GEO-ENVIRONMENTAL CONSULTING

LAND AT OLDHAM ROAD, NEWTON HEATH PHASE 2 - 28 HOUSES AND 6 APARTMENTS

Remediation Verification Report



Report Ref: BEK-23007-4

Date: May 2026

GEO-ENVIRONMENTAL CONSULTING

Project Quality Assurance Information Sheet

Site	Land at Oldham Road, Newton Heath Phase 2 - 28 houses and 6 apartments
Report Title	Remediation Verification Report
Report Status	Final
Report No	BEK-23007-4
Date	May 2026
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GEO-ENVIRONMENTAL CONSULTING

LAND AT OLDHAM ROAD, NEWTON HEATH
PHASE 2 - 28 HOUSES AND 6 APARTMENTS

Remediation Verification Report

PROJECT NO: 23007

REPORT REF: BEK-23007-4

DATE: May 2026

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client. The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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1. INTRODUCTION

1.1 Background

1.1.1 BEK Enviro (BEK) has been commissioned by The Casey Group Limited to supervise and validate the remediation works required at the residential development at the Land at Oldham Road, Newton Heath (hereafter referred to as 'the site').

1.1.2 This phase of the development comprises 28 houses and 6 apartments, as illustrated in Figure 1 below.



Figure 1: Proposed Development Plan

1.1.3 The site has been subjected to previous site investigation, assessments and reporting, the details of which are provided within the following reports:

- Curtins 'Phase 1 Preliminary Risk Assessment – Oldham Road, Newton Heath, Manchester', Report Ref: 074031-CUR-00-XX-RP-GE-001, dated November 2019.
- Curtins 'Ground Investigation Report for Oldham Road, Newton Heath, Manchester' Report Ref: 074031-CUR-00-XX-RP-GE-002, dated January 2023.
- Remediation Method Statement, Ref: BEK-23007-3, dated December 2024

1.1.4 BEK understands that the above reports have been submitted and approved by the Local Authority. The specific remediation measures recommended in the BEK Remediation Method Statement (RMS) have been implemented and the RMS should be read in conjunction with this report.

1.2 Limitations

1.2.1 This report has been prepared by BEK for the sole benefit of The Casey Group Developments. The conclusions in this report are professional opinions of BEK based on the information available.

1.2.2 This document has been prepared for the residential development located at Oldham Road, Newton Heath and should not be relied upon or used for any other project. BEK accepts no responsibility or liability for the consequences of this document being used for a purpose other than that purpose for which it was commissioned.

2. REMEDIATION MEASURES

2.0.1 In order to remove potential risks associated with contamination and ground gas, the following specific remediation works have been recommended and approved (as per the RMS Ref: BEK-23007-3).

2.1 Ground Gas Precautions

2.1.1 On the basis of the assessment of the potential risks from ground gas, mitigation measures which adhere to CS2 of BS8485:2015+A1:2019 will be required within all buildings on-site. The gas membrane used within all buildings should be upgraded to protect against vapour ingress (in addition to carbon dioxide and methane).

2.1.2 Section 4, 5 and 6 of the RMS include a Gas Verification Plan for the site which provides details of the specific mitigation measures required at the site to ensure the proposed gas measures comply with the points system presented within BS8485:2015+A1:2019 for the appropriate building type. The gas mitigation measures should be validated in accordance with CIRIA C735.

2.2 Contamination

Made Ground

2.2.1 To mitigate the potential risks to human health associated with lead, PAH, and Speciated Total Petroleum Hydrocarbon (Aromatic >C12 – C16, Aromatic >C16 – C21 & Aromatic C21 – C35) and n-Nitroso-n-dipropylamine within the made ground, the following works will need to be undertaken:

(i) All soft landscaped **private garden areas** will be capped with a minimum of 600 mm of clean suitable soil (150 mm topsoil and 450 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.

(ii) All soft landscaped **public open space (POS) areas** will be capped with a minimum of 450 mm of clean suitable soil (150 mm topsoil and 300 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing. (Manchester City Council Guidance, Planning & contaminated Land, Technical Guidance, Feb 2021).

(iii) The soils used in the capping system will need to be tested and assessed to ensure suitability of use. Materials can be sourced from other developments and commercial companies. The capping thickness will also require validation.

(iv) In all cases, the made ground should be segregated from the on-site topsoil to prevent it from being placed within garden areas on site.

(v) A watching brief should be adopted when excavating soils at the site for the following areas of concern:

i. Southern area of the site (vicinity of WS01 and WS02B) due to the potential for asbestos to be present.

ii. Whole site due to the potential presence of galligu at depths which may impact on foundation design.

2.3 Imported Material

2.3.1 There will be a requirement to import suitable topsoil/subsoil for use in the landscaped/garden areas of the development.

2.3.2 The suitability of the sub/topsoil and any other material imported to the site needs to be independently validated.

2.3.3 The details pertaining to the independent validation of material to be imported to the site are outlined within Section 7 of the RMS.

2.4 Asbestos Management Plan

2.4.1 An Asbestos Management Plan (AMP) should be prepared to manage and mitigate the potential risks from asbestos inhalation. The AMP should consider the ground conditions detailed in the Curtins Ground Investigation report to implement safe working procedures and mitigate any potential risks to contractors on site or the general public adjacent to the site. All groundworks should be carried out in accordance with the recommendations presented in the AMP. The groundworkers risk assessment and method statements should reflect the information presented herein and the AMP.

2.5 Off-Site Disposal

2.5.1 The chemical testing regime for off-site disposal may be different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health. Therefore, additional assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste.

2.5.2 However, existing laboratory test certificate will help inform the process. Any additional testing should also be used in the classification of the waste soils for off-site disposal.

2.5.3 The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements.

2.5.4 Individuals/companies removing soils from the site are bound by a Duty of Care and as such this should only be undertaken by an authorised person. All waste movements should be accompanied by a waste transfer note.

2.6 Dewatering

2.6.1 Based on site investigation works it was determined that groundwater levels are variable and not representative of laterally continuous perched water. The water encountered is likely to be associated with pockets of perched water within more permeable layers of the made ground/superficial strata.

2.6.2 However, if water entering any of the excavations is visually or olfactory affected by contamination then consideration should be made for dewatering. Any impacted water should be carefully pumped from the excavation directly into a tanker for off-site disposal. Water will be pumped from the near surface of the water and (as much as practicable) away from the sides of the excavation to avoid pumping up soils.

2.6.3 All pumping activities will be carefully monitored to watch for drawing in contaminated water from elsewhere on the site. Pumping will continue until visual/olfactory evidence of contamination has reduced/gone or as is considered reasonably practicable.

2.7 Construction Workers

2.7.1 It is recommended that construction personnel involved with direct contact with the soils at the site use appropriate PPE equipment (i.e. boots, gloves and overalls).

2.7.2 In addition, hygiene facilities should be made available in accordance with general health and safety guidelines. The successful remediation/site works contractor should undertake a suitable Risk Assessment to confirm the appropriate level of PPE.

2.7.3 A copy of all reports relating to the site should be included in the site Health & Safety File and site workers should be made fully aware of the site's setting.

2.8 Concrete Mix Design

2.8.1 It is recommended that a concrete classification of sulphate class DS-1 and Aggressive Chemical Environment for Concrete (ACEC) class of AC-1s is suitable for the site.

2.8.2 Confirmation that the correct concrete mix has been used on site is outside the BEK validation remit.

2.9 Unforeseen Circumstances

2.9.1 Any areas of previously unidentified potentially contaminated soils encountered during site construction works must be brought to the attention of BEK, to ensure that the recommendations herein apply. Any potentially contaminated soils should

be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

2.10 Utilities

2.10.1 BEK have completed a UK WIR Risk Assessment for the site (Dated January 2023) which confirmed PE barrier pipe was required for the site.

2.11 Re-Use of Waste Soils on Site

2.11.1 The re-use of waste soils generated at the site should be covered through environmental permit exemptions (if applicable) and/or through the preparation of a Materials Management Plan as part of compliance with the Definition of Waste: Code of Practice (DoW:CoP).

2.12 Communication

2.12.1 It is recommended that regular communication is maintained between BEK and the Site Manager throughout the development works.

3. VERIFICATION OF WORKS

3.1 Supervision of Works

3.1.1 An Engineer from BEK attended the site as requested by The Casey Group Limited during the remediation works, which were undertaken progressively. Regular liaison with The Casey Group during the works ensured a presence during key activities.

3.2 Ground Gas Mitigation Measures

3.2.1 Section 4, 5 and 6 of the RMS include a Gas Verification Plan for the site which provides details of the specific mitigation measures required.

3.2.2 An engineer from BEK has visited the site progressively as these gas mitigation measures were installed in the new builds.

Sub-Floor Void

3.2.2 The beam and block system was present in all plots with a measured minimum 150 mm void depth free from debris and obstructions

Air Bricks

3.2.3 Vents were present on at least two opposite sides, at appropriate spacings.

Internal Sleeper Walls

3.2.4 Cross vents at appropriate spacings were present within internal sleeper walls, where internal obstructions to air flow were present.

Gas Membrane

3.2.5 The Casey Group used a specialist contractor to install the membrane via welding and Self-Adhesive Membrane (SAM) for service entries and corners.

3.2.6 The membrane used is the Quadproof Evolution Gas Membrane. This membrane has been specifically designed and manufactured to mitigate against CS2. The membrane meets all the requirements of Table 7 of BS8485:2015+A1:2019. A copy of the data sheet for the membrane and SAM is presented in Appendix B.

3.2.7 BEK can confirm that the membrane has been installed and prepared as per the specifications presented in the RMS.

3.2.8 A selection of photographs showing the validation of the installation of the sub-floor ventilation system and the membrane are provided within Appendix C. All photographs can be made available on request.

3.2.9 A completed gas validation proforma for all plots at the site is presented in Appendix D.

3.2.10 BEK can confirm that the gas mitigation measures have been installed in accordance with the RMS in all new builds at the site.

3.3 Capping System

3.3.1 BEK validated the capping layer in residential gardens for Plots 7 to 34, as well as areas of POS and can confirm a clean cover of imported soils to a depth of 600 mm in the residential gardens and 450 mm in POS areas has been installed. The capping system was placed on a geotextile marker layer.

3.3.2 Plots 1 to 6 are apartments and had no garden areas linked to them.

3.3.3 A selection of certificates of completion are presented in Appendix A. All certificates can be made available upon request.

Soil Assessment

3.3.4 The Casey Group have imported approximately 136 m^3 (17 loads, 8m^3 per load) of topsoil sourced from soil scrape at land off Frog Lane, Knutsford, WA16 0LL which is considered to be greenfield. Chemical source test data (presented in Appendix F) has been reviewed and based on the results available, the soils were considered to be suitable for use.

3.3.5 Following import to site, the soils were inspected by an engineer from BEK and found to be visually suitable. Three samples of the topsoil were recovered prior to placement within the gardens (samples TS-A to TS-C). Copies of the results are presented in Appendix E. This topsoil makes up the top 150 mm capping layer for the private gardens in Plots 7 to 35 and for the POS areas.

3.3.6 The Casey Group have imported approximately 750 m^3 of old subsoil sourced from soil strip at Burnleyhurst Lane, Wilmslow, SK9 5LS, which is considered to be Greenfield, and 750 m^3 of quarried subsoil sourced from Shire Hill Quarry, Glossop, SK13 7PU. Chemical source test data (presented in Appendix F) for both sites has been reviewed and based on the results available, is considered to be suitable for use.

3.3.7 Following import to site, the soils were inspected by an engineer from BEK and found to be visually suitable. Four samples were recovered prior to placement within the gardens (samples SSM-1 to SSM-4). Copies of the results are presented in Appendix E. This subsoil makes up the 450 mm below the topsoil in the private gardens and the 300 mm in the POS areas.

3.3.8 The chemical test results have been compared to the assessment criteria set out in Table 5 of the BEK Phase Remediation Method Statement and BEK can confirm that based on the source test results provided, the soils are suitable for use.

Thickness

3.3.9 Capping layer thickness was checked by BEK within the garden areas to ensure the required thickness had been achieved. This was undertaken by excavating trial holes to ensure the correct construction of the capping system and confirm capping thickness.

3.3.10 BEK can confirm that the residential gardens for plots 7 to 34 are capped with a minimum of 600 mm and the POS areas are capped with a minimum of 450 mm, both of clean, chemically suitable soil.

3.3.11 A geotextile membrane was also placed in each garden prior to the placement of the clean capping layer.

3.3.12 A selection of validation photographs showing the garden capping can be seen in Appendix G.

3.4 Utilities

3.4.1 The Casey Group have confirmed that PE Barrier Pipe has been used at the site.

3.5 Unforeseen Circumstances

3.5.1 The Casey Group and appointed contractors were aware of the requirement for a watching brief. Tool box talks were given for the potential presence of asbestos and galligu during excavations.

3.5.2 The Casey Group did not report any areas of previously unidentified potentially contaminated soils during site construction works. Ground conditions were as anticipated during all groundworks.

4. CONCLUSIONS

4.1 BEK has supervised the implementation of the remediation works at the residential development at the land at Oldham Road, Newton Heath.

4.2 The works have been carried out by The Casey Group Limited and their appointed contractors, in accordance with the approved recommendations.

4.3 Based on the information herein, the remediation works have been completed in accordance with the BEK Remediation Method Statement.

