

Report No: C748
Date: March 2025

GEOENVIRONMENTAL APPRAISAL
of land at
**CARWOOD COTTAGE, SCHOOL LANE, NORDEN,
ROCHDALE, LANCASHIRE**



Prepared for
JHA Pulmann Ltd

Prepared by
G&M Consulting Ltd, The Chestnuts, Brackenhill Road, Haxey, Doncaster DN9 2LR





REPORT NUMBER:	C748	REPORT STATUS:	Final
REPORT TYPE:	Geoenvironmental Appraisal		
REPORT DATE:	March 2025		
SITE:	Land at Carwood Cottage, School Lane, Norden, Rochdale, Lancashire		
PREPARED FOR:	JHA Pulmann Ltd		
PREPARED BY:	A Swinbourne BSc. (Hons) FGS, MEnvSc, ACIEH.		Senior Engineering Geologist
REVIEWED BY:	G Swinbourne BSc. (Hons) MSc. DIC, FGS.		Principal Engineering Geologist

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1.0 INTRODUCTION.

G&M Consulting Ltd (G&M) was commissioned by JHA Pulmann Ltd to undertake a geoenvironmental appraisal of land at Carwood Cottage, School Lane, Norden, Rochdale, Lancashire. It is understood that approval has been granted by Rochdale Borough Council, for the development of the site single detached dwelling. This report has been commissioned to support the discharge Condition No 7 of the approval.

The proposed development layout is shown on Drawing No M22/029/001, dated January 2025. A copy of this drawing is presented in Appendix A of this report.

The location of the site is shown on Drawing No C748/1, presented in Appendix A of this report.

1.1 Project Brief.

The geoenvironmental appraisal of the site has been undertaken in two phases. The initial phase (Phase 1) was a preliminary investigation (desk study) which was prepared by Renaissance Associates Ltd in April 2019 (Report Ref 1809-03). Based on the results of the preliminary investigation, G&M has undertaken an intrusive site investigation (Phase 2), of the proposed area of development.

This report details the results of the intrusive investigation and makes recommendations with regards to the proposed development. This report should be read in conjunction with the desk study, which contains a description of the site, environmental setting and initial conceptual site model (CSM) from which the rationale for the intrusive investigation was derived.

The fieldwork for the intrusive investigation was undertaken on 11th March 2025 and comprised the excavation of five machine excavated trial pits. Following completion of the fieldwork selected soil samples were scheduled for a range of chemical and laboratory tests.

1.2 Site Description.

The site is located to the south of School Lane, to the south of the village of Norden, approximately 4 km north west of Rochdale town centre, at National Grid Reference SD 853 135.

The site is a steeply sloping irregular shaped piece of land, which lies at a level of between 148m and 158m above Ordnance Datum (OD) with the highest part of the site to the north, sloping to the south.

The site is currently a construction site for a large residential property currently being built on the site in the northern part of the site. The areas surrounding the property are currently construction stockpiles and equipment stores. A flat area of rough vegetation and topsoil is noted close to the western side of the new build. A sloping garden is noted to the south of the site, comprising grassland and rough vegetation. The site is bounded to the north and west by forest land, to the south by gardens to a further property and to the east by an access road, leading to School Lane, off which the site is accessed.

A set of site condition photographs have been retained by G&M for inspection if required.

1.3 Limitations.

This investigation report, which is designed to meet the requirements of all relevant current guidance, presents the factual information and interpretation of the data obtained during this appraisal and recommendations relevant to the defined objectives.

The comments and opinions presented in this report are based on the findings of a review of available information and ground conditions encountered during the intrusive investigation work. There may be other conditions prevailing on the site which have not been disclosed by this investigation and which have not been taken into account by this report. Responsibility cannot be accepted for conditions not revealed by the investigation. Any diagram or opinion of the possible configuration of ground conditions between exploratory holes is conjectural and given for guidance only and confirmation of intermediate ground conditions should be considered if deemed necessary.

During the course of the works G&M did not notice the presence of any Japanese Knotweed, or other such invasive plant species. However, it should be noted that G&M are not qualified ecologists and as such cannot guarantee the absence of knotweed or other invasive vegetation. If necessary, the possible presence of such vegetation should be confirmed by a qualified ecologist.

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2.0 GROUND INVESTIGATION.

2.1 Design and Strategy.

The Phase 1 desk study prepared previously, referenced above, was used as the basis for the design of an appropriate intrusive ground investigation. The main findings of the desk study as given in the summary to the report were as follows:

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Environmental

- 7.1.1 The cottage on site remains the only development on site since the earliest map (1850). The cottage is due to be demolished but gross contamination is not considered likely based on the time since it's erection and likely demolition methods to be employed.
- 7.1.2 A backfilled pond at the base of the slope in the south of the site was backfilled by 1890. Furthermore, potentially infilled ponds are thought to be present immediately east of the site. The overall risk to human health is considered to be low, and no further action required.
- 7.1.3 The risk to controlled waters is considered to be low due to lack of developments on site and therefore large volumes of contamination are not anticipated.
- 7.1.4 The risk from offsite sources of contamination is considered to be low due to the only potential source (Ashwoth Mill) being located downslope and has not been operating since 1890.

7.3 Further Work

- 7.3.1 To confirm the risks to the identified receptors and confirm the ground conditions in respect to the identified geotechnical risks, an appropriate intrusive investigation will need to be undertaken.
- 7.3.2 Therefore, to allow future development of the site the following further works are recommended, although this list is not exhaustive and should be read in conjunction with any planning conditions that are applicable to the site.
- Topographical survey / service trace.
 - Intrusive site investigations comprising:
 - Trial pitting and windowless sampling
 - Soil infiltration rate testing,
 - Geotechnical testing of soil,
 - Contamination analyses of soil.
 - Slope stability assessment should be completed with special design for the new build possibly being required.

The aim and purpose of the ground investigation was to verify the nature and depth of made ground and shallow subsoils across the site, to allow informed decisions on potential remediation options that might be required in order to break the direct contact exposure pathways that were identified at the Phase 1 stage. Note that the geotechnical elements of the recommendations in the Phase 1 report were not included within the scope of this current report.

