APPENDIX 1

Site Location Plan

TRUSSELL WAY
CAWSTON GRANGE DRIVE
DURRELL DRIVE
CALVESTONE RD
GOLD AVE
KALFS DRIVE
COVENTRY ROAD (B4642)
114m
Co Const bdy
LIME TREE AVENUE
CAWSTON LANE
THURLASTON DRIVE
CAWSTON LANE

N

0 50 100 metres

Site Boundary: **19.39ha**

Land under the control of applicant

Rev	Date	By	Description
C	13.06.22	SM	Site boundary updated to include highways works, land under control of applicant included
B	23.05.22	SM	Site boundary amended
A	19.05.22	SM	Link between the two parcels included

CSA environmental

Dixies Barns, High Street,
Ashwell, Hertfordshire SG7 5NT

t 01462 743647
e ashwell@csaenvironmental.co.uk
w csaenvironmental.co.uk

Project	Coventry Road, Cawston, Phase 2
Title	Site Location Plan
Client	L & Q Estates

Scale	1:2500 @ A1	Drawn	SM
Date	May 2022	Checked	RR
Drawing No.	CSA/5436/102	Rev	C

APPENDIX 2

Study Area Designations

CSA environmental
Dixies Barns, High Street,
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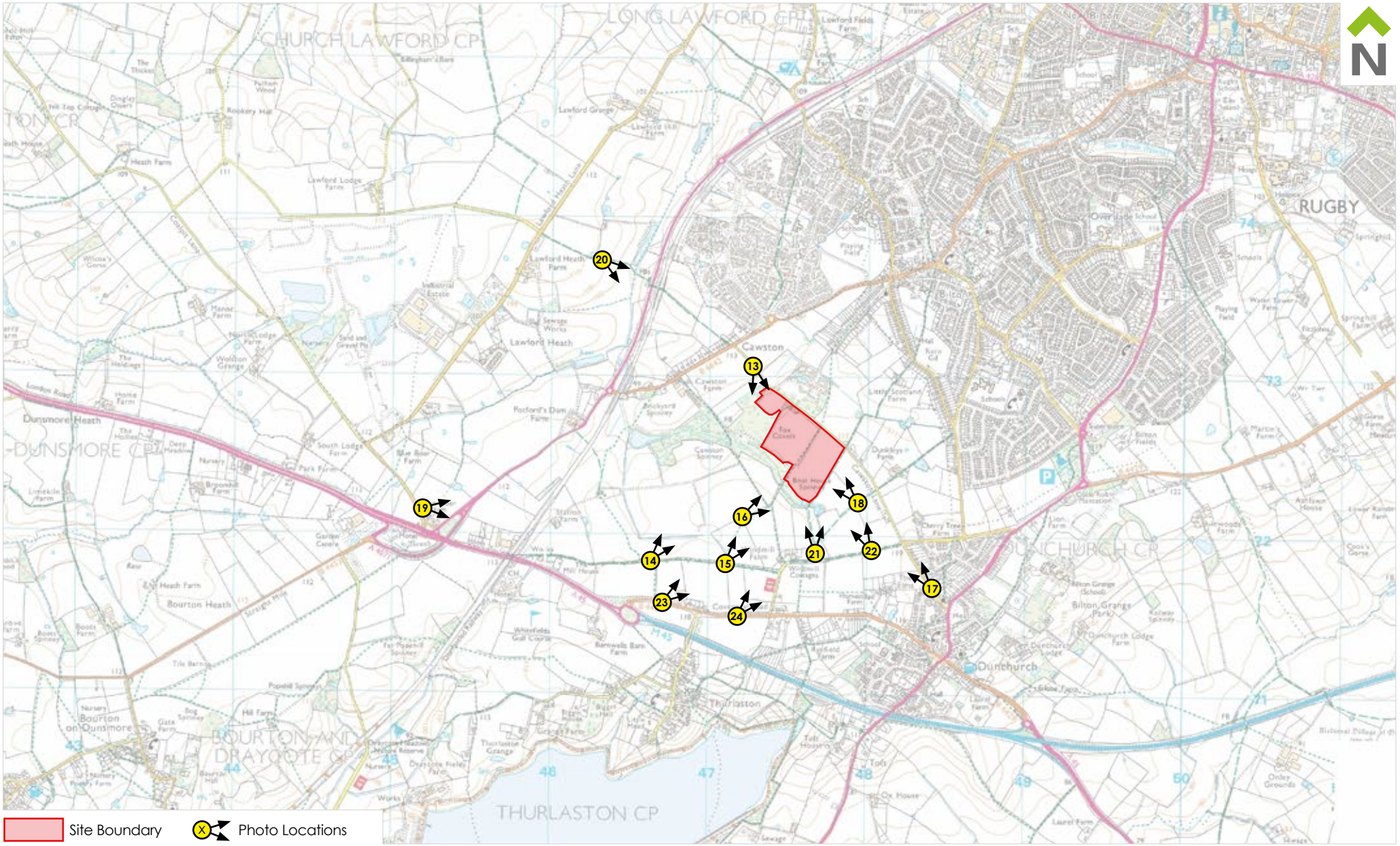
Project	Coventry Road, Cawston, Phase 2	Date May 2022	Drawing No. CSA/5436/105
Drawing Title	Designations and Local Policy Plan	Scale @ A4 NTS	Rev -
Client	L & Q Estates	Drawn FC	Checked CA

APPENDIX 3

Site Location Plan with Viewpoints



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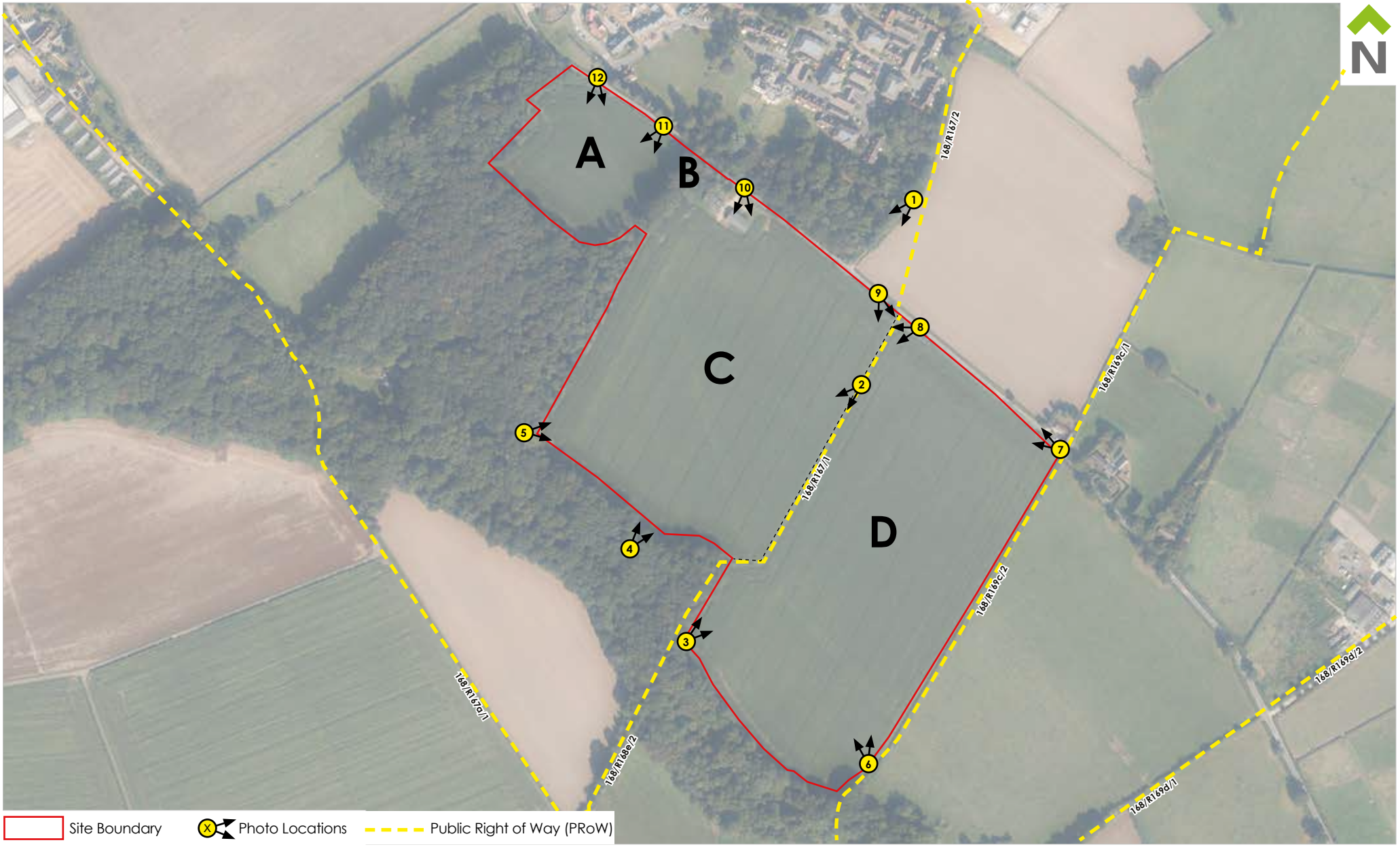
Project	Coventry Road, Cawston, Phase 2	Date May 2022	Drawing No. CSA/5436/104
Drawing Title	Site Location with Viewpoints	Scale @ A4 NTS	Rev -
Client	L & Q Estates	Drawn FC	Checked CA

APPENDIX 4

Aerial Photograph



CSA environmental
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w csaenvironmental.co.uk

Project	Coventry Road, Cawston, Phase 2	Date May 2022	Drawing No. CSA/5436/103
Drawing Title	Aerial Photograph	Scale @ A4 NTS	Rev -
Client	L & Q Estates	Drawn FC	Checked CA

APPENDIX 5

Site Investigation Factual Report

wardell-armstrong.com

ENERGY AND CLIMATE CHANGE
ENVIRONMENT AND SUSTAINABILITY
INFRASTRUCTURE AND UTILITIES
LAND AND PROPERTY
MINING AND MINERAL PROCESSING
MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

L & Q ESTATES LIMITED

LAND SOUTH OF CAWSTON LANE, SOUTH RUGBY

SITE INVESTIGATION FACTUAL REPORT

MARCH 2022

Wardell Armstrong
2 Devon Way, Longbridge, Birmingham, West Midlands, B31 2TS, United Kingdom
Telephone: +44 (0)121 580 0909 www.wardell-armstrong.com

DATE ISSUED:	**MARCH 2022**
JOB NUMBER:	**BM11254**
REPORT NUMBER:	**001**
VERSION:	**V1.0**
STATUS:	**FINAL**

L & Q ESTATES LIMITED

LAND SOUTH OF CAWSTON LANE, SOUTH RUGBY

SITE INVESTIGATION FACTUAL REPORT

MARCH 2022

PREPARED BY:

Fay Lawrence Geologist

APPROVED BY:

Samantha Nevitt Technical Director

CONTENTS **PAGE NUMBER**

APPENDICES

DRAWINGS

Drawing No.	Title	Scale
BM11254-001	Site Location Plan	1:10,000
BM11254-002	Site Investigation Plan	1:2,500
BM11254-003	Indicative Site Plan	1:2,500

1. INTRODUCTION

1.1 This report has been prepared in accordance with instructions issued on behalf of L&Q Estates Limited. These instructions follow Wardell Armstrong's original proposals for undertaking site investigation works which were outlined in a letter dated 12th January 2022.

1.2 The site is located to south of Cawston Lane in Rugby, Warwickshire. The general site location is shown on Drawing Number BM11254-001 with the site investigation positions shown on Drawing Number BM11254-002.

1.3 This factual report outlines the results of site investigation works carried out, the ground conditions encountered and the testing undertaken to establish, in broad terms, the geochemical and geotechnical setting of the site. The scope of the intrusive ground investigation works has been designed to provide information for the design of the proposed residential development and to inform the foundation and civil engineering design of the proposed development and associated infrastructure.

1.4 The ground investigation at the site was designed to provide good general coverage of the geotechnical and geochemical nature of the sub-surface materials, and included a contaminated land assessment, foundation assessment and soakaway drainage assessment.

2. SITE DESCRIPTION AND SETTING

2.1 The proposed development area is currently undeveloped agricultural land, located directly south of Cawston Lane approximately 3.5km southwest of Rugby town centre. The site is centred at National Grid Reference 447083, 273010. The site measures approximately 19.3 hectares in area. Development considerations for the site include residential buildings, a primary school, and associated infrastructure.

2.2 The site area is situated south of Cawston Lane and Coventry Road. The site is bound to the north by residential developments off Coventry Road, and bound to the south by woodland and agricultural land. Commercial Premises, a track, and open fields are seen to the west, with a housing development currently under construction at the time of writing towards the east of the Site. A small unnamed watercourse flows northeast-southwest through the south of the site, with an easement either side. Access onto the site is off Cawston Road at the northeast corner of the site.

Geology

Superficial Deposits

2.3 The published geological mapping for the area based on the BGS website and Envirocheck Report indicates that the site has two superficial units present. The Dunsmore Gravel is present in the northwest of the site and in the southern boundary. This unit is described as flinty gravel with lenses of coarse sand. The Bosworth Clay Member is present in the Southeast of the Site and underlies the Dunsmore Gravel. This unit is described as clay and silt.

Bedrock Geology

2.4 The published geological mapping indicates that the site is underlain by the Charmouth Mudstone Formation, part of the Lias Group. This formation is described as laminated shales and mudstones. Geological mapping shows there are no geological faults crossing or in the vicinity of the site. There is a moderate hazard for compressible ground stability hazards on site.

3. SITE INVESTIGATION WORKS

3.1 The Site investigation works were designed in general accordance with current UK guidance and undertaken between 24th and 28th January 2022. The scope and rationale are summarised in Table 3.1.

Table 3.1: Rationale of Site Investigation Works

Exploratory Hole Type	Exploratory Hole Ref.	Exploratory Hole Depth (m bgl)	Rationale
Cable Percussive Boreholes	CBB01-CBB02	10.45-12.45	• Confirm the ground and groundwater conditions; • Collect soil samples for chemical & geotechnical testing;
Trial pits	TP01-TP26	3.40– 4.50	• Confirm the shallow ground and groundwater conditions; • Collect soil samples for chemical & geotechnical testing. • Undertake in-situ testing
Window Sample Boreholes	WS01-WS18	4.50- 5.00	• Confirm the shallow ground and groundwater conditions; • Collect soil samples for chemical & geotechnical testing; • Undertake in-situ testing.
Soakaway / permeability tests	SA01-SA07	-	• Determine typical permeability characteristics of the ground conditions.
Standpipe Installation	WS01, WS04, WS08, WS11, WS14, WS16	2.80-5.00	• Monitor the gas and groundwater conditions on four occasions over a one-month period
In-situ CBR tests	CBR01-CBR08	0.50-0.55	• Determine the strength of the surrounding roads and pavements; • Determine CBR Values of the site for pavement design.

3.2 The site investigation works were undertaken by Ground Investigation & Piling Ltd (GIP) under direct supervision of Wardell Armstrong engineers. The approximate location of all investigation points in the site investigation are shown on Drawing BM11254-002.

3.3 Exploratory borehole arisings were logged on site by qualified engineers. All exploratory holes were logged in accordance with the requirements of BS5930:2015

including recording observed visual and olfactory indications of contamination. Exploratory hole logs are provided in Appendix 1.

Monitoring Well Installations

3.4 Ground gas and groundwater monitoring standpipes were installed within 6 No. window sample boreholes (WS01, WS04, WS08, WS11, WS14 and WS16).

3.5 The monitoring wells were primarily designed to assess the potential for ground gas in the boreholes and to collect groundwater for further testing where possible.

3.6 Gas and groundwater has been monitored four times over a one-month period following the completion of the ground investigation works on 3rd February, 9th February, 21st February and 2nd March. The monitoring data sheets are attached as Appendix 2.

In-Situ Testing

3.7 Standard Penetration Tests (SPTs) were carried out at appropriate intervals within all of the window sampling and cable percussive boreholes. The results are recorded on the borehole logs attached as Appendix 1.

3.8 Soakaway tests were undertaken in 7 trial pit holes (SA01-SA07) and are attached within the GIP Factual Report as Appendix 3.

