



Enabling Phase Validation Report

Wildhouse Lane, Milnrow
For
Lancet Homes Limited

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Quality Management

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LIMITATIONS

DB Remediation Ltd (DBR) has prepared this report with reasonable skill, care and diligence and taking account of the contract terms and conditions and manpower and resources devoted to it in agreement with the client. DBR disclaims any responsibility to the client and others in respect of any matters outside the scope of the above.

This report has been prepared based on the information received during the timescale available and all potential contamination; constraints or liabilities associated with the site may not necessarily have been revealed.

The report is only valid when it is used in its entirety.

This report is confidential to the client and DBR accepts no responsibility to third parties to whom the report, or any part thereof, is made known. Any such party using any information contained within the report does so at their own risk

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1. Introduction

1.1. Authorisation

DB Remediation (DBR) have been commissioned by Lancet Homes Ltd to complete the earthworks to an area of land located on Wildhouse Lane, Milnrow, OL16 3DG. A site location plan is included in Appendix A.

The enabling and earthworks have been undertaken on behalf of Tempus Design and Build (the Client). This validation report is written for submission to Rochdale Borough Council to satisfy Condition 26 of Planning Application 20/00639/FUL.

1.2. Proposed Development

The site is to be developed into 47 houses providing associated roads, footways, public open space, parking areas, drainage, landscaping and boundary treatments. Figure 1 shows a snapshot of the proposed development layout and the full drawing (ref. 8764-BA-ZZ-00-DR-A- (04) 210-V, is presented in Appendix A.



Figure 1 – Proposed Development Layout

1.3. Existing Reports and Information Sources

The following site investigation report/reports are available under separate cover.

- BEK — *Site Investigation & Ground Assessment*. Report Ref: BEK-19555-2, dated July 2019.
- BEK — *Preliminary Risk Assessment*. Report Ref: BEK-19555-1, dated July 2019.
- DBR — *Remediation Strategy Report*. Report Ref: 394.06.21.RS, dated 23rd September 2019.

BEK previously completed extensive chemical testing. All soil chemical results were compared against generic human health screening values, based on 'residential with plant uptake' and also 'Public Open Space (residential)' end uses.

Only one sample was identified to be elevated at WS11 (0.30m bgl) for lead. No other contaminants were found to be elevated in either the buried waste, topsoil or the Made Ground. This indicates that soils are generally suitable for re-use, subject to further testing.

Reuse criteria were set out in Appendix F of the Remediation Strategy.

1.4. Regulatory Approval

The Risk Assessments and the Remediation Strategy for the site (listed above) were approved in the following correspondence, copies of which are included in Appendix C.

- Email from Sylvia Whittingham, Environment Agency, 03 June 2021.
- Email from Michael Moore, Rochdale Borough Council, 29 July 2021.

2. Enabling Phase Remedial Works

2.1. Introduction

Works were undertaken between April and July 2022. The enabling phase remedial actions aimed to:

- To ensure that post-remediation there are no residual unacceptable risks associated with the site, to human health via future excavation or development works;
- Remove any unsuitable material encountered during earthworks; and,
- provide a suitable platform for construction.

A geo-environmental engineer was in part-time supervision of the works to ensure appropriate environmental management alongside recording and documenting progress. The demolition was completed by Jim Wise Demolition during the first phase of site work.

2.1.1. Enabling Phase Actions

The following works were undertaken to prepare the site for development.

- Preparation of Construction, Environment and Management Plan (CEMP);
- Demolition of remaining above-ground buildings;
- Removal of below-ground obstructions from within the development footprint;
- Site-wide regrading to achieve construction formation level and re-engineering to deliver the proposed development platform and access. The earthworks will segregate material into five key types for re-use:
 - Topsoil/Subsoil (Gardens)
 - Topsoil/Subsoil (Landscaping)
 - Engineered Fill (Landscaping)
 - Engineered Fill (Development)
 - Crushed Stone/Aggregate for Construction
- Footings and demolition rubble will be crushed to produce a suitable material in accordance with DBR WRAP protocol to a 6F2 grading for re-use in construction;
- Placement of piling mat beneath buildings where required;
- Additional gas monitoring, proposed to comprise 6 visits across 3 months to finalise the gas design.
- Adherence to the Discovery Strategy if unexpected contamination is encountered during any of the enabling works.

2.2. Removal of Structures and Site Turnover

The demolition of preexisting structures was completed by Jim Wise Demolition during the first phase of site work. A photolog is provided in Appendix D of this report to show the progress of this. Waste materials from the works are summarised in Section 5.

Following the demolition phase, DBR then remobilised to the site to complete the bulk enabling works including the turnover of soils and removal of any below-ground obstructions. Only shallow oversized hardcore material was found and the materials were recovered for use in crushed aggregate.

2.3. Supplementary Gas Monitoring

Gas monitoring is to be completed and reported by others as part of the build-phase validation.

2.4. Unexpected Contamination

No unexpected contamination was encountered during the remedial works.

2.5. Environmental Monitoring

Environmental monitoring was completed for noise, vibration, odour and dust to confirm appropriate environmental management during site operations. No significant noise, dust or odours were detected by DBR at the site boundaries on any occasion and no complaints were received throughout the course of the works. During dry conditions, dust suppression and mitigation measures were put in place on a pro-active basis by the site foreman as and when required. This included wetting down running surfaces and reducing vehicle speeds to minimise dust generation.

3. Ecology

The Planning Permission for the development included a number of Conditions pertinent to the ecology of the site which impacted the enabling phase earthworks. Bowland Ecology of Holmes Mill, Clitheroe were employed to complete the ecological work and prepare reports to discharge these conditions. The reports are included in Appendix D.

Specific works included:

- A Great Crested Newt survey was required of all ponds within the site (Ponds 1-4) prior to works commencing. The surveys consisted of an evening visit to set out traps, after dark torching and a return morning visit to empty traps.
- Pre-clearance inspection surveys were required for nesting birds with site clearance to be completed within 4 days of inspection.
- An Ecological Clerk of Works (ECoW) was required to be present during the initial site clearance activities to supervise any work with potential ecological impact - to include toolbox talk, GCN fingertip search, supervision of wall dismantling and marking out pond & retained habitat exclusion zones.
- Provision of Biodiversity enhancement scheme in order to discharge planning condition 10.
- Provision of Landscape and Ecological Management in order to discharge planning condition 15.

4. Material Reuse

4.1. Materials Management

Protection of human health and protection of the environment – excavated materials from the site were found to be chemically suitable for reuse without treatment upon the site.

Suitability for use - Materials excavated were assessed for their geotechnical suitability and classified accordingly.

Excavated materials for reuse as topsoil or subsoil, either in gardens or landscaping, have been verified as chemically suitable.

Excavated materials were separated into five key types for reuse:

- Topsoil/Subsoil (Gardens)
- Topsoil/Subsoil (Landscaping)
- Engineered Fill (Landscaping)
- Engineered Fill (Development)
- Crushed Stone/Aggregate for Construction

Certainty of Use - The proposed finished levels across the site have been used as the basis of a cut-and-fill exercise to inform the earthworks. This has identified a deficit of material to achieve the required construction platform. Therefore all suitable soil needed to be retained, where feasible to minimise materials imports.

Quantity of Material – The volumes of material were calculated as part of the cut and fill exercise. The volumes of materials that could be recycled as structural fill (recycled stone) were estimated. The volume of soil that would need to be generated as subsoils was calculated. The potential excess materials arising from the drainage works and foundation construction were also estimated.

On the basis that materials can be recycled in the assumed volumes and that all possible materials arising from the site during the reprofiling and construction of the development can be confirmed suitable for reuse, the cut-and-fill assessment for the site shows that the site is approximately in balance. There will be little or no requirement to import or export materials. Photos of the cut and fill process are presented in Appendix B.

4.2. Crushed Recycled Demolition Materials

The enabling works required the provision of a 300 mm thick piling mat in areas of proposed piled foundations. All piling mats have been formed using site-won 6F2 or imported 6F5 material. Plate load and incremental plate load testing atop the stone on roads and pile mats was completed by TD Construction testing. The locations of the tests are presented in Appendix A and the certificates are presented in Appendix H3.

Site Won Produced Recycled Stone

Materials arising from the demolition works and also from the removal of structures within the ground were crushed to create an aggregate for reuse on-site (Plates 5 and 6, Appendix B). The material produced was placed as piling mats for the proposed development. Materials testing was completed in accordance with the remediation strategy to confirm that it was acceptable for use within the development.

Geotechnical reports are provided in Appendix H1 and confirm a classification of 6F2. The material was screened for asbestos and chemical laboratory reports are included in Appendix G2 (ref: 23-41071, crush 1 to crush 8). All results met the required remedial criteria and are suitable for re-use.

Imported Recycled Stone

A total volume of 230 m³ of recycled 6F5 stone was imported in 27 loads to supplement the site won aggregate by licensed hauliers from licensed facilities. The imported loads were visually examined to check for unsuitable materials, a photograph of the imported aggregate has been included in the photographic log in Appendix B (Plate 30).

Chemical and geotechnical compliance testing of the imported crush has been completed in line with the re-use criteria specified in Appendix B. No chemical exceedances were recorded. All results confirmed that imported recycled stone meets the screening criteria outlined in Appendix B. The chemical test results are provided in Appendix G2 (report ref: 23-41071, crush 9 and crush 10) and show that no asbestos was detected, therefore the material was suitable for re-use. Geotechnical reports (TD23-D-03-B-109 and 110) are provided in Appendix H1 and confirm a classification of 6F2.

4.3. General Fill

A cut-and-fill exercise was undertaken to achieve the required formation levels across the site. Table 1 of Appendix F in the remedial strategy states that chemical testing was only required on soils displaying visual or olfactory evidence of hydrocarbon contamination. Material was checked for evidence of such before being transported to fill areas, placed and compacted. The excavated material did not display any impact, and so chemical testing was not required.

Geotechnical assessments of the materials to be reused as general fill confirmed a Class 1a classification resulting from the particle size distribution testing. Further geotechnical laboratory analysis reports are presented in Appendix H2.

Environmental supervision and control, materials checking, ensured that none of the materials contained any significant waste materials or any unexpected contamination.

The photolog in Appendix E contains a selection of photographs showing the excavation and filling operations.

4.3.1. Landfill material

Previous reports denoted a former landfill within the site boundary and the requirement to validate the material for any potential waste content. This was to ensure there were no deleterious materials present that could affect the proposed development. During the earthworks in the former landfill area, soils were visually checked for any waste components. No soils containing more than 1% waste were encountered and compliance testing was not required due to this. Soils were managed as general Made Ground fill and a photographic log of the material encountered during cut and fill operations is presented in Appendix E (Plates 7-22).

Secondary checks against the exploratory hole logs were completed to confirm this. The logs show that only Made Ground comprising sands and gravels or clay mixed with sands and gravels, where the sands and gravels are mudstone, broken brick and broken concrete, were found to depths of generally 1.00 to 1.50m across much of the central part of the site (including the area of the waste/landfill as well as areas further afield). Occasional anomalies were identified, but these were not consistent across an area which might indicate the presence of the landfill.

4.4. Subsoil

Excavation of soil materials was undertaken from areas of the site where the material in the ground was acceptable for reuse as landscaping soils, or subsoil within the proposed development.

A total of 5666m³ of soil was recovered from the site for reuse as subsoil. Suitable material was placed into a stockpile, in the location of the proposed POS. A drawing showing the location and size of the stockpile is included in Appendix A, completed by Survey Eng (ref: TDB-AB-07-B) titled As built Survey.

Composite samples of the soil recovered and stockpiled for reuse as subsoil in the development were collected at an approximate frequency of 1 per 250m³ in accordance with the remediation strategy and a total of 23 samples were taken which covers 5750m³.

Samples were submitted for chemical analysis. Laboratory reports are provided in Appendix G. The results of the chemical testing confirm the soils were chemically suitable as landscaping materials for the future residential development. The acceptance criteria are summarised in the tables in Appendix B. Summaries of the soil chemical results when compared against the assessment criteria are included in Appendix F.

5. Waste Management

5.1. Material Segregation and Disposal

Waste and unsuitable materials were identified in the beginning phase of work during the demolition and site clearance. These wastes were segregated by DBR, classified, and removed from the site to appropriately licensed facilities in accordance with the current duty of care requirements. Table 1 provides a summary of the waste materials removed. Asbestos waste tickets are provided in Appendix I.

Table 1: Summary of Waste

Waste Type	Origin	EWC	Volume/ Weight	Disposal Location	Waste Carrier
Wood and timber	Demolition materials	20-01-38	6 loads 47.680kg	Stobart Biomass Products Ltd, Foundry Lane, Widnes, WA8 8UF EPR/BP3632DM	Stobart Biomass Products Ltd, Widnes, WA8 ONX CBDU82952
General Waste	Demolition Waste	17-09-04	5 loads – 27.500kg	Kenny Waste Management Ltd, Worsley Trading Estate, Lester Road, Little Hulton, M38 0PT EPR/JP3298CY	Kenny Waste Management Ltd, Worsley Trading Estate, Lester Road, Little Hulton, M38 0PT CBDU76122
Asbestos	Bonded sheet removal	17-06-05	1 Load	Veolia, Coalpit Lane, Rugby, CU23 9MM EPR/ BU2381IE	Ark Environmental Services Ltd, Gatehouse Trading Estate, Litchfield Road, WS8 6JZ CBDU52761
Asbestos	Demolition work Inc. Safe	17-06-05	1.72 tonnes	Jim Wise Demolition, Hot Lane, Burslem, ST6 2BN EPR/CB3003XK/A001	David Weston, Jim Wise Demolition, Hot Lane, Burslem, ST6 2BN CBDU20745
Metal (Scrap)	Demolition Waste	17-04-05	92.140 tonnes	EMR Rochdale, Uncouth Road, Milnrow, Rochdale	EMR Rochdale, Uncouth Road, Milnrow, Rochdale

6. Conclusion

Verification was completed by DBR throughout the works which have been carried out in accordance with the approved Remediation Strategy.

6.1. Construction Phase Remediation Works

The following remediation actions are to be undertaken during the construction phase and are to be undertaken by others.

- **Piling risk assessment.** To assess the H&S and contamination issues associated with a piled foundation solution.
- **Placement of clean soil in landscaping and gardens** and verification testing in line with Section 10 of the Remediation Strategy (ref: 394.06.21.RS, dated September 2021) and must meet the reuse criteria stipulated in Appendix F of that report. The capping design must be as follows:
 - 600mm of clean topsoil/subsoil in gardens.
 - 300mm of clean topsoil/subsoil in landscaping and public open space areas.
- **Gas protection measures.** Provision of CS2 gas protection measures to the buildings.
- **Water supply.** United Utilities (UU) Assessment is to be undertaken, however, it is assumed at this stage that barrier pipes are to be provided. UU to carry out checks on installation prior to adoption.
- **Concrete design.** Sulphate-resistant concrete design will be required.

6.2. Clean Capping Verification

Material used for capping must be tested in line with section 10 of the Remediation Strategy (ref: 394.06.21.RS, dated September 2021) and must meet the reuse criteria stipulated in Appendix F of that report. To date, 23 samples of subsoil have been tested and its storage location is presented in the Survey Eng Completion Drawing (Ref: TDB.AB.07.B) in Appendix A (Stockpile 1). It is expected that further soils will be reused or imported to complete the capping at the site and further testing is expected.

All subsoil/topsoil will be tested at the following frequency:

- 1 per 50m³ for topsoil with a minimum of 3 samples per source;
- 1 per 250m³ for subsoil, with a minimum of 3 samples per source;
- Should quarried sand or virgin crushed rock be used, then no testing will be required.

Testing should be undertaken once the soil has been brought to the site and ideally, once it has been placed to rule out any cross-contamination during handling. To ensure sufficient depth of soil has been placed, hand-dug validation pits will be dug in rear gardens at a frequency of 1 pit per 3 plots, with additional pits in landscaped areas.

APPENDIX A – DRAWINGS

Site Location Plan

Proposed Layout

Topographic Survey

As-built Surveys

CBR Testing Location Plan 1

CBR Testing Location Plan 2



Note:
Do not scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask.

100 0 10 20 30 40 50 m

SCALE 1:1250



KEY

Site Boundary

Rev	Date	Intls	Details
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Project Title	Wildhouse Lane Housing
Client	Lancet Homes
Location	Milnrow

Drawing Title Location Plan

Date	7/22/2020 10:01:36 AM	Scale	As indicated
Checked	MK	Orig Paper Size	A3

Status

Job No:	Origin:	Zone:	Level:	Type:	Disc:	Number:	Rev:
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Scale	NTS	Date	June 2021
Paper Size	A4	Drawn	MH

Project	Wildhouse Lane, Milnrow
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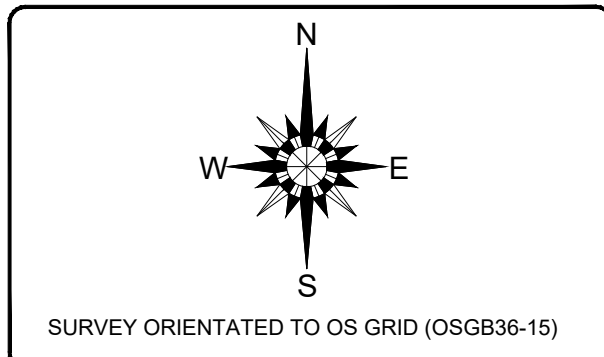
Drawing Number	DBR 210021 001
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Drawing Title	Plate Load Testing
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SURVEY LEGEND									
FEATURES				BOUNDARY ANNOTATIONS					
TOP OF BANK				 BWF		 SECURITY FENCE		 SEC. F.	
BOTTOM OF BANK				 CHAIN LINK FENCE		 TIMBER FENCE		 T.F.	
SURVEY STATION				 CONC POST & PANEL		 BRICK WALL		 B.W.	
TREE				 CONC POST TIME PANEL		 BLOCK WALL		 B.W.	
HEDGE				 ELECTRIC FENCE		 CONCRETE WALL		 C.W.	
TREE CANOPY				 HERAS FENCE		 GARDEN WALL		 G.W.	
BUSHES				 IRON RAIL FENCE		 MISCELLANEOUS WALL		 M.S.W.	
VEGETATION				 KNEER RAIL FENCE		 RETAINING WALL		 R.W.	
				 MISCELLANEOUS FENCE		 RETAINING LOW WALL		 R.L.W.	
				 POST AND WIRE FENCE		 STONE WALL		 S.W.	
				 RANCH STYLE FENCE					
LEVEL PREFIX ANNOTATIONS									
ASL ARCH SPRING LEVEL		IL INVERT LEVEL		THR THREE HIGH LEVEL		TRIAL HOLE / PIT			
BL BED LEVEL		PL PARAPET LEVEL		THR THREE HOLE		BORE HOLE			
DL DRAIN BACK DROP		SL ROOF/RIDGE LEVEL		WL WATER LEVEL		WINDOW SAMPLE			
CL COVER LEVEL		SOFTT LEVEL		WS WINDOW SILL		MONITORING POINT			
DH TOP OF DOOR		TOP OF FACE		WSF WINDOW SOFFIT					
DTC DEPTH TO CROWN		TOP OF PIPE							
FHL FINISHED FLOOR LEVEL		TOP OF WALL							

SURVEY ANNOTATIONS		
AV	AIR VALVE	CHC OVERHEAD CABLES
B	BOLLARD	PIB POST BOX
BS	BUS STOP	PM PARKING METER
BT	BRITISH TELECOM K	POST POST BOX
CS	CONCRETE PAVING SLABS	PYL ELECTRICITY PYLON
CP	CATCH PIT	RE ROOOFING EYE
D	DRAIN	RS ROAD SIGN
EB	ELECTRIC CONTROL BOX	RWP RAIN WATER PIPE
EL	ELECTRICAL, I	ST STOP TAP
E	ELECTRICITY POLE	SV SERVICE MARKER
ER	ERKHO ROAD	SN SIGN POST
FI	FIRE HYDRANT	SV STOP VALVE / SLICE VALVE
F	FLAG	SVN VENT PIPE
G	GULLY	TB TELEPHONE BOX
GH	GREENHOUSE	TM TRAFFIC LIGHTS
GI	GATE POST	TR TELEPHONE TRUNK
GV	GAZE VALVE	TE TELEGRAPH POLE
C	INSPECTION COVER	TPS TACTILE PAVING SLABS
J	JUNCTION BOX	VP VENT PIPE
KW	KANSAN INCH WOOD	WM WATER METER
K	KEBS OUTLET	WV WATER VALVE
L	LAMP HOLE	UTS UNABLE TO LIGHT
LP	LAMP POSTLIGHT COLUMN	UTS UNABLE TO SURVEY
M	MANHOLE	
MP	MONITOR POINT	
NP	NAME PLATE	

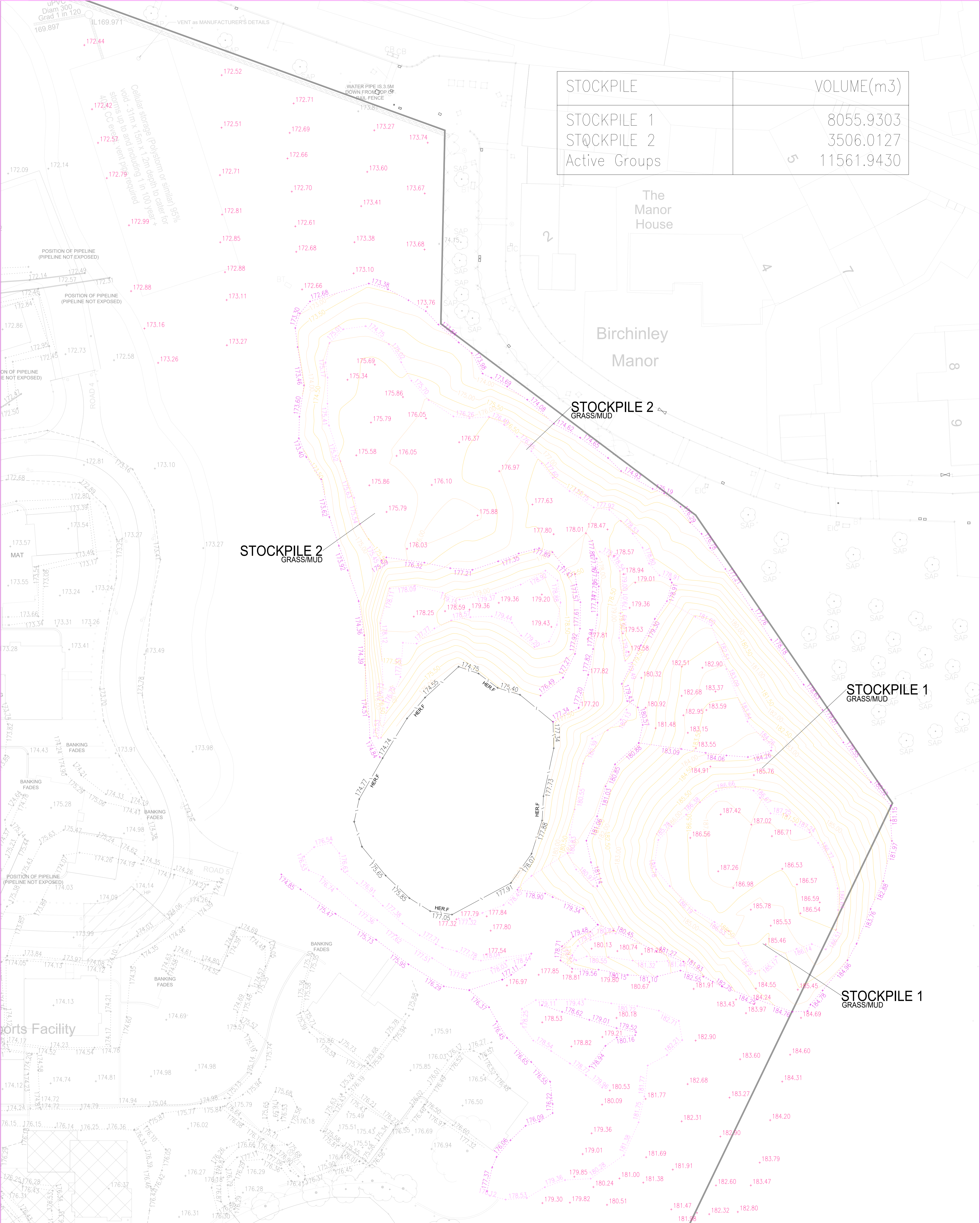
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DB REMEDIATION	
PROJECT TITLE	
WILDHOUSE LANE, MILNROW	
DRAWING DETAIL	
COMPLETION SURVEY	
DRAWING NUMBER	REVISION
DB.AB.17	F

PROJECT ENGINEER	KH	DATE	23.05.2022		
DRAWN	BM	SCALE	1:500@A1		
REV C/E MERGE MODEL FOR HAND OVER		F	13.09.23	BM	-
RE-LEVEL SURVEY UPDATED		E	25.02.23	LG	-
RE-LEVEL / MOUND SURVEY UPDATED		D	25.02.23	LG	-
RE LEVEL SURVEY ADDED		C	08.07.22	MP	-
RE-LEVEL SURVEY UPDATED		B	15.06.22	LG	-
STOPPILE SURVEY ADDED		A	30.05.22	MP	-
DESCRIPTION		REV	DATE	DRWN	APPR



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N

W

E

S

SURVEY ORIENTATED TO OS GRID (OSGB36-15)

SURVEY NOTES

ALL LEVELS ARE RELATED TO O.S DATUM (OSGB36-15)
ESTABLISHED AT SE1 USING THE LEICA SMARTNET GPS NETWORK

SURVEY LEGEND			
FEATURES	BOUNDARY ANNOTATIONS		
TOP OF BANK	BARB WIRE FENCE	SEC F	II
BOTTOM OF BANK	CHAIN LINK FENCE	TF	+
SURVEY STATION	CONC POST AND PANEL	B.W	+
TREE	CONC POST TIMB PANEL	BL.W	+
HEDGE	ELECTRIC FENCE	C.W	+
TREE CANOPY	HER.F	G.W	+
BUSHES	HER.F	MISC.W	+
VEGETATION	IRON RAIL FENCE	R.W	+
	KNEE RAIL FENCE	RL.W	+
	MISCELLANEOUS FENCE	RS.F	+
	POST AND WIRE FENCE	STONE WALL	+
	RANCH STYLE FENCE		

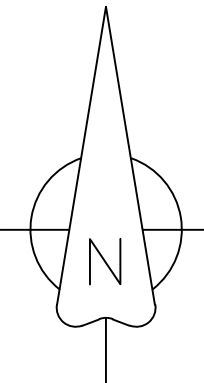
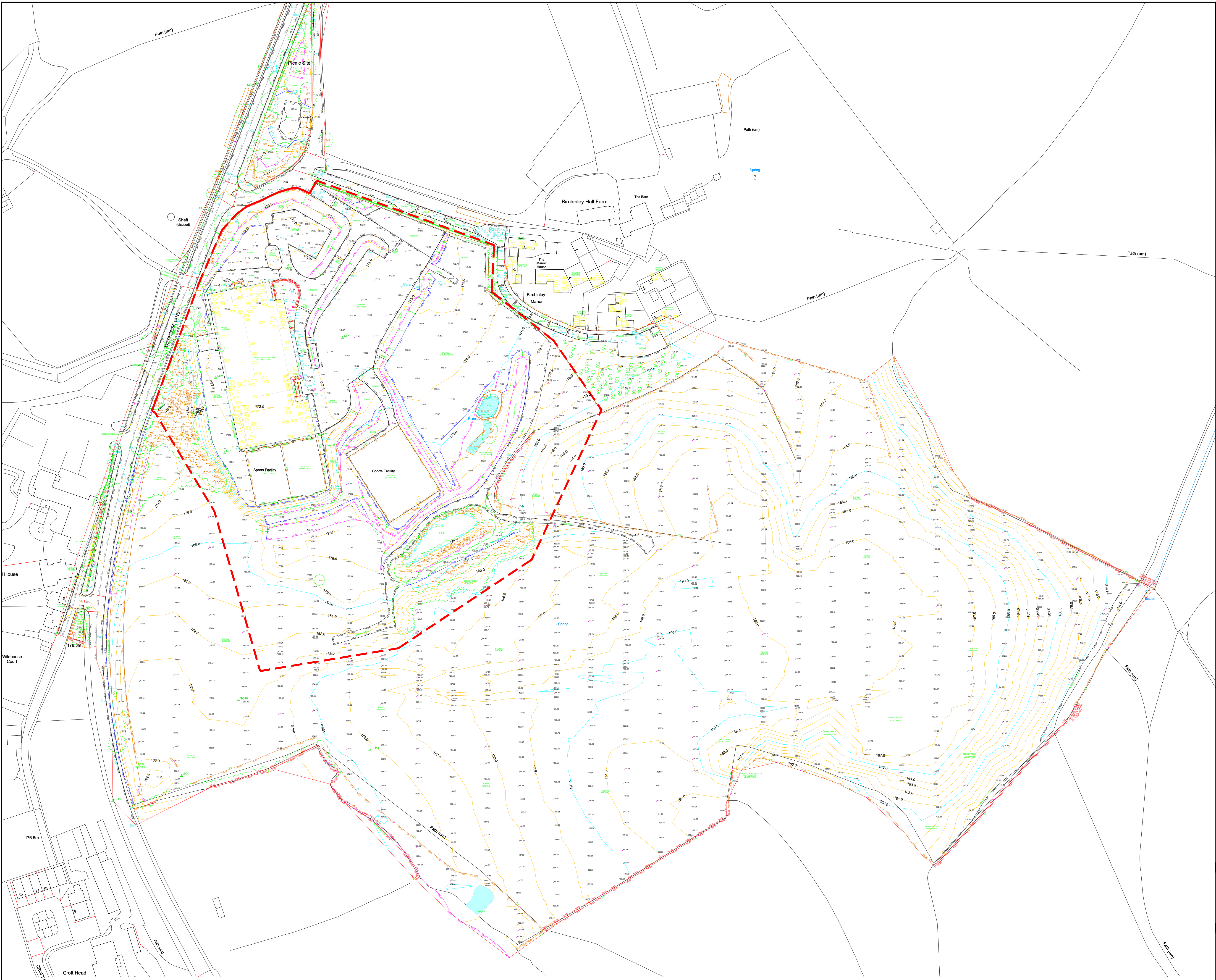
LEVEL PREFIX ANNOTATIONS			
ASL	ARCH SPRING LEVEL	IL	INVERT LEVEL
BL	BACK LEVEL	RL	ROOF/RIDGE LEVEL
BD	BACK DROP	TH	TREE HEIGHT
CL	COVER LEVEL	THR	THRESHOLD LEVEL
CH	TOP OF DOOR	WL	WATER LEVEL
DC	DEPTH TO CROWN	WS	WINDOW SOFFIT
FTL	FINISHED FLOOR LEVEL	TOW	TOP OF WALL

GEOTECHNICAL INFORMATION	
TRIAL HOLE / PIT	TH
BORE HOLE	BH
WINDOW SAMPLE	WS
MONITORING POINT	MP

SURVEY ANNOTATIONS	
AV	AIR VALVE
B	BOLLARD
BS	BUS STOP
BT	BRITISH TELECOM IC
CP	CONCRETE PAVING SLABS
CP	CATCH PIT
DR	DRAIN
EB	ELECTRIC CONTROL BOX
EL	ELECTRIC IC
EP	ELECTRICITY POLE
ER	EARTH ROD
FH	FIRE HYDRANT
FP	FLAG POLE
G	GULLY
GH	GREENHOUSE
GP	GATE POST
GV	GAS VALVE
IC	INSPECTION COVER
JB	JUNCTION BOX
JW	JAPANESE KNOT WEED
KO	KERB OUTLET
LH	LAMP HOLE
LP	LAMP POST/LIGHT COLUMN
MH	MANHOLE
MP	MONITOR POINT
NP	NAME PLATE
OHC	OVERHEAD CABLES
PB	POST BOX
PM	PARKING METER
PS	POST
PYL	ELECTRICITY PYLON
RE	RODDING EYE
RS	ROAD SIGN
RWP	RAIN WATER PIPE
ST	STOP TAP
SM	SERVICE MARKER
SP	SIGN POST
SV	STOP VALVE / SLUICE VALVE
SVP	SOIL VENT PIPE
TB	TELEPHONE BOX
TP	TELEGRAPH POLE
TL	TRAFFIC LIGHTS
TM	TELEPHONE MAST
TP	TELEGRAPH POLE
TPS	TACTILE PAVING SLABS
VP	VENT PIPE
WM	WATER METER
WV	WASH OUT
UTL	UNABLE TO LIFT
UTS	UNABLE TO SURVEY

CLIENT	TEMPUS DESIGN AND BUILD
PROJECT TITLE	WILDHOUSE LANE, MILNROW
DRAWING DETAIL	AS BUILT SURVEY
DRAWING NUMBER	TDB.AB.07
REVISION	B

PROJECT ENGINEER	DM	DATE	21.11.2024
DRAWN	AB	SCALE	1:200@A1
RELEVEL SURVEY ADDED	B	21.10.24	JC
RELEVEL SURVEY AS REQUESTED	A	24.04.24	LM
DESCRIPTION	REV	DATE	DRWN
APPR			
SURVEYEng Ltd Land Surveyors & Engineers 14 GREEN MILL WESTHOUGHTON BOLTON LANCS BL5 3GE TELEFAX: 0800 772 3040 MOB: 07850699953 info@surveyeng.co.uk			



db Remediation
Camoustie House | Kelvin Close | Birchwood | Warrington | WA3 7PB
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Scale	1:1000	Project	MILNROW
Drawn	SB	Title	TOPO SURVEY
Date	19/04/2021	Paper Size	A1
Drawing Number	DBR-MW-001	Revision	0

APPENDIX B – SUITABILITY FOR REUSE CRITERIA

(APPENDIX F FROM THE REMEDIATION STRATEGY)

APPENDIX F – RE-USE CRITERIA

Re-use criteria should ensure that the material does not create an unacceptable risk of pollution of the environment or harm to human health and that the material is suitable for its intended purpose in all respects e.g. chemical and geotechnical properties. The following sets out the reuse criteria for the different material types to be encountered. These have been broadly categorized into 5 types of material as follows:

- General fill (Landscaping) – material to be re-use at depth beneath topsoil/subsoil in the public open space/landscaped area of the site.
- General fill (Development) – material to be used to raise the ground level beneath the development footprint. This includes roads, houses and gardens.
- Topsoil/Subsoil (Gardens) – to be used in front and rear gardens
- Topsoil/Subsoil (Landscaping) – to be used in any other landscaping area outside of private gardens
- Aggregate/Recycled Stone – to be used in construction

General fill (Landscaping)

The following targets are to be applied to material used in the cut/fill earthworks where soil is to be placed outside of the development footprint, in areas of landscaping and below clean topsoil/subsoil.

Table 1 – General Fill (Landscaping) Re-use Criteria

Determinand	Compliance Criteria (mg/kg)	Frequency of Testing	Comments
Inert	<1% unacceptable	1 per 250m ³	See definition of acceptable/unacceptable material below.
Asbestos	No visible fragments		To protect during construction
Mobile Hydrocarbons	500mg/kg TPH (C6-C16) 6mg/kg BTEX 100mg/kg PAH	Testing undertaken where there is suspected evidence of hydrocarbon impact	Targets to address mobile contamination sources

For general fill to be suitable for re-use the material needs to achieve the following criteria: -

- <1% by mass of non-inert constituents – it is neither chemically or biologically reactive nor will it decompose, or only very slowly. It will not dissolve, burn or adversely affect other matter it comes into contact with, in a way likely to cause environmental pollution or harm to human health.

On this basis the following table gives examples of typical items that are considered acceptable and unacceptable

Table 2 – Acceptable and Unacceptable Items

Acceptable Material	Unacceptable
Brick, stone, slate, concrete, coal, ash, tile, glass, clinker, slag, tarmac, ceramic, bone, clay, silt, sand, hard plastics, rubber, metal, fiberglass, plastic, soil, clay and sand, wood and timber.	Chemical waste, food waste, liquid waste, paper and cardboard, plasterboard, textiles, rag, wood, cloth, hessian, electrical items, batteries, aerosols, paint tins, drums, carpet, mattresses, soft organic material.

To determine whether the soil is acceptable the following procedure will be undertaken.