APPENDIX A

Garden Capping Certificates

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Our Ref: BEK/23007/260212/CG/11

12th February 2026

FAO Jon Sharp
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Jon,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments - PLOT 11

BEK Enviro (BEK) has been commissioned by The Casey Group (CG) to supervise and validate the post construction remediation works required at the above site.

The approved remediation works are detailed in the BEK 'Remediation Method Statement – Land at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments', Report Ref: BEK-23007-3 (Rev A), dated March 2025.

The approved remediation requirements comprise the installation of a clean cover system in private gardens and soft landscaped areas as follows:

'All soft landscaped private garden areas will be capped with a minimum of 600 mm of clean suitable soil (150 mm topsoil and 450 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.'

'All soft landscaped public open space (POS) areas will be capped with a minimum of 450 mm of clean suitable soil (150 mm topsoil and 300 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing. (Manchester City Council Guidance, Planning & contaminated Land, Technical Guidance, Feb 2021)'.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil has been imported by CG as 'dug' greenfield soils from UK Aggregates & Plant Ltd. The origin site of the topsoil is located at land at Frog Lane, Knutsford, WA16 0LL (grid ref: 53°17'52.1"N 2°27'55.1"W). The subsoil has been imported from Shire Hill Quarry, Sheffield Road, Glossop. Source test data has been made available to BEK confirms that the imported soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

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To ensure suitability (and to comply with testing frequency requirements), BEK inspected the imported soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as '*Dark brown organic sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium sub-rounded to sub-angular stone of mixed lithologies. Frequent rootlets'* and the subsoil described as '*Brown slightly clayey gravely sand. Gravels is fine to coarse sub-rounded to rounded. Sand is fine to coarse'* and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (TS-A to TS-C and SS1 to SS4) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot trial pit checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 11 at the residential development at Phase 2 - Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

I trust the above is satisfactory. Should you require anything further please do not hesitate to contact the undersigned.

Yours sincerely

MICHAEL BUCKLEY
BSc (Hons) MSc MIEnvSci CEnv

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ANNEX A

Source Test Data

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ANNEX B

Chemical Test Results

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ANNEX C

Photographs

GEO-ENVIRONMENTAL CONSULTING

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Photograph 1: Validation of Garden Capping



Photograph 2: Validation of Garden Capping

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Photograph 3: Validation of Garden Capping



Photograph 4: Validation of Garden Capping

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Our Ref: BEK/23007/260219/CG/15

19th February 2026

FAO Jon Sharp
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Jon,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments - PLOT 15

BEK Enviro (BEK) has been commissioned by The Casey Group (CG) to supervise and validate the post construction remediation works required at the above site.

The approved remediation works are detailed in the BEK 'Remediation Method Statement – Land at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments', Report Ref: BEK-23007-3 (Rev A), dated March 2025.

The approved remediation requirements comprise the installation of a clean cover system in private gardens and soft landscaped areas as follows:

'All soft landscaped private garden areas will be capped with a minimum of 600 mm of clean suitable soil (150 mm topsoil and 450 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.'

'All soft landscaped public open space (POS) areas will be capped with a minimum of 450 mm of clean suitable soil (150 mm topsoil and 300 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing. (Manchester City Council Guidance, Planning & contaminated Land, Technical Guidance, Feb 2021)'.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil has been imported by CG as 'dug' greenfield soils from UK Aggregates & Plant Ltd. The origin site of the topsoil is located at land at Frog Lane, Knutsford, WA16 0LL (grid ref: 53°17'52.1"N 2°27'55.1"W). The subsoil has been imported from Shire Hill Quarry, Sheffield Road, Glossop. Source test data has been made available to BEK confirms that the imported soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

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To ensure suitability (and to comply with testing frequency requirements), BEK inspected the imported soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as '*Dark brown organic sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium sub-rounded to sub-angular stone of mixed lithologies. Frequent rootlets'* and the subsoil described as '*Brown slightly clayey gravely sand. Gravels is fine to coarse sub-rounded to rounded. Sand is fine to coarse'* and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (TS-A to TS-C and SS1 to SS4) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot trial pit checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 15 at the residential development at Phase 2 - Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

I trust the above is satisfactory. Should you require anything further please do not hesitate to contact the undersigned.

Yours sincerely

MICHAEL BUCKLEY
BSc (Hons) MSc MIEnvSci CEnv

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ANNEX A

Source Test Data

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ANNEX B

Chemical Test Results

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ANNEX C

Photographs

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Photograph 1: Validation of Garden Capping



Photograph 2: Validation of Garden Capping

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Photograph 3: Validation of Garden Capping



Photograph 4: Validation of Garden Capping

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Our Ref: BEK/23007/260219/CG/23

19th February 2026

FAO Jon Sharp
The Casey Group
Rydings Road
Rochdale
OL12 9PS

Dear Jon,

Garden Capping Validation Letter for Residential Development at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments - PLOT 23

BEK Enviro (BEK) has been commissioned by The Casey Group (CG) to supervise and validate the post construction remediation works required at the above site.

The approved remediation works are detailed in the BEK 'Remediation Method Statement – Land at Oldham Road, Newton Heath – Phase 2 – 28 houses and 6 Apartments', Report Ref: BEK-23007-3 (Rev A), dated March 2025.

The approved remediation requirements comprise the installation of a clean cover system in private gardens and soft landscaped areas as follows:

'All soft landscaped private garden areas will be capped with a minimum of 600 mm of clean suitable soil (150 mm topsoil and 450 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.'

'All soft landscaped public open space (POS) areas will be capped with a minimum of 450 mm of clean suitable soil (150 mm topsoil and 300 mm subsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing. (Manchester City Council Guidance, Planning & contaminated Land, Technical Guidance, Feb 2021)'.

Remediation activities have been supervised by both BEK and CG. BEK has confirmed that the soils are suitable for use (prior to placement) and carried out checks to confirm that the correct capping thickness and geotextile membrane have been achieved. BEK has relied on CG and their appointed contractors to cap the gardens with the validated capping soils.

Topsoil has been imported by CG as 'dug' greenfield soils from UK Aggregates & Plant Ltd. The origin site of the topsoil is located at land at Frog Lane, Knutsford, WA16 0LL (grid ref: 53°17'52.1"N 2°27'55.1"W). The subsoil has been imported from Shire Hill Quarry, Sheffield Road, Glossop. Source test data has been made available to BEK confirms that the imported soils are suitable for use in a residential garden. A copy of the source test data is provided within Annex A.

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To ensure suitability (and to comply with testing frequency requirements), BEK inspected the imported soils placed in each of the plots and recovered representative samples for chemical testing. The topsoil is described as '*Dark brown organic sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is fine to medium sub-rounded to sub-angular stone of mixed lithologies. Frequent rootlets'* and the subsoil described as '*Brown slightly clayey gravely sand. Gravels is fine to coarse sub-rounded to rounded. Sand is fine to coarse'* and are visually suitable for use. BEK has recovered a number of samples from the placed soils and copies of the chemical test results for the most recent samples tested (TS-A to TS-C and SS1 to SS4) are presented in Annex B.

Additional samples will be recovered progressively as the remediation works continue. Regular liaison with site managers will be maintained to ensure sample frequencies are maintained progressively throughout the works. Final volumes will be provided for imported topsoil at the end of the project.

In addition to confirming suitability of the soils used in the garden capping system at the site, BEK also confirms that that capping thickness is a minimum of 600 mm thick. CG confirm that a geotextile membrane has been placed at the base of the capping layer. Spot trial pit checks carried out by BEK on selected plots prove the presence of the geotextile membrane. Photographs showing capping thickness are provided within Annex C.

Based on the information provided by CG and the validation works carried out by BEK, we can confirm that the remediation works required for Plot 23 at the residential development at Phase 2 - Oldham Road Newton Heath has been completed in accordance with the approved methodology. This Certificate should be read in conjunction with the final Validation Report that will be prepared on completion of all remediation works at the site.

I trust the above is satisfactory. Should you require anything further please do not hesitate to contact the undersigned.

Yours sincerely

MICHAEL BUCKLEY
BSc (Hons) MSc MIEnvSci CEnv

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ANNEX A

Source Test Data

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ANNEX B

Chemical Test Results

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ANNEX C

Photographs

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Photograph 1: Validation of Garden Capping



Photograph 2: Validation of Garden Capping

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Photograph 3: Validation of Garden Capping



Photograph 4: Validation of Garden Capping

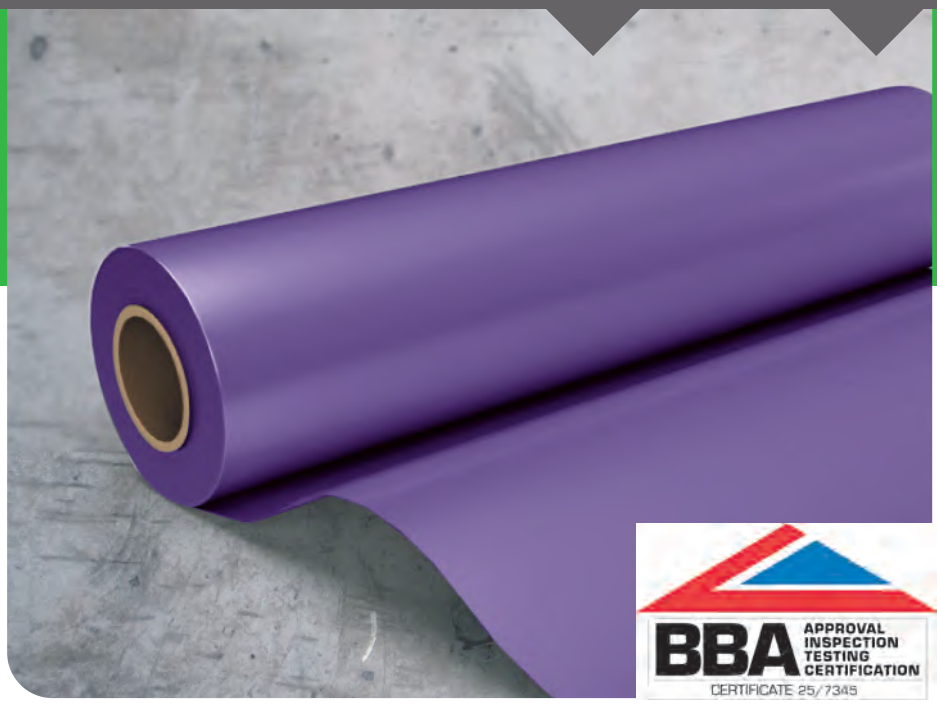
APPENDIX B

Gas Membrane Data Sheet

TECHNICAL DATASHEET

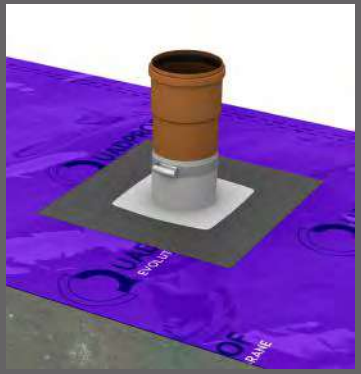
QUADPROOF EVOLUTION MEMBRANE

Total Ground Gas control



High specification co-extruded multi-layer barrier specifically developed for use on construction sites.





Quadproof Evolution is a high specification co-extruded multi-layer barrier specifically developed for use on construction sites contaminated by Volatile Organic Compounds, Hydrocarbons and other ground gasses such as Methane, Radon and CO2.

The product is 14 layers and contains 2 layers of gas barrier polymer (EVOH) to offer exceptional performance and prevent the ingress of dangerous gasses into buildings.

It is manufactured using the latest co-extrusion technology and cannot delaminate. The product will also act as a damp-proof membrane.

The membrane is manufactured using High Performance engineering Polymers to give exceptional strength and does not require reinforcement. It can be installed by the use of sealing tapes or can easily be welded.

