

VERIFICATION REPORT

Site	Love Padel, Eton Hill Road, Radcliffe, M26 2
Date	3 rd July 2026
LKC Reference	LKC261457-SCR-Love Padel R0
Planning Reference	71775 and discharge of conditions application 72601
Client	Love Padel Ltd

1. Introduction

LK Consult Ltd (LKC) has been commissioned to provide a Verification Report following the completion of the landscaping bund at Love Padel, Eton Hill Road, Radcliffe.

LKC provided a Remediation Strategy within report ref. LKC251563-B1-GI-Eton Hill Road, Radcliffe R0, dated November 2025, which detailed the following:

- Watching brief during in-ground works and foundation excavations for any visual or olfactory evidence of contamination.
- Provision of an Environmental Cover System in the proposed soft landscaping bund at the eastern boundary of the site.

Other recommendations in the report relate to construction activities and management thereof and were the responsibility of the contractor. These are outwith the scope of this report.

2. Site Details

A summary of the site details is presented in Table 1-1. Site location and proposed development plans are provided in Appendix A.

Location	Land east of Eton Hill Road, Radcliffe. National Grid Reference 379545E 408400N.
Area	5,700m ² .
Topography	75 metres Above Ordnance Datum (AOD). Site is relatively flat.
Current Site Use	Hardstood area with a former workshop building and a small strip of soft landscaping along the eastern site boundary.
Proposed Development	Erection of 5no. covered padel courts, conversion of existing building to clubhouse, provision of accessible WC and shower unit and associated car parking, cycle parking and access works. A strip of soft landscaping is to be provided on the eastern boundary.

3. Watching Brief

The contractor and site manager maintained a watching brief for any evidence of unusual ground conditions. This was supplemented by ad-hoc site inspections by LKC. No evidence of visual or olfactory contamination has been reported to LKC by the site manager or contractor. Minimal excavations have been carried out on site. Ground conditions comprise made ground similar to that reported in the ground investigation reports.

4. Environmental Cover System

4.1 Design

In the boundary soft landscaping area, the environmental cover system was required in order to be protective of human health and to support vegetation growth. The bund will not be used by future site users and is generally for screening reasons only – LKC note planning officer reports confirm there is no BNG requirement for this site.

A nominal depth of soil with a separation layer would be protective of human health; therefore, the required soil depth was driven by the requirements of the proposed landscaping plan (Appendix B), which has trees species proposed along the centre line.

A schematic from the Remediation Strategy is provided as Plate 4-1

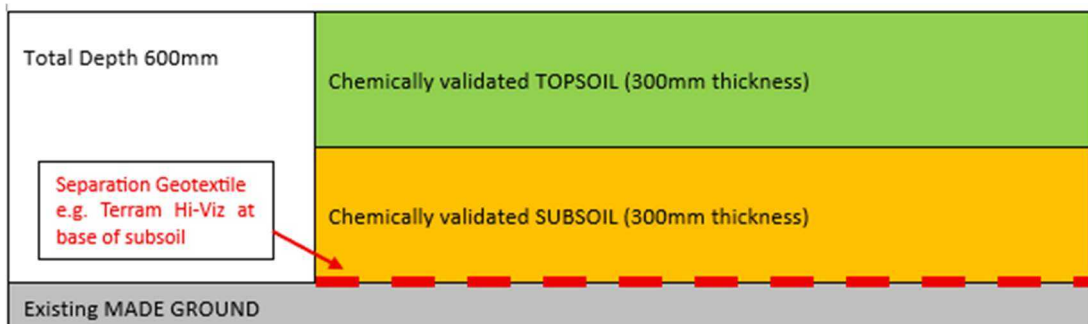


Plate 4-1: Typical Environmental Cover System Construction.

The bund is above ground and placed on top of pre-existing ground levels. Therefore, the prescribed depth was provided along the centre line of the bund where trees will be provided.

The cover system noted in the Remediation Strategy stated a cover depth of 600mm. The Landscape Architects proposed landscaping drawing (Appendix B) stipulated a 150mm topsoil depth for amenity grass and 300mm for shrubs. The drawing states that “tree pits to be square and 150mm wider than the root ball on all sides. The planting pit should be no deeper than the existing root ball or container depth.”

LKC understand that nursery trees will be transplanted during the next growing season as noted on the landscaping plan and the root ball depth / container pot is 25 litres and highly unlikely to be greater than 300mm depth.

It should be noted that BS8545 states a recommended topsoil depth of up to 300mm and that the majority of tree roots grow shallowly and spread laterally. Spreading topsoil too deep risks creating anaerobic conditions and can lead to stagnation and waterlogging.

Reference to NCLOG guidance and BS3882 as noted in the Bury Council regulatory review and response document are noted; however, the mooted 900mm soil depth is not geotechnically possible and the Landscape Architect is satisfied with less than 600mm. On this basis the 600mm soil depth in the centreline of the bund is considered sufficient for the proposed planting schedule. It should be noted that this prescribed

depth is not a topsoil depth as indicate on the planning officer reports -it is the combined topsoil and subsoil i.e. growing medium depth.

4.2 Imported Materials

First generation quarried sand was obtained from Armstrong Aggregates Ltd Montcliffe Quarry, near Chorley. The material comprised fine to coarse grit sand.

A grading certificate is included in Appendix C. LKC inspected be material upon delivery and noted the material had on anthropogenic inclusions and it appeared to be first generation as per the specification. Photographs are provided below



Plate 4-2: Imported grit sand subsoil.

On this basis LKC considered the material was first generation quarried material and was suitable for use as subsoil in accordance with Table 9-2 of the Remediation Strategy.

Grade 1 Topsoil was provided by SED Servies Ltd. Preliminary BS3882 and contamination testing was provided for prior approval by LKC and the certificates are provided in Appendix C. LKC considered the material was suitable and 6 loads (c. 60m³) was imported to site and sealed prior to sampling and testing.

Photographs are provided below.



Plate 4-2: Imported topsoil.

LKC attended site on 8th June 2026 and collected 3no. composite samples from the stockpile by hand auger following methodology presented in ISO 10381-8:2006. Samples were collected in plastic tubs and amber jars and stored in an ice packed cool box for same day collection by DETS. Soil results are provided in Appendix D.

Remedial targets followed rationale described in the Remediation Strategy. Appropriate criteria are provided in Appendix E. The topsoil results were all below the appropriate assessment criteria and the soil was considered suitable for use in the bund.

4.3 Landscaping Bund Construction

A proprietary separation geotextile was laid along the bund footprint. This comprised Terram 1000 Orange and the datasheet is provided in Appendix F.

Photographs of the bund construction are provided below.





Plate 4-3: Bund construction.

4.4 Site Inspection

LKC attended site on 1st July 2026 and excavated 3no. inspection pits along the landscaping bund. The approximate locations are shown on Plate 4-4.

