

PHASE 2 SITE INVESTIGATION &

GEO-ENVIRONMENTAL APPRAISAL

of

**LAND AT CRIMBLE HALL CRIMBLE LANE
HEYWOOD OL11 4AD**

HME
CIVIL ENGINEERING
CONSULTANTS

STRUCTURAL | ENVIRONMENTAL | GEOTECHNICAL



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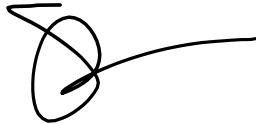
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Revision:

00 First Revision

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Executive Summary and Conceptual Site Model

Site Setting	Client	Crimble Hall Development Ltd
	Site	Land at Crimble Hall Crimble Lane Heywood OL11 4AD
	Site Location	431066E 436152N
	Current Land Use & Development Proposal	The Site was a disused former dwelling and restaurant at the time of the Phase 1 assessment. The proposed development is for the demolition of part of the former restaurant and bar, conversion to residential dwelling and the construction of 7 five bedroom executive dwellings, including the creation of public open space / residential amenity areas following demolition of part of former restaurant and bar.
Conceptual Site Model Potential Pollutant Linkages	Surrounding Area	The site was situated within a mixed setting with agricultural land immediately surrounding the site and commercial and residential uses noted on surrounding land.
	Geology	The British Geological Survey (BGS) 1:50,000 scale map solid & drift Digital Geological Map of Great Britain indicates the site is underlain by Superficial Deposits of Glacial Till over the solid geology of undifferentiated strata of the Pennine Lower Coal Measures Formation, an interbedded sequence of sandstones siltstones and mudstones. These strata will weather to both cohesive and granular strata depending on the site aspect and local conditions.
	Hydrogeology	The aquifers within the bedrock deposits are designated as 'Secondary A'. These are described as permeable layers capable of supporting water supplies at a local rather than strategic scale, and a source of base flow to rivers.
	Possible pollutant linkages on undeveloped site determined from a desk study and site walkover	
	Preliminary Sources	The Phase 1 risk assessment did not identify any significant sources of Contamination at the site apart from the potential for asbestos-containing material to be present within the building fabric and surrounding subsoils. The land uses noted on surrounding land were considered unlikely to impact the site given the site setting.
	Preliminary Pathways	• Ingestion, inhalation or direct contact • Leaching through unsaturated zone • Direct contact with free phase or dissolved phase • Fugitive dust • Migration through Soils or groundwater to indoor air
	Potential Receptors	• Site Workers • End users of the site • Neighbours • Groundwater and possible abstractors or aquatic ecosystems • Building Products
	Site Investigation Findings	Geo-environmental – The findings of the generic risk assessment are that no significant sources of contamination were identified as part of the site investigation. No soils remediation is considered necessary for the proposed development. During development of the site, all workers should remain vigilant to the possible risk of encountering areas of potentially contaminated material. Should potentially contaminated material be encountered, site management should be informed. Further testing may then be required to assess the risk to health and safety of the site workers and the environment.
	Uncertainties & Limitations	The site access was restricted by the former building footprints and utility service runs. The report findings should be reconsidered as part of any development changes.

This is only a summary.

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Note: This report has been formatted to be read as a PDF.

1 INTRODUCTION

HME Civil Engineering Limited were commissioned by Crimble Hall Development Ltd to undertake an intrusive investigation of 'Land at Crimble Hall Crimble Lane Heywood OL11 4AD' (the site).

1.1 Scope and objective of the report

This report has been prepared in support of a planning application for a new residential development at the site.

This report has been developed in accordance with the YALPAG Technical Guidance for Developers Landowners & Consultants Version 12.2 – July 2023 (Ref 12), Land Contamination Risk Management (Ref. 1), and other best practice guidance cited at the end of this report.

The study has not included checks on services on or adjacent to the site, and no structural, ecological or asbestos surveys have been carried out.

1.2 Site Description

The site was an irregular shaped parcel of land as shown in figure 1 and the location plans included in appendix A. The site was located in Heywood, approximately 2 miles south west of Rochdale town centre.

The site was accessed from Bury Road via Crimble Lane with a gated access to the development site. The main building complex was located centrally with access paths surrounding it and a car park in the west of the site. Construction of the new plots had been started in the south and east of the site as shown in the site photos in appendix B.

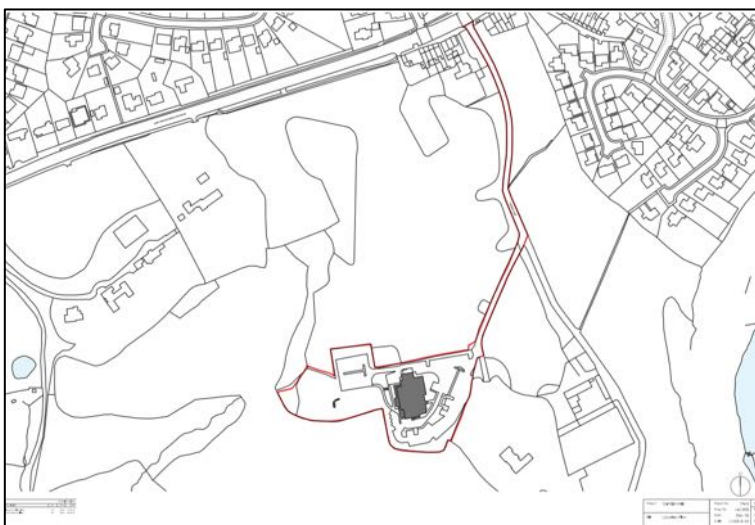


Figure 1 – Extract image of Site Location Plan

The ground level dropped away in the south west of the site to the south of the car park present in the west. Drainage infrastructure from the previous development was noted in the west of the site.

There were mature trees on the site margins and the ground level fell steeply to the west of the site within a wooded area.

No evidence of Japanese Knotweed or other invasive species was identified during the site walkover, however, a detailed inspection of the fauna was not undertaken.

The site is shown on the indicative plans included in appendix A and figures in this section.

1.3 Previous Reports

A Phase 1 desk study report has been prepared for the site:

- Phase 1 Contaminated Land Assessment of Crimble Hall Crimble Lane Heywood OL11 4AD by GeoSmart Information Ltd dated December 2020

This report and the prepared Conceptual Site Model have been used to characterise the site and design the appropriate investigation. The main findings of the Phase 1 report are summarised within Section 2 of this report.

