



Whittaker Street, Radcliffe
Site Completion Report

Job Number
LKC251444

Report Date
30th October 2025

Client
Whitfield & Brown (Developments) Ltd

DOCUMENT QUALITY ASSURANCE

Site Address	Former Whittaker House, 7 Whittaker St, Radcliffe, Manchester M26
Report Title	Site Completion Report
Job Number	LKC251444
Client	Whitfield & Brown (Developments) Ltd

Revision	0	Date of Issue	30/10/2025
Document Ref:	LKC251444-D1-SCR-Whittaker Street, Radcliffe R0		
Status	Final		
Written By	Fraser Peers		
Approved By	Rosie Cummings		

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1. Introduction

LK Consult Ltd (LKC) has been commissioned to provide a Site Completion Report for Whittaker Street, Radcliffe (planning reference 63805). The development comprises 8no. dwellings.

The aim of the Site Completion Report will be to demonstrate to the Local Authority that the site has been suitably remediated in line with the Remediation Statement and in accordance with the National Planning Policy Framework (NPPF)¹, where the site is 'suitable for use' for the proposed development.

The Site Completion Report should be sufficient to satisfy Contaminated Land Conditions. Details are provided in the following sections.

Based on the findings of this report, an appropriate site investigation can be derived, if required.

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary plan. Figure 2 indicates the proposed development.

Location	North of Whittaker Street, Radcliffe, M26 2TD. Centred at National Grid Reference 378479E, 407484N.
Area	5,000m ² .
Topography	79 metres above ordnance datum (AOD). Site is approximately level.
Previous Site Use	Undeveloped ground.
Proposed Development	8no. residential buildings with soft landscaping and associated car parking and road.

Table 1-1: Summary of site details.

1.1. Summary of Previous Work

The following reports have been undertaken for the site:

- A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)

The findings of the above reports have been agreed by Bury Metropolitan Borough Council (Ref: 63805, dated 19th February 2019).

In addition to the above reports, individual plot by plot completion reports have also been produced on all properties at the development.

1.2. Summary of Required Validation Work

Based upon the findings of the above the following validation was required:

- Construction of dwellings with appropriate gas mitigation measures, compliant with BS8485², as required for CS2 / Amber 1 protection.
- 600mm deep clean cover system (150mm topsoil layer over 450mm subsoil with a Terram geotextile membrane to protect against any undesirable materials.
- Chemical validation of all imported soils to be used in gardens and soft landscaping.
- Information on the installation of any protective water pipes and/or sterile trenches.
- Provision of disposal tickets if any material is removed offsite.
- Details of any unexpected contamination.

Selected photographs of the completed site are presented in Appendix A.

2. Gas Protection Measures

All properties have Characteristic Situation 2 gas protection measures including a carbon dioxide resistant membrane and vented subfloor void.

All plots have been validated by GeoShield Limited and information can be found in Appendix B.

3. Imported Material for Garden Areas

Approximately 130m³ of topsoil was imported to site from Freeland Horticulture. The imported topsoil was sampled on 21st August 2025 (referenced Plot 3, Plot 6 and Plot 8 Rear TS) in line with the rates agreed in the remediation strategy. LKC visually inspected the topsoil for putrescible material, none of which was encountered.

Approximately 280m³ of subsoil was imported to site from W Mahers. The imported subsoil was sampled on 21st August 2025 (referenced Plot 3, Plot 6 and Plot 8 Rear SS) in line with the rates agreed in the remediation strategy.

Certificates of provenance can be found in Appendix C.

3.1. Generic Assessment Criteria

With regards to the soil risk assessment LKC will use the following hierarchy:

- Category 4 Screening Levels (C4SLs).
- LQM Suitable 4 Use Levels (S4ULs).

An assessment of the data should be undertaken to confirm B(a)P is a suitable surrogate marker by assessing the ratios of carcinogenic PAHs to B(a)P. However, as the majority of the PAHs were recorded as less than detection limits and therefore the assessment could not be undertaken.

When compared to appropriate screening values for residential end use without plant uptake, no elevated contaminants were identified in the imported topsoil or subsoil and the material is considered suitable for use within the soft landscaping capping layer.

Appropriate screening values are presented in Appendix D. Testing results are provided in Appendix E.

3.2. Depth of Cover System

A cover system of at least 600mm total with a minimum of 150mm of topsoil over a geotextile membrane has been placed in all rear gardens. Photographs of the depth measurements are provided in the individual plot reports for each property and depths are summarised below in Table 3-1. Due to the size of the soft landscaping areas to the front of each plot a nominal cover of at least 150mm over a geotextile membrane is considered appropriate.

4. Service Entry Pipes

A UK Water Industry Research (UKWIR) Risk Assessment was undertaken for the site. Elevated levels of EC5-EC10, EC10-EC16 and EC16-EC40 were identified in the made ground therefore standard issue water pipes were not considered suitable and PE barrier pipe was recommended. LKC understand that barrier pipe has been ordered and installed. An invoice for which can be found in Appendix F.

5. Summary of Validation Works

Table 5-1 below summarises the validation works completed across all Plots on the site. Individual plot reports can be found in Appendix G.

Plot No.	Front Garden Topsoil Depth (mm)	Rear Garden Topsoil Depth (mm)	Rear Garden Subsoil Depth (mm)	Required Depth (mm)	Membrane at base (✓ / x)	Compliance (✓ / x)
1	Thin strip ¹	250	350	600	✓	✓
2	Thin strip ¹	150	450	600	✓	✓
3	Thin strip ¹	175	450	625	✓	✓
4	Thin strip ¹	150	450	600	✓	✓
5	Thin strip ¹	175	450	625	✓	✓
6	Thin strip ¹	150	450	600	✓	✓
7	Thin strip ¹	150	450	600	✓	✓

8	Thin strip ¹	150	450	600	✓	✓
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Table 3-1: Summary of validation works undertaken.

Notes:

¹ = only a thin strip / small area of ground was noted within the front garden of these Plots, the area comprised primarily hardstanding for parking.

6. Disposal Tickets

Approximately 178m³ of soil was removed offsite to a licenced landfill by W Maher & Sons. Selected tickets have been provided in Appendix H as an example.

7. Unexpected Contamination

LKC understand that no unexpected contamination was encountered during development works.

8. Conclusions

LKC consider that the work onsite to date has been validated in accordance with the agreed Remediation Strategy.

Based on the above information LKC considers the Whittaker Street, Radcliffe development site is 'suitable for use' for a residential development.

LKC considers there is sufficient information to discharge the outstanding contaminated land planning Conditions by Bury Metropolitan Borough Council.

Appendix A – Photographs of Completed Site



Photographs 1-3: Selected photographs of completed site.

Appendix B – Gas Membrane Validation Report



GeoShield Verification Report 1



PROJECT REFERENCE:

GEO105109

PROJECT ADDRESS:

Whittaker House,
Whittaker Street,
Radcliffe,
BURY
M26 2DT

SPECIFICATION:

Verified in accordance with CIRIA 735.

Design in accordance with BS8485 2015 + 2019
for Methane and Carbon Dioxide.

Substrate prepared in accordance with
manufacturer's instructions.

MATERIAL SPECIFICATION:

JUTA GP1
JUTA GP SAM



GeoShield Verification Report



NAME OF SURVEYOR:

Niall Hogan

VERIFICATION COMPANY:

GeoShield Limited

COMPANY ADDRESS:

Icon Business Centre

4100 Park Approach, Thorpe Park

Leeds

LS15 8GB

CONTACT NUMBER:

07423 116951

EMAIL ADDRESS:

nhogan@geoshield.co.uk



GeoShield Verification Report



CLIENT DETAILS

CLIENT CONTACT:	Ricky Cooper
CONTACTS ROLE:	Director
MOBILE PHONE:	07817 634284
EMAIL ADDRESS:	ricky.c@omega-ls.co.uk



CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS:	
NOTES:	



GeoShield Verification Report



APPLICATOR'S DETAILS

APPLICATOR NAME: Kavanagh Palmer-Fletcher

COMPANY: Omega Lining Solutions

APPLICATOR TEL:

APPLICATOR EMAIL:

APPLICATOR NAME:

COMPANY: Omega Lining Solutions

APPLICATOR TEL:

APPLICATOR EMAIL:

NOTES:

At least one member of each team group will have a NVQ Level 2 qualification in the gas membrane installation.

All installers are competent and skilled to complete gas membrane, installation.



GeoShield Verification Report



INSPECTION AREA(S)

Plots 1, 2, 3, 4, 5, 6, 7 & 8 - Full Line Out

SITE CONDITIONS

WEATHER:

Sunny

TEMPERATURE:

8°C

TIME:

14:00 - 15:00

DATE:

24.02.2025

REPORT NUMBER:

001

ACCOMPANIED BY:

Kavanagh Palmer- Fletcher - Omega Lining Solutions

OVERVIEW



The photograph above displays an overview of Plots 1 & 2 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 3 & 4 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 5 & 6 where today's verification inspection took place on site.

OVERVIEW



The photograph above displays an overview of Plots 7 & 8 where today's verification inspection took place on site.

GeoShield Verification Report



VERIFICATION ITEM ONE

LOCATION/GRID LINE: Plots 1, 2, 3, 4, 5, 6, 7 & 8 - Full Line Out

Installation of JUTA GP1 Gas Barrier - Lap Joints



NOTES:

A complete line out of the JUTA GP1 Gas Barrier has been installed across the footprint of Plots 1, 2, 3, 4, 5, 6, 7 & 8, upon a smooth insulated substrate, minimising potential damages from occurring beneath the membrane. The JUTA GP1 Gas Barrier has been lined out across the entirety of the plots, including



NOTES:

all internal party walls ensuring it bridges the external cavity to the outer leaf brickwork. The lap joints between the adjacent sheets of JUTA GP1 Gas Barrier have been overlapped a minimum of 100mm, conforming to manufacturer's specifications, and heat welded using a hot air leister and silicone roller with adequate

VERIFICATION ITEM ONE



pressure applied to ensure a continuous gas resistant seal is achieved. Thorough visual inspections, supported by non destructive air lance integrity testing conducted upon all overlaps identified a total of seventeen miswelded lap joints. Two puncture holes were also identified. All areas were remediated on site in the presence of GeoShield.

Tested and verified in accordance with CIRIA 735.



GeoShield Verification Report



REMEDIATIONS

Miswelded Lap Joints Identified & Remediated



As mentioned, a total of seventeen miswelds and two puncture holes were identified during the testing procedures conducted today. All miswelds and puncture holes were highlighted for ease of identification and remediated on site in the presence of GeoShield.