The scope of the intrusive investigation is detailed below;

Exploratory Hole Type	Purpose
Trial Pits	To determine the general nature of shallow soils underlying the site, including the; • Nature, distribution and thickness of any potential made ground. • Nature, degree and extent of ground contamination. • Determination of the presence of shallow underlying natural ground • To help identify and inform suitable remedial options

2.2 Scope of Works.

Fieldwork was undertaken on the 11th March 2025, and comprised;

- Machine excavation of five trial pits, referenced TP01 to TP05 inclusive, to a depth of between 1.20 m and 1.40 m below ground level (bgl). All of the pits extended onto the underlying natural subsoils

The investigation was scoped using guidance presented in BS 10175:2011+A2:2017 and the principles of Land Contamination Risk Management (LCRM) - Environment Agency July 2023 and BS EN 1997:2004 and 2007.

Prior to the commencement of any exploratory hole a scan was carried out for buried services using a combination of cable avoidance tool (CAT) and signal generator ('Genny').

The exploratory hole positions were set out and the fieldwork supervised by a G&M engineering geologist and are shown on Drawing C748/2, presented in Appendix A of this report.

A photographic record of the trial pits is presented on the respective logs presented in Appendix B of this report.

2.3 Strata Description.

Depths and descriptions of strata encountered together with details of the samples recovered are shown on the exploratory hole record sheets presented in Appendix B of this report. A photographic record of the trial pits is included on the respective record sheets.

Procedures and principles contained in BS EN ISO 14688-1:(2002), as amplified by BS 5930:(2015+A1:2020) were followed.

The depths of strata on the record sheets are recorded from current ground levels at each location.

2.4 Sampling and In-situ Testing.

Small disturbed sub samples of soil were taken from the exploratory holes for chemical analysis, these were placed in amber glass jars as appropriate.

In accordance with best practice (BS10175:2011+A2:2017) samples were collected in appropriate containers, kept in a chilled cool box whilst on site, retained in a fridge (below 2°C) until the day of collection, packed in a chilled cool box on the day of collection and transported in this to the laboratory.

2.5 Laboratory Testing.

Selected soil samples were tested for a range of potential contaminants, under a sub-contract with Envirolab Ltd, a UKAS/MCERTS accredited laboratory. The analytes tested are listed in Section 4.2 of this report.

The results of soil analysis, are presented in Appendix C of this report.

3.0 GROUND CONDITIONS AND MATERIAL PROPERTIES.

A complete record of all the strata encountered is given on the attached trial pit logs, presented in Appendix B of this report. In general, these show a topsoil/made ground, over a cohesive subsoil.

3.1 Made Ground/Topsoil.

Topsoil was encountered in TP01, TP04 and TP05 to a depth of 0.40 m bgl. This soil typically comprised a dark brown slightly gravelly very sandy clay. The gravel constituent is subangular to rounded fine to coarse of quartzite, sandstone, coal and rare brick.

Made ground was encountered in TP02 and TP3 to a depth of 0.25 m bgl. This soil typically comprised a fine to coarse gravel of mudstone, quartzite, limestone and brick.

3.2 Natural Cohesive Deposits.

Under lying the made ground/topsoil in all of the exploratory locations was a soft, yellowish brown gravelly, very sandy clay with a low cobble content, to the base of each of the trial pits. The gravel

was recorded as fine to coarse of quartzite and sandstone. The cobbles were also recorded as quartzite and sandstone.

Within TP02 and TP04, a low boulder content was also noted. The boulders were recorded as sandstone.

3.3 Groundwater.

No groundwater was encountered during the excavation of the trial pits.

It should be borne in mind that water levels are likely to fluctuate with season/rainfall and that the groundwater regime may therefore be substantially higher than those found during this investigation.

3.4 Visual / Olfactory Evidence of Contamination.

The made ground was found to include varying proportions of brick, quartzite and coal which can produce elevated concentrations of certain toxic and phytotoxic contaminants.

No olfactory evidence of any contamination was noted during the fieldwork.

As per BS 10175:2011+A2:2017 samples were field tested using a PID (which is not an accredited sampling technique). This is accepted as a preliminary method for assessing hydrocarbon impacted soils. This should only be used as a guide for selecting which samples 'require more comprehensive laboratory analysis'. No elevated PID readings were recorded during the fieldwork. The results are presented on the respective exploratory hole logs, presented in Appendix B of this report.

4.0 RESULTS OF CHEMICAL TESTING.

4.1 General.

For this site, measured values were compared to Generic Assessment Criteria (GAC) derived for a residential with plant up take end use.

Chemical analysis was undertaken on representative soil samples recovered from across the site. The determinands were selected to provide information on the distribution of potential contaminants. The general analytical suite was supplemented with additional analysis where former land usage, as determined from the desk study, or visual or olfactory observations suggested the presence of additional contaminants.

The majority of initial screening levels (GAC's) used in the production of this assessment have been taken from the guidelines introduced by:

- DEFRA C4SL's, DEFRA 2015.
- Joint Land Quality Management Ltd (LQM) and Chartered Institute of Environmental Health (CIEH), Generic Assessment Criteria for Human Health Risk Assessment, S4UL's, Land Quality Press 2015.

Usually statistical testing is undertaken for the Planning Scenario by the methods described in CL:AIRE "Professional Guidance: Comparing Soil Contamination Data with a Critical Concentration", September 2020. This statistical testing is undertaken to determine whether there

was sufficient evidence that the true mean concentration of each determinand was less than the relevant critical concentration for that component. However, given the fact that a proportion of the sampling was carried out on a targeted basis, detailed statistical assessment of the data has not been conducted, instead individual contaminant concentrations have been compared to their relevant assessment criteria.

4.2 Testing Schedule.

Following completion of the fieldwork samples were selected for testing as follows;

Laboratory Analysis	Made Ground/Topsoil	Natural Soils
Total concentrations of arsenic, cadmium, chromium (incl hexavalent), copper, lead, nickel, selenium, zinc, mercury	5	3
Water soluble sulphate, pH	6	2
Speciated PAH	6	4
Phenol	5	2
Asbestos	6	-

4.3 Soil Analysis.

The chemical analysis results and screening criteria are summarised below. The results for the made ground and natural soils have been combined for an initial assessment.