1.4 Limitations

This report has been prepared for the sole use and reliance of the Client named above and cannot be relied upon by any other parties without the express written authorisation of HME Civil Engineering Limited. Any unauthorized third party relies on this report at their own risk and the authors owe them no duty of care.

The report should be read in its entirety, including all associated drawings and appendices. HME Civil Engineering Limited cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context. The report presents observations and factual data obtained during our site investigation, and provides an assessment of geo-environmental issues with respect to information provided by the Client and specific to the proposed development. Further advice should be sought from HME Civil Engineering Limited prior to significant revision of the development proposals.

The geo-environmental investigation was undertaken on behalf of The Client (referenced above). The investigation was designed based upon information supplied by the client & on the assumption that the site is to be developed for residential use with private gardens.

The findings and opinions based upon the assessment conveyed in this report is based on information obtained from sources which HME Civil Engineering Limited believe are reliable. All reasonable endeavours have been made to source the information from reputable organisations, however, HME Civil Engineering Limited accepts no responsibility for inaccuracies in the data supplied or for opinions based on any such inaccurate data. No

attempt has been made to independently verify any data collected by others or from other sources.

Whilst the prepared report may express an opinion on the possible configuration of strata, contaminants or gases between or beyond exploratory hole positions or on the possible presence of features based on visual, verbal or published evidence, this is for guidance only, and no liability can be accepted for its accuracy.

Comments on groundwater and ground gas conditions are based on observations made at the time of the investigation. It should be noted, however, that groundwater and ground gas levels may vary from those reported due to seasonal or other effects.

Consideration should be given to the possibility that exploratory holes excavated as part of this investigation, and indeed any previous ground work by others, may be encountered beneath or within the influence of the proposed development. HME Civil Engineering Limited cannot be held responsible for failure of excavations or structural failures caused by the location of foundations of any form of structure within the influence of exploratory holes.

Existing manhole covers were not lifted and drainage runs not be inspected during the course of this ground investigation.

Where the report refers to the potential presence of invasive weeds such as Japanese Knotweed, or the presence of asbestos containing materials, it should be noted that the observations are for information only and should be verified by a suitably qualified expert.

HME Civil Engineering Limited reserves the right to amend their conclusions and recommendations in the light of further information that may become available.

2 GEO-ENVIRONMENTAL SETTING

Site Setting	Site	Land at Crimble Hall Crimble Lane Heywood OL11 4AD
	Site Location	431066E 436152N
	Current Land Use & Development Proposal	The Site was a disused former dwelling and restaurant at the time of the Phase 1 assessment. The proposed development is for the demolition of part of the former restaurant and bar, conversion to residential dwelling and the construction of 7 five bedroom executive dwellings, including the creation of public open space / residential amenity areas following demolition of part of former restaurant and bar.
Conceptual Site Model Potential Pollutant Linkages	Surrounding Area	The site was situated within a mixed setting with agricultural land immediately surrounding the site and commercial and residential uses noted on surrounding land.
	Geology	The British Geological Survey (BGS) 1:50,000 scale map solid & drift Digital Geological Map of Great Britain indicates the site is underlain by Superficial Deposits of Glacial Till over the solid geology of undifferentiated strata of the Pennine Lower Coal Measures Formation, an interbedded sequence of sandstones siltstones and mudstones. These strata will weather to both cohesive and granular strata depending on the site aspect and local conditions.
	Hydrogeology	The aquifers within the bedrock deposits are designated as 'Secondary A'. These are described as permeable layers capable of supporting water supplies at a local rather than strategic scale, and a source of base flow to rivers.
	Possible pollutant linkages on undeveloped site determined from a desk study and site walkover	
	Preliminary Sources	The risk assessment did not identify any significant sources of Contamination at the site apart from the potential for asbestos-containing material to be present within the building fabric and surrounding subsoils. The land uses noted on surrounding land were considered unlikely to impact the site given the site setting.
	Preliminary Pathways	• Consumption of homegrown vegetables • Ingestion, inhalation or direct contact • Leaching through unsaturated zone • Direct contact with free phase or dissolved phase • Fugitive dust • Migration through Soils or groundwater to indoor air
	Potential Receptors	• Site Workers • End users of the site • Neighbours • Groundwater and possible abstractors or aquatic ecosystems • Building Products
	Site Investigation Findings	Geo-environmental – It was considered unlikely that significant contamination is present within the sub-surface. The preliminary risk assessment concludes that the majority of the risks posed by in situ land quality are therefore likely to be low, with a moderate/low risk has been identified for the potential presence of asbestos due to the age of the existing building. It was recommended that the inclusion of asbestos material in the existing building is investigated prior to demolition and removed from Site using appropriate methods / contractors.

		A limited intrusive site investigation was recommended to validate the Phase 1 preliminary risk assessment conclusions. It was recommended that watching brief should be maintained throughout the entire development phase of works and any possible evidence of contamination encountered during the redevelopment works should be alerted to the Local Authority. Appropriate actions would then be required to further inspect, sample and analyse any suspect materials, and formulate an appropriate remediation plan, as necessary.
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3 SITE INVESTIGATION

3.1 General

The ground investigation was designed by HME Civil Engineering Limited with consideration of the preliminary conceptual site model and the available access at the time.

The principal objectives of the study were to assess the underlying ground conditions. Window sampling was undertaken to recover environmental samples and undertake insitu testing. Trial pitting was undertaken to additionally assess the ground profile and provide good site coverage.



Figure 2 – Extract image of Site Development Plan

3.2 Field Works

The ground investigation was undertaken on the 5th March 2026. The weather during the ground investigations was generally dry and sunny.

The window sampling boreholes were logged by an Engineering Geologist in accordance with BS 5930 (Ref. 3) and Eurocode 7 (Ref. 4) requirements. Method Statements and a Health & Safety Plan for the work were prepared prior to mobilisation to site.

A total of No. 4 geo-environmental samples were taken from the exploratory positions during the site works in accordance with BS 10175:2011, Section 8.3 (ref.9). Samples were stored in cool boxes (<4°C).

