-site: Residential, and commercial buildings including an electroplating works and a vehicle component works.
Previous potentially contaminating land uses	On-site: Open land, small holdings and an engineering works. Following the demolition of the former Station Works, the site has been used for vehicle storage. Off-site: A mineral water works, an iron works, a brewery, a cotton mill, railway land, a possible refuse tip and residential properties.
Environmental setting	Geology: Middle Coal Measures Formation and the Peel Hall Rock Sandstone overlain by River Terrace Deposits. Hydrogeology: Secondary A Aquifers (Middle Coal Measures Formation and Peel Hall Rock Sandstone). Hydrology: A surface watercourse (former mill race/goit) runs adjacent to the north of the site which is culverted in parts. Mining: Not located within a Development High Risk Area. Landfill/Waste: Not within 250m of any registered landfill sites. Radon: Part of the site is located within a Class 2 Radon affected Area.
Approved development	• Proposed Site Plan, Drawing: SO-00-DR-A-1001 Rev Q, 3 August 2023. • Soft Landscape Specification, Drawing MR22-112/101 Rev A, 10 October 2022.

Assessment / Comments	
Information Reviewed	• Remedial Strategy Report, Bury Road, Radcliffe, IGE Consulting Ltd, Reference: 4187-01 Revision A, April 2026. Previously received and reviewed: • Phase 1 Geo-Environmental Desk Study for Land at the Former Station Works Site, Bury Road, Radcliffe, Manchester M26 2UA The Land Consultancy Ltd, Reference: TLC1204 Final, 12 August 2022. • Phase 2 Ground Investigation Report, Former Station Works Site, Bury Road, Radcliffe, Westlakes Environmental, 5 January 2024. • Remedial Strategy Report, Bury Road, Radcliffe, IGE Consulting Ltd, Reference: 4187-01, June 2024.
LCRM Stage 1 - Site Characterisation and Risk Assessment	
Preliminary Risk Assessment	The report includes a description of the site including its past historical uses. An appraisal of the site environmental setting is presented

	including its geology, hydrogeology and hydrological regime, mining activities, waste management issues, and identification of additional environmental sources, pathways and receptors. This information has been used to compile a clear site conceptual model, which identifies potential sources, pathways and receptors and likely pollution linkages. A site walkover, carried out on 12 August 2022, found that the site was covered with concrete slabs, tarmac and hardcore with some demolition rubble and rough vegetation growing through cracks. No invasive species were noted, however, due to the site's proximity to a watercourse, it was recommended that a survey be carried out by a specialist. The report concluded that there was a potential risk to future site users and the environment from potential contamination at the site. Consequently, a site investigation was recommended which has now been completed.
Site Investigation and Generic Quantitative Risk Assessment	A site investigation was undertaken in July 2023 and comprised the following: • 5 no. boreholes – excavated to between 5.45 and 12.50m bgl (BH01, BH01A-BH04). • 2 no. open rotary follow-on boreholes – excavated to 50.00m bgl (BH101A and BH02). • 12 no. trial holes – excavated to between 1.40 and 3.70m bgl (BH01-BH04, BH04A-BH11). • 18 no. soil samples – tested for a suite of analysis that included metals, BTEX, MTBE, TPH CWG, VOCs, SVOCs, speciated PAHs, PCBs and asbestos (TP01 0.7m, TP02 2.7m, TP03 1.2m, TP04A 0.4m, TP05 0.8m, TP6 0.3m, TP07 0.7m, TP08 1.0m, TP09 0.4m, TP10 0.5m, TP11 0.9m, BH1 0.2m, BH 1.3m, BH2 0.6m, BH3 1.0m, BH2 1.2m, BH4 1.2m). • 3 no. water samples – tested for a suite of analysis that included metals, BTEX, MTBE, TPH CWG, VOCs, SVOCs, speciated PAHs, PFOS and PFOA (BH01 deep, BH03 deep and River – culverted goit). • 4 no. soil leachability samples – tested for a suite of analysis that included metals, BTEX, MTBE, TPH CWG, speciated PAHs, speciated PAHs (TP06 0.3m, TP07 0.7m, TP11 0.9m, BH03 1.0m). • 6 no. gas monitoring visits over 3 months (BH01 shallow, BH01 deep, BH02, BH03 shallow, BH03 deep and BH04). It is note that the preliminary risk assessment did not highlight the potential presence of PFAS based on previous uses at the site. Where

