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Manchester M3 5BQ, United Kingdom

Document name: 20066-EDGE-XX-XX-RP-G-0005_PLOTS 82-85 VERI [P01]

VERIFICATION REPORT FOR GARDENS AT PLOTS 82 – 85 FOR 20066 – NIXON STREET, ROCHDALE

Prepared for:

Seddon Construction Ltd.

Plodder Lane

Bolton

BL4 0NN

Revision	Date	Description	Prepared by	Checked by	Approved by
01	31/05/2024	Plots 82-85 Garden Validation Report	JC	AJB	AJB

INTRODUCTION

Background

Alliance Design UK Ltd t/a EDGE Consulting Engineers ("EDGE") has been appointed by Seddon Construction Ltd to validate the remediation works for gardens at a new residential development located at Nixon Street, Rochdale.

Seddon Construction Ltd are currently redeveloping the site on behalf of Hive Homes. Planning permission (Ref: 20/01429/FUL) has been granted to redevelop the site with 102 No residential units with associated gardens, access roads and landscaped areas as shown on MCK Associates Limited Drawing No 18-109 0001 Rev O in Annex I.

Redstart Northwest Ltd have undertaken the enabling phase of remediation works at the site as detailed in their validation report (Redstart Remediation & Enabling Works Validation Report March 2023 Report Ref 348.08.01).

The construction phase of the remediation works are currently being undertaken by Seddon Construction Ltd including the installation of clean soil cover in gardens as described in the approved EDGE Consulting Engineers Report Ref: 20066-EDGE-XX-XX-RP-G-0001_DET REM STRAT[P05], 'Detailed Remediation Strategy Report for 20066 – Nixon Street, Rochdale' dated April 2022.

EDGE has been appointed by Seddon Construction Ltd to act as the third-party geo-environmental consultant overseeing the enabling and construction phases of the remediation works.

Clean soil cover is required in gardens and landscaping areas at the site, as the various phases of site investigation undertaken have identified localised elevated concentrations of heavy metals, PAH and TPH associated with the made ground beneath the site. Therefore, it was proposed to place clean soil cover in all landscaping and garden areas to protect human health.

Clean cover layers should comprise a minimum thickness of 600 mm in garden areas, reduced to 300 mm in landscaped areas. Clean cover systems should be placed on a geotextile marker layer.

Planning condition 22 requires the site to be redeveloped in accordance with the Detailed Remediation Strategy and the submission of a Verification Report detailing the works undertaken. This plot specific report can be submitted to validate the clean soil cover in said plots as part of construction phase verification documentation.

IMPORTED TOPSOIL AND LABORATORY TESTING

Topsoil

Approximately 2400 m³ of topsoil has been imported to date to the site by PP O'Connor sourced from a greenfield site at Byrchall School playing fields. As per Section 5.8.2 of the remediation strategy (requiring 1 sample to be tested per 200 m³ from a greenfield source), 12 samples of the topsoil have been tested for a general suite of analysis.

At a Tier 1 stage the long-term human health toxicity of the soil has been assessed with reference to the LQM/CIEH S4ULs for Human Health Risk Assessment, 2015 for a residential with gardens end use. Where S4ULs are absent (i.e., for lead) C4SLs published by CL:AIRE have been utilised.

The results recorded no elevated concentrations of organic or inorganic contamination when compared against the most conservative assessment criteria (1% SOM for a residential end use with plant uptake).

In addition, two samples of the topsoil have been tested for BS3882 (Specification for topsoil) which shows that the topsoil is compliant for use as multi-purpose topsoil.

Based on the above analyses, the topsoil is considered suitable for use in residential gardens with home grown produce. Copies of the topsoil test results are presented in Annex II.

SITE VISIT

EDGE visited site on the 21st May 2024 to excavate inspection pits by hand in Plots 82 to 85.

EDGE can confirm that the required cover depth was in place with a total of between 600 and 700 mm clean topsoil cover in all of the plots placed on a geotextile marker layer.

A selection of photographs is presented in Annex III.

CONCLUSIONS

In accordance with the requirements set out in the remediation strategy, EDGE has undertaken the inspection and validation of the clean soil cover at Plots 82 to 85 at the new Hive Homes development located at Nixon Street, Rochdale.

All of the plots have been installed with the minimum cover of 600 mm clean imported topsoil which has been proven to be chemically suitable for use and placed on a geotextile marker layer.

The individual plot validation certificates are presented in Annex IV.

We trust the above is to your satisfaction. Should you require any further information, please do not hesitate to contact the undersigned.



On behalf of EDGE Consulting Engineers

21/05/2024

Date

Annex I	Drawings
Annex II	Laboratory Chemical Test Results (Topsoil)
Annex III	Photographs and Hand Dug Pit Logs
Annex IV	Plot Validation Certificates

ANNEX I

Drawings

KEY

Indicative planting

 Existing trees to be removed

 Denotes shared

Denotes raised to



○

Indicative school areas - final positioning of school building and surrounding areas to be confirmed