The dedicated applicators from Omega Lining Solutions opted to remediate the faults by applying further heat and rolled pressure over the affected areas, to ensure a secure bond was achieved. No further faults were identified during the re-testing of the remedial works.



GeoShield Verification Report



VERIFICATION ITEM TWO

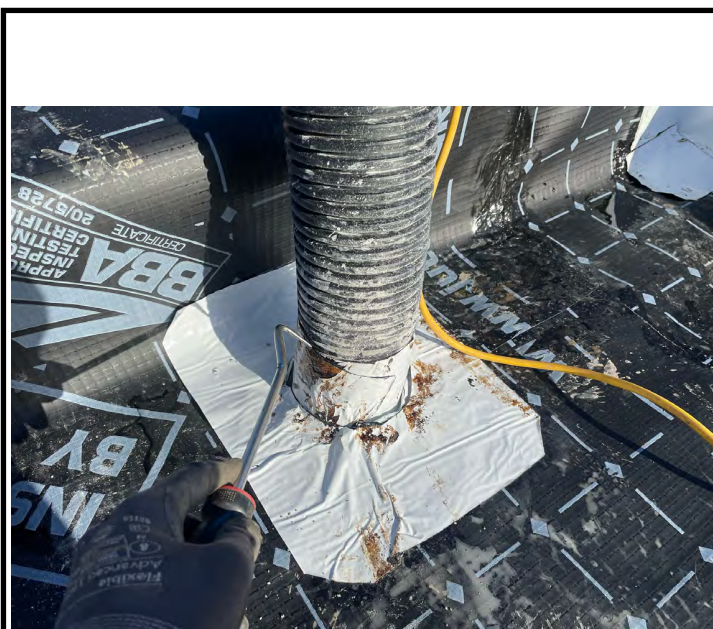
LOCATION/GRID LINE: Plots 1, 2, 3, 4, 5, 6, 7 & 8 - Full Line Out

Pipe Penetrations



NOTES:

Throughout the complete line out installation of the JUTA GP1 Gas Barrier to the referenced plots, there were a number of pipe penetrations that have been sealed in accordance with manufacturer's specifications and design guidelines. This has been achieved using JUTA GP SAM, which is a gas resistant self adhesive



NOTES:

membrane. The installers have first cut the JUTA GP1 Gas Barrier tightly around the base of each pipe penetration to minimise voided areas. Next, patches of JUTA GP SAM are placed intricately in a petal formation around the pipe penetration and onto the JUTA GP1 Gas Barrier, with a 300mm square of JUTA GP SAM placed

VERIFICATION ITEM TWO



over the top to form a top hat detail. Heat and rolled pressure is applied to activate the bitumen backing, creating a secure bond between the pipe penetration and the JUTA GP1 Gas Barrier. All pipe penetrations throughout the referenced plots were subjected to thorough visual inspection and mechanical point stress testing, where a probe was run along all edges of the JUTA GP SAM detailing. Two faults were identified.

GeoShield Verification Report



VERIFICATION ITEM THREE

LOCATION/GRID LINE: Plots 1, 2, 3, 4, 5, 6, 7 & 8 - Full Line Out

Corner & Threshold Detailing



NOTES:

A number of corners and thresholds throughout the referenced plots have also been sealed as per manufacturer's specifications and design guidelines. This has been achieved using JUTA GP SAM. Where the JUTA GP1 Gas Barrier has been cut and folded to minimise voided areas and gaps across the footprint of the



NOTES:

plots, each corner and threshold junction has been reinforced by heating strips of JUTA GP SAM and placing into position around each corner and threshold, onto the JUTA GP1 Gas Barrier. Firm rolled pressure is applied with a silicone roller to aid in the adhesion, ensuring the JUTA GP SAM has fully bonded.

VERIFICATION ITEM THREE



As with the pipe penetrations, a probe was run along all edges of the JUTA GP SAM within the corner & threshold detailing to validate that a continuous robust seal had been achieved throughout. One fault was identified where the JUTA GP SAM had not fully bonded.

Tested and verified in accordance with CIRIA 735.



GeoShield Verification Report



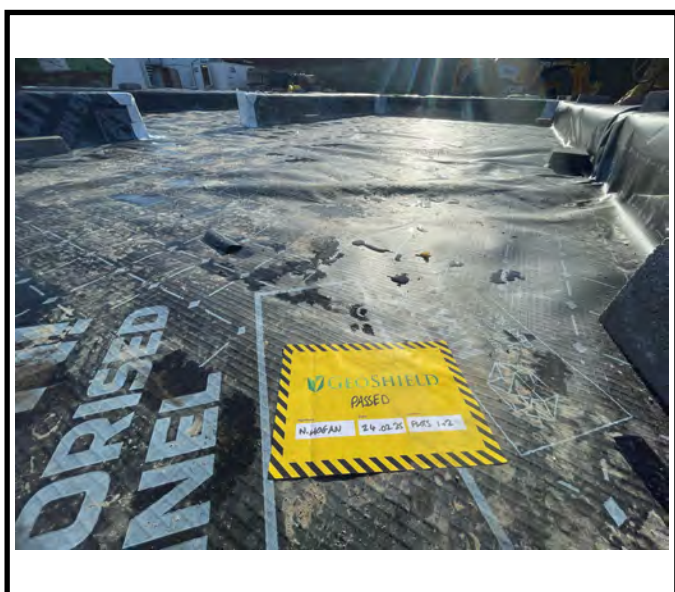
ADDITIONAL PHOTOGRAPHS



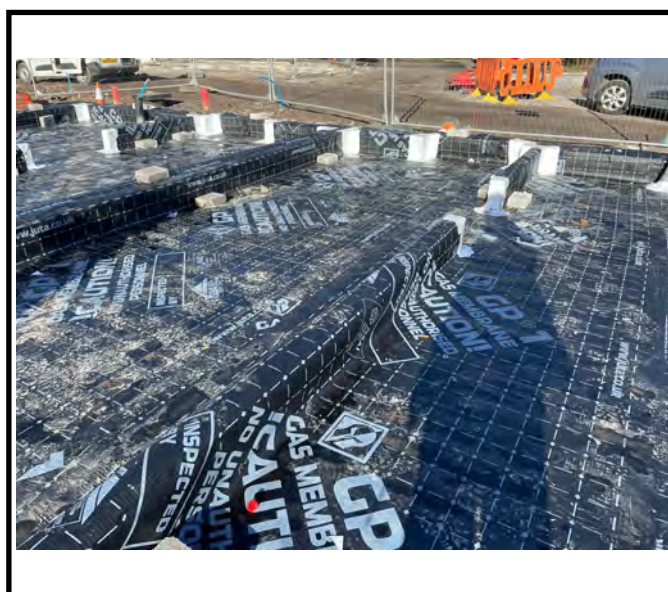
An air brick connected to a telescopic vent.



The JUTA GP1 Gas Barrier crosses the internal cavity to create a robust seal throughout.



GeoShield Verification Sticker confirming sign off of Plots 1 & 2.



The JUTA GP1 Gas Barrier crosses the internal walls to ensure continuity throughout.



GeoShield Verification Report



GAS MEMBRANE TESTING



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[illegible]



GeoShield Verification Report



VERIFICATION SUMMARY

This was the first visit to the site where verification was required for the complete line out installation of the JUTA GP1 Gas Barrier to Plots 1, 2, 3, 4, 5, 6, 7 & 8, which was carried out by Omega Lining Solutions.

All overlaps between the adjacent sheets of JUTA GP1 Gas Barrier have been successfully heat welded using a hot air leister and silicone roller creating continuous welded joints throughout.

All details throughout the installation, such as pipe penetrations, thresholds and corners have been successfully sealed using JUTA GP SAM.

Thorough non destructive air lance integrity testing, supported by visual inspections and mechanical point stress testing were conducted throughout the inspection today. A total of seventeen miswelded lap joints were identified. Two areas around pipe penetrations and one area around a corner where the JUTA GP SAM had not fully bonded were also identified, along with two puncture holes. All areas and miswelds were successfully remediated on site in the presence of GeoShield.

Is the project ready for handover?	No
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This was passed and verified in accordance with CIRIA 735 and installed to BS8485:2015+A1 2019.

GEOSHIELD SIGNATURE

DATE: 24-Feb-2025

Pashwat

Appendix C – Topsoil & Subsoil Supplier Certificates

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/12394
Issue Number: 1

Date: 07 January 2025

Client: Churchill Enviro Ltd
1 Eyebrook Road
Bowdon
Cheshire
UK
WA14 3LR

Project Manager: Terry Annis
Project Name: Langley Road
Project Ref: N/A
Order No: N/A
Date Samples Received: 17/12/24
Date Instructions Received: 17/12/24
Date Analysis Completed: 07/01/25

Approved by:



Gemma Berrisford
Deputy Client Services Supervisor

Envirolab Job Number: 24/12394

Client Project Name: Not specified

Client Project Ref: Langley Road

Lab Sample ID	24/12394/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	LR Sand									
Depth to Top										
Depth To Bottom										
Date Sampled										
Sample Type	Soil									
Sample Matrix Code	4A									
% Stones >10mm _A	1.3							% w/w	0.1	A-T-044
Arsenic _D ^{M#}	<1							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<0.5							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	9							mg/kg	1	A-T-024s
Chromium _D ^{M#}	5							mg/kg	1	A-T-024s
Lead _D ^{M#}	12							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	11							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	18							mg/kg	5	A-T-024s

Envirolab Job Number: 24/12394

Client Project Name: Not specified

Client Project Ref: Langley Road

Lab Sample ID	24/12394/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	LR Sand									
Depth to Top										
Depth To Bottom										
Date Sampled										
Sample Type	Soil									
Sample Matrix Code	4A									
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD									A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A									

Envirolab Job Number: 24/12394

Client Project Name: Not specified

Client Project Ref: Langley Road

Lab Sample ID	24/12394/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	LR Sand									
Depth to Top										
Depth To Bottom										
Date Sampled										
Sample Type	Soil									
Sample Matrix Code	4A									
PAH-16MS										
Acenaphthene _A ^{M#}	0.01							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.07							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.04							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.09							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.08							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.14							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.46							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.07							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.11							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	1.09							mg/kg	0.01	A-T-019s

Envirolab Job Number: 24/12394

Client Project Name: Langley Road

Client Project Ref: Not specified

Lab Sample ID	24/12394/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	LR Sand									
Depth to Top										
Depth To Bottom										
Date Sampled	17-Dec-24									
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	6A	6A	6AE	6AE	6AE	6AE	6AE			
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01							mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01							mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1							mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	<1							mg/kg	1	A-T-055s
Total Aliphatics _A	<1							mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1							mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1							mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1							mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1							mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1							mg/kg	1	A-T-055s
Total Aromatics _A	<1							mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	<1							mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01							mg/kg	0.01	A-T-022s



Freeland Horticulture Ltd
Rosedale Nursery
College Road
Hextable
Kent BR8 7LT

Attention: Philippa Lambourne

Our Ref: SLC-1378-SA

19 March 2025

Dear Philippa

Topsoil Analysis Report: Astley, Greater Manchester Topsoil March 2025

We have completed the analysis of the topsoil sample recently taken from the above site and it has been forwarded to an approved laboratory for analysis and have the pleasure of reporting our findings. The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes and its compliance with the current British Standard for topsoil (BS3882).