- Approximately 15kg of the soil to be taken in a plastic bag and sealed.
- The unacceptable fraction, in accordance with Table 5, will be removed from the sample, described and photographed.
- The % unacceptable fraction and the remainder of the material will be weighed and the % unacceptable calculated.
- If unacceptable is <1% by mass, then soil will be considered suitable for re-use.
- Due to heterogeneity in the material, this is to be undertaken at a frequency of 1 in 250m³.
- The results will be recorded on the Compliance Sheet in Appendix I.

General Fill (Development)

The following targets are to be applied to material used in the cut/fill earthworks where soil is to be placed within the development footprint, below buildings, road and gardens. These targets apply to material to be re-used in order to determine whether it is suitable for use.

Table 3- General Fill (Development) Re-use Criteria

Determinand	Compliance Criteria (mg/kg)	Frequency of Testing	Comments
Inert	<1% unacceptable	1 per 250m ³	See definition of acceptable/unacceptable material.
Asbestos	No visible fragments		For protection during construction.
Volatile or Mobile Hydrocarbons	See Table 4 Testing undertaken for Benzene, Naphthalene and volatile TPH Fractions.	Where there is visual or olfactory evidence of hydrocarbon impact	On-site PID screening with PID if hydrocarbons suspected – trigger set at 5ppm. Testing for BTEX, Speciated PAHs and TPHCWG. Compliance with criteria in Table 4 below. No volatiles within the development zone to protect from the vapour pathway, (assuming CS ₂ gas protection with no VOC vapour membrane)

Chemical testing for those parameters in Table 4 is required in areas where hydrocarbons are suspected and where buildings are to be constructed as they protect against the vapour pathway.

Table 4 – Chemical Re-use Criteria and Validation Criteria

Chemical	Site Specific Remediation Target (mg/kg)
Benzene	0.38
Naphthalene	2.3
TPH (C5-6) Aliphatic	42
TPH (C6-8) Aliphatic	100
TPH (C8-10) Aliphatic	27
TPH (C10-12) Aliphatic	130 ¹
TPH (C12-16) Aliphatic	1100 ¹
TPH (C5-7) Aromatic	370
TPH (C7-8) Aromatic	860
TPH (C8-10) Aromatic	47
TPH (C10-12) Aromatic	250
TPH (C12-16) Aromatic	1800

Notes

1. Remediation target above calculated soil saturation limit and therefore in addition to achieving target, checks to be made for gross contamination or free product present.
2. To be applied to soil used below hardstanding, buildings and beneath 600mm of clean soil.
3. Criteria generally based on 1% SOM.
4. Statistical interpretation to be applied where greater than 6 chemical analyses undertaken.
5. Compliance criteria based on assessment criteria for the protection of human health in a residential setting assuming no plant uptake as material to be used at depth outside of the root zone.
6. Compliance criteria are derived using CLEA Version 1.06 using published toxicological data and generic land use parameters.
7. LQM, 2015 values sourced from the LQM/CIEH Suitable (S4UL) 2015, see references. Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3467. All rights reserved.
8. C4SL, 2014 values sourced from DEFRA Research Project. Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. FINAL. SP1010. December 2013.

Topsoil/Subsoil (Gardens)

Testing to be undertaken at the following rate

- Topsoil: 1 in 50m³ (minimum three per source)
- Subsoil: 1 in 250m³ (minimum three per source)

TABLE 5 – CHEMICAL LIMITS FOR SUBSOIL/TOPSOIL FOR RESIDENTIAL GARDENS

Determinand	Compliance Criteria	Comments
Arsenic	37	LQM S4UL, 2015
Cadmium	11	LQM S4UL, 2015
Chromium (VI)	6	LQM S4UL, 2015
Chromium (III)	910	LQM S4UL, 2015
Copper (Nitric Acid Extractable)	100-200	Based on guidelines for potential phytotoxicity from BS3882:2015. To be compared against data average. To be used as a guide to determine suitability of soil as a growing medium not as a prohibitive value
Lead	200	C4SL, 2014 (modified for 2.5% SOM)
Inorganic Mercury	40	LQM S4UL, 2015
Nickel	130	LQM S4UL, 2015
Selenium	250	LQM S4UL, 2015
Zinc (Nitric Acid Extractable)	200-300	Based on guidelines for potential phytotoxicity from BS3882:2015. To be compared against data average. To be used as a guide to determine suitability of soil as a growing medium not as a prohibitive value
Asbestos	No visible asbestos fragments <0.001%	
pH	3.5 to 9.0	Acceptable range for plant growth from BS3882:2015
Benzo(a)pyrene	5	C4SL, 2014 Benzo(a)pyrene assessment criteria has been developed on the basis that benzo(a)pyrene is a surrogate marker for genotoxic PAH.

Notes

To be applied to soil used within 600mm of finished surface.

Criteria generally based on 2.5% SOM to be applicable to both subsoil and topsoil.

Statistical interpretation to be applied where greater than 6 chemical analyses undertaken.

Compliance criteria based on assessment criteria for the protection of human health in a residential setting assuming plant uptake and vegetable consumption.

Compliance criteria are derived using CLEA Version 1.06 using published toxicological data and generic land use parameters.

LQM, 2015 values sourced from the LQM/CIEH Suitable (S4UL) 2015, see references. Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3467. All rights reserved.

C4SL, 2014 values sourced from DEFRA Research Project. Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. FINAL. SP1010. December 2013.

British Standard. BS3882:2015. Specification for Topsoil.

Topsoil/Subsoil (Landscaping)

Testing to be undertaken at the following rate

- Topsoil/Subsoil: 1 in 250m³ (minimum three per source)

TABLE 6 – CHEMICAL LIMITS FOR SUBSOIL/TOPSOIL FOR LANDSCAPING/PUBLIC OPEN SPACE

Determinand	Compliance Criteria (mg/kg)	Comments
Arsenic	79	LQM S4UL, 2015
Cadmium	120	LQM S4UL, 2015
Chromium VI	8	LQM S4UL, 2015
Chromium III	1500	LQM S4UL, 2015
Copper (Nitric Acid Extractable)	100-200	No human health risk from copper likely as S4UL is 12,000 mg/kg however likely to cause phytotoxicity at these concentrations. Compliance based on guidelines for potential phytotoxicity from BS3882:2015. To be compared against data average. To be used as a guide to determine suitability of soil as a growing medium not as a prohibitive value. Range dependent on pH
Lead	630	C4SL, 2014 (modified for 2.5% SOM)
Inorganic Mercury	120	LQM S4UL, 2015
Nickel (Nitric Acid Extractable)	60-110	S4UL set at 230mg/kg, however phytotoxicity likely at these concentrations therefore compliance based on guidelines for potential phytotoxicity from BS3882:2015. To be compared against data average. To be used as a guide to determine suitability of soil as a growing medium not as a prohibitive value. Range dependent on pH.
Selenium	1100	LQM S4UL, 2015
Zinc (Nitric Acid Extractable)	200-300	No human health risk from copper likely as S4UL is 81,000 mg/kg however likely to cause phytotoxicity at these concentrations. Compliance based on guidelines for potential phytotoxicity from BS3882:2015. To be compared against data average. To be used as a guide to determine suitability of soil as a growing medium not as a prohibitive value. Range dependent on pH
Asbestos	No visible asbestos fragments <0.001%	Limit of Detection.
pH	3.5 to 9.0	Acceptable range for plant growth from BS23882:2015
Benzo(a)pyrene	10	C4SL, 2014. Benzo(a)pyrene assessment criteria has been developed on the basis that benzo(a)pyrene is a surrogate marker for genotoxic PAH.

Notes

To be applied with soil used within 300mm of the finished surface.

Criteria generally based on 2.5% SOM to be applicable to both subsoil and topsoil.

Statistical interpretation to be applied where greater than 6 chemical analyses undertaken.

Compliance criteria based on assessment criteria for the protection of human health in a public open space (residential) setting.

Compliance criteria are derived using CLEA Version 1.06 using published toxicological data and generic land use parameters.

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C4SL, 2014 values sourced from DEFRA Research Project. Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. FINAL. SP1010. December 2013.

Aggregate/Recycled Stone

The following targets are to be used to determine the suitability of aggregate/site won crushed stone for re-use in construction.

TABLE 7 – COMPLIANCE LIMITS FOR IMPORTED CRUSHED STONE/ENGINEERING FILL/SITE DERIVED 6F2

Determinand	Compliance Criteria (mg/kg)	Frequency of Testing	Comments
Asbestos	No visible asbestos fragments <0.001%	1 in 500m ³	
Grading	6F2 (for site won) 6F5 (imported)	1 in 1000m ³	Compliance Table 6/1 of Specification for Highways Works

For natural stone /clean quarried materials - no chemical testing required

If there is a need to import a 6F5 recycled material for use in construction, to demonstrate compliance with the Waste Framework Directive it must comply with the following

- The aggregate will be produced under a WRAP/Factory Production Control as required by the European standards.
- It will conform to the requirements of the appropriate specification for the use for which it is destined (considered likely to be 6F5 produced in accordance with Table 6/1 of the Specification for Highways Works)
- It will not require further processing, including size reduction, prior to final use.
- It must contain less than 1% of cohesive materials, metals, wood, plastic, rubber and gypsum plaster, in line with the limits set within the aggregate's standards

APPENDIX C – REGULATOR APPROVALS

DB Remediation
Carnoustie House Kelvin Close
Birchwood
Warrington
WA3 7PB

Our ref: SO/2021/121198/01-L02
Your ref: Jenny Day
Date: 03 June 2021

Dear Sir/Madam

**CHARGED REVIEW OF RISK ASSESSMENT THE SOCCER VILLAGE
(FORMER BIRCHINLEY MANOR EQUESTRIAN CENTRE), WILDHOUSE LANE,
MILNROW, OL16 3TW**

Thank you for accepting our offer to provide detailed planning advice. We are providing this advice under Agreement No. **ENVPAC/1/GMC/00351**. Please note we have taken 4 hours to review and provide our advice on these documents and we would wish to make the following comments.

Assessment of the risk to controlled waters from the elevated ammoniacal nitrogen for Former Soccer Village, Wildhouse Lane, Milnrow, OL16 3TW (Planning Application 20/00639/FUL), Ref: DBR-MN-EA001 Dated: May 7th 2021.

Summary

The further assessment of the risk to controlled waters from the elevated ammoniacal nitrogen does not identify any significant onsite sources of contamination. The Hydrogeological Conceptual Site Model indicates several potential point and diffuse sources of contamination in the area rather than any onsite significant source of contamination.

Analysis of the onsite waste mass identifies this waste as inert material, which should not produce leachate. The ground conditions at TP3 shows an isolated Organic Matter content of 93.9% at 1.60mbgl, however the trial pit log show there to be a peat layer at this depth (outline the environmental constraints and give an indication of key messages e.g. is the information submitted acceptable.

DB Remediation highlighted an incorrect standard for ammonium (NH₄) in the 2018 DWS, the Drinking Water Inspectorate confirmed the correct level and units for Ammonium in drinking water is **0.5 mgNH₄/l**, as in the Water Supply (Water Quality) Regulations 2016. The quoted incorrect level of 0.5µg/l would only apply to Wales,

as the 2018 regulations only apply there. The 2016 regulations are applicable to England, and are still active, but with amendments added.

Environment Agency Advice

The recorded onsite values of ammoniacal nitrogen concentrations range between 1.82 - 9.02 mg/L, which is within the range in untreated UK groundwater of <0.0004 to 52 mg/L. Whilst the levels of ammoniacal nitrogen exceed the drinking water standard, this exceedence is marginal and is still within the range of untreated groundwater in the UK.

With an absence of any identifiable on site source of contamination we are satisfied that this site poses a low risk to groundwater and any site specific remediation of the ammoniacal nitrogen would have negligible environmental benefits.

Next Steps

I hope the above advice is helpful. If there is any further work you anticipate needing our detailed advice on in relation to this project please let me know so it can be incorporated into this charging agreement.

Yours faithfully

Mrs SYLVIA WHITTINGHAM
Planning Advisor

Direct dial 0203 0251059

Direct e-mail sylvia.whittingham@environment-agency.gov.uk

Disclaimer

Our opinion is based on the information available to us at the time of the enquiry. When the formal planning application is submitted, our position may change if there have been changes to environmental risk or evidence, and/or planning policy.

Subject: RE: Consultation Letter for Planning Application Ref: 20/00639/FUL

Date: Thursday, 29 July 2021 at 15:12:48 British Summer Time

From: Michael Moore P

To: Samia Syeda

Good afternoon Samia,

The supplied remediation strategy is acceptable, I can recommend discharge on receipt of an acceptable completion report.

Regards

Michael Moore P
Environmental Health Senior Officer (Environment Prot)
Place

t: 01706 924107
m: 07976 059366
e: michael.moore@rochdale.gov.uk

Rochdale Borough Council
Floor 3, Number One Riverside
Smith Street, Rochdale, OL16 1XU

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-----Original Message-----

From: Michael Moore P
Sent: 19 August 2020 14:32
To: Samia Syeda <Samia.Syeda@Rochdale.Gov.UK>
Subject: RE: Consultation Letter for Planning Application Ref: 20/00639/FUL

PS, a remediation strategy and then completion statement would be required.

Michael Moore P
Environmental Health Senior Officer (Environment Prot) Place

t: 01706 924107
m: 07976 059366
e: michael.moore@rochdale.gov.uk

Rochdale Borough Council
Floor 3, Number One Riverside
Smith Street, Rochdale, OL16 1XU

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-----Original Message-----

From: Michael Moore P
Sent: 19 August 2020 14:25
To: Samia Syeda <Samia.Syeda@Rochdale.Gov.UK>
Subject: RE: Consultation Letter for Planning Application Ref: 20/00639/FUL

Samia,

I've quickly checked the reports, there is no time to read them in full, however the remediation proposals seem comprehensive so am prepared to accept them in this basis.

The controlled water risk assessment should be sent to the EA for their approval.

Regards

Michael Moore P
Environmental Health Senior Officer (Environment Prot) Place

t: 01706 924107
m: 07976 059366
e: michael.moore@rochdale.gov.uk

Rochdale Borough Council
Floor 3, Number One Riverside
Smith Street, Rochdale, OL16 1XU

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-----Original Message-----

From: Samia Syeda <Samia.Syeda@Rochdale.Gov.UK>
Sent: 19 August 2020 09:27
To: Michael Moore P <Michael.Moore@rochdale.gov.uk>
Subject: RE: Consultation Letter for Planning Application Ref: 20/00639/FUL

Hi - ye that's the one. We wanted it to head to the Sept committee if possible, so needed comments prior

Let me know if there are any issues.

Thank you

Samia Syeda
Senior Planning Officer (Devt Mgt)
Planning & Development

01706 925869
07855 149200
samia.syeda@rochdale.gov.uk

Rochdale Borough Council
Floor 3, Number One Riverside
Smith Street, Rochdale, OL16 1XU

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-----Original Message-----

From: Michael Moore P <Michael.Moore@rochdale.gov.uk>

Sent: 19 August 2020 09:26

To: Samia Syeda <Samia.Syeda@Rochdale.Gov.UK>

Subject: FW: Consultation Letter for Planning Application Ref: 20/00639/FUL

This is it? Was down to do when I get back as it says September, I will try and look at it today.

Michael Moore P

Environmental Health Senior Officer (Environment Prot) Place

t: 01706 924107

m: 07976 059366

e: michael.moore@rochdale.gov.uk

Rochdale Borough Council

Floor 3, Number One Riverside

Smith Street, Rochdale, OL16 1XU

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-----Original Message-----

From: David Allen <David.Allen@Rochdale.Gov.UK>

Sent: 25 June 2020 14:51

To: Michael Moore P <Michael.Moore@rochdale.gov.uk>

Subject: Consultation Letter for Planning Application Ref: 20/00639/FUL

Please see attached letter

APPENDIX D – ECOLOGY

Ecology Clerk of Works: Soccer Village, Milnrow

Project reference	BOW17/1303 Soccer Village, Milnrow – Nesting Bird Check 09.05.22
Prepared by:	Mark Breaks
Date of issue	24/05/2022

Survey methodology

Nesting birds

The nesting bird check was undertaken on 9th May 2022 by Mark Breaks. The weather was cloudy and dry, with no precipitation, with a light easterly breeze (Beaufort Scale No. 1-2) and a temperature of approximately 20°C.

A pre-clearance nesting bird check was required, as Under Part 1, Section 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Kill, injure or take any wild bird intentionally,
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built and take or destroy the egg(s) of any wild bird.

The survey involved a walk-over of the site to inspect scrub and tall ruderal due for clearance. The survey involved checking for the presence of breeding birds, which involved the ecologist observing areas of vegetation proposed for removal to look for evidence of birds nesting or constructing a nest with the aid of close focusing binoculars and thermal imager.

Results

This survey was undertaken as an update survey following an initial survey undertaken on the 20th April 2022 where an active song thrush nest was identified. The nest was located within the southern section of the site, within an area of broom scrub, at NGR: SD 92846 13630. Following the initial survey and the identification of the aforementioned nest, an exclusion zone was installed around the nest.

The following describes the update inspection results;

- Song thrush nesting attempt is complete, with nest empty and disused (Photographs 1 - 2).
- No further evidence of nesting birds encountered during the survey (Photographs 3 - 4).

Actions

Nesting Birds

Following the completion of the nesting attempt, the exclusion zone surrounding the song thrush nest identified on site on the 20th April has now been lifted.

No restrictions on the remaining vegetation clearance works. Should works be delayed beyond seven days following this inspection, a re-assessment will be required.

Photographs



Photographs 1-2: Complete song thrush nest.



Photograph 3-4: Site nesting bird check area

Ecology Clerk of Works: Soccer Village, Milnrow

Project reference BOW17/1303 Soccer Village, Milnrow – Nesting Bird Check

Prepared by: Mark Breaks

Date of issue 22/04/2020

Survey methodology

Nesting birds

The nesting bird check was undertaken on 20th April 2022 by Mark Breaks. The weather was sunny and dry, with no precipitation, a light easterly breeze (Beaufort Scale No. 1-2) and a temperature of approximately 7-12°C.

A pre-clearance nesting bird check was required, as Under Part 1, Section 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Kill, injure or take any wild bird intentionally,
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built and take or destroy the egg(s) of any wild bird.

The survey involved a walk-over of the site to inspect scattered trees, scrub, tall ruderal and grassland vegetation which are due to be cleared and strimmed with the addition of a drystone wall which is due to be dismantled (Photographs 4 - 13). The survey involved checking for the presence of breeding birds, which involved the ecologist observing areas of vegetation proposed for removal to look for evidence of birds nesting or constructing a nest with the aid of close focusing binoculars and thermal imager.

Results

Birds recorded during the walk-over comprised of blue tit, dunnoek, carrion crow, chaffinch, dunnoek, goldfinch, great spotted woodpecker, great tit, house sparrow, kestrel, magpie, mallard, pheasant, pied wagtail, robin, sparrowhawk, song thrush, willow warbler, woodpigeon and wren. The following describes the inspection results;

- An active song thrush nest was located in the southern section of the site within an area of broom scrub at NGR: SD 92846 13630. The nest contained a single 1-2 day old naked and blind chick (Photographs1 - 3).
- No further evidence of nesting birds encountered during the survey.

Actions

Nesting Birds

No works to occur within a 5-10m exclusion buffer of the active song thrush nest identified on site; an exclusion buffer has been installed and is to maintained. A nesting bird check, to be undertaken by a suitably qualified ecologist, will be required prior to any future vegetation clearance in the area to ensure that the nesting attempt has completed. It is considered the nest should remain active until 2nd - 4th May 2022.

BOW17/1303 Soccer Village, Milnrow

No restrictions on remaining vegetation clearance works and drystone wall dismantling on site that will be undertaken during ECoW supervision.

Should works be delayed beyond seven days following this inspection a re-assessment will be required.

Photographs



Photographs 1-3: Active song thrush nest.

BOW17/1303 Soccer Village, Milnrow



BOW17/1303 Soccer Village, Milnrow



Photograph 4-13: Site nesting bird check areas

BOW17.1303 Soccer Village, Milnrow: Biodiversity Enhancement Scheme

20/00639/FUL Condition 10

Planning permission has been granted for the development of land at Soccer Village, Milnrow (central NGR: SD 92875 13725). As part of the planning application the following condition in relation to ecology was included:

Condition 10: No above ground works, except for demolition shall take place until a scheme of biodiversity enhancements for the site including, but not limited to, provision for bird boxes and bat boxes, in accordance with the mitigation measures set out in the Ecological Appraisal (Bowland Ecology, Version 1 Rev 0, May 2020) has been submitted to and approved in writing by the Local Planning Authority. No dwelling shall be occupied until such time as the approved biodiversity enhancement measures within that plot have been installed in accordance with the approved detail.

Reason: In the interests of enhancing biodiversity and habitat provision within the site in accordance with Policy G7 of the adopted Rochdale Core Strategy and the National Planning Policy Framework.

This advice note provides details of the above in relation to the development in order to discharge the condition.

Provision of bat, bird and hedgehog boxes

Bats

Three General Purpose Wood Concrete Bat Boxes were installed on site in January 2022 to compensate for the loss of suitable roosting features for bats as identified in the Ecological Appraisal (Bowland Ecology, 2021; General Purpose Wood Concrete Bat Boxes were used rather than the recommended Schwegler 1FF bat boxes due to lack of availability of the latter).

In order to enhance the sites for bats, an additional five '2F Schwegler Bat Boxes' together with five '1FF Schwegler Bat Boxes', ten 'Ibstock Enclosed Bat Box 'C'' and ten Habibat Bat Access Slates will be installed. Furthermore, one '1FW Schwegler Hibernation Bat Box' will be installed on site. The hibernation boxes will provide winter hibernation spaces for bats which is important in built up areas since buildings tend to be unsuitable for hibernation due to the large temperature fluctuations. Once bats have inhabited a roost site, they may only be disturbed by licensed bat workers.

Temperature is one of the main factors influencing the use of artificial roosting sites by bats, particularly in the summer months when they are rearing their young. Therefore, bat boxes must be placed in sheltered areas where maximum sunlight is received. This tends to be on the southerly aspects of buildings/trees (primarily south, south-west and south-east). A group of bat boxes can be located together on a feature but arranged on different aspects to provide a number of different options for bats, so that they can choose the most appropriate temperature based on their needs. For example, three boxes could be arranged on different aspects of a tree trunk (Bat conservation Trust, 2021).

Furthermore, it is important to consider the habitat surrounding the areas chosen for placement of bat boxes. Bat boxes have a greater chance of occupation in areas where there is a good mixture of foraging habitat such as a woodland and a source of water. Artificial lighting also has a negative impact on bats, particularly slow flying bats such as *Myotis* species as they become more visible and therefore vulnerable to attack by predators (Stone *et al.*, 2012). For this reason, boxes will be located close to unlit features such as lines of trees or hedgerows which the bats will use for navigation between roosting and feeding grounds, to avoid flying in open and exposed areas. A sensitive lighting scheme will be incorporated into the proposals, in accordance with the appropriate guidance (IPL, 2018). No external lighting will be installed pointing directly towards the bat boxes or towards high value bat roosting/foraging habitats (i.e. woodlands/scrub/tree lines). A 5 m wide dark corridor will be implemented along the boundaries of the woodlands where they are adjacent to residential dwellings; furthermore, external lighting will not illuminate the retained ponds or the proposed wetland scrapes. However, if external lighting is installed within the development, unobtrusive, downward facing lighting must be used, such as Kellwood lighting systems ([Bat Friendly Lighting \(kellwoodlighting.co.uk\)](http://BatFriendlyLighting(kellwoodlighting.co.uk).)). The flight line into bat boxes must not be impeded by branches and must face an unobstructed area to ensure a clear flight path into the box for the bats.

If any boxes remain unused after three years, they are to be relocated. Any damaged boxes are to be repaired or replaced. Once bats have inhabited a roost site they may only be disturbed by licensed bat workers.

Table 1 outlines the required number and specifications for each suggested bat box. Appendix A indicates the proposed locations.

Table 1: Details of bat boxes to be installed across the site.

Bat box type	Specifications	Image
Five 2F Schwegler Bat Box (General Purpose) NHBS Practical Conservation Equipment	<u>Dimensions:</u> (H) 33cm x (D) 16cm. Weight 4kg. <u>Description and position:</u> Designed as a summer roosting space for bats and has a simple entrance hole at the front. Woodcrete is breathable and maintains a stable temperature inside the box and the 2F is painted black to absorb warmth. Can be sited on a tree or building and is best positioned at a height of between 3 to 6 metres in an open sunny position with an unobstructed approach.	
Five 1FF Schwegler Bat Box NHBS Practical Conservation Equipment	<u>Dimensions:</u> (H) 43cm x (W) 27cm x (D) 14cm. Entrance hole 12cm x 24cm. Weight 9.5kg. <u>Description and position:</u> Open at the bottom allowing droppings to fall out and therefore does not require cleaning. To compensate for fluctuations in temperature during the spring and autumn, the bats can choose between the cooler wood concrete or the warmer wooden panel. To be located on a tree trunk at least 3m from the ground with an unobstructed approach.	

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Ten Ibstock Enclosed Bat Box 'C' NHBS Practical Conservation Equipment	Dimensions: Small Box (H) 21.5cm x (W) 21.5cm x (D) 10.5cm. Weight 6.7kg. Large Box (H) 29cm x (W) 21.5cm x (D) 10.5cm. Weight 9.2kg. Description and position: Ideal for new builds as it can be integrated directly into the brickwork to produce a discrete but attractive home for bats. The inside of the box is designed to create several roosting zones which are ideal for crevice dwelling bats such as the pipistrelle. The bottom entrance means that no maintenance is required as droppings will simply fall out the bottom. To be located at least 3m from the ground with an unobstructed approach.	
Ten Habibat Bat Access Slate NHBS Practical Conservation Equipment	Dimensions: (H) 41.8 cm x (W) 37.5 cm x (D) 8 cm. Entrance hole dimensions: (H) 2 cm x (W) 10 cm. Weight: 1.3kg. Description and position: The Habibat Bat Access Slate provides access to roof space for bat species, whilst blending in seamlessly to the slate roof. The Bat Access Slate consists of a standard sized slate, with a capped vent which allows access and suitable roosting features for crevice-dwelling and roof-void dwelling bats. NHBS can supply a standard slate, but can also provide a service whereby an exact match for the roof can be achieved if this is desired. Habibat should be located where it will receive the maximum amount of sunlight (i.e. facing south, south-west or south-east). Position Habibat a minimum of 2 metres but preferably 5 to 7 metres above ground. Avoid placement above windows, doors and wall climbing plants, thereby reducing the likelihood of predation by cats. A position near the eaves or gable apex of the property would be preferable.	
One 1FW Schwegler Bat Hibernation Box NHBS Practical Conservation Equipment	Dimensions: External (W) 38cm x (H) 50cm. Internal (W) 20cm x (H) 38cm. Weight 28kg. Description and position: Triple and corrugated wooden boards have clinging option with a patented double panel system with several insulation layers. To be cleaned once per year and located at least 3m from the ground with an unobstructed approach.	

Birds

The provision of fifteen bird poxes is required on site to compensate for the loss off suitable bird nesting habitat as identified in the Ecological Appraisal (Bowland Ecology, 2021). A combination of the following bird boxes was recommended:

- 1B Schwegler nest box (26mm entrance hole size);
- 1B Schwegler nest box (32mm entrance hole size);
- Schwegler 2GR nest box;
- Schwegler 2M 32 mm nest box; and
- Schwegler open fronted nest box.

In order to enhance the sites for bats, an additional twenty bird boxes will be provided on site. Many bird species such as house sparrows, starlings, house martins and swifts rely on buildings for nesting sites. Many of these species are migratory and rely solely on buildings to nest in, particularly swifts which meet up with the same mate each spring at the same nesting site. Since new build houses have breather membranes, no gap is needed to be left under the eaves, which means there is no access to gaps and cavities within the roof, resulting in nesting spaces becoming more difficult to find. The installation of swift boxes, nest cups for house martins and bird boxes for starlings and house sparrows will create habitat for nesting birds within the new development. A removable shelf can be installed below the boxes to catch droppings and can be cleaned annually. Bird boxes suitable for tree and shrub nesting species will also be installed on retained and planted trees across both sites.

If any boxes remain unused after three years, they are to be relocated. Any damaged boxes are to be repaired or replaced.

Table 2 outlines the required number and specifications for each suggested bird box. Appendix A indicates the proposed locations.

Table 2: Details of bird boxes to be installed throughout the site.

Bird box type	Specifications	Image
Five Ibstock Integrated Swift Box Ibstock Eco-habitat for Swifts NHBS Practical Conservation Equipment	<u>Dimensions:</u> (H) 14cm x (W) 32.7cm x (D) 14cm. Weight 4.5kg. <u>Description and position:</u> Enclosed, discrete nesting boxes which can be incorporated into the brickwork of a new build. It will provide a suitable nesting site for a pair of swifts whilst being a discrete addition to housing. To be sited high up an external wall, as close to the eaves as possible.	
Five External House Martin Nesting Cups - Double House Martin Nests NHBS Practical Conservation Equipment	<u>Dimensions:</u> Double Nests - (H) 12cm x (W) 38cm x (D) 16cm. Weight 1.8kg. <u>Description and position:</u> Constructed from exterior grade plywood and WoodStone, which is a mixture of FSC wood fibres and concrete. They shall be positioned under the eaves on any aspect apart from south.	

Five External Starling Box Starling Nest Box The Nestbox Company	<u>Dimensions:</u> (H) 51cm x (W) 16cm x (D) 18cm. Entrance hole 4.5cm. Weight 2kg. <u>Description and position:</u> Constructed from FSC certified external grade European birch plywood and treated with an environmentally friendly preservative. To be positioned on buildings near each other and close to natural nesting features such as trees to encourage a colony to form.	
Five External Sparrow Terrace Box Sparrow Terrace Nest Box The Nestbox Company	<u>Dimensions:</u> (H) 24cm x (W) 39cm x (D) 17cm. Entrance hole 3.2cm. Weight 2.4kg. <u>Description and position:</u> Constructed from FSC certified external grade European birch plywood and treated with an environmentally friendly preservative. To be sited high up an external wall, as close to the eaves as possible.	

Hedgehog

In order to enhance the sites for hedgehogs, four natural and four artificial hedgehog boxes will be provided on site.

Each natural hedgehog box will be created using four logs (preferably from the trees felled onsite), which will be arranged to leave an appropriate sized hole for a hedgehog to nest in and covered with twigs and leaves. Four artificial boxes, such as the [Hedgehog Nest Box \(NHBS Practical Conservation Equipment\)](#), will also be provided on site.

All boxes will be located in quiet undisturbed areas; Appendix A indicates the proposed locations.

Features to facilitate roaming of small mammals

All lengths of boundary walls/fencing within the site will be ecologically permeable in order to allow small mammals, including hedgehogs, free movement throughout the site and between the surrounding area.

The installation of 1.8 m high brick wall, 1.0 to 2.0 m timber fencing and 0.7 m natural stone wall are proposed for the site.

In order to make the boundary walls/fencing and any gates ecologically permeable, holes must be included. Holes, such as those termed 'hedgehog highways', allow the free movement of small mammals throughout the site and between the surrounding area. Hedgehog highways will be situated away from the houses, close to the corners of gardens, must be at least 13 cm tall by 13 cm wide and situated at the bottom of fence panels/gates. Holes can be installed in either the timber panels (Figure 1), in the gravel board (Figures 2), or at the base of stone/brick walls (Figure 3). The hedgehog highways will be installed at locations demonstrated on Appendix A.



Figure 1-3: Example of hedgehog highways to be installed within the development; within timber fencing/gates, within gravel boards and within stone/brick walls.

Similarly, where essential ground level changes may create barriers to movement (e.g. high kerbs, steps, terracing, sunken patios, gullies and drains), the landscaping must ensure sloped access/escape routes (e.g. egress boards; see Figures 4-6) for ground dwelling species.



Figure 4-6: Example of sloped access/escape routes to be installed where necessary.

Enhancement of the Ponds and Habitat Creation for GCN

The following information has been adapted from the Great Crested Newt Mitigation Strategy (Bowland Ecology, 2020).

Construction of two hibernacula and three refugia will be undertaken. The positions of the hibernacula and refugia sites are shown in Appendix A. They are positioned to aid dispersal of amphibians and to attract amphibians to potential breeding areas. To achieve this some are positioned close to the ponds, whilst some are further away.

The hibernacula will be constructed in accordance to the specification in Figure 3, Page 42 of the Great Crested Newt Mitigation Guidelines (English Nature, 2001) (Appendix B). This will be at least 2 m in length by 1 m height and 1 m width, and constructed using hardcore, brick rubble, logs etc. and loose topsoil, ideally with a covering of turf.

The refugia will comprise of log/rubble piles, ideally created from deadwood as a result of tree removal on site (where required) and stone from the dismantled dry-stone wall. The refugia will be covered with a layer of soil or wired together to prevent disturbance from residents.

The creation of two wetland scrapes/ponds will provide mitigation for the loss of Pond 2. Both scrapes will have a maximum depth of 0.5 m and will be 5 m wide. The maximum gradient for the scrape slopes will be 1:3/1:5, for safe egress of amphibians and other animals. Ideally, the scrapes will grade very gradually from existing ground surface towards the centre, where the depth will be 0.5 m.

Ponds 1, 3 and 4 will be managed specifically for GCN. This will include the regrading of the banks, thereby creating varying depths, including shallower areas which may be used during courtship and breeding. Any regrading works will be undertaken in autumn/winter. No more than 1/2 to 1/3 of the bank will be regraded and no more than 1/3 of the vegetation/silt will be removed, to ensure that sufficient breeding habitat is maintained. The maximum gradient for the scrape slopes will be 1:3/1:5, for safe egress of amphibians and other animals. Any supplementary planting required to the ponds will use established large plug plants of species such as; yellow-flag iris (*Iris pseudacorus*), water forget-me-not (*Myosotis scorpioides*), water mint (*Mentha aquatica*) and water plantain (*Alisma plantagoaquatica*), to allow for rapid establishment and provide suitable cover and egg laying substrate.

Any silt/vegetation removed from Ponds 1,3 or 4 during regrading works as part of habitat enhancement works will be left in an undisturbed location beside the pond for 24 hours to allow any amphibians or other animals to re-enter the pond. Regrading works will be undertaken during autumn or winter, when amphibians are less likely to be present.

The removal of silt and existing vegetation from Pond 4 will be undertaken with the aim of improving water retention. If the removal of silt and vegetation is not successful, further work to improve water retention should be undertaken, such as lining the pond.

Long term habitat management and maintenance

The retained on-site ponds (Ponds 1,3 and 4) and the newly created wetland scrapes will be subject to long term habitat management and maintenance activities. In summary:

- Approximately 25% of aquatic vegetation will be cleared out every 5 years (to include common bulrush (*Typha latifolia*)) to ensure sufficient breeding habitat is maintained. To be undertaken in the autumn/winter;
- An annual check and removal of encroaching scrub and trees will be undertaken in the autumn/winter;
- An annual check and removal of litter and debris will be undertaken in the autumn (to include excess floating and submerged vegetation);
- Where required, surrounding trees will be cut back every 2 years to reduce shading. To be undertaken in the autumn/winter;
- An annual check and removal of non-native invasive species (in particular Himalayan balsam (*Impatiens glandulifera*)) will be undertaken. Himalayan balsam should be removed by hand pulling any individuals in advance of the flowering period (June); and
- An annual check of water levels in Pond 4 will be undertaken (in the summer). If the removal of silt and vegetation is not successful, further work to improve water retention should be undertaken (in the winter), such as lining the pond.

For more information on suitable management activities and timing, see Summary of Pond Management Activities for Great Crested Newts from Langton *et al.* (2001) shown in Appendix C.

Work to ponds should normally be carried out between early November and late January. Any silt removed during management operations should be left beside the pond for 24 hours to allow any organisms to re-enter the pond, before being removed off-site.

Long-term management plan of the approved wildflower meadow / tall grassland

Sowing and establishment

Seed mixes used for the wildflower meadow / tall grassland will be native and appropriate to the locality and soil type. Seed mixes will be sown according to the manufacturers recommendations. Pre-grown turf strips can be installed for the grassland area. If sown in drier months, newly sown grassland may need to be irrigated to aid establishment.

Weed control

The areas of grassland planting will be maintained free of any self-seeded undesirable/tall ruderal species (such as thistle (*Cirsium sp.*), dock (*Rumex sp.*), common ragwort (*Senecio jacobaea*), common nettle (*Urtica dioica*) or bramble (*Rubus fruticosus* agg.) which are likely to colonise and establish quickly, and if left uncontrolled could dominate the sward), trees or woody vegetation. Weed clearance will be undertaken by hand, hoe or fork, as appropriate and herbicides must not be used.

