

ERGO

REMEDIATION AND ENABLING WORKS VALIDATION REPORT

Land at Maple Avenue,
Shildon,
DL4 2AG

Prepared for:



Report Ref: 22-1155-VAL
Date Issued: November 2023

ERGO LIMITED

Unit 38B,
North Tyne Industrial Estate,
Benton,
Newcastle upon Tyne,
NE12 9SZ

Tel : + 00 (0) 191 389 6200
<http://www.ergoenvironmental.com>

Registered in England
No.: 1116211

QUALITY ASSURANCE

REMARKS	Final
DATE	November 2023
PREPARED BY	P Craigie
QUALIFICATIONS	BEng
SIGNATURE	[REDACTED]
CHECKED BY	J Malley
QUALIFICATIONS	BSc, MSc, MCIWEM, C.WEM
SIGNATURE	[REDACTED]
AUTHORISED BY	J Nairn
QUALIFICATIONS	BSc, MSc, FGS, MIEnvSc, CEnv
SIGNATURE	[REDACTED]
PROJECT NUMBER	22-1155
IMS Template Reference QR005-1	

EXECUTIVE SUMMARY

Site Address	Land at Maple Avenue, Shildon, DL4 2AG.
Grid Reference	E423514, N526296.
Site Area	c.0.55Ha.
Stated Objective	The primary purpose of this report is to document the implementation and subsequent validation of regulatory compliant land remediation and enabling works and build phase remediation works completed as part of the construction of a residential development of the site located at Maple Avenue, Shildon.
Site Remediation and Enabling Works	<p>All works at the site have been conducted in accordance with the agreed Remediation Strategy. The main outputs from the works are:</p> <ul style="list-style-type: none"> ▪ Pre-commencement Regulatory Approval; ▪ Management of works to mitigate potential risks to infrastructure and the environment; ▪ Management of Invasive Species, as necessary; ▪ Pre-demolition asbestos surveys of onsite structures; ▪ Site clearance, site strip and demolition; ▪ Topsoil strip including segregation of unsuitable materials; ▪ Post demolition investigation; ▪ Delineation, excavation and management of identified impacted soils; ▪ Cutting and Filling of site as required in accordance with relevant geotechnical performance specification; ▪ Importation of suitable materials as required to achieve proposed site levels and for use within clean cover system; ▪ Preparation of garden areas for clean cover system; and ▪ Placement of clean cover system.
Regulatory Authority Compliance	<p>Local Planning Authority – Human Health</p> <p>It is understood that Durham County Council have reviewed and accepted the findings of the ERGO Phase 2 Investigation and subsequent recommendations within the ERGO Remediation Statement.</p> <p>ERGO has subsequently incorporated all remediation aims into this validation report.</p> <p>Environment Agency – Controlled Waters & Wider Environ</p> <p>The EA act as a statutory consultee of Durham County Council Planning Authority and in this instance no consultation correspondence has been supplied by Durham County Council and as such, we presume the EA have no further requirements with respect to controlled waters.</p>
Conclusions	<p>Based on the inspections undertaken it is considered that the development has been completed in such a way as to facilitate the incorporation of the required mitigation items to minimise the potential risks to receptors.</p> <p>ERGO can confirm that the outlined mitigation requirements have been adequately installed during the development works.</p>

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1. INTRODUCTION

1.1 Background

This report details the remediation and enabling works operations that were undertaken by HABNorthern Ltd under supervision of ERGO to facilitate the preparation of the low-rise residential development on a parcel of land located at Maple Avenue, Shildon; herein referred to as *the site*.

ERGO were appointed by Oaktree Living as independent Geo-Environmental Consultant for the site remediation, enabling and validation works and the subsequent production of a suitably detailed report to ensure the satisfaction of the relevant planning conditions.

This document records the validation of remediation and enabling and build phase remediation works completed at the site.

The development area is c.0.55ha in size and is situated in north-eastern Shildon, located roughly 0.5km east of Shildon Town Centre as shown within ERGO Drawing 22-1155-001 (Appendix III).