SOIL SAMPLING & EXAMINATION

At the time of our sampling visit the topsoil was stored in a stockpile. A series of 10 hand augered trial holes were constructed across the stockpile for the purpose of soil examination and sample collection. As the soil examination confirmed a consistent topsoil composition, the ten samples were combined together to form one composite sample for analysis purposes. The soil was described as dark brown, slightly moist and friable with a well-developed, fine to medium granular structure. The soil contained a low fraction of small stones and no deleterious materials (eg. building waste materials, glass, roots or rhizomes of pernicious weeds) or unusual odours (eg. hydrocarbons) were recorded.

LABORATORY ANALYSIS

The topsoil sample was submitted to a UKAS and MCERTS accredited laboratory for routine physical and chemical parameters to confirm the composition and fertility of the soil. The following parameters were determined:

- ⊕ pH & electrical conductivity values;
- ⊕ major plant nutrients (N, P, K, Mg) & organic matter content;
- ⊕ particle size distribution and stone content;
- ⊕ heavy metals & potentially toxic elements (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, B);
- ⊕ sulphate, sulphur, sulphide;
- ⊕ total cyanide and total (mono) phenols;
- ⊕ speciated PAHs (US EPA16)
- ⊕ banded aromatic and aliphatic petroleum hydrocarbons (C₅-C₃₅).
- ⊕ Asbestos

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

Phone: 01322 619161;

Freeland horticulture Ltd, Registered in England: Rosedale Nursery, College Road, Hextable, Kent BR8 7LT
Company Registration No: 04015968

COMMENTS

pH & Electrical Conductivity (salinity) Values

The sample was alkaline in nature (pH 8.5) with a pH value that would be considered suitable for general landscaping purposes.

The electrical conductivity (salinity) value using the soil:water extract was (1186µS/cm) indicating that soluble salts are not present at levels that would be harmful to plants.

The electrical conductivity values by CaSO₄ extract (BS3882 requirement) fell below the maximum specified value (3300µS/cm) given in BS3882:2015.

Organic Matter & Nutrient Status

The sample was rich in organic matter and all major plant nutrients. No further additions of compost or fertiliser are required, or indeed recommended, for at least the first growing season.

The C:N ratio of the sample was acceptable for general landscape purposes.

Particle Size Distribution & Stone Content

The sample contained 81% sand and fell into the sandy loam texture class. This particle size distribution is considered suitable for a broad range of landscape applications, including tree and shrub planting, turfing and seeding.

The sample was Virtually free from stones of 50 mm and upwards in diameter and only contained a slight fraction of smaller stones (1.2%). As such, stones will not restrict the use of the soil for landscaping purposes.

Potential Contaminants

We are not aware of any specified contaminant levels set for the proposed end-use of this topsoil. This includes human health, environmental protection and metals considered toxic to plants. In the absence of any site-specific assessment criteria, the concentrations that affect human health have been compared with the 'residential with homegrown produce' land use in the Suitable For Use Levels presented in, 'The LQM/CIEH S4UIs' for Human Health Risk Assessment (2015) and DEFRA SP1010: 'Development of Category 4 Screening Levels' for Assessment of Land Affected by Contamination – Policy Companion Document (2014).

Of the potential contaminants determined, none was found at levels that would exceed their respective guideline values.

CONCLUSION

The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes. From the soil examination and laboratory analysis, the soil is described as an alkaline, non-saline, sandy loam. The organic matter and nutrient levels are acceptable, and no significant contamination was found with respect to the parameters determined. This soil would adhere to the current BS3882 specification for 'multipurpose grade'.

To conclude, based on our findings, the topsoil would be considered well-suited to general landscaping purposes provided the physical condition of the soil is maintained.

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if you have any queries or comments.

George Longmuir MSc Soil Sci. M.I Soil Sci.

Client	Freeland Horticulture Ltd
Job Name	Topsoil Analysis
Site	Astley, Greater Manchester
Month/Year	March 25
Our Ref	1378-SA
Date	19 March 2025

Composite sample

pH Value & Salinity

pH value (1:2.5 soil/water ext)	units	8.5
Electrical Conductivity (1:2.5 soil/water ext)	µS/cm	1186
Electrical Conductivity (1:2.5 soil/CaSO4 ext)	µS/cm	3076

Organic Matter & Nutrient Status

Organic Matter (LOI)	%	5.8
Organic Carbon (Derived)	%	3.4
Total Nitrogen	%	0.177
Carbon:Nitrogen Ratio	:1	19.1
Available Phosphorus	mg/l	40.0
Available Potassium	mg/l	939
Available Magnesium	mg/l	130

Particle Size Analysis & Stones

Clay (<0.002mm)	%	8
Silt (0.063-0.002mm)	%	11
Sand (2.0-0.063mm)	%	81
Texture Class	UK Class	Sandy loam

Stones 2-20mm	% by DW	1.2
Stones 20-50mm	% by DW	0.0
Stones >50mm	% by DW	0.0

Potential Contaminants

Total Arsenic (As)	mg/kg	3.9
Total Cadmium (Cd)	mg/kg	<0.1
Total Chromium (Cr)	mg/kg	12.0
Hexavalent Chromium (CR ^{VI})	mg/kg	<0.2
Total Copper (Cu)	mg/kg	15.4
Total Lead (Pb)	mg/kg	54.0
Total Mercury (Hg)	mg/kg	<0.2
Total Nickel (Ni)	mg/kg	<10
Total Selenium (Se)	mg/kg	0.10
Total Zinc (Zn)	mg/kg	40.1
Total Beryllium (Be)	mg/kg	<1
Total Barium (Ba)	mg/kg	54.6
Total Vanadium (V)	mg/kg	<10
Hot Water Soluble Boron (B)	mg/kg	1.8
Total Cyanide (CN)	mg/kg	<1
Elemental Sulphur (S)	mg/kg	7.2
Easily Liberated Sulphide (S ²⁻)	mg/kg	2.2
Water Soluble Sulphate (SO ₄ ²⁻)	mg/l	189
Total Phenols Index	mg/kg	<1
Asbestos Screen	-	N.D.

Polyaromatic Hydrocarbons

Naphthalene	mg/kg	0.1
Acenaphthylene	mg/kg	<0.05
Acenaphthene	mg/kg	0.1
Fluorene	mg/kg	0.1
Phenanthrene	mg/kg	0.5

Client	Freeland Horticulture Ltd	
Job Name	Topsoil Analysis	
Site	Astley, Greater Manchester	
Month/Year	March 25	
Our Ref	1378-SA	
Date	19 March 2025	
Anthracene	mg/kg	0.1
Fluoranthene	mg/kg	0.5
Pyrene	mg/kg	0.5
Benzo[a]anthracene	mg/kg	0.2
Chrysene	mg/kg	0.3
Benzo[b]fluoranthene	mg/kg	0.3
Benzo[k]fluoranthene	mg/kg	0.1
Benzo[a]pyrene	mg/kg	0.2
Indeno[1,2,3-cd]pyrene	mg/kg	0.2
Dibenzo[a,h]anthracene	mg/kg	<0.1
Benzo[g,h,i]perylene	mg/kg	0.2
Total PAHs sum US EPA 16	mg/kg	3.4

Banded Petroleum Hydrocarbons

Aliphatic TPH >C ₅ -C ₆	mg/kg	0.11
Aliphatic TPH >C ₆ -C ₈	mg/kg	0.20
Aliphatic TPH >C ₈ -C ₁₀	mg/kg	<0.05
Aliphatic TPH >C ₁₀ -C ₁₂	mg/kg	<10
Aliphatic TPH >C ₁₂ -C ₁₆	mg/kg	<10
Aliphatic TPH >C ₁₆ -C ₂₁	mg/kg	110
Aliphatic TPH >C ₂₁ -C ₃₅	mg/kg	240
Aliphatic TPH >C ₃₅ -C ₄₄	mg/kg	24.6

Aromatic TPH >C ₅ -C ₇	mg/kg	<0.05
Aromatic TPH >C ₇ -C ₈	mg/kg	<0.05
Aromatic TPH >C ₈ -C ₁₀	mg/kg	<0.05
Aromatic TPH >C ₁₀ -C ₁₂	mg/kg	<10
Aromatic TPH >C ₁₂ -C ₁₆	mg/kg	<10
Aromatic TPH >C ₁₆ -C ₂₁	mg/kg	43.0
Aromatic TPH >C ₂₁ -C ₃₅	mg/kg	280
Aromatic TPH >C ₃₅ -C ₄₄	mg/kg	40.0

Total Petroleum Hydrocarbons (C ₅ -C ₄₄)	mg/kg	757
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BTEX

Benzene	mg/kg	<0.02
Toluene	mg/kg	<0.2
Ethyl Benzene	mg/kg	<0.04
m- & p- Xylene	mg/kg	<0.2
o-Xylene	mg/kg	<0.1