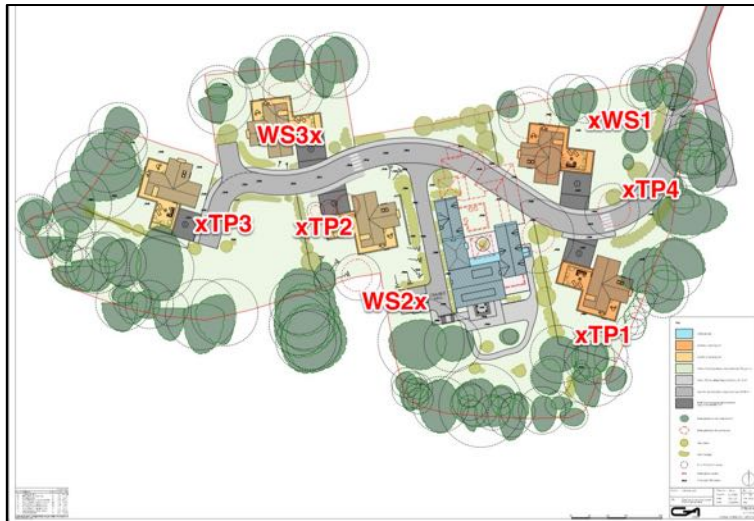


Figure 3 – Borehole & Trial Pit Location Plan

3.2.1 Window Sampling

Window sampling was undertaken to provide good site coverage, recover environmental samples.

At WS1, from ground level made ground was recorded to approximately 1.0m below ground level (bgl) with the top 100mm comprising a grey and dark grey slightly clayey silty sandy gravel over a brown and yellow slightly gravelly slightly sandy silty clay to approximately 0.8m bgl. From 0.8m bgl a grey and dark grey slightly clayey silty sandy gravel was recorded to approximately 1.0m bgl. From approximately 1.0m bgl a firm becoming stiff brown and pale yellow slightly fine sandy slightly gravelly clay was recovered to approximately 2.0m bgl. The borehole terminated within competent strata at approximately 2.0m bgl and was dry upon completion.

At WS2, from ground level made ground was recorded to approximately 0.5m bgl comprising a grey brown and red slightly gravelly silty clay. From 0.5m bgl a Soft to firm pale greenish grey slightly clayey fine sandy silt was recorded to approximately 1.0m bgl. From approximately 1.0m bgl a firm becoming stiff brown and pale yellow slightly fine sandy slightly gravelly clay was recovered to approximately 2.0m bgl. The borehole terminated within competent strata at approximately 2.0m bgl and was dry upon completion.

At WS3, from ground level made ground was recorded to approximately 0.4 bgl comprising a grey brown and red slightly gravelly silty clay. From 0.4m bgl natural strata were recorded with a firm becoming stiff brown and pale yellow slightly fine sandy slightly gravelly clay recovered to approximately 2.0m bgl. The borehole terminated within competent strata at approximately 2.0m bgl and was dry upon completion.

Borehole and trial pit logs are provided in appendix D, and the results of the chemical analysis results are provided in appendix E.

3.2.2 Trial Pitting

The trial pits were excavated to provide good coverage to confirm the ground profile and absence of a significant thickness of made ground.

At TP1, from ground level made ground was recorded to approximately 0.4m bgl comprising a grey and dark grey slightly clayey silty sandy gravel. From 0.4m bgl a firm brown and pale yellow slightly fine sandy slightly gravelly clay was recovered to approximately 1.4m bgl. The trial pit was terminated within competent strata at approximately 1.4m bgl and was dry upon completion. It was backfilled with arisings upon completion.

At TP2, beneath rough grass topsoil was recorded to approximately 0.4m bgl. From 0.4m bgl a firm brown and pale yellow slightly fine sandy slightly gravelly clay was recovered to approximately 1.9m bgl. The trial pit was terminated within competent strata at approximately 1.9m bgl and was dry upon completion. It was backfilled with arisings upon completion.

At TP3, from ground level made ground was recorded to approximately 0.8m bgl comprising a grey and dark grey slightly clayey silty sandy gravel. From 0.8m bgl a firm brown and pale yellow slightly fine sandy slightly gravelly clay was recovered to approximately 2.0m bgl. The trial pit was terminated within competent strata at approximately 2.0m bgl and was dry upon completion. It was backfilled with arisings upon completion.

At TP4, from ground level made ground was recorded to approximately 0.8m bgl with the top 200mm comprising a grey and dark grey slightly clayey silty sandy gravel over a pale yellow and grey slightly silty sandy gravel to approximately 0.6m bgl. From 0.8m bgl a grey and brown slightly gravelly silty sandy clay was recorded. A suspected gas pipe and historic land drainage was exposed at approximately 0.6m bgl. The pit was extended to dig around the pipe but the pit terminated at 0.8m bgl.

4 LABORATORY TESTING & MONITORING

4.1 Laboratory Testing

Environmental Laboratory testing was scheduled on samples of the made ground and natural soils taken from the trial pit positions. Envirolab Limited undertook the testing to a schedule drawn up by HME Civil Engineering Limited.

Selected samples were scheduled for a basic suite of determinants detailed in the analytical results for soil samples are provided within appendix E.

All testing was undertaken on a standard 10 day turnaround time.

5 CONTAMINATION ANALYSIS

5.1 Analytical Strategy

The site investigation comprised random sampling locations. Soil samples were recovered from across the relevant depth range (generally less than 1m) for the conceptual model. The sampling was designed to consider surface soil and root zone to characterise the potentially significant exposure pathways.

The analytical suite comprised generic determinands of heavy metals, inorganics and hydrocarbons for contaminants associated with former historic uses. These were selected with reference to the DoE Industry Profiles.

5.1.1 Results of Chemical Analysis - Soils

Four samples of the recovered soils were analysed by Envirolab. The test results are provided in appendix E. The results have been screened in relation to Tier 1 contaminated land risk assessment criteria which are currently in use by the industry for 'residential with plant uptake' at 1% Soil Organic Matter (SOM). The results of the screening are summarised in the following tables.