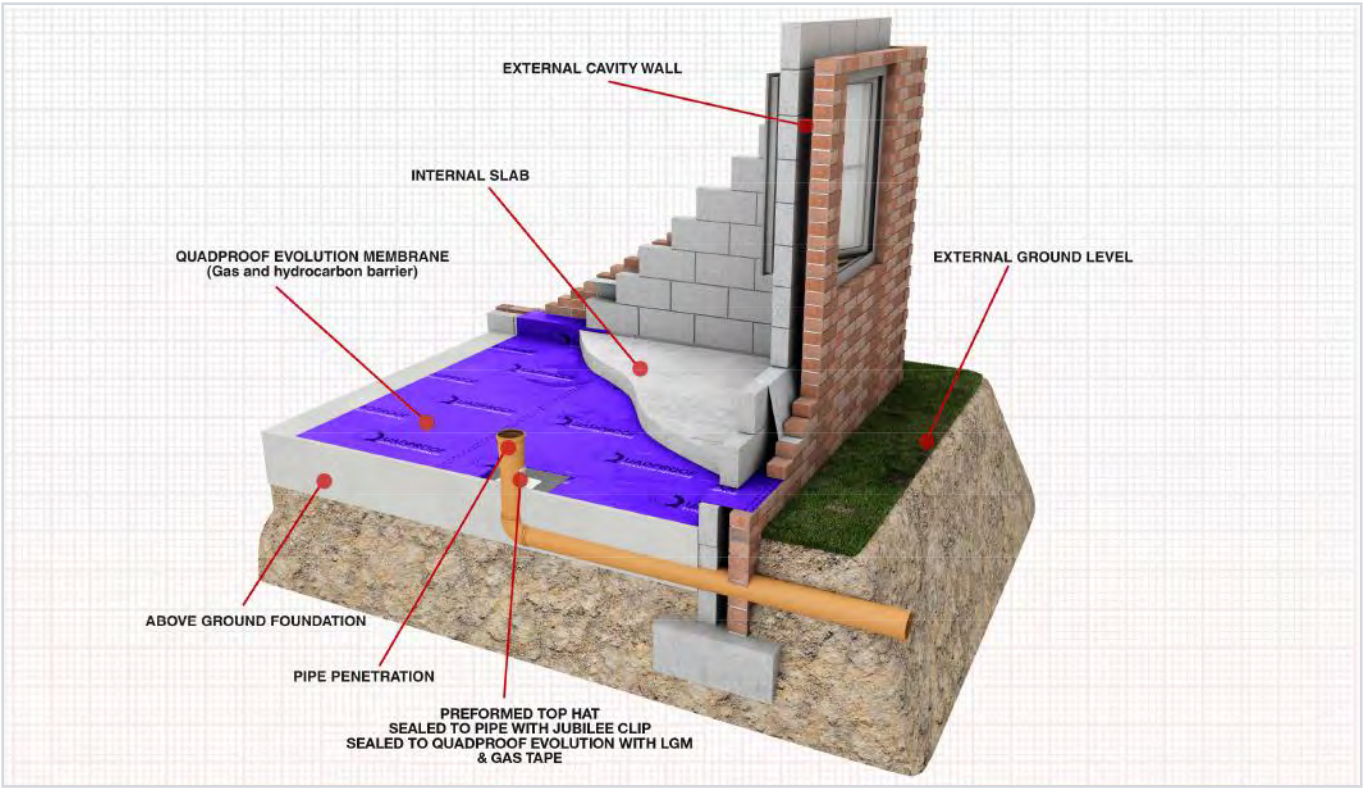
A NEW GENERATION OF GAS BARRIER

- **Advanced Fourteen-Layer Barrier**
- **Complies with complies with CIRIA 748**
- **Two layers of Ethylene Vinyl Alcohol Co-Polymer (EVOH)**
- **Outstanding Gas Resistance**
- **Conforms with BS8485:2015+A1:2019 (Table7)**
- **Conforms to BS8102:2022**
- **Conforms to the specification requirements of NHBC Amber 1 & 2 applications**
- **Suitable for all characteristic Gas Situation (CS) ground gas regimes**
- **Excellent Welding Characteristics**

TECHNICAL DATASHEET

Material Properties	Test Method	Value	
Thickness (µm)	N/A	400µm	+/- 6%
Width (mm)	N/A	1.65m	+6mm/-0mm
Length (mm)	N/A	61m	+6mm/-0mm
Repeat Tolerance (mm)	N/A	N/A	
Dynamic C.O.F	BS 2782-824A	0.4 +/- 0.1	
Tensile break force (%)	ASTM D882 / DIN 53455	MD >160	TD >175
Tensile strength @ break (%) MPA	ASTM D882 / DIN 53455	MD >16	TD >16
Elongation Break (%)	ASTM D882 / DIN 53455	MD >500	TD >550
Slow Puncture deflection (mm)	3mm radius	> 3	
Slow Puncture force (N)	-3mm radius	> 30	
Density (nominal) (g/cm3)	-	0.957 g/cm³	
Unit Weight (g/m2)	-	382.8	
Sealing Range	RFM 8	110°C - 150°C	

Barrier Properties*	Test Method	Value
OTR	ASTM F 1927, 20°C 60% RH	Less than 0.75 cc
WVTR	ASTM F 1249, 38°C 90% RH	Less than 2.0g

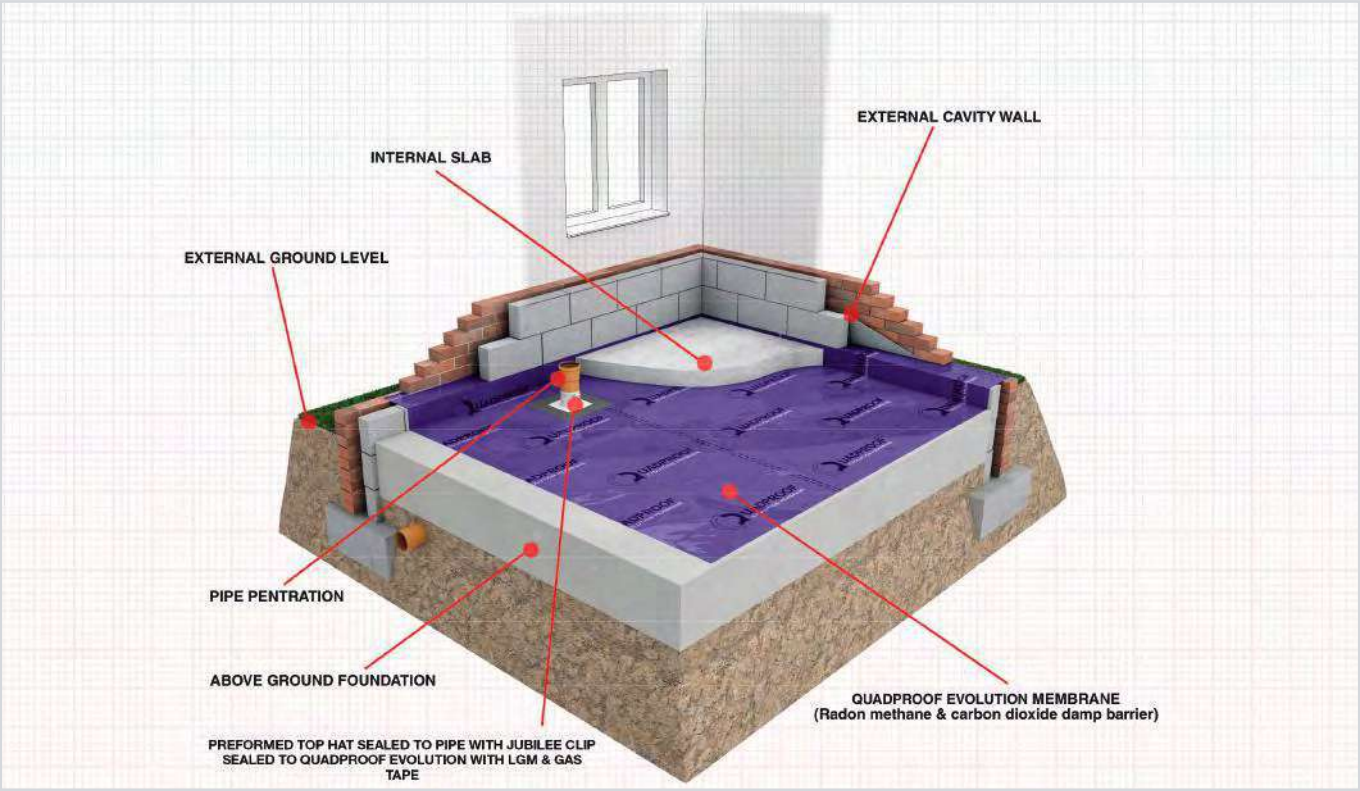


QUADPROOF EVOLUTION MEMBRANE

BS8485:2015+A1:2019

Meets all the following criteria:

- Sufficiently impervious to the gases with a methane gas transmission rate <40.0 ml/day/m2/atm (average) for sheet and joints (tested in accordance with BS ISO 15105-1 manometric method)
- Sufficiently durable to remain serviceable for the anticipated life of the building and duration of gas emissions
- Sufficiently strong to withstand in-service stresses (e.g settlement if placed below floor slab)
- Sufficiently strong to withstand the installation process and following trades until covered (e.g penetration from steel fibres in fibres reinforced concrete, penetration of reinforcement ties, tearing due to working above it, dropping tools, etc)
- Capable, after installation, of providing a complete barrier to the entry of the relevant gas



Test	Standard	Unit	Result
Determination of gas transmission rate*	ISO 15105-1 10.2007		
Test gas: Methane (CH4)			
Gas permeability at 23°C / 0 % r.H.		cm3/(m2d.bar)	≤ 0,09
Gas permeability at 23°C / 0 % r.H.		ml/(m2d.atm)	≤ 0,09

TECHNICAL DATA

INTENDED USE:

The Pre-Applied Waterproofing Membrane is a flexible sheet for water proofing, for use to damp-proof and waterproof below ground structures and to protect the building from the ingress of water and water vapour, radon, methane and CO^2, hydrocarbons and VOC's.

Waterproofing membrane tested in accordance with EN 13967:2012+A1:2017 Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet - Definitions and characteristics.

Testing elements from European Assessment Document EAD 030378-00-0605 Fully bonded, pre-applied flexible sheet for waterproofing.

Testing Notified Body: 0761 - Materialprüfanstalt für das Bauwesen (MPA BS)

ESSENTIAL CHARACTERISTICS	TEST CONDITION	PERFORMANCE
Thickness (Overall)	Nominal	1.9mm nominal
Thickness (Membrane)	DIN EN 1849-2	0.4mm
Thickness (Geotextile)	EN ISO 9863/1	1.70mm +-20%
Colour		Purple
Width	DIN EN 1848-2	1.65m +6mm/-0mm
Length	DIN EN 1848-2	61m +6mm/-0mm
Area		49.5m^2
Mass	DIN EN 1849-2/ISO 9864	515g.m^2
Packaged roll weight		28.65kg
Reaction to fire	DIN EN ISO 11925-2/EN 13501-1	E
Peel resistance (180°peel)	EN ISO 8510-2	49.1 N/50mm
Water tightness @ 60kPa 24h	DIN EN 1928 – Method B	Watertight
Water tightness @ 500kPa 72h	DIN EN 1928 – Method B	Watertight
Resistance to damage – water creep at leakage	Basis of EN 12390-8	TBC
Resistance to impact	DIN EN 12691 – 350mm drop	Watertight
Resistance to Static Loading	DIN EN 12730	20kg (Pass)
Durability against thermal ageing @ 60kPa	DIN EN 1296/DIN EN1928	Watertight
Durability against chemicals @ 60kPa	DIN EN 1847/DIN EN 1928	Watertight
Durability against alkaline environment @ @ 60kPa	DIN EN 1847/DIN EN 1928	Watertight
Durability against sulphurous acid @ 60kPa	DIN EN 1847/DIN EN 1928	Watertight

QUADPROOF EVOLUTION MEMBRANE

STORAGE & SHELF LIFE

Store in an upright position, under cover and away from high temperatures and open flames. Shelf life is the lifetime of the structure, when stored and installed in line with the datasheet recommendations.

HEALTH AND SAFETY

No specific hazards are likely to arise while using any Wykamol Waterproofing Membranes or ancilliaries; neither are classified as hazardous in respect to CHIP II Regulations 1999.

However, general precaution should be exercised in the use of drill etc. taking particular note of the special risk associated with working in confined spaces (basements) with restricted access/egress.

The Wykamol Group always advise the use of appropriate PPE, including gloves, hard hat, goggles, high visibility jackets and steel toe cap boots. For further information and advice, please contact the Wykamol Group Technical Department.

COVERAGE - 100M²

THICKNESS - 400mu

COLOUR - PURPLE



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Burnley Lancashire BB11 5TH
t: +44 (0)1282 473 100 **e:** info@wykamol.com
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Greyhound Way, Kent, DA1 4HF
t: +44 (0)1322 318 830 **e:** info@tritonsystems.co.uk
www.tritonsystems.co.uk

The information in this technical datasheet is given in good faith and was correct at the time of publication, but does not purport to be all inclusive. We reserve the right to update this information at any time without prior notice. All data is obtained through extensive testing in stringent laboratory conditions, however as we have no control over site conditions or work executed we accept no liability for incidental and/or consequential property damage arising out of the use of this product. The Wykamol Group's standard terms and conditions of sale apply.