 Denotes Soft play

 Denotes Hard play

 Denotes potential build area

■ Denotes future development

N	24.10.23	W/L	Red signed up to attend boundary of north side
O			PLOT 5-6 SUSTAINMENT REMOVED 2 TREES TIDY UP
P			REPAIR TO ATTENUATION BASIN VISIBLY AS PER COMMENTS
L	16.05.22	MAH	UPDATED SCHEDULE.
K	04.01.22	ATK	REMOVED ATTENUATION BASIN VISIBLY AS PER COMMENTS
J			PLOT 2-3 10-15 TREES REMOVED
I	21.12.21	W/L	PLOT 2-3 10-15 TREES REMOVED
H	21.04.21	CT	REMOVED GRASSY PLOT 70.73
G			REMOVED GRASSY PLOT 70.73 AS PER COMMENTS
F	26.05.20	CT	REMOVED GRASSY PLOT 70.73 AS PER COMMENTS
E			UPDATED LOCATION OF REMOVED SCHOOL AREA.
D			REMOVED PLOT 36 REMOVED THE SCHOOL ROADWAY CONNECTION WITH THE
C	16.09.20	CT	REMOVED PLOT 36-40 TO TAKE ACCOUNT OF TREES ALL OTHER REMOVED PER
B	07.10.20	W/L	REMOVED PLOT 36-40 TO TAKE ACCOUNT OF TREES ALL OTHER REMOVED PER
A	20.04.20	W/L	NEW SCHEDULE TYPE, SCHEDULE UPDATED WITH NEW SOFT
			LAYOUT UPDATED WITH NEW BLUE MARKS. SCHEDULE UPDATED
	16.09.19	W/L	AMENDED REMOVED AND NEW GRASS AREAS. SCHEDULE UPDATED

Drawing Title:
PROPOSED SITE LAYOUT

Drawn: ELC	Checked: PGM	Scale: 1:500	Date: 18/12/2019
Job No: 18-100		Drawing No: 0001	Rev: 0

2

TRAINING

KEY

Existing trees to be removed

Denotes shared drives

Denotes raised tables

Indicative school areas - final positioning of school building and surrounding areas to be confirmed

Denotes potential build area

N	16-03-92	ML	FLY SUBSTITUTION KNOWN-EDGES 3 TIMES TESTED UP
M	16-03-92	ML	SUBSTITUTION & ATTEMPTATION KNOWN-EDGES
N	16-03-92	ML	UPPER/LOWER/FLY
K	14-01-92	ML	THINGS ARRANGED TO ALLOW FOR VISIBILITY AS COMMENTS
J	22-01-92	ML	FLY SUBS - 3 TIMES ARRANGED
J	22-01-92	ML	FLY SUBS - 3 TIMES ARRANGED
H	21-04-92	ML	PERMANENT CHANGE FOR FLY TEST
G	16-03-90	ML	KNOWLEDGE KNOWN FOR FLY SUBS 26, 31, 41, 43, 45, 47, 48, 49
F	26-03-90	CT	UPDATED LOCATION OF KNOWN-EDGES SCHOOL AREA
E	27-03-90	CT	ARRANGED FOR FLY ARRANGED THE BOUNDARY CONNECTION WITH THE SCHOOL AREA
D	19-03-90	CT	ARRANGED FLYS - 10 TO 14 FOR ACCOUNT OF THE TESTS, OTHERS ALLOWED FOR KNOWN-EDGES
C	17-03-90	ML	NEW SCHEDULE TYPE: SCHEDULE ALLOWED WITH BAY TEST
B	20-03-90	ML	ARRANGED FOR NEW ORB KNOWN-EDGES SCHEDULE UPDATED
A	10-03-90	ML	LAYOUT TEST AND BLUE EDGES - A.B. KNOWN-EDGES TO ROAD KNOWN

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tel: 01772 774510 fax: 01772 774511 email mck@mckassociates.co.uk

Project
NIXON STREET
ROCHDALE

Drawing Title:

PROPOSED SITE LAYOUT

Drawn: ELC	Checked: PGM	Scale: 1:500	Date: 18/12/2019
Job No: 18-109		Drawing No: 0001	Rev: N

AC

PLANNING

ANNEX II

Laboratory Chemical Test Results (Topsoil)

FINAL ANALYTICAL TEST REPORT SUPPLEMENT TO TEST REPORT 23/03733/1

Amendments: Request for Additional Analysis

Envirolab Job Number: 23/03733
Issue Number: 2

Date: 09 May, 2023

Client: PP O'Connor Ltd
61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Project Manager: Tony Barry
Project Name: Byrchall School
Project Ref: Not specified
Order No: M-C0531/000006
Date Samples Received: 19/04/23
Date Instructions Received: 20/04/23
Date Analysis Completed: 09/05/23

Approved by:



Sophie France
Client Service Manager

Envirolab Job Number: 23/03733

Client Project Name: Byrchall School

Client Project Ref: Not specified

Arsenic _D ^{M#}	12							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.6							mg/kg	0.5	A-T-024s
Copper _D ^{M#}	37							mg/kg	1	A-T-024s
Chromium _D ^{M#}	19							mg/kg	1	A-T-024s
Lead _D ^{M#}	51							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	16							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	58							mg/kg	5	A-T-024s

Envirolab Job Number: 23/03733

Client Project Name: Byrchall School

Client Project Ref: Not specified

Lab Sample ID	23/03733/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Soil Sample									
Depth to Top										
Depth To Bottom										
Date Sampled										
Sample Type	Soil									
Sample Matrix Code	6AE									
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.02							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.12							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.16							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.19							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.10							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.18							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.25							mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01							mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.11							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.10							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.24							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	1.47							mg/kg	0.01	A-T-019s

Envirolab Job Number: 23/03733

Client Project Name: Byrchall School

Client Project Ref: Not specified

Lab Sample ID	23/03733/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Soil Sample									
Depth to Top										
Depth To Bottom										
Date Sampled										
Sample Type	Soil									
Sample Matrix Code	6AE									
TPH CWG with Clean Up										
Ali >C5-C6 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1							mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1							mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	1							mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	12							mg/kg	1	A-T-055s
Total Aliphatics _A	13							mg/kg	1	Calc-As Recd
Aro >C5-C7 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01							mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1							mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1							mg/kg	1	A-T-055s
Aro >C12-C16 _A	1							mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	5							mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	7							mg/kg	1	A-T-055s
Total Aromatics _A	13							mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	26							mg/kg	1	Calc-As Recd
BTEX - Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01							mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01							mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.
 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 with the same delivery, will be disposed of six weeks after 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 the scope of our accreditation.
 If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
 A deviating samples 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.
 The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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 analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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