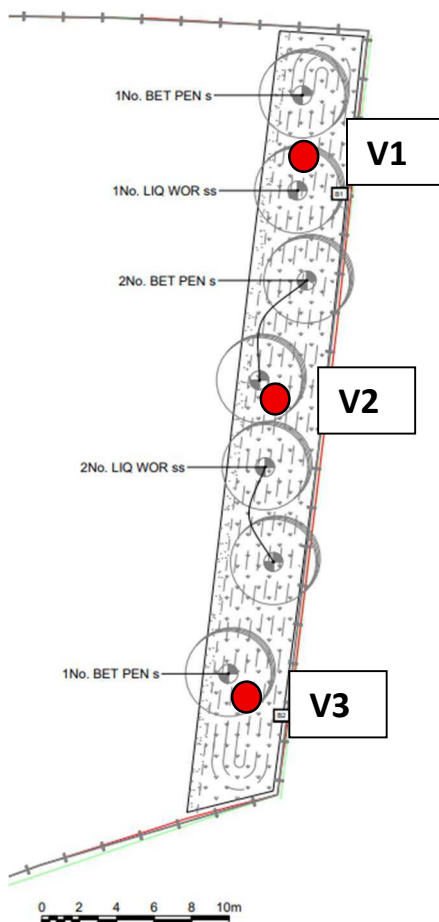


Plate 4-4: Inspection locations.

Photographs of the inspection pits are provided in Plates 4-5 to 4-7 below:

	Location of V1 looking south.
	Downhole view. Topsoil and subsoil layers visible Orange marker geotextile visible.
	Soil depth confirmation

Plate 4-5: Inspection location V1

	Location of V2 looking north.
	Downhole view. Topsoil and subsoil layers visible Orange marker geotextile visible.
	Soil depth confirmation

Plate 4-6: Inspection location V2

	Location of V3 looking south.
	Downhole view. Topsoil and subsoil layers visible Orange marker geotextile visible.
	Soil depth confirmation

Plate 4-7: Inspection location V3

5. Conclusions

This document provides the Verification informed specified by the LKC Remediation Strategy and consequently LKC considers the requirements of the previous risk assessment and Remediation Strategy have been met.

LKC consider this report supports the following:

- The site is suitable for its new use taking account of ground conditions, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation.

- After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990¹; and,
- Adequate site investigation information, prepared by a competent person, is presented.

A copy of this report should be provided to the Local Authority in support of discharging outstanding Conditions 10 and 11 of planning approval 71775.

REPORT PREPARED BY:

Colin Crompton
Director

ENCLOSED:

Appendix A: Site Plans
Appendix B: Proposed Soft Landscaping Plan
Appendix C: Soil Supplier Certification
Appendix D: Topsoil Certificates of Analysis
Appendix E: Generic Assessment Criteria
Appendix F: Separation Geotextile

DISCLAIMER

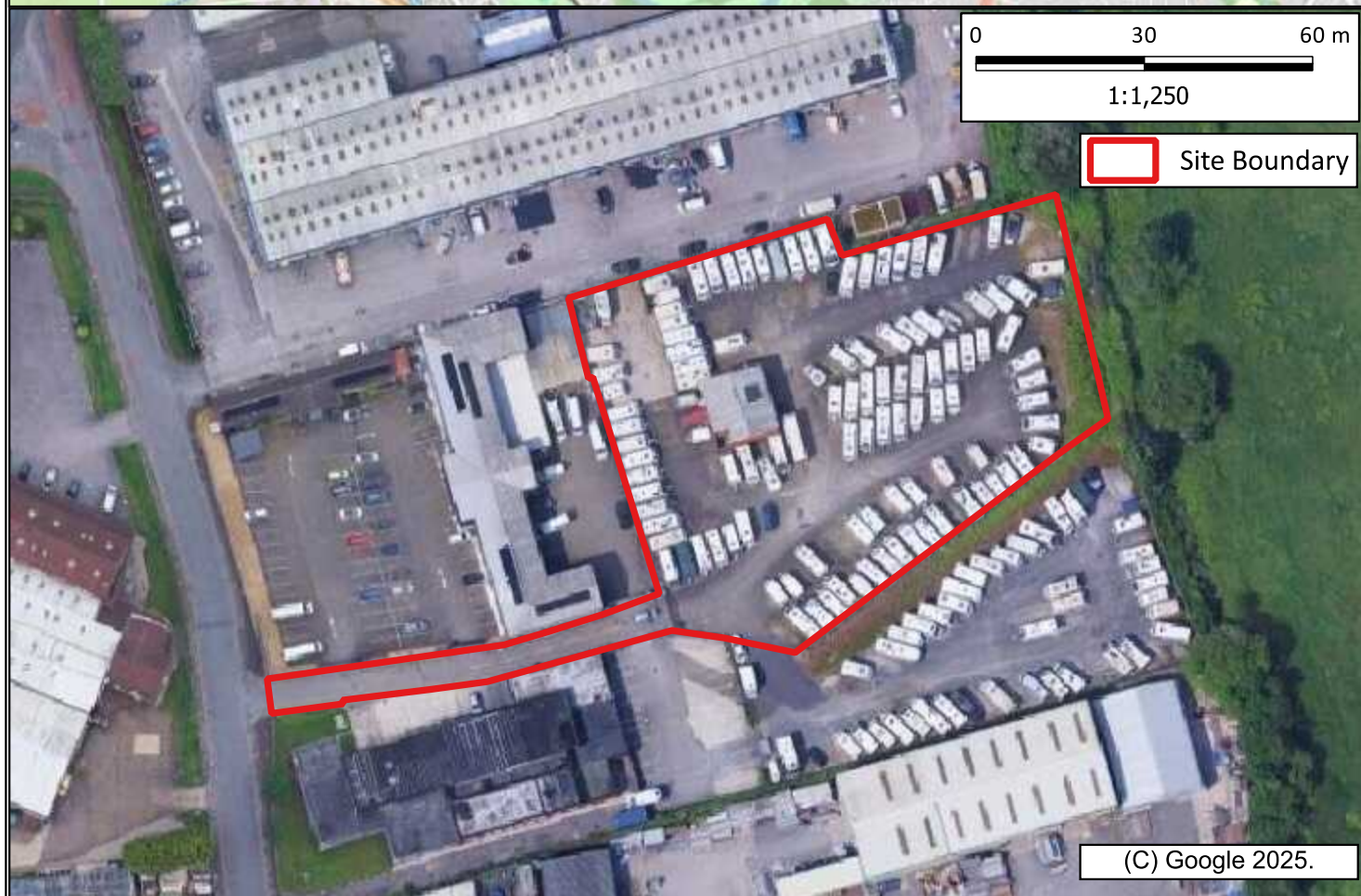
This report has been prepared by LKC who have exercised such professional skill, care and diligence as may reasonably be expected of a properly qualified and competent consultant experienced in preparing reports of a similar scope. However, to the extent that the report is based on or relies upon information contained in records, reports or other materials provided to LKC which have not been independently produced or verified, LKC gives no warranty, representation, or assurance as to the accuracy or completeness of such information.

This report is issued on the condition that LKC will not be held liable for any loss arising from ground conditions between sampling points (i.e. boreholes/trial pits/hand augers/surface samples) which have not been shown by the sampling points or related testing carried out during the investigation, nor for any loss arising from conditions below the maximum depth of the investigation, or for any works done to the garden areas following the date of inspection. Opinions on such conditions, where given, are for general guidance only.