Appendix D – Generic Assessment Criteria

Generic Assessment Criteria Values

Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}	Source
Metals	Inorganic Arsenic	N/A	37	40	49	640	79	168	DEFRA C4SL
	Beryllium	N/A	1.7	1.7	35	12	2.2	63	LQM S4UL
	Boron	N/A	290	11,000	45	240,000	21,000	46,000	LQM S4UL
	Cadmium	N/A	26	149	4.9	410	220	880	DEFRA C4SL
	Chromium (III)	N/A	910	910	18,000	8,600	1,500	33,000	LQM S4UL
	Chromium (VI)	N/A	21.0	21.0	170.0	49	23.0	250	DEFRA C4SL
	Copper	N/A	2,400	7,100	520	68,000	12,000	44,000	LQM S4UL
	Lead	N/A	200	310	80	2,330	630	1,300	DEFRA C4SL
	Elemental Mercury	N/A	1.2	1.2	21	58 (25.8) ^{vap}	16	30 (25.8) ^{vap}	LQM S4UL
	Inorganic Mercury	N/A	40	56	19	1,100	120	240	LQM S4UL
	Methylmercury	N/A	11	15	6.0	320	40	68	LQM S4UL
	Nickel	N/A	130	180	53	980	230	800	LQM S4UL
	Selenium	N/A	250	430	88	12,000	1,100	1,800	LQM S4UL
Polycyclic Aromatic Hydrocarbons (PAHs)	Vanadium	N/A	410	1,200	91	9,000	2,000	5,000	LQM S4UL
	Zinc	N/A	3,700	40,000	620	730,000	81,000	170,000	LQM S4UL
	Acenaphthene	1%	210	3,000 (57.1) ^{sol}	34	84,000 (57.0) ^{sol}	15,000	29,000	LQM S4UL
		2.5%	510	4,700 (141) ^{sol}	85	97,000 (141) ^{sol}	15,000	30,000	LQM S4UL
		6%	1,100	6,000 (336) ^{sol}	200	100,000	15,000	30,000	LQM S4UL
	Acenaphthylene	1%	170	2,900 (86.1) ^{sol}	28	83,000 (86.1) ^{sol}	15,000	29,000	LQM S4UL
		2.5%	420	4,600 (212) ^{sol}	69	97,000 (212) ^{sol}	15,000	30,000	LQM S4UL
		6%	920	6,000 (506) ^{sol}	160	100,000	15,000	30,000	LQM S4UL
	Anthracene	1%	2,400	31,000 (1.17) ^{vap}	380	520,000	74,000	150,000	LQM S4UL
		2.5%	5,400	35,000	950	540,000	74,000	150,000	LQM S4UL
		6%	11,000	37,000	2,200	540,000	74,000	150,000	LQM S4UL
	Benz(a)anthracene	1%	7.2	11	2.9	170	29	49	LQM S4UL
		2.5%	11	14	6.5	170	29	56	LQM S4UL
		6%	13	15	13	180	29	62	LQM S4UL
	Benzo(a)pyrene (only)	1%	5.0	5.3	5.70	77	10.0	21	DEFRA C4SL
		2.5%	5.0	5.3	5.70	77	10.0	21	DEFRA C4SL
		6%	5.0	5.3	5.70	77	10.0	21	DEFRA C4SL
	Benzo(a)pyrene (surrogate marker Coal Tar)	1%	0.8	1.2	0.32	15	2.2	4	LQM S4UL
		2.5%	1.0	1.2	0.67	15	2.2	5	LQM S4UL
		6%	1.1	1.2	1.20	15	2.2	5	LQM S4UL
	Benzo(b)fluoranthene	1%	2.6	3.9	0.99	44	7.1	13	LQM S4UL
		2.5%	3.3	4.0	2.1	44	7.2	15	LQM S4UL
		6%	3.7	4.0	3.9	45	7.2	16	LQM S4UL
	Benzo(ghi)perylene	1%	320	360	290	3,900	640	1,400	LQM S4UL
		2.5%	340	360	470	4,000	640	1,500	LQM S4UL
		6%	350	360	640	4,000	640	1,600	LQM S4UL
	Benzo(k)fluoranthene	1%	77	110	37	1,200	190	370	LQM S4UL
		2.5%	93	110	75	1,200	190	410	LQM S4UL
		6%	100	110	130	1,200	190	440	LQM S4UL
	Chrysene	1%	15	30	4.1	350	57	93	LQM S4UL
		2.5%	22	31	9.4	350	57	110	LQM S4UL
		6%	27	32	19	350	57	120	LQM S4UL
	Dibenzo(ah)anthracene	1%	0.24	0.31	0.14	3.5	0.57	1.1	LQM S4UL
		2.5%	0.28	0.32	0.27	3.6	0.58	1.3	LQM S4UL
		6%	0.3	0.32	0.43	3.6	0.58	1.4	LQM S4UL
	Fluoranthene	1%	280	1,500	52	23,000	3,100	6,300	LQM S4UL
		2.5%	560	1,600	130	23,000	3,100	6,300	LQM S4UL
		6%	890	1,600	290	23,000	3,100	6,400	LQM S4UL
	Fluorene	1%	170	2,800 (36.0) ^{sol}	27	63,000 (30.9) ^{sol}	9,900	20,000	LQM S4UL
		2.5%	400	3,800 (76.5) ^{sol}	67	68,000	9,900	20,000	LQM S4UL
		6%	860	4,500 (183) ^{sol}	160	71,000	9,900	20,000	LQM S4UL
	Indeno(123-cd)pyrene	1%	27	45	9.5	500	82	150	LQM S4UL
		2.5%	36	46	21	510	82	170	LQM S4UL
		6%	41	46	39	510	82	180	LQM S4UL
	Naphthalene	1%	15	15	65	1600 f	11000 f	800 f	C4SL
		2.5%	36	36	130	3700 f	15000 f	1200 f	C4SL
		6%	85	85	200	8400 f	17000 f	1900 f	C4SL
	Phenanthrene	1%	95	1,300 (36.0) ^{sol}	15	22,000	3,100	6,200	LQM S4UL
		2.5%	220	1,500	38	22,000	3,100	6,200	LQM S4UL
		6%	440	1,500	90	22,000	3,100	6,300	LQM S4UL
	Pyrene	1%	620	3,700	110	54,000	7,400	15,000	LQM S4UL
		2.5%	1,200	3,800	270	54,000	7,400	15,000	LQM S4UL
		6%	2,000	3,800	620	54,000	7,400	15,000	LQM S4UL
	Coal Tar (B(a)P as surrogate marker)	1%	0.79	1.2	0.32	15	2.2	4.4	LQM S4UL
		2.5%	0.98	1.2	0.67	15	2.2	4.7	LQM S4UL
		6%	1.1	1.2	1.2	15	2.2	4.8	LQM S4UL

Generic Assessment Criteria Values

	Contaminant	SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}	Source
BTEx Compounds	Benzene	1%	0.087	0.38	0.017	27	72	90	LQM S4UL
		2.5%	0.17	0.70	0.034	47	72	100	LQM S4UL
		6%	0.37	1.4	0.075	90	73	110	LQM S4UL
		6%	0.87	3.3	0.180	98	140	230	C4SL
	Toluene	1%	130	880 (869) ^{vap}	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}	LQM S4UL
		2.5%	290	1,900	51	110,000 (1,920) ^{vap}	56,000	95,000 (1,920) ^{vap}	LQM S4UL
		6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}	LQM S4UL
	Ethylbenzene	1%	47	83	16	5,700 (518) ^{vap}	24,000	17,000 (518) ^{vap}	LQM S4UL
		2.5%	110	190	39	13,000 (1,220) ^{vap}	24,000	22,000 (1,220) ^{vap}	LQM S4UL
		6%	260	440	91	27,000 (2,840) ^{vap}	25,000	27,000 (2,840) ^{vap}	LQM S4UL
	o-xylene	1%	60	88	28	6,600 (478) ^{sol}	41,000	17,000 (478) ^{sol}	LQM S4UL
		2.5%	140	210	67	15,000 (1,120) ^{sol}	42,000	24,000 (1,120) ^{sol}	LQM S4UL
		6%	330	480	160	33,000 (2,620) ^{sol}	43,000	33,000 (2,620) ^{sol}	LQM S4UL
	m-xylene	1%	59	82	31	6,200 (625) ^{vap}	41,000	17,000 (625) ^{vap}	LQM S4UL
		2.5%	140	190	74	14,000 (1,470) ^{vap}	42,000	24,000 (1,470) ^{vap}	LQM S4UL
		6%	320	450	170	31,000 (3,460) ^{vap}	43,000	32,000 (3,460) ^{vap}	LQM S4UL
	p-xylene	1%	56	79	29	5,900 (576) ^{sol}	41,000	17,000 (576) ^{sol}	LQM S4UL
		2.5%	130	180	69	14,000 (1,350) ^{sol}	42,000	23,000 (1,350) ^{sol}	LQM S4UL
		6%	310	430	160	30,000 (3,170) ^{sol}	43,000	31,000 (3,170) ^{sol}	LQM S4UL
Petroleum Hydrocarbons	Aliphatic								
	EC 5-6	1%	42	42	730	3,200 (304) ^{sol}	570,000(304) ^{sol}	95,000 (304) ^{sol}	LQM S4UL
	EC>6-8	1%	100	100	2,300	7,800 (144) ^{sol}	600,000	150,000 (144) ^{sol}	LQM S4UL
	EC>8-10	1%	27	27	320	2,000 (78) ^{sol}	13,000	14,000 (78) ^{vap}	LQM S4UL
	EC>10-12	1%	130 (48) ^{vap}	130 (48) ^{vap}	2,200	9,700 (48) ^{sol}	13,000	21,000 (48) ^{vap}	LQM S4UL
	EC>12-16	1%	1,100 (24) ^{sol}	1,100 (24) ^{sol}	11,000	59,000 (24) ^{sol}	13,000	25,000 (24) ^{sol}	LQM S4UL
	EC>16-35	1%	65,000 (8.48)	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f	LQM S4UL
	EC>35-44	1%	65,000 (8.48)	65,000 (8.48) ^{f, sol}	260,000 ^f	160,000 ^f	250,000 ^f	450,000 ^f	LQM S4UL
	Aliphatic								
	EC 5-6	2.5%	78	78	1,700	5,900 (558) ^{sol}	590,000	130,000 (558) ^{sol}	LQM S4UL
	EC>6-8	2.5%	230	230	5,600	17,000 (322) ^{sol}	610,000	220,000 (322) ^{sol}	LQM S4UL
	EC>8-10	2.5%	65	65	770	4,800 (190) ^{vap}	13,000	18,000 (190) ^{vap}	LQM S4UL
	EC>10-12	2.5%	330 (118) ^{vap}	330 (118) ^{vap}	4,400	23,000 (118) ^{vap}	13,000	23,000 (118) ^{vap}	LQM S4UL
	EC>12-16	2.5%	2,400 (59) ^{sol}	2,400 (59) ^{sol}	13,000	82,000 (59) ^{sol}	13,000	25,000 (59) ^{sol}	LQM S4UL
	EC>16-35	2.5%	92,000 (21)	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f	LQM S4UL
	EC>35-44	2.5%	92,000 (21)	92,000 (21) ^{f, sol}	270,000 ^f	1,700,000 ^f	250,000 ^f	480,000 ^f	LQM S4UL
	Aliphatic								
	EC 5-6	6%	160	160	3,900	12,000 (1,150) ^{sol}	600,000	180,000 (1,150) ^{sol}	LQM S4UL
	EC>6-8	6%	530	530	13,000	40,000 (736) ^{sol}	620,000	320,000 (736) ^{sol}	LQM S4UL
	EC>8-10	6%	150	150	1,700	11,000 (451) ^{vap}	13,000	21,000 (451) ^{vap}	LQM S4UL
	EC>10-12	6%	760 (283) ^{vap}	760 (283) ^{vap}	7,300	47,000 (283) ^{vap}	13,000	24,000 (283) ^{vap}	LQM S4UL
	EC>12-16	6%	4,300 (142) ^{sol}	4,400 (142) ^{sol}	13,000	90,000 (142) ^{sol}	13,000	26,000 (142) ^{sol}	LQM S4UL
	EC>16-35	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f	LQM S4UL
	EC>35-44	6%	110,000 ^f	110,000 ^f	270,000 ^f	1,800,000 ^f	250,000 ^f	490,000 ^f	LQM S4UL
	Aromatic								
	EC5-7(benzene as non-	1%	70	370	13	26,000 (1,220) ^{sol}	56,000	76,000 (1,220) ^{sol}	LQM S4UL
	EC>7-8(toluene)	1%	130	860	22	56,000 (869) ^{vap}	56,000	87,000 (869) ^{vap}	LQM S4UL
	EC>8-10	1%	34	47	8.6	3,500 (613) ^{vap}	5,000	7,200 (613) ^{vap}	LQM S4UL
	EC>10-12	1%	74	250	13	16,000 (364) ^{sol}	5,000	9,200 (364) ^{sol}	LQM S4UL
	EC>12-16	1%	140	1,800	23	36,000 (169) ^{sol}	5,100	10,000	LQM S4UL
	EC>16-21	1%	260 ^f	1,900 ^f	46 ^f	28,000 ^f	3,800 ^f	7,600 ^f	LQM S4UL
	EC>21-35	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
	EC>35-44	1%	1,100 ^f	1,900 ^f	370 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
	Aromatic								
	EC5-7(benzene as non-	2.5%	140	690	27	46,000 (2,260) ^{sol}	56,000	84,000 (2,260) ^{sol}	LQM S4UL
	EC>7-8(toluene)	2.5%	290	1,800	51	110,000 (1,920) ^{sol}	56,000	95,000 (1,920) ^{sol}	LQM S4UL
	EC>8-10	2.5%	83	110	21	8,100 (1,500) ^{vap}	5,000	8,500 (1,500) ^{vap}	LQM S4UL
	EC>10-12	2.5%	180	590	31	28,000 (899) ^{sol}	5,000	9,700 (899) ^{sol}	LQM S4UL
	EC>12-16	2.5%	330	2,300 (419) ^{sol}	57	37,000	5,100	10,000	LQM S4UL
	EC>16-21	2.5%	540 ^f	1,900 ^f	110 ^f	28,000 ^f	3,800 ^f	7,700 ^f	LQM S4UL
	EC>21-35	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
	EC>35-44	2.5%	1,500 ^f	1,900 ^f	820 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
	Aromatic								
	EC5-7(benzene as non-	6%	300	1,400	57	86,000 (4,710) ^{sol}	56,000	92,000 (4,710) ^{sol}	LQM S4UL
	EC>7-8(toluene)	6%	660	3,900	120	180,000 (4,360) ^{vap}	56,000	100,000 (4,360) ^{vap}	LQM S4UL
	EC>8-10	6%	190	270	51	17,000 (3,580) ^{vap}	5,000	9,300 (3,580) ^{vap}	LQM S4UL
	EC>10-12	6%	380	1,200	4	34,000 (2,150) ^{sol}	5,000	10,000	LQM S4UL
	EC>12-16	6%	660	2,500	130	38,000	5,100	10,000	LQM S4UL
	EC>16-21	6%	930 ^f	1,900 ^f	260 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
	EC>21-35	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f	LQM S4UL
	EC>35-44	6%	1,700 ^f	1,900 ^f	1,600 ^f	28,000 ^f	3,800 ^f	7,900 ^f	LQM S4UL
	Aliphatic +Aromatic >EC44	1%	1,600 ^f	1,900 ^f	1,200 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
		2.5%	1,800 ^f	1,900 ^f	2,100 ^f	28,000 ^f	3,800 ^f	7,800 ^f	LQM S4UL
		6%	1,900 ^f	1,900 ^f	3,000 ^f	28,000 ^f	3,800 ^f	7,900 ^f	LQM S4UL