Cutting

The key purpose of implementing cutting is to prevent succession to scrub or woodland, however, cutting also provides the following benefits (Natural England, 2012):

- Prevents coarse grass species or undesirable ruderal species from dominating the sward;
- Allows slow growing species to establish, increasing species-richness of the sward;
- Restricts growth of scrub and trees; and
- By removing arisings, prevents recycling of nutrients that would naturally occur through decomposition of dead plant matter, lowering soil fertility and allowing for greater species-richness.

Whilst a single annual cut is likely to be sufficient for most grassland, two annual cuts may be required where undesirable species such as dense growth of thistles, nettles or bramble are dominating the sward. The frequency of cutting can impact grassland in the following ways:

- Too many cuts will prevent slow growing species from establishing or seeding, ultimately leading to a species-poor grassland; or
- If left uncut, woody species will establish and lead to a natural transition to scrub and eventually woodland.

The best times to cut grassland are:

- **July:** Most floral species seed before July. Cutting in July allows time for flowers to seed and provides enough time for new plants to germinate prior to winter;
- **August to September:** Less favourable than July. However, once every five years, the annual cut should be undertaken between August to September to allow late seeding species to seed; and

- **Late spring:** If the sward is dominated by coarse grasses or undesirable ruderal species, a second cut may be warranted. The first of the two cuts should be undertaken in spring, followed by a second cut in August to September.

As such, the grassland area will typically be allowed to grow until late summer and will be cut once annually, in late summer (July) after plants have set seed. However, the annual cut should be undertaken between August to September once every five years. If the sward becomes dominated by coarse grasses or undesirable ruderal species, an additional cut in spring will be undertaken.

The following measures will be implemented for mowing grassland to maximise biodiversity:

- **Cutting height:** to prevent harm to amphibians and small mammals, the grassland should initially be cut to a minimum sward height of 150mm. Following a check for amphibians and small mammals within the grassland, it will then be cut to 75mm;
- **Structural diversity:** A graded sward height should be maintained towards the edges of the grassland area, with the sward becoming progressively taller closer to wildflower planting. This promotes diversity in sward height which is beneficial for invertebrates and in turn for birds and bats; and
- **Arisings:** Once cut, all arisings will be left for seven days to allow for annual seeds to drop. After seven days, all arisings will be removed from site to prevent nutrient enrichment and disposed of responsibly.

Monitoring

Annual monitoring will be undertaken for the first five years to inform the need and implementation of any further measures such as re-sowing or weed-control.

Areas of failed wildflower or grass will be prepared and re-sown with the specified seed mix either in April or September. Where planting continually fails, investigations will be undertaken to ascertain any underlying cause. No fertilisers will be used within the grassland area as they can reduce the diversity of the sward by increasing nutrients and may pollute the water.

The management plan will cover a minimum fifteen year period and will be funded by the developer or estate management company.

Public awareness measures to educate residents in appropriate non-damaging behaviour to wildlife

Signs and education boards will be installed throughout both sites in order to educate residents in appropriate non-damaging behaviour to wildlife.

Boards will aim to educate residents on, but is not limited to, the following:

- The importance of responsible litter disposal. To include domestic and green waste disposal;
- The adverse implications on the use of slug pellets;
- The adverse implications on the use of herbicides; and
- The risks of outdoor cats to wildlife and mitigation measures. Mitigation may include:

- Using a high bird table or feeder away from any platforms which a cat could use to pounce on them;
- Placing an uncomfortable surface around the base of the bird feeder will stop cats sitting underneath it;
- Position bird nest boxes where cats cannot reach them; and
- Keep cats indoors during early morning and evening when birds are at their most active.

Each hedgehog hole will have a 'hedgehog highway' sign installed above (see Figure 7 for example).



Figure 7: Example of hedgehog highway sign, which is made out of recycled plastic.

Available at <https://shop.britishhedgehogs.org.uk/product/hedgehog-highway-sign/>.

Information leaflets will also be given to all new residents which outlines the presence and importance of the bat and bird boxes installed within the new residential properties and throughout the sites. These information leaflets should detail how and when the bird boxes may be cleaned (see below), and that shelves may be installed beneath the bird boxes in order to catch any droppings (to be located approximately 2 m beneath the box). Leaflets will also detail that nesting birds must not be disturbed, and any bird boxes in use will remain undisturbed until the young have fledged and are no longer returning to the nest site. Furthermore, the leaflets will make clear that once bats have inhabited a bat box they may only be disturbed by licensed bat workers.

Cleaning bird boxes

Boxes may only be cleaned outside of the nesting bird season (March-August inclusive). During cleaning, the contents of the box will be emptied and boiling water will be used to clean the box and kill any parasites, then the box will be thoroughly dried before reinstallation. It is advisable to wear gloves and a dust mask when cleaning out bird nest boxes.

References

- Bat Conservation Trust (2021). *Bat box information pack*. Available at: [Bat-Box-Information-Pack.pdf \(bats.org.uk\)](https://bats.org.uk/Bat-Box-Information-Pack.pdf)
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- English Nature (2001). *Great crested newt mitigation guidelines*. English Nature.
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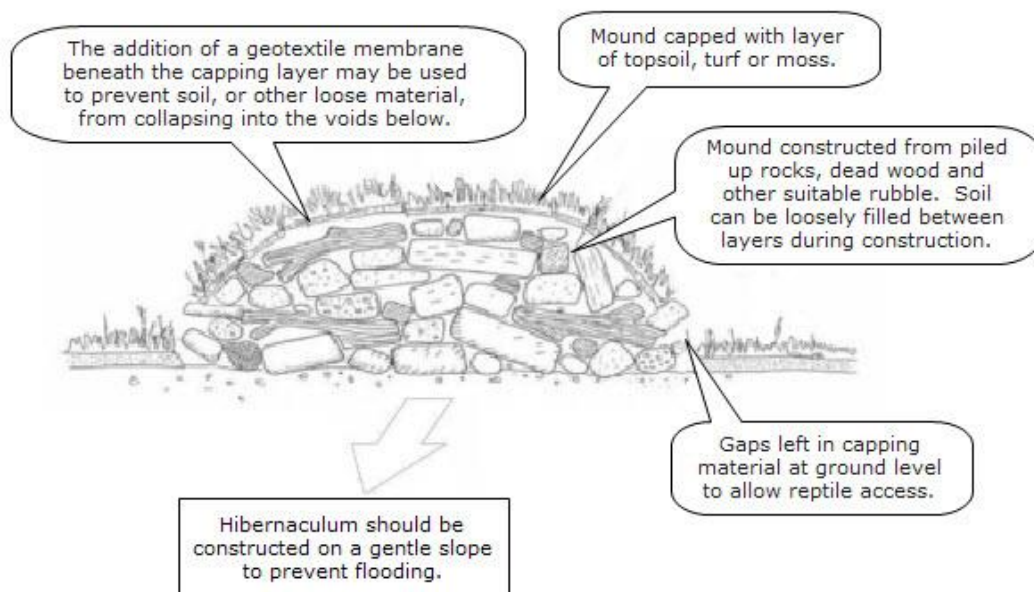
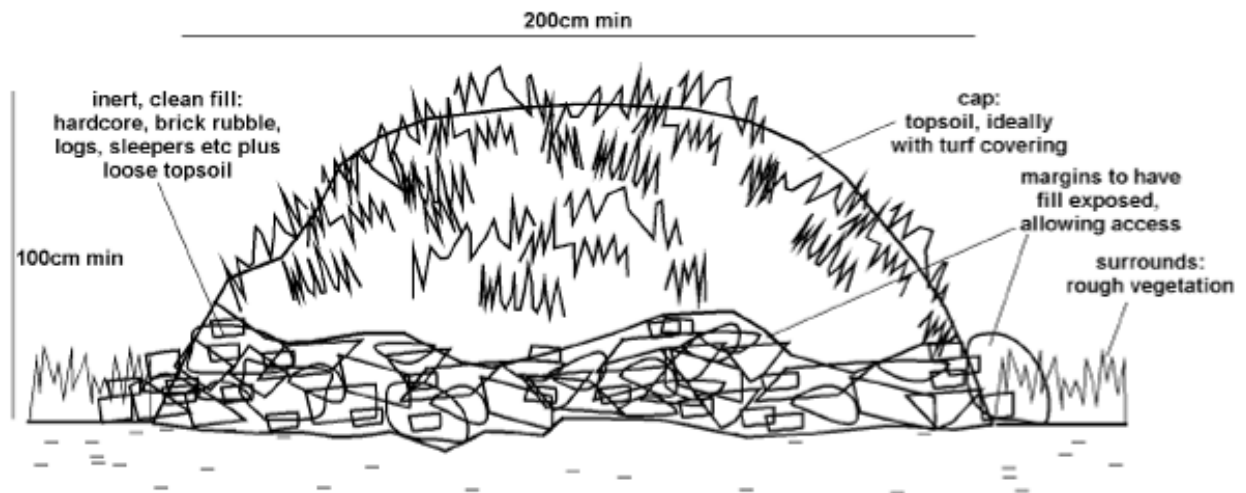
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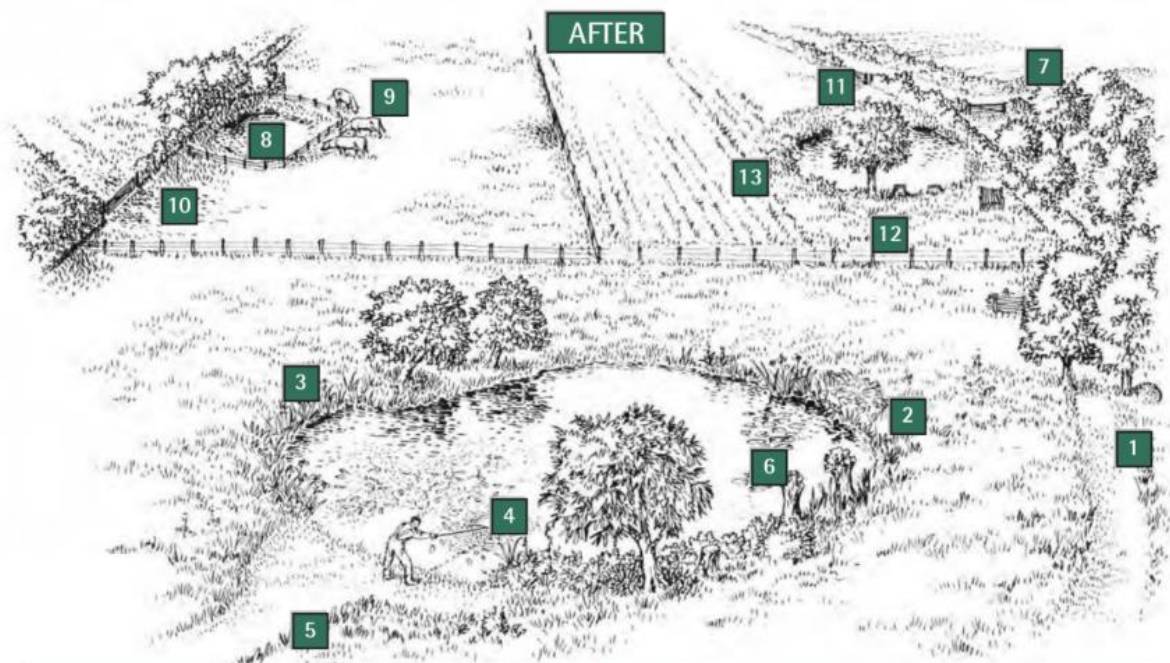
Appendix A: Biodiversity Enhancement Scheme Plan



Appendix B – Great Crested Newt Hibernacula Construction Detail (English Nature, 2001)



Appendix C – Summary of Pond Management Activities for GCN (Langton *et al.*, 2001)



- | | |
|--|---|
| 1 Build hibernacula in woodland (summer) | 8 De-silt pond A (autumn-winter) |
| 2 Place refugia near pond (winter) | 9 Install fence to control access to pond A (autumn-winter) |
| 3 Dig out <i>Typha</i> (autumn-winter) | 10 Install silt trap (summer) |
| 4 Remove excess floating and submerged veg. (autumn) | 11 Remove encroaching scrub and trees (autumn-winter) |
| 5 Cut grass in hot dry conditions. Paths are cut regularly | 12 Re-profile pond (autumn-winter) |
| 6 Cut back/pollard trees to reduce shade (autumn-winter) | 13 Buffer zone of rough grass around pond |
| 7 Increase wooded area and tree planting | |

ECoW Summary Report

Project Reference: BOW17.1303 Soccer Village, Milnrow

Introduction:

Bowland Ecology Ltd. was commissioned by DB Remediation to undertake Ecological Clerk of Works (ECoW) at Soccer Village, Milnrow (central NGR: SD 92875 13725) during April and May 2022. The site was subject to an Extended Phase 1 Habitat Survey, desk study and great crested newt (*Triturus cristatus*; GCN) eDNA surveys in 2020 (Bowland Ecology, 2021). The eDNA surveys returned negative results for GCN, however, a Mitigation Strategy (Bowland Ecology, 2020) was produced as a precaution. The GCN mitigation strategy illustrates that the impacts of the scheme on GCN can be adequately mitigated, therefore maintaining the 'favourable conservation status' of the species in the area, with the use of control measures and an ECoW. The site is subject for re-development into residential dwellings (application reference: 20/00639/FUL).

As part of the ECoW, nesting bird checks of scattered trees, scrub, tall ruderal, grassland vegetation and a dry-stone wall was undertaken. The results of which have been reported separately (Bowland Ecology, 2022a & 2022b).

A single GCN presence/absence survey of all ponds of site (Ponds 1 – 4) was undertaken prior to works commencing on site.

GCN Survey:

The GCN presence/absence survey was undertaken by Lucy Pocock BSc (Hons) and Vinny Smith BSc (Hons), acting as agents under the licence of Jeremy James MSc, BSc (Hons), CEcol, CEnv, MCIEEM (Licence number 2015-17546-CLS-CLS) on the 21st and 22nd of April 2022. Weather conditions during the evening survey was dry, 0/8 cloud, Beaufort Scale: F3, 10 °C.

The presence/absence survey methodology followed Natural England's *Great Crested Newt Mitigation Guidelines* (English Nature, 2001). A combination of methods were employed for the survey, including night-time torch surveying, refuge searching and bottle trapping as follows:

- A night-search was completed at each survey visit using a high-powered torch. The edge of each pond was searched for approximately 15 minutes for each 50 linear metre section;
- Bottle-traps were set at approximately 2m intervals around the margins of ponds which were suitable for this survey technique. The traps were set just before dusk, and then checked and removed the next morning. The traps were two-litre bottle-traps with green canes (tipped with fluorescent yellow tape); and
- Potential refugia such as logs and stones adjacent to ponds were lifted and searched for amphibians.

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Tables 1 presents the torch surveying and bottle trapping results for Ponds 1 to 4.

Pond	Survey Method	GCN male	GCN female	GCN indet.	Smooth newt male	Smooth newt female	Palmate newt male	Palmate newt female	Palmate/smooth indet. female	Other (specify)
Pond 1	Torch Survey	0	0	0	0	0	0	0	0	CF
	Bottle Trap Survey	0	0	0	0	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 2	Torch Survey	0	0	0	0	0	0	0	0	CF
	Bottle Trap Survey	0	0	0	1	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 3	Torch Survey	0	0	0	0	1	0	0	2	0
	Bottle Trap Survey	0	0	0	1	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 4	Torch Survey	0	0	0	1	0	0	0	0	0
	Bottle Trap Survey	0	0	0	3	0	0	2	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	CT

GCN – Great Crested Newt

CF – Common frog (*Rana temporaria*)

CT – Common toad (*Bufo bufo*)

Smooth newt (*Lissotriton vulgaris*)

Palmate newt (*Lissotriton helveticus*)

The presence/absence survey recorded no GCN. The survey was undertaken at the optimal time of year and in optimal conditions. The ponds are used by small newts (both palmate and smooth), frogs and toads.

ECoW Summary Report

Ecological Clerk of Works

The ECoW also covered: a toolbox-talk prior to the commencement of works; the installation of exclusion zones around all retained ponds and areas of retained habitats; supervision and fingertip searches during vegetation removal; supervision of dry-stone wall removal; and supervision of the dredging of Pond 2. The vegetation removal was initially undertaken as a two-stage cut, as described in the GCN mitigation strategy. However, following the lack of GCN recorded during the presence/absence surveys, combined with Health and Safety concerns with regards to the vegetation removal contractors, the approach for vegetation removal was modified as follows:

- Two-stage cut and strimming was focused to high risk (hot spot) areas for amphibians e.g. areas of scrub/denser vegetation, as directed by the ECoW; and
- Vegetation removal of lower risk areas (grassland) was undertaken by tractor and flail, or similar – works to cease if amphibians encountered/suspected and the ECoW contacted for further advice.

No GCN were found as part of the ECoW, however low numbers of smooth newt, common frog and common toads were found, all of which were relocated to a safe location away from the working area, in suitable vegetation.

An ECoW was present on the following dates, weather conditions are also included:

20.04.22 - dry, 2/8 cloud, Beaufort Scale: F3, 15 °C

21.04.22 - dry, 4/8 cloud, Beaufort Scale: F2, 17 °C

22.04.22 - dry, 5/8 cloud, Beaufort Scale: F3, 16 °C

25.04.22 - dry, 3/8 cloud, Beaufort Scale: F1, 13 °C

27.04.22 - dry, 6/8 cloud, Beaufort Scale: F1, 12 °C

28.04.22 - dry, 5/8 cloud, Beaufort Scale: F1, 10 °C

09.05.22 - dry, 2/8 cloud, Beaufort Scale: F1-2, 20°C

Overall site check

An overall site check was carried out on the 20th of May to ensure that site preparations have been completed to a satisfactory level. The following issues were raised:

- Areas of grassland not kept to a height of 50 mm or shorter (Photograph 1):
- Materials not stored appropriately, in particular the stone from the dismantled stone wall (Photographs 2 and 3); and
- Some stones have not been removed after the dismantling of the stone wall; if these get pushed down into the ground they will create suitable refuge spaces (Photograph 4).

Actions required:

- All remaining vegetation to be kept to a height of no more than 50 mm throughout the growing season or until the vegetation is removed;
- All stored materials which may provide amphibians with suitable refugia to be stored on hard standing/bare ground, or alternatively raised off the ground on pallets; and
- All relevant recommendations within both the Ecological Appraisal (Bowland Ecology, 2021) and the Great Crested Newt Mitigation Strategy (Bowland Ecology, 2020) must also be followed throughout the duration of the project.

ECoW Summary Report

Photos:



Photograph 1: Grassland not kept to a height of 50 mm or shorter.



Photograph 2: Materials not stored appropriately.



Photograph 3: Materials not stored appropriately.



Photograph 4: Stones not removed after the dismantling of the stone wall.

References:

- Bowland Ecology (2020). Soccer Village, Milnrow: Great Crested Newt Mitigation Strategy. Bowland Ecology, Clitheroe.
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Date: 24.05.22

ECoW Summary Report

Project Reference: BOW17.1303 Soccer Village, Milnrow

Introduction:

Bowland Ecology Ltd. was commissioned by DB Remediation to undertake Ecological Clerk of Works (ECoW) at Soccer Village, Milnrow (central NGR: SD 92875 13725) during April and May 2022. The site was subject to an Extended Phase 1 Habitat Survey, desk study and great crested newt (*Triturus cristatus*; GCN) eDNA surveys in 2020 (Bowland Ecology, 2021). The eDNA surveys returned negative results for GCN, however, a Mitigation Strategy (Bowland Ecology, 2020) was produced as a precaution. The GCN mitigation strategy illustrates that the impacts of the scheme on GCN can be adequately mitigated, therefore maintaining the 'favourable conservation status' of the species in the area, with the use of control measures and an ECoW. The site is subject for re-development into residential dwellings (application reference: 20/00639/FUL).

As part of the ECoW, nesting bird checks of scattered trees, scrub, tall ruderal, grassland vegetation and a dry-stone wall was undertaken. The results of which have been reported separately (Bowland Ecology, 2022a & 2022b).

A single GCN presence/absence survey of all ponds of site (Ponds 1 – 4) was undertaken prior to works commencing on site.

GCN Survey:

The GCN presence/absence survey was undertaken by Lucy Pocock BSc (Hons) and Vinny Smith BSc (Hons), acting as agents under the licence of Jeremy James MSc, BSc (Hons), CEcol, CEnv, MCIEEM (Licence number 2015-17546-CLS-CLS) on the 21st and 22nd of April 2022. Weather conditions during the evening survey was dry, 0/8 cloud, Beaufort Scale: F3, 10 °C.

The presence/absence survey methodology followed Natural England's *Great Crested Newt Mitigation Guidelines* (English Nature, 2001). A combination of methods were employed for the survey, including night-time torch surveying, refuge searching and bottle trapping as follows:

- A night-search was completed at each survey visit using a high-powered torch. The edge of each pond was searched for approximately 15 minutes for each 50 linear metre section;
- Bottle-traps were set at approximately 2m intervals around the margins of ponds which were suitable for this survey technique. The traps were set just before dusk, and then checked and removed the next morning. The traps were two-litre bottle-traps with green canes (tipped with fluorescent yellow tape); and
- Potential refugia such as logs and stones adjacent to ponds were lifted and searched for amphibians.

ECoW Summary Report

Tables 1 presents the torch surveying and bottle trapping results for Ponds 1 to 4.

Pond	Survey Method	GCN male	GCN female	GCN indet.	Smooth newt male	Smooth newt female	Palmate newt male	Palmate newt female	Palmate/smooth indet. female	Other (specify)
Pond 1	Torch Survey	0	0	0	0	0	0	0	0	CF
	Bottle Trap Survey	0	0	0	0	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 2	Torch Survey	0	0	0	0	0	0	0	0	CF
	Bottle Trap Survey	0	0	0	1	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 3	Torch Survey	0	0	0	0	1	0	0	2	0
	Bottle Trap Survey	0	0	0	1	0	0	0	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	0
Pond 4	Torch Survey	0	0	0	1	0	0	0	0	0
	Bottle Trap Survey	0	0	0	3	0	0	2	0	0
	Refugia Searching	0	0	0	0	0	0	0	0	CT

GCN – Great Crested Newt

CF – Common frog (*Rana temporaria*)

CT – Common toad (*Bufo bufo*)

Smooth newt (*Lissotriton vulgaris*)

Palmate newt (*Lissotriton helveticus*)

The presence/absence survey recorded no GCN. The survey was undertaken at the optimal time of year and in optimal conditions. The ponds are used by small newts (both palmate and smooth), frogs and toads.

ECoW Summary Report

Ecological Clerk of Works

The ECoW also covered: a toolbox-talk prior to the commencement of works; the installation of exclusion zones around all retained ponds and areas of retained habitats; supervision and fingertip searches during vegetation removal; supervision of dry-stone wall removal; and supervision of the dredging of Pond 2. The vegetation removal was initially undertaken as a two-stage cut, as described in the GCN mitigation strategy. However, following the lack of GCN recorded during the presence/absence surveys, combined with Health and Safety concerns with regards to the vegetation removal contractors, the approach for vegetation removal was modified as follows:

- Two-stage cut and strimming was focused to high risk (hot spot) areas for amphibians e.g. areas of scrub/denser vegetation, as directed by the ECoW; and
- Vegetation removal of lower risk areas (grassland) was undertaken by tractor and flail, or similar – works to cease if amphibians encountered/suspected and the ECoW contacted for further advice.

No GCN were found as part of the ECoW, however low numbers of smooth newt, common frog and common toads were found, all of which were relocated to a safe location away from the working area, in suitable vegetation.

An ECoW was present on the following dates, weather conditions are also included:

20.04.22 - dry, 2/8 cloud, Beaufort Scale: F3, 15 °C

21.04.22 - dry, 4/8 cloud, Beaufort Scale: F2, 17 °C

22.04.22 - dry, 5/8 cloud, Beaufort Scale: F3, 16 °C

25.04.22 - dry, 3/8 cloud, Beaufort Scale: F1, 13 °C

27.04.22 - dry, 6/8 cloud, Beaufort Scale: F1, 12 °C

28.04.22 - dry, 5/8 cloud, Beaufort Scale: F1, 10 °C

09.05.22 - dry, 2/8 cloud, Beaufort Scale: F1-2, 20°C

Site preparation works are considered to be satisfactory, with toolbox talks given, exclusion zones created around retained ponds and habitats, vegetation removed/cut to 50 mm or less, dry stone wall removed and materials stored appropriately, as outlined in the Great Crested Newt Mitigation Strategy (Bowland Ecology, 2020) and above.

All relevant recommendations within both the Ecological Appraisal (Bowland Ecology, 2021) and the Great Crested Newt Mitigation Strategy (Bowland Ecology, 2020) must be followed throughout the remainder of the project.

References:

Bowland Ecology (2020). Soccer Village, Milnrow: Great Crested Newt Mitigation Strategy. Bowland Ecology, Clitheroe.

Bowland Ecology (2021). Soccer Village, Milnrow Ecological Appraisal. Bowland Ecology, Clitheroe.

Bowland Ecology (2022a). Soccer Village, Milnrow – Nesting Bird Check (April). Bowland Ecology, Clitheroe.

Bowland Ecology (2022b). Soccer Village, Milnrow – Nesting Bird Check (May). Bowland Ecology, Clitheroe.

English Nature (2001). Great Crested Newt Mitigation Guidelines. <http://publications.naturalengland.org.uk/file/136001>

Prepared by: Catrin Scott, *Ecologist*

QA: Matt Clifford, *Senior Ecologist*

Date: 16.06.22

APPENDIX E – PHOTOGRAPHIC RECORDS



20/04/2022

Plate No: 1.

First cut – potential newt habitat



09/05/2022

Plate No: 2.

Tree Protection Fencing and Signage - Wildhouse Lane



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



28/04/2022

Plate No: 3.

Uplift of hardstanding and preparation of crush feedstock - Wildhouse Lane



09/05/2022

Plate No: 4.

Tree Protection Fencing – Retained Habitat, Pond



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



04/05/2022

Plate No: 5.

Recovering tarmac and hardcore for reuse



05/05/2022

Plate No: 6.

Crushing Demolition Materials



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



05/05/2022

Plate No: 7.

Aerial Photo



10/05/2022

Plate No: 8.

Showing Materials Being Cut, to be Reused as Fill



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



12/05/2022

Plate No: 9.

Aerial Photo



13/05/2022

Plate No: 10.

Excavating Made Ground for reuse as general fill



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



17/05/2022

Plate No: 11.

Removing Historical Foundations



20/05/2022

Plate No: 12.

Turning Over Made Ground in the Locations of Proposed Plots



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



20/05/2022

Plate No: 13.

Placing Recycled Stone on Proposed Roads



31/05/2022

Plate No: 14.

Aerial Photo



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



01/06/2022

Plate No: 15.

Vegetation Strip



07/06/2022

Plate No: 16.

Excavating in Areas of Cut for use as General Fill



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



08/06/2022

Plate No: 17.

Placing Fill Materials



09/06/2022

Plate No: 18.

Cut and Fill Using the Dozer



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



13/06/2022

Plate No: 19.

Materials cut for stockpiling as Subsoil



13/06/2022

Plate No: 20.

Materials cut for stockpiling as Subsoil



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



14/06/2022

Plate No: 21.

Placing Cut Made Ground as Fill Under Roads



15/06/2022

Plate No: 22.

Showing Materials Being Cut



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



16/06/2022

Plate No: 23.

Cut and Fill Reprofilng



20/06/2022

Plate No: 24.

Cut and Fill Reprofilng



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



21/06/2022

Plate No: 25.

Cut and Fill Reprofiling



28/06/2022

Plate No: 26.

Aerial Photo



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



05/07/2022

Plate No: 27.

Tree Protection Fencing - Wildhouse Lane



05/07/2022

Plate No: 28.

Tree Protection Fencing and Signage - Retained Habitat, S Side of Site



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow



05/07/2022

Plate No: 29.

Tree Protection Fencing – Retained Habitat, Pond



05/2023

Plate No: 30

Imported Class 6 Material



Client:

Tempus Design and Build

Project:

Wildhouse Lane, Milnrow

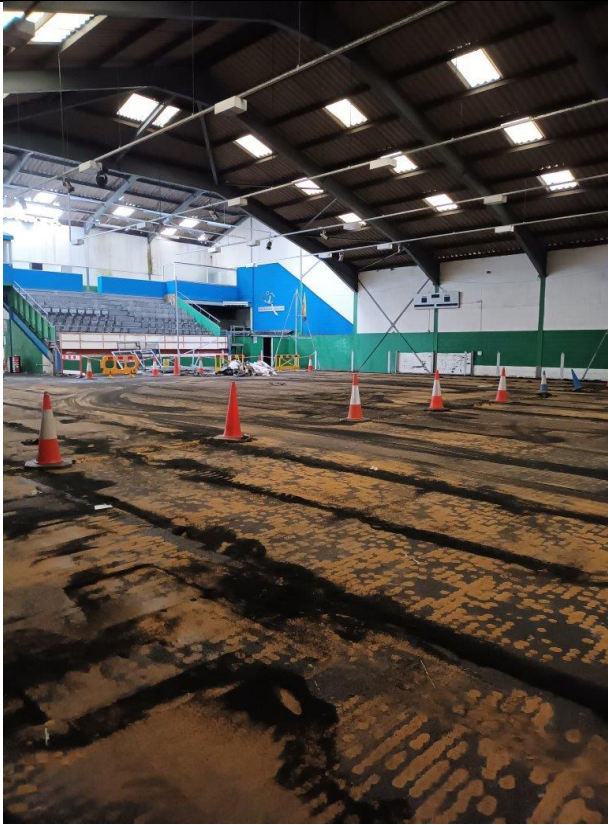


Plate No: 1. Removal of indoor sports pitches



Plate No: 2. Removal of outside sports pitch inc. fencing to allow access to rear of building



Client:	Lancet Homes
Project:	Milnrow Soccer Village



Plate No: 3. Loading of sports pitches for removal



06/03/2018 Plate No: 4. Removal of asbestos sheeting



Client:	Lancet Homes
Project:	Milnrow Soccer Village



Plate No: 5.

Asbestos sheeting removed



Plate No: 6.

Mechanical demolition of sports pitch area



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 7.

First section removed



Plate No: 8.

Demolition works progressing



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 9.

Demolition works progressing of main arena



Plate No: 10.

Demolition works progressing



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 11. Demolition works of main arena



Plate No: 12. Demolition of smaller indoor pitch



Client:	Lancet Homes
Project:	Milnrow Soccer Village



Plate No: 13. Site security of brick structure



Plate No: 14. Site security of brick structure



Client:	Lancet Homes
Project:	Milnrow Soccer Village



Plate No: 15.

Demolition Continued of main structure



Plate No: 16.

Material management after demolition



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 17.

Material management after demolition



Plate No: 18.

Final site condition



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 19.

Final site condition of outdoor courts area



Plate No: 20.

Final site condition of stockpiled material



Client:

Lancet Homes

Project:

Milnrow Soccer Village



Plate No: 21.

Final site condition



Plate No: 22.