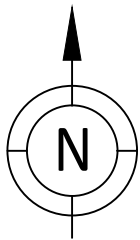
This report is prepared solely for the benefit of the client. It may not be relied upon by or submitted to a third party for their reliance for the purposes of valuation, mortgage, insurance, and regulatory approval, until all invoices have been settled in full. Those using this information in subsequent assessments or evaluations do so at their own risk.

¹ DEFRA, September 2006, "Environmental Protection Act 1990: Part 2A. Contaminated Land.", Defra Circular 01/2006.

APPENDIX A – SITE PLANS



Client: Love Padel Ltd				Title: Site Location & Boundary Plan				 LK CONSULT			
Site: Eton Hill Road, Radcliffe				Scale (see scale bar): 1:25,000 & 1:1250 @ A4							
D o b No.: LKC 251563	Drawn By: CC	Checked By: AE	Drawn: Nov 2025	Figure: 1		Revision:					



KEY

 Site Boundary

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



LK CONSULT

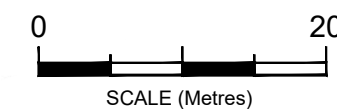
Client:
Love Padel Ltd

Site:
Eton Hill Road, Radcliffe

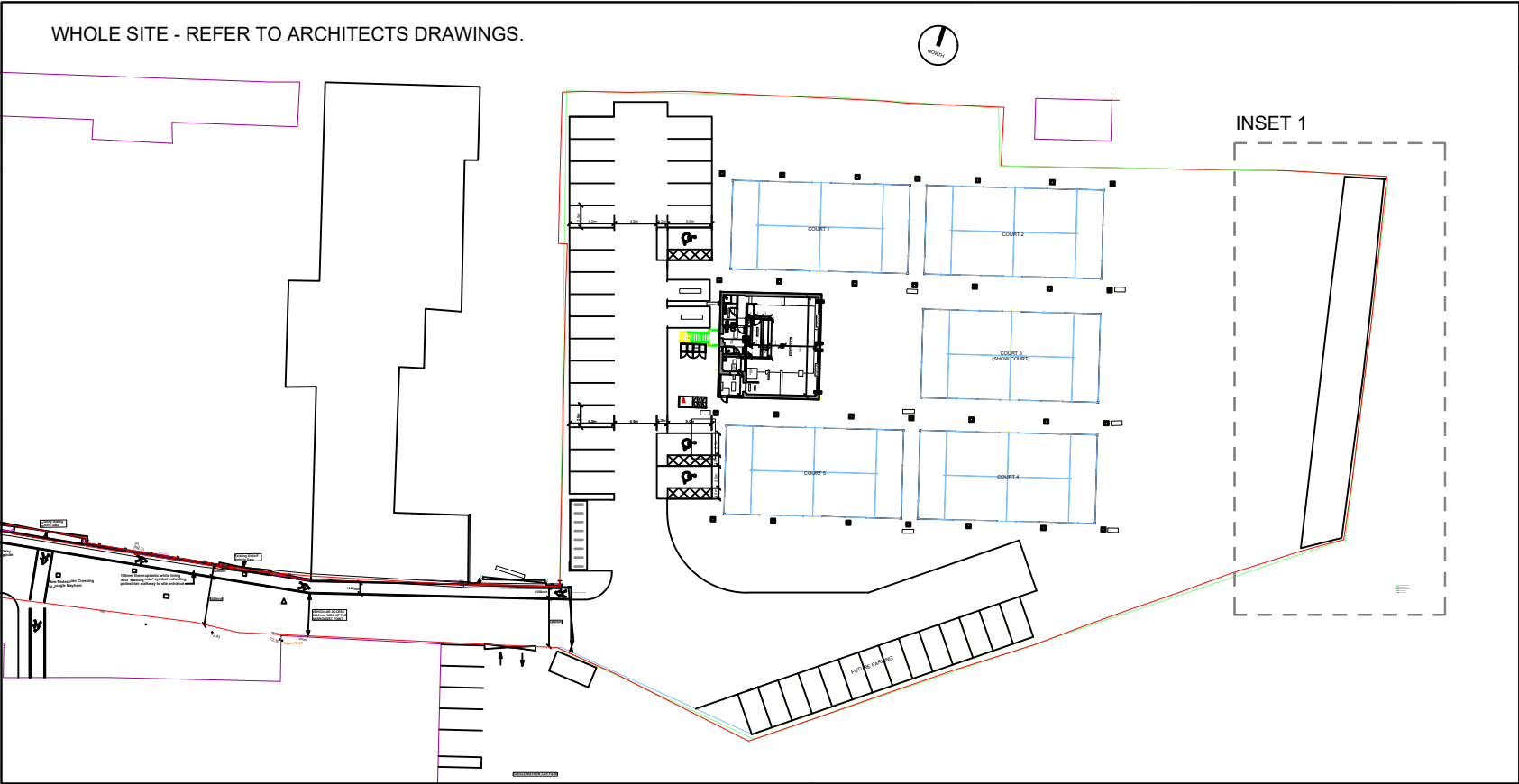
Title:
Proposed Development Plan

Job No.:	LKC251563	Scale (See Scale Bar):	See Scale Bar	Figure:	Revision:
Drawn By:	AC	Checked By:	AE	Drawn:	Oct 2025
					2

Extract From: Corstorphine & Wright
Drawing Ref: Proposed Site Plan, No.CWA-SS-00-DR-A-0301, Rev:04 (10/09/2025)