APPENDIX C

Gas Validation Photographs

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GEO-ENVIRONMENTAL CONSULTING



Photograph 1: Validation of Plot 1 to 6 Gas Measures



Photograph 2: Validation of Plot 1 to 6 Gas Measures (Fixed Membrane)



Photograph 3: Validation of Plot 1 to 6 Gas Measures

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Photograph 4: Validation of Plot 1 to 6 Gas Measures



Photograph 5: Validation of Plot 1 to 6 Gas Measures



Photograph 6: Validation of Plot 1 to 6 Gas Measures

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Photograph 7: Validation of Plot 8 Gas Measures



Photograph 8: Validation of Plot 8 Gas Measures (Fixed Membrane)



Photograph 9: Validation of Plot 8 Gas Measures

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Photograph 10: Validation of Plot 8 Gas Measures



Photograph 11: Validation of Plot 8 Gas Measures



Photograph 12: Validation of Plot 8 Gas Measures

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Photograph 13: Validation of Plot 10 Gas Measures



Photograph 14: Validation of Plot 10 Gas Measures (Fixed Membrane)



Photograph 15: Validation of Plot 10 Gas Measures

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Photograph 16: Validation of Plot 10 Gas Measures



Photograph 17: Validation of Plot 10 Gas Measures



Photograph 18: Validation of Plot 10 Gas Measures

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Photograph 19: Validation of Plot 12 Gas Measures



Photograph 20: Validation of Plot 12 Gas Measures (Fixed Membrane)



Photograph 21: Validation of Plot 12 Gas Measures

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Photograph 22: Validation of Plot 12 Gas Measures



Photograph 23: Validation of Plot 12 Gas Measures



Photograph 24: Validation of Plot 12 Gas Measures

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Photograph 25: Validation of Plot 14 Gas Measures



Photograph 26: Validation of Plot 14 Gas Measures (Fixed Membrane)



Photograph 27: Validation of Plot 14 Gas Measures

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Photograph 28: Validation of Plot 14 Gas Measures



Photograph 29: Validation of Plot 14 Gas Measures



Photograph 30: Validation of Plot 14 Gas Measures

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Photograph 31: Validation of Plot 16 Gas Measures



Photograph 32: Validation of Plot 16 Gas Measures



Photograph 33: Validation of Plot 16 Gas Measures

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Photograph 34: Validation of Plot 16 Gas Measures



Photograph 35: Validation of Plot 16 Gas Measures



Photograph 36: Validation of Plot 16 Gas Measures

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Photograph 37: Validation of Plot 18 Gas Measures



Photograph 38: Validation of Plot 18 Gas Measures



Photograph 39: Validation of Plot 18 Gas Measures

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Photograph 40: Validation of Plot 18 Gas Measures



Photograph 41: Validation of Plot 18 Gas Measures



Photograph 42: Validation of Plot 18 Gas Measures

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Photograph 43: Validation of Plot 20 Gas Measures



Photograph 44: Validation of Plot 20 Gas Measures



Photograph 45: Validation of Plot 20 Gas Measures

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Photograph 46: Validation of Plot 20 Gas Measures



Photograph 47: Validation of Plot 20 Gas Measures



Photograph 48: Validation of Plot 20 Gas Measures

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Photograph 49: Validation of Plot 22 Gas Measures



Photograph 50: Validation of Plot 22 Gas Measures



Photograph 51: Validation of Plot 22 Gas Measures

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Photograph 52: Validation of Plot 22 Gas Measures



Photograph 53: Validation of Plot 22 Gas Measures



Photograph 54: Validation of Plot 22 Gas Measures

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Photograph 55: Validation of Plot 24 Gas Measures



Photograph 56: Validation of Plot 24 Gas Measures



Photograph 57: Validation of Plot 24 Gas Measures

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Photograph 58: Validation of Plot 24 Gas Measures



Photograph 59: Validation of Plot 24 Gas Measures



Photograph 60: Validation of Plot 24 Gas Measures

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Photograph 61: Validation of Plot 26 Gas Measures



Photograph 62: Validation of Plot 26 Gas Measures



Photograph 63: Validation of Plot 26 Gas Measures

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Photograph 64: Validation of Plot 26 Gas Measures



Photograph 65: Validation of Plot 26 Gas Measures



Photograph 66: Validation of Plot 26 Gas Measures

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Photograph 67: Validation of Plot 28 Gas Measures



Photograph 68: Validation of Plot 28 Gas Measures



Photograph 69: Validation of Plot 28 Gas Measures

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Photograph 70: Validation of Plot 28 Gas Measures



Photograph 71: Validation of Plot 28 Gas Measures



Photograph 72: Validation of Plot 28 Gas Measures

APPENDIX D

Gas Validation Proforma

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	AH (voids) + PC (membranes)
Plot No:	19,20,21,22,23	**Date:**	13th & 24th June	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	-	Photos Requested from site manager	-
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	MLM (voids + membranes)
Plot No:	24,25,26,27,28	**Date:**	20th & 30th June 2025	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	Y	Adequate ventilation pathways within internal sleeper walls	Y
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	MLM (voids) PC (membranes)
Plot No:	29,30	**Date:**	9th & 17th July 2025	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	Y	Adequate ventilation pathways within internal sleeper walls	Y
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	MLM (voids) PC (membranes)
Plot No:	31,32	**Date:**	9th & 17th July 2025	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	Y	Adequate ventilation pathways within internal sleeper walls	Y
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	MLM (voids) PC (membranes)
Plot No:	33,34	**Date:**	9th & 17th July 2025	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	Y	Adequate ventilation pathways within internal sleeper walls	Y
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	AH (voids + membranes)
Plot No:	1-15	**Date:**	13th June 2025	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	-	Photos Requested from site manager	-
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

BEK Ground Gas Validation Inspection Record

Site:	Newton Heath, Oldham Road			**Inspected by:**	AH (voids) + PC (membranes)
Plot No:	16,17,18	**Date:**	13th & 24th June	**Inspection Method:**	Visual

	Inspected Item	Y/N	Comments/Defects/Remedials requested	Photo? Y/N
1.1	**External Wall Airbricks**	Y	Two opposite sides, adequate spacing along external walls	Y
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Y	Adequate 150 mm subfloor void observed beneath the beam and block	Y
1.3	**Any internal sleeper walls – require appropriate ventilation**	-	Photos Requested from site manager	-
1.4	**External vent trenches/ducts**	-		-
2.1	**Condition of subgrade and underside of membrane**	Y	Good conduit for underside of the membrane to lay on	Y
2.2	**Gas Membrane type including associated components**	Y	Evo400 welded membrane used with associated products	Y
2.3	**Gas Membrane Condition**	Y	Membrane in good condition (no rips, folds, holes or tares). Membrane free from debris.	Y
2.4	**Lapping Design/Seals of Laps and Joints**	Y	Good welded membrane / SAM used on corners. No lifts or folds	Y
2.5	**Perimeter Installation/Cavities and Corners**	Y	Good membrane over the cavity / external walls. Sufficient SAM used, no rips	Y
2.6	**Service Entries**	Y	Top hats used with bitumen tape and SAM G Used	Y
2.7	**Are there any level changes/steels/abnormals?**	-	N/A	-

Additional Notes:

BEK Ground Gas Validation Inspection Record

	Inspected Item	Comments/Defects/Remedials requested
1.1	**External Wall Airbricks**	Meet or exceed the BS8485:2015+A1:2019 requirements of 1,500 mm²/m run of wall on at least two opposite sides. A typical air brick provides (6,000mm2 vent area). Check design
1.2	**Sub-Floor Void/ Pressure Relief / Passive Venting**	Check the presence of a vented void / pressure relief pathway, including measuring that this is of a sufficient depth and not been filled or otherwise compromised. Subfloor Void minimum 150 mm for residential properties with beam and block construction (unless otherwise specified by design drawing)
1.3	**Any internal sleeper walls**	Venting of sleeper walls to provide adequate flow-through within the void (6,000 mm2/m for low rise residential). Ventilation holes (honeycomb brickwork/pipe crossings?) – size, spacing, location in accordance with design? Check that none of the walls are blocking off unvented sections within the void
1.4	**External vent trenches/ducts**	Located and constructed in accordance with design drawings? If open-topped gravel – gravel type/presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of the superstructure?
2.1	**Condition of subgrade and underside of membrane**	Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no sharp object E.g. projections, and mortar deposits. Check protective sand blinding layer or geotextile (if specified) is present and meets design specification
2.2	**Gas Membrane Type including associated components**	Ensure that the correct membrane have been used including components eg sealing/jointing tape, self-adhesive gas membrane, pre-formed tophats, corners, damp proof course
2.3	**Gas Membrane Condition**	Inspect for rips/tears/punctures/stretching of membrane. Confirm that the membrane is free from dirt, evidence of heavy foot traffic and building materials. Specify and photograph any repairs carried out during inspection
2.4	**Lapping Design/Seals of Laps and Joints**	Minimum lap as per manufacturers specification of 150 mm. Are joints lapped and sealed in accordance with manufacturers requirements/specification? Check double sided tape is sufficiently stuck and that lap tape isn't lifting/no fish mouths
2.5	**Perimeter Installation/Cavities and Corners**	Check that membrane goes across the cavity or that membrane jointed correctly to corners, stop ends and threshold (preformed corners/SAGM). Cavity should be free from debris and water.
2.6	**Service Entries**	Weld sealed using SAM or Tophats need to be correctly installed with no gaps between tophat and membrane and no lifting of tape. Double sided tape should be used around tophat and service entry. Jubilee clips around the pipe and correct sealing arrangements to the membrane/pipe infrastructure as per the manufacturers specification
2.7	**Are there any level changes/steels/abnormals?**	Changes of level are complex and should be undertaken in accordance with a site specific 3D drawing of the gas membrane detail. Steels require primer with liquid gas membrane and/or self-adhesive membrane

APPENDIX E

BEK Chemical Test Results

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/11280
Issue Number: 1 **Date:** 15 October, 2025

Client:
BEK Enviro Ltd
2 Landwick Court
Metcalfe Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: ** USE THIS Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath (Phase 2)
Project Ref: Not specified
Order No: 8735-23007-AH
Date Samples Received: 06/10/25
Date Instructions Received: 07/10/25
Date Analysis Completed: 15/10/25

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 25/11280

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: Not specified

Lab Sample ID	25/11280/1	25/11280/2	25/11280/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS-A	TS-B	TS-C							
Depth to Top										
Depth To Bottom										
Date Sampled	03-Oct-25	03-Oct-25	03-Oct-25							
Sample Type	SOIL	SOIL	SOIL							
Sample Matrix Code	4E	4AE	4AE							
% Stones >10mm$_A$	<0.1	<0.1	<0.1					% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.08	5.91	6.04					pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	0.01	0.01					g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	500	480	490					mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1					mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2					mg/kg	0.2	A-T-050s
Organic Matter$_D$$^{M\#}$	4.41	4.53	3.66					% w/w	0.14	A-T-032s
Arsenic$_D$$^{M\#}$	4	4	4					mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0					mg/kg	1	A-T-027s
Cadmium$_D$	<1.0	<1.0	<1.0					mg/kg	1	A-T-024s
Copper$_D$$^{M\#}$	14	14	15					mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	12	11	12					mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1					mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	27	27	27					mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17					mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	9	9	9					mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1					mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	41	40	40					mg/kg	1	A-T-024s

Envirolab Job Number: 25/11280

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: Not specified

Lab Sample ID	25/11280/1	25/11280/2	25/11280/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS-A	TS-B	TS-C							
Depth to Top										
Depth To Bottom										
Date Sampled	03-Oct-25	03-Oct-25	03-Oct-25							
Sample Type	SOIL	SOIL	SOIL							
Sample Matrix Code	4E	4AE	4AE							
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD							A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-							A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-							A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A							A-T-045

Envirolab Job Number: 25/11280

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: Not specified

Lab Sample ID	25/11280/1	25/11280/2	25/11280/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS-A	TS-B	TS-C							
Depth to Top										
Depth To Bottom										
Date Sampled	03-Oct-25	03-Oct-25	03-Oct-25							
Sample Type	SOIL	SOIL	SOIL							
Sample Matrix Code	4E	4AE	4AE							
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	<0.02					mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	<0.05					mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	<0.06					mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04					mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	<0.08					mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03					mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	0.05	<0.03					mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	<0.07	<0.07					mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	<0.08	<0.08					mg/kg	0.01	A-T-019s

Envirolab Job Number: 25/11280

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: Not specified

Lab Sample ID	25/11280/1	25/11280/2	25/11280/3					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TS-A	TS-B	TS-C							
Depth to Top										
Depth To Bottom										
Date Sampled	03-Oct-25	03-Oct-25	03-Oct-25							
Sample Type	SOIL	SOIL	SOIL							
Sample Matrix Code	4E	4AE	4AE							
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1					mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	6	6	6					mg/kg	1	A-T-055s
Total Aliphatics$_A$	6	6	6					mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1					mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	1					mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	4	2	5					mg/kg	1	A-T-055s
Total Aromatics$_A$	4	2	6					mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	10	9	12					mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01					mg/kg	0.01	A-T-022s

Report Notes

General

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

Key

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

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

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

Envirolab Deviating Samples Report

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

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park, Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath (Phase 2)

Clients Project No:

Project No: 25/11280

Date Received: 07/10/2025 (am)

Cool Box Temperatures (°C): 12.5

NO DEVIATIONS IDENTIFIED

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

Envirolab Analysis Dates

Lab Sample ID	25/11280/1	25/11280/2	25/11280/3
Client Sample No			
Client Sample ID/Depth	TS-A	TS-B	TS-C
Date Sampled	03/10/25	03/10/25	03/10/25
A-T-019s	10/10/2025	10/10/2025	10/10/2025
A-T-022s	09/10/2025	09/10/2025	09/10/2025
A-T-024s	10/10/2025	10/10/2025	10/10/2025
A-T-026s	10/10/2025	10/10/2025	10/10/2025
A-T-027s	13/10/2025	13/10/2025	13/10/2025
A-T-028s	13/10/2025	13/10/2025	13/10/2025
A-T-031s	13/10/2025	13/10/2025	13/10/2025
A-T-032s	14/10/2025	14/10/2025	14/10/2025
A-T-040s	10/10/2025	10/10/2025	10/10/2025
A-T-042sTCN	10/10/2025	10/10/2025	10/10/2025
A-T-044	15/10/2025	15/10/2025	15/10/2025
A-T-045	08/10/2025	08/10/2025	08/10/2025
A-T-050s	13/10/2025	13/10/2025	13/10/2025
A-T-055s	10/10/2025	10/10/2025	10/10/2025
Calc-As Recd	10/10/2025	10/10/2025	10/10/2025

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

End of Report

envirolab
Hattersley Science & Technology Park
Stockport Road, Hattersley, SK14 3QU