3.9 California Bearing Ratio (CBR) Tests were carried out at 0.50–0.55m at 8 locations throughout the site. The results are attached as Appendix 4.

Laboratory Analysis

3.10 Representative soil samples were selected for laboratory geotechnical and geochemical testing, based on field observations, to inform the proposed works.

3.11 Selected environmental soil samples were placed in laboratory provided containers and stored in cool boxes prior to being transported to the nominated laboratory under the laboratory's chain of custody documentation. The laboratory selected by Wardell Armstrong for chemical analysis was Envirolab (UKAS and MCERTS accredited) and for geotechnical testing were GIP (UKAS accredited).

Geotechnical Testing

3.12 The following geotechnical tests were carried out:

- 12 Atterberg Limit tests;
- 14 Sieve analysis tests;
- 7 compaction tests (2.5kg);
- 26 Natural Water Content tests;
- 1 Undrained Triaxial Compression test;
- 2 pH tests;
- 2 Water soluble sulphate tests.

3.13 The results of the geotechnical testing is attached as Appendix 5.

3.14 Testing has also been scheduled to determine the pH and sulphate levels with regard to determining the concrete conditions in accordance with BRE Special Digest 1. The results of this testing are included within the soils chemical testing results which are presented in Appendix 5.

Geochemical Testing

3.15 Selected soil and water samples were tested for a suite of commonly encountered metals and non-metal compounds identified as potential contaminants of concern by the preliminary CSM which are considered to be detrimental to the environment or potentially harmful to human health. Samples were tested using a Greenfield and Brownfield suite, which test for pH, Sulphate (Water soluble and acid soluble) and Total Sulphur. A number of samples were also tested for organic compounds and hydrocarbons. The results of the geochemical testing are presented in Appendix 6.

4. SITE INVESTIGATION RECORDS

4.1 A summary of the ground conditions encountered during the site investigation works is presented in Table 4.1, with detailed information presented in the exploratory hole logs included in Appendix 1.

Table 4.1: Encountered Ground Conditions

Stratum	Depth to top of strata (m bgl)	Thickness (m)		Description
		Min	Max	
TOPSOIL	0.00	0.20	0.60	Dark brown orangish brown fibrous gravelly sand. Sand is fine to medium. Gravel is rounded to subangular fine to medium consisting of chalk, flint and mudstone.
MADE GROUND	0.50	1.70	1.70	Wet dark grey angular to subrounded coarse gravel. Gravel is flint and sandstone with cobbles of flint and sandstone. Slight organic smell.
SUPERFICIAL DEPOSITS (Dunsmore Gravel and Bosworth Clay)	0.20 - 2.20	NP	NP	Dunsmore Gravel recovered as loose to dense light brown orangish brown gravelly clayey SAND and sandy GRAVEL. Gravel is angular to rounded medium to coarse of chalk, flint and quartz. Bosworth Clay recovered as soft to stiff light brown, grey silty CLAY with lenses of clayey sand.

NP – Base of deposit not proven

Geotechnical Results

4.2 Geotechnical laboratory results are presented in Appendix 5. Insitu geotechnical results are presented on the investigation logs in Appendix 1.

Gas and Groundwater Data

4.3 Gas and groundwater monitoring standpipes were installed in 6 of the windowless sample boreholes. These have been monitored on four (4 No.) occasions between 3rd February and 2nd March 2022. The results of the Gas and Groundwater monitoring data is presented in Appendix 2.

Chemical Data

4.4 Geochemical laboratory results are presented in Appendix 6.

5. CONCLUSIONS

5.1 Site investigation works have been undertaken at the site to provide a broad understanding of the geotechnical, geological, geochemical and hydrogeological setting of the site. The results from this work also provide basic ground engineering related information for the design of development works planned to be carried out at the site.

5.2 Windowless sample boreholes, cable percussive boreholes, trial pits, soakaways tests and CBR tests were undertaken to enable detailed investigation of the sub-surface ground conditions at the site. Selected samples from the investigation positions have been tested for a range of geotechnical and geochemical analyses to inform, so far as possible, the proposed development of the site.

APPENDICES

Appendix 1
Exploratory Hole Logs

GIP Ltd. Ground Investigation & Piling Limited
Building 62, Third Avenue
The Pensnett Estate
Kingswinford
DY6 7XT
Tel: 01902 459558
Email: info@gipuk.com
www.gipuk.com

Cable Percussion Borehole Log

Borehole:	CPB01
Sheet 1 of 2	
Logged By:	CJB
Checked By:	ML
Drilled By:	EB

Project Number: 30925
Project Name: Cawston Lane, South Rugby
Client: Wardell Armstrong LLP
Engineer:
Date Drilled: 25/01/2022
Diameter: 150mm
Depth Cased: 10.00m

National Grid: E: 447187.82 N: 273027.88
Ground Level: +113.07mAOD
Final Depth: 10.45m

Description of Strata	Legend	Depth (m bgl)	Level (mAD)	Water Level (m bgl)	Samples/Tests Depth (m bgl)	Samples/Tests Type	SPT 'N' Value [U100 Blows] Hand Vane	Installation /Backfill
TOPSOIL: Brown clayey gravelly SAND with some rootlets. Gravel is sub-angular to sub-rounded quartz and chert.					0.10	B		
		0.40	112.67		0.40	B		
Dense (from 1.20m) brown and light brown clayey gravelly SAND with many clay pockets and occasional rootlets. Gravel is sub-angular to sub-rounded chert. (Superficial Deposits).					0.90	B		
					1.20	S	38 (4,7,7,9,11,11)	
					1.20	B		
		2.00	111.07		2.00	S	15 (4,3,4,4,3,4)	
Medium dense very clayey slightly gravelly SAND with many clay pockets. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Deposits).				▼ 2.20	2.00	B		
				▽ 2.50				
		3.00	110.07		3.00	S	2 (1,0,1,0,1,0)	
Soft and in parts very soft light brown and brown slightly gravelly silty CLAY. Gravel is sub-angular chert. (Superficial Deposits).					3.00	B		
		4.00	109.07		4.00	S	3 (1,0,1,0,1,1)	
Soft and in parts very soft with occasional firm pockets reddish brown slightly sandy slightly gravelly CLAY. Gravel is sub-angular to sub-rounded siltstone, mudstone, sandstone, chert and quartz. (Superficial Deposits).					4.00	B		
					4.50	B		
		5.00	108.07		5.00	U	[48]	
Stiff and in parts very stiff reddish brown slightly sandy slightly gravelly CLAY with occasional sand pockets. Gravel is sub-angular to sub-rounded mudstone, quartz, siltstone and sandstone. (Superficial Deposits).					5.45	D		
					6.00	S	30 (3,5,6,6,8,10)	
					6.00	B		
				▼ 6.50				
				▽ 7.00	7.00	B		
					7.50	S	34 (3,5,8,8,8,10)	
					7.50	B		
		8.50	104.57		8.50	B		
Medium dense (from 9.00m) brown clayey and in parts very clayey slightly gravelly SAND with some clay bands. Gravel is sub-angular to sub-rounded mudstone and sandstone. (Superficial Deposits).					9.00	S	27 (2,4,4,7,7,9)	
					9.00	B		
					10.00	S	40 (5,5,8,9,11,12)	

Continued on Next Sheet

Samples/Tests

U	Undisturbed
D	Disturbed
B	Bulk
W	Water
S/C	SPT/CPT
ES	Environmental Sample
HV	Hand Shear Vane
NR	No Recovery
▽	Water Strike
▼	Water Level

Other Information:

1. Hand excavated service avoidance pit dug to 1.20m.
2. Groundwater strike encountered at 2.50m rising to 2.20m after 20 minutes observation.
3. Second groundwater strike encountered at 7.00m rising to 6.50m after 20 minutes observation.
4. Instructed to terminate borehole at 10.45m by Wardell Armstrong.
5. Borehole backfilled with arisings on completion.

GIP Ltd. Ground Investigation & Piling Limited
Building 62, Third Avenue
The Pensnett Estate
Kingswinford
DY6 7XT
Tel: 01902 459558
Email: info@gipuk.com
www.gipuk.com

Cable Percussion Borehole Log

Borehole:	CPB01
Sheet 2 of 2	
Logged By:	CJB
Checked By:	ML
Drilled By:	EB

Project Number: 30925
Project Name: Cawston Lane, South Rugby
Client: Wardell Armstrong LLP
Engineer:
Date Drilled: 25/01/2022
Diameter: 150mm
Depth Cased: 10.00m

National Grid: E: 447187.82 N: 273027.88
Ground Level: +113.07mAOD
Final Depth: 10.45m

Description of Strata	Legend	Depth (m bgl)	Level (mAD)	Water Level (m bgl)	Samples/Tests Depth (m bgl)	Samples/Tests Type	SPT 'N' Value [U100 Blows] Hand Vane	Installation /Backfill
Medium dense (from 9.00m) brown clayey and in parts very clayey slightly gravelly SAND with some clay bands. Gravel is sub-angular to sub-rounded mudstone and sandstone. (Superficial Deposits). Becoming dense.		10.45	102.62					
Borehole Complete at 10.45m								

Samples/Tests
- U Undisturbed
- D Disturbed
- B Bulk
- W Water
- S/C SPT/CPT
- ES Environmental Sample
- HV Hand Shear Vane
- NR No Recovery
- Water Strike
- Water Level

Other Information:
1. Hand excavated service avoidance pit dug to 1.20m.
2. Groundwater strike encountered at 2.50m rising to 2.20m after 20 minutes observation.
3. Second groundwater strike encountered at 7.00m rising to 6.50m after 20 minutes observation.
4. Instructed to terminate borehole at 10.45m by Wardell Armstrong.
5. Borehole backfilled with arisings on completion.

Cable Percussion Borehole Log

Borehole:	CPB02
Sheet 1 of 2	
Logged By:	CJB
Checked By:	ML
Drilled By:	EB

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Building 62, Third Avenue
The Pensnett Estate
Kingswinford
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Tel: 01902 459558
Email: info@gipuk.com
www.gipuk.com

Project Number: 30925
Project Name: Cawston Lane, South Rugby
Client: Wardell Armstrong LLP
Engineer:
Date Drilled: 24/01/2022
Diameter: 150mm
Depth Cased: 12.00m

National Grid: E: 447243.02 N: 273041.01
Ground Level: +112.81mAOD
Final Depth: 12.45m

Description of Strata	Legend	Depth (m bgl)	Level (mAD)	Water Level (m bgl)	Samples/Tests Depth (m bgl)	Samples/Tests Type	SPT 'N' Value [U100 Blows] Hand Vane	Installation /Backfill
TOPSOIL: Brown clayey gravelly SAND with some rootlets. Gravel is sub-angular to sub-rounded quartz and chert.					0.10	B		
		0.40	112.41		0.40	B		
Orange brown silty gravelly SAND. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Deposits).								
		1.20	111.61		1.20	S	23 (3,3,4,5,6,8)	
					1.20	B		
Firm and in parts stiff orange brown, brown and light brown sandy slightly gravelly CLAY. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Deposits).				1.95				
					2.00	S	27 (4,4,7,7,6,7)	
					2.00	B		
				2.50				
		3.00	109.81		3.00	S	5 (1,1,2,1,1,1)	
					3.00	B		
Loose brown and orange brown clayey gravelly SAND. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Depsoits).								
		4.00	108.81		4.00	B	6 (1,0,1,0,3,2)	
					4.00	S		
Loose brown clayey very gravelly SAND. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Deposits).								
		5.00	107.81		5.00	S	2 (1,0,0,1,0,1)	
					5.00	B		
Very soft brown slightly gravelly silty CLAY. Gravel is sub-angular to sub-rounded quartz and chert. (Superficial Deposits).								
		5.80	107.01		5.80	D		
					6.00	S	31 (3,3,5,7,7,12)	
					6.00	B		
Stiff reddish brown slightly sandy slightly gravelly CLAY. Gravel is sub-angular to sub-rounded quartz, mudstone, sandstone and siltstone. (Superficial Deposits).				6.30				
		6.50	106.31		6.50	B		
Stiff and in parts very stiff with occasional firm pockets reddish brown sandy and in parts slightly gravelly silty CLAY. (Superficial Deposits).				7.00				
					7.50	S	30 (3,5,5,7,8,10)	
					7.50	B		
		9.00	103.81		9.00	S	27 (3,3,5,6,8,8)	
Medium dense reddish brown silty SAND with occasional clay pockets. (Superficial Deposits).					9.00	B		

Continued on Next Sheet

Samples/Tests

U	Undisturbed
D	Disturbed
B	Bulk
W	Water
S/C	SPT/CPT
ES	Environmental Sample
HV	Hand Shear Vane
NR	No Recovery
	Water Strike
	Water Level

Other Information:

1. Hand excavated service avoidance pit dug to 1.20m.
2. Groundwater strike encountered at 2.50m rising to 1.95m after 20 minutes observation.
3. Second groundwater strike encountered at 7.00m rising to 6.30m after 20 minutes observation.
4. Instructed to terminate borehole at 12.45m by Wardell Armstrong.
5. Borehole backfilled with arisings on completion.

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Tel: 01902 459558
Email: info@gipuk.com
www.gipuk.com

Cable Percussion Borehole Log

Borehole:	CPB02
Sheet 2 of 2	
Logged By:	CJB
Checked By:	ML
Drilled By:	EB

Project Number: 30925
Project Name: Cawston Lane, South Rugby
Client: Wardell Armstrong LLP
Engineer:
Date Drilled: 24/01/2022
Diameter: 150mm
Depth Cased: 12.00m

National Grid: E: 447243.02 N: 273041.01
Ground Level: +112.81mAOD
Final Depth: 12.45m

Description of Strata	Legend	Depth (m bgl)	Level (mAD)	Water Level (m bgl)	Samples/Tests Depth (m bgl)	Samples/Tests Type	SPT 'N' Value [U100 Blows] Hand Vane	Installation /Backfill
Medium dense reddish brown silty SAND with occasional clay pockets. (Superficial Deposits).					10.50	S	26 (2,4,4,6,7,9)	
					10.50	B		
Stiff and in parts very stiff reddish brown silty CLAY. (Superficial Deposits).		12.00	100.81		12.00	S	35 (4,6,7,8,10,10)	
Borehole Complete at 12.45m		12.45	100.36					

Samples/Tests
- U Undisturbed
- D Disturbed
- B Bulk
- W Water
- S/C SPT/CPT
- ES Environmental Sample
- HV Hand Shear Vane
- NR No Recovery
- Water Strike
- Water Level

Document 4.144

Other Information:
1. Hand excavated service avoidance pit dug to 1.20m.
2. Groundwater strike encountered at 2.50m rising to 1.95m after 20 minutes observation.
3. Second groundwater strike encountered at 7.00m rising to 6.30m after 20 minutes observation.
4. Instructed to terminate borehole at 12.45m by Wardell Armstrong.
5. Borehole backfilled with arisings on completion.