Determinand	Units	Screening criteria	Assessment Criteria	No of Samples tested	Min	Max	No. of Exceedences
Arsenic	mg/kg	37	LQM/CIEH S4ULs (2015)	4	4	7	TP201 0.8m (38)
Cadmium	mg/kg	11	SGV	4	<1.0	<1.0	0
Chromium	mg/kg	910	LQM/CIEH S4ULs (2015)	4	11	17	0
Lead	mg/kg	200	C4SL	4	11	50	0
Mercury	mg/kg	40	LQM/CIEH S4ULs (2015)	4	<0.17	<0.17	0
Nickel	mg/kg	180	LQM/CIEH S4ULs (2015)	4	12	19	0
Copper	mg/kg	2400	LQM/CIEH S4ULs (2015)	4	20	28	0
Zinc	mg/kg	3750	LQM/CIEH S4ULs (2015)	4	40	67	0
Selenium	mg/kg	250	LQM/CIEH S4ULs (2015)	4	<1	<1	0

Table 61.1 Soil laboratory Analysis Results – metals & metalloids

Determinand	Units	Screening criteria	Assessment Criteria	No of Samples tested	Min	Max	No. of Exceedences
Acenaphthene	mg/kg	210	LQM/CIEH S4ULs (2015)	4	<0.01	0.09	0
Acenaphthylene	mg/kg	170	LQM/CIEH S4ULs (2015)	4	<0.01	0.15	0
Anthracene	mg/kg	2400	LQM/CIEH S4ULs (2015)	4	<0.02	0.63	0
Benzo(a) anthracene	mg/kg	7.2	LQM/CIEH S4ULs (2015)	4	<0.04	1.98	0
Benzo(a)pyrene	mg/kg	5	LQM/CIEH S4ULs (2015)	4	<0.04	1.35	0
Benzo(b) fluoranthene	mg/kg	2.6	LQM/CIEH S4ULs (2015)	4	<0.05	1.57	0
Benzo(ghi) perylene	mg/kg	320	LQM/CIEH S4ULs (2015)	4	<0.05	0.54	0
Benzo(k) fluoranthene	mg/kg	77	LQM/CIEH S4ULs (2015)	4	<0.07	0.63	0
Chrysene	mg/kg	15	LQM/CIEH S4ULs (2015)	4	<0.06	1.68	0
Dibenz(ah) anthracene	mg/kg	0.24	LQM/CIEH S4ULs (2015)	4	<0.04	0.18	0
Fluoranthene	mg/kg	280	LQM/CIEH S4ULs (2015)	4	<0.08	3.19	0
Fluorene	mg/kg	170	LQM/CIEH S4ULs (2015)	4	<0.01	0.31	0
Indeno (123cd) pyrene	mg/kg	27	LQM/CIEH S4ULs (2015)	4	<0.03	0.64	0
Naphthalene	mg/kg	2.3	LQM/CIEH S4ULs (2015)	4	<0.03	0.05	0
Phenanthrene	mg/kg	95	LQM/CIEH S4ULs (2015)	4	<0.03	1.68	0
Pyrene	mg/kg	620	LQM/CIEH S4ULs (2015)	4	<0.07	2.59	0

Table 61.2 Soil laboratory Analysis Results – hydrocarbons

Concentrations of heavy metals were all below their relevant screening values within the shallow soils. Concentrations of selected hydrocarbons were all below their relevant screening values within the shallow soils. No 'Asbestos in soil' were detected within selected samples.

6 GEO-ENVIRONMENTAL RISK ASSESSMENT AND REVISED CONCEPTUAL SITE MODEL

6.1 Introduction

With respect to historic land contamination, Planning Policy Guidance: Planning and Pollution Control (PPS 23) (Ref.7) states that ground contamination is a material planning consideration. Local planning authorities must take account of such issues in determining applications for planning permission. In addition, building work is regulated under the Building Regulations 1991. Schedule 1 (Ref. 8) requires 'precautions shall be taken to avoid danger to health and safety caused by substances found on, or in the ground covered by the building'.

Environmental Risk has been addressed by adopting a site-specific qualitative approach to identify the risk of environmental harm. The guiding principle of this approach is an attempt to establish connecting links between a hazardous source, via an exposure pathway to a potential receptor. This is in accordance with the Department of Environment, Transport and Regions (DETR) guidance on Contaminated Land (Ref.6) and the Construction Industry Research and Information Association (Ref. 7).

By considering where a viable pathway exists, which connects a source with a receptor, this assessment will identify where pollutant linkages may exist. A pollutant linkage is the term used by the DETR in their standard procedure on risk assessment. If there is no pollutant linkage, then there is no risk. The risk assessment conceptual exposure model used is for the standard CLEA UK residential with plant uptake.

Contaminated land risk assessment is based on development of a conceptual model for the site. This is representation of the relationship between contaminant sources, pathways and receptors developed on the basis of hazard identification.

6.2 Identified Sources

Concentrations of heavy metals were all below their relevant screening values within the shallow soils. Concentrations of all hydrocarbons were below their relevant screening values. No Asbestos fibres were recorded in selected samples.

Groundwater was not encountered in significant volumes during the site investigation. Taken in context of the intrusive investigations and the site setting it is considered reasonable to conclude that significant on-going entry of substances from the site itself is not occurring.

6.3 Qualitative Risk Assessment and Conceptual Site Model

A qualitative risk assessment has been undertaken for these potential source-pathway-receptor linkages. This is based on consideration of both:

- The likelihood of an event (probability – takes into account both the presence of the hazard and receptor and the integrity of the pathway);
- The severity of the potential consequence (takes into account both the potential severity of the hazard and the sensitivity of the receptor).

The risk assessment has been based on redevelopment of the site with a proposed residential use with private gardens.

6.3.1 Findings of the Qualitative Risk Assessment

The findings of the generic risk assessment are that no significant sources of contamination were identified as part of the site investigation. No soils remediation is considered necessary for the proposed development.

The ground investigation confirmed the ground conditions comprised limited areas of made ground with natural strata recorded at shallow depth reflecting the historic use of the site as a former restaurant. Taken in context of the intrusive investigations and the site setting it is considered reasonable to conclude that significant on-going entry of substances from the site itself is not occurring.

During development of the site, all workers should remain vigilant to the possible risk of encountering areas of potentially contaminated material. Should potentially contaminated material be encountered, site management should be informed. Further testing may then be required to assess the risk to health and safety of the site workers and the environment.

7 RECOMMENDATIONS

7.1 Introduction

It is proposed to redevelop the site with a residential development. It is considered sufficient to note that the further works should be undertaken in a way that does not create new pathways for future site users.