Generic Assessment Criteria Values

Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}	Source
Chloalkanes and Alkenes & Explosives	1,2 Dichloroethane (DCA)	1%	0.11	0.16	0.05	12.0	300	300	DEFRA C4SL
		2.5%	0.18	0.24	0.10	17.0	310	330	DEFRA C4SL
		6%	0.31	0.41	0.19	29.0	310	330	DEFRA C4SL
	1,1,1 Trichloroethane (TCA)	1%	8.8	9.0	48	660	140,000	57,000 (1,425) ^{vap}	LQM S4UL
		2.5%	18	18	110	1,300	140,000	76,000 (2,915) ^{vap}	LQM S4UL
		6%	39	40	240	3,000	140,000	100,000 (6,392)	LQM S4UL
	1,1,2,2-Tetrachloroethanes (PCA)	1%	1.6	3.9	0.41	270	1,400	1,800	LQM S4UL
		2.5%	3.4	8.0	0.89	550	1,400	2,100	LQM S4UL
		6%	7.5	17	2.0	1,100	1,400	2,300	LQM S4UL
	1,1,1,2-Tetrachloroethanes (PCA)	1%	1.2	1.5	0.79	110	1,400	1,500	LQM S4UL
		2.5%	2.8	3.5	1.9	250	1,400	1,800	LQM S4UL
		6%	6.4	8.2	4.4	560	1,400	2,100	LQM S4UL
	Tetrachloroethene (PCE)	1%	0.31	0.32	2.00	24	3,200	1400	DEFRA C4SL
		2.5%	0.70	0.71	4.8	55	3,300	1900	DEFRA C4SL
		6%	1.60	1.60	11.0	130	3,400	2,500	DEFRA C4SL
	Tetrachloromethane (carbon tetrachloride)	1%	0.03	0.03	0.45	2.9	890	190	LQM S4UL
		2.5%	0.06	0.06	1.0	6.3	920	270	LQM S4UL
		6%	0.13	0.13	2.4	14	950	400	LQM S4UL
	Trichloroethene (TCE)	1%	0.009	0.010	0.032	0.7	76.0	41.0	DEFRA C4SL
		2.5%	0.020	0.020	0.072	1.5	78.0	51.0	DEFRA C4SL
		6%	0.043	0.045	0.160	3.4	79.0	69.0	DEFRA C4SL
	cis 1,2-dichloroethene	1%	0.46	0.50	0.890	38	3,800	2,000	DEFRA C4SL
		2.5%	0.78	0.84	1.70	64	3,800	2,400	DEFRA C4SL
		6%	1.50	1.60	3.60	120	3,900	3,100	DEFRA C4SL
	Trichloromethane (chloroform)	1%	0.91	1.2	0.42	99	2,500	2,600	LQM S4UL
		2.5%	1.7	2.1	0.83	170	2,500	2,800	LQM S4UL
		6%	3.4	4.2	1.7	350	2,500	3,100	LQM S4UL
	Trans-1,2 Dichloroethene	1%	0.9	0.9	3.7	69	13,000	5,600	DEFRA C4SL
		2.5%	1.6	1.7	7.5	120	13,000	7,000	DEFRA C4SL
		6%	3.3	3.4	16.0	260	13,000	9,100	DEFRA C4SL
	Chloroethene (vinyl chloride)	1%	0.006	0.015	0.0017	1.1E+00	7.8	18.0	DEFRA C4SL
		2.5%	0.010	0.019	0.0031	1.4E+00	7.8	19.0	DEFRA C4SL
		6%	0.017	0.029	0.0058	2.20	7.8	19.0	DEFRA C4SL
	2,4,6-Trinitrotoluene (TNT)	1%	1.6	65	0.24	1,000	130	260	LQM S4UL
		2.5%	3.7	66	0.58	1,000	130	270	LQM S4UL
		6%	8.1	66	1.4	1,000	130	270	LQM S4UL
	RDX	1%	120	13,000	17	210,000	26,000	49,000 (18.7) ^{sol}	LQM S4UL
		2.5%	250	13,000	38	210,000	26,000	51,000	LQM S4UL
		6%	540	13,000	85	210,000	27,000	53,000	LQM S4UL
	HMX	1%	5.7	6,700	0.86	110,000	13,000	23,000 (0.35) ^{vap}	LQM S4UL
		2.5%	13	6,700	1.9	110,000	13,000	23,000 (0.39) ^{vap}	LQM S4UL
		6%	26	6,700	3.9	110,000	13,000	24,000 (0.48) ^{vap}	LQM S4UL
Pesticides	Aldrin	1%	5.7	7.3	3.2	170	18	30	LQM S4UL
		2.5%	6.6	7.4	6.1	170	18	31	LQM S4UL
		6%	7.1	7.5	9.8	170	18	31	LQM S4UL
	Dieldrin	1%	0.97	7.0	0.17	170	18	30	LQM S4UL
		2.5%	2.0	7.3	0.41	170	18	30	LQM S4UL
		6%	3.5	7.4	0.96	170	18	31	LQM S4UL
	Atrazine	1%	3.3	610	0.5	9,300	1,200	2,300	LQM S4UL
		2.5%	7.8	620	1.2	9,400	1,200	2,400	LQM S4UL
		6%	17.4	620	2.7	9,400	1,200	2,400	LQM S4UL
	Dichlorvos	1%	3.2E-02	6.4	4.9E-03	140	16	26	LQM S4UL
		2.5%	6.6E-02	6.5	1.0E-02	140	16	26	LQM S4UL
		6%	0.14	6.6	2.2E-02	140	16	27	LQM S4UL
	Endosulfanns (2 isomers)	1%	7.4	160 (3.0E-03) ^{vap}	1.2	5,600 (3.0E-03) ^{vap}	1,200	2,300	LQM S4UL
		2.5%	18	280 (7.0E-03) ^{vap}	2.9	7,400 (7.0E-03) ^{vap}	1,200	2,400	LQM S4UL
		6%	41	410 (1.6E-02) ^{vap}	6.8	8,400 (1.6E-02) ^{vap}	1,200	2,500	LQM S4UL
	Hexachlorocyclohexane (3 isomers), inc Lindane	1%	8.5E-02	3.7	1.3E-02	65	8.1	15	LQM S4UL
		2.5%	0.2	3.8	3.2E-02	65	8.1	15	LQM S4UL
		6%	0.46	3.8	7.7E-02	65	8.1	16	LQM S4UL
Chlorobenzenes	Chlorobenzene	1%	0.46	0.46	5.9	56	11,000	1,300 (675) ^{sol}	LQM S4UL
		2.5%	1.0	1.0	14	130	13,000	2,000 (1,520) ^{sol}	LQM S4UL
		6%	2.4	2.4	32	290	14,000	2,900	LQM S4UL
	Dichlorobenzenes (3 isomers)	1%	23	24	94	2,000 (571) ^{sol}	90,000	24,000 (571) ^{sol}	LQM S4UL
		2.5%	55	57	230	4,800 (1,370) ^{sol}	95,000	36,000 (1,370) ^{sol}	LQM S4UL
		6%	130	130	540	11,000 (3,240) ^{sol}	98,000	51,000 (3,270) ^{sol}	LQM S4UL
	Trichlorobenzenes (3 isomers)	1%	2.6	2.6	55	220	15,000	1,700 (318) ^{vap}	LQM S4UL
		2.5%	6.4	6.4	140	530	17,000	2,600 (786) ^{vap}	LQM S4UL
		6%	15	15	320	1,300	19,000	4,000 (1,880) ^{vap}	LQM S4UL
	Tetrachlorobenzenes (3 isomers)	1%	0.66	0.75	0.38	49 (39.4) ^{vap}	78	110 (39) ^{vap}	LQM S4UL
		2.5%	1.6	1.9	0.90	120 (98.1) ^{vap}	79	120	LQM S4UL
		6%	3.7	4.3	2.2	240 (235) ^{vap}	79	130	LQM S4UL
	Pentachlorobenzene	1%	5.8	19	1.2	640 (43.0) ^{sol}	100	190	LQM S4UL
		2.5%	12	30	3.1	770 (107) ^{sol}	100	190	LQM S4UL
		6%	22	38	7.0	830	100	190	LQM S4UL
	Hexachlorobenzene	1%	1.8 (0.20) ^{vap}	4.1 (0.20) ^{vap}	0.47	110 (0.20) ^{vap}	16	30	LQM S4UL
		2.5%	3.3 (0.50) ^{vap}	5.7 (0.50) ^{vap}	1.1	120	16	30	LQM S4UL
		6%	4.9	6.7 (1.2) ^{vap}	2.5	120	16	30	LQM S4UL