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

Asbestos:

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.
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
 Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,
 E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.
 US indicates Unsuitable Sample for analysis.
 NDP indicates No Determination Possible.
 NAD indicates No Asbestos Detected.
 N/A indicates Not Applicable.
 Superscript # indicates method accredited to ISO 17025.
 Superscript "M" indicates method accredited to MCERTS.
 Subscript "A" indicates analysis performed on the sample as received.
 Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve
 Subscript "A" indicates analysis has dependant options against results. Testing dependant on results appear in the comments area of your sample receipt.
 EPH CWG results have humics mathematically subtracted through instrument calculation
 TPH results "with Cleanup" indicates results cleaned up with Silica during extraction

EPH CWG GCxGC ID from TPH CWG

Where we have identified humic substances in any ID's from TPH CWG with Clean Up please note that the concentration of these humic substances is not included in the quantified results and are included in the ID for information.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR
Tel. 0161 368 4921 email. ask@envlab.co.uk

Client: PP O'Connor Ltd, 61 Mosley Road, Trafford Park, Manchester, M17 1GJ

Project No: 23/03733

Project: Byrchall School

Date Received: 20/04/2023 (am)

Clients Project No:

Cool Box Temperatures (°C): 13.7

Lab Sample ID	23/03733/1
Client Sample No	
Client Sample ID/Depth	Soil Sample
Date Sampled	
Deviation Code	
B1 (no VPH)	✓
D (no glass)	✓
E (no date)	✓

Key

B1 (no VPH) Separate container not supplied for VPH/BTEX analysis
D (no glass) Glass container not provided for extractable organics analysis
E (no date) No sampling date provided (all results affected if not provided)

Note: 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 (for water samples $5 \pm 3^{\circ}\text{C}$), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	23/03733/1
Client Sample No	
Client Sample ID/Depth	Soil Sample
Date Sampled	
A-T-019s	04/05/2023
A-T-022s	03/05/2023
A-T-024s	03/05/2023
A-T-030s	02/05/2023
A-T-031s	03/05/2023
A-T-037s	04/05/2023
A-T-044	02/05/2023
A-T-055s	09/05/2023
A-T-063	03/05/2023
A-T-EXTMETS	03/05/2023
A-T-EXTMETS PO4	02/05/2023
Calc	02/05/2023
Calc-As Recd	09/05/2023
Calc-no stones	02/05/2023
Gravimetry	03/05/2023

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

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/00486
Issue Number: 1
Date: 29 January, 2024

Client: Edge Consulting Engineers
3rd Floor
Conavon Court
12 Blackfriars Street
Manchester
M3 5BQ

Project Manager: Andrew Bain; Jonathan Cummins/Thomas Mackechnie
Project Name: Nixon Street, Rochdale
Project Ref: 20066
Order No: PO-0696
Date Samples Received: 18/01/24
Date Instructions Received: 18/01/24
Date Analysis Completed: 29/01/24

Approved by:



Sophie France
Client Manager

Envirolab Job Number: 24/00486

Client Project Name: Nixon Street, Rochdale

Client Project Ref: 20066

Lab Sample ID	24/00486/1	24/00486/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Plot 98	Plot 102								
Depth to Top	0.30	0.20								
Depth To Bottom										
Date Sampled	12-Jan-24	12-Jan-24								
Sample Type	SOIL - ES	SOIL - ES								
Sample Matrix Code	3	3								
% Stones >10mm _A	14.7	2.3						% w/w	0.1	A-T-044
pH _D ^{M#}	7.49	7.24						pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.08	0.05						g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	520	550						mg/kg	200	A-T-028s
Cyanide (total) _A ^{M#}	<1	<1						mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC _A	<0.2	<0.2						mg/kg	0.2	A-T-050s
Total Organic Carbon _D ^{M#}	2.41	1.03						% w/w	0.03	A-T-032s
Arsenic _D ^{M#}	9	11						mg/kg	1	A-T-024s
Boron (water soluble) _D ^{M#}	<1.0	<1.0						mg/kg	1	A-T-027s
Cadmium _D ^{M#}	<0.5	<0.5						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	43	43						mg/kg	1	A-T-024s
Chromium _D ^{M#}	20	21						mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1						mg/kg	1	A-T-040s
Lead _D ^{M#}	61	78						mg/kg	1	A-T-024s
Mercury _D	0.27	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	17	18						mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	68	79						mg/kg	5	A-T-024s

Envirolab Job Number: 24/00486

Client Project Name: Nixon Street, Rochdale

Client Project Ref: 20066

Lab Sample ID	24/00486/1	24/00486/2								
Client Sample No										
Client Sample ID	Plot 98	Plot 102								
Depth to Top	0.30	0.20								
Depth To Bottom										
Date Sampled	12-Jan-24	12-Jan-24								
Sample Type	SOIL - ES	SOIL - ES								
Sample Matrix Code	3	3								
Asbestos in Soil (inc. matrix)										
Asbestos in soil _D [#]	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								A-T-045

Envirolab Job Number: 24/00486

Client Project Name: Nixon Street, Rochdale

Client Project Ref: 20066

Lab Sample ID	24/00486/1	24/00486/2						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	Plot 98	Plot 102								
Depth to Top	0.30	0.20								
Depth To Bottom										
Date Sampled	12-Jan-24	12-Jan-24								
Sample Type	SOIL - ES	SOIL - ES								
Sample Matrix Code	3	3								
PAH-16MS										
Acenaphthene _A ^{M#}	0.02	0.01						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.03	0.03						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.11	0.10						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.08	0.08						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.10	0.10						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.12	0.10						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.26	0.25						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	0.01	<0.01						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.05	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.16	0.15						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.24	0.23						mg/kg	0.07	A-T-019s
Total PAH-16MS _A	1.18	1.05						mg/kg	0.01	A-T-019s

Report Notes

General

This report shall not be reproduced, except in full, without written approval from Envirolab.
 The 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.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 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.