7.2 Foundation Considerations

The site should be suitable for standard strip foundations. Made ground is not generally considered a suitable founding material and foundations should be taken through it into underlying natural strata of adequate bearing capacity.

It is recommended that foundations are suitably reinforced to reduce the potential for differential settlement. All excavations for foundations should be inspected by a suitably qualified engineer to confirm the uniformity and competence of the formation.

The allowable bearing capacity is a function of the foundation configuration, depth and the ability of the structure to tolerate such movements and should therefore be validated during detailed design. Based upon the encountered ground conditions, provided suitable land drainage is in place an allowable bearing capacity of at least 100kN/m² for settlements of < 25mm at 1m bgl can be assumed. If a greater allowable bearing capacity is required, then foundations will be required to be excavated to greater depth, founding in stiff clays or consider a piled solution.

Houses located near existing or proposed new trees must have their foundations sited below the root growth zone. The NHBC Standards Chapter 4.2 "Building Near Trees" gives guidance on foundation criteria, depths and construction that should be followed. All services will also have to be similarly protected.

Where service trenches cross the site, foundations should be placed below a line drawn up at 45° from the base of any service excavations.

7.3 Further Work

Further characterisation of stockpiled materials is likely to be required if off-site disposal is proposed.

7.3.1 Waste Management

Any material excavated on site may be classified as waste and it is the responsibility of the holder of the material to form their own view on whether or not it is waste. This includes determining when waste that has been treated in some way can cease to be classified as waste for a particular purpose.

One of the ways this can be achieved is set out in the Development Industry Code of Practice (CoP) (CL:AIRE, 2008).

The handling, re-use or disposal of waste is regulated by the Environment Agency. The Agency will take into account the use of the CoP in deciding whether to regulate materials as waste. If materials are dealt with in accordance with the CoP, the Agency considers that those materials are unlikely to be waste at the point when they are to be used for the purpose of land development. This may be because the materials were never discarded in the first place, or because they have been submitted to a recovery operation and have been completely recovered so they have ceased to be waste.

At this stage none of the Made Ground has been tested against Waste Acceptance Criteria (WAC) as it is unclear if any material were removed from site for disposal. 'WAC' testing would be required for any material disposed of off-site.

7.4 Uncertainties & Limitations

The site access was restricted by the site condition at the time of investigation. This report has presented options with respect to development that are considered technically feasible and in line with current good practice. Consequently, we would expect to obtain regulatory approval for whichever option is adopted, although this cannot be guaranteed. Copies of this report should be forwarded to the relevant regulatory authorities (NHBC & Local Authority) for their comment/approval.

HME Civil Engineering Limited believes however, that the current investigation accurately models the site and that the suggested development strategy is adequate for the conditions already encountered at the site.

8 REFERENCES

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APPENDIX A
SITE LOCATION PLANS



SITE LOCATION PLAN
[Not to scale]

↑
North



PLANNING ISSUE				
Rev	Description	By	Chk	Date
01	Issued for planning	SA	MJG	15.01.21
02	Amended red line	SA	MJG	04.02.21

Project	Crimble Hall	Project No.	19-16	Rev.	02
		Dwg. No.	L(-1)000	By	SA
		Date	Dec '20	Chk.	MJG
		Scale	1:1250 @ A2	App.	



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tel. 0161 835 3538

Architects / Masterplanning / Urban Design

All dimensions to be checked by the client to manufacturers. Do not scale the drawings. Reproduction of drawings for any purpose without written consent of the architect is prohibited. The drawing copyright of G3 Studio Ltd. drawings are not to be reproduced without written consent.



Key

- Crimble Hall
- Dwelling Typology 01
- Dwelling Typology 02
- Grass / Planting Areas: Approximate 7963.34 m²
- Tiled / Paved Areas: Approximate: 517.8 m²
- Asphalt (permeable): Approximate 1005.8 m²
- Resin bound gravel (permeable); Approximate 296.7m²
- Existing trees to be maintained
- Existing trees to be removed
- New trees
- New hedges
- Root Protection Areas
- Existing Site Levels
- Proposed Site Levels

PLANNING REVISIONS			
Rev	Description	By	Date
01	Updated tree survey	SA	AUG 04.10.20
02	Further site visit comments	SA	AUG 11.10.20
03	Issued for planning	SA	AUG 12.01.21
04	Issued for planning - reduction comments	SA	AUG 15.02.21
05	Issued for planning - planning comments	SA	AUG 17.03.21
06	Issued for planning - reduced scheme	SA	AUG 17.03.21
07	Issued for planning - reduced scheme	SA	AUG 18.10.21
08	Issued for planning - reduced scheme	SA	AUG 18.10.21
09	Issued for planning - reduced scheme	SA	AUG 18.10.21
10	Issued for planning - reduced scheme	SA	AUG 18.10.21
11	Revised tree survey	AL	AUG 18.10.21

Project	Crimble Hall	Project No.	19-16	Rev.	11
Date	Nov '20	Dwg. No.	L-11002	By	SA
Scale	1:250 & 1:100	Date	Nov '20	Chk.	MJG
Title		Site Layout & Landscape Plan as proposed		App.	

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APPENDIX B

SITE PHOTOS

General site photos



General view looking south west from site entrance at Crimble Lane



General view to the north west from near to north eastern boundary of site



General view looking south west from site entrance at Crimble Lane



General view to the west showing the lowest elevation area in the south west of the site



View to the west of a disused drainage structure land immediately west of the site – attempting to highlight ground level falling steeply on adjacent land