Hand Auger Log

BOREHOLE REFERENCE
HA01
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447142.00 N272766.00
Project No. : BM11254	Drilling Equipment: Hand Auger	Level : 107.21m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	%	2.00m

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
		0.30	ES		0.30	106.91		Orangish brown gravelly medium to coarse SAND. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Dunsmore Gravel).	
		0.50 – 1.00	B						1
	▽				1.30	105.91		Damp firm reddish brown sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.3m bgl

Log printed on 17/03/2022 at 14:03

Hand Auger Log

BOREHOLE REFERENCE
HA01
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447142.00 N272766.00
Project No. : BM11254	Drilling Equipment: Hand Auger	Level : 107.21m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	%	2.00m

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Sample and In Situ Testing: Type	Sample and In Situ Testing: Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					2.00	105.21		Damp firm reddish brown sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	2
								End of Borehole at 2.00m	3

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.3m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP01
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446930.02 N273030.04
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 112.86m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.25	ES		0.30	112.56		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.70	B					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		1.10	ES						
	▽				3.30	109.56			2
								Damp orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
		3.70	HSV	27kPa	3.70	109.16		Damp soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		3.80	B						
		4.00	HSV	50kPa	4.00	108.86		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 3.3m bgl
HSV - Small Vane Used.
HSV @ 3.75m - 24,26,30 = 27kPa
HSV @ 4m - 52,51,48 = 50kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP02
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446975.95 N273055.96
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 3.40m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.08m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.15	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.30	112.78			
		0.70	ES					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		1.50	B						2
	▽				2.70	110.38		Damp dark brown slightly clayey sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
		3.40	B		3.40	109.68		Base of Excavation at 3.40m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP03
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447034.97 N273093.67
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 3.80m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.22m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	112.82		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		1.80	ES					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting of flint, sandstone and mudstone (Superficial - Dunsmore Gravel)	1
		2.00	B						2
		2.40	ES					*2.30m - 2.60m : Occasional small pockets of black organic matter.*	
	▽				2.60	110.62		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
					3.80	109.42		Base of Excavation at 3.80m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.6m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP04
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447075.15 N273102.55
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 3.70m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 113.42m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.40	ES		0.35	113.07		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.50	B					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded medium to coarse consisting flint. (Superficial - Dunsmore Gravel).	1
		1.20	ES						
	▽				2.70	110.72		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	2
								3.50m - 3.60m : Increase clay content.	3
					3.70	109.72		*3.60m - 3.70m : Band of angular fine Gravel consiting of flint.*	
								Base of Excavation at 3.70m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP05
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447128.96 N273146.96
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.51m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.25	ES		0.30	113.21		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		1.20	B					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		2.00	ES						2
	▽				2.60	110.91		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
		3.80	B						
					4.00	109.51		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.6m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP06
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446946.92 N272990.04
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN — Level: 112.95m AoD — Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	112.55		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.60	ES					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	
		0.90	B						1
								1.10m - 1.50m : Occasional small pockets of black organic matter.	
		1.40	ES						
	▽								2
								2.70m : Recovered as Wet.	
					3.10	109.85		Wet brown very sandy angular to rounded fine to medium GRAVEL consisting of flint and sandstone. Sand is fine to medium. (Superficial - Dunsmore Gravel).	3
		3.90	HSV	39kPa	3.80	109.15		Wet firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
					4.00	108.95		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.7m bgl. HSV - Small Vane Used. HSV @ 3.9m - 36,40,42 = 39kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP07
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447007.99 N273005.98
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.16m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.20	ES		0.30	112.86		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
								Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		2.00	ES						2
	▽	2.60	B		2.50	110.66		Wet brown very sandy angular to rounded fine to medium GRAVEL consisting of flint and sandstone. Sand is fine to medium. (Superficial - Dunsmore Gravel).	3
		3.40	HSV	25kPa	3.20	109.96		Wet soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		4.00	HSV	45kPa	4.00	109.16		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.5m bgl. HSV - Small Vane Used. HSV @ 3.4m - 24,26,26 = 25kPa. HSV @ 4m - 54,42,38 = 45kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP08
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447068.02 N273042.13
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN — Level: 113.52m AoD — Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.30	ES		0.30	113.22		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
								Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
	▽	2.00	B						2
					2.20	111.32		Wet brown very sandy angular to rounded fine to medium GRAVEL consisting of flint and sandstone. Sand is fine to medium. (Superficial - Dunsmore Gravel).	
		2.50	ES						3
					3.30	110.22		Wet soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		3.80	HSV	39kPa					
		4.00	B		4.00	109.52		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.2m bgl. HSV - Small Vane Used. HSV @ 3.8m - 44,32,41 = 39kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP09
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447138.03 N273084.94
Project No. : BM11254	Excavator: JCB	Dimensions : m × m; Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.60m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.30	113.30		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		1.50	ES					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		1.70	B						
	▽								2
		3.10	ES		3.00	110.60		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
					4.00	109.60		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP10
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 24/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447189.16 N273115.94
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 3.70m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 113.62m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.10	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.30	113.32			
		0.80	ES					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	
		1.00	B						1
	▽								2
					2.70	110.92		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	
		3.30	B						3
					3.70	109.92		Base of Excavation at 3.70m	
									4

Trench Support and Comment

Pit Stability	Shoring Used	Remarks

Pumping Data

Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP11
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446952.88 N272927.04
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 112.23m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.20	ES		0.30	111.93		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					1.30	110.93		Medium reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		1.50	ES					Orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	2
		2.40	HSV	52kPa	2.30	109.93		Firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		2.60	B		2.50	109.73		Firm to stiff grey slightly silty CLAY. (Superficial - Bosworth Clay).	3
		3.50	HSV	81kPa					
					4.00	108.23		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

HSV - Small Vane Used.
HSV @ 2.4m - 38,65,52 = 52kPa
HSV @ 3.5m - 84,72,88 = 81kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP12
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446998.00 N272956.02
Project No. : BM11254	Excavator: JCB	Dimensions : m × m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 112.56m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.30	112.26		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.75	B					Reddish brown to orangish brown gravelly medium SAND with occasional pockets of CLAY. Gravel is angular to subrounded fine to medium consisting flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	1
		0.85	ES						
	▽				1.50	111.06		Damp orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	
		1.80	ES						2
					2.60	109.96		Damp soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		2.90	HSV	32kPa					3
					3.10	109.46		Damp stiff grey slightly silty CLAY. (Superficial - Bosworth Clay).	
		3.60	B						
		3.85	HSV	103kPa					
					4.00	108.56		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 1.5m bgl. HSV - Small Vane Used. HSV @ 2.9m - 25,32,38 = 32kPa. HSV @ 3.85m - 90,110,108 = 103kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP13
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447065.95 N272960.04
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 112.13m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.10	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.30	111.83		Reddish brown to orangish brown gravelly medium SAND. Gravel is angular to subrounded medium to coarse consisting flint. (Superficial - Dunsmore Gravel).	1
		1.20	ES						
		1.30	B						
	▽				1.70	110.43		Wet orangish brown very sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. (Superficial - Dunsmore Gravel).	2
					2.80	109.33		Wet soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		3.00	HSV	23kPa					3
					3.30	108.83		Wet soft to firm grey slightly silty CLAY. (Superficial - Bosworth Clay).	
		3.75	HSV	37kPa					
		3.90	B						
					4.00	108.13		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 1.7m bgl. HSV - Small Vane Used. HSV @ 3m - 18,22,28 = 23kPa. HSV @ 3.75m - 45,35,31 = 37kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP14
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447118.03 N272999.06
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 112.88m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	112.48		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.90	ES					Soft to firm brown clayey GRAVEL. Gravel is medium angular to rounded flint and mudstone. (Superficial - Dunsmore Gravel)	1
		1.05	B						
	▽				1.60	111.28			
		1.75	ES					Damp orangish brown very sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. (Superficial - Dunsmore Gravel). *1.70m - 1.80m : Cobble of Flint.*	2
					2.90	109.98		Damp soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	3
		3.40	HSV	27kPa					
		3.90	HSV	40kPa					
					4.00	108.88		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 1.6m bgl
HSV - Small Vane Used.
HSV @ 3.4m - 21,28,33 = 27kPa
HSV @ 3.9m - 40,42,38 = 40kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP15
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447188.98 N273045.00
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 113.37m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.25	ES		0.35	113.02		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		1.60	B					Reddish brown to orangish brown gravelly medium SAND. Gravel is angular to subrounded medium to coarse consisting flint. (Superficial - Dunsmore Gravel).	1
		2.05	ES						2
	▽				2.90	110.47		Wet orangish brown sandy angular to rounded fine to coarse GRAVEL consisting of flint, sandstone and mudstone. Sand is fine. (Superficial - Dunsmore Gravel).	3
		3.70 3.70	B HSV	31kPa	3.50	109.87		Wet soft to firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
					4.00	109.37		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.9m bgl
HSV - Small Vane Used.
HSV @ 3.7m - 35,28,31 = 31kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP16
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446974.96 N272891.01
Project No. : BM11254	Excavator: JCB	Dimensions : m × m — Final Depth: 4.50m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 110.87m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.20	110.67		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.55	ES					Reddish brown slightly gravelly medium SAND with occasional pockets of CLAY. Gravel is rounded medium consisting flint and mudstone. (Superficial - Dunsmore Gravel).	
					1.00	109.87			1
		1.20	ES					Firm brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		1.30	B						
		1.30	HSV	48kPa					
					1.60	109.27		Firm to stiff grey to bluish grey CLAY. (Superficial - Bosworth Clay).	
		2.30	HSV	77kPa					2
		3.30	HSV	74kPa					3
		4.30	B						4
		4.30	HSV	61kPa					
					4.50	106.37		Base of Excavation at 4.50m	

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

HSV - Small Vane Used.
HSV @ 1.3m - 60,44,40 = 48kPa
HSV @ 2.3m - 88,72,70 = 77kPa
HSV @ 3.3m - 82,72,68 = 74kPa
HSV @ 4.3m - 80,40,62 = 61kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP17
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447051.01 N272913.00
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.50m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 110.34m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.15	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.40	109.94		Reddish brown slightly gravelly medium SAND with occasional pockets of CLAY. Gravel is rounded medium consisting flint and mudstone. (Superficial - Dunsmore Gravel).	
		1.00	B						1
					1.40	108.94		Stiff brown slightly gravelly CLAY. Gravel is medium angular to rounded flint and mudstone. (Superficial - Bosworth Clay).	
		1.60	HSV	102kPa					2
					2.20	108.14		Stiff grey slightly silty CLAY. (Superficial - Bosworth Clay).	
								2.50m - 4.00m : Occasional pockets of reddish brown sand.	
		2.70	HSV	80kPa					
					2.80	107.54		Firm bluish grey to reddish grey sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	
		2.90	ES						
		3.10	HSV	61kPa					3
									4
		4.30	HSV	31kPa				*4.30m : Becoming soft at 4.30m bgl*	
					4.50	105.84		Base of Excavation at 4.50m	

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

EOH. HSV - Small Vane Used. HSV @ 1.6m - 120,98,89 = 102kPa. HSV @ 2.7m - 82,72,86 = 80kPa. HSV @ 3.1m - 62,52,70 = 61kPa. HSV @ 4.3m - 32,40,21 = 31kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP18
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447127.01 N272940.98
Project No. : BM11254	Excavator: JCB	Dimensions : m x m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 110.30m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.40	109.90			
								Orangish brown slightly gravelly medium SAND with occasional pockets of CLAY. Gravel is rounded medium consisting flint and mudstone. (Superficial - Dunsmore Gravel).	
		0.75	ES						
					0.90	109.40		Firm to stiff reddish grey to grey sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	1
		1.10	HSV	44kPa					
		2.10	HSV	61kPa					2
	▽	2.20	B						
		2.40	ES					*2.30m - 4.00m : Recovered as Wet. Occasional pockets of reddish brown sand and mudstone.*	
		3.00	B						3
		3.20	HSV	117kPa					
					4.00	106.30		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.3m bgl. HSV - Small Vane Used. HSV @ 1.1m - 50,42,40 = 44kPa. HSV @ 2.1m - 60,66,58 = 61kPa. HSV @ 3.2m - 120,120,110 = 117kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP19
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447190.82 N272988.75
Project No. : BM11254	Excavator: JCB	Dimensions : m E / m — Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN	Level: 111.82m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.05	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.50	111.32		Reddish brown slightly gravelly medium SAND with occasional pockets of CLAY. Gravel is rounded medium consisting flint and mudstone. (Superficial - Dunsmore Gravel).	
	▽							*1.00m : Recovered as Damp.*	1
		1.25	ES					*1.20m - 1.40m : Occasional small pockets of black organic matter.*	
		1.75	B						
					1.90	109.92		Damp firm to soft reddish grey to grey sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	2
		2.60	HSV	51kPa					
									3
		3.30	HSV	27kPa				*3.30m : Becoming soft at 3.30m bgl*	
					4.00	107.82		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 1.0m bgl
HSV - Small Vane Used.
HSV @ 2.6m - 72,32,48 = 51kPa
HSV @ 3.3m - 30,29,21 = 27kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP20
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 25/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447253.02 N273027.96
Project No. : BM11254	Excavator: JCB	Dimensions : m x m / Final Depth: 4.00m
Logged By: WP	Checked By: SN	Approved By: SN
Level: 112.35m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.35	ES		0.40	111.95		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		2.00	ES		2.10	110.25		Reddish brown slightly gravelly medium SAND with occasional pockets of CLAY. Gravel is rounded medium consisting flint and mudstone. (Superficial - Dunsmore Gravel).	1
		2.55	B					Firm reddish grey to grey sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	2
		2.90	HSV	71kPa					3
		3.60	HSV	66kPa					
					4.00	108.35		Base of Excavation at 4.00m	4

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

EOH.
HSV - Small Vane Used.
HSV @ 2.9m - 82,55,77 = 71kPa
HSV @ 3.6m - 80,52,65 = 66kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP21
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447003.99 N272843.75
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m / Final Depth: 4.20m
Logged By: FL	Checked By: SN	Approved By: SN
Level: 108.85m AoD	Orientation: °	

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.30	108.55		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.40	B					Light brown sandy angular to subangular, fine to coarse GRAVEL consisting of flint with occasional organic fragments. Sand is coarse. (Superficial - Dunsmore Gravel).	
		0.80	ES						1
					2.00	106.85			
		2.10	HSV	32kPa				Soft greyish green silty gravelly fissile CLAY. Gravel is subrounded, medium to coarse consisting of flint and chalk. (Superficial - Bosworth Clay).	2
		2.10	HSV	38kPa					
		2.10	HSV	40kPa					
		2.20	ES						
		2.50	B		2.50	106.35		Reddish brown clayey gravelly fine to medium SAND. Gravel is angular, fine to medium consisting of flint and chalk. (Superficial - Bosworth Clay).	3
		4.10	HSV	74kPa					
		4.10	HSV	74kPa					4
		4.10	HSV	78kPa	4.20	104.65		Base of Excavation at 4.20m	

Trench Support and Comment

Pit Stability	Shoring Used	Remarks

Pumping Data

Date	Rate	Remarks

General Remarks

EOH.
HSV - Small Vane Used.
HSV @ 2.1m - 28,32,40 = 33kPa
HSV @ 4.1m - 74,74,78 = 75kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP22
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447108.01 N272879.18
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m / Final Depth: 4.20m
Logged By: FL	Checked By: SN	Approved By: SN
Level: 108.13m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	107.73		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		1.00	ES					Light brown sandy angular to subangular, fine to coarse GRAVEL consisting of flint with occasional small cobbles of flint. Sand is coarse. (Superficial - Dunsmore Gravel).	1
					2.10	106.03		Soft to firm light brown silty sandy gravelly CLAY. Sand is coarse. Gravel is subangular, medium to coarse consisting of chalk. (Superficial - Bosworth Clay).	2
		2.80	HSV	38kPa					
		2.80	HSV	40kPa					3
		2.80	HSV	41kPa					
	▽	3.50	B		3.50	104.63		Wet firm to stiff dark grey gravelly CLAY. Gravels are angular to subangular, fine to coarse consisting of flint and mudstone. (Superficial - Bosworth Clay).	
								3.50m : Band of greyish green soft CLAY	4
		4.10	HSV	70kPa					
		4.10	HSV	74kPa					
		4.10	HSV	74kPa	4.20	103.93		Base of Excavation at 4.20m	
		4.20	B						
		4.20	ES						

Trench Support and Comment

Pit Stability	Shoring Used	Remarks

Pumping Data

Date	Rate	Remarks

General Remarks

Groundwater encountered at 3.5m bgl
HSV @ 2.8m - 38, 40, 41 = 39kPa
HSV @ 4.1 - 74, 74, 70 = 72kPa

HSV - Small Vane Used.