Summary of Total Soil Concentrations

Determinand	GAC (1% SOM) (mg/kg, unless otherwise stated)	No. of samples above screening value	No. of samples tested	Maximum concentration above GAC (mg/kg, unless otherwise stated)
Metals/Metalloid9				
Arsenic	37 ⁽²⁾	0	8	
Cadmium	11 ⁽¹⁾	0	8	
Chromium (IV)	21 ⁽¹⁾	0	8	
Lead	200 ⁽²⁾	1	8	223 (TP05-0.2m)
Mercury	40 ⁽¹⁾	0	8	
Selenium	250 ⁽¹⁾	0	8	
Copper	2400 ⁽¹⁾	0	8	
Nickel	180 ⁽¹⁾	0	8	
Zinc	3700 ⁽¹⁾	0	8	
Inorganics				
pH	<5	0	8	
Water Soluble Sulphate	0.5 g/l	0	8	
Organics				
PAHs				
Acenaphthene	210 ⁽¹⁾	0	10	
Anthracene	2400 ⁽¹⁾	0	10	
Acenaphthylene	170 ⁽¹⁾	0	10	
Benzo(a)anthracene	7.2 ⁽¹⁾	0	10	
Benzo(b)fluoranthene	2.6 ⁽¹⁾	0	10	
Benzo(k)fluoranthene	77 ⁽¹⁾	0	10	
Benzo(g,h,i)perylene	320 ⁽¹⁾	0	10	

Determinand	GAC (1% SOM) (mg/kg, unless otherwise stated)	No. of samples above screening value	No. of samples tested	Maximum concentration above GAC (mg/kg, unless otherwise stated)
Benzo(a)pyrene	5.0 ⁽²⁾	0	10	
Chrysene	15 ⁽¹⁾	0	10	
Dibenz(a,h)anthracene	0.24 ⁽¹⁾	0	10	
Fluoranthene	280 ⁽¹⁾	0	10	
Fluorene	170 ⁽¹⁾	0	10	
Indeno(1,2,3-cd)pyrene	27 ⁽¹⁾	0	10	
Naphthalene	2.3 ⁽¹⁾	0	10	
Pyrene	620 ⁽¹⁾	0	10	
Phenanthrene	95 ⁽¹⁾	0	10	
Others				
Monohydric Phenol	120 ⁽¹⁾	0	7	
Asbestos	Fibres present	1	6	TP03-0.1m

¹ LQM/CIEH (2015) S4UL's for Human Health Risk Assessment. 2nd Ed. (for a sandy soil with 1% SOM and pH 7.0)

² DEFRA C4SL's, DEFRA 2015

³ BRE (2005) Special Digest 1, 3rd Edition, Concrete in aggressive ground. Upper limits for DS-1 Design Sulphate Class concrete.

Elevated Lead was encountered in one sample of the topsoil (TP05 at 0.20m), which recorded a value of 223mg/kg, against a threshold of 200mg/kg.

Asbestos fibres were encountered in the one sample in six samples tested. The sample recorded fibres of Chrysotile in TP03 at 0.1m

No samples of the natural soils, were shown to be elevated above respective GAC levels.

5.0 QUALITATIVE RISK ASSESSMENT AND REVISED CONCEPTUAL MODEL.

The preliminary conceptual site model, developed from the desk study information, as presented in the G&M Phase 1 report, has been revised in light of the ground investigation and chemical analysis results presented above. The revised conceptual model has been developed for the proposed future land use (residential with plant update). This summarises the understanding of surface and sub-surface features, the potential contaminant sources, transport pathways and receptors.

Human Health – further considerations:

- Elevated Lead encountered in one sample of topsoil in TP05.
- Fibres of Chrysotile encountered in one sample made ground in TP03
-

Summary of Identified Pollutant Linkages

In summary, the revised conceptual site model has identified the following potential pollutant which could result in an unacceptable risk to the proposed end-use, denoted as a moderate or higher potential of significant pollutant linkage on the conceptual site model.

Source	Risk	Potential Contaminants	Exposure Pathway	Primary Receptor/s	Complete Pollutant Linkage
	Moderate	Lead,	Skin contact Ingestion	Construction workers,	Yes: Residential property is likely to have a garden and areas of soft landscaping, clean

Made Ground/Topsoil on site	High	Chrysotile Asbestos fibres	Inhalation	End users of site	capping of gardens and areas of soft landscaping will be required.
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6.0 CONCLUSIONS AND RECOMMENDATIONS.

6.1 General.

&M Consulting Ltd (G&M) was commissioned by JHA Pulmann Ltd to undertake a geoenvironmental appraisal of land at Carwood Cottage, School Lane, Norden, Rochdale, Lancashire. It is understood that approval has been granted by Rochdale Borough Council, for the development of the site single detached dwelling. This report has been commissioned to support the discharge Condition No 7 of the approval.

The proposed development layout is shown on Drawing No M22/029/001, dated January 2025. A copy of this drawing is presented in Appendix A of this report.

It has been assumed that ground levels will not change significantly from those described in this report, or that the proposed end use of the site will not change from that detailed above. If this is not the case, then amendments to the interpretation and conclusions in this report may be required.

6.2 Contamination Constraints to Development.

Risk Evaluation for Proposed Land Use (Residential With Plant Update)

Localised occurrences of Lead and Asbestos fibres have been identified within the topsoil/made ground on the site. These occurrences are considered to pose a **moderate/high** risk to future site users. Consequently, remedial action is therefore considered necessary to break the potential pollutant linkage.

Considering the depth of topsoil/made ground encountered during the investigation, up to a maximum of 0.4 m bgl, it is recommended that these materials are removed onto the underlying natural subsoils, from proposed areas of private gardens or soft landscaping and replaced with clean capping soils.

If made ground is left beneath areas of proposed hardstand (building footprints and car parking etc), it is considered to pose a **negligible** risk to end users, as pathways are severed due to capping by the hardstanding.

Controlled waters

No groundwater was encountered during investigation works.

Considering the fact that the results from the made ground/topsoil are predominantly underlain by cohesive subsoils, that would limit any lateral or vertical migration of mobile contaminants, and that the made ground soils will be either removed or capped with hard stand or clean capping soils (thereby effectively eliminating surface water infiltration and leachate generation), it is considered that the soils are considered to pose a **negligible** risk to controlled waters and that no further remediation is considered necessary. This opinion is subject to regulatory approval.

Construction and Maintenance Workers

On the basis of the results obtained, the revised conceptual model confirms potential **moderate** risk to construction workers from Arsenic and fibres of Chrysotile Asbestos, within the existing made ground/topsoils. Risks can be readily adequately mitigated by appropriate PPE and hygiene

precautions and good working and soil management practices, including dampening down of soils. It is recommended that procedures outlined in the HSE document 'Protection of Workers and the General Public during Remediation of Contaminated Land' be followed.

This report should be forwarded to any organisation undertaking groundworks in order for them to assess the risk to their own personnel.