For the avoidance of doubt, ERGO can confirm that the parcel of land refers to the red-line boundary as indicated in Figure 1.1 below.

Figure 1.1 Site Location Plan – Land at Maple Avenue



1.2 Site Location / Setting

SITE ADDRESS	LAND AT MAPLE AVENUE, SHILDON, DL4 2AG.
NATIONAL GRID REFERENCE	E423514, N526296.
SITE AREA	c.0.55Ha.

Prior to the commencement of works, the site comprised vacant undeveloped grassed plots and recently unoccupied residential properties within a residential estate in north-eastern Shildon.

A review of available historic Ordnance Survey mapping records has indicated that the site remained undeveloped until 1962 when residential properties were recorded at the site, by

1969 a public house was recorded in the northern site area. The site has remained largely unchanged to date though the public house was demolished in 2021.

1.3 Proposed Development

Oaktree Living intended to redevelop the site for a residential end use comprising 15no. semi-detached and terraced properties with communal garden area, private gardens, private car parking and buried service infrastructure. It is understood that several of the properties are proposed to undergo regeneration.

Drawing 22-1155-002 (Appendix III) identifies the proposed development layout. A snapshot of the proposed development layout is shown within Figure 1.2 below.



Figure 1.2 Snapshot of Proposed Development

1.4 Summary of Parties Involved

NAME OF PARTY	FUNCTION / INTEREST
Land Owner	Livin Housing
Developer	Oaktree Living
Geo-Environmental Consultant	ERGO
Main Contractor	HAB Northern Ltd
Remediation Contractor	HAB Northern Ltd
Human Health Regulator / Local Planning Authority	Durham County Council
Controlled Waters Regulator	Durham County Council

1.5 Limitations & Glossary

The limitations of this report are presented in Appendix I.

All acronyms used within this report are defined in the Glossary presented in Appendix II.

1.6 Confidentiality

ERGO has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from ERGO; a charge may be levied against such approval.

2. CONTAMINATION, REMEDIATION & ENABLING WORKS REQUIREMENTS

2.1 Summary of Contamination Issues

2.1.1 Human Health

Previous investigative works at the site completed by ERGO (Ref: 22-1155-R1/RevB, May 2022) identified elevated concentrations of Lead, TPH & Non-volatile PAH contaminants within topsoil and shallow Made Ground deposits across the area of the former Public House.

No asbestos was noted within any of the tested samples. No further chemical contaminants exceeded the screening criteria for unacceptable risks posed to human health.

2.1.2 Controlled Waters

The Developed CSM within the context of the site did not identify a viable pollutant risk towards the underlying Secondary A aquifer resource. Furthermore, the site is not located within 500m of a groundwater abstraction or within a Source Protection Zone.

The absence of surface water features within influencing distance of the site suggests a negligible risk to surface water receptors.

2.1.3 Ground Gas

The Ground Gas Risk Assessment determined the site to be classified as CS1/Green indicating that gas protection measures were not required.

It is understood that Durham County Council have accepted this assessment.

2.2 Correspondence with Regulatory Authorities

2.2.1 Local Planning Authority – Human Health

It is understood that Durham County Council have reviewed and accepted the findings of the ERGO Phase II Site Investigation (Ref: 22-1155-R1/RevB) and ERGO Remediation Statement (Ref: 22-1155-REM, September 2022).

2.2.2 Environment Agency – Controlled Water & Wider Environ

The Environment Agency act as a statutory consultee of Durham County Council Planning Authority and in this instance no consultation correspondence has been supplied by Sunderland Council and as such, we presume the Environment Agency have no further requirements with respect to controlled waters.

2.3 Environmental Permit & Approvals

It is understood that all relevant Environmental Permits and Approvals were gained by Oak Tree Living as required.

2.4 Summary of Remediation & Enabling and Build Phase Works Objectives

The proposed remediation activities were detailed within the ERGO Remediation Strategy. This report has been prepared to document the completion of all necessary land remediation and enabling works (detailed in Table 2.1, overleaf) and to record the presence of any variation in ground conditions or previously unidentified sources of potential contamination, environmental impact or potential nuisance to the wider environ.