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 "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos

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
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

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

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

Soil Chemical Analysis:

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

TPH by method A-T-007:

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

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

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

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

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the accreditation 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:	Edge Consulting Engineers , 3rd Floor, Conavon Court, 12 Blackfriars Street, Manchester, M3 5BQ	Project No:	24/00486
Project:	Nixon Street, Rochdale	Date Received:	18/01/2024 (pm)
Clients Project No:	20066	Cool Box Temperatures (°C):	4.4

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	24/00486/1	24/00486/2
Client Sample No		
Client Sample ID/Depth	Plot 98 0.30m	Plot 102 0.20m
Date Sampled	12/01/24	12/01/24
A-T-019s	24/01/2024	24/01/2024
A-T-024s	25/01/2024	25/01/2024
A-T-026s	25/01/2024	25/01/2024
A-T-027s	24/01/2024	24/01/2024
A-T-028s	24/01/2024	24/01/2024
A-T-031s	26/01/2024	26/01/2024
A-T-032s	25/01/2024	25/01/2024
A-T-040s	25/01/2024	25/01/2024
A-T-042sTCN	24/01/2024	24/01/2024
A-T-044	23/01/2024	23/01/2024
A-T-045	19/01/2024	19/01/2024
A-T-050s	29/01/2024	29/01/2024

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

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 24/03104
Issue Number: 1

Date: 25 April, 2024

Client: PP O'Connor Ltd
61 Mosley Road
Trafford Park
Manchester
M17 1GJ

Project Manager: Tony Barry
Project Name: Nixon St
Project Ref: Not specified
Order No: PO M-00023/000489
Date Samples Received: 26/03/24
Date Instructions Received: 26/03/24
Date Analysis Completed: 25/04/24

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/1	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM1	SM2	SM3	SM4	SM5	SM6	SM7			
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	5AE	6AE	6A	6AE	6A	6AE	6AE			
% Stones >10mm _A	8.3	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	% w/w	0.1	A-T-044
pH _D ^{M#}	8.11	7.12	6.92	6.84	6.93	6.47	6.74	pH	0.01	A-T-031s
Sulphate (acid soluble) _D ^{M#}	260	820	710	800	860	910	940	mg/kg	200	A-T-028s
Phenols - Total by HPLC _A	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	mg/kg	0.2	A-T-050s
Arsenic _D ^{M#}	3	6	6	6	6	7	8	mg/kg	1	A-T-024s
Beryllium _D	<0.5	0.7	0.7	0.7	0.7	0.7	0.8	mg/kg	0.5	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	24	23	22	23	26	28	mg/kg	1	A-T-024s
Chromium _D ^{M#}	11	15	16	16	15	15	16	mg/kg	1	A-T-024s
Lead _D ^{M#}	15	38	37	37	38	44	47	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	8	14	13	13	13	14	15	mg/kg	1	A-T-024s
Phosphorus _D	289	568	575	548	519	544	603	mg/kg	5	A-T-072s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Vanadium _D ^{M#}	13	18	18	19	17	17	19	mg/kg	1	A-T-024s
Zinc _D ^{M#}	28	60	52	55	50	65	70	mg/kg	5	A-T-024s

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/1	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM1	SM2	SM3	SM4	SM5	SM6	SM7			
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	5AE	6AE	6A	6AE	6A	6AE	6AE			
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _D #	NAD	NAD	NAD	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	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/1	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM1	SM2	SM3	SM4	SM5	SM6	SM7			
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	5AE	6AE	6A	6AE	6A	6AE	6AE			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	0.03	0.03	0.04	0.07	0.04	0.02	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	0.03	0.04	0.09	0.14	0.09	0.05	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.09	0.15	0.19	0.32	0.43	0.34	0.24	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.09	0.15	0.17	0.29	0.37	0.31	0.23	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.10	0.21	0.23	0.41	0.47	0.41	0.32	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.06 ^U	0.10 ^U	0.13 ^U	0.20 ^U	0.27 ^U	0.21 ^U	0.18 ^U	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	0.13	0.16	0.13	0.12	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.10	0.19	0.22	0.36	0.46	0.38	0.27	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.14	0.31	0.35	0.62	0.83	0.69	0.44	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	0.01	<0.01	0.03	0.07	0.03	0.02	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.06	0.10	0.14	0.20	0.27	0.22	0.18	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.05	0.21	0.22	0.41	0.69	0.41	0.23	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.14	0.29	0.33	0.58	0.78	0.63	0.41	mg/kg	0.07	A-T-019s
Total PAH-16MS _A	0.83	1.78	2.05	3.68	5.01	3.89	2.71	mg/kg	0.01	A-T-019s
TPH Banded 2										
>C6-C10 _A ^{M#}	<5	<5	<5	<5	<5	<5	<5	mg/kg	5	A-T-007s
>C10-C25 _A ^{M#}	8	34	27	32	26	37	35	mg/kg	5	A-T-007s
>C25-C40 _A ^{M#}	24	200	176	235	213	250	227	mg/kg	5	A-T-007s
Total TPH Banded 2 _A ^{M#}	32	234	203	267	239	287	262	mg/kg	5	A-T-007s