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 25/11547
Issue Number: 1 **Date:** 20 October, 2025

Client:
BEK Enviro Ltd
2 Landwick Court
Metcalfe Drive
Altham Business Park
Altham
Lancashire
BB5 5GY

Project Manager: ** USE THIS Mick Buckley/James Mashiter
Project Name: Oldham Road, Newton Heath (Phase 2)
Project Ref: N/A
Order No: 8792-23007-MLM
Date Samples Received: 10/10/25
Date Instructions Received: 13/10/25
Date Analysis Completed: 20/10/25

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 25/11547

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: N/A

Lab Sample ID	25/11547/1	25/11547/2	25/11547/3	25/11547/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SSM-1	SSM-2	SSM-3	SSM-4						
Depth to Top										
Depth To Bottom										
Date Sampled	10-Oct-25	10-Oct-25	10-Oct-25	10-Oct-25						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	5A	5A	5A	5A						
% Stones >10mm$_A$	6.5	12.6	26.2	10.6				% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	8.27	8.16	8.33	8.40				pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	<0.01	<0.01	<0.01				g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	<200	<200	<200	<200				mg/kg	200	A-T-028s
Cyanide (total)$_A$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	<0.2				mg/kg	0.2	A-T-050s
Organic Matter$_D$$^{M\#}$	0.18	0.30	0.21	0.25				% w/w	0.14	A-T-032s
Arsenic$_D$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-024s
Boron (water soluble)$_D$$^{M\#}$	<1.0	<1.0	<1.0	<1.0				mg/kg	1	A-T-027s
Cadmium$_D$	<1.0	<1.0	<1.0	<1.0				mg/kg	1	A-T-024s
Copper$_D$$^{M\#}$	7	6	4	6				mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	12	11	10	12				mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	<1				mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	7	6	5	7				mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	15	13	11	14				mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	36	35	30	38				mg/kg	1	A-T-024s

Envirolab Job Number: 25/11547

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: N/A

Lab Sample ID	25/11547/1	25/11547/2	25/11547/3	25/11547/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SSM-1	SSM-2	SSM-3	SSM-4						
Depth to Top										
Depth To Bottom										
Date Sampled	10-Oct-25	10-Oct-25	10-Oct-25	10-Oct-25						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	5A	5A	5A	5A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD	NAD						A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-						A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-						A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	N/A						A-T-045

Envirolab Job Number: 25/11547

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: N/A

Lab Sample ID	25/11547/1	25/11547/2	25/11547/3	25/11547/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SSM-1	SSM-2	SSM-3	SSM-4						
Depth to Top										
Depth To Bottom										
Date Sampled	10-Oct-25	10-Oct-25	10-Oct-25	10-Oct-25						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	5A	5A	5A	5A						
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	<0.02	<0.02				mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	<0.06	<0.06				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	<0.08	<0.08				mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	<0.08	<0.08	<0.08				mg/kg	0.01	A-T-019s

Envirolab Job Number: 25/11547

Client Project Name: Oldham Road, Newton Heath (Phase 2)

Client Project Ref: N/A

Lab Sample ID	25/11547/1	25/11547/2	25/11547/3	25/11547/4				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SSM-1	SSM-2	SSM-3	SSM-4						
Depth to Top										
Depth To Bottom										
Date Sampled	10-Oct-25	10-Oct-25	10-Oct-25	10-Oct-25						
Sample Type	SOIL	SOIL	SOIL	SOIL						
Sample Matrix Code	5A	5A	5A	5A						
TPH CWG with Clean Up										
Ali >C5-C6$_A$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C6-C8$_A$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C21-C35$_A^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35)$_A$	<1	<1	<1	<1				mg/kg	1	Calc-As Recd
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s

Report Notes

General

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

Key

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

Asbestos

Identification: Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.
Stones etc. are not removed from the sample prior to analysis
"Trace Asbestos Identified" will be reported if there is not enough present to verify the type.

Assigned Matrix Codes

1	SAND	6	CLAY/LOAM	A	Contains Stones
2	LOAM	7	OTHER	B	Contains Construction Rubble
3	CLAY	8	Asbestos Bulk (Only Asbestos ID accredited)	C	Contains visible hydrocarbons
4	LOAM/SAND	9	Incinerator Ash (some Metals accredited)	D	Contains glass / metal
5	SAND/CLAY			E	Contains roots / twigs
Note: 7,8,9 matrices are not covered by our ISO 17025 or MCertS accreditation, unless stated above.					

Soil Chemical Analysis:
All results are reported as dry weight (<40°C).
For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.
For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts
All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH by method A-T-007:
For waters, free and visible oils are excluded from the sample used for analysis, so the reported result represents the dissolved phase only.
Results "with Clean up" indicates samples cleaned up with Silica during extraction.

EPH CWG (method A-T-055) from TPH CWG:
EPH CWG results have humics mathematically subtracted through instrument calculation.
Where these humic substances have been identified in any IDs from "TPH CWG with clean up" please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

Electrical Conductivity of water by method A-T-037:
Results greater than 12900µS/cm @ 25^0C / 11550µS/cm @ 20^0C fall outside the calibration range and as such are unaccredited.

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

Envirolab Deviating Samples Report

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

Client: BEK Enviro Ltd, 2 Landwick Court, Metcalfe Drive, Altham Business Park, Altham, Lancashire , BB5 5GY

Project: Oldham Road, Newton Heath (Phase 2)

Clients Project No: N/A

Project No: 25/11547

Date Received: 13/10/2025 (am)

Cool Box Temperatures (°C): 12.2

NO DEVIATIONS IDENTIFIED

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

Envirolab Analysis Dates

Lab Sample ID	25/11547/1	25/11547/2	25/11547/3	25/11547/4
Client Sample No				
Client Sample ID/Depth	SSM-1	SSM-2	SSM-3	SSM-4
Date Sampled	10/10/25	10/10/25	10/10/25	10/10/25
A-T-019s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-022s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-024s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-026s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-027s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-028s	17/10/2025	17/10/2025	17/10/2025	17/10/2025
A-T-031s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-032s	20/10/2025	20/10/2025	20/10/2025	20/10/2025
A-T-040s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-042sTCN	16/10/2025	16/10/2025	16/10/2025	16/10/2025
A-T-044	17/10/2025	17/10/2025	17/10/2025	17/10/2025
A-T-045	14/10/2025	14/10/2025	14/10/2025	14/10/2025
A-T-050s	20/10/2025	20/10/2025	20/10/2025	20/10/2025
A-T-055s	16/10/2025	16/10/2025	16/10/2025	16/10/2025
Calc-As Recd	16/10/2025	16/10/2025	16/10/2025	16/10/2025

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

End of Report

APPENDIX F

Source Test Data

Marchington Stone Ltd
105 Buxton Road
High Lane
Stockport
Cheshire
SK6 8DX

e: jeff@marchington.net

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 24-039278

Replaces Analytical Report Number: 24-039278, issue no. 1
Result correction by laboratory.
Results Corrected For LOI By Laboratory

Project / Site name:	Shire Hill Quarry	**Samples received on:**	29/08/2024
Your job number:	MSSHQ SUB SOIL	**Samples instructed on/ Analysis started on:**	29/08/2024
Your order number:	MSSHQ	**Analysis completed by:**	12/09/2024
Report Issue Number:	2	**Report issued on:**	13/09/2024
Samples Analysed:	1 soil sample		

Signed:

Caterina Bentley
Customer Service Advisor
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

i2 Analytical
7 Woodshots Meadow
Croxley Green Business Park
Watford, WD18 8YS

Telephone: 01923 225404
Fax: 01923 237404
email:reception@i2analytical.com

Certificate of Analysis

BS 8601:2013 Specification For Subsoil

Report No:			**24-039278**	Marchington Stone Ltd
Location			Shire Hill Quarry	
Lab Reference (Sample Number)			301747	105 Buxton Road High Lane Stockport Cheshire SK6 8DX
Sampling Date			23/08/2024	
Sample ID			MSSHQ	
Depth (m)			**0.00**	
		unit	**Result**	
Texture	Clay	%w/w	9.00	**Compliant with range (Y/N)**
	Silt	%w/w	21.00	**Multipurpose subsoil** / **Specific purpose subsoil**
	Sand	%w/w	70.00	**Acidic** / **Calcareous**
	Texture Class		SANDY LOAM	Y / Y / Y
Mass Loss on Ignition		%	1.86	Y / Y / Y
Coarse fragment content	>2mm	%w/w	21.40	Y / Y / Y
	>20mm	%w/w	0.00	Y / Y / Y
	>75mm	%w/w	0.00	Y / Y / Y
Soil pH		pH	7.40	Y / N / N
Carbonate		%	1.20	- / - / Y
Exchangable Sodium Percentage		%	1.70	Y / Y / Y
Phytotoxic contaminants	Total Zinc	mg/kg	67.00	Y / Y / Y
	Total Copper	mg/kg	17.00	Y / Y / Y
	Total Nickel	mg/kg	23.00	Y / Y / Y
Visible contaminants	>2mm	%w/w	0.00	Y / Y / Y
	Plastics	%w/w	0.00	Y / Y / Y
	Sharps	%w/w	0.00	Y / Y / Y
Available plant nutrients	Phosphorus	mg/l	14.00	
	Potassium	mg/l	60.00	
	Magnesium	mg/l	400.00	
Additional analysis	Available Sodium	mg/l	33.00	
	Available Calcium	mg/l	930.00	
	Conductivity	µS/cm	2300.00	
	Conductivity CaSO4 Adj.	µS/cm	350.00	
Compliancy				Pass / Fail / Fail

Pass BS 8601

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation

*= UKAS accredited
** = MCERTS accrediited

This certificate should not be reproduced, except in full, without the express permission of the laboratory.
The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number : 24-039278
Project / Site name: Shire Hill Quarry

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
301747	MSSHQ	None Supplied	None Supplied	Brown loam and sand with gravel and vegetation

Analytical Report Number : 24-039278
Project / Site name: Shire Hill Quarry

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Coarse Fragment and Contaminant Analysis	Determination of >2mm contaminants	BS3882:2007 & BS8601:2013 & PAS 100:2005	L019B	D	NONE
Density of available extract	Gravimetric determination of density of dried sample up to 2 mm	In-house method	L019B	D	NONE
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
75 mm Coarse Fraction - BS8601 Subsoil	Determination of > 75 mm fraction by gravimetry.	BS8601:2013	L019B	D	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Conductivity (BS 3882/BS 8601)	Determination of the conductivity of soil in accordance with BS 3882:2007 methodology	BS 3882:2007 & BS 8601:2013	L031B	D	NONE
Conductivity CaSO4 adj - BS8601 Subsoil	Determination of Electical Conductivity on CaSO4 extract, adjusted	Method based on BS 8601:2013	L031B	D	NONE
Carbonate - BS 8601 Subsoil	Determination of soil carbonate content	BS 8601:2013	L034-PL	D	NONE
Extractable/Available Metals (BS 3882/BS 8601)	Determination of the extractable metals in soil, in accordance with BS 3882:2007 methodology	BS3882:2007 & BS8601:2013	L038B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Loss on Ignition - BS8601	Determination of Loss on Ignition as defined in BS 8601	Method based on BS 8601:2013	L047-PL	D	NONE
Phosphorus as PO4 (BS 3882/BS 8601)	Determination of the extractable phosphorus in soil, in accordance with BS 3882:2007 methodology	Method based on BS 3882:2015 & BS 8601:2013	L048B	D	NONE
pH (BS 3882/BS 8601)	Determination of the pH of soil in accordance with BS 3882:2007 methodology	BS 3882:2007 & BS 8601:2013	L099-PL	D	NONE
Subsoil (BS 8601:2013)	Specification for subsoil	BS 8601:2013	PL		NONE
Textural Classification Diagram (BS 8601:2013)	BS 8601:2013	BS 8601:2013	PL		NONE
Geotechnical Testing	See attached geotechnical report	See attached geotechnical report	PL		NONE
Subsoil Prep		In-house method	L019B	D	NONE

Analytical Report Number : 24-039278
Project / Site name: Shire Hill Quarry

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
The result for sum should be interpreted with caution

ANALYTICAL TEST REPORT

Report Number	25-06797, issue number 1
Contract name:	Frog Lane Knutsford WA16-0LL
Client reference:	Not Supplied
Clients name:	UK Aggregates & Plant Ltd
Clients address:	UK Aggregates & Plant Ltd First floor, Merchant Exchange Waters Green Macclesfield Cheshire SK11 6JX
Samples received:	09/07/2025
Analysis started:	09/07/2025
Analysis completed:	11/07/2025
Report issued:	14/07/2025

Key	U UKAS accredited test M MCERTS & UKAS accredited test I/S Insufficient sample to carry out test U/S Sample not suitable for testing NAD No Asbestos Detected
Approved by:	Sam Rogerson Receipt and Reporting Manager

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB

Telephone: (01207) 528578, Email supportsquad@chemtech-env.co.uk

SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
57847	FLT Sample-1	-	Sandy Loam with Gravel and Vegetation.	-	-	9.7