Table 2.1 Remediation Objectives

REMEDATION STRATEGY OBJECTIVES	GENERAL OVERVIEW
RE-1	Pre-Commencement Compliance
RE-2	Environment & Nuisance Control
RE-3	Risk to Infrastructure
RE-4	Identification, Isolation and Treatment of Invasive Plants
RE-5	Pre-demolition Asbestos Survey
RE-6	Site Clearance Operations
RE-7	Post Demolition Supplementary Site Investigation
RE-8	Excavation, Breaking and Processing of All Above & Below Ground Structures
RE-9	Delineation, Excavation, Treatment & Disposal of Impacted Material
RE-10	Cut & Filling to Development Levels
RE-11	Replacement of Materials Geotechnical Engineering Requirements
RE-12	Importation of Bulk Fill
RE-13	Preparation of Landscaping for Cover System
RE-14	Provision of Subsoil
RE-15	Provision of Topsoil
RE-16	Independent Validation - Watching Brief
RE-17	Remedial Verification Brief

3. DETAILED REMEDIATION & EARTHWORKS ACTIVITIES

The focus of the Remediation and Enabling Works and subsequent Build Phase Enabling Works are to address the contaminant issues previously identified within the site investigations that presented an unacceptable risk to human health following the redevelopment of the site.

For completeness, each of these activities has been discussed below within the context of the actual remediation works that were undertaken onsite.

The Remediation & Site Enabling Works for all plots commenced in October 2022 and were completed by October 2023.

RE-1 Pre-Commencement Regulatory Compliance

Overview of Works

Prior to commencement of works onsite, all reports relating to the assessment of risk to contaminated land were submitted to the relevant regulatory authorities and gained written approval of the required actions as necessary.

RE-2 Environment & Nuisance Control

Overview of Works

All works were undertaken in accordance with construction good practice, with adequate dust suppression methods outlined within the working Construction & Environmental Management Plan. No significant unacceptable environmental or nuisance disturbance was noted.

RE-3 Risk to Infrastructure

Overview of Works

All works were undertaken in a manner so as not to create any structural risk to the adjacent highways or infrastructure. Appropriate protection of insitu infrastructure including NWL utilities, Public Rights of Way and adjacent carriageways to be retained was undertaken with suitable standoffs incorporated in to the CEMP.

RE-4 Identification, Isolation and Treatment of Invasive Plants

Overview of Works

No invasive species were identified during the works; therefore, no further action was required.

RE-5 Pre-demolition Asbestos Survey

Overview of Works

ERGO understands that pre-demolition asbestos surveys of the formerly present onsite structures was completed by the previous developer, Tolent Living, prior to administration. No copies of the asbestos surveys have been provided though it is understood that all relevant advice and guidance was completed by Tolent Living during demolition works.

RE-6 Site Clearance Operations

Overview of Works

General site clearance & provision of welfare, offices and site security were enacted as per the contractual requirements. All vegetation was removed in a controlled manner and stockpiled/removed from the site in accordance with the Waste Permitting Regulations and the requirements of NHBC/LABC. All fly tipped wastes were removed from site prior to works commencing.

RE-7 Post Demolition Supplementary Site Investigation

Dates of Works Undertaken

January 2023

Reports

ERGO Email - Maple Avenue Supplementary Inspection to Tolent Living dated: 19th January 2023

Overview of Works

Following completion of the demolition of plots within the western and southern site area ERGO attended site to inspect trial trenches to ensure adequate removal of foundations/obstructions, confirm the nature of in-situ materials and confirm the absence of visual/olfactory evidence of contamination.

No evidence of contamination was identified, and no further analysis was deemed to be required at that point.

RE-8 Excavation, Breaking and Processing of All Above & Below Ground Structures

Overview of Works

All areas of hardstanding, concrete slabs and localised brick features were excavated, broken out and processed as required.