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/1	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM1	SM2	SM3	SM4	SM5	SM6	SM7			
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24	26-Mar-24			
Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Sample Matrix Code	5AE	6AE	6A	6AE	6A	6AE	6AE			
TPH CWG with Clean Up										
Ali >C5-C6 _A	-	<0.01	<0.01	<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	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	-	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A	-	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A	-	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A	-	1	3	3	3	3	3	mg/kg	1	A-T-055s
Ali >C21-C35 _A	-	32	36	46	40	46	41	mg/kg	1	A-T-055s
Total Aliphatics _A	-	34	39	49	43	48	44	mg/kg	1	Calc-As Recd
Aro >C5-C7 _A	-	<0.01	<0.01	<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	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	-	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A	-	<1	<1	7	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	-	<1	1	29	1	1	3	mg/kg	1	A-T-055s
Aro >C16-C21 _A	-	6	12	64	9	9	11	mg/kg	1	A-T-055s
Aro >C21-C35 _A	-	19	29	89	27	29	29	mg/kg	1	A-T-055s
Total Aromatics _A	-	25	42	189	37	40	42	mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	-	59	81	238	80	88	86	mg/kg	1	Calc-As Recd
BTEX - Benzene _A	-	<0.01	<0.01	<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	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A	-	<0.01	<0.01	<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	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A	-	<0.01	<0.01	<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	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/8	24/03104/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM8	SM9								
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24								
Sample Type	SOIL	SOIL								
Sample Matrix Code	6AE	6AE								
% Stones >10mm _A	0.4	0.5						% w/w	0.1	A-T-044
pH _D ^{M#}	6.55	6.84						pH	0.01	A-T-031s
Sulphate (acid soluble) _D ^{M#}	710	610						mg/kg	200	A-T-028s
Phenols - Total by HPLC _A	<0.2	<0.2						mg/kg	0.2	A-T-050s
Arsenic _D ^{M#}	7	5						mg/kg	1	A-T-024s
Beryllium _D	0.6	<0.5						mg/kg	0.5	A-T-024s
Cadmium _D ^{M#}	<0.5	<0.5						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	25	19						mg/kg	1	A-T-024s
Chromium _D ^{M#}	13	12						mg/kg	1	A-T-024s
Lead _D ^{M#}	44	34						mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	13	11						mg/kg	1	A-T-024s
Phosphorus _D	565	454						mg/kg	5	A-T-072s
Selenium _D ^{M#}	<1	<1						mg/kg	1	A-T-024s
Vanadium _D ^{M#}	15	14						mg/kg	1	A-T-024s
Zinc _D ^{M#}	56	45						mg/kg	5	A-T-024s

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/8	24/03104/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM8	SM9								
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24								
Sample Type	SOIL	SOIL								
Sample Matrix Code	6AE	6AE								
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil _D #	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								A-T-045

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/8	24/03104/9						Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	SM8	SM9								
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24								
Sample Type	SOIL	SOIL								
Sample Matrix Code	6AE	6AE								
PAH-16MS										
Acenaphthene _A ^{M#}	0.01	0.08						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	0.04	0.12						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.19	0.19						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.19	0.14						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.26	0.18						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.16 ^U	0.08 ^U						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.24	0.19						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.35	0.51						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	0.06						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.16	0.10						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.21	0.54						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.35	0.44						mg/kg	0.07	A-T-019s
Total PAH-16MS _A	2.16	2.63						mg/kg	0.01	A-T-019s
TPH Banded 2										
>C6-C10 _A ^{M#}	<5	<5						mg/kg	5	A-T-007s
>C10-C25 _A ^{M#}	38	30						mg/kg	5	A-T-007s
>C25-C40 _A ^{M#}	257	191						mg/kg	5	A-T-007s
Total TPH Banded 2 _A ^{M#}	295	221						mg/kg	5	A-T-007s

Envirolab Job Number: 24/03104

Client Project Name: Nixon St

Client Project Ref: Not specified

Lab Sample ID	24/03104/8	24/03104/9								
Client Sample No										
Client Sample ID	SM8	SM9								
Depth to Top										
Depth To Bottom										
Date Sampled	26-Mar-24	26-Mar-24								
Sample Type	SOIL	SOIL								
Sample Matrix Code	6AE	6AE								
TPH CWG with Clean Up										
Ali >C5-C6 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C10-C12 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C12-C16 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C16-C21 _A	3	3						mg/kg	1	A-T-055s
Ali >C21-C35 _A	44	39						mg/kg	1	A-T-055s
Total Aliphatics _A	47	42						mg/kg	1	Calc-As Recd
Aro >C5-C7 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	1						mg/kg	1	A-T-055s
Aro >C16-C21 _A	12	10						mg/kg	1	A-T-055s
Aro >C21-C35 _A	29	24						mg/kg	1	A-T-055s
Total Aromatics _A	43	35						mg/kg	1	Calc-As Recd
TPH (Ali & Aro >C5-C35) _A	90	76						mg/kg	1	Calc-As Recd
BTEX - Benzene _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A	<0.01	<0.01						mg/kg	0.01	A-T-022s
MTBE _A	<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 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.
 The client Sample No, Client Sample ID, Depth to top, Depth to Bottom and Date Sampled are all provided by the client.
 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.