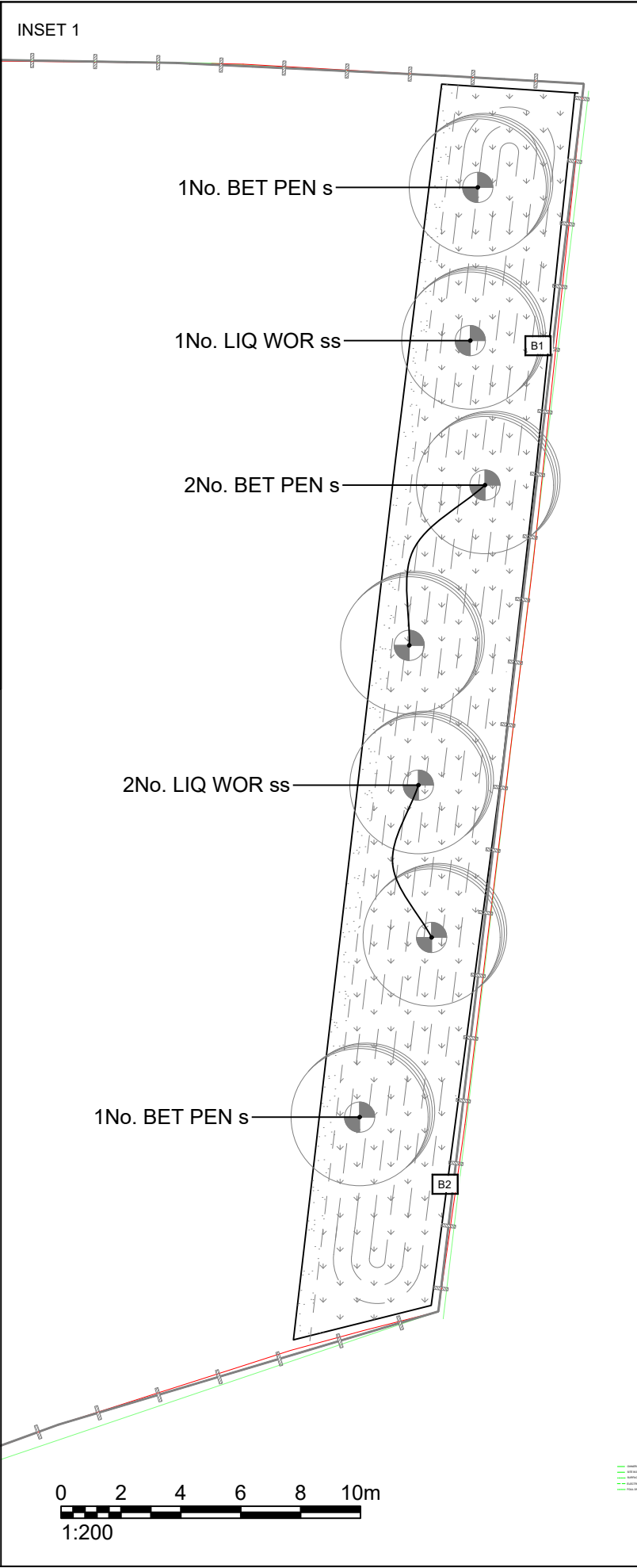
APPENDIX B – PROPOSED SOFT LANDSCAPING PLAN



PLANT SCHEDULE					
TREES					
QTY	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT
4No.	BET PEN s	Betula pendula	C 25L	STD	8-10cm
3No.	LIQ WOR ss	Liquidamber styraciflua "Worplesdon"	B	STD	10-12cm
AMENITY GRASS					
24 m2	A19 (All Purpose Landscaping) Germinial Holdings Ltd (formally British Seed Houses Ltd)				
WILDFLOWER MEADOW					
161m2	EM3 General Wildflower Meadow, by Emorsgate Seeds.				
NOTES AND ABBREVIATIONS:					
C = Container (or pot) grown, followed by size of the container (or pot).					
FORM = Shape of tree as supplied by the nursery.					
QTY = Quantity					
STD = (clear stem) Standard.					
STOCK = Root condition/protection method eg Bare root.					
- Refer to specification for further information.					
- All plants to be completely hardened off					
- Substitutions to be agreed with Landscape Architect.					

PLANTING NOTES:	
All work to be carried out to the satisfaction of the Landscape Architect. No planting position or species shall be altered without the approval of the Landscape Architect. Detailed foundation and drainage designs were not available when planting proposals were produced. All topsoil and subsoil is to be analysed by a qualified soil scientist and the findings supplied in report form including recommendations to bringing soils up to specification. The soil survey shall include analysis of representative topsoil and subsoil samples (sample numbers to be determined by the soil scientist).	

Landscape areas shall be excavated to the following minimum depths:
Amenity Grass -150mm, in areas where land is flat, mounding as shown on drawing.
Back fill landscape areas with multi-purpose topsoil to BS 3882: 2015 to a maximum depth of 150mm for grass areas and 300mm for shrub areas with free draining subsoil below, if required soil to be de-compacted to allow good drainage. All areas where soil is to be incorporated over formerly hard areas or compacted ground, these are to be excavated a further 300mm and backfilled to below topsoil level with free draining subsoil to match PH of topsoil used on site. Following settlement of topsoil, top up areas and cultivate to depth of topsoil.
Contractors to ensure all tree pits are free draining.
Trees to be selected and planted in accordance with BS 8545:2014.
Tree pits to be square and 150mm wider than the rootball on all sides.
The planting pit should be no deeper than the existing rootball or container depth.
The base of the tree pit should remain undisturbed, unless additional measures are specified, to avoid sinking of the rootball. The rootflare should be proud of the soil and easily visible after planting. Tree stock should be supplied with nursery line marked on tree if available from nursery and line planted flush with ground level.
All preparations, both hard and soft under/around trees to be retained must be carried out by hand to protect roots
All plant material procedures are to conform to the relevant British Standards (3936/4428) codes of practice. Unless otherwise specified planting is to conform to National Planting Specification..
Planting will commence during the first planting season (mid Nov-mid March) after substantial completion of the site. Should planting commence outside the dormant period allow for all bare root stock to be supplied container grown.



NJ LANDSCAPE DESIGN REF:
0502-PP-01

This drawing is subject to copyright.
Do not scale from this drawing

Based on drawing by Corstorphine and Wright
Architects, Design Drawing number
240956-CWA-SS-00-DR-A-0301

NORTH

KEY

Proposed native tree

Wildflower meadow on bund 600mm high

Amenity Grass

Existing fencing to be retained.

ECOLOGICAL ENHANCEMENTS

B1

Bat Roosting Box
Habitat Triple Chambered Bat Box

B2

Bird Boxes
Habitat Timber Nest Box 1

NOTES:

• Bin stores to be detailed by architect.

• Build ups to be detailed by project engineer.

• Any boundary treatment/wall over 1.1m to be reviewed by structural engineer.

• Any wall above 600mm would need to be reviewed for a safety restraint.

• EV charging points to be specified by others.

PLANNING ONLY

NOT FOR TENDER OR CONSTRUCTION

P2 09.12.25 Additional trees proposed.

P1 27.10.25 Minor amends to text.

NP
NP

REV: DATE: DESCRIPTION: DRW CHK APP

www.njlandscapedesign.co.uk
studio@njlandscapedesign.co.uk

CLIENT:
Love to Padel Ltd.

PROJECT:
Padel Tennis Facility, Radcliffe

DRAWING TITLE:
Planting Plan for Landscape Buffer ONLY

DRAWING NO:
0502-PP-01

DRAWING SCALE:
1/200 @ A3

DRAWING DATE:
21/10/2025

DWG REV:
P2

DRAWN BY:
CHECKED BY:
APPROVED BY: NP

APPENDIX C – SOIL SUPPLIER CERTIFICATION

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 26/05100
Issue Number: 1-S1

Date: 08 May, 2026

Client: S.E.D. Services Ltd
Landgate Farm
Landgate Lane
Bryn
Wigan
UK
WN4 0EJ

Project Manager: Claire Adamson
Project Name: Soil Samples
Project Ref: Not specified
Order No: TBC
Date Samples Received: 27/04/26
Date Instructions Received: 27/04/26
Date Analysis Completed: 07/05/26

Approved by:



Richard Wong
Client Manager

Envirolab Job Number: 26/05100

Client Project Name: Soil Samples

Client Project Ref: Not specified

Lab Sample ID	26/05100/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	DH1									
Depth to Top										
Depth To Bottom										
Date Sampled	23-Apr-26									
Sample Type	SOIL									
Sample Matrix Code	4AE									
% Stones >10mm _A	<0.1							% w/w	0.1	A-T-044
pH _D ^{M#}	7.91							pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.01							g/l	0.01	A-T-026s
Organic Matter _D ^{M#}	2.21							% w/w	0.14	A-T-032s
Arsenic _D ^{M#}	2							mg/kg	1	A-T-024s
Cadmium _D ^{M#}	<1.0							mg/kg	1	A-T-024s
Copper _D ^{M#}	9							mg/kg	1	A-T-024s
Chromium _D ^{M#}	6							mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1							mg/kg	1	A-T-040s
Lead _D ^{M#}	16							mg/kg	1	A-T-024s
Mercury _D	<0.17							mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	6							mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1							mg/kg	1	A-T-024s
Zinc _D ^{M#}	26							mg/kg	1	A-T-024s

Envirolab Job Number: 26/05100

Client Project Name: Soil Samples

Client Project Ref: Not specified

Lab Sample ID	26/05100/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	DH1									
Depth to Top										
Depth To Bottom										
Date Sampled	23-Apr-26									
Sample Type	SOIL									
Sample Matrix Code	4AE									
Asbestos in Soil (inc. matrix) ^										
Asbestos in soil [#]	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									A-T-045

Envirolab Job Number: 26/05100

Client Project Name: Soil Samples

Client Project Ref: Not specified

Lab Sample ID	26/05100/1							Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	DH1									
Depth to Top										
Depth To Bottom										
Date Sampled	23-Apr-26									
Sample Type	SOIL									
Sample Matrix Code	4AE									
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#}	0.05							mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.22							mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.28							mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.32							mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	0.17							mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	0.11							mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.24							mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04							mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.41							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#}	0.19							mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03							mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.17							mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.40							mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	2.57							mg/kg	0.01	A-T-019s

Report Notes

General

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

Key

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

Asbestos

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

Assigned Matrix Codes

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

Soil Chemical Analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any “A” subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any “D” subscripts.

TPH by method A-T-007:

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

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

EPH CWG results have humics mathematically subtracted through instrument calculation.

Where these humic substances have been identified in any IDs from “TPH CWG with clean up” please note that the concentration is **NOT** included in the quantified results but present in the ID for information.

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

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

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

Envirolab Deviating Samples Report

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

Client:	S.E.D. Services Ltd, Landgate Farm, Landgate Lane, Bryn, Wigan, UK, WN4 0EJ	Project No:	26/05100
Project:	Soil Samples	Date Received:	27/04/2026 (am)
Clients Project No:		Cool Box Temperatures (°C):	13.2

NO DEVIATIONS IDENTIFIED with respect to sampling dates or containers received.

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	26/05100/1
Client Sample No	
Client Sample ID/Depth	DH1
Date Sampled	23/04/26
A-T-019s	05/05/2026
A-T-024s	01/05/2026
A-T-026s	06/05/2026
A-T-031s	01/05/2026
A-T-032s	07/05/2026
A-T-040s	06/05/2026
A-T-044	01/05/2026
A-T-045	29/04/2026

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

End of Report



Certificate of Analysis

Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: TOPSOIL
SOIL

Lab ID: 48003 - 791609
Sample ID: TOPSOIL
Sample Weight: 1679g

Date Received: 07/04/2026
Date Reported: 21/04/2026

BS 3882 : 2015 SPECIFICATION FOR TOPSOIL Multipurpose Grade

				Compliant with range (Y/N)					
				Multi-P	Acid	Calc	Low-F	Low-F Acid	Low-F Calc
Texture:	Clay	% w/w	29						
	Silt	% w/w	22						
	Sand	% w/w	49						
	Textural Class		Clay Loam	Y	Y	Y	Y	Y	Y
				<i>See area of permitted soil textural classes in Fig. 1.</i>					
Organic Matter:		% w/w	12.9	Y	Y	Y	Y	Y	Y
Coarse	>2 mm	% w/w	0.8	Y	Y	Y	Y	Y	Y
Fragment	>20 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Content:	>50 mm	% w/w	0.0	Y	Y	Y	Y	Y	Y
Soil pH:			6.2	Y	N	N	Y	N	N
Carbonate:		% w/w	1.7			Y			Y
Available	Nitrogen	% w/w	0.447	Y	Y	Y			
Plant	Phosphorus	mg/l	91.8 (5)*	Y	Y	Y	N	N	N
Nutrients:	Potassium	mg/l	152.3 (2-)*	Y	Y	Y			
	Magnesium	mg/l	173.6 (3)*	Y	Y	Y			
Carbon:Nitrogen Ratio:		:1	16.7	Y	Y	Y	Y	Y	Y
Exchangeable Sodium Percentage:		%	0.8						
Phytotoxic	Total Zinc	mg/kg	78.0	Y	Y	Y	Y	Y	Y
Contaminants:	Total Copper	mg/kg	35.0	Y	Y	Y	Y	Y	Y
	Total Nickel	mg/kg	32.1	Y	Y	Y	Y	Y	Y
Visible	> 2mm	% w/w	0.10	Y	Y	Y	Y	Y	Y
Contaminants:	Plastics	% w/w	0.00	Y	Y	Y	Y	Y	Y
	Number of Sharps		0	Y	Y	Y	Y	Y	Y
Additional	Available Sodium	mg/l	21.0						
Analysis:	Available Calcium	mg/l	1950.0						
	Conductivity	uS/cm	2083	Y					
Compliance:				Y	N	N	N	N	N

Results are expressed on a dry matter basis.

* Soil indices from RB209

Released by:

Teresa Clyne

Date: 21/04/2026

DECLARATION:

I certify that this sample has been analysed by NRM in accordance with BS 3882 Specification for Topsoil (2015).