PFAS is suspected, it is recommended that relevant guidance is followed including CIRIA C819, Good practice guidance: some per- and polyfluoroalkyl substances (PFAS) in soil and the water environment.

Site Ground Conditions and Risk Assessment: Ground conditions at the site comprise concrete/asphalt/hardcore/sub-base over granular and cohesive made ground to between 1.0 to 2.0m bgl containing brick, concrete, ash, charcoal, cinder, coal and metal. The natural strata comprises of interbedded sand, clay and gravel. Bedrock of mudstone was encountered at 17.0 to 17.2m bgl. Intact coal seams were noted in the rotary boreholes at 46.5 to 48.5m bgl.

In-ground obstructions including relict structures, foundations and pipework. Hydrocarbon odours were noted in TP02, TP04 and TP06 and slight sulphurous odours in TP03 and TP11.

The soil analysis results have been compared to the Defra C4SLs and CIEH/LQM S4ULs where available for residential with homegrown produce land use.

The following elevated concentrations of contaminants were found in the made ground:

- Lead – Samples TP04A 0.4m (220mg/kg), TP06 0.3m (230mg/kg), TP07 0.7m (230mg/kg), TP09 0.4m (260mg/kg), BH03 1.0m (460mg/kg), based on C4SL of 200mg/kg.
- Arsenic – Samples TP06 0.3m (39mg/kg), BH03 1.0m (97mg/kg), based on C4SL of 37mg/kg.
- Copper – Sample BH03 1.0m (5600mg/kg), based on C4SL of 2400mg/kg.
- Benzo(a)Pyrene – Samples TP06 0.3m (5.7mg/kg), TP10 0.5m (11mg/kg), BH01 0.2m (3.6mg/kg) BH03 1.0m (2.8mg/kg), based on C4SL of 2.7mg/kg.
- Benzo(b)fluoranthene – Samples TP06 0.3m (6.6mg/kg), TP10 0.5m (13mg/kg), BH01 0.2m (3.9mg/kg), BH03 1.0m (3.6mg/kg), based on C4SL of 3.3mg/kg.
- Dibenzo(ah)anthracene – Samples TP06 0.3m (0.75mg/kg), TP10 0.5m (1.7mg/kg), BH01 0.2m (0.59mg/kg), BH02 0.6m (0.33mg/kg), BH03 1.0m (0.48mg/kg), based on C4SL of 0.28mg/kg.

Asbestos (Chrysotile) was encountered in sample BH02 0.6m (0.002%) associated with bitumen.

The consultant has concluded that there is a potential risk to human health and consequently remedial action is required.

This assessment appears reasonable.

Site Water Conditions and Controlled Waters Assessment:

Shallow groundwater was encountered at 1.0-2.7m during the investigation. Borehole monitoring identified groundwater at between 1 and 2.88m within the superficial deposits.

The groundwater, surface water and soil leachate analysis results have been compared to the Environmental Quality Standards. The following elevated concentrations of contaminants were identified:

- Copper – Leachability Samples - TP06 0.3m (34 µg/l), TP07 0.7m (44 µg/l), TP11 0.9m (30 µg/l), BH03 1.0m (25 µg/l); Groundwater Samples - BH01 deep (3.7 µg/l), BH03 deep (3.9 µg/l); Surface Water Sample – River (7 µg/l), compared to the EQS of 1 µg/l.

All VOCs, SVOCs, speciated PAHs, TPH CWG, PFOS and PFOA were below detection level in the groundwater samples.