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 "A"	Analysis has dependant options against results. Details appear in the comments of your Sample receipt
IS	Insufficient Sample for analysis
US	Unsuitable Sample for analysis
NDP	No Determination Possible
NAD	No Asbestos Detected
N/A	Not applicable

Asbestos

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
 Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing, and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Assigned Matrix Codes

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

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

Soil Chemical Analysis:

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

TPH by method A-T-007:

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

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

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

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

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the accreditation 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: PP O'Connor Ltd, 61 Mosley Road, Trafford Park, Manchester, M17 1GJ

Project No: 24/03104

Date Received: 26/03/2024 (am)

Project: Nixon St

Cool Box Temperatures (°C): 12.0, 14.7

Clients Project No:

Lab Sample ID	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	24/03104/8	24/03104/9
Client Sample No								
Client Sample ID/Depth	SM2	SM3	SM4	SM5	SM6	SM7	SM8	SM9
Date Sampled	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24
Deviation Code								
F	✓	✓	✓	✓	✓	✓	✓	✓

Key

F Maximum holding time exceeded between sampling date and analysis for analytes listed below

HOLDING TIME EXCEEDANCES

Lab Sample ID	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	24/03104/8	24/03104/9
Client Sample No								
Client Sample ID/Depth	SM2	SM3	SM4	SM5	SM6	SM7	SM8	SM9
Date Sampled	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24
VPHCWG	✓	✓	✓	✓	✓	✓	✓	✓

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	24/03104/1	24/03104/2	24/03104/3	24/03104/4	24/03104/5	24/03104/6	24/03104/7	24/03104/8	24/03104/9
Client Sample No									
Client Sample ID/Depth	SM1	SM2	SM3	SM4	SM5	SM6	SM7	SM8	SM9
Date Sampled	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24	26/03/24
A-T-007s	16/04/2024	16/04/2024	16/04/2024	16/04/2024	16/04/2024	16/04/2024	16/04/2024	16/04/2024	16/04/2024
A-T-019s	04/04/2024	04/04/2024	04/04/2024	04/04/2024	04/04/2024	04/04/2024	04/04/2024	04/04/2024	04/04/2024
A-T-022s		25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024
A-T-024s	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024
A-T-028s	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024
A-T-031s	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024
A-T-044	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024
A-T-045	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024	05/04/2024
A-T-050s	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024	09/04/2024
A-T-055s		24/04/2024	24/04/2024	24/04/2024	24/04/2024	24/04/2024	24/04/2024	24/04/2024	24/04/2024
A-T-072s	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024	10/04/2024
Calc-As Recd		25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024	25/04/2024

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

**DECLARATION OF COMPLIANCE
(BS3882:2015)**



Lab ref 99708-1
Contract name Bychall School
Sample ID PH 01
OS Grid reference Not supplied
Date sampled 21 April 2023

Date received 20 April 2023
Analysis started 20 April 2023
Analysis completed 27 April 2023
Report issued 27 April 2023

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	18	Y	Y	Y	Y	Y	Y
Silt content	% w/w	48	Y	Y	Y	Y	Y	Y
Sand content	% w/w	34	Y	Y	Y	Y	Y	Y
Soil texture	class	SANDY SILT LOAM						

Stone content								
>2mm	% w/w	2	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 5-20%	% w/w	3.3	Y	Y	Y	Y	Y	Y
Clay 20-35%	% w/w	-	-	-	-	-	-	-
pH	pH units	7.7	Y	N	Y	Y	N	Y
Carbonate (calcareous only)	% w/w	0.7			N			N
Nitrogen (total)	% w/w N	0.18	Y	Y	Y			
Carbon:Nitrogen ratio	-	9.5	Y	Y	Y	Y	Y	Y
Phosphorus (extractable)	mg/l P	22	Y	Y	Y	N	N	N
Potassium (extractable)	mg/l K	193	Y	Y	Y			
Magnesium (extractable)	mg/l Mg	340	Y	Y	Y			
Electrical conductivity	µS/cm	95	Y					

Phytotoxic contaminants (by soil pH)								
Copper (Nitric acid extract)	mg/kg Cu	50	Y	Y	Y	Y	Y	Y
Nickel (Nitric acid extract)	mg/kg Ni	22	Y	Y	Y	Y	Y	Y
Zinc (Nitric acid extract)	mg/kg Zn	134	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	0	Y	Y	Y	Y	Y	Y

DECLARATION

I certify that this sample has been analysed in accordance with BS3882:2015.

Signature

Name

J. Campbell

Position

John Campbell
Director

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB
Tel 01207 528578 Email customerservices@chemtech-env.co.uk
Vat Reg No. 772 5703 18 Registered in England number 4284013

**DECLARATION OF COMPLIANCE
(BS3882:2015)**



Lab ref	99708-2	Date received	20 April 2023
Contract name	Bychall School	Analysis started	20 April 2023
Sample ID	PH 01	Analysis completed	27 April 2023
OS Grid reference	Not supplied	Report issued	27 April 2023
Date sampled	21 April 2023		

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	19	Y	Y	Y	Y	Y	Y
Silt content	% w/w	49	Y	Y	Y	Y	Y	Y
Sand content	% w/w	32	Y	Y	Y	Y	Y	Y
Soil texture	class	SANDY SILT LOAM						

Stone content								
>2mm	% w/w	2	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 5-20%	% w/w	3.7	Y	Y	Y	Y	Y	Y
Clay 20-35%	% w/w	-	-	-	-	-	-	-
pH	pH units	7.8	Y	N	Y	Y	N	Y
Carbonate (calcareous only)	% w/w	1.0			Y			Y
Nitrogen (total)	% w/w N	0.19	Y	Y	Y			
Carbon:Nitrogen ratio	-	10.5	Y	Y	Y	Y	Y	Y
Phosphorus (extractable)	mg/l P	19	Y	Y	Y	Y	Y	Y
Potassium (extractable)	mg/l K	193	Y	Y	Y			
Magnesium (extractable)	mg/l Mg	326	Y	Y	Y			
Electrical conductivity	µS/cm	97	Y					

Phytotoxic contaminants (by soil pH)								
Copper (Nitric acid extract)	mg/kg Cu	27	Y	Y	Y	Y	Y	Y
Nickel (Nitric acid extract)	mg/kg Ni	24	Y	Y	Y	Y	Y	Y
Zinc (Nitric acid extract)	mg/kg Zn	125	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	0	Y	Y	Y	Y	Y	Y

DECLARATION

I certify that this sample has been analysed in accordance with BS3882:2015.