Generic Assessment Criteria Values

Contaminant		SOM	Res +	Res -	Allot.	Comm.	POS _{resi}	POS _{park}	Source
Chlorophenol	Chlorophenols (4 congeners)	1%	0.87 ^g	94	0.13 ^g	3,500	620	1,100	LQM S4UL
		2.5%	2.0	150	0.30	4,000	620	1,100	LQM S4UL
		6%	4.5	210	0.70	4,300	620	1,100	LQM S4UL
	Pentachlorophenol	1%	0.22	27 (16.4) ^{vap}	3.0E-02	400	60	110	LQM S4UL
		2.5%	0.52	29	8.0E-02	400	60	120	LQM S4UL
		6%	1.2	31	0.19	400	60	120	LQM S4UL
Others	Carbon Disulphide	1%	0.14	0.14	4.8	11	11,000	1,300	LQM S4UL
		2.5%	0.29	0.29	10	22	11,000	1,900	LQM S4UL
		6%	0.62	0.62	23	47	11,000	2,700	LQM S4UL
	Hexachlorobutadiene	1%	0.29	0.32	0.25	31	25	48	LQM S4UL
		2.5%	0.7	0.78	0.61	66	25	50	LQM S4UL
		6%	1.6	1.8	1.4	120	25	51	LQM S4UL
	Phenol	1%	120	440 (460)	23	440 ^{dir} (26,000)	440 ^{dir} (10,000)	440 ^{dir} (7,600)	LQM S4UL
		2.5%	200	690	42	690 ^{dir} (30,000)	690 ^{dir} (10,000)	690 ^{dir} (8,300)	LQM S4UL
		6%	380	1,200	83	1,300 ^{dir} (34,000)	1,300 ^{dir} (10,000)	1,300 ^{dir} (9,300)	LQM S4UL

sol/vap = solubility/vapour limit (potentially use if free product identified, although highly conservative)
f=naphthalene is based on comparison of inhalation exposure with TDI(inhal) for localised effect
f = oral, dermal and inhalation exposures compared to oral HCV
dir = S4ULs based on threshold protective of direct skin contact with phenol)brackets long term exposure for illustration purposes)
g = derived based on 2,3,4-tetrachlorophenol

Appendix E – Certificate of Analysis – Soil

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Normec DETS Limited
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DETS Report No: 25-07612

Site Reference: Whittaker Street, Radcliffe

Project / Job Ref: LKC251444

Order No: PO-C001734

Sample Receipt Date: 22/08/2025

Sample Scheduled Date: 22/08/2025

Report Issue Number: 0

Reporting Date: 29/08/2025

Authorised by:

Interim Report

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Soil Analysis Certificate						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation	(n)	(n)	(n)	(n)	(n)
pH	pH Units	N/a	ISO17025	7.9	8.1	8.1	8.0	7.9
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	ISO17025	247	33	223	71	299
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	ISO17025	0.25	0.03	0.22	0.07	0.30
Organic Matter (SOM)	%	< 0.1	ISO17025	6.1	1.2	7.1	2	6.7
Arsenic (As)	mg/kg	< 2	ISO17025	4	3	6	5	9
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	ISO17025	< 0.2	< 0.2	< 0.2	< 0.2	0.3
Chromium (Cr)	mg/kg	< 2	ISO17025	7	6	9	10	12
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	ISO17025	27	6	38	20	45
Lead (Pb)	mg/kg	< 3	ISO17025	43	12	57	36	74
Mercury (Hg)	mg/kg	< 1	ISO17025	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	ISO17025	8	7	10	11	14
Selenium (Se)	mg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Vanadium (V)	mg/kg	< 1	ISO17025	10	8	12	13	17
Zinc (Zn)	mg/kg	< 3	ISO17025	44	17	58	45	78
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
 Analysis carried out on the dried sample is corrected for the stone content

Soil Analysis Certificate

DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation	(n)				
pH	pH Units	N/a	ISO17025	8.2				
Total Cyanide	mg/kg	< 1	NONE	< 1				
Free Cyanide	mg/kg	< 1	NONE	< 1				
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	ISO17025	86				
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	ISO17025	0.09				
Organic Matter (SOM)	%	< 0.1	ISO17025	2				
Arsenic (As)	mg/kg	< 2	ISO17025	4				
W/S Boron	mg/kg	< 1	NONE	< 1				
Cadmium (Cd)	mg/kg	< 0.2	ISO17025	< 0.2				
Chromium (Cr)	mg/kg	< 2	ISO17025	9				
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2				
Copper (Cu)	mg/kg	< 4	ISO17025	16				
Lead (Pb)	mg/kg	< 3	ISO17025	28				
Mercury (Hg)	mg/kg	< 1	ISO17025	< 1				
Nickel (Ni)	mg/kg	< 3	ISO17025	11				
Selenium (Se)	mg/kg	< 2	ISO17025	< 2				
Vanadium (V)	mg/kg	< 1	ISO17025	12				
Zinc (Zn)	mg/kg	< 3	ISO17025	34				
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2				

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
 Analysis carried out on the dried sample is corrected for the stone content

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation	(n)	(n)	(n)	(n)	(n)
Naphthalene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	0.17	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	ISO17025	0.20	< 0.1	0.27	0.11	0.37
Fluorene	mg/kg	< 0.1	ISO17025	0.14	< 0.1	0.20	< 0.1	0.28
Phenanthrene	mg/kg	< 0.1	ISO17025	0.95	0.24	1.40	0.65	2.23
Anthracene	mg/kg	< 0.1	ISO17025	0.23	< 0.1	0.33	0.17	0.60
Fluoranthene	mg/kg	< 0.1	ISO17025	1.52	0.71	1.89	0.83	2.09
Pyrene	mg/kg	< 0.1	ISO17025	1.37	0.67	1.66	0.77	1.73
Benzo(a)anthracene	mg/kg	< 0.1	ISO17025	0.73	0.36	0.91	0.38	0.76
Chrysene	mg/kg	< 0.1	ISO17025	0.69	0.33	0.80	0.36	0.80
Benzo(b)fluoranthene	mg/kg	< 0.1	ISO17025	0.83	0.34	0.97	0.37	0.85
Benzo(k)fluoranthene	mg/kg	< 0.1	ISO17025	0.29	0.12	0.33	0.12	0.28
Benzo(a)pyrene	mg/kg	< 0.1	ISO17025	0.74	0.32	0.88	0.36	0.76
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	ISO17025	0.40	0.16	0.42	0.18	0.37
Dibenz(a,h)anthracene	mg/kg	< 0.1	ISO17025	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	ISO17025	0.37	0.14	0.42	0.16	0.34
**Total EPA-16 PAHs	mg/kg	< 1.6	ISO17025	8.5	3.4	10.6	4.5	11.5

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation	(n)				
Naphthalene	mg/kg	< 0.1	ISO17025	< 0.1				
Acenaphthylene	mg/kg	< 0.1	ISO17025	< 0.1				
Acenaphthene	mg/kg	< 0.1	ISO17025	< 0.1				
Fluorene	mg/kg	< 0.1	ISO17025	< 0.1				
Phenanthrene	mg/kg	< 0.1	ISO17025	0.22				
Anthracene	mg/kg	< 0.1	ISO17025	< 0.1				
Fluoranthene	mg/kg	< 0.1	ISO17025	0.37				
Pyrene	mg/kg	< 0.1	ISO17025	0.37				
Benzo(a)anthracene	mg/kg	< 0.1	ISO17025	0.17				
Chrysene	mg/kg	< 0.1	ISO17025	0.19				
Benzo(b)fluoranthene	mg/kg	< 0.1	ISO17025	0.20				
Benzo(k)fluoranthene	mg/kg	< 0.1	ISO17025	< 0.1				
Benzo(a)pyrene	mg/kg	< 0.1	ISO17025	0.18				
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	ISO17025	< 0.1				
Dibenz(a,h)anthracene	mg/kg	< 0.1	ISO17025	< 0.1				
Benzo(ghi)perylene	mg/kg	< 0.1	ISO17025	< 0.1				
**Total EPA-16 PAHs	mg/kg	< 1.6	ISO17025	1.7				