NRM Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

Tel: +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com

Analytical Report

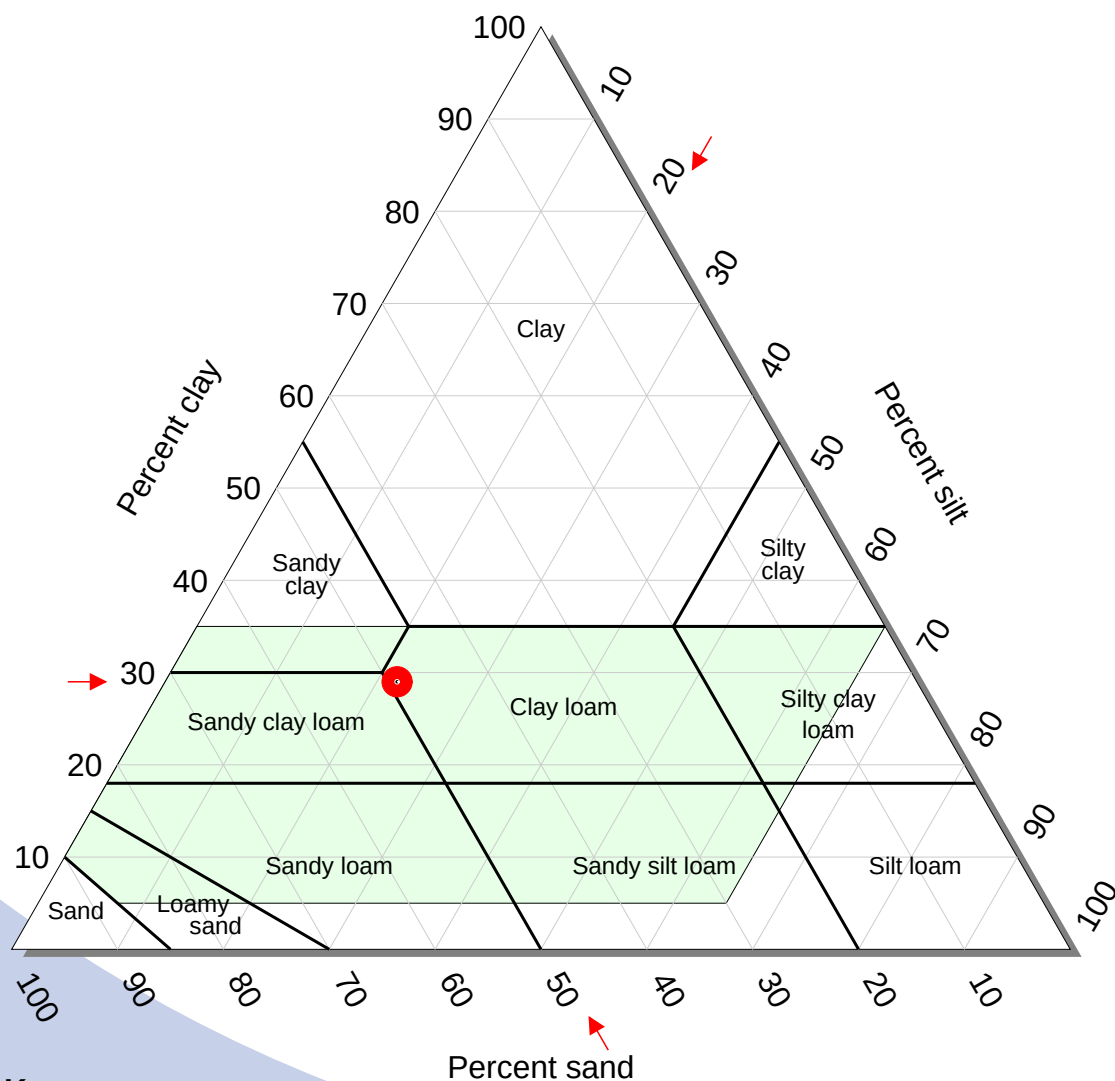
Client: STUART BALDWIN
(T283) SED SERVICES LTD
LANDGATE FARM
LANDGATE LANE
BRYN
WIGAN WN4 0EJ

Originator: TOPSOIL
SOIL

Lab ID: 48003 - 791609
Sample ID: TOPSOIL
Sample Weight: 1679g

Date Received: 07/04/2026
Date Reported: 21/04/2026

Fig. 1. Textural Class: Clay Loam (compliant)



Key

 Area within which texture of topsoil is required to fall.

Analytical Notes

Final page must indicate end of report. Page 3

Accreditation and method details

NRM is a UKAS-accredited testing laboratory (No 2334), accredited to BS EN ISO 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF communique dated April 2017). <http://ilac.org/?download=120917>

NRM is accredited for particular determinands in specific matrices as set out in the laboratory's current UKAS schedule of accreditation

https://www.ukas.com/wp-content/uploads/schedule_uploads/00002/2334Testing-Multiple.pdf

Accreditation applies to the following parameters in this report and is applicable to SOIL samples only. All other tests within this report are unaccredited.

Test	Analysis SOP	Method Description
Fluoride	JAS-487	Sulphuric acid extraction (1:10 ratio) and determination by ion selective electrode
Arsenic	JAS-510 / JAS-300	Aqua regia digest on hot block and determination by ICP-OES
Barium		
Beryllium		
Cadmium		
Chromium		
Cobalt		
Copper		
Lead		
Molybdenum		
Mercury		
Nickel		
Vanadium		
Zinc		
Selenium	JAS-510 / JAS-455	Aqua regia digest on hot block and determination by AFS

Analysis Notes

Analysis is carried out on the air-dried (<30°C) and ground sample.

The results as reported relate only to the item(s) submitted for testing.

The results are presented on a dry matter basis.

Indices are derived solely from the numerical value and test result without reference to measurement uncertainty.

Document Control

This test report shall not be reproduced, except in full, without the written approval of the laboratory.

We cannot offer interpretation or opinions for results.

Sampling information

BS ISO 18512:2007 (Soil quality – Guidance on long and short-term storage of soil samples) states that for pH the period of stability and therefore holding time for a wet or 'fresh' soil sample is one week from sampling. Other determinants in the fresh sample may be considered stable for up to a month. Once the sample has been dried the sample may then be considered stable for up to 3 years. No records are maintained by NRM on date sampled or date dried so all samples within this report are considered not to be meeting the requirements of this BS / ISO. Consequently, all pH results given are those of the as-received sample and may not reflect the pH value of the sample when taken.

Conformity Assessment

Where a result has been converted to an index or if it has been classified as a pass or fail to a certain specification anywhere in this report a rule has been applied to convert the analytical result to that index or a pass/fail. Statistically the rule is a simple acceptance rule which does not account for uncertainty and therefore has a zero guard band which nominally has a width w=0. This means there is a 50% probability that a result exactly equal to the specification limit will be outside the specification.

The uncertainty of measurement has been calculated for the tests in this report. This value can provide further information on the validity of conformity statements close to the specification limit and is available from the laboratory on request.

Customer-supplied information

The following information in this report has been supplied by the customer: customer details; client details; quotation number / analysis required; order number; sampling date (if present); sample identifications.

END OF REPORT

TEST CERTIFICATE

PARTICLE SIZE DISTRIBUTION

BS EN 933-1 : 2012 (Washing & Sieving Method)

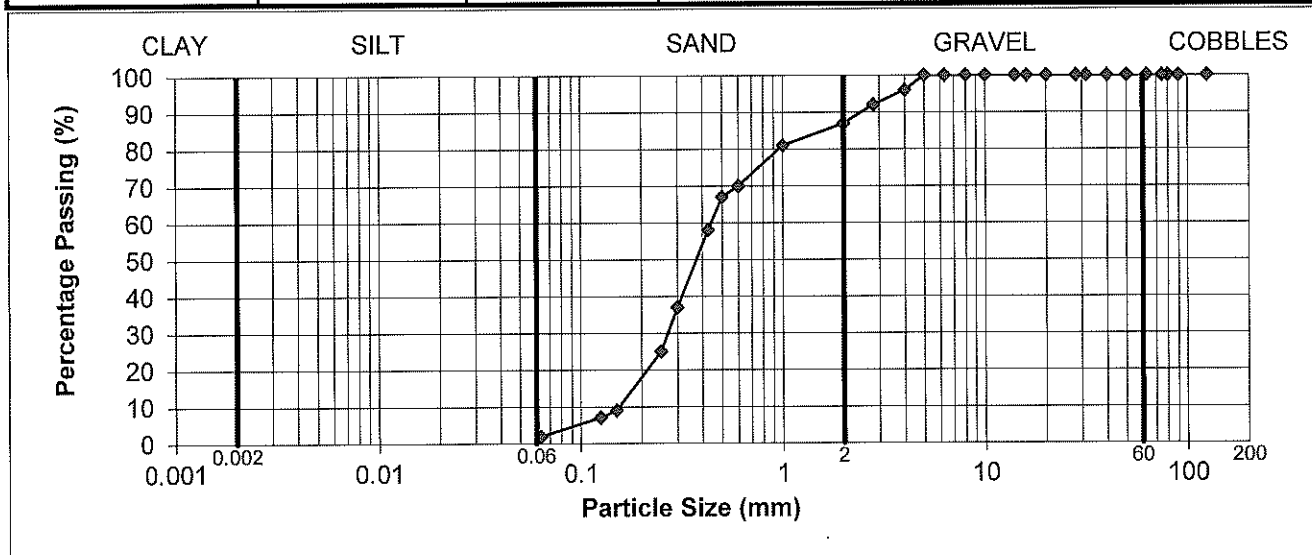
Determination of water content in accordance with BS EN 1097-5:2008