Evidence of a buried basement structure was encountered within the northern site area during excavation for foundations which required the full excavation and grubbing out of the feature. No below ground structures were left in-situ as part of the works, no further issues were identified subsequently.

RE-9 Delineation, Excavation, Treatment & Disposal of Impacted Material

Overview of Works

During the intrusive phase of investigation, contamination was identified within the area of the former public house in the northern site area.

A clean cover system of at least 600mm including at least 150mm of suitable topsoil was required. This clean cover layer was validated during the garden validation within Plot 1 referenced in ERGO Report 22-1155-GV1, dated October 2023.

RE-10 Cut & Filling to Development Levels

Overview of Works

The site levels were cut and filled, as required to pre-development levels under supervision from HAB Northern Ltd. Made Ground deposits were fully excavated to the required depth as required.

Where natural drift deposits were encountered at depths of less than 600mm below proposed finished ground level, visually and olfactorily uncontaminated natural deposits were retained where possible and encountered at depths as per the remediation strategy.

RE-11 Replacement of Materials Geotechnical Engineering Requirements

Overview of Works

Site won general fill was placed and compacted in accordance with the ERGO geotechnical performance specification.

To achieve the proposed Enabling Works Levels (EWLs), HAB Northern Ltd undertook a process of cut/fill works including the careful selection of materials from within areas of reduced level excavation (cut) prior to placement in a manner that accords with the geotechnical engineering performance specification & contamination compliance criteria.

Compliance and liability of the geotechnical aspect of the works is solely the responsibility of HAB Northern Ltd. Records detailing validation of these works are available from HAB Northern Ltd.

RE-12 Importation of Bulk Fill

Overview of Works

No requirement to import materials to achieve the proposed site levels was identified.

Site levels were achieved during cut/fill enabling works.

RE-13 Preparation of Landscaping for Cover System

Reports

ERGO Report: Garden Validation Report Plots 1-5 & 10-11 (ref:22-1155-GV1, October 2023)

ERGO Report: Garden Validation Report Plots 6-9 & 12-15 (ref:22-1155-GV2, November 2023)

Overview of Works

A clean cover system of at least 600mm including a minimum of 150mm of suitable topsoil was required within all plots.

This was confirmed by ERGO on a plot-by-plot basis during the garden validation visits (ref:22-1155-GV1, dated October 2023 and 22-1155-GV2, dated November 2023).

RE-14 Provision of Subsoil

Reports

I2 Analytical Testing Report Ref: 23-16077

Overview of Works

Stockpiles of site won materials generated during the cut/fill enabling works were analysed for reuse within the scheme as shown within i2 Analytical testing report 23-16077. No evidence of contamination was noted within the samples analysed. ERGO can confirm that the materials stockpiles were texturally suitable for reuse.

Within several areas of proposed soft-standing landscaping at the site, natural drift deposits were encountered within the upper 600mm and incorporated in to the clean cover systems/suitable growing medium.

RE-15 Provision of Topsoil

Overview of Works

Topsoil was imported to the site for use within gardens. Topsoil was imported from sites at Cramlington by HABNorthern. Testing was previously completed by Solmek who confirmed suitability of the materials placed.

ERGO can confirm that the placed materials were texturally suitable for use within the scheme.

RE-16 Independent Validation - Watching Brief

Overview of Works

ERGO attended the site a number of times during the remediation and enabling works and can confirm that the Remediation Strategy was fully adhered to by HAB Northern Ltd.

No evidence of unforeseen contamination was encountered during the works completed.

RE-17 Remedial Verification Report

Overview of Works

This report has been created to document all actions undertaken by Remediation Contractor, HAB Northern Ltd, on behalf of Oaktree Living under supervision of ERGO as an independent party during the groundworks phase.

This report should be submitted to the Council to confirm all required mitigation measures outlined within the ERGO Remediation & Enabling Works Strategy to have been satisfactorily completed.