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation	(n)	(n)	(n)	(n)	(n)
Aliphatic >C5 - C6 : HS 1D MS AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS 1D MS AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH CU 1D AL	mg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12 : EH CU 1D AL	mg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH CU 1D AL	mg/kg	< 3	ISO17025	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21 : EH CU 1D AL	mg/kg	< 3	ISO17025	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34 : EH CU 1D AL	mg/kg	< 10	ISO17025	12	< 10	11	< 10	28
Aliphatic >C34 - C44 : EH CU 1D AL	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	28
Aromatic >C5 - C7 : HS 1D MS AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS 1D MS AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH CU 1D AR	mg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12 : EH CU 1D AR	mg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH CU 1D AR	mg/kg	< 2	ISO17025	3	< 2	5	< 2	5
Aromatic >C16 - C21 : EH CU 1D AR	mg/kg	< 3	ISO17025	12	4	19	6	21
Aromatic >C21 - C35 : EH CU 1D AR	mg/kg	< 10	ISO17025	24	< 10	35	< 10	41
Aromatic >C35 - C44 : EH CU 1D AR	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	39	< 21	58	< 21	67
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	51	< 42	69	< 42	95

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation	(n)				
Aliphatic >C5 - C6 : HS 1D MS AL	mg/kg	< 0.01	NONE	< 0.01				
Aliphatic >C6 - C8 : HS 1D MS AL	mg/kg	< 0.05	NONE	< 0.05				
Aliphatic >C8 - C10 : EH CU 1D AL	mg/kg	< 2	ISO17025	< 2				
Aliphatic >C10 - C12 : EH CU 1D AL	mg/kg	< 2	ISO17025	< 2				
Aliphatic >C12 - C16 : EH CU 1D AL	mg/kg	< 3	ISO17025	< 3				
Aliphatic >C16 - C21 : EH CU 1D AL	mg/kg	< 3	ISO17025	< 3				
Aliphatic >C21 - C34 : EH CU 1D AL	mg/kg	< 10	ISO17025	< 10				
Aliphatic >C34 - C44 : EH CU 1D AL	mg/kg	< 10	NONE	< 10				
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21				
Aromatic >C5 - C7 : HS 1D MS AR	mg/kg	< 0.01	NONE	< 0.01				
Aromatic >C7 - C8 : HS 1D MS AR	mg/kg	< 0.05	NONE	< 0.05				
Aromatic >C8 - C10 : EH CU 1D AR	mg/kg	< 2	ISO17025	< 2				
Aromatic >C10 - C12 : EH CU 1D AR	mg/kg	< 2	ISO17025	< 2				
Aromatic >C12 - C16 : EH CU 1D AR	mg/kg	< 2	ISO17025	< 2				
Aromatic >C16 - C21 : EH CU 1D AR	mg/kg	< 3	ISO17025	3				
Aromatic >C21 - C35 : EH CU 1D AR	mg/kg	< 10	ISO17025	< 10				
Aromatic >C35 - C44 : EH CU 1D AR	mg/kg	< 10	NONE	< 10				
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21				
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42				

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation	(n)	(n)	(n)	(n)	(n)
Benzene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	µg/kg	< 5	ISO17025	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	µg/kg	< 2	ISO17025	44	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	µg/kg	< 2	ISO17025	27	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	µg/kg	< 5	ISO17025	< 5	< 5	< 5	< 5	< 5

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation	(n)				
Benzene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2				
Toluene : HS_1D_MS	µg/kg	< 5	ISO17025	< 5				
Ethylbenzene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2				
p & m-xylene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2				
o-xylene : HS_1D_MS	µg/kg	< 2	ISO17025	< 2				
MTBE : HS_1D_MS	µg/kg	< 5	ISO17025	< 5				

Soil Analysis Certificate - Sample Descriptions

DETS Report No: 25-07612	
LK Consult Limited	
~Site Reference: Whittaker Street, Radcliffe	
~Project / Job Ref: LKC251444	
~Order No: PO-C001734	
Reporting Date: 29/08/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
787317	Plot 3 rear TS	None Supplied	None Supplied	13.6	Black loamy sand with vegetation
787318	Plot 3 rear SS	None Supplied	None Supplied	8.7	Light brown sandy clay
787319	Plot 6 rear TS	None Supplied	None Supplied	16.2	Black loamy sand with stones and vegetation
787320	Plot 6 rear SS	None Supplied	None Supplied	10.9	Brown sandy clay
787321	Plot 8 rear TS	None Supplied	None Supplied	14.5	Black loamy sand with stones
787322	Plot 8 rear SS	None Supplied	None Supplied	10.1	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-07612
LK Consult Limited
~Site Reference: Whittaker Street, Radcliffe
~Project / Job Ref: LKC251444
~Order No: PO-C001734
Reporting Date: 29/08/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of FOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

List of HWOL Acronyms and Operators

DETS Report No: 25-07612

LK Consult Limited

~Site Reference: Whittaker Street, Radcliffe

~Project / Job Ref: LKC251444

~Order No: PO-C001734

Reporting Date: 29/08/2025

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS_1D_MS
 Ethylbenzene - HS_1D_MS
 MTBE - HS_1D_MS
 TPH - Aliphatic >C34 - C44 - raw data - EH_CU_1D_AL
 TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
 TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
 TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
 TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
 TPH CWG - Aliphatic >C34 - C44 - EH_CU_1D_AL
 TPH CWG - Aliphatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AL
 TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
 TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
 TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
 TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
 TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
 TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
 TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
 TPH CWG - Aromatic >C35 - C44 - EH_CU_1D_AR
 TPH CWG - Aromatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AR
 TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
 TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
 TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
 TPH CWG - Total >C5 - C44 - HS_1D_MS+EH_CU_1D_Total
 Toluene - HS_1D_MS
 m & p-xylene - HS_1D_MS
 o-Xylene - HS_1D_MS

Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
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Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene, Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k)fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
U	UKAS accredited test

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DETS Report No: 25-07612

Site Reference: Whittaker Street, Radcliffe

Project / Job Ref: LKC251444

Order No: PO-C001734

Sample Receipt Date: 22/08/2025

Sample Scheduled Date: 22/08/2025

Report Issue Number: 1

Reporting Date: 29/08/2025

Authorised by:



Steve Knight
Customer Support Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Soil Analysis Certificate						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation					
Asbestos Screen ⁽⁵⁾	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	7.9	8.1	8.1	8.0	7.9
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Free Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	247	33	223	71	299
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.25	0.03	0.22	0.07	0.30
Organic Matter (SOM)	%	< 0.1	MCERTS	6.1	1.2	7.1	2	6.7
Arsenic (As)	mg/kg	< 2	MCERTS	4	3	6	5	9
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	0.3
Chromium (Cr)	mg/kg	< 2	MCERTS	7	6	9	10	12
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	27	6	38	20	45
Lead (Pb)	mg/kg	< 3	MCERTS	43	12	57	36	74
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	8	7	10	11	14
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Vanadium (V)	mg/kg	< 1	MCERTS	10	8	12	13	17
Zinc (Zn)	mg/kg	< 3	MCERTS	44	17	58	45	78
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Analysis carried out on the dried sample is corrected for the stone content

Soil Analysis Certificate

DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation				
Asbestos Screen ⁽⁵⁾	N/a	N/a	ISO17025	Not Detected			
pH	pH Units	N/a	MCERTS	8.2			
Total Cyanide	mg/kg	< 1	NONE	< 1			
Free Cyanide	mg/kg	< 1	NONE	< 1			
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	86			
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.09			
Organic Matter (SOM)	%	< 0.1	MCERTS	2			
Arsenic (As)	mg/kg	< 2	MCERTS	4			
W/S Boron	mg/kg	< 1	NONE	< 1			
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2			
Chromium (Cr)	mg/kg	< 2	MCERTS	9			
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2			
Copper (Cu)	mg/kg	< 4	MCERTS	16			
Lead (Pb)	mg/kg	< 3	MCERTS	28			
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1			
Nickel (Ni)	mg/kg	< 3	MCERTS	11			
Selenium (Se)	mg/kg	< 2	MCERTS	< 2			
Vanadium (V)	mg/kg	< 1	MCERTS	12			
Zinc (Zn)	mg/kg	< 3	MCERTS	34			
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2			

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Method Description page describes if the test is performed on the dried or as-received portion
Analysis carried out on the dried sample is corrected for the stone content

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.17	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	0.20	< 0.1	0.27	0.11	0.37
Fluorene	mg/kg	< 0.1	MCERTS	0.14	< 0.1	0.20	< 0.1	0.28
Phenanthrene	mg/kg	< 0.1	MCERTS	0.95	0.24	1.40	0.65	2.23
Anthracene	mg/kg	< 0.1	MCERTS	0.23	< 0.1	0.33	0.17	0.60
Fluoranthene	mg/kg	< 0.1	MCERTS	1.52	0.71	1.89	0.83	2.09
Pyrene	mg/kg	< 0.1	MCERTS	1.37	0.67	1.66	0.77	1.73
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.73	0.36	0.91	0.38	0.76
Chrysene	mg/kg	< 0.1	MCERTS	0.69	0.33	0.80	0.36	0.80
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.83	0.34	0.97	0.37	0.85
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.29	0.12	0.33	0.12	0.28
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.74	0.32	0.88	0.36	0.76
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.40	0.16	0.42	0.18	0.37
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.37	0.14	0.42	0.16	0.34
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	8.5	3.4	10.6	4.5	11.5

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1			
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1			
Phenanthrene	mg/kg	< 0.1	MCERTS	0.22			
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Fluoranthene	mg/kg	< 0.1	MCERTS	0.37			
Pyrene	mg/kg	< 0.1	MCERTS	0.37			
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.17			
Chrysene	mg/kg	< 0.1	MCERTS	0.19			
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.20			
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.18			
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1			
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1			
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1			
**Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	1.7			

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3	< 3	< 3
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	12	< 10	11	< 10	28
Aliphatic >C34 - C44 : EH_CU_1D_AL	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21	< 21	28
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	3	< 2	5	< 2	5
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	12	4	19	6	21
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	24	< 10	35	< 10	41
Aromatic >C35 - C44 : EH_CU_1D_AR	mg/kg	< 10	NONE	< 10	< 10	< 10	< 10	< 10
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	39	< 21	58	< 21	67
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	51	< 42	69	< 42	95