CLIENT	Armstrong Aggregates Ltd
SITE	Ex-Montcliffe Quarry
JOB NUMBER	MRN 25135/15

SAMPLE LABEL	0/4mm Washed Gritsand	DATE SAMPLED	31-Mar-25
LAB SAMPLE No	5054906	DATE RECEIVED	03-Apr-25
DATE TESTED	07-Apr-25	SAMPLED BY	Client

MATERIAL	Gritsand
ADVISED SOURCE	As client and site above

Sieve Size (mm)	% Passing (%)	Specification (%)	Sieve Size (mm)	% Passing (%)	Specification (%)
125	100		6.3	100	
90	100		5	100	95-100
80	100		4	96	85-99
75	100		2.8	92	
63	100		2	87	
50	100		1	81	
40	100		0.6	70	
31.5	100		0.5	67	
28	100		0.425	58	
20	100		0.3	37	
16	100		0.25	25	
14	100		0.15	9	
10	100		0.125	7	
8	100	100	0.063	1.9	



REMARKS

Sample complies with the advised grading specification for a G_F85 as shown in Table 2 BS EN 12620:2002+A1:2008
As received water content = 7.3%

SIGNED



NAME

O.P. Davies BA (Hons)
(Director / Head of Laboratory)

DATE

01-May-25

APPENDIX D – TOPSOIL CERTIFICATES OF ANALYSIS

Certificate of Analysis

Certificate Number 26-13769

Issued: 25-Jun-26

Client LK Consult Limited
Unit 29
Eton Business Park
Eton Hill Road
Radcliffe
Manchester
M26 2ZS

Our Reference 26-13769

Client Reference ~ LKC261457

Order No ~ PO-C003087

Contract Title ~ Love Padel

Description 3 Soil samples.

Date Received 09-Jun-26

Date Started 09-Jun-26

Date Completed 25-Jun-26

Test Procedures Identified by prefix DETSn (details on request).

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

Approved By

A handwritten signature in black ink, appearing to read "Louise Cook".

Louise Cook
Contracts Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 26-13769
 Client Ref ~ LKC261457
 Contract Title ~ Love Padel

Lab No	2698990	2698991	2698992
Sample ID ~	TS101	TS102	TS103
Depth ~			
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	08/06/2026	08/06/2026	08/06/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Preparation						
Moisture Content	DETSC 1004	0.1	%	17	16	18
Metals						
Arsenic	DETSC 2301#	0.2	mg/kg	9.4	15	7.5
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	1.2		
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.4	0.4
Chromium	DETSC 2301#	0.15	mg/kg	13	12	14
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	34	40	23
Lead	DETSC 2301#	0.3	mg/kg	38	30	40
Mercury	DETSC 2325#	0.05	mg/kg	0.11	0.09	0.20
Nickel	DETSC 2301#	1	mg/kg	15	21	9.1
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5
Vanadium	DETSC 2301#	0.8	mg/kg	20	25	17
Zinc	DETSC 2301#	1	mg/kg	89	130	94
Inorganics						
pH	DETSC 2008#		pH	8.3	8.3	8.3
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.3		
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5		
Organic matter	DETSC 2002#	0.1	%	6.3	6.2	8.3
Sulphate Aqueous Extract as SO4 (2:1)	DETSC 2076#	10	mg/l	170	130	190
Petroleum Hydrocarbons						
Aliphatic C5-C6: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01		
Aliphatic C6-C8: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01		
Aliphatic C8-C10: HS_1D_AL	DETSC 3321*	0.01	mg/kg	< 0.01		
Aliphatic C10-C12: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	2.3		
Aliphatic C12-C16: EH_CU_1D_AL	DETSC 3072#	1.2	mg/kg	< 1.2		
Aliphatic C16-C21: EH_CU_1D_AL	DETSC 3072#	1.5	mg/kg	< 1.5		
Aliphatic C21-C35: EH_CU_1D_AL	DETSC 3072#	3.4	mg/kg	7.8		
Aliphatic C35-C40: EH_CU_1D_AL	DETSC 3072*	3.4	mg/kg	< 3.4		
Aliphatic C10-C44: EH_CU_1D_AL	DETSC 3072*	10	mg/kg	10		
Aliphatic C5-C40: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	10		
Aliphatic C5-C44: EH_CU+HS_1D_AL	DETSC 3072*	10	mg/kg	10		
Aromatic C5-C7: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01		
Aromatic C7-C8: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01		
Aromatic C8-C10: HS_1D_AR	DETSC 3321*	0.01	mg/kg	< 0.01		
Aromatic C10-C12: EH_CU_1D_AR	DETSC 3072#	0.9	mg/kg	1.3		
Aromatic C12-C16: EH_CU_1D_AR	DETSC 3072#	0.5	mg/kg	< 0.5		
Aromatic C16-C21: EH_CU_1D_AR	DETSC 3072#	0.6	mg/kg	2.5		
Aromatic C21-C35: EH_CU_1D_AR	DETSC 3072#	1.4	mg/kg	25		
Aromatic C35-C40: EH_CU_1D_AR	DETSC 3072*	1.4	mg/kg	< 1.4		
Aromatic C10-C44: EH_CU_1D_AR	DETSC 3072*	10	mg/kg	41		

Summary of Chemical Analysis

Soil Samples

Our Ref 26-13769
 Client Ref ~ LKC261457
 Contract Title ~ Love Padel

Lab No	2698990	2698991	2698992
Sample ID ~	TS101	TS102	TS103
Depth ~			
Other ID ~			
Sample Type ~	SOIL	SOIL	SOIL
Sampling Date ~	08/06/2026	08/06/2026	08/06/2026
Sampling Time ~	n/s	n/s	n/s