The potential leachable copper in the made ground samples exceeds the concentrations found in the groundwater and surface water samples. Due to the very conservative nature of the EQS and the presence of glacial till across the site the consultant considers that the risks to groundwater are low. The surface water feature to the north of the site is either culverted or within a concrete open channel therefore it is considered that any pathways from the site would be limited. There are also proposals to remove much of the Made Ground from site as part of the development which will reduce the source of potential leachable contaminants.

This assessment appears reasonable.

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 (August 2023 to 6 October 2023) with atmospheric pressure greater than 1000mb on all occasions (1001 to 1022mb).

Response zones were screened within made ground (shallow) or natural strata (deep). The response zones in both deep standpipes were flooded on all occasions.

No methane was recorded. Elevated concentrations of carbon dioxide

	were recorded in BH02 only (max 5.8%v/v). Depleted levels of oxygen were recorded in BH02 and BHJ04. Flow rates ranged from -4.3 to 0.4 l/h. The negative flow readings were associated with the flooded deep wells. The consultant has used the methodology set out in CIRIA 665 and BS8485:2015 to assess the gas regime at the site. A worst-case Gas Screening Value of 0.0232 l/h has been calculated (5.8%v/v carbon dioxide and 0.4 l/h flow). As the maximum concentration of carbon dioxide exceed 5%v/v, consideration as been given to increasing the Characteristic Situation from 1 to 2. However, the consultant considers that this is not necessary on this occasion due to the following lines of evidence: • Carbon dioxide readings were below 5% in all boreholes except for BH05. • Typical low flow rates. • Lack of biodegradable materials within the Made Ground. • Proposals to remove much of the Made Ground from site as part of the development. 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 remedial actions have been proposed: • Clean Cover System topsoil/subsoil to be placed over a geotextile marker layer. The following depth of clean cover will be placed: ○ 600mm cover in front and rear garden areas (150mm topsoil, 450mm subsoil). ○ 300mm cover in public open space and soft landscaped areas (150mm topsoil, 150mm subsoil). Some front gardens and soft landscaped areas are too small to accommodate the full depth of cover (some areas contain services). Therefore, cover will be installed as deep as is

	practicable to facilitate plant/shrub growth, but depth checks will not be undertaken as part of validation works. The imported cover soils will be tested at a rate of: <u>Greenfield Source</u> ○ 1 per 200m³ for topsoil and subsoil with a minimum of 3 samples from each source. <u>Brownfield Source</u> ○ 1 per 50m³ for topsoil with a minimum of 3 samples from each source. ○ 1 per 100m³ for subsoil with a minimum of 3 samples from each source. Validation samples will be tested for a suite of analysis that will include metals, speciated PAHs, phenol and asbestos as a minimum. The results will be compared to generic assessment criteria (C4SL and S4UL) for Residential with Homegrown Produce for garden areas and Public Open Space Residential for soft landscaped areas. Depth validation using hand dug pits will be carried out in each plot. The cover will meet the British Standard for topsoil (BS 3882:2015) and subsoil (BS 8601:2013). • Potable water supply protection will comprise PE Barrier Pipe Type A as required by the United Utilities Water Supply Pipe Risk Assessment. • Decommissioning of boreholes with bentonite grout to prevent them acting as a preferential pathway for ground gas or contamination. • Materials Management Plan to be developed and implemented, where soils are to be re-used under the CL:AIRE Definition of Waste Code of Practice. • Watching Brief / Discovery Plan will be kept to identify and deal with any previously unforeseen contamination. If any contaminated is encountered during the works, this should be stockpiled separately on an impermeable barrier and chemically tested for suitability of re-use or off-site disposal. Details of any action taken will be included in the Verification Report. • Excess soil material to be disposed of off-site in accordance with the Duty of Care Regulations. Waste transfer documentation should be included in the validation report.
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	The updated Remediation Strategy should be fully implemented.
Materials Management	No information submitted.
LCRM Stage 3 - Remediation and Verification	
Verification	No information submitted.

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.	