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP23
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447195.96 N272942.87
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m — Final Depth: 4.50m
Logged By: FL	Checked By: SN	Approved By: SN	Level: 109.24m AoD	Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.30	108.94		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.50	ES					Light brown sandy angular to subangular, fine to coarse GRAVEL consisting of flint with occasional small cobbles of flint. Sand is coarse. (Superficial - Dunsmore Gravel).	1
		2.80	HSV	36kPa					2
		2.80	HSV	38kPa					
		2.80	HSV	40kPa	2.90	106.34		Soft light brown silty sandy gravelly CLAY. Sand is coarse. Gravel is subangular, medium to coarse consisting of chalk. (Superficial - Bosworth Clay).	3
		3.10	ES					*3.50m - 4.00m : Occasional bands of greyish green soft CLAY*	
	▽				4.00	105.24		Wet firm to stiff dark grey gravelly CLAY. Gravels are subrounded, coarse consisting of quartz and sandstone. (Superficial - Bosworth Clay).	4
		4.40	HSV	72kPa					
		4.40	HSV	72kPa					
		4.40	HSV	74kPa	4.50	104.74		Base of Excavation at 4.50m	
		4.50	B						

Trench Support and Comment

Pit Stability	Shoring Used	Remarks

Pumping Data

Date	Rate	Remarks

General Remarks

Groundwater encountered at 4.0m bgl
HSV - Small Vane Used.
HSV @ 2.8m - 36,38,40 = 38kPa
HSV @ 4.4m - 72,72,74 = 72kPa

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Trial Pit Log

TRIAL PIT REFERENCE
TP24
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447070.89 N272808.99
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m / Final Depth: 3.50m
Logged By: FL	Checked By: SN	Approved By: SN
Level: 105.13m AoD		Orientation: °

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.50	104.63		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
	▽	0.50 0.50	ES ES					MADE GROUND: Wet dark grey angular to subrounded, coarse GRAVEL consisting of flint and sandstone with cobbles of flint and sandstone. Slight organic smell. *0.50m - 2.20m : Occasional fragments of metal*	1 2
		3.00	B		2.20	102.93		Wet dark grey angular to subrounded, coarse GRAVEL consisting of flint and sandstone with cobbles of flint and sandstone. (Superficial - Dunsmore Gravel).	3
					3.50	101.63		Base of Excavation at 3.50m	4

Trench Support and Comment

Pit Stability	Shoring Used	Remarks
Unstable - Collapsed at 3.0m bgl		Trial Pit collapsed at 3.5m

Pumping Data

Date	Rate	Remarks

General Remarks

Groundwater encountered at 0.5m bgl
Unsuitable for HSV

COLLAPSE

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP25
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447169.25 N272868.59
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m / Final Depth: 3.50m
Logged By: FL	Checked By: SN	Approved By: SN
Level: 105.55m AoD	Orientation: °	

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.50 0.50	B ES		0.50	105.05		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
								Soft dark grey silty CLAY. (Superficial - Bosworth Clay).	1
	▽							*1.80m - 2.00m : Recovered as Wet.*	
		1.90 1.90 1.90	HSV HSV HSV	40kPa 40kPa 42kPa	2.00	103.55		Wet light brown clayey fine to medium SAND. (Superficial - Bosworth Clay).	2
		3.50 3.50	B ES		3.50	102.05		Base of Excavation at 3.50m	3
									4

Trench Support and Comment

Pit Stability	Shoring Used	Remarks
Unstable - Collapsed at 3.5m bgl		Trial Pit collapsed at 3.5m

Pumping Data

Date	Rate	Remarks

General Remarks

Groundwater encountered at 1.8m bgl COLLAPSE
HSV - Small Vane Used. HSV @ 1.9 - 40, 42, 40 = 41kPa

Log printed on 17/03/2022 at 14:03

Trial Pit Log

TRIAL PIT REFERENCE
TP26
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447252.98 N272931.90
Project No. : BM11254	Excavator: JCB	Dimensions : 2.00m x 1.00m / Final Depth: 4.50m
Logged By: FL	Checked By: SN	Approved By: SN
Level: 107.66m AoD	Orientation: °	

Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.50	107.16		Light brown sandy subrounded to rounded, medium to coarse GRAVEL consisting of quartz and sandstone. Sand is coarse. (Superficial - Dunsmore Gravel).	
		1.00	ES		1.00	106.66		Soft light brown silty sandy CLAY. (Superficial - Bosworth Clay).	1
		1.40	HSV	36kPa					
		1.40	HSV	38kPa					
		1.40	HSV	38kPa	1.50	106.16		Firm dark grey silty sandy CLAY with laminations. Sand is fine. (Superficial - Bosworth Clay).	
		2.00	B						2
	▽	2.20	HSV	66kPa	2.20	105.46		Wet light brown clayey fine to medium SAND. (Superficial - Bosworth Clay).	
		2.20	HSV	66kPa					
		2.20	HSV	68kPa					3
		3.20	B						
		3.20	ES						
									4
					4.50	103.16		Base of Excavation at 4.50m	

Trench Support and Comment			Pumping Data		
Pit Stability	Shoring Used	Remarks	Date	Rate	Remarks

General Remarks

Groundwater encountered at 2.2m bgl
HSV @ 1.4m - 36,38,38 = 37kPa
HSV @ 2.2m - 66, 68, 66 = 66kPa

HSV - Small Vane Used.

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS01
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446881.05 N273009.04
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.54m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.20	ES					TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.45	112.09		Medium dense orangish brown medium to coarse SAND. (Superficial - Dunsmore Gravel).	
		1.00 – 1.45 1.00	D SPT	N=27 (4,4/6,7,7,7)					1
		1.20	ES						
		2.00 – 2.45 2.00	D SPT	N=18 (4,5/5,4,5,4)					2
	▽				2.20	110.34		Loose orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel). *2.50m : Recovered as Damp.*	
		3.00 – 3.45 3.00 – 4.00 3.00	D B SPT	N=7 (2,3/2,2,1,2)				*3.00m : Recovered as Wet.*	3
		4.00	SPT	N=4 (1,1/0,1,1,2)				*4.00m - 5.00m : Low recovery.*	4
		4.50	SPT	N=9 (1,1/2,2,2,3)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 3.00m	3.00m 4.00m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS01
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446881.05 N273009.04
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.54m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Sample and In Situ Testing: Type	Sample and In Situ Testing: Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					5.00	107.54		Loose orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 3.00m	3.00m 4.00m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS02
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446992.87 N273068.15
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.19m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		0.40	ES		0.50	112.69		TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
		1.00 – 1.45 1.00 – 1.50 1.00	D B SPT	N=23 (4,4/4,6,6,7)				Medium dense orangish brown gravelly medium to coarse SAND. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Dunsmore Gravel).	1
		2.00 2.00 – 2.45 2.00	ES D SPT	N=25 (4,4/6,6,6,7)	1.80	111.39		Medium dense orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel).	2
	▽							*2.80m : Recovered as Damp.*	
		3.00 – 3.45 3.00	D SPT	N=16 (4,4/3,5,4,4)				*3.00m : Recovered as Wet.*	3
		4.00	SPT	N=7 (1,1/1,2,2,2)				*4.00m : Becoming loose at 4.00m*	4
		4.50	SPT	N=7 (1,1/2,1,2,2)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.8m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS02
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446992.87 N273068.15
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.19m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00	D		5.00	108.19		Medium dense orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.8m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS03
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447059.06 N273105.90
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.27m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.40	112.87		Medium dense orangish brown gravelly medium to coarse SAND. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Dunsmore Gravel).	
		0.80	ES						
		1.00 – 1.45 1.00	D SPT	N=27 (4,4/6,7,7,7)					1
		1.50	ES						
		2.00 – 2.45 2.00	D SPT	N=24 (6,5/5,6,6,7)					2
					2.30	110.97		Medium dense orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel)	
	▽							*2.70m : Recovered as Damp.*	
		3.00 – 3.45 3.00	D SPT	N=12 (3,3/3,3,3,3)				*3.00m : Recovered as Wet.*	3
		4.00	SPT	N=2 (1,0/0,0,1,1)				*4.00m : Becoming loose at 4.00m*	4
		4.50 – 5.00 4.50	B SPT	N=11 (1,2/2,3,3,3)	4.50	108.77		Wet firm grey slightly silty CLAY. (Superficial - Bosworth Clay).	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS03
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447059.06 N273105.90
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.27m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00	D		5.00	108.27		Wet firm grey slightly silty CLAY. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS04
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447155.03 N273161.04
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.63m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.10	ES					TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.40	113.23		Medium dense orangish brown gravelly medium to coarse SAND. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Dunsmore Gravel).	
								0.80m - 1.30m : Increase gravel content.	
		1.00 – 1.45 1.00	D SPT	N=29 (4,6/6,7,8,8)					1
					1.70	111.93		Medium dense orangish brown to brown very sandy angular to subangular fine to coarse GRAVEL consisting of flint, mudstone and sandstone. (Superficial - Dunsmore Gravel).	
		2.00 – 2.45 2.00	D SPT	N=19 (3,3/4,4,5,6)					2
		2.20	ES						
	▽	2.50 – 4.50	B					*2.50m : Recovered as Damp.*	
								2.60m - 4.70m : Decrease sand content.	
		3.00 – 3.45 3.00	D SPT	N=11 (2,3/3,2,3,3)					3
		4.00	SPT	N=6 (1,1/1,2,1,2)				*4.00m : Becoming loose at 4.00m*	4
		4.70	SPT	N=14 (2,3/3,3,4,4)	4.70	108.93		Damp firm grey slightly silty CLAY. (Superficial - Bosworth Clay).	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.50m	2.50m 3.50m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS04
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447155.03 N273161.04
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.63m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00	D		5.00	108.63		Damp firm grey slightly silty CLAY. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.50m	2.50m 3.50m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS05
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446926.91 N272960.06
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.72m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	112.32		TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.50	ES					Medium dense light brown clayey medium to coarse SAND with small cobbles of flint. Gravel is subrounded, medium to coarse consisting of chalk and flint. (Superficial - Dunsmore Gravel).	
		1.00 – 1.45	D						1
		1.00 – 1.45	D						
		1.00	SPT	N=22 (3,3/3,6,6,7)					
					1.70	111.02		Firm light brown silty CLAY. (Superficial - Bosworth Clay).	
		2.00 – 2.45	D					*2.00m - 2.05m : Band of soft light grey CLAY.*	2
		2.00 – 2.45	D						
		2.00	SPT	N=14 (2,3/3,4,4,3)	2.10	110.62		Medium dense light brown clayey fine SAND (Superficial - Bosworth Clay).	
		2.40 – 2.80	B						
					2.50	110.22		Firm light brown silty CLAY. (Superficial - Bosworth Clay).	
	▽	3.00	ES					*3.00m - 5.00m : Recovered as Wet.*	3
		3.00 – 3.45	D						
		3.00	SPT	N=10 (2,2/3,2,3,2)					
		4.00 – 4.45	D						4
		4.00 – 4.45	D						
		4.00	SPT	N=10 (2,3/3,4,2,1)					
		4.50	SPT	N=13 (3,2/3,4,3,3)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS05
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446926.91 N272960.06
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.72m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	107.72		Firm light brown silty CLAY. (Superficial - Bosworth Clay). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS06
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447025.01 N272983.14
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.90m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.40	112.50		Medium dense light brown clayey gravelly fine SAND. Gravel is angular to subangular, coarse consisting of flint and chalk. (Superficial - Dunsmore Gravel).	
		1.00	ES						1
		1.00 – 1.45	D						
		1.00 – 1.45	D						
		1.00	SPT	N=28 (5,5/6,7,7,8)					
		2.00 – 2.45	D						2
		2.00 – 2.45	D						
		2.00	SPT	N=19 (3,6/5,5,4,5)					
		2.30 – 2.70	B						
	▽							*2.70m : Recovered as Wet.*	
		2.80	ES						
		3.00 – 3.45	D					*3.00m : Becoming loose at 3.00m*	3
		3.00 – 3.45	D						
		3.00	SPT	N=5 (1,2/1,2,1,1)					
		4.00 – 4.45	D						4
		4.00	SPT	N=1 (1,0/1,0,0,0)					
		4.50	SPT	N=7 (2,2/2,2,1,2)				*4.50m - 4.80m : Cobbles of flint*	
					4.80	108.10		Damp soft dark grey silty CLAY with laminations. (Superficial - Bosworth Clay).	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS06
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447025.01 N272983.14
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 112.90m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	107.90		Damp soft dark grey silty CLAY with laminations. (Superficial - Bosworth Clay). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.7m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS07
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447127.79 N273051.87
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.51m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.50	ES		0.50	113.01			
								Medium dense light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular, fine to coarse consisting of flint. (Superficial - Dunsmore Gravel).	
		1.00 – 1.45	D						1
		1.00 – 1.45	D						
		1.00	SPT	N=20 (2,4/5,5,5,5)	1.10	112.41			
								Medium dense light brown clayey fine SAND. (Superficial - Dunsmore Gravel).	
					1.50	112.01			
								Medium dense light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular, fine to coarse consisting of flint. (Superficial - Dunsmore Gravel).	
		2.00 – 2.45	D						2
		2.00 – 2.45	D						
		2.00	SPT	N=27 (7,7/6,7,7,7)					
		2.20	ES						
	▽	3.00 – 3.45	D					*3.00m - 5.00m : Recovered as Wet.*	3
		3.00	SPT	N=10 (3,2/2,3,2,3)					
		3.60 – 4.00	B						
		4.00 – 4.45	D					*4.00m : Becoming loose at 4.00m*	4
		4.00	SPT	N=6 (1,1/1,2,1,2)					
		4.50	SPT	N=8 (2,2/2,2,2,2)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS07
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447127.79 N273051.87
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.51m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	108.51		Medium dense light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular, fine to coarse consisting of flint. (Superficial - Dunsmore Gravel). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS08
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447232.00 N273073.99
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.28m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.50	112.78		Medium dense light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular, fine to coarse consisting of flint. (Superficial - Dunsmore Gravel).	
								0.50m - 1.00m : Band of light brown clayey fine sand.	
		1.00	ES						1
		1.00 – 1.45	D						
		1.00 – 1.45	D						
		1.00	SPT	N=23 (4,4/5,5,7,6)					
		2.00 – 2.45	D						2
		2.00 – 2.45	D						
		2.00	SPT	N=17 (3,4/5,5,4,3)					
	▽							*2.50m - 3.60m : Recovered as Wet.*	
		3.00 – 3.45	D					*3.00m : Becoming loose at 3.00m*	3
		3.00 – 3.45	D						
		3.00	SPT	N=3 (1,1/0,1,1,1)					
		3.50 – 4.00	B						
		3.55	ES						
					3.60	109.68		Wet soft light brown silty CLAY. (Superficial - Bosworth Clay).	
		4.00 – 4.45	D						4
		4.00 – 4.45	D						
		4.00	SPT	N=3 (0,0/0,1,1,1)					
		4.50	SPT	N=6 (1,1/1,1,2,2)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.00m	2.00m 4.00m	PLAIN SLOTTED	

Remarks

Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS08
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447232.00 N273073.99
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 113.28m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	108.28		Wet soft light brown silty CLAY. (Superficial - Bosworth Clay). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.00m	2.00m 4.00m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS09
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446982.14 N272903.20
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 111.15m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
		0.50	ES		0.50	110.65			
								Loose light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular, fine to coarse consisting of flint. Occasional organic fragments (Superficial - Dunsmore Gravel).	
		1.00 – 1.45	D						1
		1.00 – 1.45	D						
		1.00	SPT	N=8 (3,2/1,2,2,3)					
					1.20	109.95		Soft light brown silty CLAY. (Superficial - Bosworth Clay).	
		2.00 – 2.45	D						2
		2.00 – 2.45	D						
		2.00	SPT	N=4 (1,1/1,1,1,1)				*2.00m - 2.30m : Recovered as Soft.*	
					2.30	108.85		Soft to firm light grey silty CLAY. (Superficial - Bosworth Clay).	
		3.00 – 3.45	D						3
		3.00 – 3.45	D						
		3.00	SPT	N=6 (1,1/1,2,1,2)					
	▽	4.00	ES					*4.00m - 5.00m : Recovered as Wet.*	4
		4.00 – 4.45	D						
		4.00 – 4.45	D						
		4.00	SPT	N=5 (1,0/1,1,1,2)					
		4.20 – 4.60	B						
		4.50	SPT	N=11 (1,2/2,2,3,4)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 4.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS09
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E446982.14 N272903.20
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 111.15m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	106.15		Soft to firm light grey silty CLAY. (Superficial - Bosworth Clay). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 4.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS10
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447085.97 N272941.00
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 110.87m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.10	ES					TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.60	110.27		Medium dense light brown gravelly coarse SAND with small cobbles of flint and chalk. Gravel is angular to subangular fine to coarse consisting of flint. (Superficial - Dunsmore Gravel).	
	▽	1.00 – 1.45 1.00 – 1.45 1.00 1.10 – 1.50	D D SPT B	N=19 (4,5/6,5,4,4)	1.10	109.77		Damp medium dense light brown clayey fine SAND (Superficial - Bosworth Clay).	1
		1.90 2.00 – 2.45 2.00 – 2.45 2.00	HSV D D SPT	44kPa N=1 (0,0/0,0,0,1)	1.80	109.07		Damp very soft to soft light brown silty CLAY. (Superficial - Bosworth Clay). *1.80m - 2.00m : Recovered as Firm.*	2
		3.00 – 3.45 3.00 – 3.45 3.00	D D SPT	 N=5 (0,1/1,1,2,1)					3
		3.80 3.80 4.00 – 4.45 4.00 – 4.45 4.00 4.50	ES HSV D D SPT SPT	 102kPa N=10 (1,2/2,2,3,3) N=33 (4,5/6,8,9,10)	3.70	107.17		Damp firm to stiff dark grey silty CLAY. (Superficial - Bosworth Clay). *3.70m - 4.00m : Recovered as Stiff.*	4