4. CONCLUSION

ERGO can confirm that the remediation works at the Maple Avenue, Shildon site have been implemented in accordance with the agreed Remediation Statement with all materials managed in such a way as to ensure that the completed works posed no risk to construction operatives, site end users or the wider environ.

ERGO can also confirm that based on the above all materials that remain in-situ pose no unacceptable degree of potential risk to the identified receptors within the context of the developed Conceptual Site Model (CSM) and as such the site is deemed suitable for use subject to the installation, validation and testing of the build phase mitigation works.

END OF REPORT

**APPENDIX I
LIMITATIONS**



1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between ERGO and the Client as indicated in Section 1.2.
2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information it has been assumed it is correct. No attempt has been made to verify the information.
3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination which are enforced by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.
4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.
5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.
6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.
7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.
8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.
9. ERGO cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by ERGO is owned by them and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by ERGO in this connection without their explicit written agreement there to by ERGO.
10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.

**APPENDIX II
GLOSSARY**



TERMS

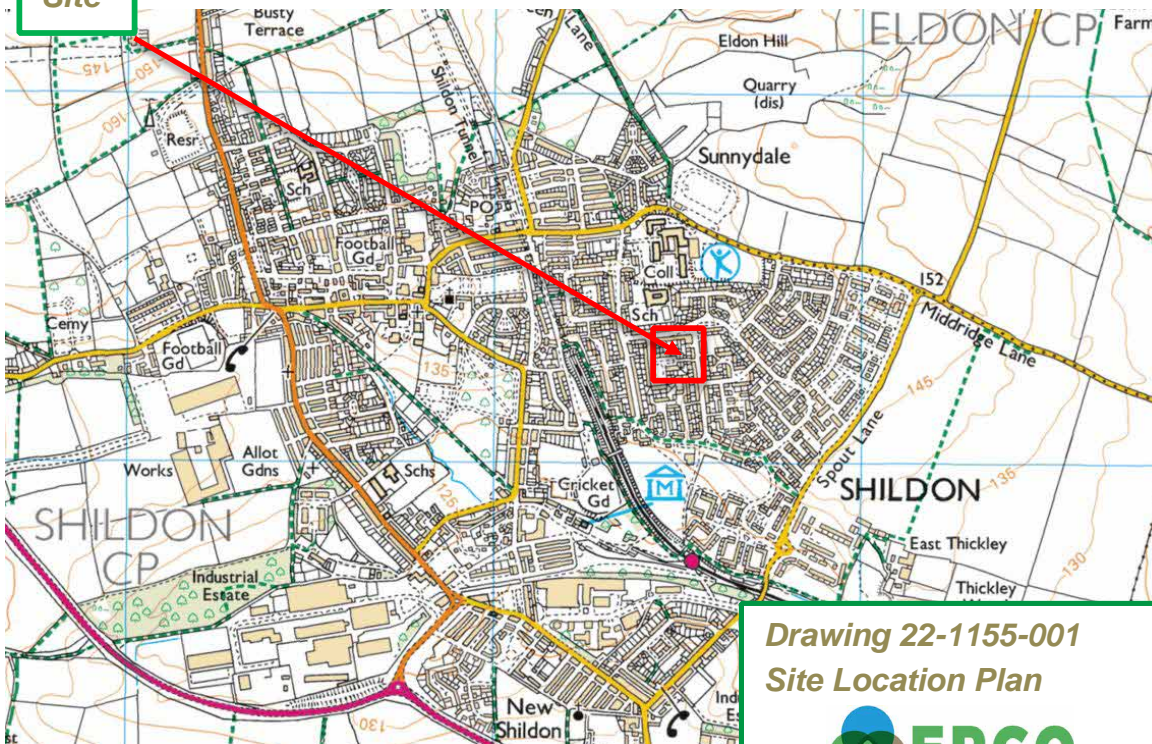
AST	Above Ground Storage Tank	SGV	Soil Guideline Value
BGS	British Geological Survey	SPH	Separate Phase Hydrocarbon
BSI	British Standards Institute	TPH CWG	Total Petroleum Hydrocarbon (Criteria Working Group)
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes	SPT	Standard Penetration Test
CIEH	Chartered Institute of Environmental Health	SVOC	Semi Volatile Organic Compound
CIRIA	Construction Industry Research Association	UST	Underground Storage Tank
CLEA	Contaminated Land Exposure Assessment	VCCs	Vibro Concrete Columns
CSM	Conceptual Site Model	VOC	Volatile Organic Compound
DNAPL	Dense Non-Aqueous Phase Liquid (chlorinated solvents, PCB)	WTE	Water Table Elevation
DWS	Drinking Water Standard	m	Metres
EA	Environment Agency	km	Kilometres
EQS	Environmental Quality Standard	%	Percent
GAC	General Assessment Criteria	%v/v	Percent volume in air
GL	Ground Level	mb	Milli Bars (atmospheric pressure)
GSV	Gas Screening Value	l/hr	Litres per hour
HCV	Health Criteria Value	µg/l	Micrograms per Litre (parts per billion)
ICSM	Initial Conceptual Site Model	ppb	Parts Per Billion
LNAPL	Light Non-Aqueous Phase Liquid (petrol, diesel, kerosene)	mg/kg	Milligrams per kilogram (parts per million)
ND	Not Detected	ppm	Parts Per Million
LMRL	Lower Method Reporting Limit	mg/m³	Milligram per metre cubed
NR	Not Recorded	m bgl	Metres Below Ground Level
PAH	Polycyclic Aromatic Hydrocarbon	m bcl	Metre Below Cover Level
PCB	Poly-Chlorinated Biphenyl	mAOD	Metres Above Ordnance Datum (sea level)
PID	Photo Ionisation Detector	kN/m²	Kilo Newtons per metre squared
QA	Quality Assurance	µm	Micro metre
SGV	Soil Guideline Value		