General view to the east looking across the south of the site towards TP1



TP1 pit



TP1 pit



TP2 pit



TP2 spoil



TP3 pit



TP3 spoil



TP4 spoil



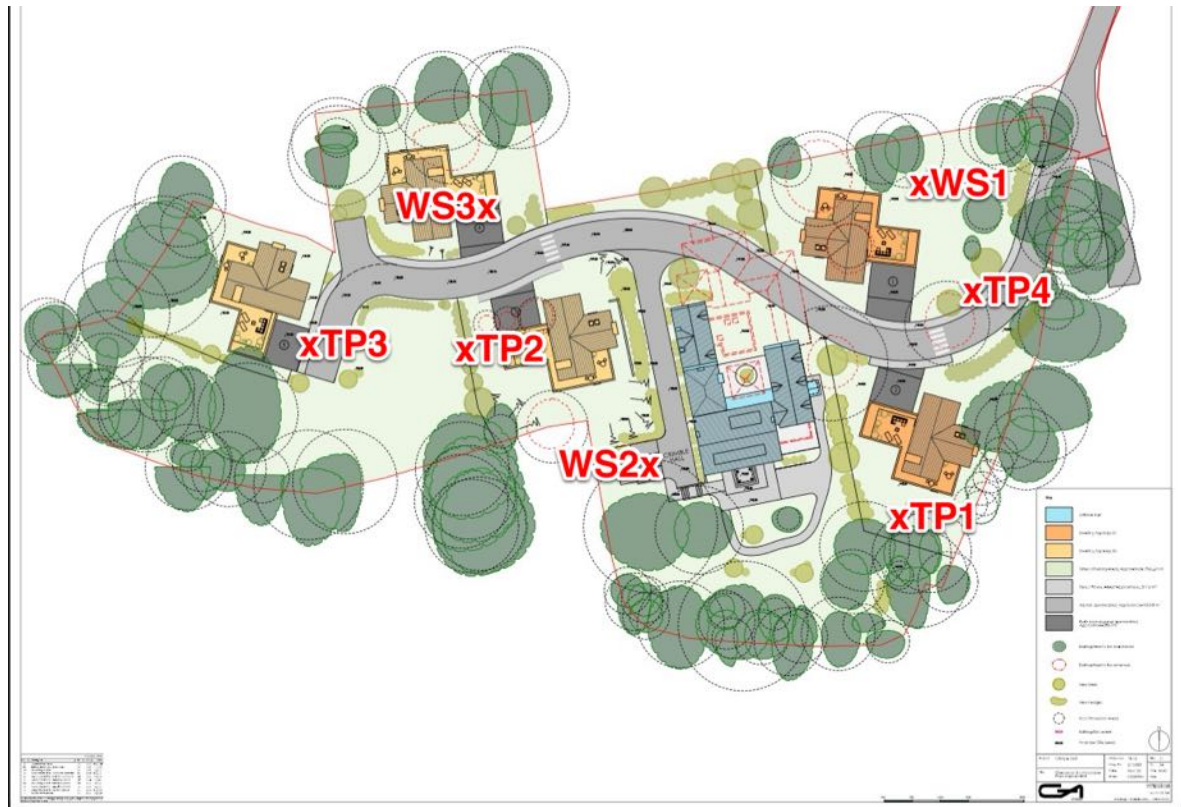
TP4 pit



TP4 old land drain exposed

APPENDIX C

SAMPLING LOCATIONS



SAMPLING LOCATION PLAN – WINDOW SAMPLING& TRIAL PITS

[Not to scale]

↑
NORTH

APPENDIX D

BOREHOLE LOGS

 Mugen Geo Ltd.						Site Land at Crimble Hall Crimble Lane Bamford Rochdale		Number WS1
Machine : Archway Competitor Method : Drive-in Windowless Sampler		Dimensions Location (Handheld GPS) 386282 E 411996 N		Ground Level (mOD) Dates 05/03/2026	Client HME	Engineer		Job Number 2603 OL11 4AD HMC Sheet 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45	SPT(C) N=23		2,2/2,12,4,5		(0.10) 0.10	MADE GROUND: Grey and dark grey slightly clayey silty sandy GRAVEL. Gravel was subangular to subrounded fine to coarse of sandstone siltstone and fragments of brick concrete and tile.		
					(0.70)	MADE GROUND: Brown and yellow slightly gravelly slightly sandy silty CLAY. Gravel was subangular subrounded fine to coarse of sandstone with a little brick and ash fragments.		
					0.80 (0.20) 1.00	MADE GROUND: Grey and dark grey slightly clayey silty sandy GRAVEL. Gravel was subangular to subrounded fine to coarse of sandstone siltstone and fragments of brick concrete and tile.		
1.80	D				(1.00)	Firm becoming stiff brown slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone and siltstone.		
2.00-2.45	SPT(C) N=29		6,5/7,7,8,7		2.00	Complete at 2.00m		
Remarks Borehole terminated within competent strata at 2m bgl. Dry upon completion. Backfilled with arisings.							Scale (approx) 1:25	Logged By SJP
							Figure No.	



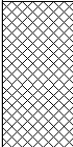
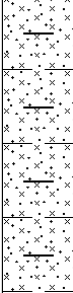
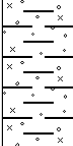
Mugen
Geo Ltd.

Site Land at Crimble Hall Crimble Lane Bamford Rochdale	Number WS2
Client HME	Job Number 2603 OL11 4AD HMC
Engineer	Sheet 1/1

Machine : Archway Competitor	Dimensions	Ground Level (mOD)
Method : Drive-in Windowless Sampler	Location (Handheld GPS) 386271 E 412014 N	Dates 05/03/2026

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.00-1.45	SPT(C) N=12		4,3/2,3,3,4		(0.40) 0.40	MADE GROUND: Grey brown and red slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone limestone with fragments of brick slate and tile.		
					(1.60)	Firm becoming stiff brown and grey slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to medium of sandstone mudstone and coal.		
2.00-2.45	SPT(C) N=31		6,6/7,7,8,9		2.00	Complete at 2.00m		

Remarks Borehole terminated within competent strata at 2m bgl. Dry upon completion. Backfilled with arisings.	Scale (approx)	Logged By
	1:25	SJP
	Figure No.	

 Mugen Geo Ltd.						Site Land at Crimble Hall Crimble Lane Bamford Rochdale		Number WS3	
Machine : Archway Competitor Method : Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client HME		Job Number 2603 OL11 4AD HMC	
		Location (Handheld GPS) 386283 E 411990 N		Dates 05/03/2026		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
1.00-1.45	SPT(C) N=16		4,3/3,4,5,4		(0.50)	MADE GROUND: Grey brown and red slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone limestone with fragments of brick slate and tile.			
					0.50	Soft to firm pale greenish grey slightly clayey fine sandy SILT.			
1.60	D				(1.00)				
					1.50	Firm becoming stiff brown slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to medium of sandstone mudstone and coal. becoming soft to firm consistency from 1.5-1.8m bgl			
2.00-2.45	SPT(C) N=28		5,6/6,7,7,8		2.00	Complete at 2.00m			
Remarks Borehole terminated within competent strata at 2m bgl. Dry upon completion. Backfilled with arisings.						Scale (approx) 1:25		Logged By SJP	
						Figure No.			