Adjacent Site Users

Provided any made ground materials are carefully excavated and standard dust control measures are adopted, including dampening down of soils, during the development works, then it is considered that there is a **negligible** short-term risk to adjacent site users.

Built Development

This assessment of the potential for chemical attack on buried concrete is based on current guidance contained in BRE Special Digest 1 ('SD1', 2005) Concrete in Aggressive Ground Part 1: Assessing the aggressive chemical environment. Third Edition.

Soil pH values recorded in eight samples of made ground/topsoil and natural soil range from 5.19 to 7.64 with corresponding water-soluble sulphate (SO₄) results in the range <0.01 g/l to 0.05 g/l. From these results a 'Characteristic Value' of 5.19 is derived for pH and 0.05 g/l for water soluble sulphate.

Using Table C2 from SD1, for brown field sites, and based on the results the Design Sulphate Class for the site is DS-1.

Utilities

It is recommended that the results of the chemical testing are provided to the appropriate utility companies to determine the necessity for service protection.

6.3 Watching Brief on Development Works

It is possible that areas of contamination or made ground may be encountered during the development works, which have not been identified by this report. If any areas of noxious, odorous, fibrous or liquid etc. contamination are encountered, then works should stop immediately, the local authority informed and further advice sought from a suitably experienced and qualified consultant. It is recommended that a watching brief be maintained during the development work for this purpose.

6.4 Disposal of Unsuitable Soils

Any unsuitable materials which are to be exported from site, should be despatched to a suitably licenced landfill facility, in accordance with the requirements of the Duty of Care (DoC) Regulations, April 2006 and where appropriate, the HWR, 2005 or any superseding legislation.

6.5 Regulatory Approval

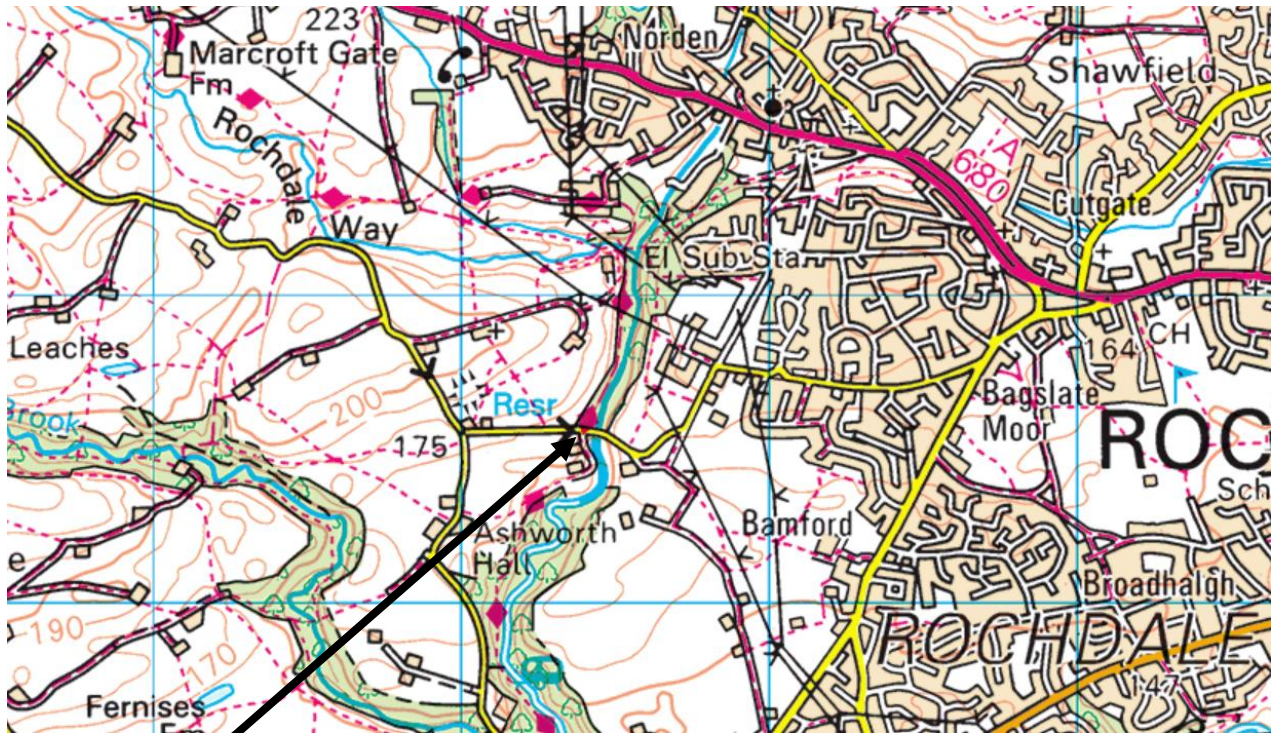
The conclusions and recommendations presented above are considered practical based on the findings of this investigation. The conclusions and recommendations cannot, however, be guaranteed to gain regulatory approval, and therefore this report should be submitted to the regulators for their comment/approval as part of any planning process.

The above recommendations comprise a general outline of possible or likely works. A remediation strategy report should be produced and agreed with the regulatory authorities prior to development.