**APPENDIX III
DRAWINGS**





Site



Drawing 22-1155-001
Site Location Plan





Key:

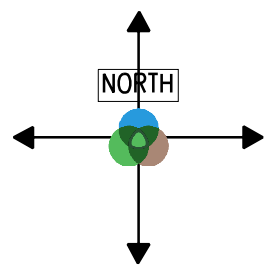
Notes:

P1	-	22.03.2022	DRAFT	JR	JN
Phase	Revision	Date	Issue	Drawn	Authorised
Client: Tolent Living Limited			Job No: 22-1155	Date: 22.03.2022	
			Drawing No: 002	Scale: NTS	
Job Title: Maple Avenue, Shildon			Drawing Title: Proposed Development Plan		

ERGO

Ergo Environmental Ltd
Tel: 0191 389 6200
Website: www.ergoenvironmental.com
Email: info@ergoenvironmental.com

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**APPENDIX IV
PHOTOGRAPHS**





**PLATE 1 – 28.04.22 TRIAL TRENCHING WITHIN AREA OF FORMER PUBLIC HOUSE
TO CONFIRM ABSENCE OF RELIC FOUNDATIONS**



**PLATE 2 – 28.04.22 TRIAL TRENCHING WITHIN AREA OF FORMER PUBLIC HOUSE
TO CONFIRM THE ABSENCE OF RELIC FOUNDATIONS**



PLATE 3 – 19.01.23 INSPECTION OF FOUNDATION TRENCHES WITHIN WESTERN SITE AREA PRIOR TO CONCRETE POUR



PLATE 4 – 19.01.23 INSPECTION OF FOUNDATION TRENCHES WITHIN WESTERN SITE AREA PRIOR TO CONCRETE POUR



PLATE 5 – 03.02.23 INSPECTION OF TRIAL TRENCHES WITHIN SOUTHERN AREA OF THE SITE



PLATE 6 – 03.02.23 INSPECTION OF TRIAL TRENCHES WITHIN SOUTHERN AREA OF THE SITE



PLATE 7 - 15.08.23 INSPECTION OF REAR GARDENS WITHIN PLOTS 4-5



PLATE 8 - 15.08.23 HAUL ROAD TO REAR OF PLOTS 6-9

**APPENDIX V
REMEDICATION TARGET VALUES**



Remediation Validation Target Values

Determinand	Units	Within 600mm Cover System (Garden)	Public Open Space >300mm	Pathway
Arsenic	mg/kg	37	79	1
Cadmium	mg/kg	11	120	1
Chromium (Hexavalent)	mg/kg	6	7.7	1
Lead	mg/kg	200	630	1
Inorganic Mercury	mg/kg	40	120	2
Nickel	mg/kg	130	230	1
Selenium	mg/kg	250	1100	1
Copper	mg/kg	2400	12000	1
Zinc	mg/kg	3700	81000	1
Naphthalene	mg/kg	2.3	4900	2
Acenaphthylene	mg/kg	170	15000	3
Acenaphthene	mg/kg	210	15000	1
Fluorene	mg/kg	170	9900	1