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation				
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01			
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05			
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2			
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3			
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10			
Aliphatic >C34 - C44 : EH_CU_1D_AL	mg/kg	< 10	NONE	< 10			
Aliphatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21			
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01			
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05			
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2			
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	3			
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10			
Aromatic >C35 - C44 : EH_CU_1D_AR	mg/kg	< 10	NONE	< 10			
Aromatic (C5 - C44) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21			
Total >C5 - C44 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42			

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-07612	~Date Sampled	21/08/25	21/08/25	21/08/25	21/08/25	21/08/25
LK Consult Limited	~Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 3 rear TS	Plot 3 rear SS	Plot 6 rear TS	Plot 6 rear SS	Plot 8 rear TS
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
~Order No: PO-C001734	~Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Reporting Date: 29/08/2025	DETS Sample No	787317	787318	787319	787320	787321

Determinand	Unit	RL	Accreditation					
Benzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
Toluene : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5
Ethylbenzene : HS_1D_MS	µg/kg	< 2	MCERTS	44	< 2	< 2	< 2	< 2
p & m-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	27	< 2	< 2	< 2	< 2
o-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	< 2	< 2
MTBE : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	< 5	< 5

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-07612	~Date Sampled	21/08/25				
LK Consult Limited	~Time Sampled	None Supplied				
~Site Reference: Whittaker Street, Radcliffe	~TP / BH No	Plot 8 rear SS				
~Project / Job Ref: LKC251444	~Additional Refs	None Supplied				
~Order No: PO-C001734	~Depth (m)	None Supplied				
Reporting Date: 29/08/2025	DETS Sample No	787322				

Determinand	Unit	RL	Accreditation				
Benzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2			
Toluene : HS_1D_MS	µg/kg	< 5	MCERTS	< 5			
Ethylbenzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2			
p & m-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2			
o-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2			
MTBE : HS_1D_MS	µg/kg	< 5	MCERTS	< 5			

Soil Analysis Certificate - Sample Descriptions

DETS Report No: 25-07612	
LK Consult Limited	
~Site Reference: Whittaker Street, Radcliffe	
~Project / Job Ref: LKC251444	
~Order No: PO-C001734	
Reporting Date: 29/08/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
787317	Plot 3 rear TS	None Supplied	None Supplied	13.6	Black loamy sand with vegetation
787318	Plot 3 rear SS	None Supplied	None Supplied	8.7	Light brown sandy clay
787319	Plot 6 rear TS	None Supplied	None Supplied	16.2	Black loamy sand with stones and vegetation
787320	Plot 6 rear SS	None Supplied	None Supplied	10.9	Brown sandy clay
787321	Plot 8 rear TS	None Supplied	None Supplied	14.5	Black loamy sand with stones
787322	Plot 8 rear SS	None Supplied	None Supplied	10.1	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-07612
LK Consult Limited
~Site Reference: Whittaker Street, Radcliffe
~Project / Job Ref: LKC251444
~Order No: PO-C001734
Reporting Date: 29/08/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphénylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of TOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

List of HWOL Acronyms and Operators

DETS Report No: 25-07612

LK Consult Limited

~Site Reference: Whittaker Street, Radcliffe

~Project / Job Ref: LKC251444

~Order No: PO-C001734

Reporting Date: 29/08/2025

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
TPH - Aliphatic >C34 - C44 - raw data - EH_CU_1D_AL
TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
TPH CWG - Aliphatic >C34 - C44 - EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH CWG - Aromatic >C35 - C44 - EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C44 - HS_1D_MS+EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH CWG - Total >C5 - C44 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
*	The Dutch 10 PAH compounds consist of Naphthalene, Anthracene, Phenanthrene, Fluoranthene, Benz(a)anthracene, Chrysene, Benzo(k)fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene, and Indeno(1,2,3-cd)pyrene
**	Total EPA-16 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(ghi)perylene.
***	Total WAC-17 PAHs consist of the following polycyclic aromatic hydrocarbons: Naphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(ghi)perylene and Coronene.
^	No sampling date provided; unable to confirm if samples are within acceptable holding times
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

Appendix F – Evidence of Barrier Pipes

Invoice

668515

Page : 1/1



Invoice Date : 2/7/2025
Due Date : 30/8/2025

Branch: B

Originator : Luke Ormerod
Our Ref : Luke Ormerod
Delivery :

Scott Parnell Ltd
Phoenix Way
Burnley

BB11 5SX

Order No.: 541520
Order Date : 30/6/2025

Customer No. 5364

Invoice Address

Multevo Limited
Unit 1-3 Off Charles Street
Darwen
Lancs
BB3 1BF

Delivery Address

COLLECTION
BURNLEY
BB11 5SX

Customer Phone

01254 703212

Customer Order Number

58064

Item	Qty	Description	Price	Disc%	Total £
EMT5450	1	EA 32mm Red Enw 50M Coil - Red 234966	85.00		85.00
44659307	1	EA 25mm Protectaline Barrier Pipe X 50mtr	387.20		387.20

Comments :

pod668515

Net: 472.20

VAT (20%): 94.44

To Pay £ 566.64

Attn: dave

Payment Terms : 30 Days End of next month

VAT Reg. No. 140 1949 32

Company No. 08105082

For accounts queries please call tel no: 01376 532280
or Email: salesledger@scottparnell.com

Bank Details:-

Bank : HSBC Plc

Account Name: Scott Parnell Ltd

Sort Code: 40-61-35 / Account No. 03004316

Reservation of title - Per our terms & conditions of sale, all goods supplied and invoiced
shall remain the property of the seller until cleared funds have been received in full.

Appendix G – Individual Plot Reports

PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	1	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing small strip of soft landscaping.



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
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PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	2	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0 .



View of front showing hardstood tarmac driveway



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Front	Hardstood Driveway					
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
---------------------------	---------------------	---------------------------	----------------

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PLOT VERIFICATION REPORT

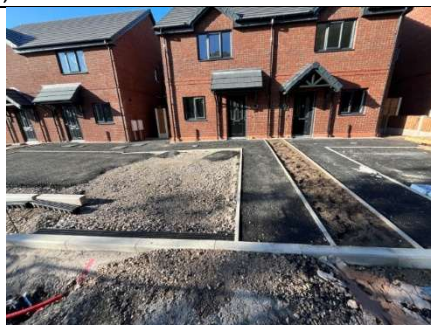
Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	3	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing small strip of soft landscaping.



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.625mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Rear	175	450	Y	625	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
---------------------------	---------------------	---------------------------	----------------

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PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	4	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing hardwood tarmac driveway



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Front	Hardwood Driveway					
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
---------------------------	---------------------	---------------------------	----------------

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PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	5	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing small strip of soft landscaping.



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.625mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Rear	175	450	Y	625	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
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PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	6	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing hardstood tarmac driveway



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Front	Hardstood Driveway					
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
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PLOT VERIFICATION REPORT

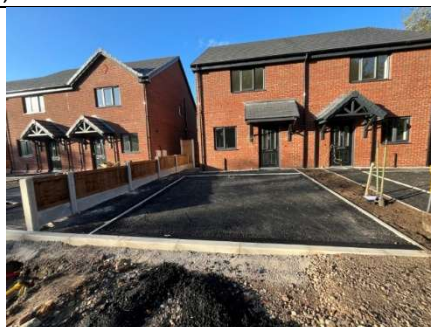
Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	7	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
- **Front Gardens:** The front is very small with several shallow services runs. The small size of the front gardens does not illicit expansive use by receptors and the nominal clean cover above the membrane is still considered protective of future site users.

Details of the subsoil and topsoil used in the front and rear gardens is provided in the completion report undertaken by LKC (Ref: LKC251444-D1-SCR-Whittaker Street, Radcliffe R0.



View of front showing small strip of soft landscaping.



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
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PLOT VERIFICATION REPORT

Environmental Cover System Validation

Site Name	Whittaker Street, Radcliffe		
Developer	Whitfield & Brown	Job Ref	LKC251444
Client	Whitfield & Brown	Inspection Date	26/09/2025
Plot Number	8	Inspected By	LGD

Construction phase remedial requirements specified in the Remediation Strategy by Tier Consult (A Supplementary Site investigation for the Clough homes Development, Whittaker House, Bury (Ref. T/14/1409/SSI dated 29th September 2015)) and comprised:

- **Rear Gardens:** 600mm clean capping layer comprising 600mm of subsoil/topsoil (min. 150mm topsoil) over the existing ground in all garden areas separated by a geotextile marker.
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View of front showing hardwood tarmac driveway



View of rear garden.



Downhole view of soil in capping layer excavation in rear garden area showing membrane.



Depth measurement of the capping layer in rear garden (c.600mm).

Location	Topsoil Depth (mm)	Subsoil Depth (mm)	Membrane	Total Depth (mm)	Required Depth (mm)	Pass (✓) or Fail (x)
Front	Hardwood Driveway					
Rear	150	450	Y	600	600	✓

LKC has completed the inspection of the capping depth and conclude the correct depth was installed in accordance with the remedial requirements.

Report prepared by	Liam Greenwood-Dean	Report reviewed by	Rosie Cummings
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Reference H – Examples of Disposal Tickets

Duty of Care: Waste Transfer Note/Time Sheet

WHITTAKER STREET
RADCLIFFE, M26 2TD

Weights and Measures Act 1963

The Waste Hierarchy has been considered and the most appropriate waste management option has been applied to this waste

HIRER OR PRODUCER OF WASTE		LOADS REMOVED	
COMPANY	MULTI	 	
SITE	WHITTAKER STREET RADCLIFFE, M26 2TD		
SIGNATURE	NAME		
CARRIER			
DATE	1-6-25 — 1-6-26		
COMPANY	LNSP LIMITED		
DRIVERS NAME	JOE CLAY		
VEHICLE REG NO	L24 NSP / GASGRAB / LBSN	TOTAL	
CARRIER LICENCE	CBDW 577270		
DISPOSER OF THE WASTE OR CONSIGNEE			
COMPANY	BOOTH VENTURES LIMITED		DAYWORK DETAILS
ADDRESS	MARWOOD QUARRY LANDFILL BROOKFOLD LANE BL2 4LT		DATE
			START
		BREAK	
LICENCE NUMBER	EPR/BV87411L	DELAYS	
		FINISH	
SIGNATURE	NAME	TRAVEL	
WASTE OR MATERIAL TYPE		TOTAL	
INERT		GROSS	
		TARE	
		NETT	
EWC CODE	17-05-04		

Appendix I - References

¹ DCL (2019). "National Planning Policy Framework." Department of Communities and Local Government.

² BSI (2019). "Code of Practice for the Design of Protective Measures for Methane and Carbon Dioxide Ground Gases for New Buildings" BS8485:2015+A1:2019.

Based across the UK with offices
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