DEVIATING SAMPLE INFORMATION

Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
57847	FLT Sample-1	-	N	

SOILS

Lab Number					57847
Client Reference					SOIL
Sample ID					FLT Sample-1
Sampling Date					08/07/2025
Test	**Method**	**Accred**	**LoD**	**Units**	
Asbestos					
Asbestos Identification	SUBCON	SU	0	-	NAD
Metals					
Extractable Potassium	CE088	N	2	mg/l	189
Extractable Magnesium	CE088	N	2	mg/l	126
Extractable phosphorus	CE089	N	10	mg/l	30
Acid Soluble Sulphate (SO4)	CE062	M	100	mg/kg	2160
Arsenic	CE264	U	1.8	mg/kg	3.0
Barium	CE264	U	1.9	mg/kg	43.0
Cadmium	CE264	M	1.6	mg/kg	< 1.6
Chromium	CE264	U	2	mg/kg	10.4
Copper	CE264	M	1.6	mg/kg	8.4
Lead	CE264	U	2.3	mg/kg	10.2
Mercury	CE264	U	0.7	mg/kg	< 0.7
Nickel	CE264	M	2.1	mg/kg	7.5
Selenium	CE264	U	3	mg/kg	< 3.0
Vanadium	CE264	N	1.8	mg/kg	19.3
Zinc	CE264	M	4	mg/kg	13.5
Copper (HNO3 Extractable)	CE054	N	1	mg/kg	10.9
Copper (HNO3 Extractable)	CE054	N	1.6	mg/kg	10.9
Nickel (HNO3 Extractable)	CE054	N	1	mg/kg	10.3
Zinc (HNO3 Extractable)	CE054	N	1	mg/kg	17.8
Colourimetric					
Total Monohydric Phenols	CE078	N	0.5	mg/kg	< 0.50
Total Cyanide	CE077	N	1	mg/kg	< 1.0
Free Cyanide	CE077	N	1	mg/kg	< 1.0
Combustion					
Moisture Content	CE001	N	0.1	%	9.7
Total Carbon	CE198	M	0.1	%	0.85
Total nitrogen	CE198	M	0.01	%	0.25
Total Organic Carbon	CE197	M	0.1	%	1.13

SOILS

Lab Number					57847
Client Reference					SOIL
Sample ID					FLT Sample-1
Sampling Date					08/07/2025
Test	**Method**	**Accred**	**LoD**	**Units**	
Loss on Ignition	CE006	U	0.1	%	3.97
Miscellaneous					
% Visible Contaminatnts	CE118	N	0	%	0.0
% >2mm	CE118	N	0	%	0.9
% > 20mm	CE118	N	0	%	0.0
% >50mm	CE118	N	0	%	0.0
% Clay	CE118	N	0	%	15.5
% Sand	CE118	N	0	%	57.7
% Silt	CE118	N	0	%	26.7
% Plastics	CE118	N	0	%	0.0
% Sharps	CE118	N	0	%	0.0
Polyaromatic hydrocarbons					
Naphthalene	CE087	M	0.016	mg/kg	0.072
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015
Acenaphthene	CE087	M	0.013	mg/kg	0.014
Fluorene	CE087	U	0.013	mg/kg	0.026
Phenanthrene	CE087	M	0.014	mg/kg	0.148
Anthracene	CE087	U	0.017	mg/kg	0.090
Fluoranthene	CE087	M	0.017	mg/kg	0.108
Pyrene	CE087	M	0.016	mg/kg	0.073
Benzo(a)anthracene	CE087	U	0.012	mg/kg	< 0.012
Chrysene	CE087	M	0.028	mg/kg	0.049
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.057
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	0.026
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.058
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.060
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	< 0.017
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.041
Total PAH(16)	CE087	N	0.28	mg/kg	0.823
Total Petroleum Hydrocarbons					
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10

SOILS

Lab Number					57847
Client Reference					SOIL
Sample ID					FLT Sample-1
Sampling Date					08/07/2025
Test	**Method**	**Accred**	**LoD**	**Units**	
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	< 3.0
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	< 0.6
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	1.4
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	< 4.5
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0
Wet Chem					
Electrical Conductivity	CE007	U	10	µS/cm	39.6
pH	CE004	M	0.1	pH units	6.3

SOIL VOCS

Lab Number					57847
Client Reference					SOIL
Sample ID					FLT Sample-1
Sampling Date					08/07/2025
Test	**Method**	**Accred**	**LoD**	**Units**	
VOC					
1,1-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010
Tetrachloromethane	CE174	N	0.01	mg/kg	< 0.010
1,1,1-Trichloroethane	CE174	N	0.01	mg/kg	< 0.010
Trichloroethylene	CE174	N	0.01	mg/kg	< 0.010
Tetrachloroethylene	CE174	N	0.01	mg/kg	< 0.010
Trans - 1-2 -dichloroethylene	CE174	N	0.01	mg/kg	< 0.010
1,2-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010
1,1,1,2-Tetrachloroethane	CE174	N	0.01	mg/kg	< 0.010
Cis-1,2-Dichloroethene	CE174	N	0.01	mg/kg	< 0.010
Vinyl chloride	CE174	N	0.01	mg/kg	< 0.010

DECLARATION OF COMPLIANCE (BS3882:2015)

Lab ref	57847	**Date received**	09/07/2025
Contract name	Frog Lane Knutsford WA16-0LL	**Analysis started**	10/07/2025
Sample ID	FLT Sample-1	**Analysis completed**	11/07/2025
OS Grid reference	Not supplied	**Report issued**	14/07/2025
Date sampled	08/07/2025		

Test	**Units**	**Result**	**Compliant with Multipurpose? (Y/N)**	**Compliant with specific purpose? (Y/N)**				
				Acidic	**Calcareous**	**Low Fertility**	**Low F Acidic**	**Low F Calcareous**
Texture								
Clay content	% w/w	16						
Silt content	% w/w	27						
Sand content	% w/w	58						
Soil texture	**class**	**SANDY LOAM**	Y	Y	Y	Y	Y	Y
Stone content								
>2mm	% w/w	1	Y	Y	Y	Y	Y	Y
>20mm	% w/w	0	Y	Y	Y	Y	Y	Y
>50mm	% w/w	0	Y	Y	Y	Y	Y	Y
Mass loss on ignition								
Clay 20-35%	% w/w	-	-	-	-	-	-	-
pH[1]	pH units	6.3	Y	N	Y	Y	N	Y
Carbonate (calcareous only)	% w/w $CaCO_3$	0.2			N			N
Nitrogen (total)	% w/w N	0.08	Y	Y	Y			
Carbon:Nitrogen ratio	-	14.5	Y	Y	Y	Y	Y	Y
Phosphorus (extractable)	mg/l P	30	Y	Y	Y	N	N	N
Potassium (extractable)	mg/l K	189	Y	Y	Y			
Magnesium (extractable)	mg/l Mg	126	Y	Y	Y			
Electrical conductivity[2]	µS/cm	39.6	Y					
Clay 5-20%	% w/w	4.0	Y	Y	Y	Y	Y	Y
Phytotoxic contaminants (by soil pH)								
Copper (Nitric acid extract)	mg/kg Cu	11	Y	Y	Y	Y	Y	Y
Nickel (Nitric acid extract)	mg/kg Ni	10	Y	Y	Y	Y	Y	Y
Zinc (Nitric acid extract)	mg/kg Zn	18	Y	Y	Y	Y	Y	Y
VISIBLE CONTAMINANTS								
(air-dried soil)	% w/w	0	Y	Y	Y	Y	Y	Y
...of which plastics	% w/w	0	Y	Y	Y	Y	Y	Y
Sharps	% w/w	None	Y	Y	Y	Y	Y	Y

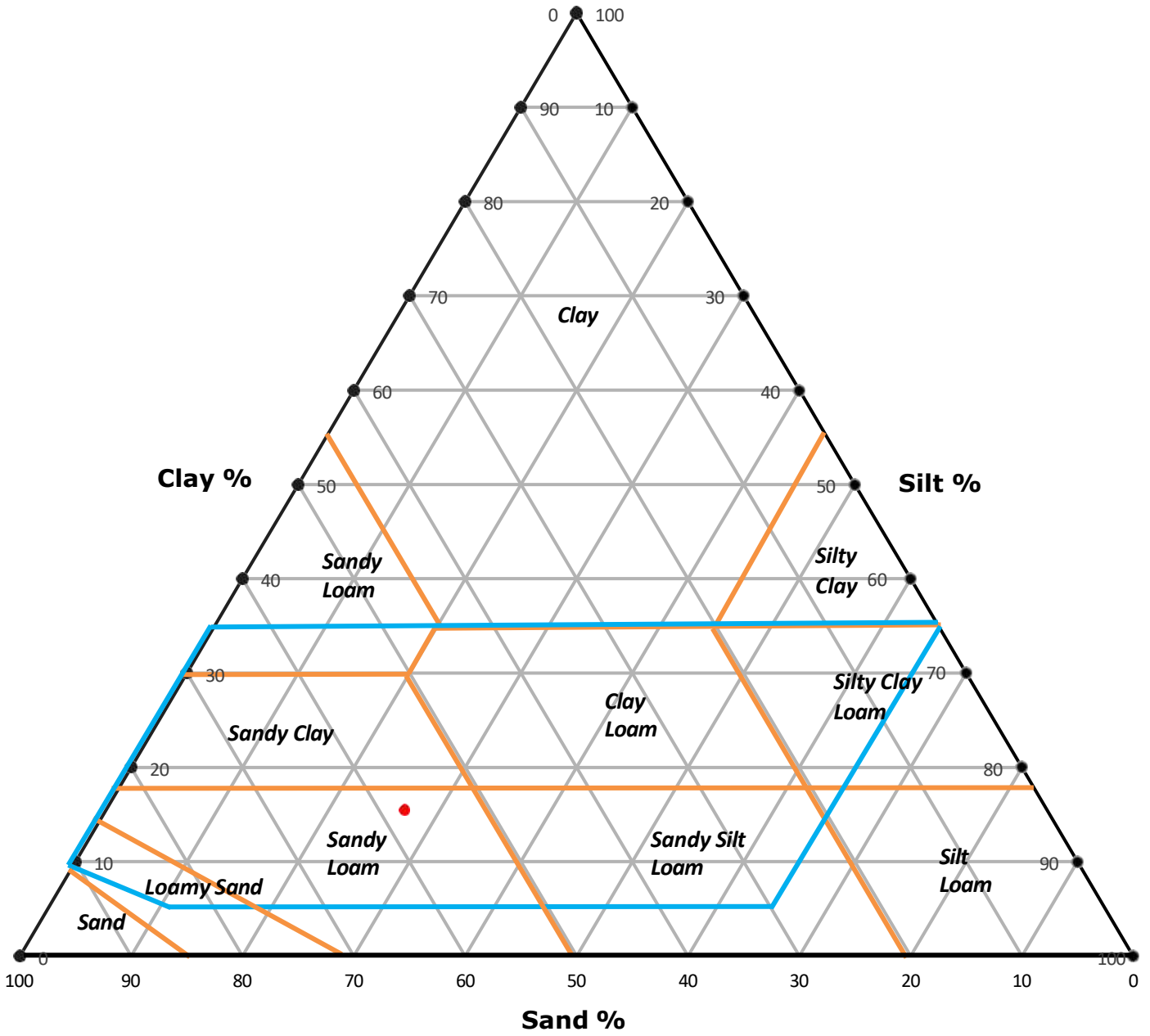
[1] Results are accredited to MCERTS if matrix confirmed as soil
[2] Results in leachate are accredited to ISO17025

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METHOD DETAILS

METHOD	TESTNAME	METHOD SUMMARY	ANALYSIS BASIS
CE267	VPH in Soil	HS-GCFID	As submitted sample
CE250	GCXGC in Soil	DCM Extraction and GCxGC-FID	As submitted sample
SUBCON	Asbestos Soil	HSG248	Air Dried Sample
CE007	Electrical conductivity of Solids	Potentiometric	As submitted sample
CE088	Extractable Cations - BS3882	Ammonium Nitrate Extraction and ICPOES	Air dried sample
CE089	Extractable Phosphorus - BS3882	Sodium Hydrogen Carbonate extraction andd ICPOES	Air dried sample
CE174	VOC in Soil	HS-GCMS	As submitted sample
CE062	Acid Soluble Sulphate in Soils	HCl Extract and ICPOES	Air dried sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE078	Phenols in Soil	Continuous Flow Analyser	As submitted sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE198	Primacs in Soil	Primacs	Air dried sample
CE006	Loss on ignition at 440 deg C	Gravimetric	Air dried sample

REPORT INFORMATION

Report No.:25-06797, issue number 1

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix. Result is unaccredited.
*	ISO17025 accreditation not applicable for sample matrix. Result is unaccredited.
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
<	Means "less than"
>	Means "greater than"

LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.

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The results relate only to the sample received.

Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

Moisture Content Calculated on a Wet Weight basis

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Sampling was undertaken by Chemtech Environmental Limited and is outside the UKAS accreditation scope.

Methods, procedures and performance data are available on request.

Results reported herein relate only to the material supplied to the laboratory.

BTEX compounds are identified by retention time only and may include interference from co-eluting compounds.

For soils and solids, all results are reported on a dry basis. Samples dried at no more than 30°C in a drying

For soils and solids, analytical results are inclusive of stones, where applicable.

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

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
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Statement of Conformity

Statement of Conformity
Where Chemtech reports a statement of conformity to a specification, the decision rules applied are derived from the Ilac document ILAC G8:09/2019.
Acceptance limits (AL), applied are derived from the tolerance limits (TL) by you the client or applicable standard (e.g. 2003.33.EC Council Decision, BS3882, BS8601)

Agreed and reported Decision Rule:
"PASS" if the result < TL, and the bias / precision values for the process meet the targets defined within the methodology and/or applied accreditation.