Final site condition



Client:

Lancet Homes

Project:

Milnrow Soccer Village

APPENDIX F – VALIDATION SUMMARY TABLES

Chemtest Job No.:			22-21013	22-21013	22-22004	22-22004	22-22004	22-22004	22-22004	22-22004	22-22494	22-22494	22-22494	22-22494	22-22494	22-22494	22-22494
Chemtest Sample ID.:			1442829	1442832	1447534	1447535	1447536	1447537	1447539	1449793	1449794	1449795	1449796	1449797	1449798	1449799	
Client Sample Ref.:			S3	S4	S5	S6	S1	S2	S2	S3	S4	S1	S2	S3	S4	S1	
Date Sampled:			08/06/22	08/06/22	08/06/22	08/06/22	09/06/22	09/06/22	10/06/22	10/06/22	10/06/22	13/06/02	13/06/22	13/06/22	13/06/22	14/06/22	
Determinand	Criteria	Units															
ACM Type			-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Asbestos Identification	<0.001%		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	
Moisture		%	25	23	13	12	18	19	13	12	13	16	16	9.5	8.4	13	
pH	3.5-9		7.6	7.6	6.1	6.3	7.5	7.6	6.6	6.9	7.7	6.9	6.8	6.6	6.9	8.0	
Copper (Nitric Acid)	100-200	mg/kg	64	60	73	27	31	25	51	19	51	35	35	49	25	60	
Zinc (Nitric Acid)	200-300	mg/kg	150	140	57	49	160	100	89	37	97	82	67	100	50	110	
Arsenic	37	mg/kg	8.7	0.5	1.7	1.9	4.9	6.3	2.1	2.8	2.0	3.3	3.1	2.5	3.5	2.8	
Cadmium	11	mg/kg	0.43	0.26	0.1	0.1	0.21	0.28	0.10	0.1	0.12	0.1	0.1	0.1	0.1	0.10	
Mercury	40	mg/kg	0.11	0.05	0.05	0.05	0.06	0.08	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	
Nickel	130	mg/kg	25	1.7	21	24	9.0	13	27	25	28	26	23	24	26	10	
Lead	200	mg/kg	60	3.6	13	17	32	46	17	15	16	15	14	14	15	17	
Selenium	250	mg/kg	1.3	0.25	0.68	0.82	0.53	0.71	0.86	0.79	0.78	0.82	0.75	0.73	0.76	0.43	
Chromium (Hexavalent)	6	mg/kg	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Organic Matter		%	6.7	8.3	2.9	2.9	12	17	3.1	2.2	2.2	2.6	2.4	2.1	2.4	7.1	
Naphthalene		mg/kg	0.1	1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Acenaphthylene		mg/kg	0.1	0.62	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Acenaphthene		mg/kg	0.1	1.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Fluorene		mg/kg	0.1	1.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Phenanthrene		mg/kg	0.49	8.8	0.1	0.1	0.74	1.1	0.1	0.1	0.1	0.1	0.1	0.1	1.46	1.8	
Anthracene		mg/kg	0.11	1.7	0.1	0.1	0.21	0.30	0.1	0.1	0.1	0.1	0.1	0.1	0.39	0.48	
Fluoranthene		mg/kg	1.0	11	0.1	0.1	1.6	2.0	0.1	0.1	0.1	0.1	0.1	0.1	2.4	2.8	
Pyrene		mg/kg	0.97	8.6	0.1	0.1	1.4	1.8	0.1	0.1	0.1	0.1	0.1	0.1	2.2	2.6	
Benzo[a]anthracene		mg/kg	0.51	4.5	0.1	0.1	0.87	0.93	0.1	0.1	0.1	0.1	0.1	0.1	0.99	1.05	
Chrysene		mg/kg	0.61	4.7	0.1	0.1	0.86	0.88	0.1	0.1	0.1	0.1	0.1	0.1	0.90	0.92	
Benzo[b]fluoranthene		mg/kg	0.83	5.1	0.1	0.1	1.3										

[illegible]

APPENDIX G – CHEMICAL LABORATORY REPORTS

CAPPING SUBSOIL



2183

Amended Report

Report No.:	22-21013-3		
Initial Date of Issue:	13-Jun-2022	Date of Re-Issue:	04-Aug-2023
Re-Issue Details:	This report has been revised and directly supersedes 22-21013-2 in its entirety		
Client	DB Remediation		
Client Address:	Carnoustie House Kelvin Close Birchwood Warrington WA3 7PB		
Contact(s):	Laboratory Matt Holker		
Project	20021 Wildhouse Lane, Milnrow		
Quotation No.:	Q22-27570	Date Received:	07-Jun-2022
Order No.:	Wildhouse Lane, Milnrow	Date Instructed:	07-Jun-2022
No. of Samples:	2		
Turnaround (Wkdays):	5	Results Due:	13-Jun-2022
Date Approved:	13-Jun-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: 20021 Wildhouse Lane, Milnrow

Client: DB Remediation	Chemtest Job No.:				22-21013	22-21013
Quotation No.: Q22-27570	Chemtest Sample ID.:				1442829	1442832
Order No.: Wildhouse Lane, Milnrow	Client Sample Ref.:				S3	S4
	Sample Type:				SOIL	SOIL
	Date Sampled:				08-Jun-2022	08-Jun-2022
	Asbestos Lab:				COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	25	23
pH	U	2010		4.0	7.6	7.6
Copper (Nitric Acid)	N	2450	mg/kg	5.0	64	60
Zinc (Nitric Acid)	N	2450	mg/kg	5.0	150	140
Arsenic	U	2455	mg/kg	0.5	8.7	< 0.5
Cadmium	U	2455	mg/kg	0.10	0.43	0.26
Mercury	U	2455	mg/kg	0.05	0.11	< 0.05
Nickel	U	2455	mg/kg	0.50	25	1.7
Lead	U	2455	mg/kg	0.50	60	3.6
Selenium	U	2455	mg/kg	0.25	1.3	< 0.25
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	6.7	8.3
Naphthalene	U	2800	mg/kg	0.10	< 0.10	1.5
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	0.62
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	1.8
Fluorene	U	2800	mg/kg	0.10	< 0.10	1.2
Phenanthrene	U	2800	mg/kg	0.10	0.49	8.8
Anthracene	U	2800	mg/kg	0.10	0.11	1.7
Fluoranthene	U	2800	mg/kg	0.10	1.0	11
Pyrene	U	2800	mg/kg	0.10	0.97	8.6
Benzo[a]anthracene	U	2800	mg/kg	0.10	0.51	4.5
Chrysene	U	2800	mg/kg	0.10	0.61	4.7
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	0.83	5.1
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	0.23	1.7
Benzo[a]pyrene	U	2800	mg/kg	0.10	0.67	4.3
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	0.39	2.1
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	0.11	0.47
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	0.43	2.0
Total Of 16 PAH's	N	2800	mg/kg	2.0	6.4	60

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



2183

Amended Report

Report No.:	22-22004-2		
Initial Date of Issue:	17-Jun-2022	Date of Re-Issue:	04-Aug-2023
Re-Issue Details:	This report has been revised and directly supersedes 22-22004-1 in its entirety		
Client	DB Remediation		
Client Address:	Carnoustie House Kelvin Close Birchwood Warrington WA3 7PB		
Contact(s):	Laboratory Matt Holker		
Project	20021 Milnrow		
Quotation No.:	Q22-27570	Date Received:	14-Jun-2022
Order No.:	Wildhouse Lane	Date Instructed:	14-Jun-2022
No. of Samples:	5		
Turnaround (Wkdays):	5	Results Due:	20-Jun-2022
Date Approved:	17-Jun-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: 20021 Milnrow

Client: DB Remediation	Chemtest Job No.:				22-22004	22-22004	22-22004	22-22004	22-22004
Quotation No.: Q22-27570	Chemtest Sample ID.:				1447534	1447535	1447536	1447537	1447539
Order No.: Wildhouse Lane	Client Sample Ref.:				S1	S2	S1	S2	S2
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				08-Jun-2022	08-Jun-2022	09-Jun-2022	09-Jun-2022	10-Jun-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD					
ACM Type	U	2192		N/A	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	13	12	18	19	13
pH	U	2010		4.0	6.1	6.3	7.5	7.6	6.6
Copper (Nitric Acid)	N	2450	mg/kg	5.0	73	27	31	25	51
Zinc (Nitric Acid)	N	2450	mg/kg	5.0	57	49	160	100	89
Arsenic	U	2455	mg/kg	0.5	1.7	1.9	4.9	6.3	2.1
Cadmium	U	2455	mg/kg	0.10	< 0.10	< 0.10	0.21	0.28	0.10
Mercury	U	2455	mg/kg	0.05	< 0.05	< 0.05	0.06	0.08	< 0.05
Nickel	U	2455	mg/kg	0.50	21	24	9.0	13	27
Lead	U	2455	mg/kg	0.50	13	17	32	46	17
Selenium	U	2455	mg/kg	0.25	0.68	0.82	0.53	0.71	0.86
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	2.9	2.9	12	17	3.1
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	0.74	1.1	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	0.21	0.30	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	1.6	2.0	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	1.4	1.8	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	0.87	0.93	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	0.86	0.88	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	1.3	1.5	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	0.41	0.55	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	1.1	1.1	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	8.5	10	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[a,h]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



2183

Amended Report

Report No.:	22-22494-2		
Initial Date of Issue:	22-Jun-2022	Date of Re-Issue:	23-Jun-2022
Client	DB Remediation		
Client Address:	Carnoustie House Kelvin Close Birchwood Warrington WA3 7PB		
Contact(s):	Jenny Day Laboratory Matt Holker		
Project	20021 Wildhouse Lane, Milnrow		
Quotation No.:	Q22-27570	Date Received:	16-Jun-2022
Order No.:		Date Instructed:	16-Jun-2022
No. of Samples:	12		
Turnaround (Wkdays):	5	Results Due:	22-Jun-2022
Date Approved:	22-Jun-2022		
Approved By:			



Details: Stuart Henderson, Technical
Manager

Results - Soil

Project: 20021 Wildhouse Lane, Milnrow

Client: DB Remediation	Chemtest Job No.:				22-22494	22-22494	22-22494	22-22494	22-22494	22-22494	22-22494	22-22494	22-22494
Quotation No.: Q22-27570	Chemtest Sample ID.:				1449793	1449794	1449795	1449796	1449797	1449798	1449799	1449800	1449801
Order No.:	Client Sample Ref.:				S3	S4	S1	S2	S3	S4	S1	S2	S3
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Date Sampled:				10-Jun-2022	10-Jun-2022	13-Jun-2022	13-Jun-2022	13-Jun-2022	13-Jun-2022	14-Jun-2022	14-Jun-2022	14-Jun-2022
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	12	13	16	16	9.5	8.4	13	14	30
pH	U	2010		4.0	6.9	7.7	6.9	6.8	6.6	6.9	8.0	7.6	5.7
Copper (Nitric Acid)	N	2450	mg/kg	5.0	19	51	35	35	49	25	60	40	49
Zinc (Nitric Acid)	N	2450	mg/kg	5.0	37	97	82	67	100	50	110	66	38
Arsenic	U	2455	mg/kg	0.5	2.8	2.0	3.3	3.1	2.5	3.5	2.8	2.5	1.0
Cadmium	U	2455	mg/kg	0.10	< 0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10	0.10	0.10	< 0.10
Mercury	U	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Nickel	U	2455	mg/kg	0.50	25	28	26	23	24	26	10	26	12
Lead	U	2455	mg/kg	0.50	15	16	15	14	14	15	17	16	12
Selenium	U	2455	mg/kg	0.25	0.79	0.78	0.82	0.75	0.73	0.76	0.43	0.88	0.49
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	2.2	2.2	2.6	2.4	2.1	2.4	7.1	4.5	4.7
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Results - Soil

Project: 20021 Wildhouse Lane, Milnrow

Client: DB Remediation	Chemtest Job No.:				22-22494	22-22494	22-22494
Quotation No.: Q22-27570	Chemtest Sample ID.:				1449802	1449803	1449804
Order No.:	Client Sample Ref.:				S4	S1	S2
	Sample Type:				SOIL	SOIL	SOIL
	Date Sampled:				14-Jun-2022	15-Jun-2022	15-Jun-2022
	Asbestos Lab:				COVENTRY	COVENTRY	COVENTRY
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192		N/A	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	15	13	11
pH	U	2010		4.0	7.3	7.9	7.8
Copper (Nitric Acid)	N	2450	mg/kg	5.0	64	35	36
Zinc (Nitric Acid)	N	2450	mg/kg	5.0	140	72	74
Arsenic	U	2455	mg/kg	0.5	3.3	2.8	1.6
Cadmium	U	2455	mg/kg	0.10	0.16	0.20	0.13
Mercury	U	2455	mg/kg	0.05	< 0.05	< 0.05	< 0.05
Nickel	U	2455	mg/kg	0.50	30	23	17
Lead	U	2455	mg/kg	0.50	24	20	11
Selenium	U	2455	mg/kg	0.25	0.94	1.1	0.75
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	4.7	6.6	2.6
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	0.19	< 0.10	< 0.10
Pyrene	U	2800	mg/kg	0.10	0.19	< 0.10	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	< 2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



2183

Amended Report

Report No.:	22-24395-2		
Initial Date of Issue:	04-Jul-2022	Date of Re-Issue:	04-Aug-2023
Re-Issue Details:	This report has been revised and directly supersedes 22-24395-1 in its entirety		
Client	DB Remediation		
Client Address:	Carnoustie House Kelvin Close Birchwood Warrington WA3 7PB		
Contact(s):	Jenny Day Laboratory Matt Holker		
Project	WILDHOUSE LANE, MILNROW 20021		
Quotation No.:	Q22-27570	Date Received:	29-Jun-2022
Order No.:		Date Instructed:	29-Jun-2022
No. of Samples:	4		
Turnaround (Wkdays):	5	Results Due:	05-Jul-2022
Date Approved:	04-Jul-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: WILDHOUSE LANE, MILNROW 20021

Client: DB Remediation	Chemtest Job No.:				22-24395	22-24395	22-24395	22-24395
Quotation No.: Q22-27570	Chemtest Sample ID.:				1457887	1457889	1457890	1457891
Order No.:	Client Sample Ref.:				S1	S1	S2	S1
	Sample Type:				SOIL	SOIL	SOIL	SOIL
	Date Sampled:				23-Jun-2022	24-Jun-2022	24-Jun-2022	27-Jun-2022
	Asbestos Lab:				DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD				
ACM Type	U	2192		N/A	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	8.1	13	9.2	18
pH	U	2010		4.0	9.0	9.0	8.8	8.8
Copper (Nitric Acid)	N	2450	mg/kg	5.0	58	46	28	17
Zinc (Nitric Acid)	N	2450	mg/kg	5.0	120	76	87	42
Arsenic	U	2455	mg/kg	0.5	2.5	6.0	4.7	4.2
Cadmium	U	2455	mg/kg	0.10	0.12	0.18	0.18	< 0.10
Mercury	U	2455	mg/kg	0.05	< 0.05	0.09	0.05	< 0.05
Nickel	U	2455	mg/kg	0.50	28	14	33	8.0
Lead	U	2455	mg/kg	0.50	15	45	29	16
Selenium	U	2455	mg/kg	0.25	1.1	0.87	1.2	0.57
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50
Organic Matter	U	2625	%	0.40	2.2	3.5	6.2	3.3
Naphthalene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	2800	mg/kg	0.10	< 0.10	0.92	< 0.10	< 0.10
Anthracene	U	2800	mg/kg	0.10	< 0.10	0.18	< 0.10	< 0.10
Fluoranthene	U	2800	mg/kg	0.10	< 0.10	1.3	0.15	< 0.10
Pyrene	U	2800	mg/kg	0.10	< 0.10	1.2	0.19	< 0.10
Benzo[a]anthracene	U	2800	mg/kg	0.10	< 0.10	0.54	< 0.10	< 0.10
Chrysene	U	2800	mg/kg	0.10	< 0.10	0.51	< 0.10	< 0.10
Benzo[b]fluoranthene	U	2800	mg/kg	0.10	< 0.10	0.83	< 0.10	< 0.10
Benzo[k]fluoranthene	U	2800	mg/kg	0.10	< 0.10	0.33	< 0.10	< 0.10
Benzo[a]pyrene	U	2800	mg/kg	0.10	< 0.10	0.62	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	< 2.0	6.4	< 2.0	< 2.0

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenzo[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



4041

Matt Holker

DB Remediation Ltd
Carnoustie House
Kelvin Close
Birchwood
Warrington
WA3 7PB

e: labs & cc Eng



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

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

Analytical Report Number : 23-41071

Project / Site name:	Milnrow	Samples received on:	22/06/2023
Your job number:		Samples instructed on/ Analysis started on:	22/06/2023
Your order number:	THATTO	Analysis completed by:	28/06/2023
Report Issue Number:	1	Report issued on:	29/06/2023
Samples Analysed:	10 soil samples		

Signed:

Joanna Wawrzeczko
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :	soils	- 4 weeks from reporting
	leachates	- 2 weeks from reporting
	waters	- 2 weeks from reporting
	asbestos	- 6 months from reporting

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

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



4041



Environmental Science

Analytical Report Number: 23-41071

Project / Site name: Milnrow

Your Order No: THATTO

Lab Sample Number				2724656	2724657	2724658	2724659	2724660
Sample Reference				Crush - 1	Crush - 2	Crush - 3	Crush - 4	Crush - 5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	< 0.001	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	< 0.001	-	-
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA	SCA	SCA	SCA

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



4041



Environmental Science

Analytical Report Number: 23-41071

Project / Site name: Milnrow

Your Order No: THATTO

Lab Sample Number				2724661	2724662	2724663	2724664	2724665
Sample Reference				Crush - 6	Crush - 7	Crush - 8	Crush - 9	Crush - 10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled				21/06/2023	21/06/2023	21/06/2023	21/06/2023	21/06/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	SCA	SCA	SCA	SCA	SCA

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number: **23-41071**
Project / Site name: **Milnrow**
Your Order No: **THATTO**

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2724658	Crush - 3		148	Loose Fibres	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.



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**Analytical Report Number : 23-41071****Project / Site name: Milnrow****Water matrix abbreviations:****Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)**

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

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

APPENDIX H – GEOTECHNICAL LABORATORY REPORTS

H1 SITE-WON RECOVERED AGGREGATE

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
Merseyside
WA10 2SD
Contract: Wildhouse lane, Milnrow

Date: 22 June 2022
Test Report Ref: TR 887172

Order No: TD.PO/22/060

Page 1 of 1

LABORATORY TEST REPORT

TEST REQUIREMENTS:

To determine the bitumen content of a recycled material in accordance with
BS EN 12697-1: 2020: Annex B Clause B.2.2

SAMPLE DETAILS:

Certificate of sampling received:	Yes
Laboratory Ref. No:	S103371
Client Ref. No:	Lab 22/1218
Date and Time of Sampling:	17/05/2022
Date of Receipt at Lab:	09/06/2022
Date of Start of Test:	18/06/2022
Sampling Location:	Stockpile
Name of Source:	Site Crushed
Method of Sampling:	BS EN 12697-27
Sampled By:	Client (Test results apply to sample as received)
Material Description:	Recycled 6F2
Target Specification	Unknown

RESULTS:

Bitumen Content (%) = 1.3

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

These results relate only to the items tested.

<u>Comments:</u> None	Report checked and approved by:  Rodney Roberts Asphalt Team Manager
---------------------------------	--

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
Merseyside
WA10 2SD
Contract: Wildhouse lane, Milnrow

Date: 22 June 2022
Test Report Ref: TR 887173

Order No: TD.PO/22/060

Page 1 of 1

LABORATORY TEST REPORT

TEST REQUIREMENTS:

To determine the bitumen content of a recycled material in accordance with
BS EN 12697-1: 2020: Annex B Clause B.2.2

SAMPLE DETAILS:

Certificate of sampling received:	Yes
Laboratory Ref. No:	S103371
Client Ref. No:	Lab 22/1219
Date and Time of Sampling:	17/05/2022
Date of Receipt at Lab:	09/06/2022
Date of Start of Test:	18/06/2022
Sampling Location:	Stockpile
Name of Source:	Site Crushed
Method of Sampling:	BS EN 12697-27
Sampled By:	Client (Test results apply to sample as received)
Material Description:	Recycled 6F2
Target Specification	Unknown

RESULTS:

Bitumen Content (%) = 1.4

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

These results relate only to the items tested.

<u>Comments:</u> None	Report checked and approved by:  Rodney Roberts Asphalt Team Manager
---------------------------------	--

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
Merseyside
WA10 2SD



T: 01744 734769
E: enquiries@tdconstructiontesting.co.uk

8011
TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

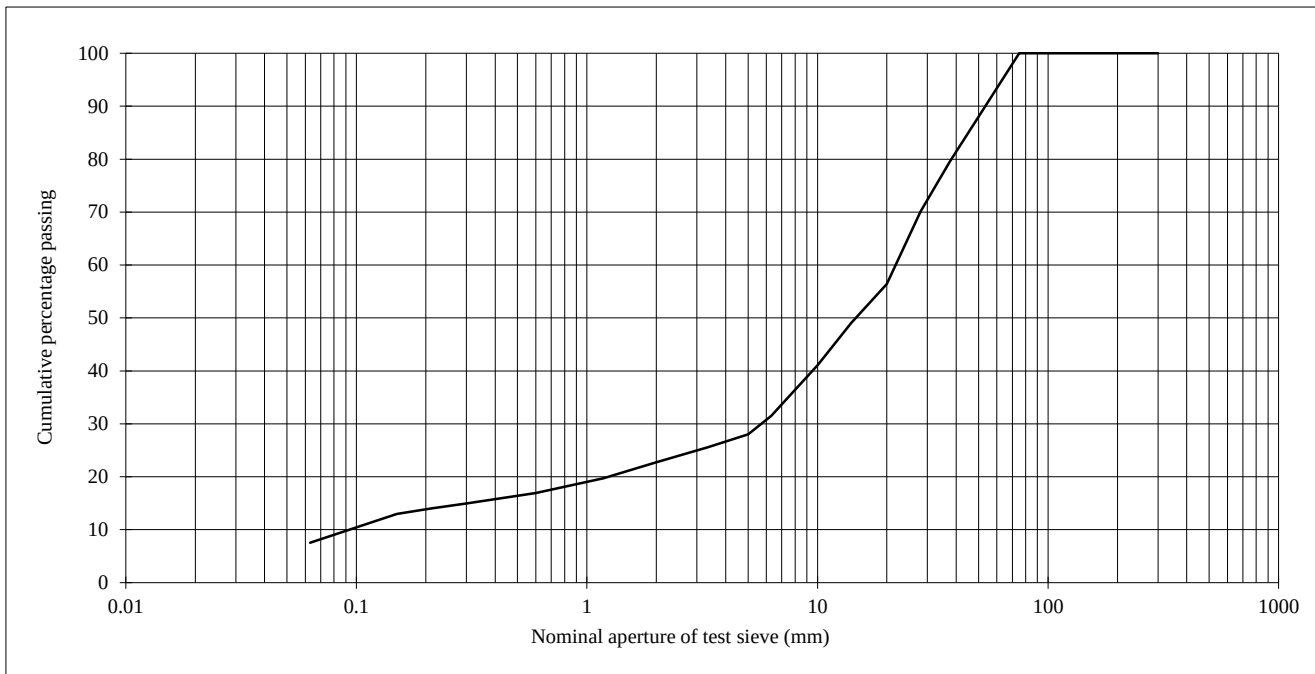
Client: D.B. Remediation Report No.: TD22-D-06-B-01
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 26/04/22 Client Ref.*: MR-26/4/22-01
Sampled by: TD TD Ref: Lab 22/1001
Source*: As Dug Mass (kg): 150
Supplier*: Client
Location*: Stockpile next to CBR Hole 1
Description: Recycled 6F2

Date received: 26/04/22
Date tested: 28/04/22
Date reported: 28/04/22
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks:
Uniformity Coefficient = 235

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	100	65 - 100
37.5	80	45 - 100
28	70	
20	56	
14	49	
10	41	15 - 60
6.3	31	
5.0	28	10 - 45
3.35	26	
2.00	23	
1.18	20	
0.600	17	0 - 25
0.425	16	
0.300	15	
0.212	14	
0.150	13	
0.063	8	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed	() T. Robinson (Technical Manager/Director)
	() D. Ames (Laboratory Manager/Director)
	(X) J. Hopkinson (Laboratory Section Manager)

Determination of Particle Size Distribution

SIEVE ANALYSIS

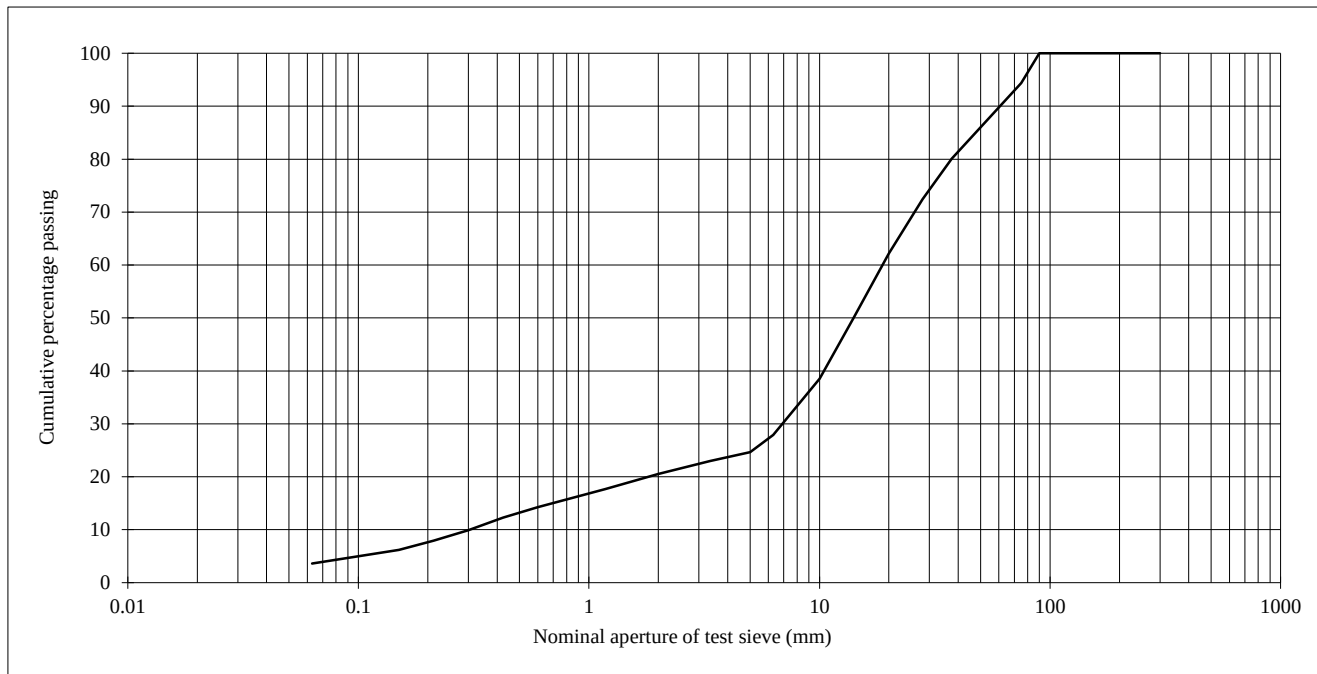
Client: D.B. Remediation Report No.: TD22-D-06-B-02
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 26/04/22 Client Ref.*: MR-26/4/22-03
Sampled by: TD TD Ref: Lab 22/1003
Source*: As Dug Mass (kg): 150
Supplier*: Client
Location*: Stockpile next to CBR Hole 4
Description: Recycled 6F2

Date received: 26/04/22
Date tested: 28/04/22
Date reported: 28/04/22
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks:
Uniformity Coefficient = 62

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	94	65 - 100
37.5	80	45 - 100
28	72	
20	62	
14	50	
10	39	15 - 60
6.3	28	
5.0	25	10 - 45
3.35	23	
2.00	21	
1.18	18	
0.600	14	0 - 25
0.425	12	
0.300	10	
0.212	8	
0.150	6	
0.063	4	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed 	() T. Robinson (Technical Manager/Director)
	() D. Ames (Laboratory Manager/Director)
	(X) J. Hopkinson (Laboratory Section Manager)

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
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8011

TEST REPORT



T: 01744 734769

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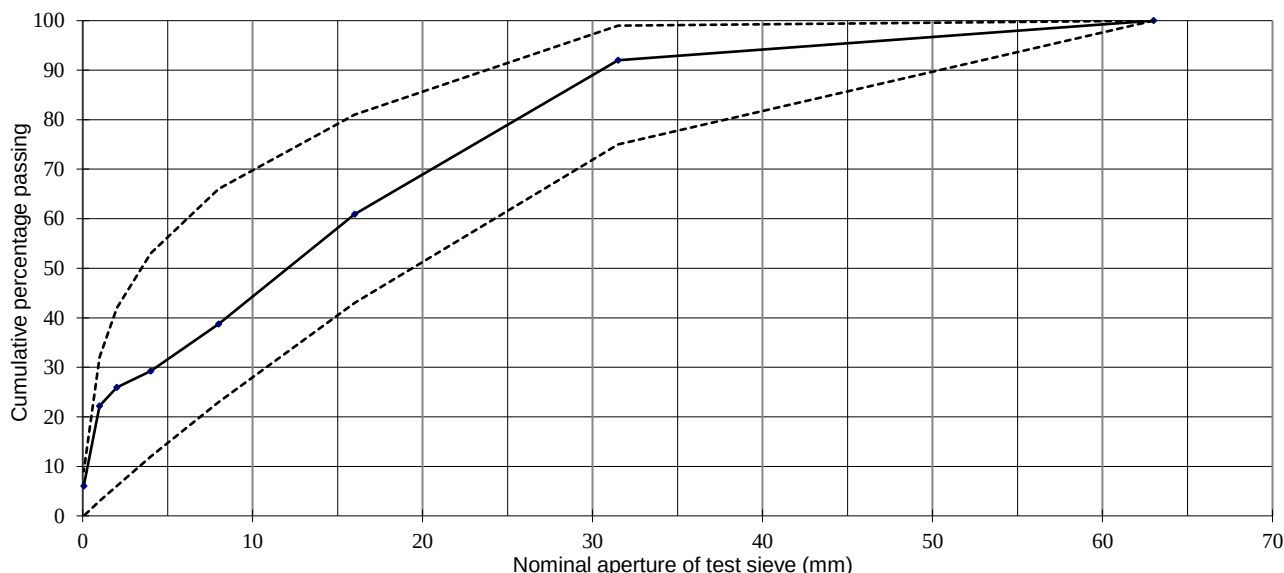
Determination of Aggregate Particle Size Distribution - Sieving Method

SIEVE ANALYSIS

Report No.: TD22-D-06-B-07
Client: D.B. Remediation
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow
Date Sampled: 26/04/22 Site Ref: MR-26/4/22-02
Sampled by: TD Lab Ref: Lab 22/1002
Sampled from: Stockpile Mass (kg): 125
Supplier*: Client Source*: As Dug
Location*: CBR Hole 2
Description: Type 1 Subbase

Date Received: 26/04/22
Date of Test: 28/04/22
Date Reported: 03/05/22
Sample Type: Bulk
Test Method: Washing and Sieving
Method of Preparation: BS EN 932-2:1999 Method 10
Material Specification: SHW Series 800 Table 8/5 (Overall Range)
% Passing 16mm Retained 8mm (allowed 7-30): 22
% Passing 8mm Retained 4mm (allowed 7-30): 10
Remarks: Sample complies with specification

BS Sieve (mm)	Passing (%)	Material Specification		
125	100	100		
80	100			
63	100			
50	100			
40	100			
31.5	92	75	-	99
20	69	43	-	81
16	61			
14	56			
10	45	23	-	66
8.0	39			
6.3	32			
4.0	29	12	-	53
2.8	28	6	-	42
2.0	26			
1.0	22			
0.500	19	3	-	32
0.250	15			
0.125	10			
0.063	6.1	0	-	9



Certified that the Particle Size Distribution was determined in accordance with EN 933-1:2012

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed		() T. Robinson (Technical Manager/Director)
		() D. Ames (Laboratory Manager/Director)
		(X) J. Hopkinson (Laboratory Section Manager)

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
Merseyside
WA10 2SD



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TEST REPORT

T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Determination of Resistance to Fragmentation (Los Angeles coefficient)

Report No: TD22-D-06-B-08

Report Date: 03/05/2022

Client: D.B. Remediation

Client Address: Kelvin Close,
Birchwood,
Warrington,
WA3 7PB

Site: Wildhouse Lane, Milnrow

Laboratory Ref.: Lab 22/1001

Client Ref*: MR-26/4/22-01

Sample Location*: CBR Hole 1

Material Description: Recycled 6F2

Supplier/Source*: Client / As Dug

Sampled By: TD

Date Sampled: 26/04/2022

Date Received: 06/04/2022

Date of Test: 28/04/2022

Test portion size fractions: Passing 14mm Retained 12.5mm, Passing 12.5mm Retained 10mm

Los Angeles Coefficient (LA): 25

Deviations:

Comments: SHW Series 600 Table 6/1 (maximum LAA 50) - Sample complies

Testing carried out in accordance with BS EN 1097-2:2020.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed: 	() T. Robinson (Technical Manager/Director)
	() D. Ames (Laboratory Manager/Director)
	(X) J. Hopkinson (Laboratory Section Manager)

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40 Lord Street
St Helens
Merseyside
WA10 2SD



8011



TEST REPORT

T: 01744 734769

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Determination of Resistance to Fragmentation (Los Angeles coefficient)

Report No: TD22-D-06-B-09

Report Date: 03/05/2022

Client: D.B. Remediation

Client Address: Kelvin Close,
Birchwood,
Warrington,
WA3 7PB

Site: Wildhouse Lane, Milnrow

Laboratory Ref.: Lab 22/1003

Client Ref*: MR-26/4/22-03

Sample Location*: CBR Hole 4

Material Description: Recycled 6F2

Supplier/Source*: Client / As Dug

Sampled By: TD

Date Sampled: 26/04/2022

Date Received: 06/04/2022

Date of Test: 29/04/2022

Test portion size fractions: Passing 14mm Retained 12.5mm, Passing 12.5mm Retained 10mm

Los Angeles Coefficient (LA): 29

Deviations:

Comments: SHW Series 600 Table 6/1 (maximum LAA 50) - Sample complies

Testing carried out in accordance with BS EN 1097-2:2020.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed: 	() T. Robinson (Technical Manager/Director)
	() D. Ames (Laboratory Manager/Director)
	(X) J. Hopkinson (Laboratory Section Manager)

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TEST REPORT



T: 01744 734769
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Determination of Moisture Content to BS 1377-2:1990

Report No: TD22-D-06-B-10
Client: D.B Remediation
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow
Supplier/Source: Client / As Dug

Report Date: 03/05/2022
Date Sampled: 26/04/2022
Sampled By: TD
Date Received: 26/04/2022
Date Tested: 27/04/2022

Laboratory Reference	Client Reference*	Sample Location*	Material Description	Moisture Content %	Remarks
Lab 22/1001	MR-26/4/22-01	CBR Hole 1	Recycled 6F2	5.1	
Lab 22/1003	MR-26/4/22-03	CBR Hole 4	Recycled 6F2	6.8	

Certified that the testing was conducted in accordance with BS 1377-2:1990 Clause 3.2 at 105°C unless stated

Sample preparation in accordance with BS 1377-1:2016

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Comments/Deviations:

Signed: 	☐ T. Robinson (Technical Manager/Director)
	☐ D. Ames (Laboratory Manager/Director)
	☒ J. Hopkinson (Laboratory Section Manager)

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40 Lord Street
St Helens
Merseyside
WA10 2SD



8011
TEST REPORT



T: 01744 734769
E: enquiries@tdconstructiontesting.co.uk

Determination of Water Content of Aggregates

Report No: TD22-D-06-B-11
Client: D.B. Remediation
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow
Sample Location*: CBR Hole 2
Supplier/Source: Client / As Dug

Report Date: 03/05/2022
Date Sampled: 26/04/2022
Sampled By: TD
Date Received: 26/04/2022
Date Tested: 27/04/2022
Sample Type: Bulk

Lab Reference	Client Reference*	Material Description	Nominal Sample Size (mm)		Water Content (%)	Remarks
Lab 22/1002	CBR Hole 2	Type 1 Subbase	31.5	V	2.7	

Testing was conducted in accordance with BS EN 1097-5:2008

Sample preparation in accordance with BS EN 932-2:1999

Nominal Sample Size: P = PSD, V = Visual

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed: 	☐ T. Robinson (Technical Manager/Director)
	☐ D. Ames (Laboratory Manager/Director)
	☒ J. Hopkins (Laboratory Section Manager)

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TEST REPORT



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Determination of Moisture Content to BS 1377-2:1990

Report No: TD22-D-06-B-12

Client: D.B Remediation

Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB

Site: Wildhouse Lane, Milnrow

Supplier/Source: Client / Site Crushed

Report Date: 31/05/2022

Date Sampled: 17/05/2022

Sampled By: TD

Date Received: 17/05/2022

Date Tested: 26/05/2022

Laboratory Reference	Client Reference*	Sample Location*	Material Description	Moisture Content %	Remarks
Lab 22/1218	MR-17/5/22-01	Stockpile	Recycled 6F2	6.6	
Lab 22/1219	MR-17/5/22-02	Stockpile	Recycled 6F2	6.4	

Certified that the testing was conducted in accordance with BS 1377-2:1990 Clause 3.2 at 105°C unless stated

Sample preparation in accordance with BS 1377-1:2016

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

Comments/Deviations:

Signed: 	☐ T. Robinson (Technical Manager/Director)
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TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

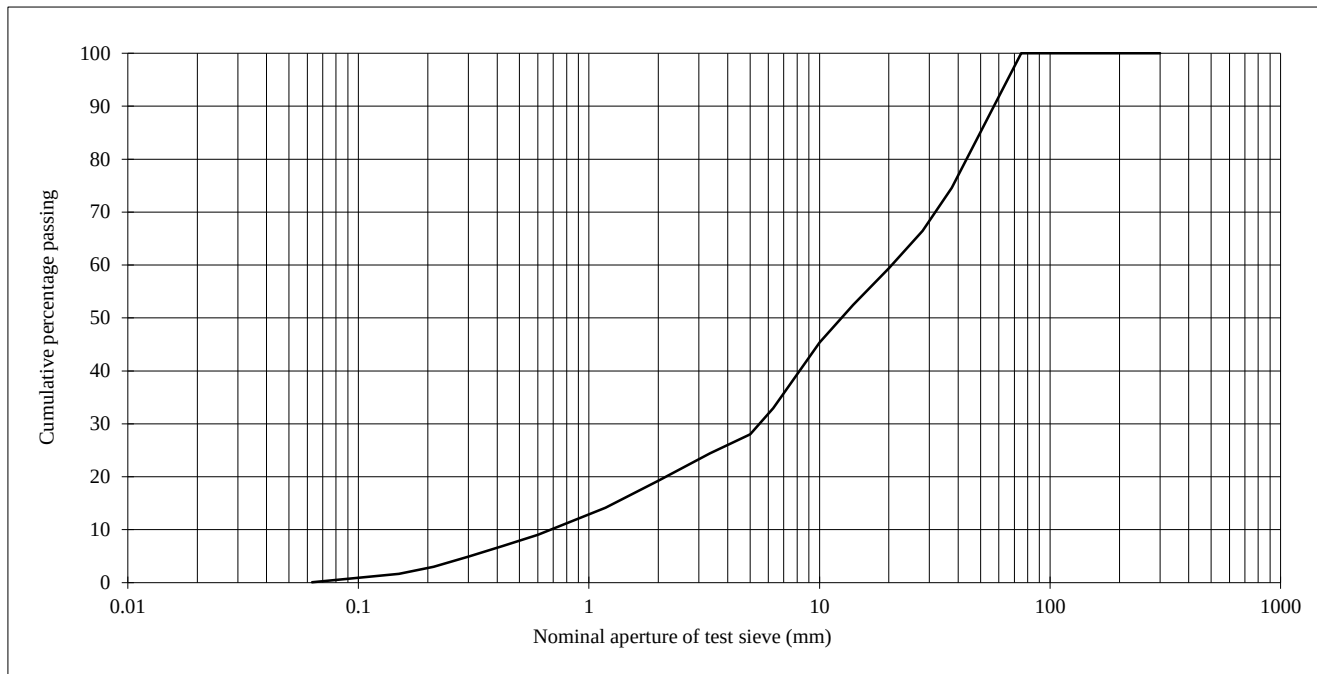
Client: D.B. Remediation Report No.: TD22-D-06-B-13
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 17/05/22 Client Ref.*: MR-17/5/22-01
Sampled by: TD TD Ref: Lab 22/1218
Source*: Site Crushed Mass (kg): 80
Supplier*: Client
Location*: Stockpile
Description: Recycled 6F2

Date received: 17/05/22
Date tested: 27/05/22
Date reported: 31/05/22
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks: Sample complies with specification
Uniformity Coefficient = 30

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	100	65 - 100
37.5	75	45 - 100
28	66	
20	59	
14	52	
10	45	15 - 60
6.3	33	
5.0	28	10 - 45
3.35	24	
2.00	19	
1.18	14	
0.600	9	0 - 25
0.425	7	
0.300	5	
0.212	3	
0.150	2	
0.063	0	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

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TEST REPORT

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Classification Test for Constituents of Coarse Recycled Aggregate to BS EN 933-11:2009

Report No.:	TD22-D-06-B-14	Report Date:	31/05/22
Client:	D.B. Remediation		
Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow	Client Ref*:	MR-17/5/22-01
Sample Location:	Stockpile	TD Ref:	Lab 22/1218
Supplier*:	Client	Sampled By:	TD
Source*:	Site Crushed	Date Sampled:	17/05/22
Sample Description:	Recycled 6F2	Date Received:	17/05/22
Drying Temperature °C:	40	Date Tested:	30/05/22
Specification Limits:	SHW Series 600 Table 6/2		

Aggregate Type		Mean % Found	Specification Limits (%)
Concrete, Concrete Products, Mortar, Concrete Masonry Units	Rc	51	
Unbound Aggregate, Natural Stone, Hydraulically Bound Aggregate	Ru	9.2	
Clay Masonry Units (ie bricks and tiles) Calcium Silicate Masonry Units, Aerated Non-Floating Concrete	Rb	0	
Bituminous Material	Ra	38	
Glass	Rg	0	
Other Materials	X	0	
Floating Particles	V _{FL}	0.4 cm ³ /kg	

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

Comments:

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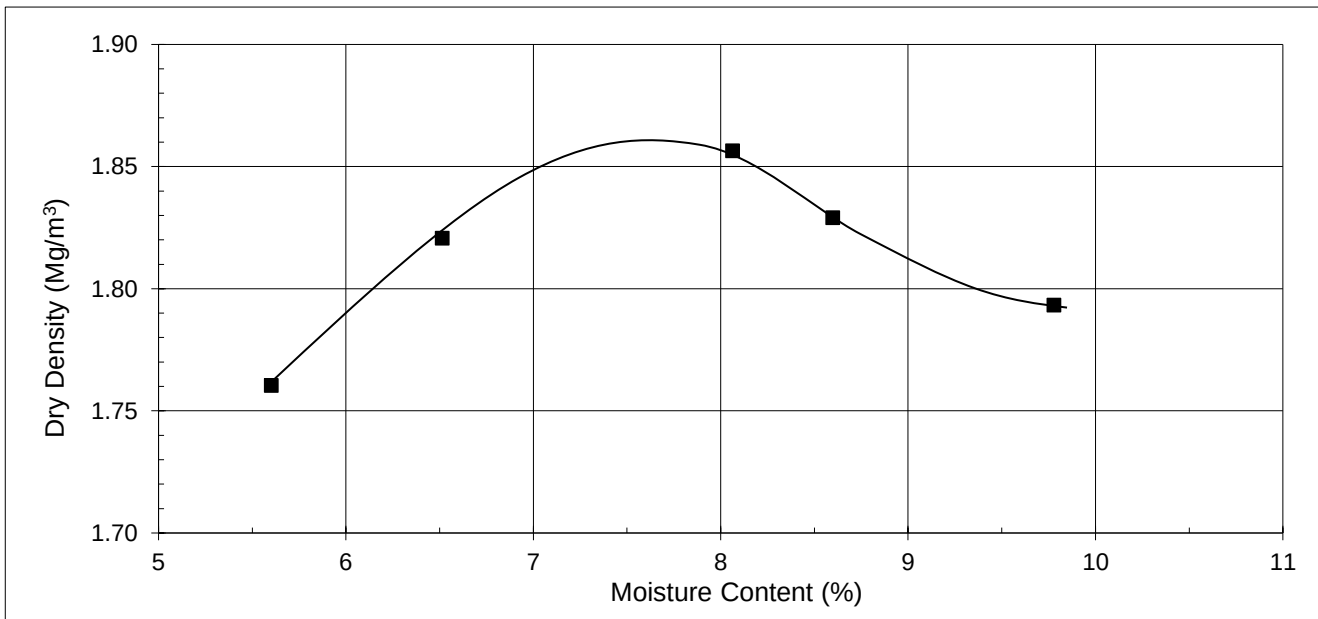
TEST REPORT

T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Determination of Moisture Content/Dry Density Relationship

Report No.:	TD22-D-06-B-15	Date Reported:	31/05/22
Client:	D.B. Remediation		
Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow	Lab Ref:	Lab 22/1218
Location*:	Stockpile	Client Ref:	MR-17/5/22-01
Type of Sample:	Bulk	Sampled By:	TD
Sample Description:	Recycled 6F2	Date Sampled:	17/05/22
Material Source*:	Site Crushed	Date Received:	17/05/22
Particle Density Mg/m ³ :	N/A	Date Tested:	30/05/22
Amount Retained on 20mm Sieve:	35%	Specimen Type:	Multiple
Amount Retained on 37.5mm Sieve:	22%	Rammer Type:	Vib Hammer
As Received Moisture Content (%):	6.6	Grading Zone:	X
Optimum Moisture Content (%):	7.5	Preparation Procedure:	N/A
Maximum Dry Density (Mg/m³):	1.86		



Deviations/Comments:

Certified that the test was carried out in accordance with BS1377-4:1990, Method 3.7.