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.1m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS10
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447085.97 N272941.00
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 110.87m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 5.00	D D		5.00	105.87		Damp firm to stiff dark grey silty CLAY. (Superficial - Bosworth Clay). End of Borehole at 5.00m	5 6 7 8 9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.1m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS11
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447167.98 N272953.95
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 110.30m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.50	109.80		Firm to stiff dark greyish brown silty CLAY. (Superficial - Bosworth Clay).	
		0.90	HSV	80kPa					
		1.00 – 1.45	D						1
		1.00 – 1.45	D						
		1.00	SPT	N=13 (2,3/3,4,3,3)					
		1.10	HSV	100kPa	1.20	109.10		Firm to stiff light brown silty CLAY. (Superficial - Bosworth Clay).	
		2.00	ES						2
		2.00 – 2.45	D						
		2.00 – 2.45	D						
		2.00	SPT	N=12 (2,3/3,3,3,3)					
	▽	2.40	HSV	42kPa					
		2.60 – 3.00	B		2.50	107.80		Wet medium dense light brown clayey fine SAND (Superficial - Bosworth Clay).	
		3.00 – 3.45	D						3
		3.00 – 3.45	D						
		3.00	SPT	N=19 (2,3/3,5,5,6)					
					3.50	106.80		Wet stiff dark grey silty gravelly CLAY. Gravel is surrounded, medium to coarse consisting of chalk and flint. (Superficial - Bosworth Clay).	
		4.00	ES						4
		4.00 – 4.45	D						
		4.00 – 4.45	D						
		4.00	SPT	N=34 (4,4/5,7,10,12)					
		4.45 – 5.00	D						
		4.45 – 5.00	D						
		4.50	HSV	110kPa					
		4.50	SPT	N=25 (5,5/7,7,5,6)				*4.80m - 5.00m : Recovered as Stiff.*	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.50m	2.50m 3.50m	PLAIN SLOTTED	

Remarks
Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS11
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 27/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447167.98 N272953.95
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 110.30m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Sample and In Situ Testing: Type	Sample and In Situ Testing: Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					5.00	105.30		Wet stiff dark grey silty gravelly CLAY. Gravel is surrounded, medium to coarse consisting of chalk and flint. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.50m	2.50m 3.50m	PLAIN SLOTTED	

Remarks

Groundwater encountered at 2.5m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS12
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447035.10 N272830.07
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 107.73m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Dark brown fibrous slightly gravelly medium Sand. Gravel is subangular to rounded fine to medium consisting of flint and mudstone.	
					0.50	107.23			
		0.70	ES					Firm light brown silty gravelly CLAY with occasional fragments of organics. Gravel is angular to subangular, coarse consisting of flint, chalk and quartzite. (Superficial - Bosworth Clay).	
		1.00 – 1.45	D						1
		1.00 – 1.45	D						
		1.00	SPT	N=11 (1,2/2,3,3,3)					
		2.00 – 2.45	D						2
		2.00 – 2.45	D					*2.00m : Becoming soft at 2.00m bgl*	
		2.00	SPT	N=7 (1,2/3,2,1,1)					
		2.10 – 2.50	B		2.20	105.53		Light brown clayey fine SAND (Superficial - Bosworth Clay).	
					2.50	105.23			
		2.60	ES					Stiff light brown silty sandy CLAY. (Superficial - Bosworth Clay).	
	▽	3.00 – 3.45	D						3
		3.00 – 3.45	D					*3.00m - 5.00m : Recovered as Wet.*	
		3.00	SPT	N=24 (1,3/6,6,6,6)					
		4.00 – 4.45	D						4
		4.00 – 4.45	D						
		4.00	SPT	N=18 (3,4/4,4,5,5)					
		4.45 – 5.00	D						
		4.45 – 5.00	D						
		4.50	SPT	N=24 (4,4/5,6,6,7)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS12
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 26/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447035.10 N272830.07
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 107.73m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
FL	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Sample and In Situ Testing: Type	Sample and In Situ Testing: Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					5.00	102.73		Stiff light brown silty sandy CLAY. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS13
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447209.08 N272900.07
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 105.87m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.15	ES					TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.30	105.57		Brown mottled orangish brown gravelly medium SAND. Gravel is subangular to rounded fine to medium consisting of flint and mudstone. (Superficial - Dunsmore Gravel).	
					0.80	105.07		Soft light grey silty slightly gravelly CLAY. (Superficial - Bosworth Clay).	
	▽	1.00 – 1.45 1.00	D SPT	N=7 (1,1/2,2,1,2)				*1.00m : Recovered as Damp.*	1
		1.80	ES						
		2.00	SPT	N=7 (2,1/1,2,2,2)				*2.00m : Recovered as Wet.*	2
					2.90	102.97		Wet medium dense orangish brown medium to coarse clayey gravelly SAND. Gravel is angular to rounded fine consisting of flint and mudstone. (Superficial - Bosworth Clay).	
		3.00 – 3.45 3.00 – 4.00 3.00	D B SPT	N=31 (3,4/6,7,9,9)					3
		4.00 – 4.45 4.00	D SPT	N=23 (4,4/4,5,7,7)					4
		4.50	SPT	N=54 (7,9/12,13,14,15)				*4.50m : Becoming very dense at 4.50m bgl*	
					4.80	101.07		Wet stiff grey CLAY. (Superficial - Bosworth Clay).	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS13
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447209.08 N272900.07
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 105.87m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	Scale
		Depth (m)	Type	Results					
		5.00 – 5.45	D		5.00	100.87		Wet stiff grey CLAY. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 1.0m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS14
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447288.78 N272953.10
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 107.57m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	4.50

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.30	107.27		TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.50	107.07		Brown mottled orangish brown gravelly medium SAND. Gravel is subangular to rounded fine to medium consisting of flint and mudstone. (Superficial - Dunsmore Gravel).	
		0.60	ES					Soft grey slightly silty slightly gravelly CLAY. Gravel is angular to subrounded fine to medium consisting of flint and mudstone. (Superficial - Dunsmore Gravel).	
		1.00 – 1.45 1.00	D SPT	N=4 (0,0/0,1,1,2)					1
		1.50 – 2.00	B		1.45	106.12		Soft grey slightly silty very gravelly CLAY. Gravel is angular to rounded fine consisting of flint, mudstone and sandstone. (Superficial - Bosworth Clay).	
	▽							*1.70m : Recovered as Damp.*	
		2.00 – 2.45 2.00	D SPT	N=6 (2,2/2,2,1,1)	2.00	105.57		Damp soft grey slightly silty slightly gravelly CLAY. Gravel is angular to subrounded fine to medium consisting of flint and mudstone. (Superficial - Bosworth Clay).	2
					2.20	105.37		Damp medium dense orangish brown medium to coarse clayey SAND. (Superficial - Bosworth Clay).	
		2.50	ES						
		3.00 – 3.45 3.00	D SPT	N=15 (2,1/2,3,4,6)				*3.00m : Recovered as Wet.*	3
		4.00 – 4.45 4.00	D SPT	N=26 (5,6/5,6,7,8)					4
					4.30	103.27		Wet firm light grey silty CLAY. (Superficial - Bosworth Clay).	
					4.50	103.07		End of Borehole at 4.50m	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 2.00m	2.00m 4.00m	PLAIN SLOTTED	

Remarks

Groundwater encountered at 1.7m bgl

REFUSAL

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS15
Sheet 1 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447121.15 N272719.17
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 108.04m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
								TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.30	107.74		Loose brown mottled orangish brown gravelly medium SAND. Gravel is subangular to rounded fine to medium consisting of flint and mudstone. (Superficial - Dunsmore Gravel).	
	▽	0.70	ES					*0.80m : Recovered as Damp.*	
		1.00 – 1.45 1.00	D SPT	N=6 (3,3/3,1,1,1)					1
					1.25	106.79		Damp firm light grey silty CLAY. (Superficial - Bosworth Clay).	
		2.00 – 2.45 2.00	D SPT	N=11 (2,2/2,3,3,3)	2.00	106.04		Damp firm to stiff reddish grey mottled light grey CLAY. (Superficial - Bosworth Clay).	2
		2.20	ES					*2.00m - 2.25m : Band of medium dense orangish brown gravelly medium sand. Gravel consists of flint and mudstone.*	
		3.00 – 3.45 3.00	D SPT	N=10 (2,2/2,2,3,3)					3
		4.00 – 4.45 4.00	D SPT	N=17 (2,2/4,4,4,5)					4
		4.30 – 5.00	B		4.30	103.74		Damp stiff reddish grey mottled light grey slightly silty slightly gravelly CLAY. Gravel is angular to subrounded fine to medium consisting of flint and mudstone. (Superficial - Bosworth Clay).	
		4.45 – 5.00 4.50	D SPT	N=29 (4,4/6,6,8,9)					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 0.8m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS15
Sheet 2 of 2

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447121.15 N272719.17
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 108.04m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	5.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Sample and In Situ Testing: Type	Sample and In Situ Testing: Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					5.00	103.04		Damp stiff reddish grey mottled light grey slightly silty slightly gravelly CLAY. Gravel is angular to subrounded fine to medium consisting of flint and mudstone. (Superficial - Bosworth Clay).	5
								End of Borehole at 5.00m	6
									7
									8
									9

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 0.8m bgl

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS16
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447152.09 N272788.14
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 106.80m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	4.50

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.20	ES					TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.50	106.30		Very soft reddish grey mottled light grey sandy gravelly CLAY. Sand is medium. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Bosworth Clay).	
	▽	1.00 – 1.45 1.00 – 2.00 1.00	D B SPT	N=3 (0,0/1,0,1,1)	1.10	105.70		*1.00m : Recovered as Damp.*	1
								Damp firm to stiff reddish grey mottled light grey slightly silty slightly gravelly CLAY. Gravel is angular to subrounded fine to medium consisting of flint and mudstone. (Superficial - Bosworth Clay).	
								1.40m - 1.50m : Recovered as soft.	
		2.00 – 2.45 2.00	D SPT	N=22 (0,2/4,6,6,6)					2
					2.50	104.30		Damp medium dense reddish grey mottled light grey clayey SAND. (Superficial - Bosworth Clay)	
		3.00 3.00 – 3.45 3.00	ES D SPT	N=13 (3,3/3,3,4,3)				*3.00m : Recovered as Wet.*	3
		4.00 – 4.45 4.00	D SPT	N=22 (4,4/4,6,6,6)					4
		4.50	SPT	N=54 (6,7/11,12,14,17)	4.50	102.30		End of Borehole at 4.50m	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter
												0.00m 1.70m	1.70m 3.70m	PLAIN SLOTTED	

Remarks

Groundwater encountered at 1.0m bgl

REFUSAL

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS17
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447203.00 N272771.00
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 107.82m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	73.01%	4.60

Install. / Backfill	Water Strikes	Sample and In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
					0.40	107.42		TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
		0.90	ES					Soft to firm reddish brown sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	
		1.00 – 1.45 1.00	D SPT	N=7 (1,2/2,2,1,2)					1
					1.70	106.12		Firm to stiff reddish grey mottled light grey sandy gravelly CLAY. Sand is medium. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Bosworth Clay).	
		2.00 – 2.45 2.00	D SPT	N=19 (4,4/5,5,4,5)				*2.00m - 2.20m : Band of fine reddish brown sand.*	2
		3.00 – 3.45 3.00	D SPT	N=24 (3,3/6,6,6,6)					3
		3.20 3.20 – 3.70	ES B						
	▽							*3.70m : Recovered as Wet.*	
		4.00 – 4.45 4.00	D SPT	N=16 (4,4/3,4,4,5)				*3.90m - 4.20m : Band of medium dense brown gravelly medium to coarse sand with fine to medium, angular flint.*	4
					4.20	103.62		Wet stiff reddish brown sandy CLAY. Sand is fine. (Superficial - Bosworth Clay).	
		4.50	SPT	N=24 (2,4/6,5,6,7)					
					4.60	103.22		End of Borehole at 4.60m	

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 3.7m bgl
REFUSAL

Log printed on 17/03/2022 at 14:03

Windowless Sample Borehole Log

BOREHOLE REFERENCE
WS18
Sheet 1 of 1

Project Name: South West Rugby	Client: L&Q	Date: 28/01/2022
Location: Rugby	Contractor: GIP	Co-ords: E447081.00 N272753.00
Project No. : BM11254	Drilling Equipment: WS Rig	Level : 105.97m AoD

Logged By	Checked By	Approved By	SPT Energy Ratio	Final Depth
WP	SN	SN	%	4.00

Install. / Backfill	Water Strikes	Sample and In Situ Testing: Depth (m)	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description	Scale
		0.25 – 0.70	ES					TOPSOIL: Orangish brown fibrous slightly gravelly fine to medium Sand. Gravel is angular to subangular fine to medium consisting of flint.	
					0.50	105.47		Orangish brown gravelly clayey SAND. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Bosworth Clay).	
		1.00 – 1.45	D						1
		1.25 – 1.70	ES		1.25	104.72		Damp firm reddish grey mottled light grey sandy gravelly CLAY. Sand is medium. Gravel is angular to subangular fine to medium consisting of flint. (Superficial - Bosworth Clay).	
	▽	2.00 – 2.45	D						2
		2.50 – 3.00	B						
		3.00 – 3.45	D					*3.00m - 3.20m : Band of fine reddish brown Sand.*	3
		4.00 – 4.45	D		4.00	101.97		End of Borehole at 4.00m	4

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation				Installation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Top	Base	Inclination	Orientation	Top	Base	Pipe Type	Diameter

Remarks
Groundwater encountered at 2.0m bgl REFUSAL

Log printed on 17/03/2022 at 14:03

Appendix 2
Gas and Groundwater Monitoring Results

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: L & Q ESTATES LIMITED **Date of Sampling: 3rd February 2022**

Site Name: South West Rugby **Job Number: BM11254**

Borehole Reference	Borehole Flow (l/hr)	Methane		Carbon Dioxide	Oxygen	Balance	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Sample Type	Borehole Pressure (mb)	Depth (m bgl)	
		(% LEL)	(% by volume)	(% by volume)	(% by volume)	(% by volume)					Borehole Base	Water Level
WS01	0.0	-	0.0	0.8	18.4	-	0.0	0.0	Accumulated	0.0	2.24	3.68
WS04	0.0	-	0.0	0.5	18.9	-	0.0	0.0	Accumulated	0.0	2.51	3.32
WS08	0.0	-	0.0	0.5	19.6	-	0.0	0.0	Accumulated	0.0	2.1	3.58
WS11	0.0	-	0.0	0.3	19.1	-	0.0	0.0	Accumulated	0.0	1.2	3.8
WS14	0.0	-	0.0	0.4	19.2	-	0.0	0.0	Accumulated	0.0	0.97	2.72
WS16	0.0	-	0.0	0.4	17.8	-	0.0	0.0	Accumulated	0.0	1.25	2.75

Atmospheric Pressure: 993-995mb **Instrument Type: GA2000**

Pressure Trend: Steady **Sample Type: As indicated**

Notes:
* Peak

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: L & Q ESTATES LIMITED **Date of Sampling: 9th February 2022**

Site Name: South West Rugby **Job Number: BM11254**

Borehole Reference	Borehole Flow (l/hr)	Methane		Carbon Dioxide	Oxygen	Balance	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Sample Type	Borehole Pressure (mb)	Depth (m bgl)	
		(% LEL)	(% by volume)	(% by volume)	(% by volume)	(% by volume)					Borehole Base	Water Level
WS01	0.0	-	0.0	0.8	19.2	-	0.0	0.0	Accumulated	0.0	2.01	3.68
WS04	0.0	-	0.0	0.6	17.8	-	0.0	0.0	Accumulated	0.0	2.32	3.32
WS08	0.0	-	0.0	0.6	19.4	-	0.0	0.0	Accumulated	0.0	1.93	3.58
WS11	0.0	-	0.0	0.4	19.7	-	0.0	0.0	Accumulated	0.0	0.97	3.8
WS14	0.0	-	0.0	0.3	19.7	-	0.0	0.0	Accumulated	0.0	0.89	2.72
WS16	0.0	-	0.0	0.2	19.9	-	0.0	0.0	Accumulated	0.0	1.11	2.75