APPENDIX A

DRAWINGS



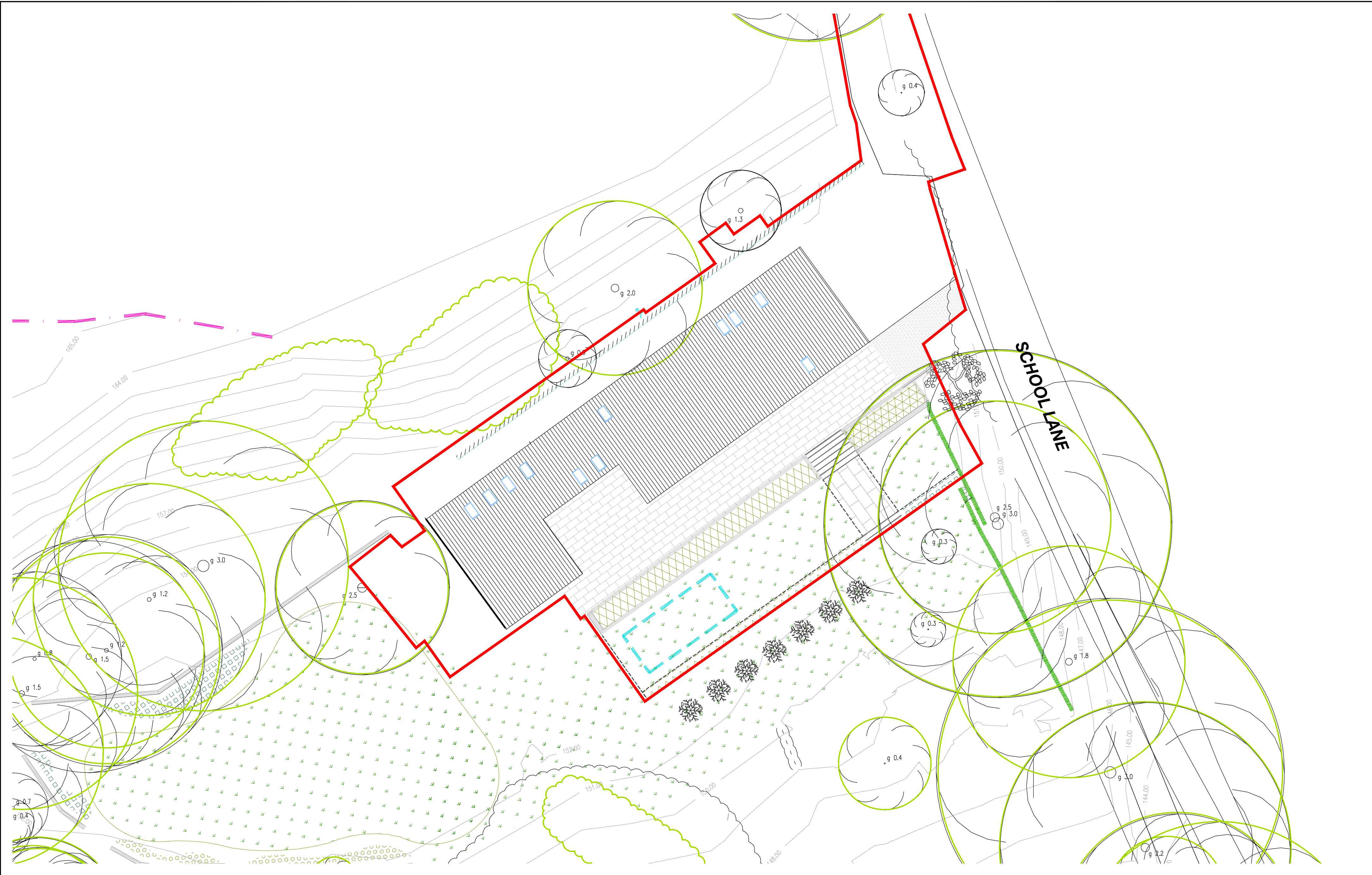
The Site

Site Location Plan

Drawing No C748/1

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PLEASE NOTE

- DO NOT scale from this drawing, use figured dimensions only.
- All dimensions to be checked on site by the contractor.
- Please report any discrepancies to JHA Ltd immediately.
- All setting out dimensions are approximate. To be marked out on site for approval by JHA Ltd prior to construction.

NOTES:

Ref	Date	Revision	Initial

Project / Client:

**PROPOSED RESIDENTIAL DEVELOPMENT
TO
CARRWOOD COTTAGE, ROCHDALE
FOR
ZOE BAMFORD**

Issue:

PRELIMINARY ISSUE

Drawing Title:

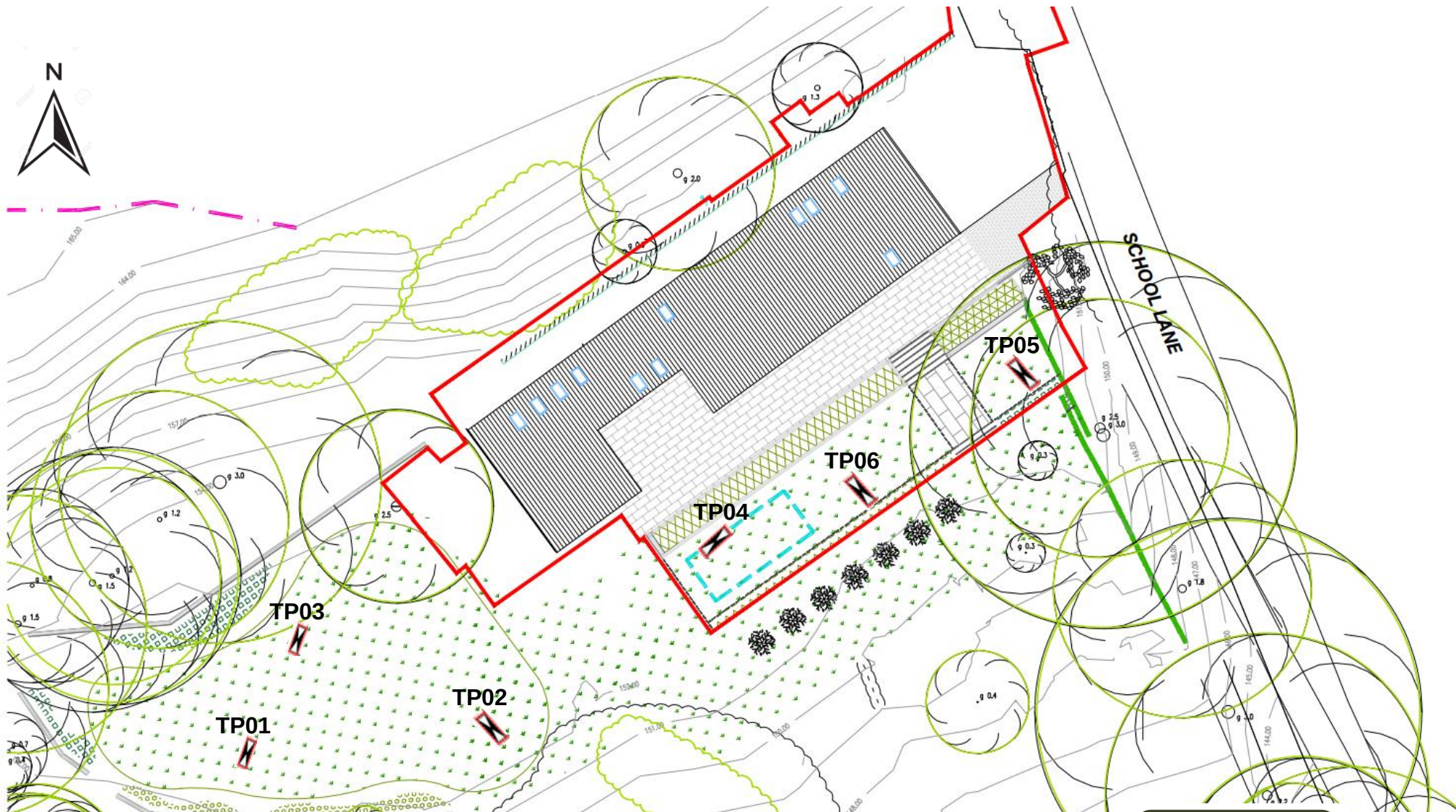
PROPOSED SITE PLAN

JHA Pulmann,
18A Bridge Street
Milnrow, Rochdale,
OL16 3ND

T 01302 364565
E enquiries@j-h-a.co.uk
W www.j-h-a.co.uk

Scale:	1:200	Date:	JAN 2025
Drawn By:	JA	Checked By:	XXX
Drawing No:	M22/029/001	Sheet Size:	A2

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Drawing No: C748/2		Scale NTS	
Contract	C748 – Carwood Cottage, Rochdale	Drawn AS	Approved GS
		Drawing Name –Exploratory Hole Location Plan	





APPENDIX B

EXPLORATORY HOLE RECORDS



Key to exploratory hole symbols and abbreviations

SAMPLE TYPES

ACM - Asbestos sample	AMAL - Amalgamated sample	B - Bulk disturbed sample
BLK - Block sample	C - Core sample	CBR - CBR test sample
D - Disturbed sample	ES - Environmental sample	EW - Environmental water sample
G - Gas sample	J - Jar sample	L - Liner sample
TW - Pushed thin wall sample	U - Undisturbed sample	UT - Undisturbed thin wall sample
W - Water sample		

IN-SITU TESTS

HV - Hand shear vane	HV(r) - Hand shear vane residual	PID - Photo ionisation detector
PP - Hand penetrometer	SPT - Standard penetration test	SPT(C) - SPT using cone

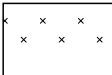
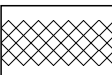
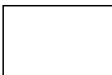
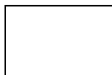
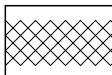
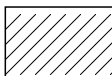
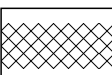
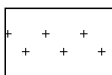
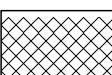
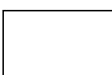
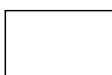
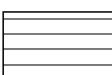
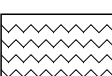
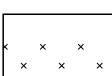
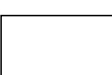
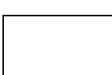
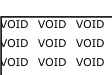
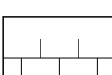
GROUNDWATER

 Groundwater strike	 Groundwater rest level
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ROTARY CORE DETAILS

TCR - Total core recovery (%)	SCR - Solid core recovery (%)	RQD - Rock quality designation (%)
FI - Fracture index	NI - Non-intact core	AZCL - Assumed zone of core loss

LEGEND

 Topsoil	 Clay	 Chalk	 Sand backfill
 Peat	 Silt	 Breccia	 Gravel backfill
 Made ground	 Sand	 Conglomerate	 Arisings
 Concrete	 Gravel	 Metamorphic	 Bentonite
 Wood	 Cobbles	 Igneous	 Concrete
 Brick	 Boulders		 Grout
 Bituminous material	 Mudstone		 Plain pipe
 Gypsum	 Siltstone		
 Coal	 Sandstone		 Slotted pipe
 Void	 Limestone		



Trial Pit

TP01

Sheet 1 of 1

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carnwood Cottage		Project No. C748	Start Date 2025-03-11	End Date 2025-03-11

Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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[illegible]

Remarks	Method, Plant, Stability, Dimensions	Logger
Trial Pit Complete	0.00 - 1.30m TP Volvo EC18 Stable Inclination: 90° $L = \pm 20m$  $W = 0.45m$	A Swinbourne



Trial Pit

TP01
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC18 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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G&M CONSULTING		Trial Pit				TP02			
						Sheet 1 of 1			
		Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25			
Project Name Carrwood Cottage		Project No. C748		Start Date 2025-03-11		End Date 2025-03-11			
Client JHA Pulman		Contractor Maxfield Excavations			Consultant G&M Consulting				
Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.20	PID ES 1	0.00		(0.25)		MADE GROUND: Yellowish brown clayey subangular to subrounded fine to coarse GRAVEL size fragments of of mudstone, quartzite and brick	0.5
		0.20					Soft, friable, yellowish brown gravelly very sandy CLAY with a low cobble and boulder content. Sand is fine to coarse. Gravel is subrounded to rounded fine to coarse of quartzite and sandstone. Cobbles are subrounded to rounded fine to coarse of sandstone and quartzite. Boulders are subangular of sandstone		
						(0.95)		Becoming locally lithorelict with thickly laminated beds (0.80m)	1.0
						1.20		End of Trial Pit at 1.20m	1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0
Remarks Trial Pit Complete							Method, Plant, Stability, Dimensions 0.00 - 1.20m TP Volvo EC19 Stable Inclination: 90° L = 1.20m W = 0.45m		
							Logger A Swinbourne		



Trial Pit

TP02
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

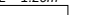
Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.20m TP Volvo EC19 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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Sheet 1 of 1

Remarks	Method, Plant, Stability, Dimensions	Logger
Trial Pit Complete	0.00 - 1.30m TP Volvo EC20 Stable Inclination: 90° <i>L = 1.20m</i>  <i>W = 0.45m</i>	A Swinbourne



Trial Pit

TP03
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC20 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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G&M CONSULTING		Trial Pit				TP04				
						Sheet 1 of 1				
		Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25				
Project Name Carrwood Cottage		Project No. C748		Start Date 2025-03-11		End Date 2025-03-11				
Client JHA Pulman		Contractor Maxfield Excavations		Consultant G&M Consulting						
Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata			
		Depth (m)	Type/ Ref	Results			Legend	Description		
		0.20 0.20	PID ES 1	0.00		(0.30)		TOPSOIL: Greyish brown slightly gravelly silty CLAY. Gravel sized fragments are subangular to rounded, fine to coarse of sandstone, coal and rare brick	0.5	
		0.70 0.70	PID ES 2	0.00		(1.00)		Soft, friable, yellowish brown gravelly very sandy CLAY with a low cobble and boulder content. Sand is fine to coarse. Gravel is subrounded to rounded fine to coarse of quartzite and sandstone. Cobbles are subrounded to rounded fine to coarse of sandstone and quartzite. Boulders are subangular of sandstone		
						1.30	End of Trial Pit at 1.30m		1.5	
									2.0	
									2.5	
									3.0	
									3.5	
									4.0	
									4.5	
									5.0	
Remarks Trial Pit Complete							Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC21 Stable Inclination: 90° L = 1.20m W = 0.45m			Logger A Swinbourne