Determination of Particle Density not requested therefore Air Void Lines have not been plotted.

Sampled in accordance with IHP C146.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed

☐ T. Robinson (Technical Manager/Director)
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TEST REPORT

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Determination of Resistance to Fragmentation (Los Angeles coefficient)

Report No: TD22-D-06-B-16

Report Date: 31/05/2022

Client: D.B. Remediation

Client Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Laboratory Ref.: Lab 22/1218

Client Ref*: MR-17/5/22-01

Sample Location*: Stockpile

Material Description: Recycled 6F2

Supplier/Source*: Client / Site Crushed

Sampled By: TD

Date Sampled: 17/05/2022

Date Received: 17/05/2022

Date of Test: 31/05/2022

Test portion size fractions: Passing 14mm Retained 12.5mm, Passing 12.5mm Retained 10mm

Los Angeles Coefficient (LA): 43

Deviations:

Comments: SHW Series 600 Table 6/1 (maximum LAA 50) - Sample complies

Testing carried out in accordance with BS EN 1097-2:2020.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

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TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

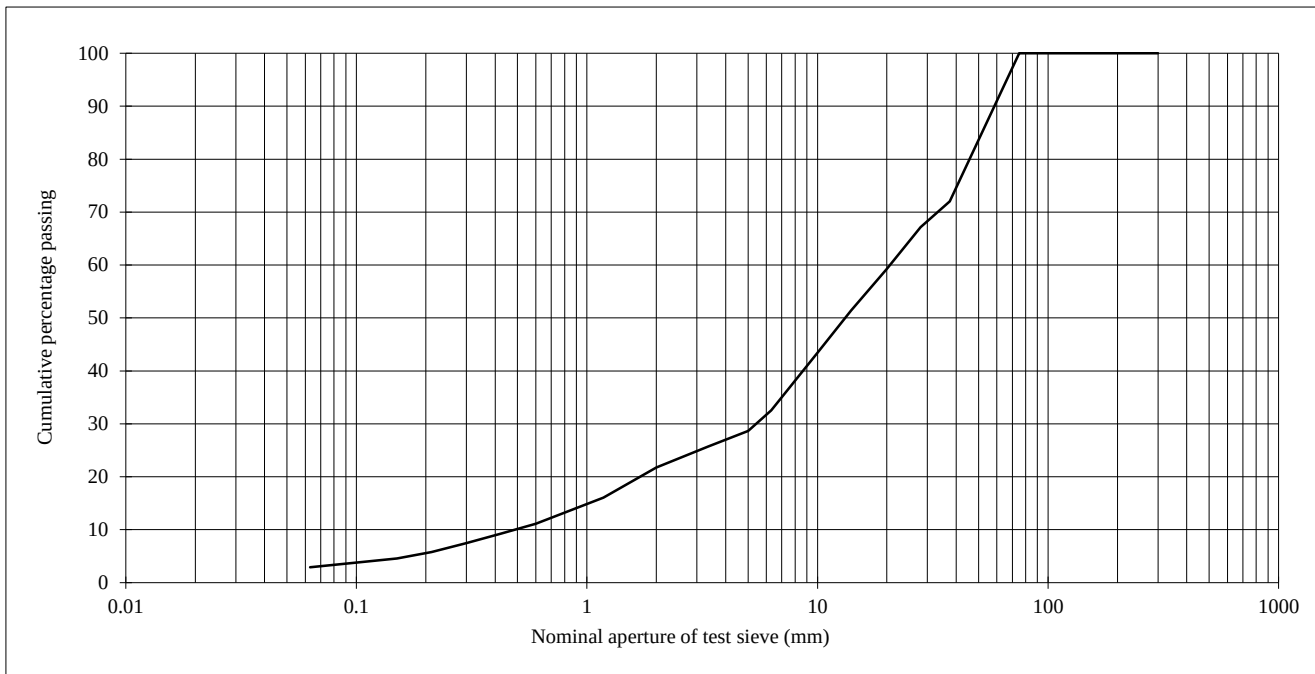
Client: D.B. Remediation Report No.: TD22-D-06-B-17
 Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
 Site: Wildhouse Lane, Milnrow

Date sampled: 17/05/22 Client Ref.*: MR-17/5/22-02
 Sampled by: TD TD Ref: Lab 22/1219
 Source*: Site Crushed Mass (kg): 80
 Supplier*: Client
 Location*: Stockpile
 Description: Recycled 6F2

Date received: 17/05/22
 Date tested: 27/05/22
 Date reported: 31/05/22
 Sample type: Bulk
 Test method: Washing and Sieving
 Method of preparation: BS 1377-1 & 2 : 1990
 Material specification: SHW Series 600 Table 6/2

Remarks: Sample complies with specification
 Uniformity Coefficient = 42

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	100	65 - 100
37.5	72	45 - 100
28	67	
20	59	
14	51	
10	43	15 - 60
6.3	33	
5.0	29	10 - 45
3.35	26	
2.00	22	
1.18	16	
0.600	11	0 - 25
0.425	9	
0.300	7	
0.212	6	
0.150	5	
0.063	3	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2
 Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5
 Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.
 This report shall not be reproduced except in full without approval of the laboratory.
 Results relate only to the sample tested. * Information supplied by client.

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	(X) J. Hopkinson (Laboratory Section Manager)

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TEST REPORT

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Classification Test for Constituents of Coarse Recycled Aggregate to BS EN 933-11:2009

Report No.:	TD22-D-06-B-18	Report Date:	31/05/22
Client:	D.B. Remediation		
Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow	Client Ref*:	MR-17/5/22-02
Sample Location:	Stockpile	TD Ref:	Lab 22/1219
Supplier*:	Client	Sampled By:	TD
Source*:	Site Crushed	Date Sampled:	17/05/22
Sample Description:	Recycled 6F2	Date Received:	17/05/22
Drying Temperature °C:	40	Date Tested:	30/05/22
Specification Limits:	SHW Series 600 Table 6/2		

Aggregate Type		Mean % Found	Specification Limits (%)
Concrete, Concrete Products, Mortar, Concrete Masonry Units	Rc	54	
Unbound Aggregate, Natural Stone, Hydraulically Bound Aggregate	Ru	4.4	
Clay Masonry Units (ie bricks and tiles) Calcium Silicate Masonry Units, Aerated Non-Floating Concrete	Rb	0	
Bituminous Material	Ra	40	< 50
Glass	Rg	0	
Other Materials	X	0	< 1.0
Floating Particles	V _{FL}	0.9 cm ³ /kg	

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

Comments:

Signed: 	☐ T. Robinson (Technical Manager/Director)
	☐ D. Ames (Laboratory Manager/Director)
	☒ J. Hopkinson (Laboratory Section Manager)

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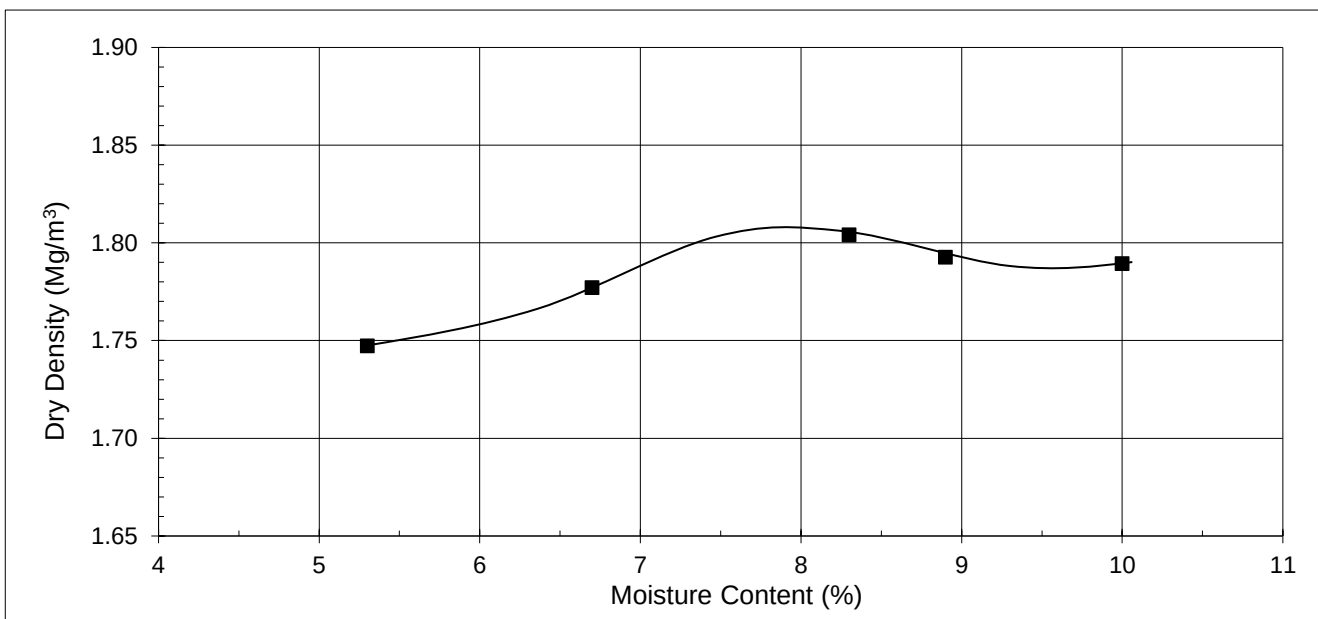
TEST REPORT

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Determination of Moisture Content/Dry Density Relationship

Report No.:	TD22-D-06-B-19	Date Reported:	31/05/22
Client:	D.B. Remediation		
Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow	Lab Ref:	Lab 22/1219
Location*:	Stockpile	Client Ref:	MR-17/5/22-02
Type of Sample:	Bulk	Sampled By:	TD
Sample Description:	Recycled 6F2	Date Sampled:	17/05/22
Material Source*:	Site Crushed	Date Received:	17/05/22
Particle Density Mg/m ³ :	N/A	Date Tested:	30/05/22
Amount Retained on 20mm Sieve:	40%	Specimen Type:	Multiple
Amount Retained on 37.5mm Sieve:	22%	Rammer Type:	Vib Hammer
As Received Moisture Content (%):	6.4	Grading Zone:	X
Optimum Moisture Content (%):	8.0	Preparation Procedure:	N/A
Maximum Dry Density (Mg/m³):	1.81		



Deviations/Comments:

Certified that the test was carried out in accordance with BS1377-4:1990, Method 3.7.

Determination of Particle Density not requested therefore Air Void Lines have not been plotted.

Sampled in accordance with IHP C146.

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

Results relate only to the sample tested.

* Information supplied by client.

Signed

☐ T. Robinson (Technical Manager/Director)
☐ D. Ames (Laboratory Manager/Director)
☒ J. Hopkinson (Laboratory Section Manager)

Determination of Particle Size Distribution

SIEVE ANALYSIS

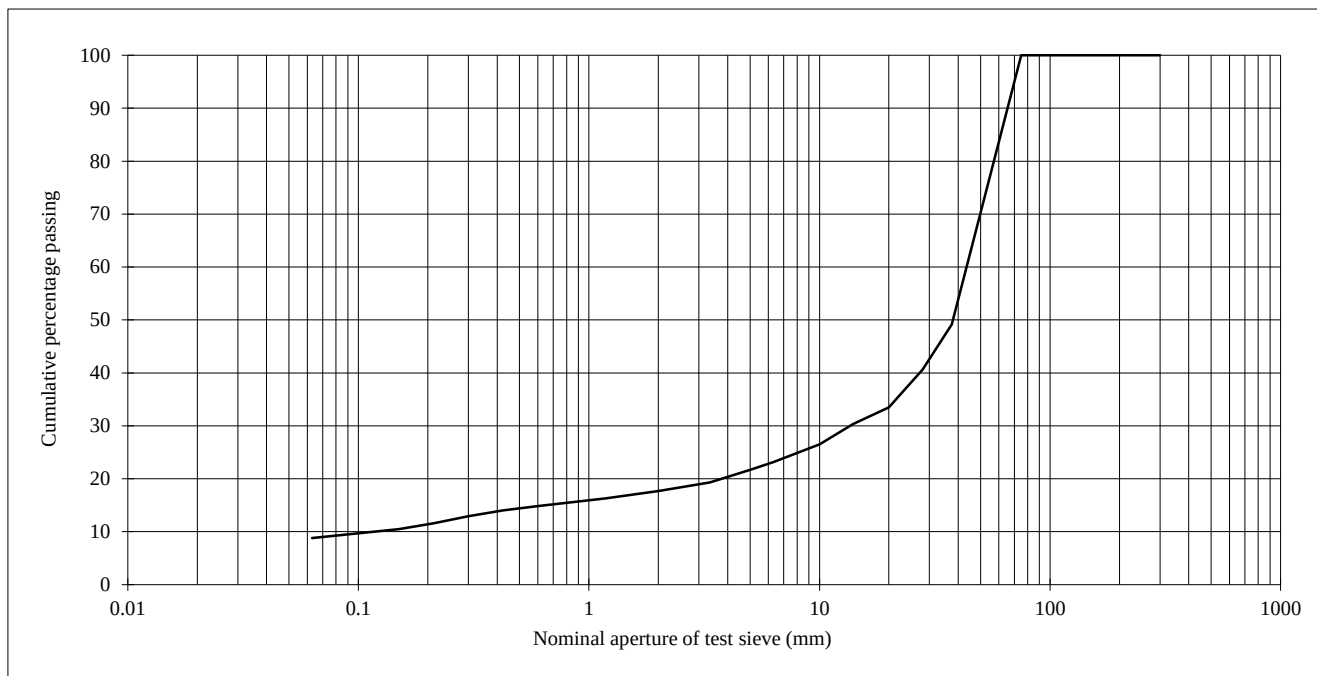
Client: DB Remediation Report No.: TD23-D-03-B-109
Client Address: Carnoustie House, Kelvin Close, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 22/06/23 Client Ref.*: Milnrow 1
Sampled by: TD TD Ref: Lab 23/1746
Source*: Milnrow Mass (kg): 60
Supplier*: N/K
Location*: Stockpile
Description: 6F2 Recycled

Date received: 22/06/23
Date tested: 27/06/23
Date reported: 10/07/23
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks:
Uniformity Coefficient = 377

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	100	65 - 100
37.5	49	
28	41	
20	33	
14	30	
10	26	15 - 60
6.3	23	
5.0	22	10 - 45
3.35	19	
2.00	18	
1.18	16	
0.600	15	0 - 25
0.425	14	
0.300	13	
0.212	12	
0.150	11	
0.063	9	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Sampled in accordance with IHP C146 Soil Sampling.

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

Results relate only to the sample tested.

* Information supplied by client.

Decision rule not applicable.

Signed



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TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

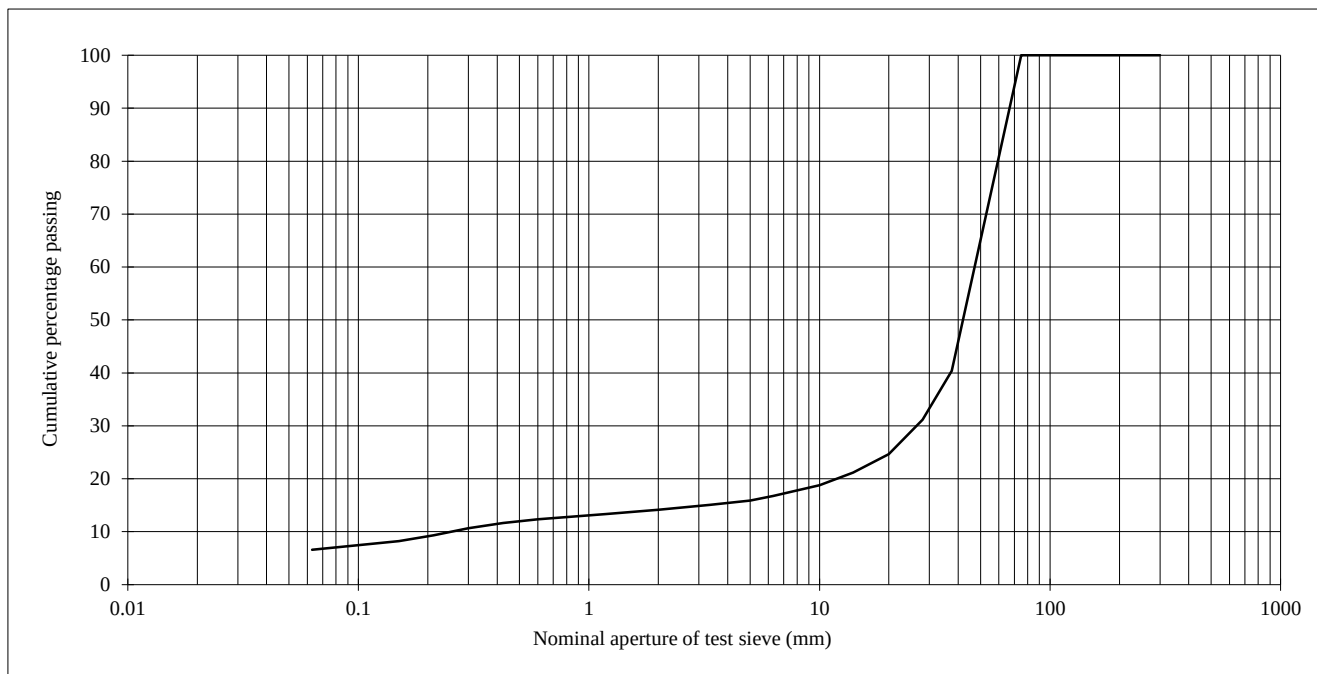
Client: DB Remediation Report No.: TD23-D-03-B-110
Client Address: Carnoustie House, Kelvin Close, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 22/06/23 Client Ref.*: Milnrow 2
Sampled by: TD TD Ref: Lab 23/1747
Source*: Milnrow Mass (kg): 60
Supplier*: N/K
Location*: Stockpile
Description: 6F2 Recycled

Date received: 22/06/23
Date tested: 27/06/23
Date reported: 10/07/23
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks:
Uniformity Coefficient = 187

BS Sieve (mm)	Passing (%)	Material Specification
300	100	
125	100	100
90	100	80 - 100
75	100	65 - 100
37.5	45	45 - 100
28	31	
20	25	
14	21	
10	19	15 - 40
6.3	17	
5.0	16	10 - 45
3.35	15	
2.00	14	
1.18	13	
0.600	12	0 - 25
0.425	12	
0.300	11	
0.212	9	
0.150	8	
0.063	7	0 - 12



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Sampled in accordance with IHP C146 Soil Sampling.

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

Results relate only to the sample tested.

* Information supplied by client.

Decision rule not applicable.

Signed 	T. Robinson (Technical Manager/Director)
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APPENDIX H2 – GEOTECHNICAL LABORATORY REPORTS

SITE WON SOIL FOR REUSE AS GENERAL FILL

PLATE LOAD TESTING

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TEST REPORT



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Determination of Moisture Content to BS 1377-2:1990

Report No: TD22-D-06-B-42
Client: DB Remediation
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow
Supplier/Source: Client / Site Won

Report Date: 01/08/2022
Date Sampled*: 24/06/2022
Sampled By: Client
Date Received: 24/06/2022
Date Tested: 30/06/2022

Laboratory Reference	Client Reference*	Sample Location*	Material Description	Moisture Content %	Remarks
Lab 22/1584	S1	Plot 47	Shale & Mudstone	9.7	
Lab 22/1585	S2	Plot 33	Shale & Mudstone with Sand & Clay	9.4	

Certified that the testing was conducted in accordance with BS 1377-2:1990 Clause 3.2 at 105°C unless stated

Sample preparation in accordance with BS 1377-1:2016

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

Comments/Deviations:

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	☐ D. Ames (Laboratory Manager/Director)
	☒ J. Hopkinson (Laboratory Section Manager)

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TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

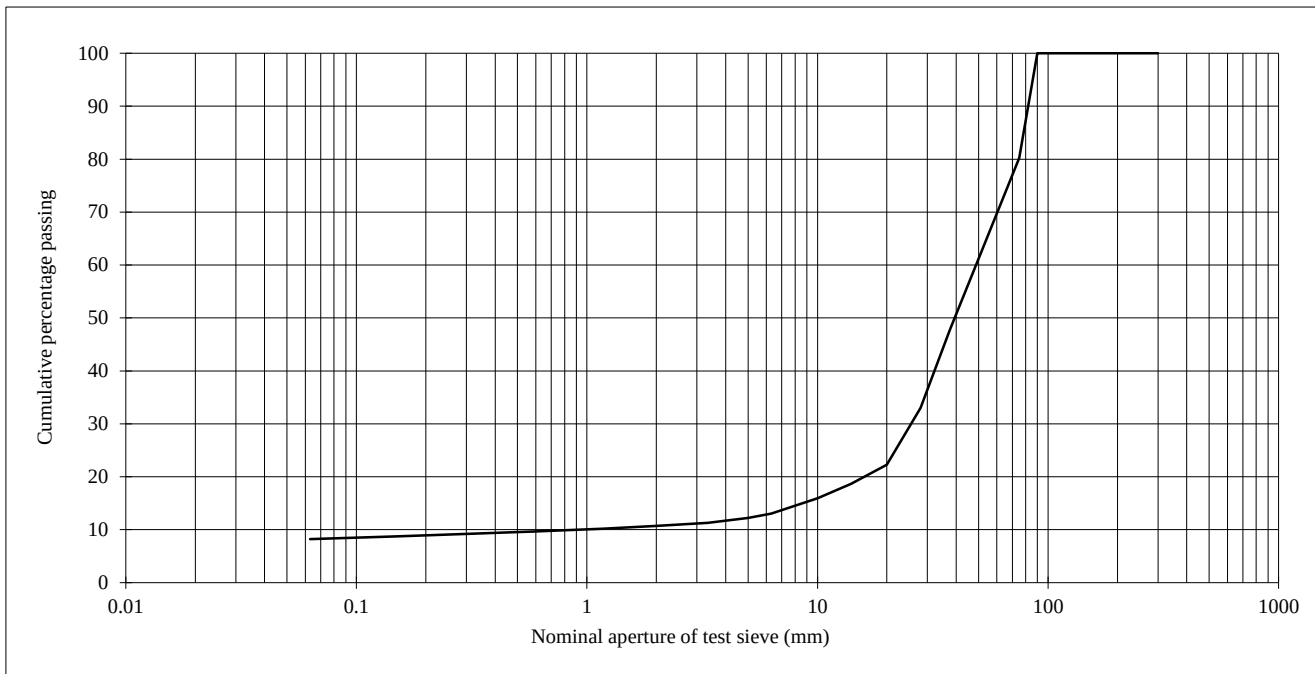
Client: D.B. Remediation Report No.: TD22-D-06-B-43
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 24/06/22 Client Ref.*: S1
Sampled by: TD TD Ref: Lab 22/1584
Source*: Site Won Mass (kg): 30
Supplier*: Client
Location*: Plot 47
Description: Shale & Mudstone (1A)

Date received: 24/06/22
Date tested: 13/07/22
Date reported: 02/08/22
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks: Sample complies with specification
Uniformity Coefficient = 53

BS Sieve (mm)	Passing (%)	Material Specification
300	100	100
125	100	95 - 100
90	100	
75	80	
37.5	48	
28	33	
20	22	
14	19	
10	16	
6.3	13	
5.0	12	
3.35	11	
2.00	11	
1.18	10	
0.600	10	
0.425	9	
0.300	9	
0.212	9	
0.150	9	
0.063	8	0 - 15



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2

Uniformity coefficient determined in accordance with SHW series 600 table 6/1 footnote 5

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

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	(X) J. Hopkinson (Laboratory Section Manager)

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TEST REPORT

T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Moisture Condition Value to BS1377-4:1990

Report No:	TD22-D-06-B-44	Report Date:	02/08/2022
Client:	DB Remediation		
Client Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow		
Location*:	Plot 47 - S1		
Date Sampled*:	24/06/2022	Sampled By:	Client
Date Received:	24/06/2022	Date Tested:	12/07/2022
Site Weather Conditions:	N/A	Test Environment:	Laboratory

TEST RESULTS

Sample Number:	Lab 22/1584				
Site Location/ Reference*:	S1				
Visual Description of Soil:	Shale & Mudstone				
Moisture Condition Value:	14.4				
Moisture Content (%):	9.6				
Percentage retained 20mm sieve: **	39				
Method of interpretation:	Steepest Line Approaching 5mm Change in Penetration				

Comments:

* Information supplied by client.

**Based on wet weight.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

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TEST REPORT

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Determination of Particle Density to BS1377-2:1990 Gas Jar Method

Report No: TD22-D-06-B-45

Report Date: 02/08/2022

Client: DB Remediation

Address: Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Site: Wildhouse Lane, Milnrow

Lab Ref: Lab 22/1584

Type of sample: Bulk

Client Ref*: S1

Sample Location*: Plot 47

Sample Description: Shale & Mudstone

Supplier/Source*: Client / Site Won

Orientation: N/A

Date Sampled*: 24/06/2022

Sampled By: Client

Date Received: 24/06/2022

Date of Test: 22/07/2022

Average Particle Density = 2.63 Mg/m³

Sample Prepared in accordance with BS1377-1:2016 Cl 8.3, 8.4.4

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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

Results relate only to the sample tested.

* Information supplied by client.

Comments/Deviations:

Signed: 	☐ T. Robinson (Technical Manager/Director)
	☐ D. Ames (Laboratory Manager/Director)
	☒ J. Hopkinson (Laboratory Section Manager)

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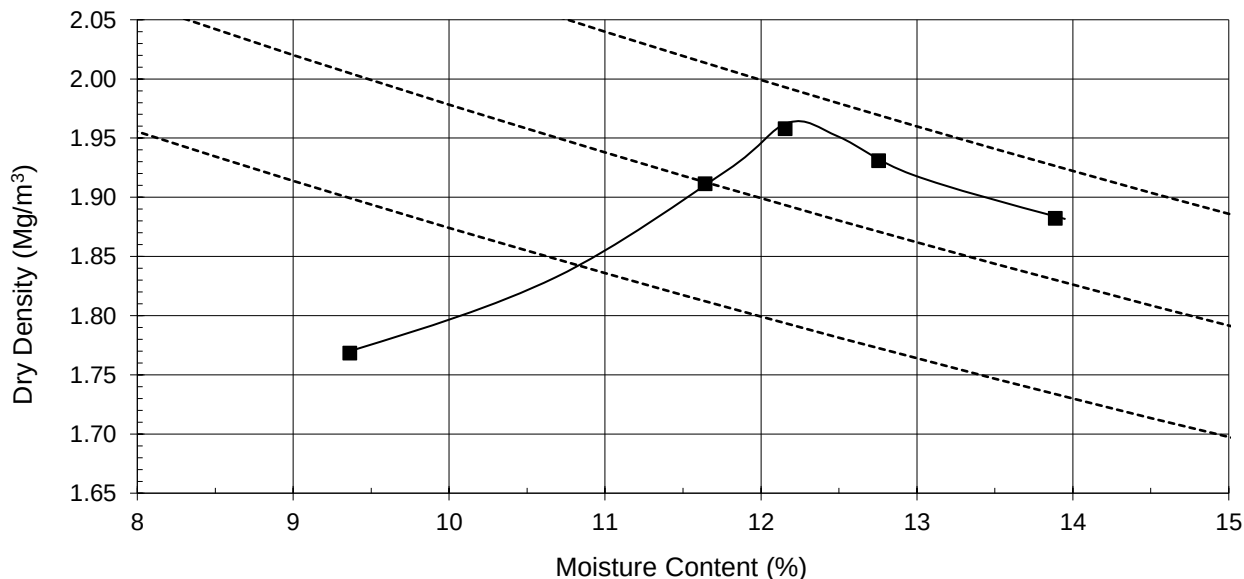
TEST REPORT

T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Determination of Dry Density/Moisture Content Relationship

Report No.:	TD22-D-06-B-46	Date Reported:	02/08/22	
Client:	D.B Remediation			
Client Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB			
Site:	Wildhouse Lane, Milnrow	Lab Ref:	Lab 22/1584	
Location*:	Plot 47	Client Sample Ref*:	S1	
Type of Sample:	Bulk	Sampled By:	Client	
Sample Description:	Shale & Mudstone	Date Sampled*:	24/06/22	
Material Source*:	Site Won	Date Received:	24/06/22	
Particle Density Mg/m^3 :	2.63	(measured Pt2 Cl 8.2)	Date Tested:	20/07/22
Amount Retained on 20mm Sieve:	70%	Specimen Type:	Multiple	
Amount Retained on 37.5mm Sieve:	51%	Rammer Type:	2.5kg	
As Received Moisture Content (%):	10	Grading Zone:	X	
Optimum Moisture Content (%):	12	Preparation Procedure:	N/A	
Maximum Dry Density (Mg/m^3):	1.96	Sieved On:	37.5mm	



Certified that the test was carried out in accordance with BS1377-4:1990, Method 3.4

Air Void Lines plotted at 0%, 5% and 10% Values.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Deviations/Comments:

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TEST REPORT

Determination of Particle Size Distribution

SIEVE ANALYSIS

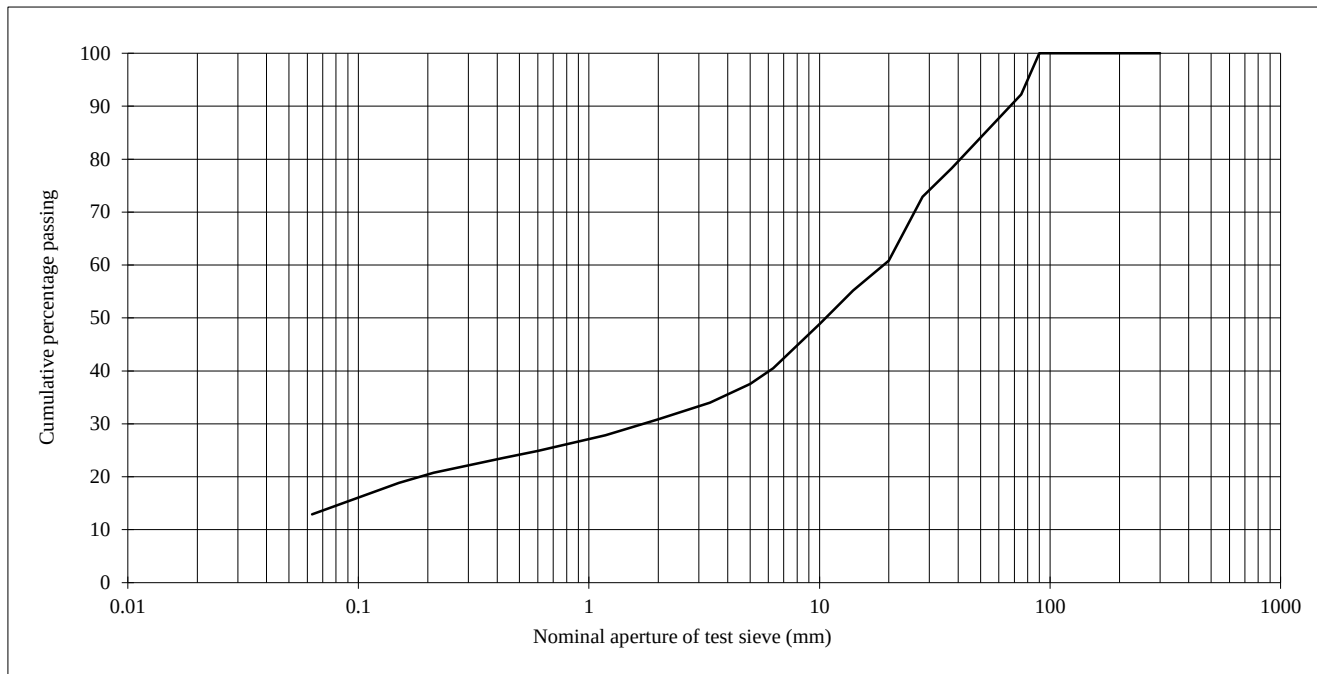
Client: D.B. Remediation Report No.: TD22-D-06-B-47
Client Address: Kelvin Close, Birchwood, Warrington, WA3 7PB
Site: Wildhouse Lane, Milnrow

Date sampled: 24/06/22 Client Ref.*: S2
Sampled by: TD TD Ref: Lab 22/1585
Source*: Site Won Mass (kg): 29
Supplier*: Client
Location*: Plot 33
Description: Shale & Mudstone with Sand & Clay (1A)

Date received: 24/06/22
Date tested: 13/07/22
Date reported: 02/08/22
Sample type: Bulk
Test method: Washing and Sieving
Method of preparation: BS 1377-1 & 2 : 1990
Material specification: SHW Series 600 Table 6/2

Remarks: Uniformity Coefficient = >301

BS Sieve (mm)	Passing (%)	Material Specification
300	100	100
125	100	95 - 100
90	100	
75	92	
37.5	78	
28	73	
20	61	
14	55	
10	49	
6.3	41	
5.0	38	
3.35	34	
2.00	31	
1.18	28	
0.600	25	
0.425	24	
0.300	22	
0.212	21	
0.150	19	
0.063	13	0 - 15



Certified that the Particle Size Distribution was determined in accordance with BS 1377-2:1990, Method 9.2
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Moisture Condition Value to BS1377-4:1990

Report No:	TD22-D-06-B-48	Report Date:	02/08/2022
Client:	DB Remediation		
Client Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB		
Site:	Wildhouse Lane, Milnrow		
Location*:	Plot 33 - S2		
Date Sampled*:	24/06/2022	Sampled By:	Client
Date Received:	24/06/2022	Date Tested:	12/07/2022
Site Weather Conditions:	N/A	Test Environment:	Laboratory

TEST RESULTS

Sample Number:	Lab 22/1585				
Site Location/ Reference*:	S2				
Visual Description of Soil:	Shale & Mudstone with Sand & Clay				
Moisture Condition Value:	12.4				
Moisture Content (%):	9.3				
Percentage retained 20mm sieve: **	28				
Method of interpretation:	Steepest Line Approaching 5mm Change in Penetration				

Comments:

* Information supplied by client.