Atmospheric Pressure: 993-995mb	**Instrument Type: GA2000**	**Notes:** * Peak
Pressure Trend: Steady	**Sample Type: As indicated**	

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: L & Q ESTATES LIMITED **Date of Sampling: 21st February 2022**

Site Name: South West Rugby **Job Number: BM11254**

Borehole Reference	Borehole Flow (l/hr)	Methane		Carbon Dioxide	Oxygen	Balance	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Sample Type	Borehole Pressure (mb)	Depth (m bgl)	
		(% LEL)	(% by volume)	(% by volume)	(% by volume)	(% by volume)					Borehole Base	Water Level
WS01	0.0	-	0.0	1.0	19.5	-	0.0	0.0	Accumulated	0.0	1.78	3.68
WS04	0.0	-	0.0	0.9	16.2	-	0.0	0.0	Accumulated	0.0	2.25	3.32
WS08	0.0	-	0.0	0.7	19.3	-	0.0	0.0	Accumulated	0.0	1.77	3.13
WS11	0.0	-	0.0	0.7	18.9	-	0.0	0.0	Accumulated	0.0	0.73	3.16
WS14	0.0	-	0.0	0.4	19.8	-	0.0	0.0	Accumulated	0.0	0.48	2.16
WS16	0.0	-	0.0	0.1	20.0	-	0.0	0.0	Accumulated	0.0	1.01	2.50

Atmospheric Pressure: 997-995mb	**Instrument Type: GA2000**	**Notes:** * Peak
Pressure Trend: Steady	**Sample Type: As indicated**	

RECORD OF MEASUREMENTS FOR GAS MONITORING BOREHOLES

Client Name: L & Q ESTATES LIMITED **Date of Sampling: 2nd March 2022**

Site Name: South West Rugby **Job Number: BM11254**

Borehole Reference	Borehole Flow (l/hr)	Methane		Carbon Dioxide	Oxygen	Balance	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Sample Type	Borehole Pressure (mb)	Depth (m bgl)	
		(% LEL)	(% by volume)	(% by volume)	(% by volume)	(% by volume)					Borehole Base	Water Level
WS01	0.0	-	0.0	0.9	19.6	-	0.0	0.0	Accumulated	0.0	1.88	3.68
WS04	0.0	-	0.0	0.8	16.5	-	0.0	0.0	Accumulated	0.0	2.28	3.32
WS08	0.0	-	0.0	0.8	19.5	-	0.0	0.0	Accumulated	0.0	1.69	3.02
WS11	0.0	-	0.0	0.6	18.8	-	0.0	0.0	Accumulated	0.0	0.70	3.09
WS14	0.0	-	0.0	0.3	19.9	-	0.0	0.0	Accumulated	0.0	0.45	2.12
WS16	0.0	-	0.0	0.1	20.2	-	0.0	0.0	Accumulated	0.0	1.13	2.47

Atmospheric Pressure: 998mb	**Instrument Type: GA2000**	**Notes:** * Peak
Pressure Trend: Steady	**Sample Type: As indicated**	

Appendix 3
Soakaway Testing

In-situ Soakaway Test Record | Test No: SA01

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 25/01/2022

Type of Test: Soakaway in trial pit.
Width of pit (m) 0.70
Length of pit (m) 1.70
Depth of pit (m) 1.50
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.31
Time Taken to Fill to Standing Level (mins) 3

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.31
1	0.33
2	0.34
3	0.35
4	0.36
5	0.38
10	0.42
15	0.45
20	0.48
25	0.50
30	0.52
40	0.55

Time (mins)	Depth to Water (m.b.g.l.)
50	0.57
60	0.59
70	0.63
80	0.64
90	0.66
100	0.68
110	0.70
120	0.72
130	0.74
140	0.75
150	0.76
180	0.79

Time (mins)	Depth to Water (m.b.g.l.)
210	0.82
240	0.85
270	0.87
300	0.89
360	0.91
1400	1.13
1520	1.16
1560	1.17

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In-situ Soakaway Test Record

Test No: SA02

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 26/01/2022

Type of Test: Soakaway in trial pit.
Width of pit (m) 0.70
Length of pit (m) 1.60
Depth of pit (m) 1.70
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.29
Time Taken to Fill to Standing Level (mins) 1.5

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.29
1	0.30
2	0.31
3	0.32
4	0.33
5	0.34
10	0.38
15	0.41
20	0.43
25	0.45
30	0.48
40	0.52

Time (mins)	Depth to Water (m.b.g.l.)
50	0.55
60	0.58
70	0.60
80	0.62
90	0.65
100	0.67
110	0.70
120	0.71
130	0.73
140	0.74
150	0.76
180	0.79

Time (mins)	Depth to Water (m.b.g.l.)
210	0.81
240	0.80
270	0.82
300	0.84
360	0.87
420	0.90

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In-situ Soakaway Test Record | Test No: SA03

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 25/01/2022

Type of Test: Soakaway in trial pit.
Width of pit (m) 0.70
Length of pit (m) 1.70
Depth of pit (m) 1.60
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.30
Time Taken to Fill to Standing Level (mins) 1

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.30
1	0.30
2	0.30
3	0.30
4	0.30
5	0.30
10	0.30
15	0.30
20	0.30
25	0.30
30	0.30
40	0.30

Time (mins)	Depth to Water (m.b.g.l.)
50	0.30
60	0.31
70	0.31
80	0.31
90	0.31
100	0.31
110	0.31
120	0.32
130	0.32
140	0.32
150	0.32
180	0.32

Time (mins)	Depth to Water (m.b.g.l.)
210	0.33
240	0.33
270	0.33
300	0.33
360	0.33

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In-situ Soakaway Test Record | Test No: SA04

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 25/01/2022

Type of Test: Soakaway in trial pit
Width of pit (m) 0.70
Length of pit (m) 2.10
Depth of pit (m) 1.50
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.35
Time Taken to Fill to Standing Level (mins) 1

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.35
1	0.35
2	0.35
3	0.35
4	0.35
5	0.36
10	0.37
15	0.39
20	0.40
25	0.42
30	0.44
40	0.46

Time (mins)	Depth to Water (m.b.g.l.)
50	0.48
60	0.50
70	0.52
80	0.54
90	0.55
100	0.56
110	0.58
120	0.59
130	0.60
140	0.61
150	0.63
180	0.65

Time (mins)	Depth to Water (m.b.g.l.)
210	0.67
240	0.70
270	0.72
300	0.73
360	0.76
1410	0.97
1555	1.01
1575	1.01

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In-situ Soakaway Test Record

Test No: SA05

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 26/01/2022

Type of Test: Soakaway in trial pit
Width of pit (m) 0.70
Length of pit (m) 1.60
Depth of pit (m) 1.60
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.28
Time Taken to Fill to Standing Level (mins) 1.5

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.28
1	0.31
2	0.34
3	0.36
4	0.37
5	0.39
10	0.44
15	0.49
20	0.51
25	0.55
30	0.59
40	0.65

Time (mins)	Depth to Water (m.b.g.l.)
50	0.70
60	0.75
70	0.78
80	0.81
90	0.84
100	0.86
110	0.89
120	0.91
130	0.93
140	0.95
150	0.96
180	1.01

Time (mins)	Depth to Water (m.b.g.l.)
210	1.04
240	1.06
270	1.10
300	1.12
360	1.16
420	1.19

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In-situ Soakaway Test Record

Test No: SA06

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 25/01/2022

Type of Test: Soakaway in trial pit.
Width of pit (m) 0.70
Length of pit (m) 2.00
Depth of pit (m) 1.60
Standing Water Level Prior to Test (m) Dry
Depth of Water at T=0 Below g.l (m) 0.36
Time Taken to Fill to Standing Level (mins) 0.67

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.36
1	0.36
2	0.37
3	0.37
4	0.37
5	0.37
10	0.37
15	0.38
20	0.38
25	0.38
30	0.38
40	0.38

Time (mins)	Depth to Water (m.b.g.l.)
50	0.39
60	0.39
70	0.40
80	0.40
90	0.40
100	0.41
110	0.41
120	0.42
130	0.42
140	0.42
150	0.43
180	0.43

Time (mins)	Depth to Water (m.b.g.l.)
210	0.44
240	0.45
270	0.46
300	0.46
360	0.47

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In-situ Soakaway Test Record

Test No: SA07

Contract No: 30925
Site: SW Rugby
Client / Engineer: Wardell Armstrong
Date: 25/01/2022

Type of Test: Soakaway in trial pit.
Width of pit (m) 0.70
Length of pit (m) 1.50
Depth of pit (m) 1.50
Standing Water Level Prior to Test (m) 1.5
Depth of Water at T=0 Below g.l (m) 0.35
Time Taken to Fill to Standing Level (mins) 2

Water Level Records

Time (mins)	Depth to Water (m.b.g.l.)
0	0.35
1	0.35
2	0.35
3	0.35
4	0.35
5	0.35
10	0.35
15	0.35
20	0.35
25	0.35
30	0.35
40	0.35

Time (mins)	Depth to Water (m.b.g.l.)
50	0.35
60	0.35
70	0.35
80	0.35
90	0.35
100	0.35
110	0.35
120	0.35
130	0.35
140	0.35
150	0.35
180	0.35

Time (mins)	Depth to Water (m.b.g.l.)
210	0.35

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Appendix 4
CBR Test Results

GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 1

Test date:- 28.01.22

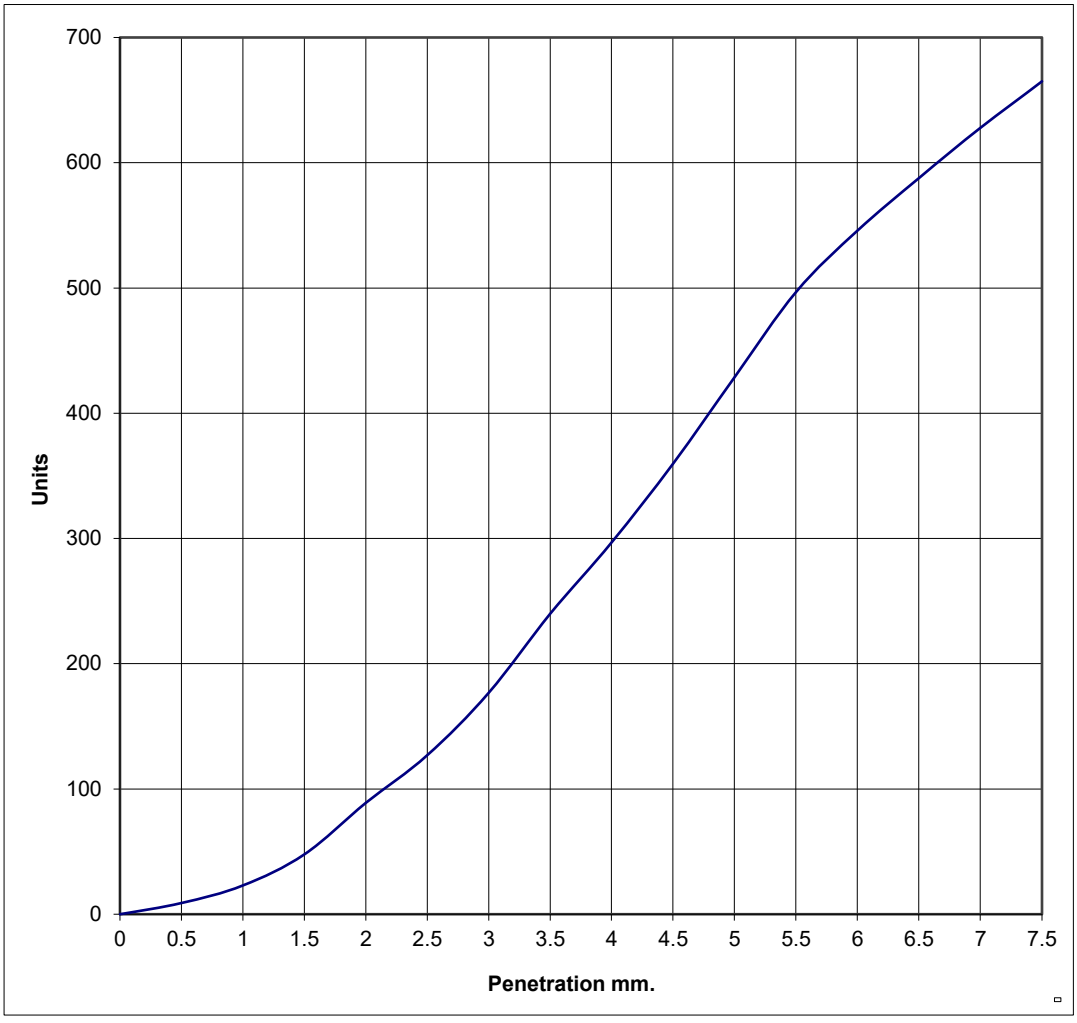
Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**2.9 %**
Natural Moisture Content:	**8.7 %**
Surcharge:	**9.2 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	Occasional
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	7 °C

Sample Description:- Brown silty gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 2

Test date:- 28.01.22

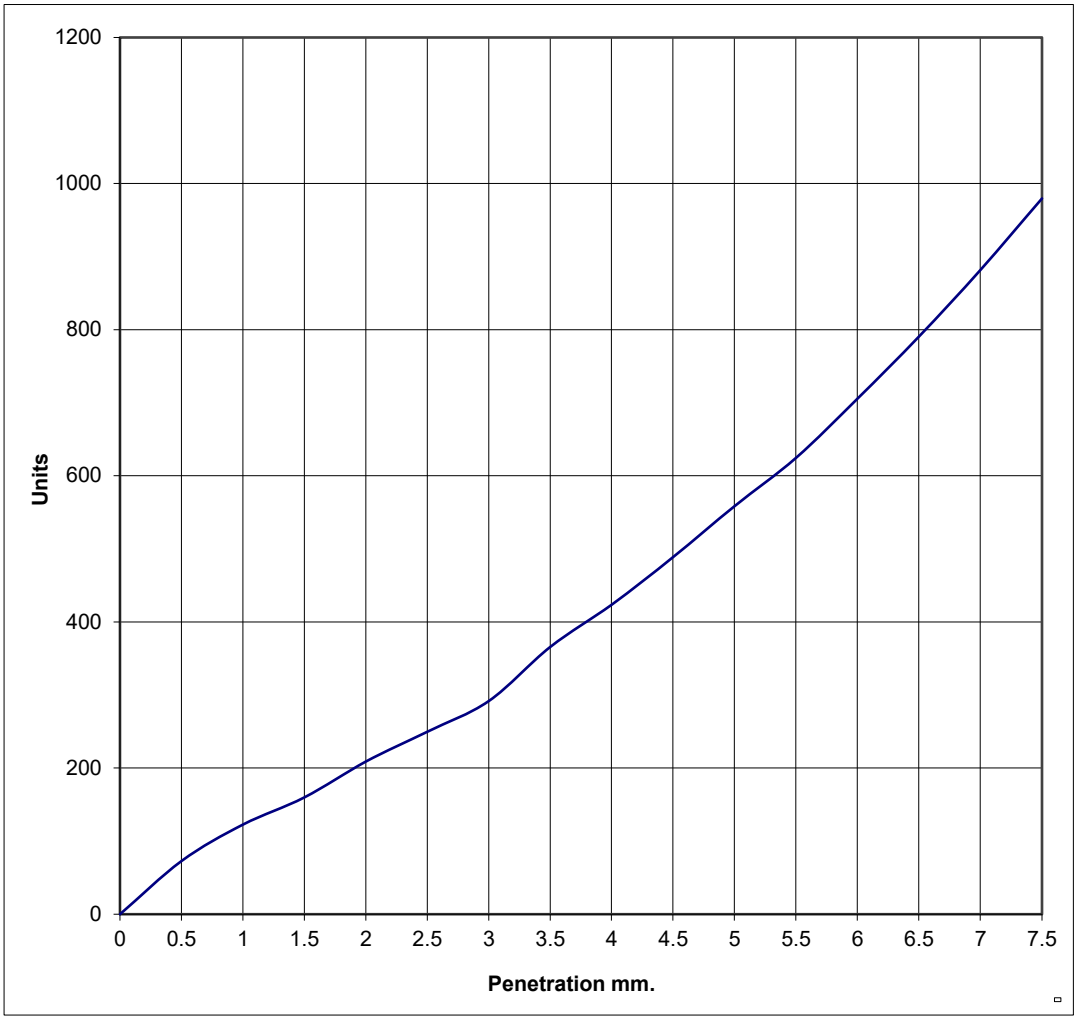
Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**3.7 %**
Natural Moisture Content:	**11 %**
Surcharge:	**9.2 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	None
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	8 °C