Trial Pit

TP04
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC21 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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G&M CONSULTING		Trial Pit				TP05				
						Sheet 1 of 1				
		Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25				
Project Name Carrwood Cottage		Project No. C748		Start Date 2025-03-11		End Date 2025-03-11				
Client JHA Pulman		Contractor Maxfield Excavations			Consultant G&M Consulting					
Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (thickness) (m)	Strata			
		Depth (m)	Type/ Ref	Results			Legend	Description		
		0.20	PID ES 1	0.00		(0.40)		TOPSOIL: Soft, dark brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel sized fragments are subangular to rounded fine to coarse of sandstone and quartzite		
		0.20				0.40		Soft, friable, orange brown gravelly very sandy CLAY with a low cobble content. Sand is fine to coarse. Gravel is subrounded to rounded fine to coarse of quartzite and sandstone. Cobbles are subrounded to rounded fine to coarse of sandstone and quartzite	0.5	
						(0.90)			1.0	
						1.30		End of Trial Pit at 1.30m	1.5	
									2.0	
									2.5	
									3.0	
									3.5	
									4.0	
									4.5	
									5.0	
Remarks Trial Pit Complete							Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC22 Stable Inclination: 90° L = 1.20m W = 0.45m			Logger A Swinbourne



Trial Pit

TP05
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

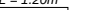
Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.30m TP Volvo EC22 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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Sheet 1 of 1

Remarks	Method, Plant, Stability, Dimensions	Logger
Trial Pit Complete	0.00 - 1.40m TP Volvo EC23 Stable Inclination: 90° <i>L = 1.20m</i>  <i>W = 0.45m</i>	A Swinbourne



Trial Pit

TP06
PHOTO PAGE

Hole Type TP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name Carrwood Cottage	Project No. C748		Start Date 2025-03-11	End Date 2025-03-11

Client JHA Pulman	Contractor Maxfield Excavations	Consultant G&M Consulting
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Remarks Trial Pit Complete	Method, Plant, Stability, Dimensions 0.00 - 1.40m TP Volvo EC23 Stable Inclination: 90° L = 1.20m W = 0.45m	Logger A Swinbourne
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APPENDIX C – LABORATORY TEST RESULTS

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/02544
Issue Number: 1

Date: 20 March, 2025

Client: G&M Consulting Ltd
The Chestnuts, Brackenhill Road
East Lound, Haxey
Doncaster
South Yorkshire
DN9 2LR

Project Manager: Andrew Swinbourne
Project Name: Carwood Cottage, Rochdale
Project Ref: C748
Order No: C748/01/AS
Date Samples Received: 13/03/25
Date Instructions Received: 13/03/25
Date Analysis Completed: 20/03/25

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/1	25/02544/2	25/02544/3	25/02544/4	25/02544/5	25/02544/6	25/02544/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1	2			
Client Sample ID	TP01	TP01	TP02	TP03	TP03	TP04	TP04			
Depth to Top	0.10	0.60	0.20	0.10	0.80	0.20	0.70			
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	6AE	6AE	6AE	4AE	6A	6AE	4AE			
% Stones >10mm _A	<0.1	<0.1	13.6	<0.1	5.3	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	7.64	5.63	6.69	7.26	-	6.00	5.59	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.05	0.05	0.02	0.02	-	0.02	<0.01	g/l	0.01	A-T-026s
Phenols - Total by HPLC _A	<0.2	-	<0.2	<0.2	<0.2	-	<0.2	mg/kg	0.2	A-T-050s
Arsenic _D ^{M#}	7	5	5	4	4	16	5	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.6	0.5	0.5	<0.5	0.6	1.3	0.6	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	105	32	38	73	32	77	38	mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	26	25	10	27	25	24	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead _D ^{M#}	122	20	34	39	23	138	26	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	33	25	26	18	25	30	30	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	2	<1	<1	1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	146	93	85	76	76	167	96	mg/kg	1	A-T-024s

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/1	25/02544/2	25/02544/3	25/02544/4	25/02544/5	25/02544/6	25/02544/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1	2			
Client Sample ID	TP01	TP01	TP02	TP03	TP03	TP04	TP04			
Depth to Top	0.10	0.60	0.20	0.10	0.80	0.20	0.70			
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	6AE	6AE	6AE	4AE	6A	6AE	4AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	-	NAD	Chrysotile	-	NAD	-			A-T-045
Asbestos Matrix (visual) _o	-	-	-	Insulation	-	-	-			A-T-045
Asbestos Matrix (microscope) _o	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _o	N/A	-	N/A	N/A	-	N/A	-			A-T-045

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/1	25/02544/2	25/02544/3	25/02544/4	25/02544/5	25/02544/6	25/02544/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	1	1	2	1	2			
Client Sample ID	TP01	TP01	TP02	TP03	TP03	TP04	TP04			
Depth to Top	0.10	0.60	0.20	0.10	0.80	0.20	0.70			
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25	11-Mar-25			
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES			
Sample Matrix Code	6AE	6AE	6AE	4AE	6A	6AE	4AE			
PAH-16MS										
Acenaphthene _A ^{M#}	0.06 ^U	<0.01 ^U	<0.01 ^U	<0.01 ^U	<0.01 ^U	0.05 ^U	<0.01 ^U	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.15	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	1.07	0.07	<0.04	0.13	<0.04	0.12	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	1.48	0.07	0.05	0.19	<0.04	0.11	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	1.55	0.11	0.05	0.22	<0.05	0.14	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.92	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.66	<0.07	<0.07	0.09	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	1.25	0.11	<0.06	0.19	<0.06	0.19	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	0.16	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	1.92	0.12	<0.08	0.19	<0.08	0.33	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.05	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.91	0.05	0.03	0.13	<0.03	0.06	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	0.05	<0.03	<0.03	0.04	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.68	0.06	<0.03	0.11	<0.03	0.28	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	1.80	0.11	<0.07	0.19	<0.07	0.30	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	12.7	0.70	0.13	1.62	<0.08	1.64	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/8	25/02544/9	25/02544/10					Units	Limit of Detection	Method ref
Client Sample No	1	1	2							
Client Sample ID	TP05	TP06	TP06							
Depth to Top	0.20	0.10	1.00							
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5AE	4AE	6AE							
% Stones >10mm _A	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
pH _D ^{M#}	5.33	5.19	-					pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	<0.01	-					g/l	0.01	A-T-026s
Phenols - Total by HPLC _A	<0.2	<0.2	-					mg/kg	0.2	A-T-050s
Arsenic _D ^{M#}	18	14	5					mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.0	0.8	0.9					mg/kg	0.5	A-T-024s
Copper _D ^{M#}	59	58	40					mg/kg	1	A-T-024s
Chromium _D ^{M#}	124	26	24					mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1					mg/kg	1	A-T-040s
Lead _D ^{M#}	223	92	34					mg/kg	1	A-T-024s
Mercury _D	0.44	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	22	30	32					mg/kg	1	A-T-024s
Selenium _D ^{M#}	1	1	1					mg/kg	1	A-T-024s
Zinc _D ^{M#}	129	135	86					mg/kg	1	A-T-024s