Land at Crimble Hall Crimble Lane Bamford Rochdale

**Trial Pit
Number**
TP1

Dimensions

Ground Level (mOD)

HME

Job
Number

2603 QI 11 4AD HMC

Method : Trial Pit

Location (Handheld GPS)

386334 F 411988 N

Dates

05/03/2026

Engineer

Sheet

1/1

Depth
(m)

Sample / Tests

Water
Depth
(m)

Field Records

Level
(mOD)Depth
(m)
(Thickness)

Description

Legend

Water

0.30

ES

(0.40)

0.40

(1.00)

1.40

MADE GROUND: Grey and dark grey slightly clayey silty sandy GRAVEL. Gravel was subangular to subrounded fine to coarse of sandstone siltstone and fragments of brick and concrete.

Firm light brown slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone and siltstone.

Complete at 1.40m

Plan

Remarks

Trial pit terminated at 1.4m bgl. Dry upon completion. Backfilled with arisings.

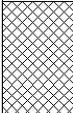
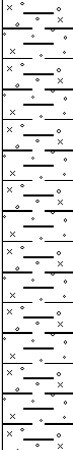
Scale (approx)

1:25

Logged By

SJP

Figure No.

 Mugen Geo Ltd.						Site Land at Crimble Hall Crimble Lane Bamford Rochdale		Trial Pit Number TP2	
Machine : Kubota 2.2T tracked excavator Method : Trial Pit		Dimensions		Ground Level (mOD)		Client HME		Job Number 2603 OL11 4AD HMC	
		Location (Handheld GPS) 386255 E 412010 N		Dates 05/03/2026		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.30	ES				(0.40)	TOPSOIL: Dark brown very slightly organic slightly gravelly silty CLAY: Gravel was subangular to subrounded fine to medium of sandstone with rare fragments of brick.			
					0.40	Firm becoming stiff light brown slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone and siltstone.			
					(1.50)				
					1.90	Complete at 1.90m			
Plan						Remarks			
.						Trial pit terminated at 1.9m bgl. Dry upon completion. Backfilled with arisings.			
.									
.									
.									
.									
.									
Scale (approx)				Logged By		Figure No.			
1:25				SJP					



Mugen
Geo Ltd.

Site Land at Crimble Hall Crimble Lane Bamford Rochdale	Trial Pit Number TP3
Client HME	Job Number 2803 OL11 4AD HMC
Engineer	Sheet 1/1

Machine : Kubota 2.2T tracked excavator	Dimensions	Ground Level (mOD)
Method : Trial Pit	Location (Handheld GPS) 386229 E 412018 N	Dates 05/03/2026

Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.30	ES				(0.80)	MADE GROUND: Grey brown and red slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone and fragments of brick and concrete.		
					0.80	Firm light brown slightly gravelly silty CLAY. Gravel was subangular to subrounded fine to coarse of sandstone and siltstone.		
					(1.20)			
					2.00	Complete at 2.00m		

Plan	Remarks Trial pit terminated at 2m bgl. Dry upon completion. Backfilled with arisings.
	Scale (approx) 1:25
	Logged By SJP
	Figure No.

 Mugen Geo Ltd.						Site Land at Crimble Hall Crimble Lane Bamford Rochdale		Trial Pit Number TP4	
Machine : Kubota 2.2T tracked excavator Method : Trial Pit		Dimensions		Ground Level (mOD)		Client HME		Job Number 2603 OL11 4AD HMC	
		Location (Handheld GPS) 386336 E 412019 N		Dates 05/03/2026		Engineer		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description		Legend	Water
0.30	ES				(0.20)	MADE GROUND: Grey and dark grey slightly clayey silty sandy GRAVEL. Gravel was subangular to subrounded fine to coarse of sandstone siltstone and fragments of brick and concrete.			
					0.20				
					(0.40)	MADE GROUND: Pale yellow and grey slightly silty sandy GRAVEL. Gravel was subangular to subrounded fine to coarse of sandstone siltstone.			
					0.60				
(0.20)	MADE GROUND: Grey and brown slightly gravelly silty sandy CLAY. Gravel was subangular to subrounded fine to coarse of sandstone.								
0.80	Gas pipe and historic land drains encountered at approximately 0.6m bgl.								
						Complete at 0.80m			
Plan						Remarks			
.						Trial pit terminated above land drains and gas/electric conduit at 0.8m bgl.			
.									
.									
.									
.									
.									
.									
Scale (approx)				Logged By		Figure No.			
1:25									

APPENDIX E

CHEMICAL ANALYTICAL DATA

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/02980
Issue Number: 1

Date: 25 March, 2026

Client: Mugen Geo
Machpelah House
Machpelah
Hebden Bridge
West Yorkshire
UK
HX7 8AU

Project Manager: Stuart Proudlock
Project Name: Land at Crimble Hall Crimble Lane Heywood OL11 4AD
Project Ref: 2603 OL11 4AD
Order No: N/A
Date Samples Received: 09/03/26
Date Instructions Received: 12/03/26
Date Analysis Completed: 25/03/26

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 26/02980

Client Project Name: Land at Crimble Hall Crimble Lane
Heywood OL11 4AD

Client Project Ref: 2603 OL11 4AD

Lab Sample ID	26/02980/1	26/02980/2	26/02980/3	26/02980/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP3	TP4						
Depth to Top	0.30	0.30	0.30	0.30						
Depth To Bottom										
Date Sampled	05-Mar-26	05-Mar-26	05-Mar-26	05-Mar-26						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	6AE	4AE	5A						
% Stones >10mm _A	32.9	4.6	27.6	<0.1				% w/w	0.1	A-T-044
Arsenic _D ^{M#}	4	5	7	7				mg/kg	1	A-T-024s
Barium _D [#]	20	50	80	59				mg/kg	3	A-T-024s
Beryllium _D	<0.5	0.7	0.5	<0.5				mg/kg	0.5	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0	<1.0	<1.0				mg/kg	1	A-T-027s
Cadmium _D	<1.0	<1.0	<1.0	<1.0				mg/kg	1	A-T-024s
Copper _D ^{M#}	20	25	28	25				mg/kg	1	A-T-024s
Chromium _D ^{M#}	13	17	11	12				mg/kg	1	A-T-024s
Lead _D ^{M#}	11	23	97	50				mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	19	12	14				mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Vanadium _D ^{M#}	13	18	17	17				mg/kg	1	A-T-024s
Zinc _D ^{M#}	40	61	67	41				mg/kg	1	A-T-024s