**Based on wet weight.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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TEST REPORT

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Determination of Particle Density to BS1377-2:1990 Gas Jar Method

Report No: TD22-D-06-B-49

Report Date: 02/08/2022

Client: DB Remediation

Address: Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Site: Wildhouse Lane, Milnrow

Lab Ref: Lab 22/1585

Type of sample: Bulk

Client Ref*: S2

Sample Location*: Plot 33

Sample Description: Shale & Mudstone with Sand & Clay

Supplier/Source*: Client / Site Won

Orientation: N/A

Date Sampled*: 24/06/2022

Sampled By: Client

Date Received: 24/06/2022

Date of Test: 22/07/2022

Average Particle Density = 2.69 Mg/m³

Sample Prepared in accordance with BS1377-1:2016 Cl 8.3, 8.4.4

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Comments/Deviations:

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	☒ J. Hopkinson (Laboratory Section Manager)

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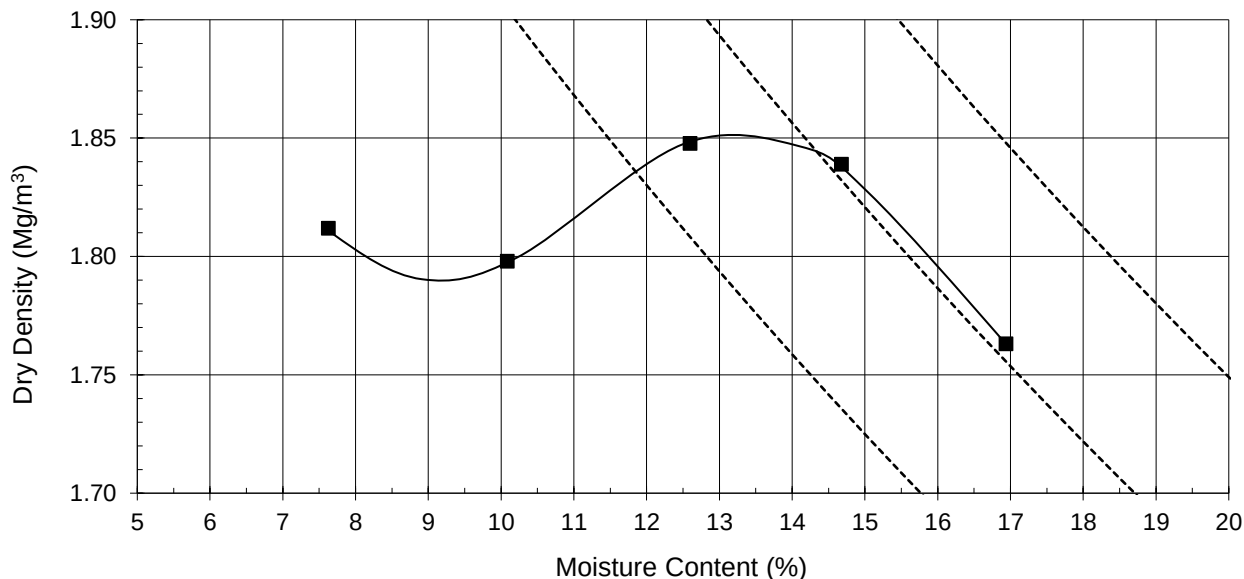
TEST REPORT

T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Determination of Dry Density/Moisture Content Relationship

Report No.:	TD22-D-06-B-50	Date Reported:	02/08/22	
Client:	D.B Remediation			
Client Address:	Kelvin Close, Birchwood, Warrington, WA3 7PB			
Site:	Wildhouse Lane, Milnrow	Lab Ref:	Lab 22/1585	
Location*:	Plot 33	Client Sample Ref*:	S2	
Type of Sample:	Bulk	Sampled By:	Client	
Sample Description:	Shale & Mudstone with Sand & Clay	Date Sampled*:	24/06/22	
Material Source*:	Site Won	Date Received:	24/06/22	
Particle Density Mg/m^3 :	2.69	(measured Pt2 Cl 8.2)	Date Tested:	21/07/22
Amount Retained on 20mm Sieve:	36%	Specimen Type:	Multiple	
Amount Retained on 37.5mm Sieve:	20%	Rammer Type:	2.5kg	
As Received Moisture Content (%):	9.4	Grading Zone:	5	
Optimum Moisture Content (%):	13	Preparation Procedure:	3.2.7.3	
Maximum Dry Density (Mg/m^3):	1.85	Sieved On:	37.5mm	



Certified that the test was carried out in accordance with BS1377-4:1990, Method 3.4

Air Void Lines plotted at 0%, 5% and 10% Values.

Where sampling was not carried out by TD Construction Testing Ltd, the results relate to the sample as received.

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Results relate only to the sample tested.

* Information supplied by client.

Deviations/Comments:

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() D. Ames (Laboratory Manager/Director)

(X) J. Hopkinson (Laboratory Section Manager)

APPENDIX H3 – GEOTECHNICAL LABORATORY REPORTS

PLATE LOAD TESTING

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TEST REPORT



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Plate Loading Test

Test Report No.: TD22-D-06-B-03 Report Date: 28/04/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M.Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Plate Loading Test to obtain Approximate CBR value**

Test Method: Design Guidance for Road Pavement Foundations (Draft HD25)
Interim Advice Note 73/06 Revision 1 (2009)

Material*: Grey/Brown Mottled Silty Clay

Supplier/Source*: Existing Ground

Moisture Content %: N/A

Location*: Location 1

Test Level: Formation

Plate Size mm: 600

Date Tested: 26/04/22

Weather Conditions: Sunny

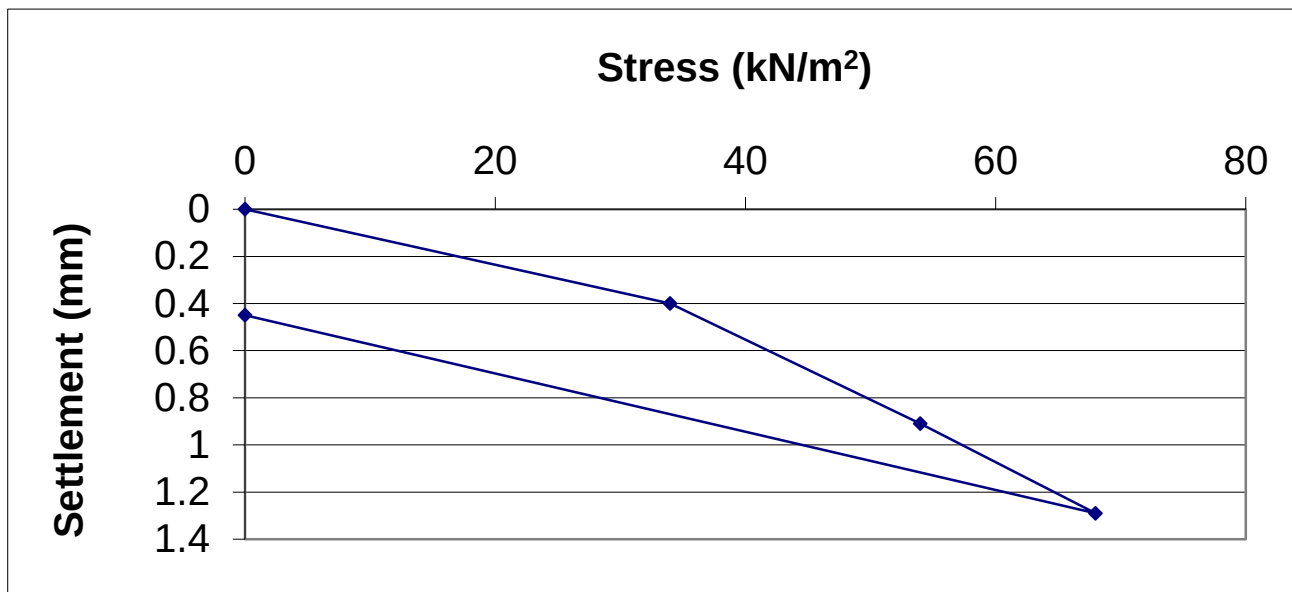
Tested By: M.Radcliffe

Kentledge Type: 20T Excavator

Comments:

Test Report No.: TD22-D-06-B-03

Stress (kN/m ²)	Settlement (mm)
0	0
34	0.40
54	0.91
68	1.29
0	0.45



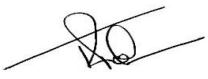
K Value	42.8
Estimated CBR value	6.5%

Comments/Deviations:

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Results relate only to the location tested.

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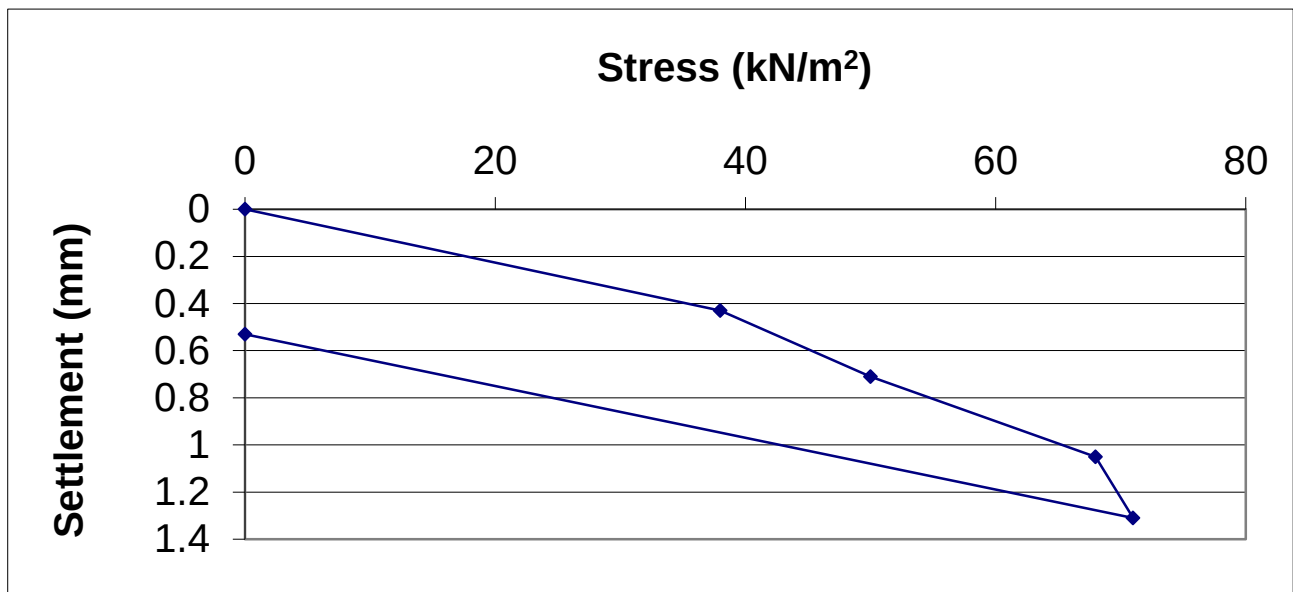
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-04	Report Date:	28/04/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M.Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Stiff Dark Brown Sandy Silty Clay		
Supplier/Source*:	Existing Ground		
Moisture Content %:	N/A		
Location*:	Location 2		
Test Level:	Formation		
Plate Size mm:	600		
Date Tested:	26/04/22		
Weather Conditions:	Sunny		
Tested By:	M.Radcliffe		
Kentledge Type:	20T Excavator		
Comments:			

Test Report No.: TD22-D-06-B-04

Stress (kN/m ²)	Settlement (mm)
0	0
38	0.43
50	0.71
68	1.05
71	1.31
0	0.53



K Value	45.2
Estimated CBR value	7.1%

Comments/Deviations:

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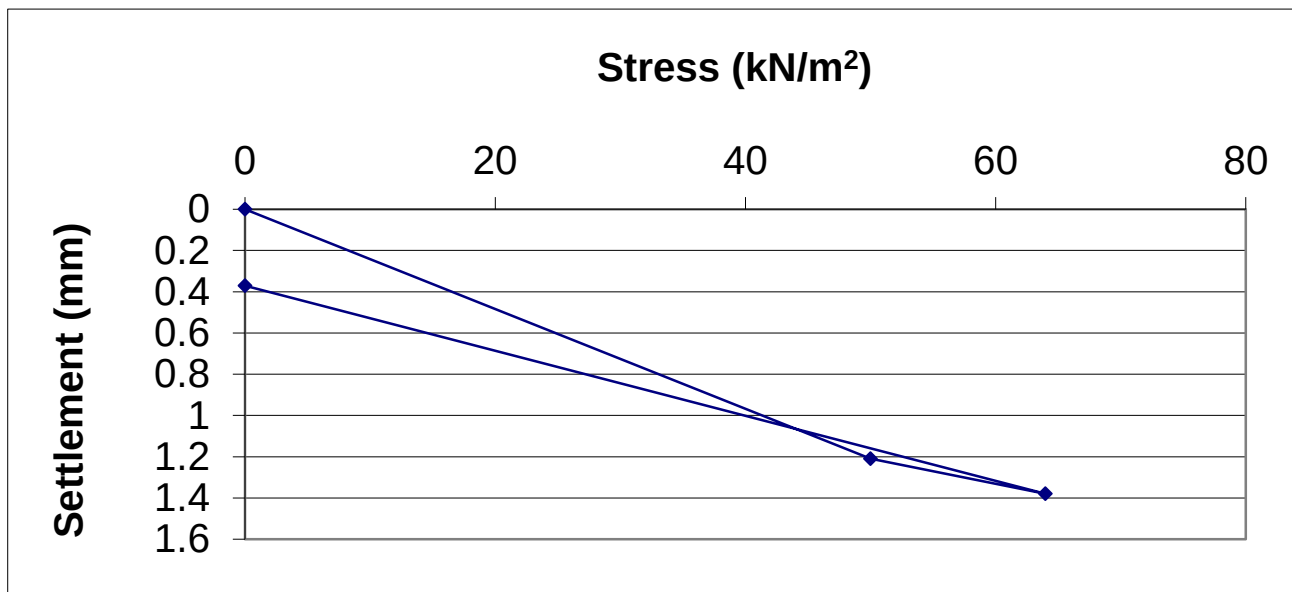
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-05	Report Date:	28/04/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M.Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Dark Brown Silty Clay with large stone		
Supplier/Source*:	Existing Ground		
Moisture Content %:	N/A		
Location*:	Location 3		
Test Level:	Formation		
Plate Size mm:	600		
Date Tested:	26/04/22		
Weather Conditions:	Sunny		
Tested By:	M.Radcliffe		
Kentledge Type:	20T Excavator		
Comments:			

Test Report No.: TD22-D-06-B-05

Stress (kN/m ²)	Settlement (mm)
0	0
50	1.21
64	1.38
0	0.37



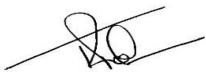
K Value	34.3
Estimated CBR value	4.4%

Comments/Deviations:

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TEST REPORT



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Plate Loading Test

Test Report No.: TD22-D-06-B-06 Report Date: 28/04/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M.Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Plate Loading Test to obtain Approximate CBR value**

Test Method: Design Guidance for Road Pavement Foundations (Draft HD25)
Interim Advice Note 73/06 Revision 1 (2009)

Material*: Brown Clay with Mudstone

Supplier/Source*: Existing Ground

Moisture Content %: N/A

Location*: Location 4

Test Level: Formation

Plate Size mm: 600

Date Tested: 26/04/22

Weather Conditions: Sunny

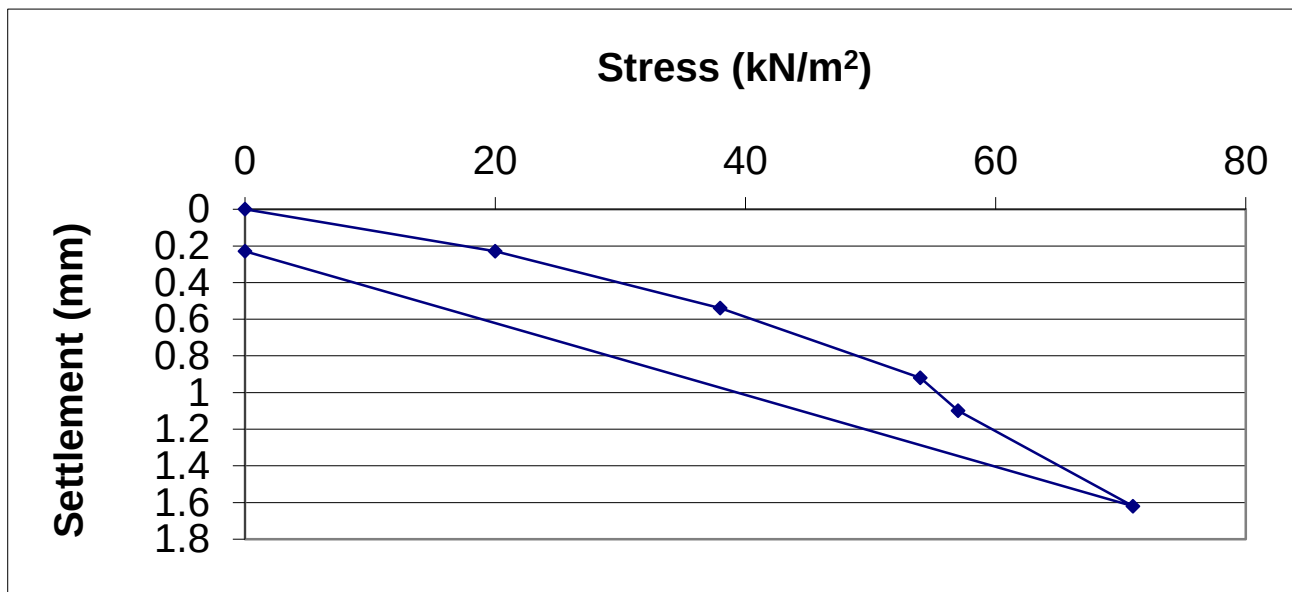
Tested By: M.Radcliffe

Kentledge Type: 20T Excavator

Comments:

Test Report No.: TD22-D-06-B-06

Stress (kN/m ²)	Settlement (mm)
0	0
20	0.23
38	0.54
54	0.92
57	1.10
71	1.62
0	0.23



K Value	39.3
Estimated CBR value	5.6%

Comments/Deviations:

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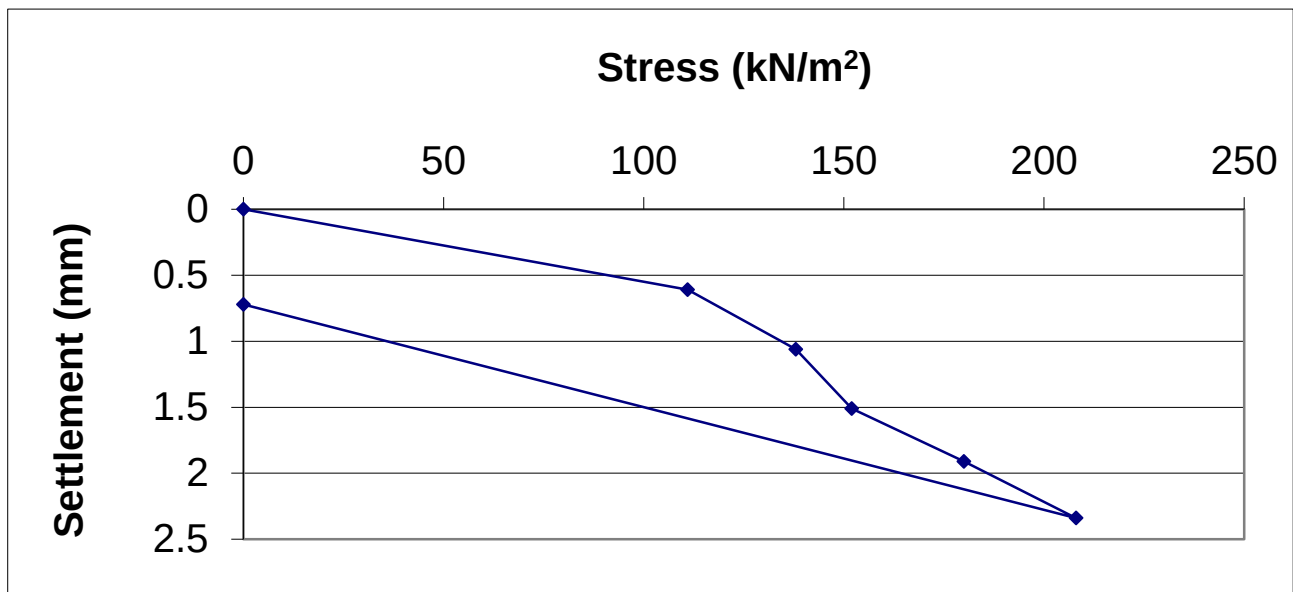
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-20	Report Date:	07/06/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Subgrade Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 1		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	26/04/22		
Weather Conditions:	Sunny		
Tested By:	J. Breeden		
Kentledge Type:	Roller		
Comments:			

Test Report No.: TD22-D-06-B-20

Stress (kN/m ²)	Settlement (mm)
0	0
111	0.61
138	1.06
152	1.51
180	1.91
208	2.34
0	0.72



K Value	50.8
Estimated CBR value	8.7%

Comments/Deviations:

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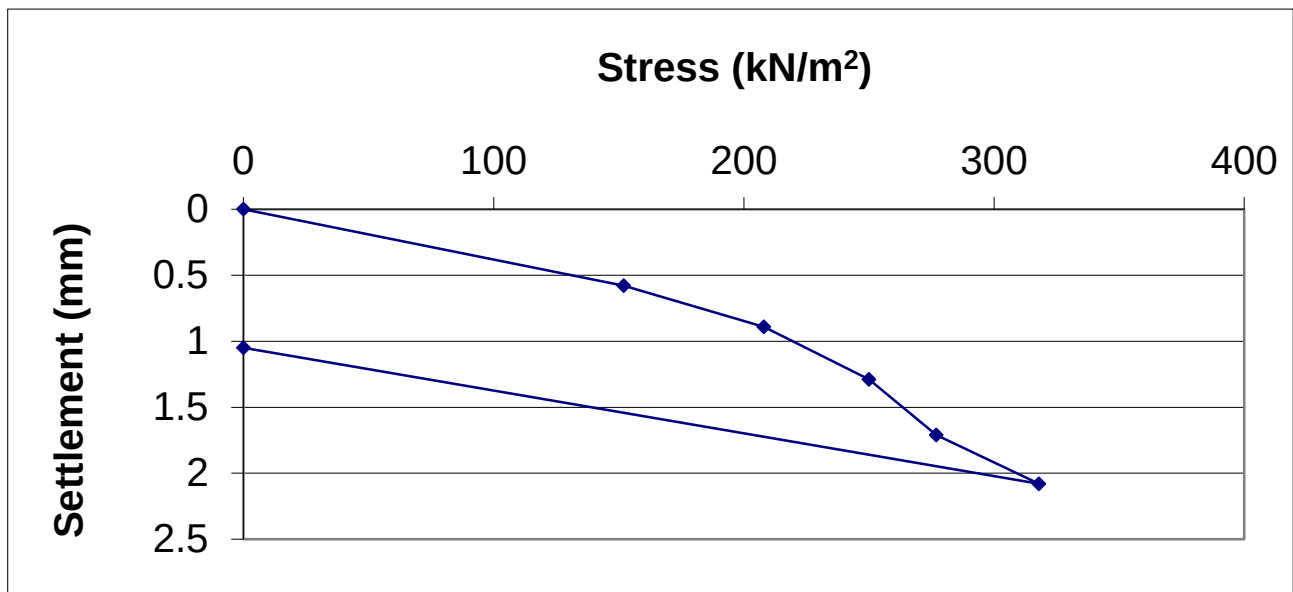
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-21	Report Date:	07/06/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Subgrade Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 2		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	26/04/22		
Weather Conditions:	Raining		
Tested By:	J. Breeden		
Kentledge Type:	Roller		
Comments:			

Test Report No.: TD22-D-06-B-21

Stress (kN/m ²)	Settlement (mm)
0	0
152	0.58
208	0.89
250	1.29
277	1.71
318	2.08
0	1.05



K Value	86.9
Estimated CBR value	22%

Comments/Deviations:

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Plate Loading Test

Test Report No.: TD22-D-06-B-22 Report Date: 07/06/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Plate Loading Test to obtain Approximate CBR value**

Test Method: Design Guidance for Road Pavement Foundations (Draft HD25)
Interim Advice Note 73/06 Revision 1 (2009)

Material*: Stone & Gravel

Supplier/Source*: Site Won

Moisture Content %: N/A

Location*: CBR 3

Test Level: Road Capping

Plate Size mm: 300

Date Tested: 26/04/22

Weather Conditions: Raining

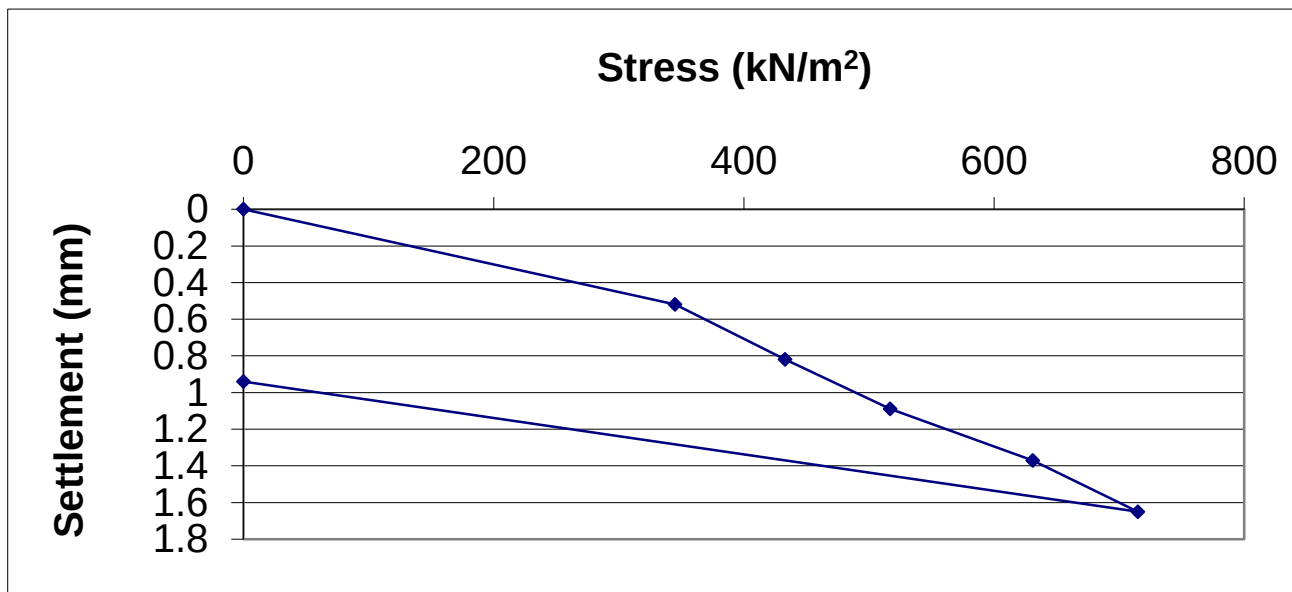
Tested By: J. Breeden

Kentledge Type: Roller

Comments:

Test Report No.: TD22-D-06-B-22

Stress (kN/m ²)	Settlement (mm)
0	0
345	0.52
433	0.82
517	1.09
631	1.37
715	1.65
0	0.94



K Value	205.7
Estimated CBR value	98%

Comments/Deviations:

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Results relate only to the location tested.

* Information supplied by client.

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	() J. Hopkinson (Laboratory Section Manager)

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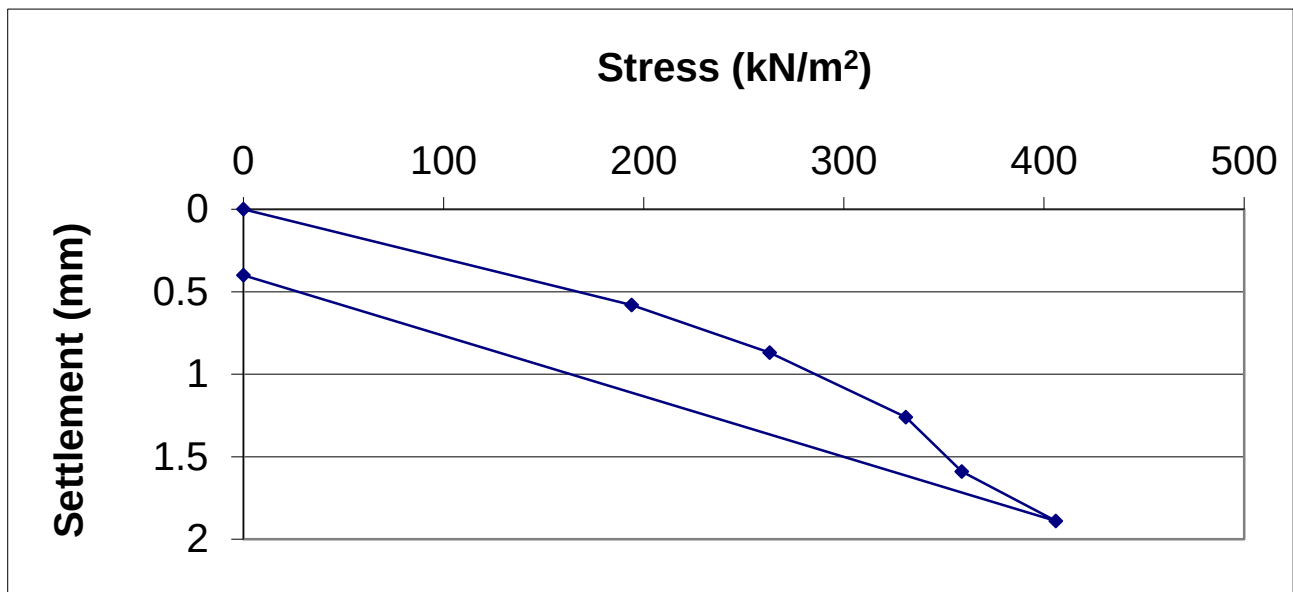
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-23	Report Date:	07/06/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Stone & Gravel		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 4		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	26/04/22		
Weather Conditions:	Raining		
Tested By:	J. Breeden		
Kentledge Type:	Roller		
Comments:			

Test Report No.: TD22-D-06-B-23

Stress (kN/m ²)	Settlement (mm)
0	0
194	0.58
263	0.87
331	1.26
359	1.59
406	1.89
0	0.40



K Value	116.4
Estimated CBR value	37%

Comments/Deviations:

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Results relate only to the location tested.

* Information supplied by client.