Phenanthrene	mg/kg	95	3100	3
Anthracene	mg/kg	2400	74000	3
Fluoranthene	mg/kg	280	3100	3
Pyrene	mg/kg	620	7400	3
Benzo(a)Anthracene	mg/kg	7.2	29	3
Chrysene	mg/kg	15	57	3
Benzo(b)Fluoranthene	mg/kg	2.6	7.1	3
Benzo(k)Fluoranthene	mg/kg	77	190	3
Benzo(a)Pyrene	mg/kg	2.2	5.7	3
Indeno(123-cd)Pyrene	mg/kg	27	82	3
Dibenzo(a,h)Anthracene	mg/kg	0.24	0.57	3
Benzo(ghi)Perylene	mg/kg	320	640	3
TPH C ₅ -C ₆ (aliphatic)	mg/kg	42	57000	2
TPH C ₆ -C ₈ (aliphatic)	mg/kg	100	60000	2
TPH C ₈ -C ₁₀ (aliphatic)	mg/kg	27	13000	2
TPH C ₁₀ -C ₁₂ (aliphatic)	mg/kg	130	13000	2
TPH C ₁₂ -C ₁₆ (aliphatic)	mg/kg	1100	13000	1
TPH C ₁₆ -C ₂₁ (aliphatic)	mg/kg	65000	250000	1
TPH C ₂₁ -C ₃₅ (aliphatic)	mg/kg			1
TPH C ₅ -C ₇ (aromatic)	mg/kg	70	56000	2
TPH C ₇ -C ₈ (aromatic)	mg/kg	130	56000	2
TPH C ₈ -C ₁₀ (aromatic)	mg/kg	34	5000	2
TPH C ₁₀ -C ₁₂ (aromatic)	mg/kg	74	5000	2
TPH C ₁₂ -C ₁₆ (aromatic)	mg/kg	140	51000	1
TPH C ₁₆ -C ₂₁ (aromatic)	mg/kg	260	3800	1
TPH C ₂₁ -C ₃₅ (aromatic)	mg/kg	1100	3800	1

Main Exposure Pathways: 1 = Soil Ingestion, 2 = Vapour Inhalation (indoor), 3 = Dermal Contact & Ingestion, 4 = Dust Inhalation.

APPENDIX VI
ERGO Reports



Jonathan Malley

From: Jonathan Malley <jmalley@ergoenvironmental.com>
Sent: 19 January 2023 12:33
To: Thomas Etherington
Cc: Kevin Hodgson
Subject: FW: Maple Avenue Supplementary Inspection
Attachments: Supplementary Inspection.pdf; 22-1155-003 Exploratory Hole Location Plan.pdf; TP Jan Rev 2.pdf

Hi Tom,

Further to the call earlier please find attached logs, exploratory hole location plan and photo record for the site at Maple Avenue, Shildon.

To confirm, we attended the site to inspect ground conditions within advanced foundation excavation and to undertake 2no. trial pits within the footprint of the onsite structures.

Locations were undertaken at locations agreed by an onsite representative of Tolent Living.