Sample Description:- Orange brown clayey slightly gravelly SAND. Gravel is quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 3

Test date:- 28.01.22

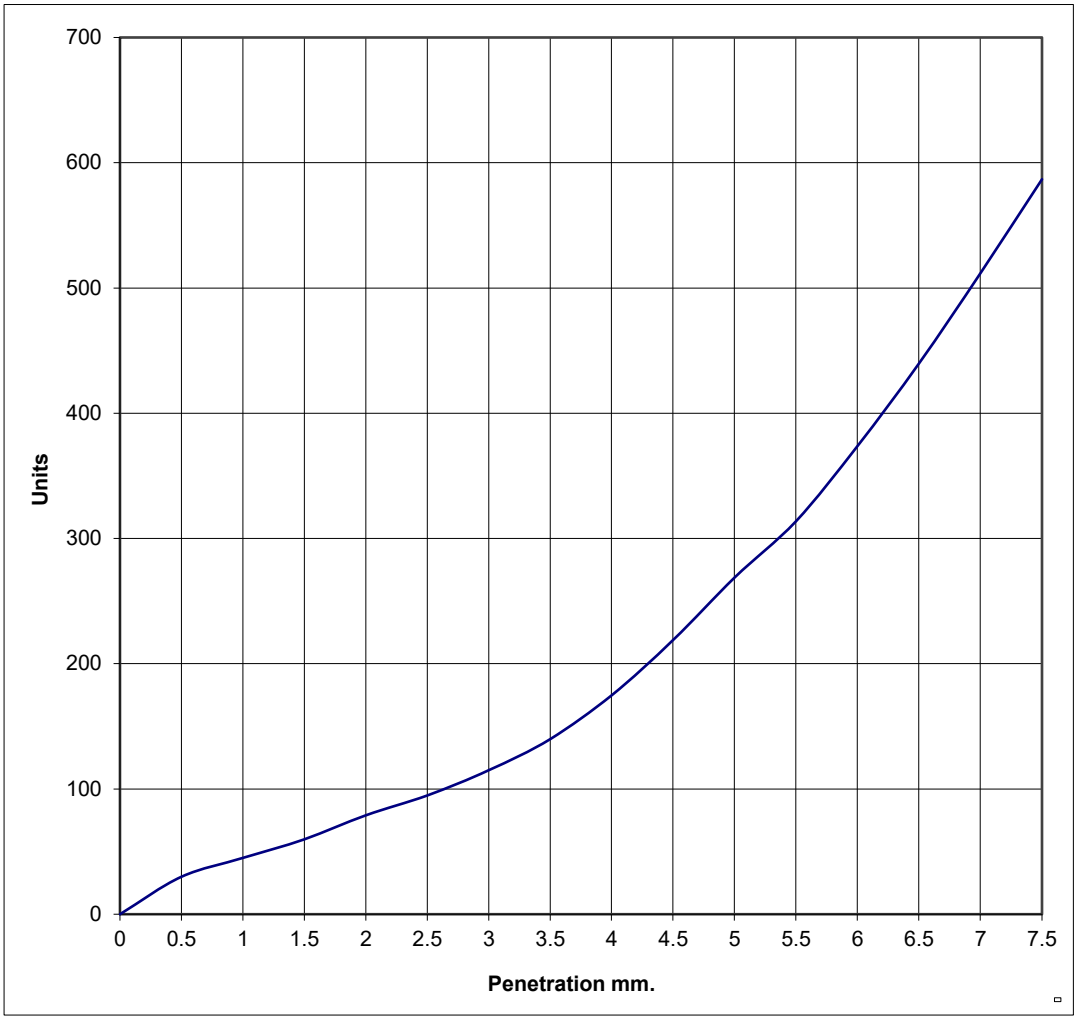
Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**1.9 %**
Natural Moisture Content:	**8.8 %**
Surcharge:	**9.20 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	Occasional
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	8 °C

Sample Description:- Brown silty gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 4

Test date:- 28.01.22

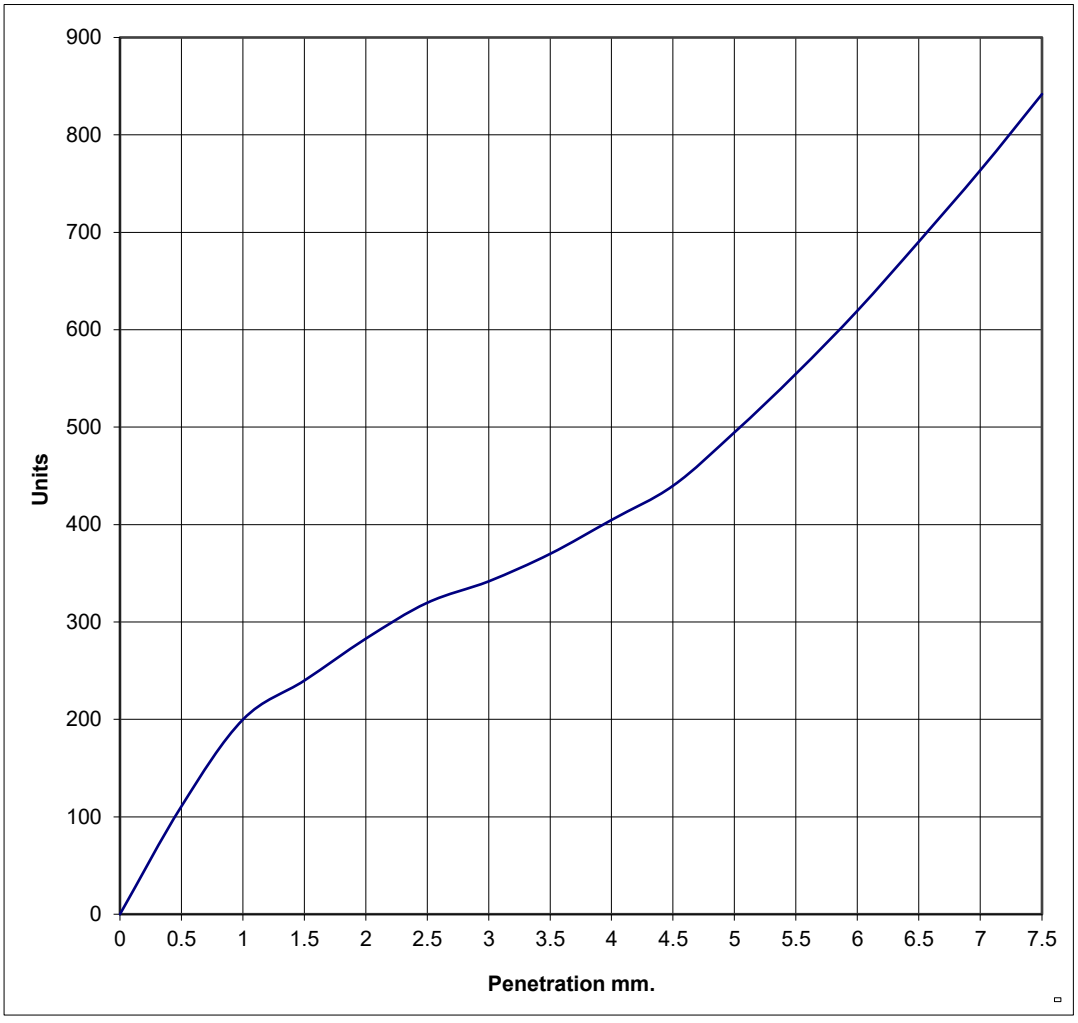
Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**3.4 %**
Natural Moisture Content:	**12 %**
Surcharge:	**9.2 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	Occasional
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	9 °C

Sample Description:- Brown silty slightly gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

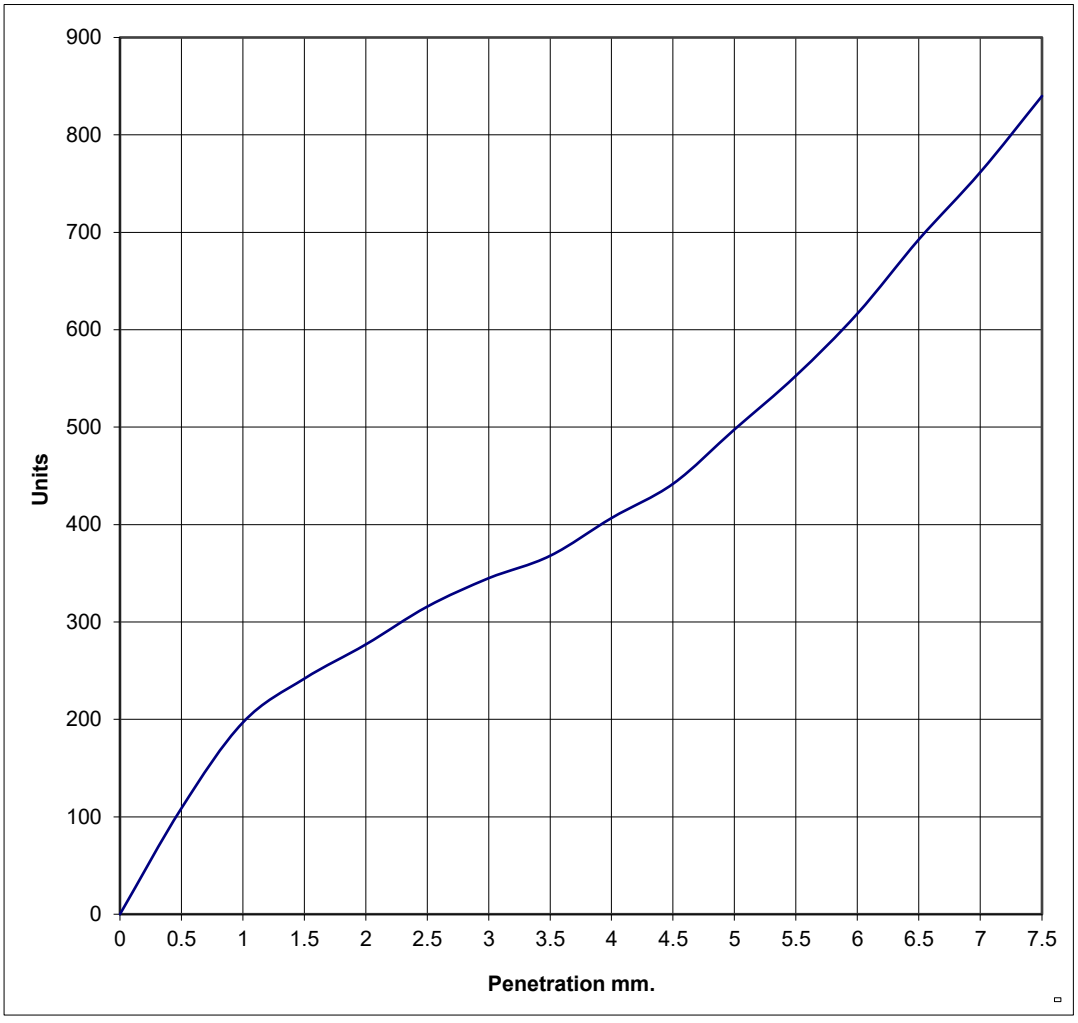
Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 5

Test date:- 28.01.22

Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-		
CBR: BS1377:Part9:1990: Clause 4.3	**California Bearing Ratio:**	**3.4 %**
	Natural Moisture Content:	**7.3 %**
	Surcharge:	**9.2 kg**
	Equivalent overburden pressure:	1.82 kPa
	Presence of material > 20.0mm:	Occasional
Moisture Preparation: BS1377:Part2:1990 Clause 3	Position of material > 20.0mm beneath plunger:	None
	Weather conditions:	Dry
	Temperature:	8 °C

Sample Description:- Brown silty slightly gravelly SAND. Gravel is sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 6

Test date:- 28.01.22

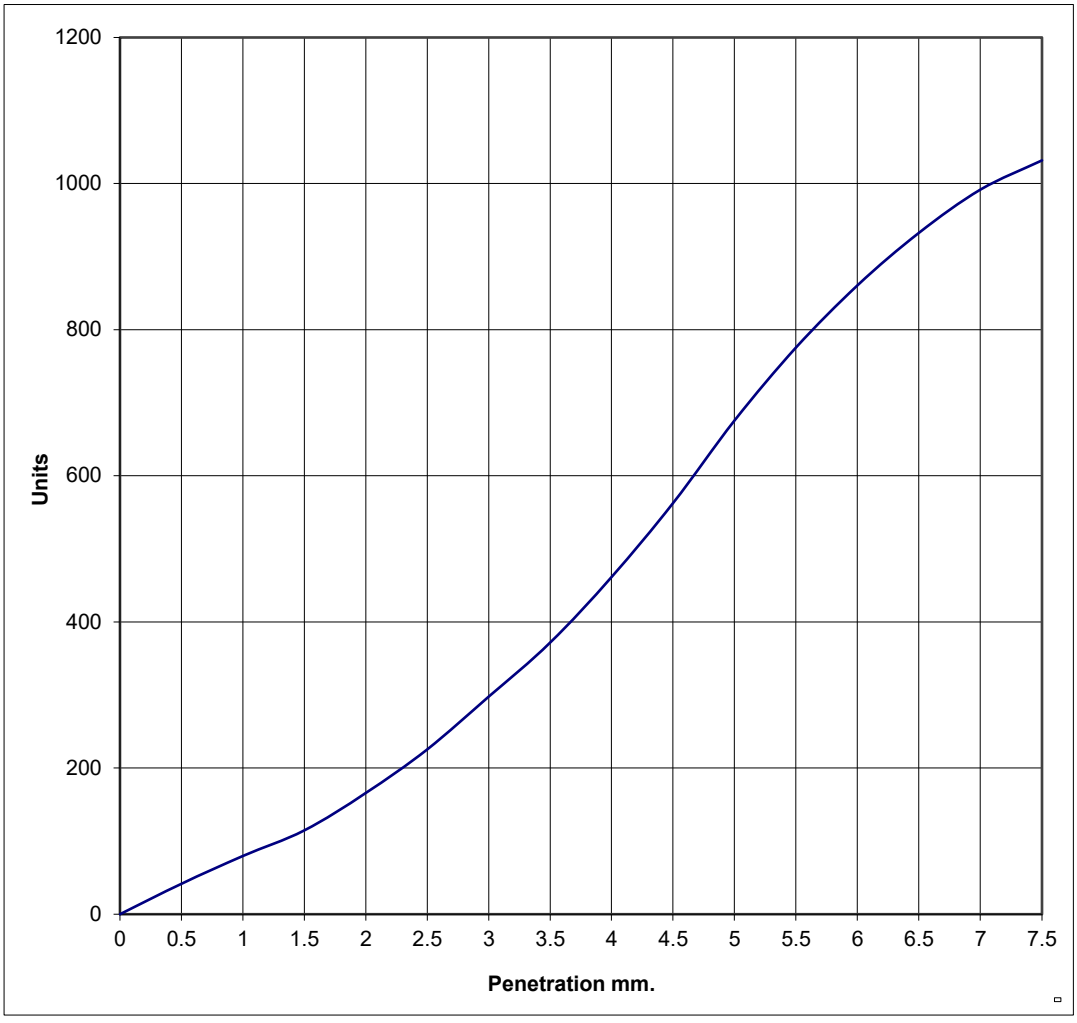
Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**4.5 %**
Natural Moisture Content:	**9.2 %**
Surcharge:	**9.2 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	Some
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	9 °C

Sample Description:- Brown silty gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