Reported Decisions:
Result < TL for determinands: PASS
Result > TL for determinands: FAIL

Definitions Used:
Acceptance limit (AL) Specified upper or lower bounds of permissible measured quantity values.
Tolerance limit (TL) Specified upper or lower bound of permissible values of a property.

Accreditation of WAC/BS3882/BS8601
Accreditation in Soil to MCERTS is only applicable for specific matrix types identified as soil (Sand/Loam/Clay) during the sample assessment
If the sample is classified as not soil, not accreditation is conveyed

ANALYTICAL TEST REPORT

Report Number	25-09114, issue number 1
Contract name:	BURNLEYHURST LANE MOBBERLEY SK9 5LS
Client reference:	Mobberley Sub Soil Stockpile 1
Clients name:	UK Aggregates & Plant Ltd
Clients address:	UK Aggregates & Plant Ltd First floor, Merchant Exchange Waters Green Macclesfield Cheshire SK11 6JX
Samples received:	18/09/2025
Analysis started:	18/09/2025
Analysis completed:	25/09/2025
Report issued:	25/09/2025

Key	U UKAS accredited test M MCERTS & UKAS accredited test (B) Analysis performed at Southampton Site I/S Insufficient sample to carry out test U/S Sample not suitable for testing NAD No Asbestos Detected
Approved by:	Georgia Hunter Senior Reporting Administrator

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB

Telephone: (01207) 528578, Email supportsquad@chemtech-env.co.uk

SAMPLE INFORMATION

MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

% Moisture reported as MCERTS drying at 30°C

Lab ref	Sample ID	Depth (m)	Sample description	Material removed	% Removed	% Moisture
67873	SP1-Sample-1	-	Brown Sand with Gravel and Vegetation.	-	-	18.8
67874	SP1-Sample-2	-	Brown Sand with Gravel and Vegetation.	-	-	17.8

DEVIATING SAMPLE INFORMATION

Comments
Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

Key

a	Sampling date not provided
b	Sampling time not provided (waters only)
c	Sample not received in appropriate containers
d	Storage Temperature
e	Headspace present in sample container
f	Sample exceeded sampling to receipt
g	Sample exceeded holding time(s)

Lab ref	Sample ID	Depth (m)	Deviating	Tests (Reason for deviation)
67873	SP1-Sample-1	-	N	
67874	SP1-Sample-2	-	N	

SOILS

Lab Number					67873	67874
Client Reference					Dry Soil	Dry Soil
Sample ID					SP1-Sample-1	SP1-Sample-2
Sampling Date					17/09/2025	17/09/2025
Test	**Method**	**Accred**	**LoD**	**Units**		
Asbestos						
Asbestos Identification	SUBCON	SU	0	-	NAD	NAD
Metals						
Acid Soluble Sulphate (SO4)	CE062	M	100	mg/kg	1230	560
Arsenic	CE264	U	1.8	mg/kg	8.6	9.4
Barium	CE264	U	1.9	mg/kg	92.8	96.3
Cadmium	CE264	M	1.6	mg/kg	< 1.6	< 1.6
Chromium	CE264	U	2	mg/kg	23.5	26.8
Copper	CE264	U	1.6	mg/kg	34.0	20.8
Lead	CE264	U	2.3	mg/kg	41.7	40.6
Mercury	CE264	U	0.7	mg/kg	< 0.7	< 0.7
Nickel	CE264	M	2.1	mg/kg	15.9	16.5
Selenium	CE264	U	3	mg/kg	< 3.0	< 3.0
Vanadium	CE264	N	1.8	mg/kg	45.7	53.0
Zinc	CE264	M	4	mg/kg	76.5	70.5
Colourimetric						
Total Monohydric Phenols	CE078	N	0.5	mg/kg	< 0.50	< 0.50
Total Cyanide	CE077	N	1	mg/kg	< 1.0	< 1.0
Free Cyanide	CE077	N	1	mg/kg	< 1.0	< 1.0
Combustion						
Moisture Content	CE001	N	0.1	%	18.8	17.8
Total Carbon	CE198	M	0.1	%	2.60	2.59
Total Organic Carbon	CE197	M	0.1	%	2.92	2.85
Loss on Ignition	CE006	U	0.1	%	1.9	1.7
Polyaromatic hydrocarbons						
Naphthalene	CE087	M	0.016	mg/kg	< 0.016	< 0.016
Acenaphthylene	CE087	M	0.015	mg/kg	< 0.015	< 0.015
Acenaphthene	CE087	M	0.013	mg/kg	< 0.013	< 0.013
Fluorene	CE087	U	0.013	mg/kg	< 0.013	< 0.013
Phenanthrene	CE087	M	0.014	mg/kg	0.077	0.076
Anthracene	CE087	U	0.017	mg/kg	0.020	0.020

SOILS

Lab Number					67873	67874
Client Reference					Dry Soil	Dry Soil
Sample ID					SP1-Sample-1	SP1-Sample-2
Sampling Date					17/09/2025	17/09/2025
Test	**Method**	**Accred**	**LoD**	**Units**		
Fluoranthene	CE087	M	0.017	mg/kg	0.165	0.184
Pyrene	CE087	M	0.016	mg/kg	0.162	0.175
Benzo(a)anthracene	CE087	U	0.012	mg/kg	0.096	0.110
Chrysene	CE087	M	0.028	mg/kg	0.092	0.098
Benzo(b)fluoranthene	CE087	M	0.02	mg/kg	0.119	0.129
Benzo(k)fluoranthene	CE087	M	0.025	mg/kg	0.050	0.058
Benzo(a)pyrene	CE087	U	0.019	mg/kg	0.112	0.120
Indeno(1,2,3-cd)pyrene	CE087	M	0.019	mg/kg	0.100	0.112
Dibenzo(a,h)anthracene	CE087	M	0.017	mg/kg	< 0.017	0.018
Benzo(g,h,i)perylene	CE087	M	0.019	mg/kg	0.080	0.080
Total PAH(16)	CE087	N	0.28	mg/kg	1.07	1.18
Total Petroleum Hydrocarbons						
>C5-C6 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C6-C8 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C8-C10 Aliphatic (HS_1D_AL)	CE267	N	0.1	mg/kg	< 0.10	< 0.10
>C10-C12 Aliphatic (EH_2D_AL)	CE250	N	1	mg/kg	< 1.0	< 1.0
>C12-C16 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	2.1
>C16-C35 Aliphatic (EH_2D_AL)	CE250	N	3	mg/kg	< 3.0	10.0
>C35-C44 Aliphatic (EH_2D_AL)	CE250	N	0.5	mg/kg	< 0.5	1.8
>C5-C7 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C7-C8 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C8-C10 Aromatic (HS_1D_AR)	CE267	N	0.01	mg/kg	< 0.010	< 0.010
>C10-C12 Aromatic (EH_2D_AR)	CE250	N	0.6	mg/kg	1.2	1.5
>C12-C16 Aromatic (EH_2D_AR)	CE250	N	1	mg/kg	2.9	3.9
>C16-C21 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	< 2.0	< 2.0
>C21-C35 Aromatic (EH_2D_AR)	CE250	N	4.5	mg/kg	22.4	17.5
>C35-C44 Aromatic (EH_2D_AR)	CE250	N	2	mg/kg	4.4	4.2
Wet Chem						
Electrical Conductivity	CE007	U	10	µS/cm	240	244
pH	CE004	M	0.1	pH units	6.6	6.5

SOIL VOCS

Lab Number					67873	67874
Client Reference					Dry Soil	Dry Soil
Sample ID					SP1-Sample-1	SP1-Sample-2
Sampling Date					17/09/2025	17/09/2025
Test	**Method**	**Accred**	**LoD**	**Units**		
VOC						
1,1-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Tetrachloromethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010
1,1,1-Trichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Trichloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Tetrachloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Trans - 1-2 -dichloroethylene	CE174	N	0.01	mg/kg	< 0.010	< 0.010
1,2-Dichloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010
1,1,1,2-Tetrachloroethane	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Cis-1,2-Dichloroethene	CE174	N	0.01	mg/kg	< 0.010	< 0.010
Vinyl chloride	CE174	N	0.01	mg/kg	< 0.010	< 0.010

DECLARATION OF COMPLIANCE (BS8601:2013)

Lab ref	67873	**Date received**	**18/09/2025**
Contract name	BURNLEYHURST LANE MOBBERLEY SK9 5LS	**Analysis started**	**19/09/2025**
Sample ID	SP1-Sample-1	**Analysis completed**	**25/09/2025**
OS Grid reference	Not supplied	**Report issued**	**25/09/2025**
Date sampled	17/09/2025		

Test	**Units**	**Result**	**Compliant with Multipurpose? (Y/N)**	**Compliant with specific purpose? (Y/N)**	
				Acidic	**Calcareous**
Texture					
Clay content	% w/w	18	Y	Y	Y
Silt content	% w/w	31	Y	Y	Y
Sand content	% w/w	51	Y	Y	Y
Soil texture	**class**	**SANDY CLAY LOAM**	Y	Y	Y
Stone content					
>2mm	% w/w	3	Y	Y	Y
>20mm	% w/w	< 0.1	Y	Y	Y
>75mm	% w/w	< 0.1	Y	Y	Y
Mass loss on ignition	% w/w	1.9	Y	Y	Y
pH[1]	pH units	6.6	Y	N	N
Carbonate (calcareous only)	% w/w	<0.1			Y
Electrical conductivity[2]	µS/cm	240			
Exchangeable sodium percentage	%	-	Y	Y	Y
Phytotoxic contaminants (by soil pH)					
Copper (Nitric acid extract)	mg/kg Cu	26	Y	Y	Y
Nickel (Nitric acid extract)	mg/kg Ni	20	Y	Y	Y
Zinc (Nitric acid extract)	mg/kg Zn	86	Y	Y	Y
OTHER CONTAMINANTS					
>2mm	% w/w	0	Y	Y	Y
...of which plastics	% w/w	< 0.1	Y	Y	Y
Sharps	% w/w	0	Y	Y	Y

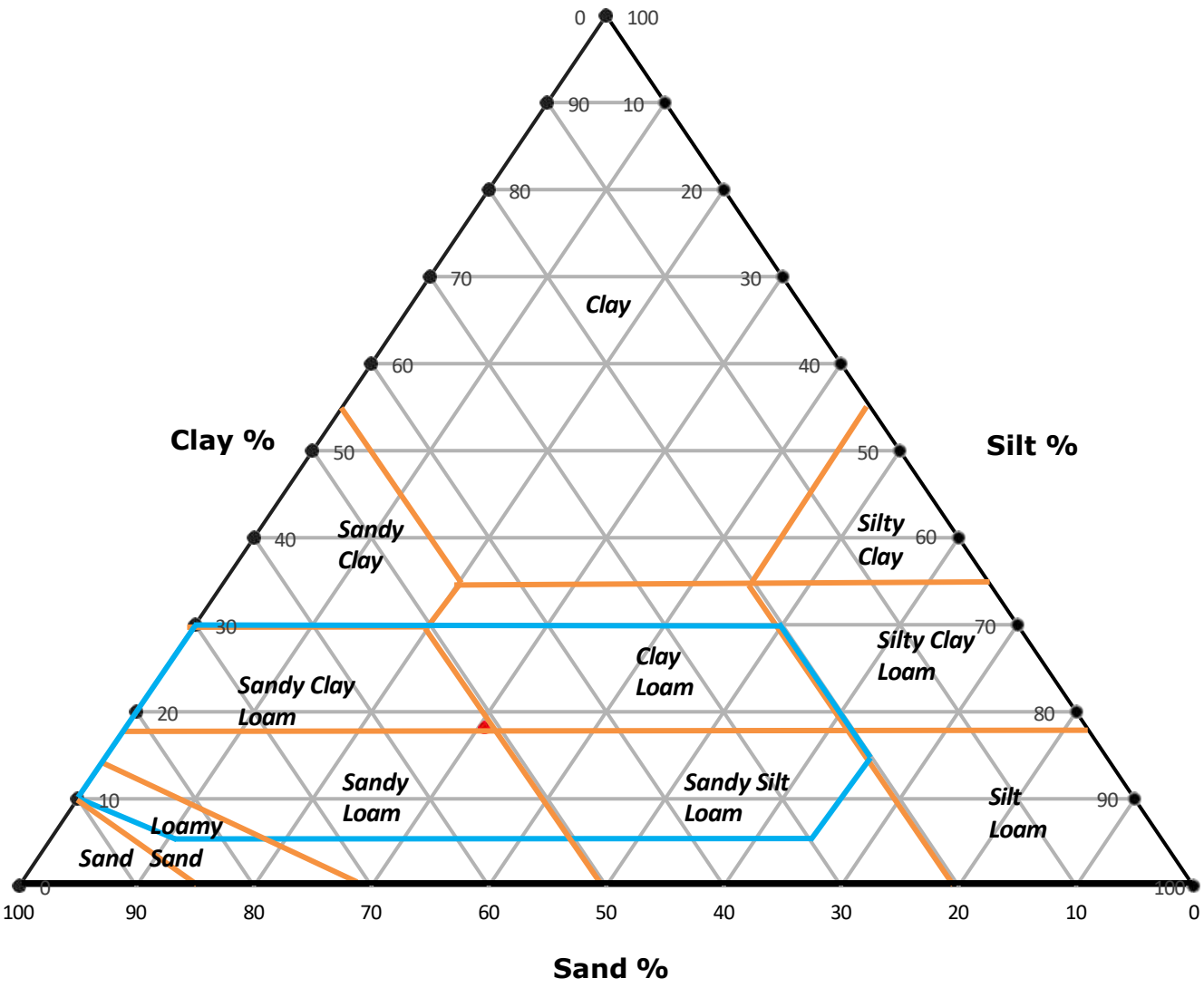
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DECLARATION OF COMPLIANCE (BS8601:2013)