Ground conditions generally comprised a thin veneer of Made Ground noted to be locally deeper where former utilities services were identified overlying a greyish/brown clayey slightly gravelly SAND in turn overlying a firm to stiff greyish brown sandy gravelly CLAY. Localised materials encountered were noted to be water softened. No visual/olfactory evidence of contamination was identified.

Based on the encountered ground conditions within the advanced locations, inspection of the foundation excavations and foundation arisings and an inspection of the cut surface, ERGO consider there to be no evidence of unforeseen contamination within the footprint of the former onsite structures inspected.

Additional visit(s) will be required to confirm the absence of unforeseen ground conditions within the footprint of properties presently undergoing demolition and underlying the existing garages.

Please let me know if you have any queries regarding the above.

Many thanks

Jonathan Malley

Associate Director

Mobile: 07554 176637

Office: 0191 3896200

Email: jmalley@ergoenvironmental.com

Web: www.ergoenvironmental.com

Maling Exchange, Hoults Yard, Walker Rd, Newcastle upon Tyne, NE6 2HL



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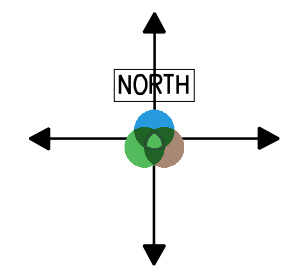


Key:

- Approximate Window Sample Probehole Location
- Approximate Window Sample Probehole Location with Install
- Approximate Trial Pit Location
- Approximate Trial Trench Location
- Area of Foundation Excavation Inspection

Notes:

P1	-	19.01.2023 27.05.2022 27.04.2022	DRAFT	RB JR	JN
Phase	Revision	Date	Issue	Drawn	Authorised
Client: Tolent			Job No: 22-1155	Date: 19.01.2023 27.05.2022 27.04.2022	
			Drawing No: 003	Scale: NTS	
Job Title: Maple Avenue, Shildon			Drawing Title: Exploratory Hole Location Plan		



Ergo Environmental Ltd
Tel: 0191 389 6200
Website: www.ergoenvironmental.com
Email: info@ergoenvironmental.com

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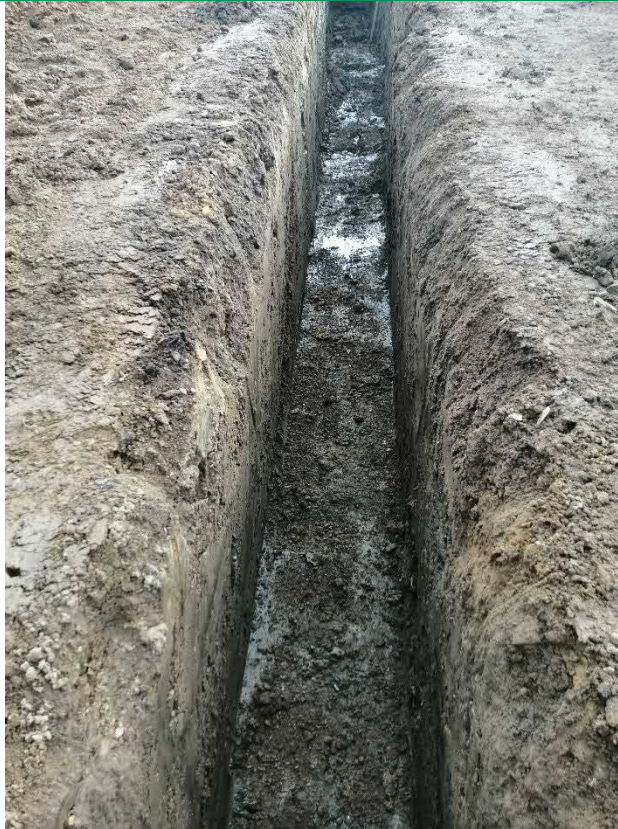


PLATE 1 – SHOWING FOUNDTION EXCAVATION IN CENTRAL SITE AREA



PLATE 2 – SHOWING FOUNDTION EXCAVATION IN CENTRAL SITE AREA