

EXECUTIVE SUMMARY

Site Details

Location	End of Greenfield Lane, Queensway, between Iceland Foods to the north-east and Dicken Green residential housing estate to the south-west. Centred at approximate National Grid Reference 390070E 411890N.
Area	1.26Ha.
Topography	149 metres Above Ordnance Datum (AOD). Site is undulating with a steep slope down to the access route in the east. Steep slope down towards Rochdale Canal.
Current Site Use	Vacant land with concrete floor slabs from former mill / works building, concrete and tarmacadam car parking and live electricity substation.
Proposed Development	Residential developments with private gardens.

Site Setting

Main Historical Features	Onsite: Cotton Mill / Electrical Engineering Works, boiler house, chimney, lever/crane, gravel pit, embankments, allotment gardens, road, tank. Surrounding Area: Sand pits, gravel pits, allotment gardens, Sudden Brook, wells, garage, filter beds, spoil heaps, reservoirs, goit.
Geology / Hydrogeology	Artificial: Infilled ground recorded in the southeast of the site and adjacent to the east and south. Superficial: Devensian Glaciofluvial Deposits (Sand and Gravel). Secondary A Aquifer. Bedrock: Pennine Lower Coal Measures Formation (mudstone, siltstone and sandstone). Secondary A Aquifer.
Landfills / Infilled Ground	No recorded landfills. Potentially infilled ground identified on and offsite.
Coal Mining	The site is within a development high risk area. A coal mining risk assessment has been carried out under separate cover. Further assessment is required.
Site Reconnaissance	A site visit was undertaken on 6 th November 2025 confirming that the site conditions reflected that of the site reconnaissance undertaken on 11 th May 2021.
Ecological Assessment	Japanese knotweed Stand: along (south) eastern boundary. Himalayan Balsam: Northern area of site (numerous seedings present) Dense vegetation present along all boundaries.

Ground Investigation Work Undertaken

Date of Investigation	Between 18 th and 25 th February 2026.
Intrusive Investigation Work Undertaken	10no. window sample boreholes. 10no. mechanically excavated trial pits. 3no. cable percussion boreholes. Contamination and geotechnical testing. Gas and groundwater monitoring (ongoing). Soakaway Testing.

Ground Conditions

Made Ground	Concrete and tarmacadam encountered in all locations excluding CP103, TP107 and TP108. Beneath the hardstanding made ground is predominantly variably gravelly, variably silty or clayey sand to between 0.25-1.30mbgl. Where tarmacadam was encountered it was predominantly underlain by sandy gravel, possible mot. Made ground across site encountered anthropogenic material of brick, concrete, coal, wood and timber fragments, ash and clinker.
Superficial	Superficial strata comprise gravelly sand or sandy gravel interbedded with bands of firm slightly gravelly slightly sandy clay.
Groundwater	Encountered at 3.77mbgl in CP102 and between 9.43-9.47mbgl in CP103.
Permeability	The permeability at test depth has been calculated within an order of magnitude of 10^{-4} to 10^{-5} m/sec

Geotechnical Assessment

Allowable Bearing Pressure	An ABC of 100kN/m ² can be obtained in the loose to medium dense sands from c.1.20mbgl.
Anticipated Foundation Type	Traditional shallow foundations recommended from approximately 1.20mbgl. If loose/poor ground is encountered, foundations may need to be deepened / widened or ground replaced with compacted granular material.
Other Considerations	Temporary supports of excavations may be required. Detailed design should be carried out by structural engineer. Concrete Requirements DS1-AC-1.

Contamination Risk Assessment

Pollutant Linkage		Risk	Assessment
1	Asbestos.	Moderate	Asbestos encountered which may be a risk in future garden areas. Recommendation: Remediation to include a 600mm capping layer in all gardens required.
		Moderate / Low	Asbestos encountered which may be a risk in future POS areas. Recommendation: Remediation to include nominal 150mm capping layer in all POS areas required.
	PAHs, petroleum hydrocarbons, PCBs and VOCs / SVOCs..	Low	No metals, hydrocarbons, PAHs, PCBs and VOCs / SVOCs encountered above assessment criteria. Recommendation: No remediation required.
2	Petroleum hydrocarbons, SVOCs, VOCs, naphthalene	Low	No hydrocarbons, PAHs and VOCs / SVOCs encountered above assessment criteria. Recommendation: No remediation required.
3	Hazardous / ground gas: methane, carbon dioxide.	Moderate	To date, no elevated methane and carbon dioxide recorded. Recommendation: Continuation of gas monitoring. Gas protection measures unlikely to be required.
4	Metals, PAHs, petroleum hydrocarbons.	Low	Groundwater sampling not undertaken as no significant evidence of contamination identified in the soil sample results. Recommendation: No remediation required.
5	Naphthalene, petroleum hydrocarbons.	Moderate	Elevated TPH encountered at pipeline depth. Recommendation: Utility provider risk assessment to be completed. The site will likely require barrier piping.

Waste Assessment

The following samples summarised in Table 8-4 are classified as hazardous.

Location and Depth	Contaminant	Total Number of Samples	Hazard Property
TP110 (0.15-0.65)	pH	22	HP8 Corrosive
WS104 (0.28-0.63)			

Recommendations and Remedial Strategy

PL	Recommendation
1	Residential Gardens: 600mm environmental cover system required.
	POS Areas: Nominal 150mm topsoil cover required.
2	No remediation required.
3	Completion of gas monitoring, gas protection measures unlikely to be required.
4	No remediation required.
5	Potable water pipe assessment required.

Other Considerations

Unexpected Contamination
Decommissioning of Boreholes
Grubbing Out of Inground Structures
Re-use of Site Generated Material
Stockpile Management
Disposal
Control of Water
Health and Safety Considerations
Asbestos in Soils Management Plan

Other Work

Validation of Imported / Site Won Soil
Site Completion Report