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/8	25/02544/9	25/02544/10					Units	Limit of Detection	Method ref
Client Sample No	1	1	2							
Client Sample ID	TP05	TP06	TP06							
Depth to Top	0.20	0.10	1.00							
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5AE	4AE	6AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	-							A-T-045
Asbestos Matrix (visual) ₀	-	-	-							A-T-045
Asbestos Matrix (microscope) ₀	-	-	-							A-T-045
Asbestos ACM - Suitable for Water Absorption Test? ₀	N/A	N/A	-							A-T-045

Envirolab Job Number: 25/02544

Client Project Name: Carwood Cottage, Rochdale

Client Project Ref: C748

Lab Sample ID	25/02544/8	25/02544/9	25/02544/10					Units	Limit of Detection	Method ref
Client Sample No	1	1	2							
Client Sample ID	TP05	TP06	TP06							
Depth to Top	0.20	0.10	1.00							
Depth To Bottom										
Date Sampled	11-Mar-25	11-Mar-25	11-Mar-25							
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES							
Sample Matrix Code	5AE	4AE	6AE							
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01 ^U	0.06 ^U	<0.01 ^U					mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	0.07	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.10	0.21	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.09	0.15	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.12	0.17	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.14	0.30	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.25	0.59	<0.08					mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	0.04	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.04	0.06	<0.03					mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.13	0.43	<0.03					mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.23	0.52	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	1.10	2.60	<0.08					mg/kg	0.01	A-T-019s

Report Notes

General

- This report shall not be reproduced, except in full, without written approval from Envirolab.
- The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client and can affect the validity of results.
- The results reported herein relate only to the material supplied to the laboratory.
- The residue of any samples contained within this report, and any received within the same delivery, will be disposed of **four weeks** after the initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of **six months** after the initial Asbestos testing is completed.
- Analytical results reflect the quality of the sample at the time of analysis only.
- Opinions and Interpretations expressed are outside our scope of accreditation.
- A deviating sample report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
- If a sample is outside of the calibration range or affected by interferences then it may need diluting. This will result in the limit of detection (LOD) being raised.
- Subcontracted Analysis: Please see the appended report for any deviations, current LODs and accreditation status of the test.

Key

Superscript “#”	Accredited to ISO 17025
Superscript “M”	Accredited to MCertS
Superscript “U”	Individual result not accredited
None of the above symbols	Analysis unaccredited
Subscript “A”	Analysis performed on as-received Sample
Subscript “D”	Analysis performed on the dried sample, crushed to pass 2mm sieve.
Subscript “D” on Asbestos	Analysis performed on a dried aliquot of sample provided.
Subscript “A”	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
Trace	Asbestos found not suitable for Gravimetric Quantification – not enough to accurately weigh.
N/A	Not applicable

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis

“Trace Asbestos Identified” will be reported if there is not enough present to verify the type.

Quantification: Generally a 2 stage process including visual identification, hand picking and weighing, and fibre counting. Where ACMs are found a percentage asbestos is assigned to each with reference to ‘HSG264, Asbestos: The survey guide’ and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres). “TRACE” will be reported as a quantification result.

PLEASE INFORM THE LABORATORY IF YOU WOULD LIKE THE STAGE 3 SEDIMENTATION PROCESS CARRIED OUT. Note this will be subcontracted.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs

Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as ‘% stones >10mm’.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only. Results “with Clean up” indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Please contact your client manager if you require any further information.

Envirolab Deviating Samples Report

Hattersley Science & Technology Park, Stockport Road, Hattersley, SK14 3QU
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: G&M Consulting Ltd, The Chestnuts, Brackenhill Road, East Lound, Haxey,
Doncaster, South Yorkshire, DN9 2LR

Project: Carwood Cottage, Rochdale

Clients Project No: C748

Project No: 25/02544

Date Received: 13/03/2025 (am)

Cool Box Temperatures (°C): 11.3

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	25/02544/1	25/02544/2	25/02544/3	25/02544/4	25/02544/5	25/02544/6	25/02544/7	25/02544/8	25/02544/9	25/02544/10
Client Sample No	1	2	1	1	2	1	2	1	1	2
Client Sample ID/Depth	TP01 0.10m	TP01 0.60m	TP02 0.20m	TP03 0.10m	TP03 0.80m	TP04 0.20m	TP04 0.70m	TP05 0.20m	TP06 0.10m	TP06 1.00m
Date Sampled	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25	11/03/25
A-T-019s	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025	17/03/2025
A-T-024s	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025
A-T-026s	19/03/2025	19/03/2025	19/03/2025	19/03/2025		19/03/2025	19/03/2025	19/03/2025	19/03/2025	
A-T-031s	19/03/2025	19/03/2025	19/03/2025	19/03/2025		19/03/2025	19/03/2025	19/03/2025	19/03/2025	
A-T-040s	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025	19/03/2025
A-T-044	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025	20/03/2025
A-T-045	14/03/2025		14/03/2025	14/03/2025		14/03/2025		14/03/2025	14/03/2025	
A-T-050s	17/03/2025		17/03/2025	17/03/2025	17/03/2025		17/03/2025	17/03/2025	17/03/2025	

The above dates are the analysis completion dates, please note that these are not necessarily the date that the analysis was weighed/extracted.

End of Report