Signature

Name

J. Campbell

Position

John Campbell
Director

Unit 6 Parkhead, Greencroft Industrial Park, Stanley, County Durham, DH9 7YB
Tel 01207 528578 Email customerservices@chemtech-env.co.uk
Vat Reg No. 772 5703 18 Registered in England number 4284013

ANNEX III

Photographs and Hand Dug Pit Logs

HAND DUG PIT LOG

Project Name: Nixon Street, Rochdale

Date: 21/05/24

Project No.: 20066

Client: Seddon Construction Limited

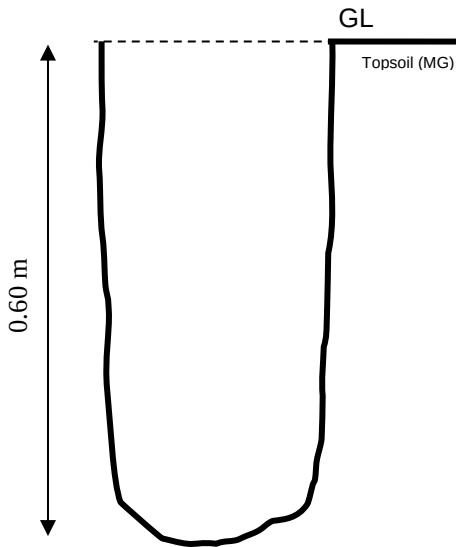
Plot Number: Plot 82

Logged By: J Cummins

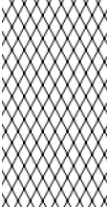
Total Depth: 0.60 m

Remarks: Dry ground conditions

Schematic Profile:



NOT TO SCALE

Legend	Depth (m)	Description
	0.00-0.60	MADE GROUND: Dark brown slightly silty slightly gravelly very clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of concrete, red brick and mudstone. Occasional cobbles of red brick. Occasional rootlets (TOPSOIL).

Hand Dug Pit terminated at 0.60 m.

Additional Information:

Hand dug pit terminated at 0.60 m due to encountering the membrane.

Pictures:



Plot 82: Overview of excavation



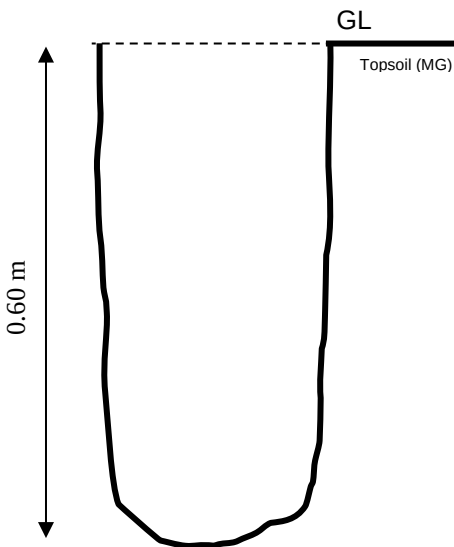
Plot 82: Internal View of excavation

HAND DUG PIT LOG

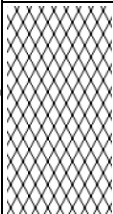
Project Name: Nixon Street, Rochdale
Date: 21/05/24
Project No.: 20066
Client: Seddon Construction Limited

Plot Number: Plot 83
Logged By: J Cummins
Total Depth: 0.60 m
Remarks: Dry ground conditions

Schematic Profile:



NOT TO SCALE

Legend	Depth (m)	Description
	0.00-0.60	MADE GROUND: Dark brown slightly silty slightly gravelly very clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of concrete, red brick and mudstone. Occasional cobbles of red brick. Occasional rootlets (TOPSOIL).

Hand Dug Pit terminated at 0.60 m.

Additional Information:

Hand dug pit terminated at 0.60 m due to encountering the membrane.

Pictures:



Plot 83: Overview of excavation



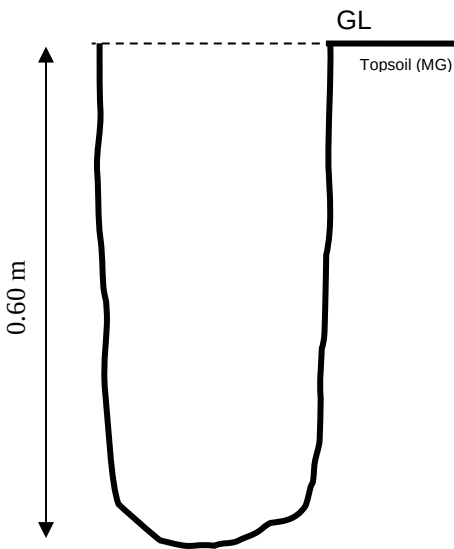
Plot 83: Internal View of excavation

HAND DUG PIT LOG

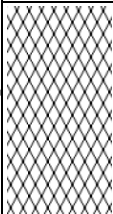
Project Name: Nixon Street, Rochdale
Date: 21/05/24
Project No.: 20066
Client: Seddon Construction Limited

Plot Number: Plot 84
Logged By: J Cummins
Total Depth: 0.60 m
Remarks: Dry ground conditions

Schematic Profile:



NOT TO SCALE

Legend	Depth (m)	Description
	0.00-0.60	MADE GROUND: Dark brown slightly silty slightly gravelly very clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of concrete, red brick and mudstone. Occasional cobbles of red brick. Occasional rootlets (TOPSOIL).