Lab ref	67874	**Date received**	**18/09/2025**
Contract name	BURNLEYHURST LANE MOBBERLEY SK9 5LS	**Analysis started**	**19/09/2025**
Sample ID	SP1-Sample-2	**Analysis completed**	**25/09/2025**
OS Grid reference	Not supplied	**Report issued**	**25/09/2025**
Date sampled	17/09/2025		

Test	**Units**	**Result**	**Compliant with Multipurpose? (Y/N)**	**Compliant with specific purpose? (Y/N)**	
				Acidic	**Calcareous**
Texture					
Clay content	% w/w	18	Y	Y	Y
Silt content	% w/w	30	Y	Y	Y
Sand content	% w/w	52	Y	Y	Y
Soil texture	**class**	**SANDY CLAY LOAM**	Y	Y	Y
Stone content					
>2mm	% w/w	1	Y	Y	Y
>20mm	% w/w	< 0.1	Y	Y	Y
>75mm	% w/w	< 0.1	Y	Y	Y
Mass loss on ignition	% w/w	1.7	Y	Y	Y
pH[1]	pH units	6.5	Y	N	N
Carbonate (calcareous only)	% w/w	<0.1			Y
Electrical conductivity[2]	µS/cm	244			
Exchangeable sodium percentage	%	-	Y	Y	Y
Phytotoxic contaminants (by soil pH)					
Copper (Nitric acid extract)	mg/kg Cu	19	Y	Y	Y
Nickel (Nitric acid extract)	mg/kg Ni	15	Y	Y	Y
Zinc (Nitric acid extract)	mg/kg Zn	72	Y	Y	Y
OTHER CONTAMINANTS					
>2mm	% w/w	0	Y	Y	Y
...of which plastics	% w/w	< 0.1	Y	Y	Y
Sharps	% w/w	0	Y	Y	Y

[1] Results are accredited to MCERTS if matrix confirmed as soil
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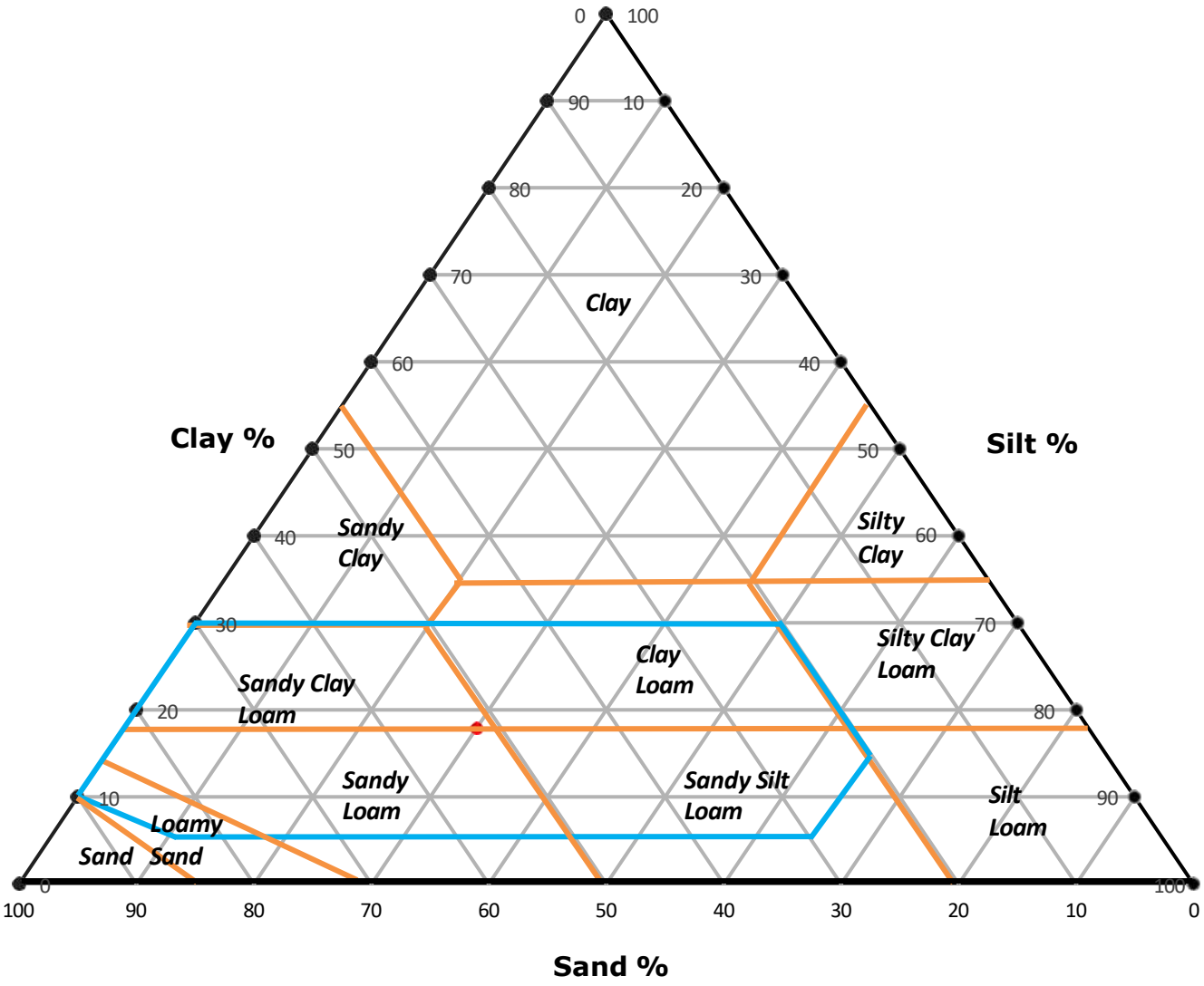
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DECLARATION OF COMPLIANCE
(BS8601:2013)



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CE062	Acid Soluble Sulphate in Soils	HCl Extract and ICPOES	Air dried sample
CE264	Metals by ICP in Soil	ICPOES	Air dried sample
CE087	PAH in Soil	DCM Extraction and GCMS	As submitted sample
CE078	Phenols in Soil	Continuous Flow Analyser	As submitted sample
CE077	Cyanides in Soils	Continuous Flow Analyser	As submitted sample
CE198	Primacs in Soil	Primacs	Air dried sample
CE006	Loss on ignition at 440 deg C	Gravimetric	Air dried sample

REPORT INFORMATION

Report No.:25-09114, issue number 1

Key	
U	ISO17025 Accredited Result
M	ISO17025 and MCERTS Accredited Result
N	Do not currently hold accreditation
^	MCERTS accreditation not applicable for sample matrix
*	ISO17025 accreditation not applicable for sample matrix
S	Subcontracted
I/S	Insufficient Sample
U/S	Unsuitable sample
N/T	Not tested
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Moisture Content Calculated on a Wet Weight basis (at 30°C)

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For soils and solids, all results are reported on a dry basis (30°C). Samples dried at no more than 30°C in a drying cabinet.

For soils and solids, analytical results are inclusive of stones, where applicable.

'Client Reference', 'Sample ID', 'Sample Location', 'Sample Type', 'Depth', 'Sample Date' and 'Sample Time' information is provided by the customer

Sample Retention and Disposal

All soil samples will be retained for a period of 4 weeks from the point of receipt

All water samples will be retained for a period of 2 weeks from the point of Reporting

Charges may apply to extended sample storage

TPH Classification - HWOL Acronym System

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
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
2D	GC-GC - Double coil gas chromatography
#1	EH_Total but with humics mathematically subtracted
#2	EH_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry

Unless specifically identified (noted as "(B)" in analyte name) all internal analysis performed at Durham site

Statement of Conformity

Statement of Conformity
Where Chemtech reports a statement of conformity to a specification, the decision rules applied are derived from the Ilac document ILAC G8:09/2019.
Acceptance limits (AL), applied are derived from the tolerance limits (TL) by you the client or applicable standard (e.g. 2003.33.EC Council Decision, BS3882, BS8601)

Agreed and reported Decision Rule:
"PASS" if the result < TL, and the bias / precision values for the process meet the targets defined within the methodology and/or applied accreditation.

Reported Decisions:
Result < TL for determinands: PASS
Result > TL for determinands: FAIL

Definitions Used:
Acceptance limit (AL) Specified upper or lower bounds of permissible measured quantity values.
Tolerance limit (TL) Specified upper or lower bound of permissible values of a property.

Accreditation of WAC/BS3882/BS8601
Accreditation in Soil to MCERTS is only applicable for specific matrix types identified as soil (Sand/Loam/Clay) during the sample assessment
If the sample is classified as not soil, no accreditation is conveyed

APPENDIX G

Garden Validation Photographs

GEO-ENVIRONMENTAL CONSULTING

BEK Geo-Environmental Consulting
No.2 Landwick Court, Metcalf Drive, Altham Business Park,
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mbuckley@bekenviro.co.uk
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Photograph 1: Validation of Plot 7 Garden Capping



Photograph 2: Validation of Plot 7 Garden Capping



Photograph 3: Validation of Plot 8 Garden Capping

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Photograph 4: Validation of Plot 8 Garden Capping



Photograph 5: Validation of Plot 9 Garden Capping



Photograph 6: Validation of Plot 9 Garden Capping

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Photograph 7: Validation of Plot 10 Garden Capping



Photograph 8: Validation of Plot 10 Garden Capping



Photograph 9: Validation of Plot 11 Garden Capping

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Photograph 10: Validation of Plot 11 Garden Capping



Photograph 11: Validation of Plot 12 Garden Capping



Photograph 12: Validation of Plot 12 Garden Capping

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Photograph 13: Validation of Plot 13 Garden Capping



Photograph 14: Validation of Plot 13 Garden Capping



Photograph 14: Validation of Plot 14 Garden Capping

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Photograph 15: Validation of Plot 14 Garden Capping



Photograph 16: Validation of Plot 15 Garden Capping



Photograph 17: Validation of Plot 15 Garden Capping

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Photograph 18: Validation of Plot 16 Garden Capping



Photograph 19: Validation of Plot 16 Garden Capping



Photograph 20: Validation of Plot 17 Garden Capping

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Photograph 21: Validation of Plot 17 Garden Capping



Photograph 22: Validation of Plot 18 Garden Capping



Photograph 23: Validation of Plot 18 Garden Capping

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Photograph 24: Validation of Plot 19 Garden Capping



Photograph 25: Validation of Plot 19 Garden Capping



Photograph 26: Validation of Plot 20 Garden Capping

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Photograph 27: Validation of Plot 20 Garden Capping



Photograph 28: Validation of Plot 21 Garden Capping



Photograph 29: Validation of Plot 21 Garden Capping

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Photograph 30: Validation of Plot 22 Garden Capping



Photograph 31: Validation of Plot 22 Garden Capping



Photograph 32: Validation of Plot 23 Garden Capping

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Photograph 33: Validation of Plot 23 Garden Capping



Photograph 34: Validation of Plot 24 Garden Capping



Photograph 35: Validation of Plot 24 Garden Capping

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Photograph 36: Validation of Plot 25 Garden Capping



Photograph 37: Validation of Plot 25 Garden Capping



Photograph 38: Validation of Plot 26 Garden Capping

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Photograph 39: Validation of Plot 26 Garden Capping



Photograph 40: Validation of Plot 27 Garden Capping



Photograph 41: Validation of Plot 27 Garden Capping

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Photograph 42: Validation of Plot 28 Garden Capping



Photograph 43: Validation of Plot 28 Garden Capping



Photograph 44: Validation of Plot 29 Garden Capping

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Photograph 45: Validation of Plot 29 Garden Capping



Photograph 46: Validation of Plot 30 Garden Capping



Photograph 47: Validation of Plot 30 Garden Capping

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Photograph 48: Validation of Plot 31 Garden Capping



Photograph 49: Validation of Plot 31 Garden Capping



Photograph 50: Validation of Plot 32 Garden Capping

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Photograph 51: Validation of Plot 32 Garden Capping



Photograph 52: Validation of Plot 33 Garden Capping



Photograph 53: Validation of Plot 33 Garden Capping

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Photograph 54: Validation of Plot 34 Garden Capping



Photograph 55: Validation of Plot 34 Garden Capping



Photograph 56: Validation of POS Capping

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Photograph 57: Validation of POS Capping



Photograph 58: Validation of POS Capping



Photograph 59: Validation of POS Capping

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Photograph 60: Validation of POS Capping



Photograph 61: Validation of POS Capping



Photograph 62: Validation of POS Capping

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Photograph 63: Validation of POS Capping



Photograph 64: Validation of POS Capping



Photograph 65: Validation of POS Capping

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Photograph 66: Validation of POS Capping



Photograph 67: Validation of POS Capping

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