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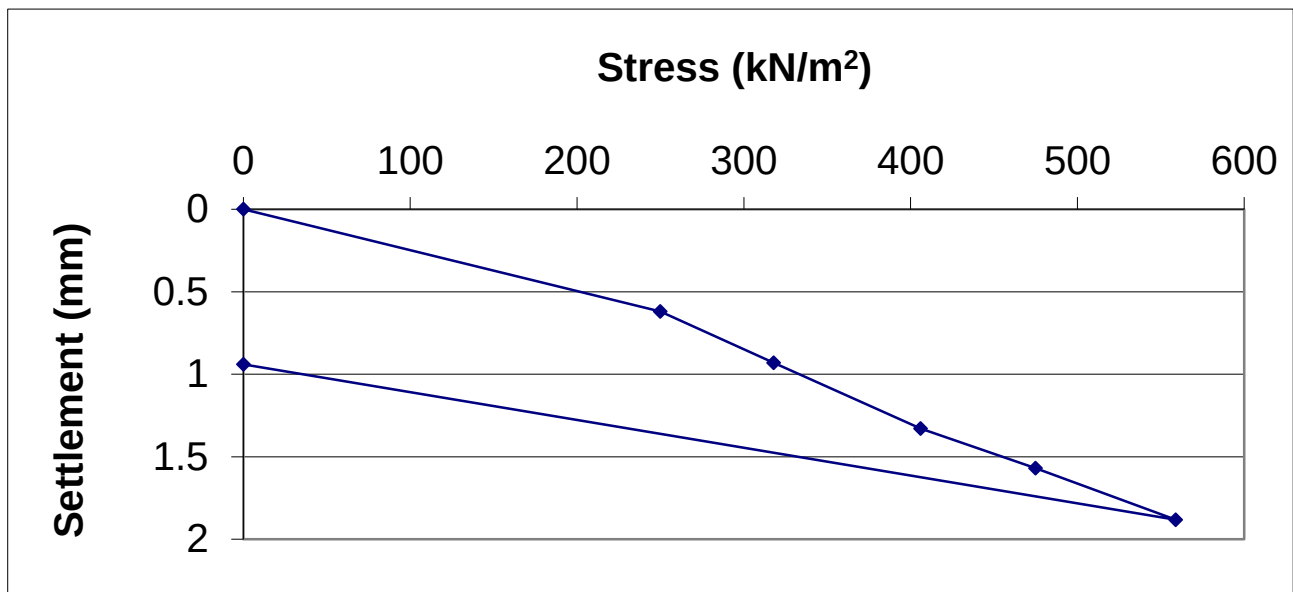
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-24	Report Date:	07/06/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Stone & Gravel		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 5		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	26/04/22		
Weather Conditions:	Raining		
Tested By:	J. Breeden		
Kentledge Type:	Roller		
Comments:			

Test Report No.: TD22-D-06-B-24

Stress (kN/m ²)	Settlement (mm)
0	0
250	0.62
318	0.93
406	1.33
475	1.57
559	1.88
0	0.94



K Value	137.2
Estimated CBR value	49%

Comments/Deviations:

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	(X) D. Ames (Laboratory Manager/Director)
	() J. Hopkinson (Laboratory Section Manager)

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TEST REPORT



T: 01744 734769

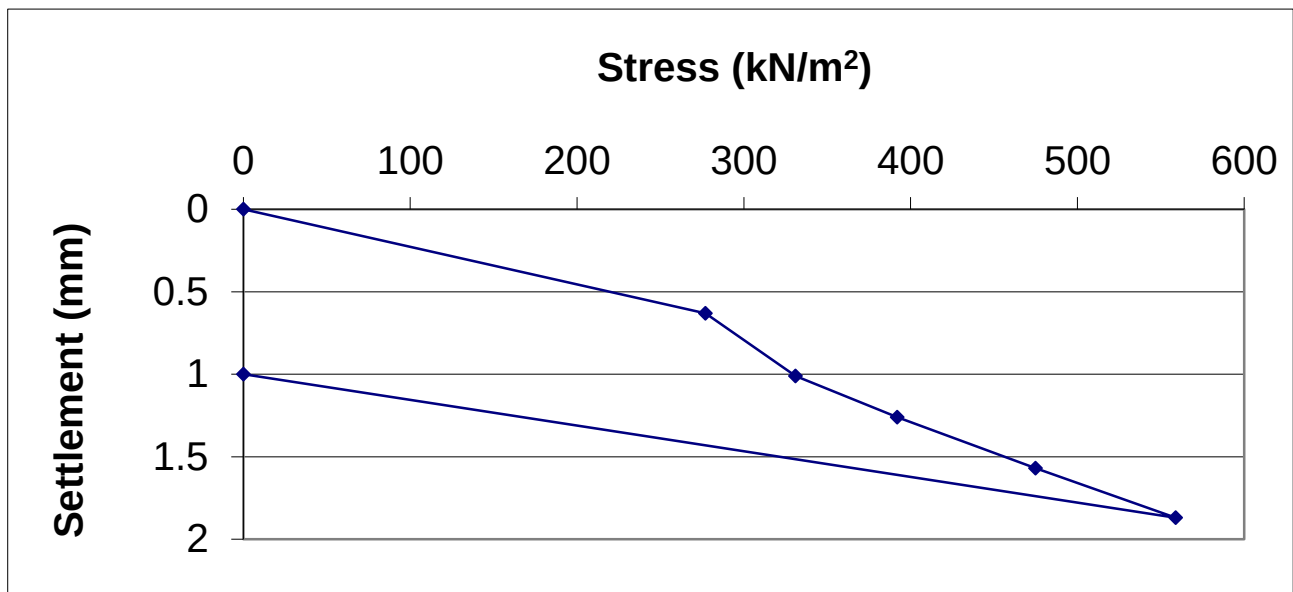
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-25	Report Date:	07/06/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Stone & Gravel		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 6		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	26/04/22		
Weather Conditions:	Raining		
Tested By:	J. Breeden		
Kentledge Type:	Roller		
Comments:			

Test Report No.: TD22-D-06-B-25

Stress (kN/m ²)	Settlement (mm)
0	0
277	0.63
331	1.01
392	1.26
475	1.57
559	1.87
0	1.00



K Value	137.7
Estimated CBR value	49%

Comments/Deviations:

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Plate Loading Test

Test Report No.: TD22-D-06-B-26

Report Date: 10/06/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Piling Pad - 20

Test Level: Capping Level

Plate Size mm: 600

Date Tested: 06/06/2022

Weather Conditions: Overcast

Tested By: M.Ratcliffe

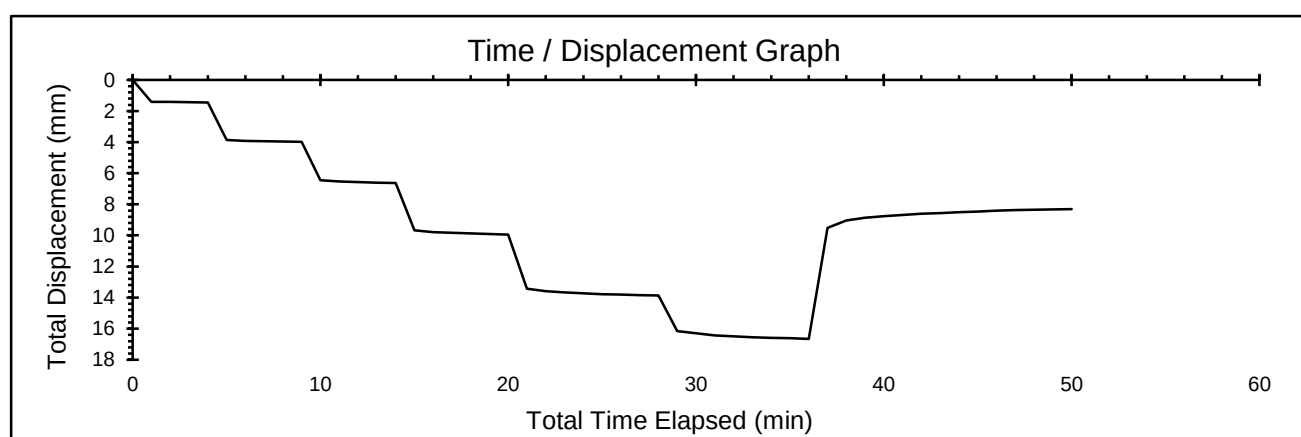
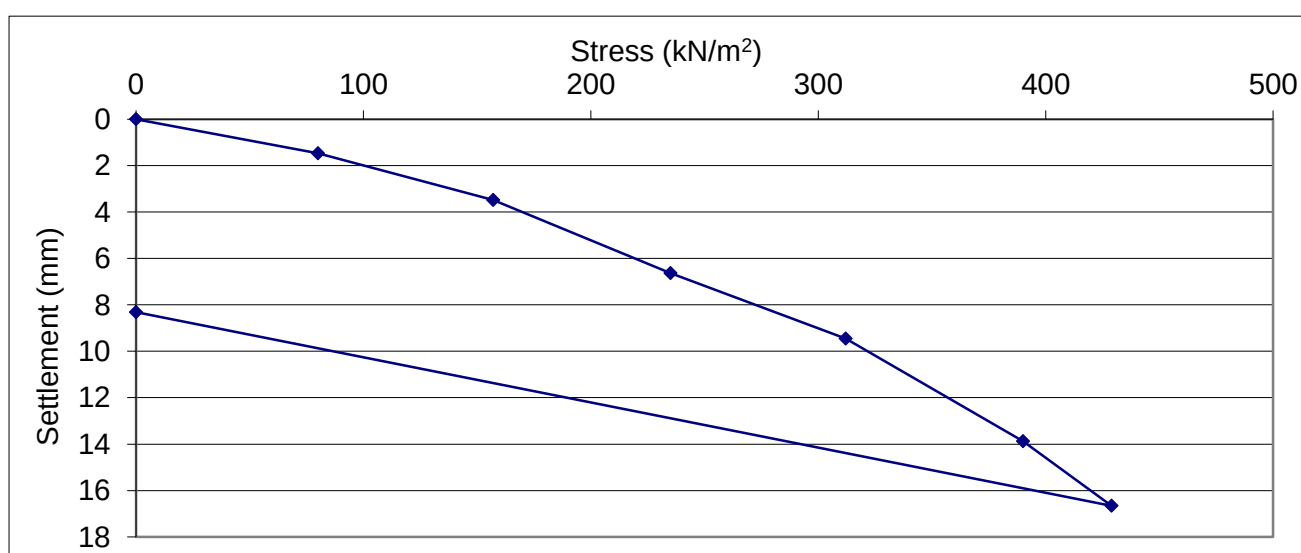
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-26

Stress (kN/m ²)	Settlement (mm)
0	0.00
80	1.46
157	3.48
235	6.63
312	9.45
390	13.87
429	16.66
0	8.31

Working Stress kN/m ²	427	Settlement mm	16.66
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Plate Loading Test

Test Report No.: TD22-D-06-B-27

Report Date: 10/06/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Piling Pad - 22

Test Level: Capping Level

Plate Size mm: 600

Date Tested: 06/06/2022

Weather Conditions: Overcast

Tested By: M.Ratcliffe

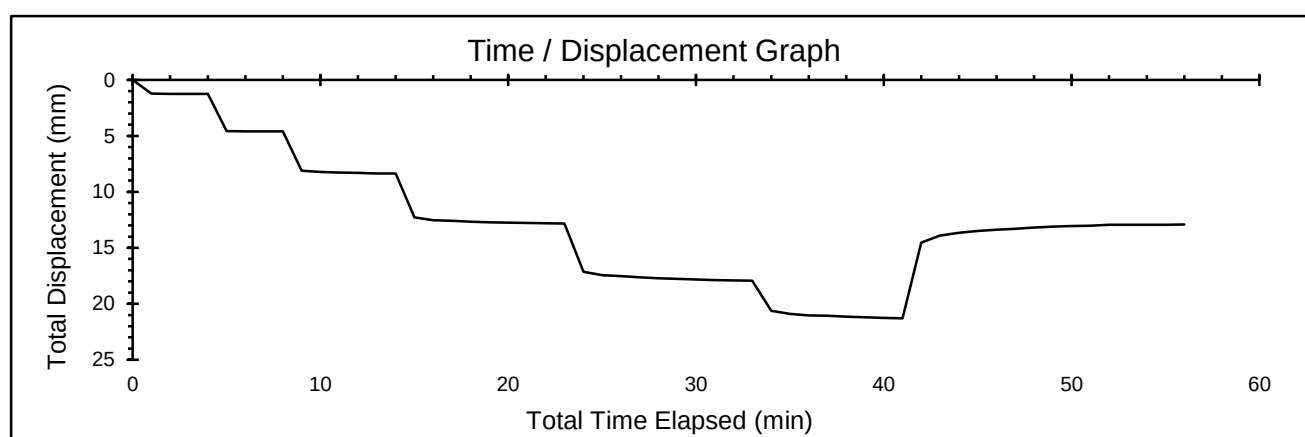
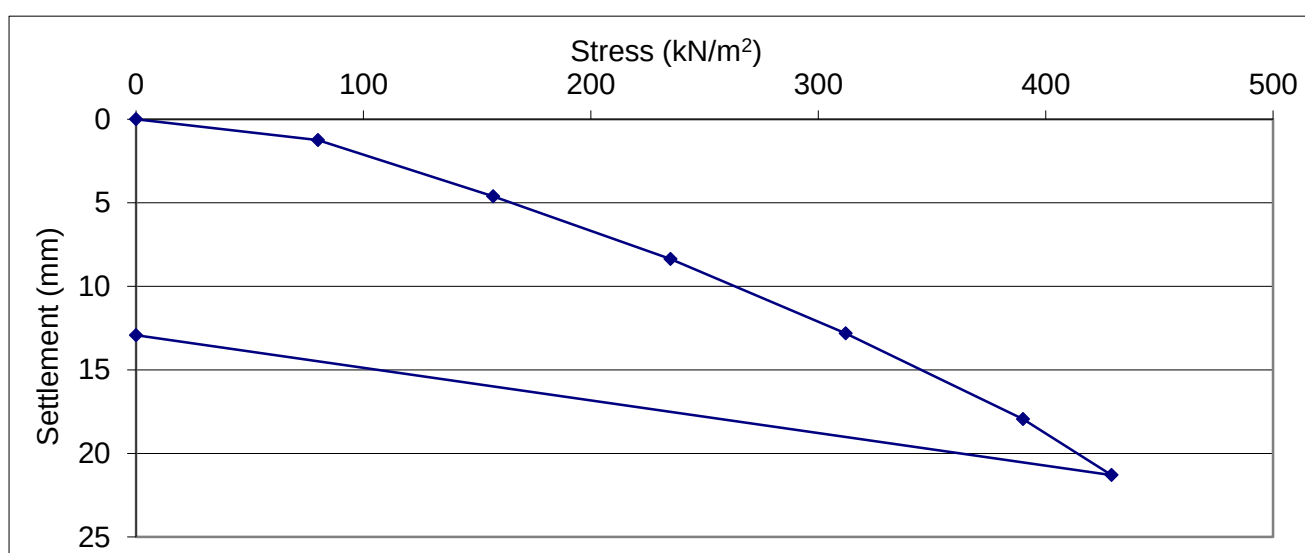
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-27

Stress (kN/m ²)	Settlement (mm)
0	0.00
80	1.25
157	4.61
235	8.37
312	12.82
390	17.95
429	21.30
0	12.92

Working Stress kN/m ²	429	Settlement mm	21.3
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TEST REPORT



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Plate Loading Test

Test Report No.: TD22-D-06-B-28

Report Date: 10/06/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Piling Pad - 24

Test Level: Capping Level

Plate Size mm: 600

Date Tested: 06/06/2022

Weather Conditions: Overcast

Tested By: M.Ratcliffe

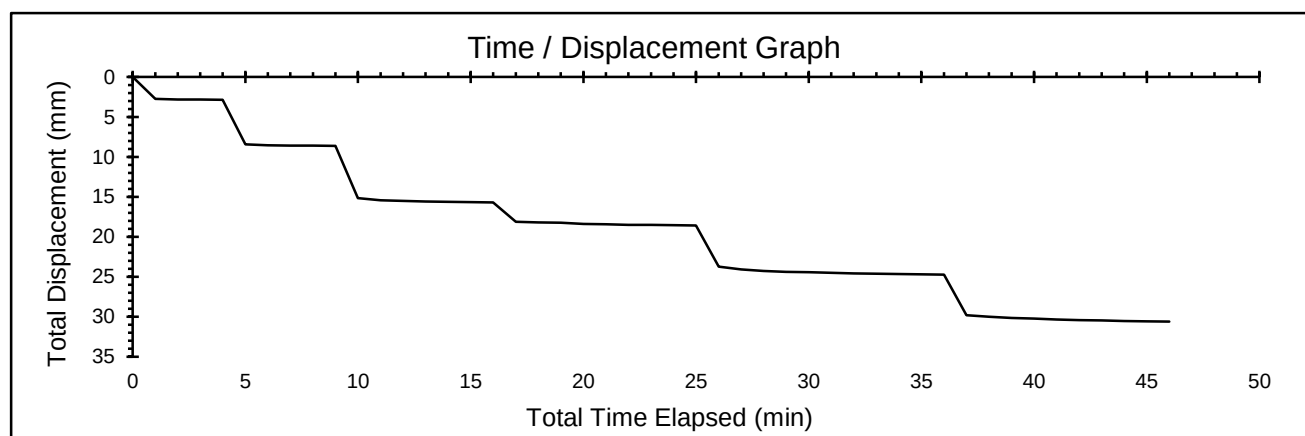
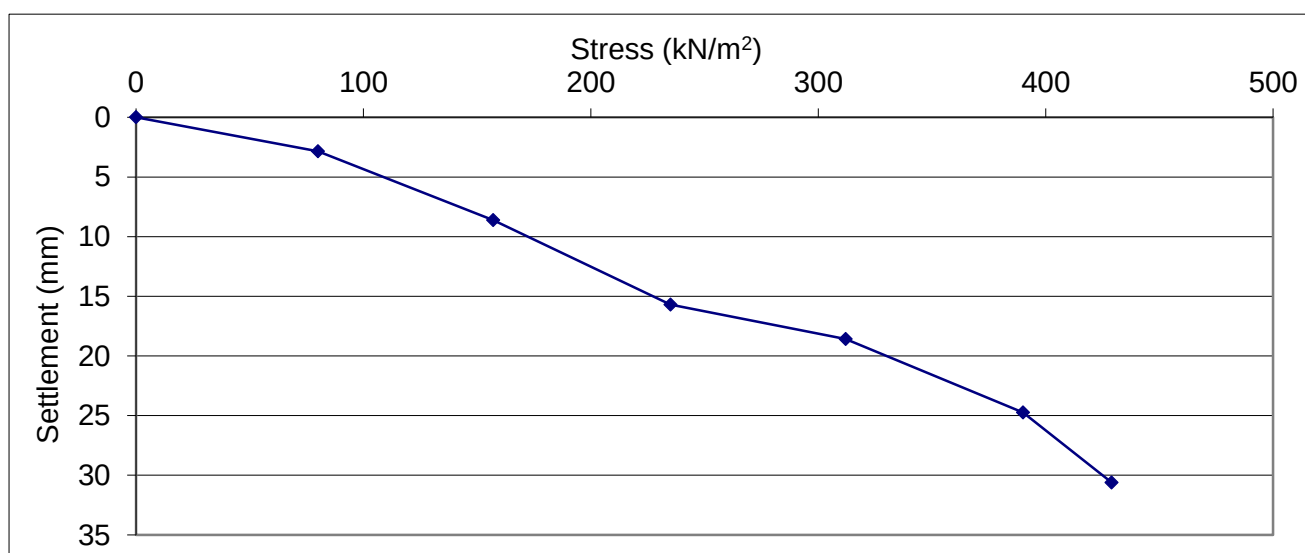
Kentledge Type: Excavator

Comments: Rebound not recorded due to the jack falling on release of load.

Test Report No.: TD22-D-06-B-28

Stress (kN/m ²)	Settlement (mm)
0	0.00
80	2.85
157	8.63
235	15.69
312	18.57
390	24.74
429	30.60

Working Stress kN/m ²	429	Settlement mm	30.6
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TEST REPORT



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Plate Loading Test

Test Report No.: TD22-D-06-B-29

Report Date: 10/06/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Piling Pad - 28

Test Level: Capping Level

Plate Size mm: 600

Date Tested: 06/06/2022

Weather Conditions: Overcast

Tested By: M.Ratcliffe

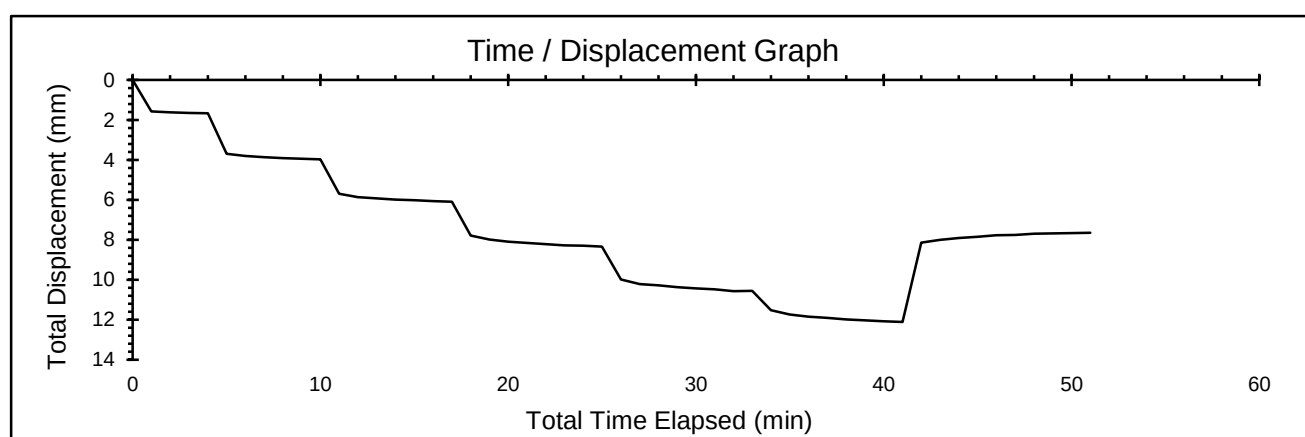
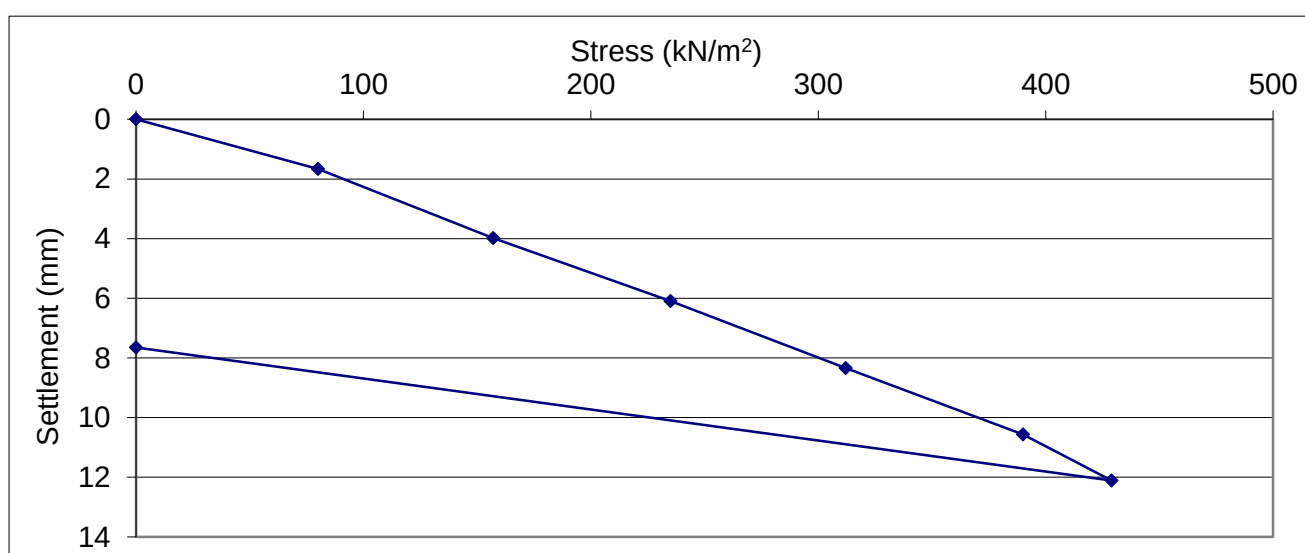
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-29

Stress (kN/m ²)	Settlement (mm)
0	0.00
80	1.66
157	3.98
235	6.09
312	8.34
390	10.56
429	12.11
0	7.65

Working Stress kN/m ²	429	Settlement mm	12.11
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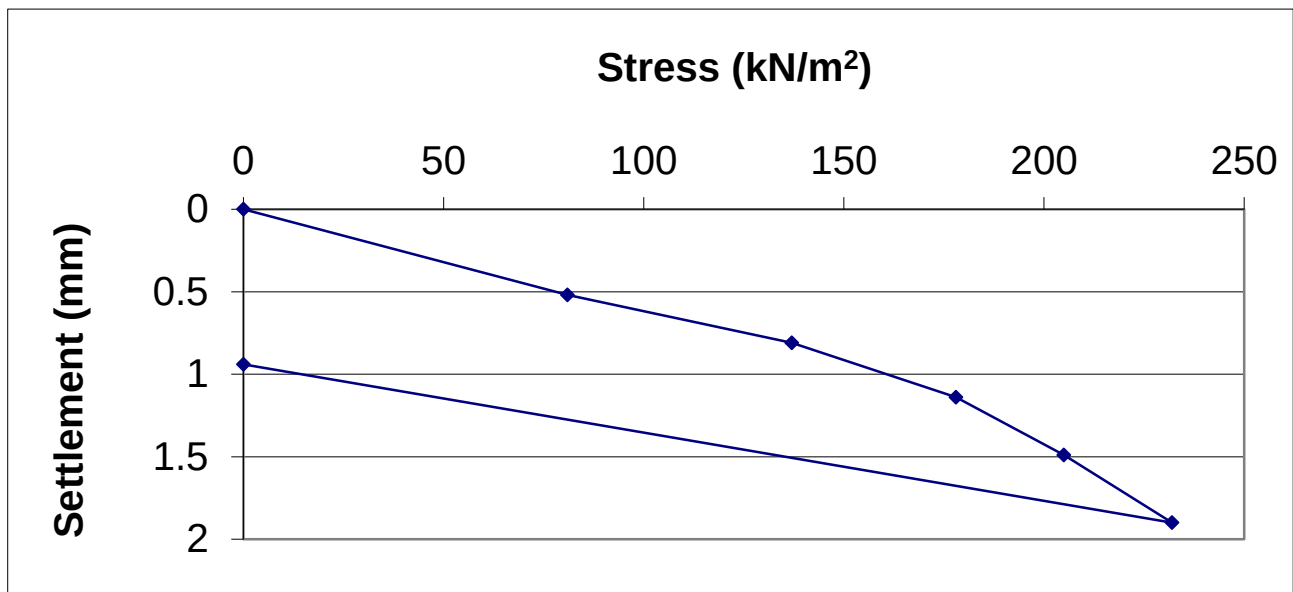
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-30	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 6		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Windy		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-30

Stress (kN/m ²)	Settlement (mm)
0	0
81	0.52
137	0.81
178	1.14
205	1.49
232	1.90
0	0.94



K Value	65.9
Estimated CBR value	14%

Comments/Deviations:

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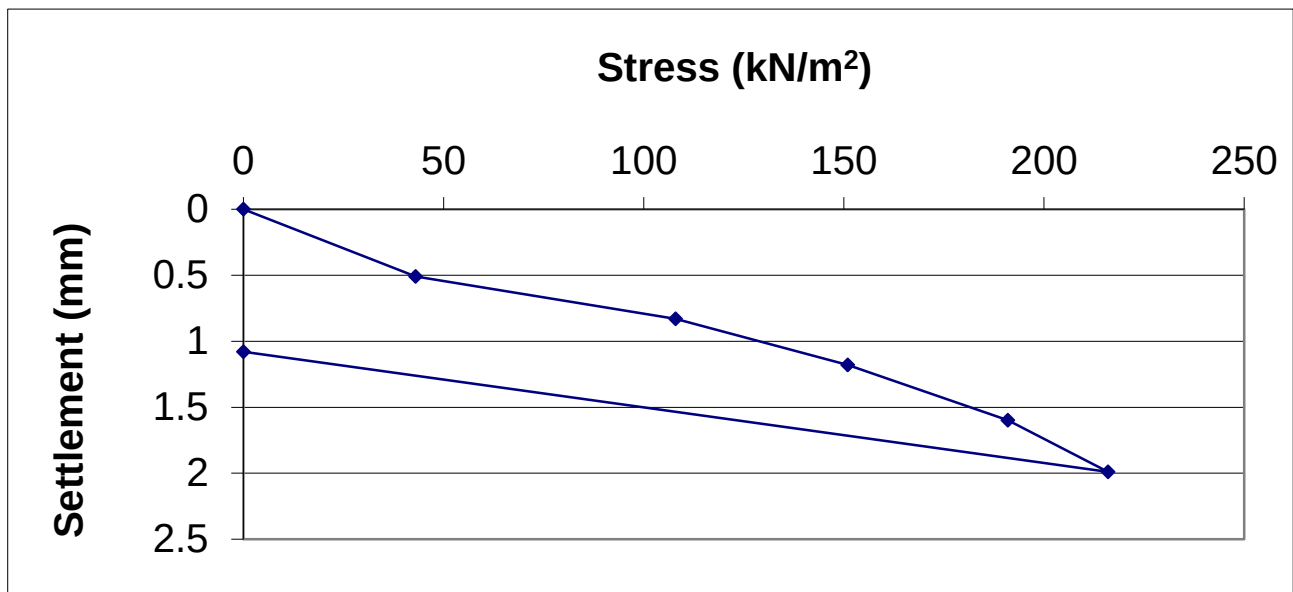
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Plate Loading Test

Test Report No.:	TD22-D-06-B-31	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 5		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Overcast		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-31

Stress (kN/m ²)	Settlement (mm)
0	0
43	0.51
108	0.83
151	1.18
191	1.60
216	1.99
0	1.08



K Value	55.7
Estimated CBR value	10%

Comments/Deviations:

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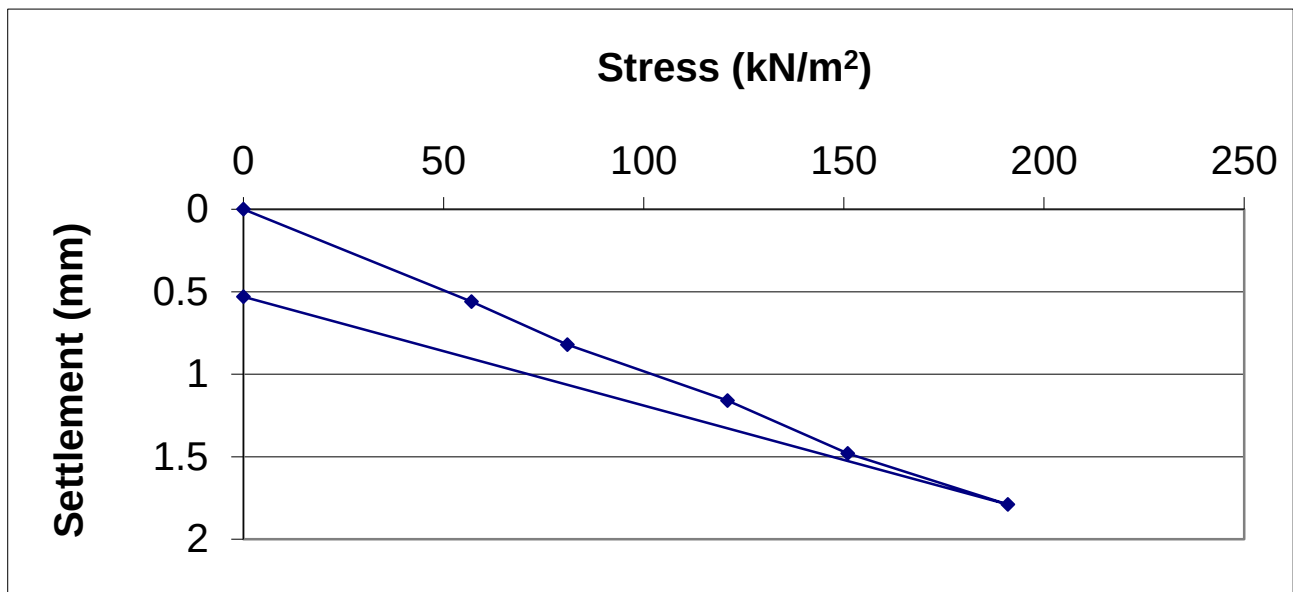
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-32	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 3		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Windy		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-32

Stress (kN/m ²)	Settlement (mm)
0	0
57	0.56
81	0.82
121	1.16
151	1.48
191	1.79
0	0.53



K Value	45.7
Estimated CBR value	7.3%

Comments/Deviations:

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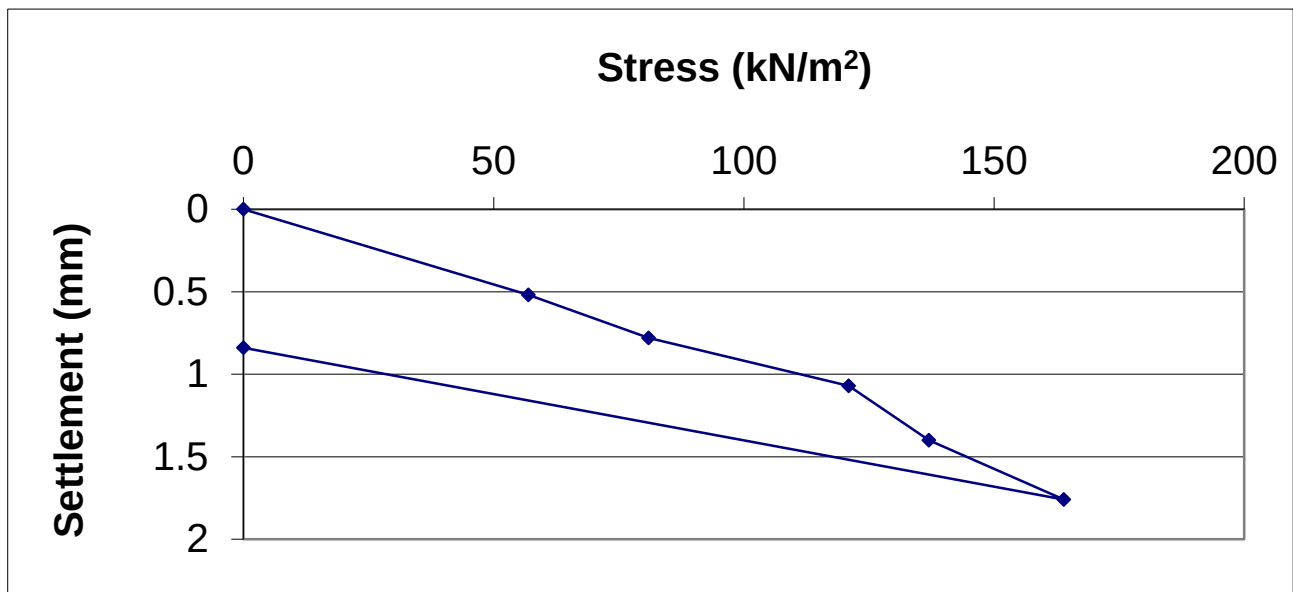
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-33	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 4		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Overcast		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-33

Stress (kN/m ²)	Settlement (mm)
0	0
57	0.52
81	0.78
121	1.07
137	1.40
164	1.76
0	0.84



K Value	45.8
Estimated CBR value	7.3%

Comments/Deviations:

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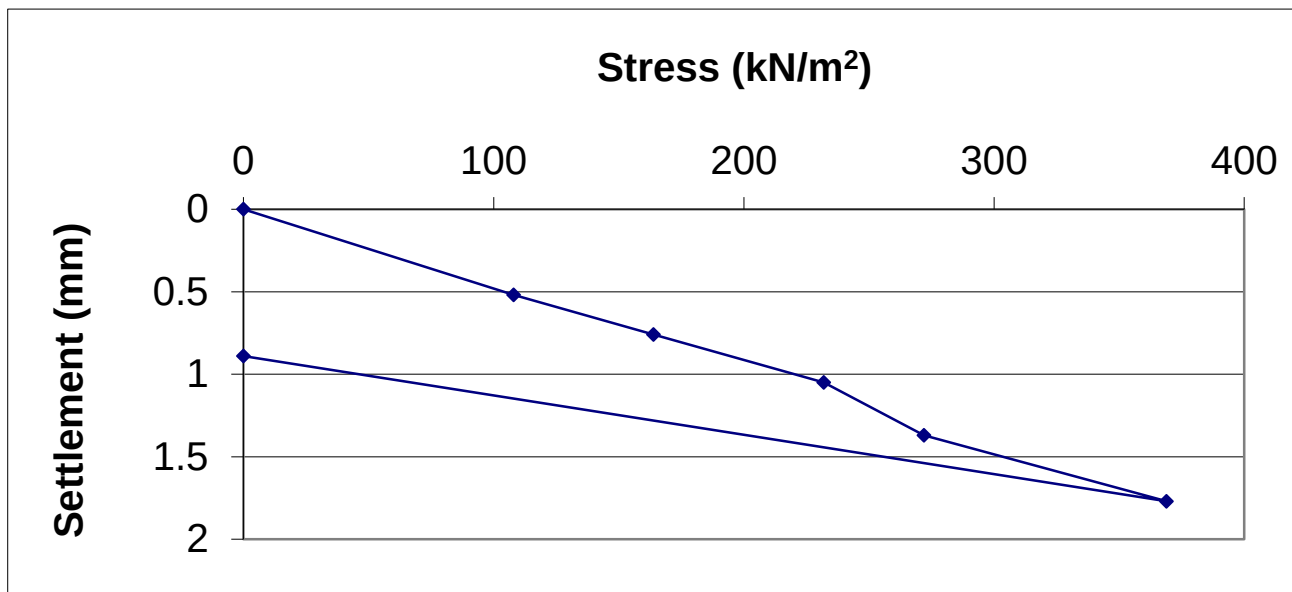
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-34	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 2		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	light Rain		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-34

Stress (kN/m ²)	Settlement (mm)
0	0
108	0.52
164	0.76
232	1.05
272	1.37
369	1.77
0	0.89



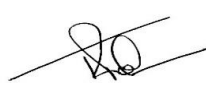
K Value	90.8
Estimated CBR value	24%

Comments/Deviations:

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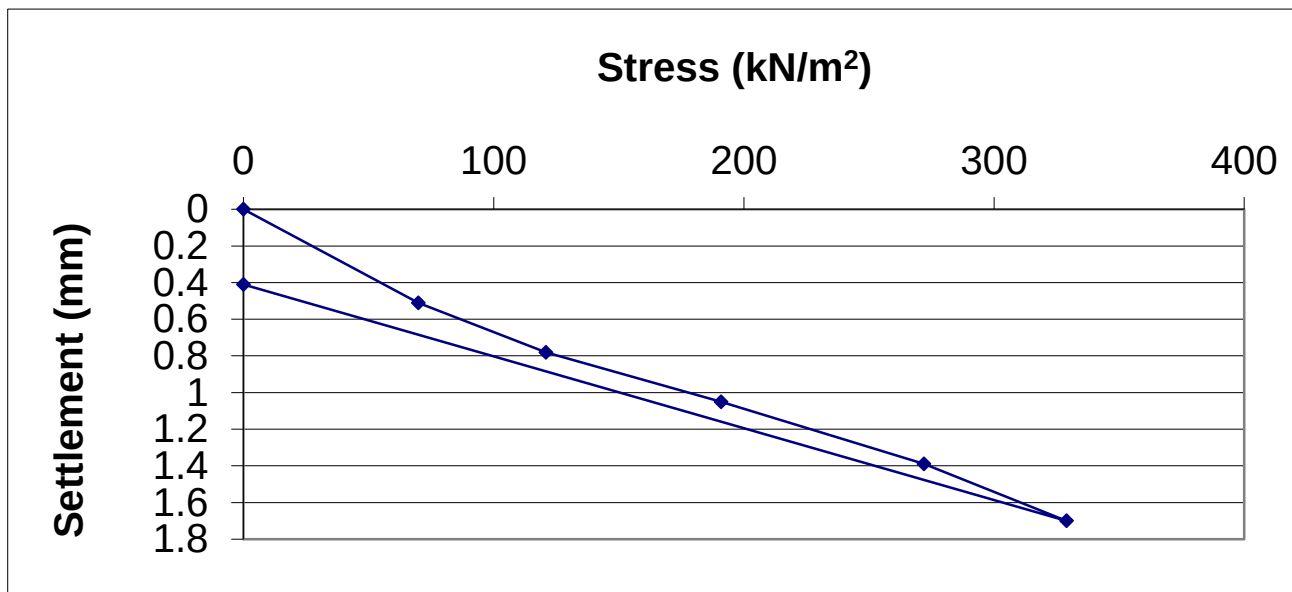
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-35	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 1		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Windy		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-35

Stress (kN/m ²)	Settlement (mm)
0	0
70	0.51
121	0.78
191	1.05
272	1.39
329	1.70
0	0.41



K Value	84.3
Estimated CBR value	21%

Comments/Deviations:

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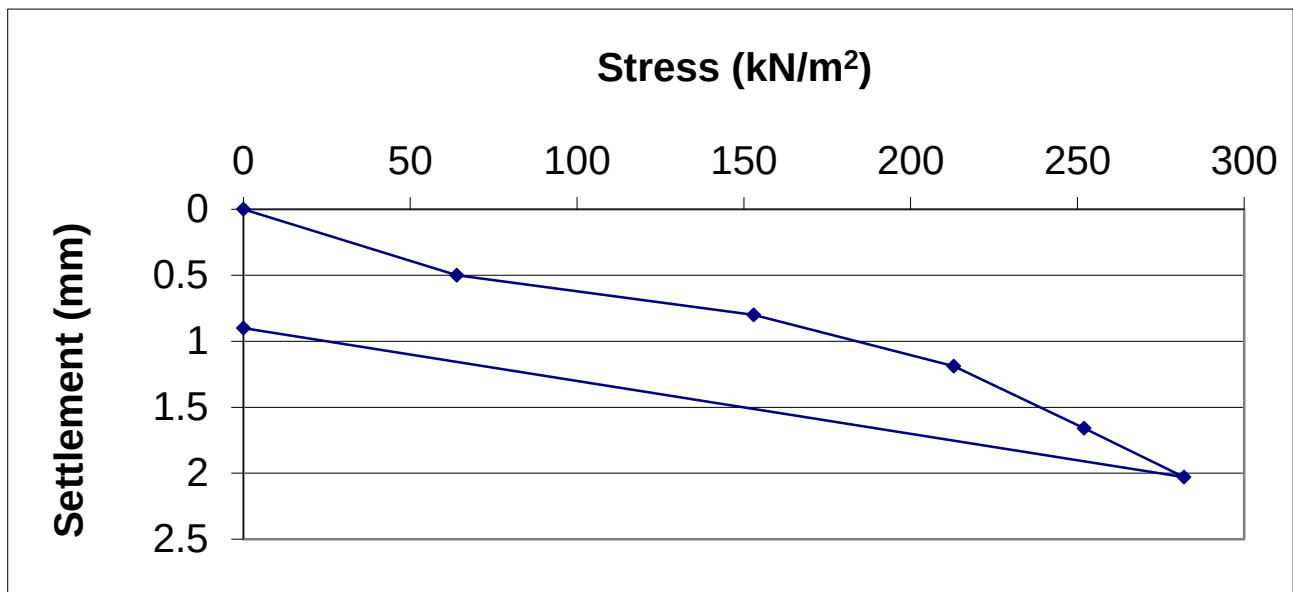
E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.:	TD22-D-06-B-36	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 7		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Windy		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-36

Stress (kN/m ²)	Settlement (mm)
0	0
64	0.50
153	0.80
213	1.19
252	1.66
282	2.03
0	0.90



K Value	77.0
Estimated CBR value	18%

Comments/Deviations:

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Results relate only to the location tested.