Hand Dug Pit terminated at 0.60 m.

Additional Information:

Hand dug pit terminated at 0.60 m due to encountering the membrane.

Pictures:



Plot 84: Overview of excavation



Plot 84: Internal View of excavation

HAND DUG PIT LOG

Project Name: Nixon Street, Rochdale

Date: 21/05/24

Project No.: 20066

Client: Seddon Construction Limited

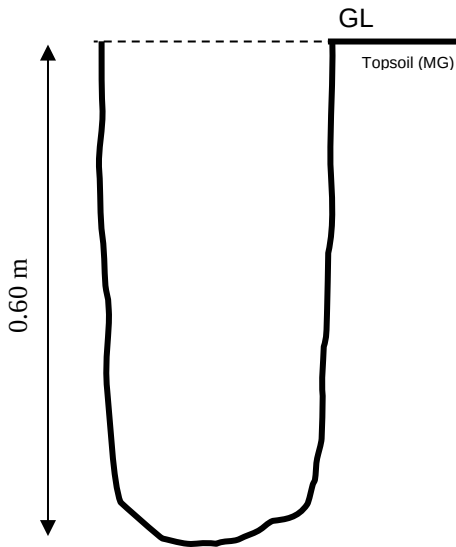
Plot Number: Plot 85

Logged By: J Cummins

Total Depth: 0.60 m

Remarks: Dry ground conditions

Schematic Profile:



NOT TO SCALE

Legend	Depth (m)	Description
	0.00-0.60	MADE GROUND: Dark brown slightly silty slightly gravelly very clayey fine to coarse SAND. Gravel is subangular to subrounded fine to coarse of concrete, red brick and mudstone. Occasional cobbles of red brick. Occasional rootlets (TOPSOIL).

Hand Dug Pit terminated at 0.60 m.

Additional Information:

Hand dug pit terminated at 0.60 m due to encountering the membrane.

Pictures:



Plot 85: Overview of excavation



Plot 85: Internal View of excavation

ANNEX IV

Plot Validation Certificates

VALIDATION CERTIFICATE

is hereby granted to **Seddon Construction Ltd** for **Plot No. 82** at Nixon Street, Rochdale, OL11 3AG.

Alliance Design UK Ltd t/a EDGE Consulting Engineers certifies that the garden has been capped with a minimum of 600 mm of clean, uncontaminated topsoil on geotextile marker layer as required by the Local Planning Authority.



On behalf of EDGE Consulting Engineers

21/05/2024

Date

CONDITIONS OF ISSUE

1. Certificate to be issued alongside the validation record/verification report.
2. This certificate is issued by EDGE Consulting Engineers for the exclusive use of the certificate holder and its agents. No warranties or guarantees should be assumed by any third parties.
3. This certificate is limited to the verification of the installation of clean soil cover.

VALIDATION CERTIFICATE

is hereby granted to **Seddon Construction Ltd** for **Plot No. 83** at Nixon Street, Rochdale, OL11 3AG.

Alliance Design UK Ltd t/a EDGE Consulting Engineers certifies that the garden has been capped with a minimum of 600 mm of clean, uncontaminated topsoil on geotextile marker layer as required by the Local Planning Authority.



On behalf of EDGE Consulting Engineers

21/05/2024

Date

CONDITIONS OF ISSUE

1. Certificate to be issued alongside the validation record/verification report.
2. This certificate is issued by EDGE Consulting Engineers for the exclusive use of the certificate holder and its agents. No warranties or guarantees should be assumed by any third parties.
3. This certificate is limited to the verification of the installation of clean soil cover.

VALIDATION CERTIFICATE

is hereby granted to **Seddon Construction Ltd** for **Plot No. 84** at Nixon Street, Rochdale, OL11 3AG.

Alliance Design UK Ltd t/a EDGE Consulting Engineers certifies that the garden has been capped with a minimum of 600 mm of clean, uncontaminated topsoil on geotextile marker layer as required by the Local Planning Authority.



On behalf of EDGE Consulting Engineers

21/05/2024

Date

CONDITIONS OF ISSUE

1. Certificate to be issued alongside the validation record/verification report.
2. This certificate is issued by EDGE Consulting Engineers for the exclusive use of the certificate holder and its agents. No warranties or guarantees should be assumed by any third parties.
3. This certificate is limited to the verification of the installation of clean soil cover.

VALIDATION CERTIFICATE

is hereby granted to **Seddon Construction Ltd** for **Plot No. 85** at Nixon Street, Rochdale, OL11 3AG.

Alliance Design UK Ltd t/a EDGE Consulting Engineers certifies that the garden has been capped with a minimum of 600 mm of clean, uncontaminated topsoil on geotextile marker layer as required by the Local Planning Authority.



On behalf of EDGE Consulting Engineers

21/05/2024

Date

CONDITIONS OF ISSUE

1. Certificate to be issued alongside the validation record/verification report.
2. This certificate is issued by EDGE Consulting Engineers for the exclusive use of the certificate holder and its agents. No warranties or guarantees should be assumed by any third parties.
3. This certificate is limited to the verification of the installation of clean soil cover.