Test	Method	LOD	Units			
Aromatic C5-C40: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	29		
Aromatic C5-C44: EH_CU+HS_1D_AR	DETSC 3072*	10	mg/kg	41		
TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	39		
TPH Ali/Aro C5-C44: EH_CU+HS_1D_Total	DETSC 3072*	10	mg/kg	51		
Ali/Aro C10-C44: EH_CU_1D_Total	DETSC 3072*	10	mg/kg	51		
Benzene	DETSC 3321#	0.01	mg/kg	< 0.01		
Ethylbenzene	DETSC 3321#	0.01	mg/kg	< 0.01		
Toluene	DETSC 3321#	0.01	mg/kg	< 0.01		
Xylene	DETSC 3321#	0.01	mg/kg	< 0.01		
m+p Xylene	DETSC 3321#	0.01	mg/kg	< 0.01		
o Xylene	DETSC 3321#	0.01	mg/kg	< 0.01		
MTBE	DETSC 3321	0.01	mg/kg	< 0.01		
PAHs						
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.05
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.03	< 0.03	0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.22	0.20	0.21
Anthracene	DETSC 3303	0.03	mg/kg	0.06	0.06	0.06
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.62	0.62	0.50
Pyrene	DETSC 3303#	0.03	mg/kg	0.59	0.58	0.47
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.25	0.26	0.20
Chrysene	DETSC 3303	0.03	mg/kg	0.24	0.24	0.19
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.32	0.33	0.26
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.12	0.12	0.09
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.21	0.22	0.16
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.10	0.10	0.08
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.13	0.12	0.10
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.9	2.8	2.4
Phenols						
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	1.0		

Summary of Asbestos Analysis Soil Samples

Our Ref 26-13769

Client Ref ~ LKC261457

Contract Title ~ Love Padel

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2698990	TS101	SOIL	NAD	none	Pierce Booth
2698991	TS102	SOIL	NAD	none	Pierce Booth
2698992	TS103	SOIL	NAD	none	Pierce Booth

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-13769
 Client Ref ~ LKC261457
 Contract ~ Love Padel

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date		Containers Received	Holding time exceeded for tests	Incorrect container for tests
		Sampled ~				
2698990	TS101 SOIL	08/06/26		GJ 250ml, GJ 60ml, PT 1L		
2698991	TS102 SOIL	08/06/26		GJ 250ml, GJ 60ml, PT 1L		
2698992	TS103 SOIL	08/06/26		GJ 250ml, GJ 60ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

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

Det

Aliphatic C5-C6

Acronym

HS_1D_AL

APPENDIX E – GENERIC ASSESSMENT CRITERIA

Generic Assessment Criteria Values

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

Generic Assessment Criteria Values

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

Generic Assessment Criteria Values

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

Generic Assessment Criteria Values

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

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

APPENDIX F – SEPARATION GEOTEXTILE

Standard Geotextiles

DESCRIPTION:

Nonwoven geotextile manufactured from UV stabilised, high tenacity, virgin polypropylene fibres that have been both mechanically and thermally bonded to provide a highly permeable yet durable separation and filtration layer.

APPLICATIONS:

With 50 years of unrivalled expertise and experience Terram standard geotextiles are the original nonwoven geotextiles for separation and filtration applications.

Typical uses include the prevention of intermixing of sub-base and subgrade layers, drainage and bedding materials. Terram filters/separators are used extensively in the construction of:

- Paved and unpaved roads
- Railways
- Car parks and hardstandings
- Cycleways and footpaths
- Sustainable Drainage Systems (SuDS)

FEATURES & BENEFITS:

- Manufactured from inert high tenacity virgin polypropylene fibres giving excellent long term durability in all soil types.
- High static and dynamic puncture resistance ensures a low risk of damage during construction.
- Random orientated web with isotropic properties provide the same strength, permeability and filtration in all directions.
- High elongation at break maintains separation and filtration function under load particularly in soft and variable ground conditions.

**APPROVAL:**

Network Rail PADS certificate numbers; T1000 057/100703, T2000 57/100705 and T3000 57/100706 (4.5m wide x 100m long rolls).



			Mean Value									
MECHANICAL PROPERTIES	Test Method	Unit	T700	T900	T1000	T1000 Orange	T1300	T1500	T2000	T3000	T4000	T4500
Tensile Strength	EN ISO 10319	kN/m	6	7.5	8	8	10	12.5	14.5	18	22	30
Tensile Elongation	EN ISO 10319	%	60	60	60	60	60	60	60	60	60	60
CBR Puncture Resistance	EN ISO 12236	N	1050	1350	1500	1500	2000	2250	2750	3250	4300	5350
Cone Drop	EN ISO 13433	mm	42	40	38	38	34	32	26	24	22	14
HYDRAULIC PROPERTIES												
Pore Size - Mean AOS	EN ISO 12956	µm	95	95	90	90	65	65	65	60	60	60
Permeability—(H50)	EN ISO 11058	l/m ² s	100	95	90	90	65	65	55	50	30	30
DURABILITY PROPERTIES												
Weathering (UV Exposure)	EN 12224	Days	30	30	30	30	30	30	30	30	30	30
Combined ageing (Oxidation, temperature & moisture)	EN ISO 13438	Service Life (Years)	50	50	100	100	100	100	100	100	100	100
PHYSICAL PROPERTIES												
Thickness @ 2kPa (Nominal)	EN ISO 9863-1	mm	0.9	1.0	1.1	1.1	1.4	1.6	1.7	1.8	2.0	2.4
MATERIAL DIMENSIONS												
Standard Roll Length		m	150	150	100	100	100	100	100	100	50	50
Standard Roll Width		m	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Maximum Roll Width		m	6	6	6	6	6	6	6	6	6	6
Gross Roll Weight (Nominal)		kg	65	85	60	60	75	85	100	120	80	95

PACKAGING & IDENTIFICATION

Terram Standard Geotextiles are supplied on cardboard cores and wrapped in Polyethylene sheeting with identification labels in accordance with ISO 10320.

STORAGE

The rolls of geotextile shall be stored on stable/ level ground and stacked not more than five rolls high and no other materials shall be stacked on top. The rolls can be stored outdoors when packaged, but should be protected from exposure to UV. All materials should be stored in accordance with good health and safety practice and in accordance with local laws. For additional information please refer to Terram Geotextiles MSDS.

QUALITY

Terram Standard Geotextiles are supplied having met internal quality requirements in accordance with our Quality Management system which is certified to BS EN ISO 9001:2015.

NOTES

Reported values are arithmetic mean values unless otherwise stated. For further details on physical parameters please refer to the individual Declaration of Performance certificates available for download from www.terram.com

Reported values related to durability testing are generally based on the lowest grade product within a family.

A Nominal value indicates that the value is not part of the performance specification and is provided for guidance only.

Gross roll weight is based on 4.5m wide rolls at standard length; information provided is for lifting guidance only and does not for part of quality control.

ADDITIONAL INFORMATION

Refer to the Terram Jointing Methods (downloadable from www.terram.com) for when simple overlaps are required for subsequent and adjacent roll lengths. However, pegging, sewing, stapling or gluing can also be used depending upon the application, the sub-grade conditions, the loading, the convenience and the cost.

These figures relate to standard product weights and roll sizes. Other weights, sizes and colours may be available on request. For further information please contact Terram Technical Support.

As part of its continued improvement process Terram® Ltd reserve the right to change the properties listed on this data sheet without prior notice.

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