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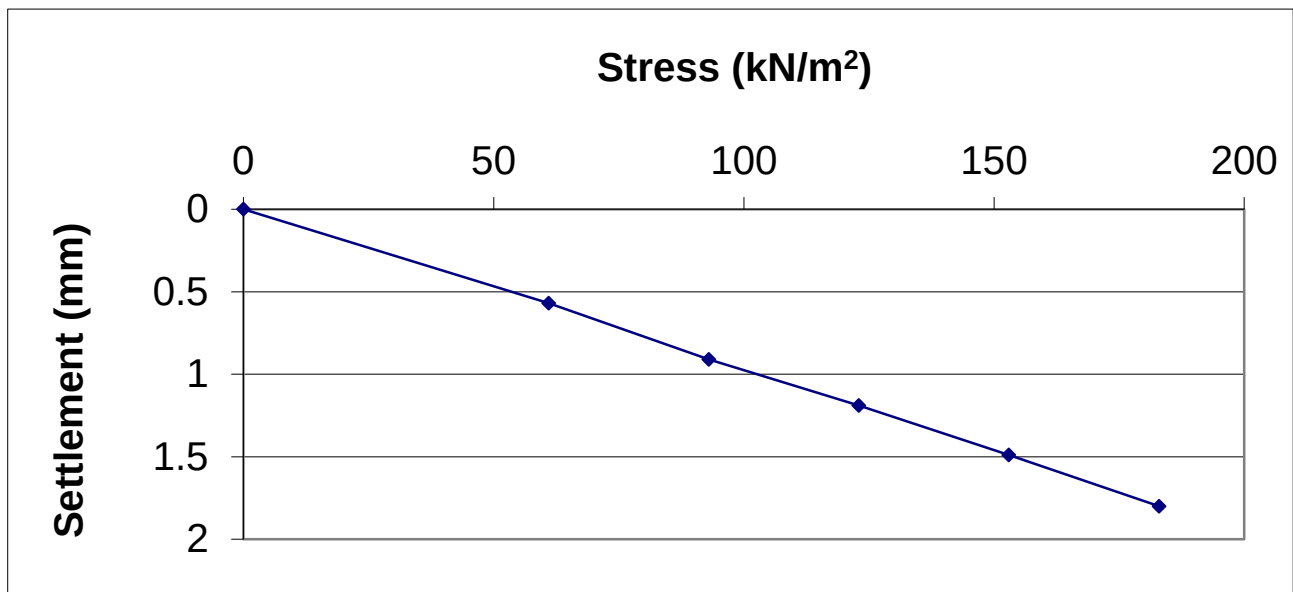
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Plate Loading Test

Test Report No.:	TD22-D-06-B-37	Report Date:	05/07/2022
Client:	D.B. Remediation		
Address:	Carnoustie House, Kelvin Close, Birchwood, Warrington, WA3 7PB		
Contact:	M. Holker		
Site:	Wildhouse Lane, Milnrow		
Test Requested:	Plate Loading Test to obtain Approximate CBR value		
Test Method:	Design Guidance for Road Pavement Foundations (Draft HD25) Interim Advice Note 73/06 Revision 1 (2009)		
Material*:	Capping Material		
Supplier/Source*:	Site Won		
Moisture Content %:	N/A		
Location*:	CBR 8		
Test Level:	Road Capping		
Plate Size mm:	300		
Date Tested:	29/06/22		
Weather Conditions:	Rain		
Tested By:	J. Breeden		
Kentledge Type:	Excavator		
Comments:			

Test Report No.: TD22-D-06-B-37

Stress (kN/m ²)	Settlement (mm)
0	0
61	0.57
93	0.91
123	1.19
153	1.49
183	1.80



K Value	45.6
Estimated CBR value	7.2%

Comments/Deviations:

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Results relate only to the location tested.

* Information supplied by client.

Signed 	(x) T. Robinson (Technical Manager/Director)
	() D. Ames (Laboratory Manager/Director)
	() J. Hopkinson (Laboratory Section Manager)

TD Construction Testing Ltd
Gerard Hall
40 Lord Street
St Helens
Merseyside
WA10 2SD



8011
TEST REPORT



T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.: TD22-D-06-B-38

Report Date: 05/07/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Piling Pad - 33

Test Level: Piling Mat

Plate Size mm: 600

Date Tested: 29/06/2022

Weather Conditions: Dry

Tested By: J.Breeden

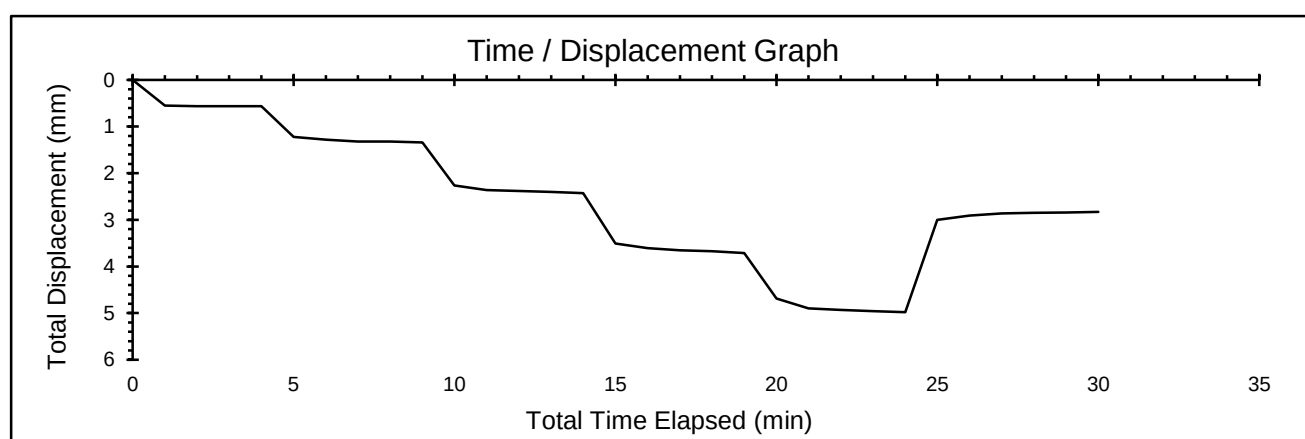
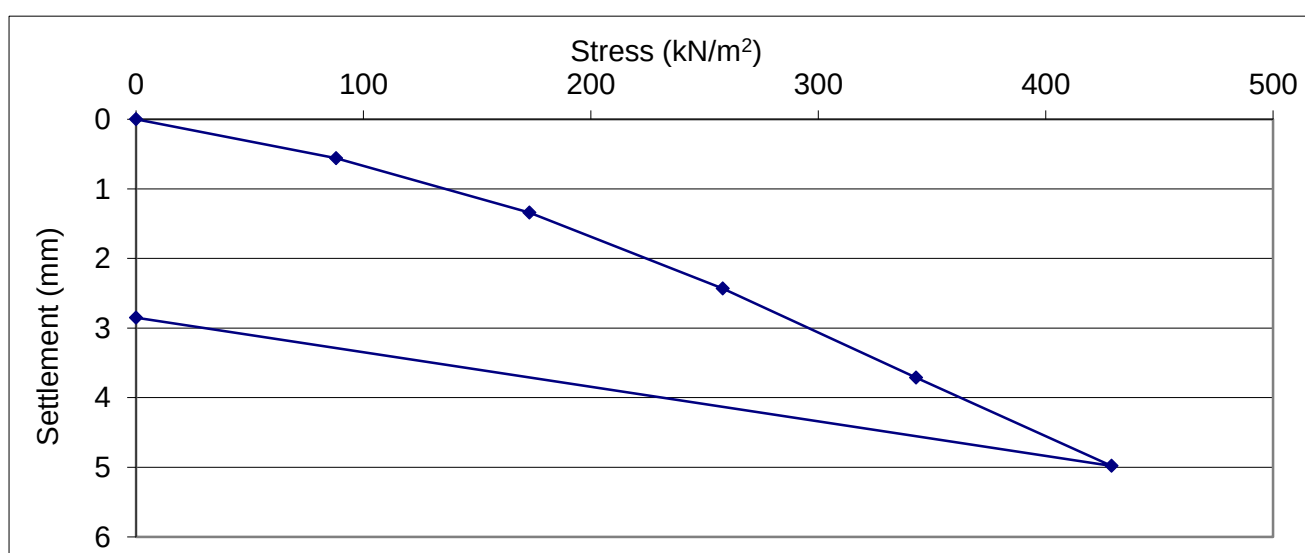
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-38

Stress (kN/m ²)	Settlement (mm)
0	0.00
88	0.56
173	1.34
258	2.43
343	3.71
429	4.98
0	2.85

Working Stress kN/m ²	429	Settlement mm	4.98
----------------------------------	-----	---------------	------



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		☐ () D. Ames (Laboratory Manager/Director)
		☐ () J. Hopkinson (Laboratory Section Manager)

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40 Lord Street
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Merseyside
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TEST REPORT



T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.: TD22-D-06-B-39

Report Date: 05/07/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Second to top Plot

Test Level: Piling Mat

Plate Size mm: 600

Date Tested: 29/06/2022

Weather Conditions: Dry

Tested By: J.Breeden

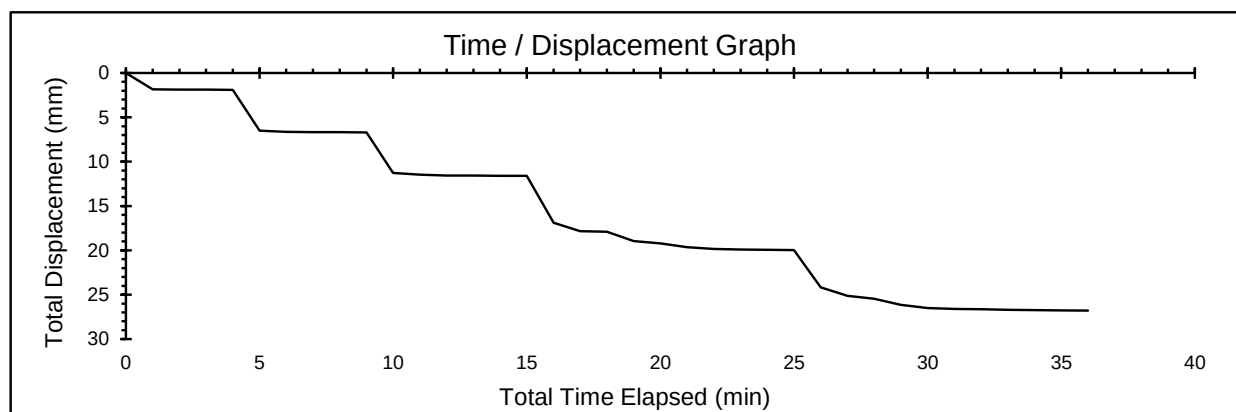
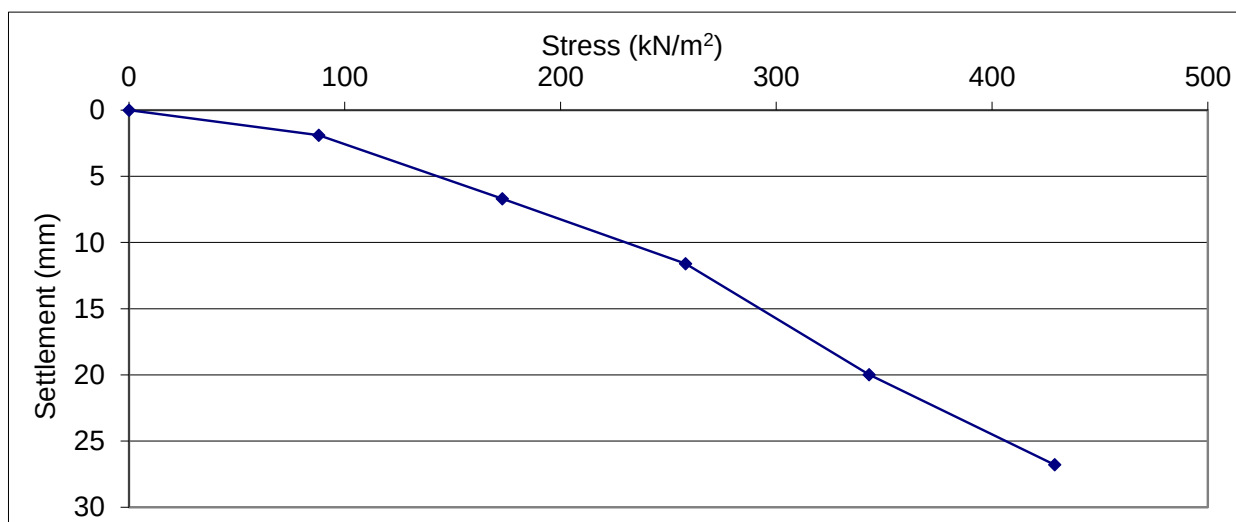
Kentledge Type: Excavator

Comments: Rebound unable to be recorded due to the dials requiring reset mid-test.

Test Report No.: TD22-D-06-B-39

Stress (kN/m ²)	Settlement (mm)
0	0.00
88	1.90
173	6.70
258	11.60
343	19.97
429	26.79

Working Stress kN/m ²	429	Settlement mm	26.79
----------------------------------	-----	---------------	-------



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	() D. Ames (Laboratory Manager/Director)
	() J. Hopkinson (Laboratory Section Manager)

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TEST REPORT



T: 01744 734769

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Plate Loading Test

Test Report No.: TD22-D-06-B-40

Report Date: 05/07/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: Incremental Plate 3

Test Level: Piling Mat

Plate Size mm: 600

Date Tested: 29/06/2022

Weather Conditions: Dry

Tested By: J.Breeden

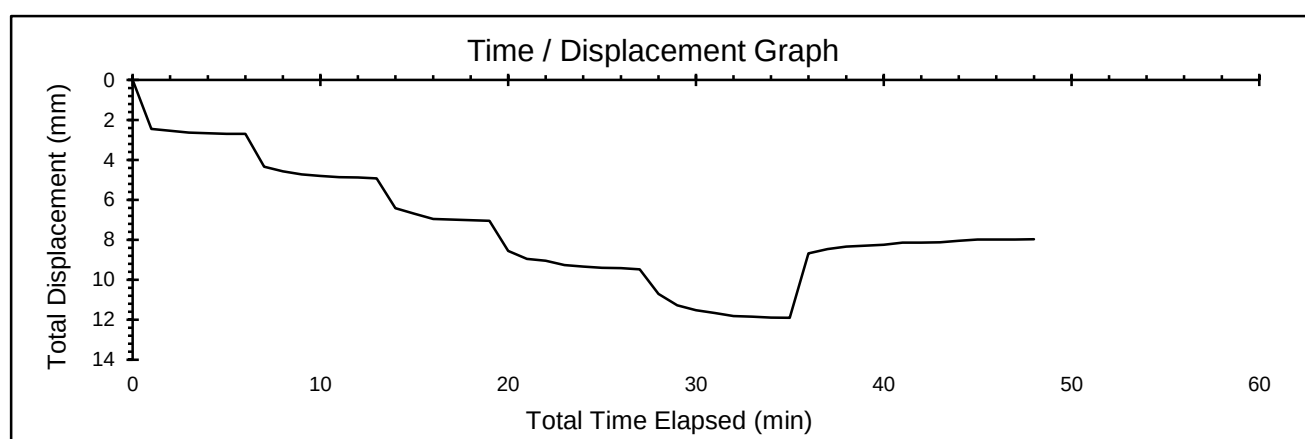
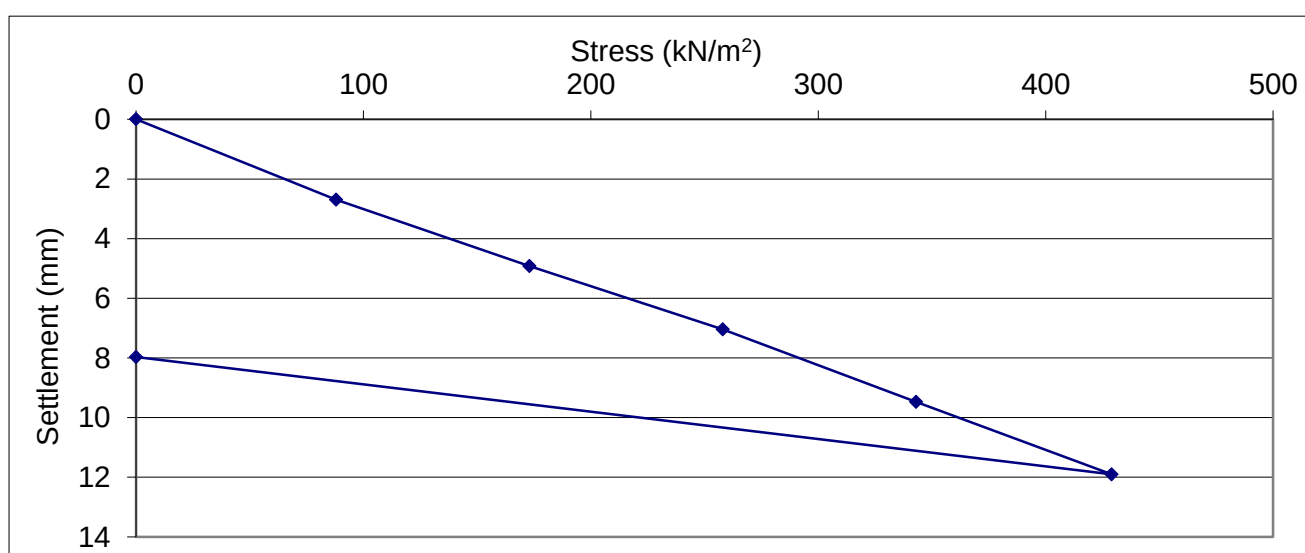
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-40

Stress (kN/m ²)	Settlement (mm)
0	0.00
88	2.70
173	4.92
258	7.04
343	9.47
429	11.90
0	7.97

Working Stress kN/m ²	429	Settlement mm	11.90
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Results relate only to the location tested.

* Information supplied by client.

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		☐ D. Ames (Laboratory Manager/Director)
		☐ J. Hopkinson (Laboratory Section Manager)

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Merseyside
WA10 2SD



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TEST REPORT



T: 01744 734769

E: enquiries@tdconstructiontesting.co.uk

Plate Loading Test

Test Report No.: TD22-D-06-B-41

Report Date: 05/07/2022

Client: D.B. Remediation

Address: Carnoustie House,
Kelvin Close,
Birchwood,
Warrington, WA3 7PB

Contact: M. Holker

Site: Wildhouse Lane, Milnrow

Test Requested: **Incremental Plate Loading Test**

Test Method: BS1377-9:1990

Material*: 6F2

Supplier/Source*: Site Crushed

Location*: P41

Test Level: Piling Mat

Plate Size mm: 600

Date Tested: 29/06/2022

Weather Conditions: Windy

Tested By: J.Breeden

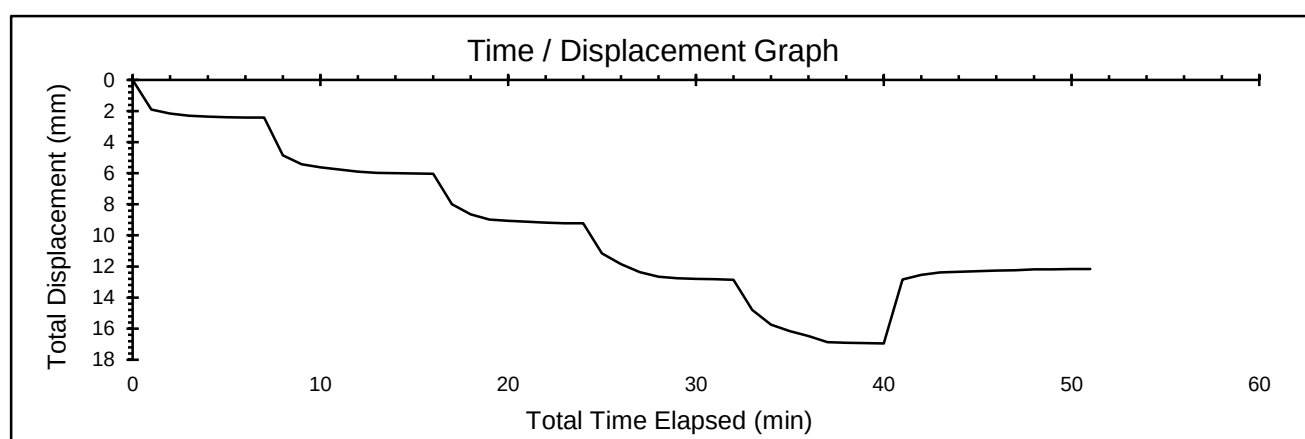
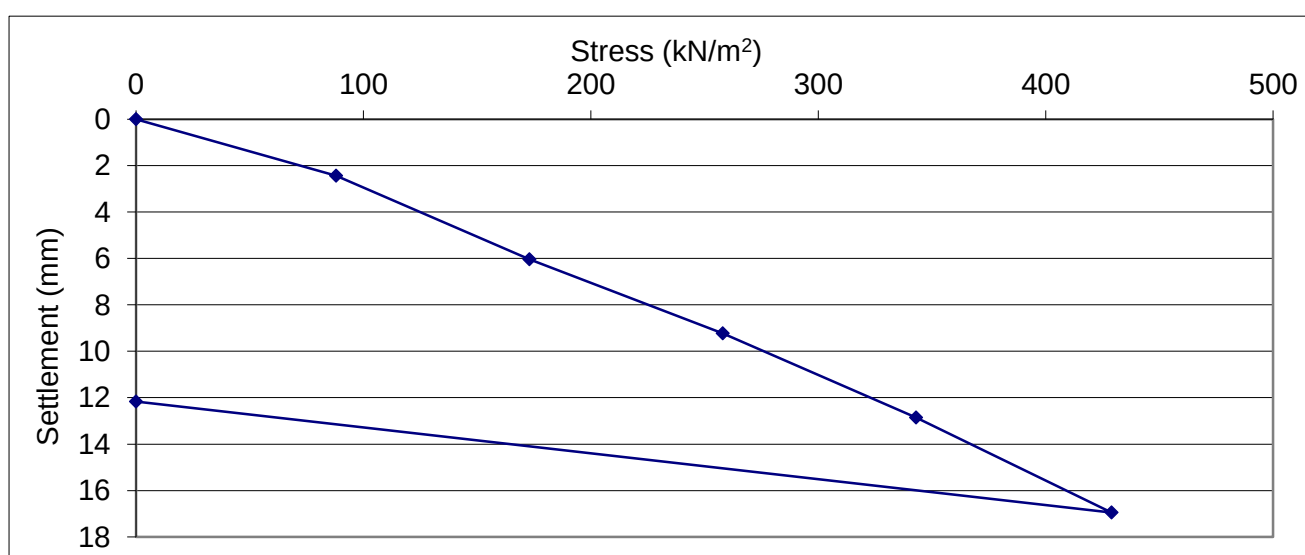
Kentledge Type: Excavator

Comments:

Test Report No.: TD22-D-06-B-41

Stress (kN/m ²)	Settlement (mm)
0	0.00
88	2.43
173	6.03
258	9.22
343	12.85
429	16.95
0	12.16

Working Stress kN/m ²	429	Settlement mm	16.95
----------------------------------	-----	---------------	-------



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Results relate only to the location tested.

* Information supplied by client.

Signed		(x) T. Robinson (Technical Manager/Director)
		() D. Ames (Laboratory Manager/Director)
		() J. Hopkinson (Laboratory Section Manager)

APPENDIX I – WASTE TICKETS

Scanned Documents

Form HRC03/rev11 The Hazardous Waste Regulations 2005: Consignment Note		Jim Wise (UK) 01454 711111 CONSIGNEE'S COPY					
(Delete as appropriate)							
PART A: Notification details							
1. Consignment note code: 1100107021		4. The waste will be taken to (name, address and postcode): <i>Jim Wise Demolition Ltd</i> <i>One Burslem ST6 2BU</i>					
2. The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile): <i>former Great Village Milton</i> <i>OL16 3TW</i>		5. The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):					
3. Previous code (where applicable): 							
PART B: Description of the waste							
1. The process giving rise to the waste(s) was: <i>Removal</i>		2. SIC for the process giving rise to the waste: 170001					
3. WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)							
Description of waste	List of wastes (EWC code(s) digit)	Quantity (kg)	The chemical/physical components in the waste and their concentrations are		Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
			Component	Concentration (% or mg/kg)			
1. <i>bricks</i>	<i>170205</i>	<i>115kg</i>	<i>Bricks</i>	<i>100%</i>	<i>Solid</i>	<i>Xn</i>	
2. <i>bricks</i>	<i>170205</i>	<i>115kg</i>	<i>Bricks</i>	<i>100%</i>	<i>Solid</i>	<i>Xn</i>	
EWC code	UN identification number	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements		
<i>170205</i>	<i>2533</i>	<i>Bricks</i>	<i>9</i>	<i>I</i>			
PART C: Carrier's certificate			PART D: Consignor's certificate				
If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here: ☐			I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and is not affected by the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.				
I certify that I have completed the consignment and that the details in A2, A4 and B3 are correct and I have been advised of any specific handling requirements.			I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.				
Where this note comprises part of a multiple collection the round number and collection number are: 1			1. Consignor name: <i>Jim Wise Demolition</i>				
1. Carrier name: <i>David Weston</i> On behalf of (name, address, postcode, telephone, e-mail, facsimile): <i>Jim Wise Demolition</i>			On behalf of (name, address, postcode, telephone, e-mail, facsimile): <i>Jim Wise Demolition</i>				
2. Carrier registration no./reason for exemption: <i>Not applicable</i>							
3. Vehicle registration no. (or code of transport, if not road): <i>PL02 010</i>							
Signature: <i>[Signature]</i> Date: 11/02/2012 Time: 14:33			Signature: <i>[Signature]</i> Date: 11/02/2012 Time: 14:33				
PART E: Consignor's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)							
Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted (kg)	Waste management operation (R or D code)				
<i>170205</i>	<i>115kg</i>	<i>Accepted</i>	<i>D15</i>				
<i>170205</i>	<i>115kg</i>	<i>Accepted</i>	<i>D15</i>				
1. I received this waste at the address given in A4 on: Date: 11/02/2012 Time: 14:33							
2. Vehicle registration no. (or code of transport) if not road: <i>NLL1 EAM</i>		Name: <i>Tim Griffiths</i> On behalf of (name, address, postcode, telephone, e-mail, facsimile): <i>Jim Wise Demolition Ltd</i> <i>One Burslem ST6 2BU</i>					
3. Where waste is rejected please provide details:							
I certify that waste permits/waste operation number: EAD1CB3003XK1A001							
I authorize the management of the waste described in B at the address given in A4.							
Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments exceeds the collection limit.							
3		Date: 11/02/2012 Time: 14:33					

The Hazardous Waste Regulations 2005: OFF SITE 9-30

Consignment Note

11250

WATLING
WASTE SERVICES

PART A Notification details

- 1 Consignment note code: **1 MWLS / 33492**
- 2 The waste described below is to be removed from (name, address, postcode, telephone, e-mail, facsimile):
Former Soccer Village, Wildhouse Lane, Milnrow, OL16 3TW
- 3 The waste will be taken to (name, address and postcode):
Veolia, Coarput Lane, Rugby CV23 9HH
- 4 The waste producer was (if different from 2) (name, address, postcode, telephone, e-mail, facsimile):
Jim Wise Demolition Limited, Hot Lane, Burslem, Stoke on Trent, Staffordshire, ST6 2BN, 01782 790576

PART B Description of the waste

If continuation sheet used, tick here ☐

- 1 The process giving rise to the waste(s) was: **Removal**
- 2 SIC (2007) for the process giving rise to the waste: **3800**
- 3 WASTE DETAILS (where more than one waste type is collected all of the information given below must be completed for each EWC identified)

Description of waste	List of wastes (EWC code)(6 digits)	Quantity (kg)	The chemical/biological components in the waste and their concentrations are:		Physical form (gas, liquid, solid, powder, sludge or mixed)	Hazard code(s)	Container type, number and size
			Component	Concentration (% or mg/kg)			
Bonded Asbestos	170605		Bonded Asbestos	>1%	Solid	HP7	40 Open

The information given below is to be completed for each EWC identified

EWC code	UN identification number(s)	Proper shipping name(s)	UN class(es)	Packing group(s)	Special handling requirements
170605	Un2590	Waste Asbestos Chrysotile	9	III	Manual Handling

PART C Carrier's certificate

(If more than one carrier is used, please attach schedule for subsequent carriers. If schedule of carriers is attached tick here. ☐)

I certify that I today collected the consignment and that the details in A2, A3 and B3 are correct and I have been advised of any specific handling requirements.

Where this note comprises part of a multiple collection the round number and collection number are:

/

- 1 Carrier name: **ARK Environmental Services Ltd**
On behalf of (name, address, postcode, telephone, e-mail, facsimile):
Gatehouse Trading Este, Lichfield Road WS8 6JZ
- 2 Carrier registration no./reason for exemption:
CB0152761
- 3 Vehicle registration no. (or mode of transport, if not road): **BU18 OFG**

Signature **P. BALEE**

Date **20/12/2021** Time **0930**

PART D Consignor's certificate

I certify that the information in A, B and C has been completed and is correct, that the carrier is registered or exempt and was advised of the appropriate precautionary measures. All of the waste is packaged and labelled correctly and the carrier has been advised of any special handling requirements.

I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

- 1 Consignor name: **P. BALEE**
On behalf of (name, address, postcode, telephone, e-mail, facsimile):

Jim Wise Demolition Limited, Hot Lane, Burslem, Stoke on Trent, Staffordshire, ST6 2BN, 01782 790576

Signature **P. BALEE**

Date **20/12/2021** Time **0930**

PART E Consignee's certificate (where more than one waste type is collected all of the information given below must be completed for each EWC)

Individual EWC code(s) received	Quantity of each EWC code received (kg)	EWC code accepted/rejected	Waste management operation (R or D code)
170605	12120	A	DOS

- 1 I received this waste at the address given in A3 on: Date **20/12/21** Time **1413**

- 2 Vehicle registration no. (or mode of transport if not road): **BU18 OFG**

- 3 Where waste is rejected please provide details:

Name: **E. ROSS**
On behalf of (name, address, postcode, telephone, e-mail, facsimile):

I certify that waste permit/exempt waste operation number:

BU2381IE

authorises the management of the waste described in B at the address given in A3.

Where the consignment forms part of a multiple collection, as identified in Part C, I certify that the total number of consignments forming the collection are:

AS A3

Signature **U**

Date **20/12/21** Time **1413**



Disposal Advice / Weighbridge Ticket / Gate

Weighbridge Ticket: LGL-W33769

Load Ref:

Seal Identifier:

Container Identifier:

ConsignmentNo: JIMWIS/33492

Carrier: Ark Environmental Services Ltd

Veolia Order No : LHON42563_60981

Ling Hall Landfill
Coalpit Lane
Lawford Heath
Rugby
United Kingdom CV23 9HH
Tel: 01788 522709
Vat Reg :
Permit No: BU2381IE

Customer	Haulier/Carrier	Disposal/Destination Address
Ark Environmental Services Ltd Ark Environmental Services Ltd Unit 1B Gatehouse Trading Estate Lichfield Road Brownhills WS8 6JZ Contact Name: SIC: 38110 Waste Management Licence No:	ARK Environmental Services Ltd Unit 1b Gatehouse Trading Est Lichfield Road WS8 6JZ Waste Carrier No: CBDU52761 SIC:	Ling Hall Landfill Coalpit Lane Lawford Heath Rugby CV23 9HH Permit No: BU2381IE/V010 SIC: 38210
Date In:20/12/2021 Date Out:20/12/2021 Vehicle Reg:BU18OFG	Time In:14:11 Time Out:14:28 Container Type & Size:	Sequence Number:0000000 Sequence Number:0000000 Service:Input
EWC Code & Waste Descriptions: 170605 / Asbestos - bonded (170605*)	Quantity: Gross Weight: 29.8600	Tare Weight: 17.7400 Net Weight: 12.1200

Signed on behalf of Veolia

EMMA ROSSER

Print Name

Signed on behalf of Customer/Haulier

PHIL BRALEE

Print Name