Envirolab Job Number: 26/02980

Client Project Name: Land at Crimble Hall Crimble Lane
Heywood OL11 4AD

Client Project Ref: 2603 OL11 4AD

Lab Sample ID	26/02980/1	26/02980/2	26/02980/3	26/02980/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP3	TP4						
Depth to Top	0.30	0.30	0.30	0.30						
Depth To Bottom										
Date Sampled	05-Mar-26	05-Mar-26	05-Mar-26	05-Mar-26						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	6AE	4AE	5A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	-	NAD	NAD						A-T-045
Asbestos Matrix (visual) _D	-	-	-	-						A-T-045
Asbestos Matrix (microscope) _D	-	-	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	-	N/A	N/A						A-T-045

Envirolab Job Number: 26/02980

Client Project Name: Land at Crimble Hall Crimble Lane
Heywood OL11 4AD

Client Project Ref: 2603 OL11 4AD

Lab Sample ID	26/02980/1	26/02980/2	26/02980/3	26/02980/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP1	TP2	TP3	TP4						
Depth to Top	0.30	0.30	0.30	0.30						
Depth To Bottom										
Date Sampled	05-Mar-26	05-Mar-26	05-Mar-26	05-Mar-26						
Sample Type	SOIL - ES	SOIL - ES	SOIL - ES	SOIL - ES						
Sample Matrix Code	4A	6AE	4AE	5A						
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	0.02	0.09				mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	0.15				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	0.04	0.63				mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	0.23	1.98				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	0.34	1.35				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	0.41	1.57				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	0.41	0.54				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	0.16	0.63				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	0.28	1.68				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	0.06	0.18				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	0.42	3.19				mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	0.31				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	0.35	0.64				mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	0.05				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	0.15	1.68				mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	0.39	2.59				mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	3.26	17.3				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.

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:	Mugen Geo, Machpelah House, Machpelah, Hebden Bridge, West Yorkshire, UK,	Project No:	26/02980
	HX7 8AU	Date Received:	12/03/2026 (am)
Project:	Land at Crimble Hall Crimble Lane Heywood OL11 4AD	Cool Box Temperatures (°C):	9.1
Clients Project No:	2603 OL11 4AD		

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	26/02980/1	26/02980/2	26/02980/3	26/02980/4
Client Sample No				
Client Sample ID/Depth	TP1 0.30m	TP2 0.30m	TP3 0.30m	TP4 0.30m
Date Sampled	05/03/26	05/03/26	05/03/26	05/03/26
A-T-019s	20/03/2026	20/03/2026	20/03/2026	20/03/2026
A-T-024s	25/03/2026	25/03/2026	25/03/2026	25/03/2026
A-T-027s	24/03/2026	24/03/2026	24/03/2026	24/03/2026
A-T-044	18/03/2026	18/03/2026	18/03/2026	18/03/2026
A-T-045	17/03/2026		17/03/2026	17/03/2026

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

APPENDIX F
GENERAL TERMS AND CONDITIONS
&
STANDARD PROCEDURES

General Terms & Conditions HME Civil Engineering Limited Phase II Investigations

This report describes a ground investigation to be undertaken on behalf of The Client and owner of the site) referenced above. The investigation proposed is been designed based upon information supplied by the client & on the assumption that the site is to be developed for residential use.

The objectives of the investigation are to obtain information relating to the ground conditions at the site in order to comply with a planning condition relating to the site. This report will be produced on behalf of The Client and no responsibility is accepted to any Third Party for all or any part.

The final report should not be relied upon or transferred to any other parties without the express written authorisation of HME Civil Engineering Limited. If any unauthorised Third Party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.

Whilst the prepared report may express an opinion on the possible configuration of strata, contaminants or gases between or beyond exploratory hole positions or on the possible presence of features based on either visual, verbal or published evidence, this is for guidance only, and no liability can be accepted for its accuracy.

The comments on groundwater and ground gas conditions will be based on observations made at the time of the investigation. It should be noted, however, that groundwater and ground gas levels may vary from those reported due to seasonal or other effects.

Consideration should be given to the possibility that exploratory holes excavated as part of this investigation, and indeed any previous ground i work by others, may be encountered beneath or within the influence of individual foundations. HME Civil Engineering Limited cannot be held responsible for failure of excavations or structural failures caused by the location of foundations of any form of structure within the influence of exploratory holes.

Existing manhole covers will not be lifted and drainage runs will not be inspected during the course of this ground investigation.

Standard Procedure Notes for Phase 2 Reports:

The desk study and ground investigation have been carried out in accordance with the principles of BS EN 1997-1: 2004 "Eurocode 7 - Geotechnical Design - Part 1: General Rules", BS EN 1997-2: 2007 "Eurocode 7 - Geotechnical Design - Part 2: Ground Investigation and Testing", BS5930: 1999 and BS10175: 2001, and the terms of the client's brief.

It must be understood that any ground investigation only samples a small percentage of the ground. As a result changes in ground conditions and soil properties can occur between any two exploratory points, for example local features such as soft ground, pockets of contamination and faults. Unrecorded bell pits and shafts can also exist between exploratory points. The proposed ground investigation is designed to minimize such risks. Conclusions and recommendations are based on the information presented in this report, but unforeseen features may exist. Therefore, the actual ground conditions should be noted during construction and further advice sought if they differ significantly from those predicted.

Further investigation can be carried out to further reduce uncertainty and risk but ultimately these risks cannot be eliminated. In commissioning further research or investigation the costs, and the assumed benefit of doing so, must be considered.

Where buildings are present on a site, structural and asbestos surveys have not been carried out, unless specifically stated. An unexploded ordnance survey has not been carried out. In relevant situations it would be prudent to commission such surveys.

Where information has been obtained from Third Parties, no liability can be accepted for the accuracy or completeness of this information. Where anecdotal evidence or speculations are presented, they must be treated as such and cannot be relied upon.