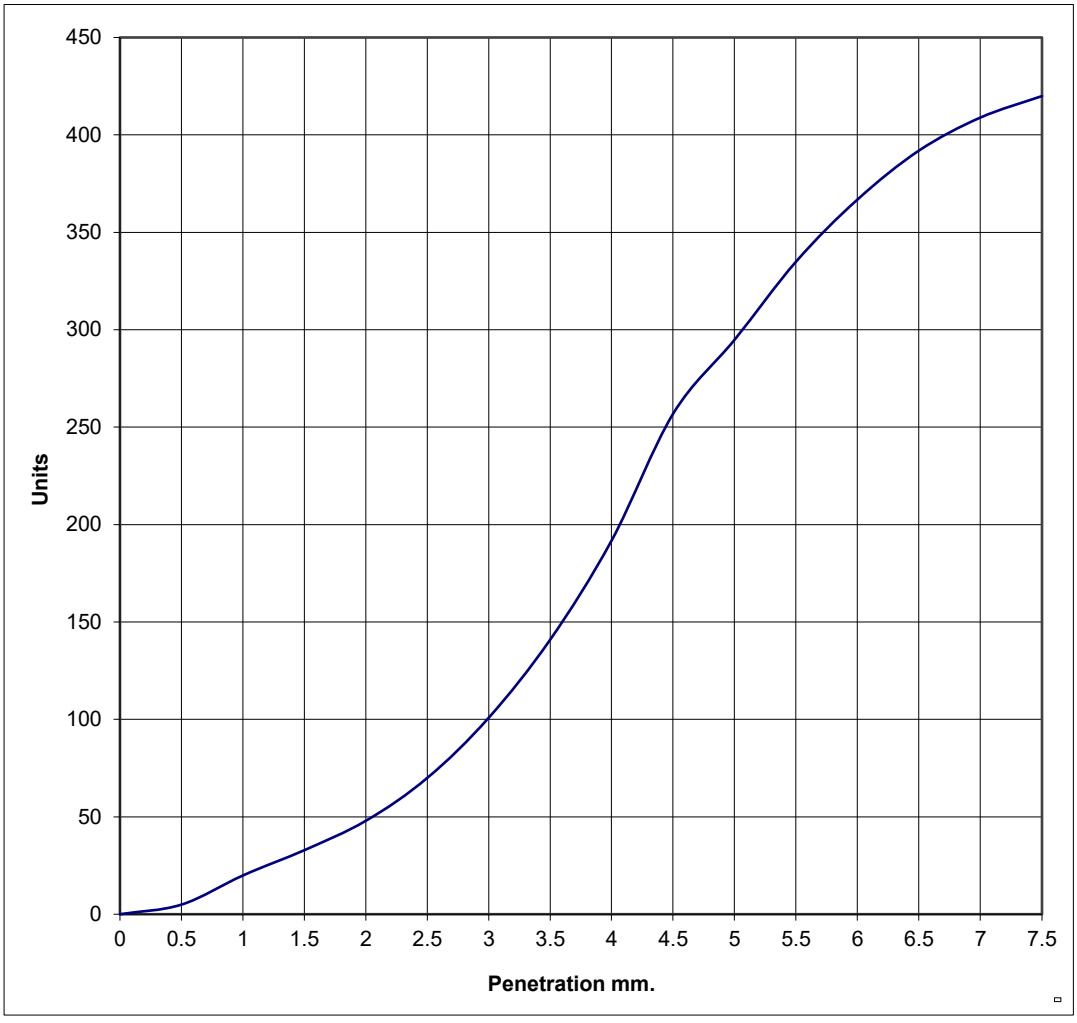
Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 7

Test date:- 28.01.22

Report:- 28.02.22 Depth:- 0.50m

TEST METHODS:-		
CBR: BS1377:Part9:1990: Clause 4.3	**California Bearing Ratio:**	**2.1 %**
	Natural Moisture Content:	**8.7 %**
	Surcharge:	**9.2 kg**
	Equivalent overburden pressure:	1.82 kPa
	Presence of material > 20.0mm:	Some
Moisture Preparation: BS1377:Part2:1990 Clause 3	Position of material > 20.0mm beneath plunger:	None
	Weather conditions:	Dry
	Temperature:	10 °C

Sample Description:- Brown silty gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



GROUND INVESTIGATION & PILING LIMITED
REPORT FOR IN-SITU CALIFORNIA BEARING RATIO

Site:- SW Rugby.

Job No:- 30925 Customer:- Wardell Armstrong. Test No:- 8

Test date:- 28.01.22

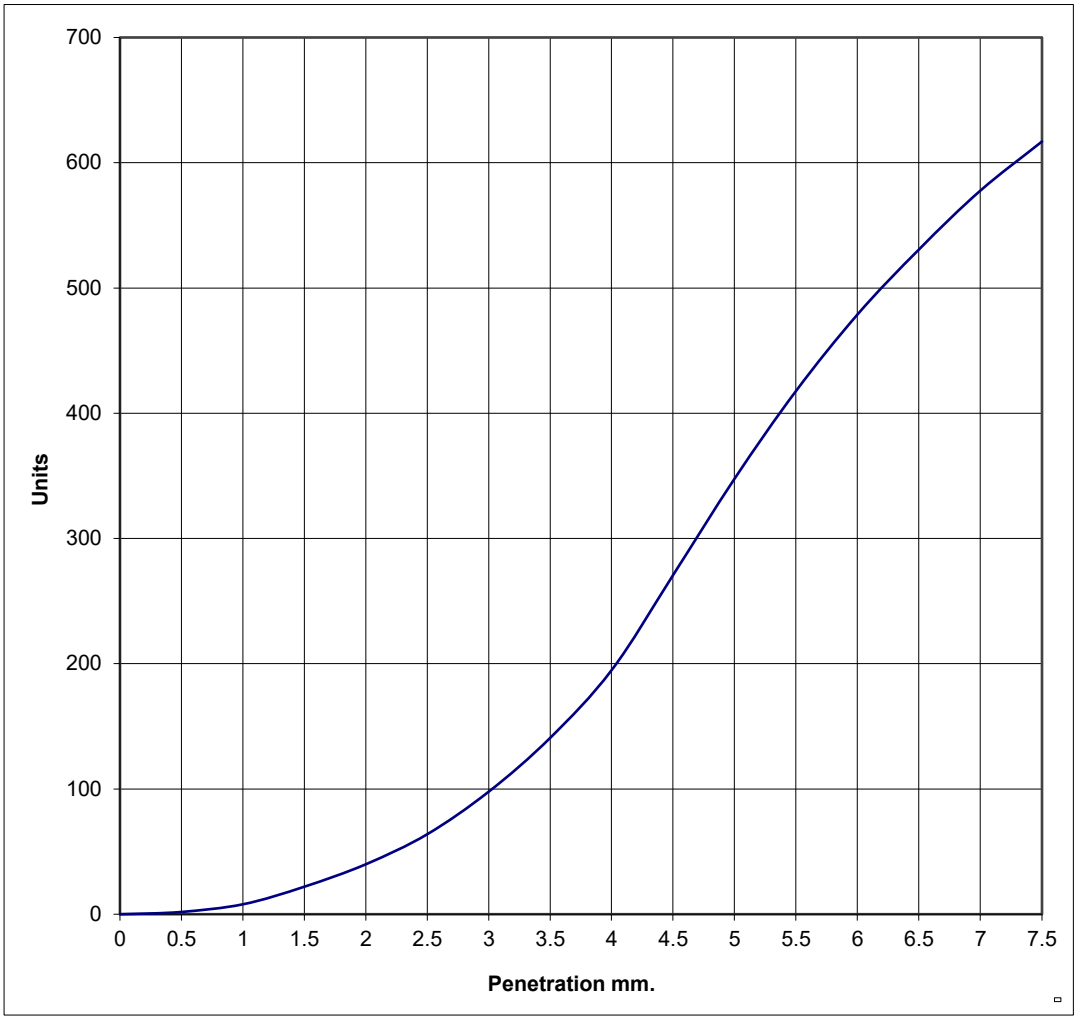
Report:- 28.02.22 Depth:- 0.55m

TEST METHODS:-
CBR:
BS1377:Part9:1990:
Clause 4.3

Moisture Preparation:
BS1377:Part2:1990
Clause 3

California Bearing Ratio:	**2.4 %**
Natural Moisture Content:	**15 %**
Surcharge:	**9.2 kg**
Equivalent overburden pressure:	1.82 kPa
Presence of material > 20.0mm:	Some
Position of material > 20.0mm beneath plunger:	None
Weather conditions:	Dry
Temperature:	9 °C

Sample Description:- Brown and light brown clayey gravelly SAND. Gravel is sub-angular to sub-rounded quartz.



Appendix 5
Geotechnical Laboratory Testing Results

LABORATORY REPORT

4043

Contract Number: PSL22/0966

Report Date: 10 March 2022

Client's Reference: CJB/30925

Client Name: GIP Ltd
Devonshire House
Ettingshall Road
Wolverhampton
WV2 2JT

For the attention of: Chris Browning/Rob Campbell

Contract Title: SW Rugby

Date Received: 8/2/2022
Date Commenced: 8/2/2022
Date Completed: 10/3/2022

Notes: Opinions and Interpretations are outside the UKAS Accreditation

Checked and Approved Signatories:

A Watkins (Director)
R Berriman (Quality Manager)
S Royle (Laboratory Manager)

L Knight (Assistant Laboratory Manager)
S Eyre (Senior Technician)
T Watkins (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP01		B	0.70		Brown very gravelly slightly clayey silty SAND.
TP01		B	3.80		Brown slightly gravelly sandy CLAY.
TP02		B	3.40		Brown very gravelly clayey silty SAND.
TP05		B	1.20		Brown very gravelly slightly clayey silty SAND.
TP08		B	2.00		Brown very gravelly slightly clayey silty SAND.
TP10		B	3.30		Brown very sandy slightly clayey silty GRAVEL.
TP11		B	2.60		Brown slightly gravelly sandy CLAY.
TP13		B	1.30		Brown very gravelly slightly clayey silty SAND.
TP15		B	1.60		Brown slightly gravelly sandy CLAY.
TP16		B	1.30		Brown slightly gravelly sandy CLAY.
TP16		B	4.30		Brown sandy CLAY.
TP18		B	2.20		Brown slightly gravelly slightly clayey silty SAND.
TP20		B	2.55		Brown slightly gravelly very sandy CLAY.
TP21		B	0.40		Brown very gravelly very sandy CLAY.
TP23		B	4.50		Brown slightly gravelly very sandy CLAY.
TP24		B	3.00		Brown very gravelly very clayey SAND.
WS01		B	3.00		Brown very gravelly slightly clayey silty SAND.
WS07		B	3.60		Brown very sandy clayey silty GRAVEL.
WS08		B	3.50		Brown slightly gravelly sandy CLAY.

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
WS13		B	3.00		Brown very gravelly clayey silty SAND.
WS15		B	4.30		Brown slightly gravelly very sandy CLAY.
WS16		B	1.00		Brown very sandy CLAY.
CPB01		U	5.00		Stiff brown slightly gravelly sandy CLAY.
CPB01		B	6.00		Brown slightly gravelly very sandy CLAY.
CPB01		B	7.50		Brown slightly gravelly very sandy CLAY.
CPB02		D	5.80		Brown slightly gravelly very sandy CLAY.
CPB02		B	7.00		Brown slightly gravelly very sandy CLAY.

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP01		B	0.70		10							
TP01		B	3.80		32			52	24	28	90	High Plasticity CH
TP02		B	3.40		14							
TP05		B	1.20		8.4							
TP08		B	2.00		12							
TP10		B	3.30		15							
TP11		B	2.60		26			44	21	23	92	Intermediate Plasticity CI
TP13		B	1.30		14							
TP15		B	1.60		23							
TP16		B	1.30		26			53	25	28	97	High Plasticity CH
TP16		B	4.30		28			49	24	25	100	Intermediate Plasticity CI
TP18		B	2.20		12				NP			
TP20		B	2.55		20			35	17	18	93	Intermediate Plasticity CI
TP21		B	0.40		15							
TP23		B	4.50		16			28	13	15	96	Low Plasticity CL
TP24		B	3.00		19							
WS01		B	3.00		16							
WS07		B	3.60		13							
WS08		B	3.50		23							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

SW Rugby

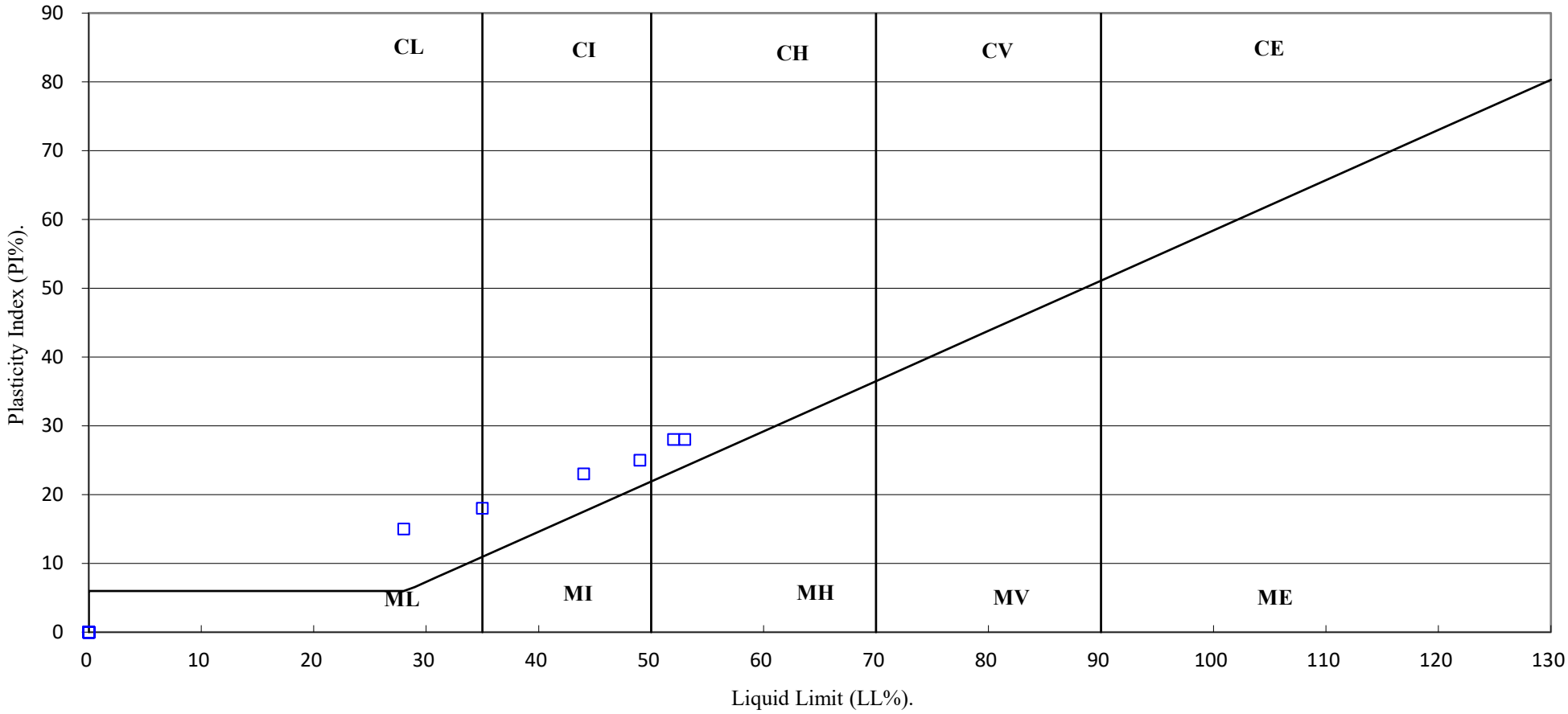
Contract No:

PSL22/0966

Client Ref:

CJB/30925

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	SW Rugby	Contract No: PSL22/0966
			Client Ref: CJB/30925

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
WS13		B	3.00		21							
WS15		B	4.30		15			32	15	17	97	Low Plasticity CL
WS16		B	1.00		20			35	17	18	100	Intermediate Plasticity CI
CPB01		U	5.00		16							
CPB01		B	6.00		13			31	16	15	94	Low Plasticity CL
CPB01		B	7.50		20			34	17	17	98	Low Plasticity CL
CPB02		D	5.80		18			36	17	19	95	Intermediate Plasticity CI
CPB02		B	7.00		18							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL Professional Soils Laboratory

SW Rugby

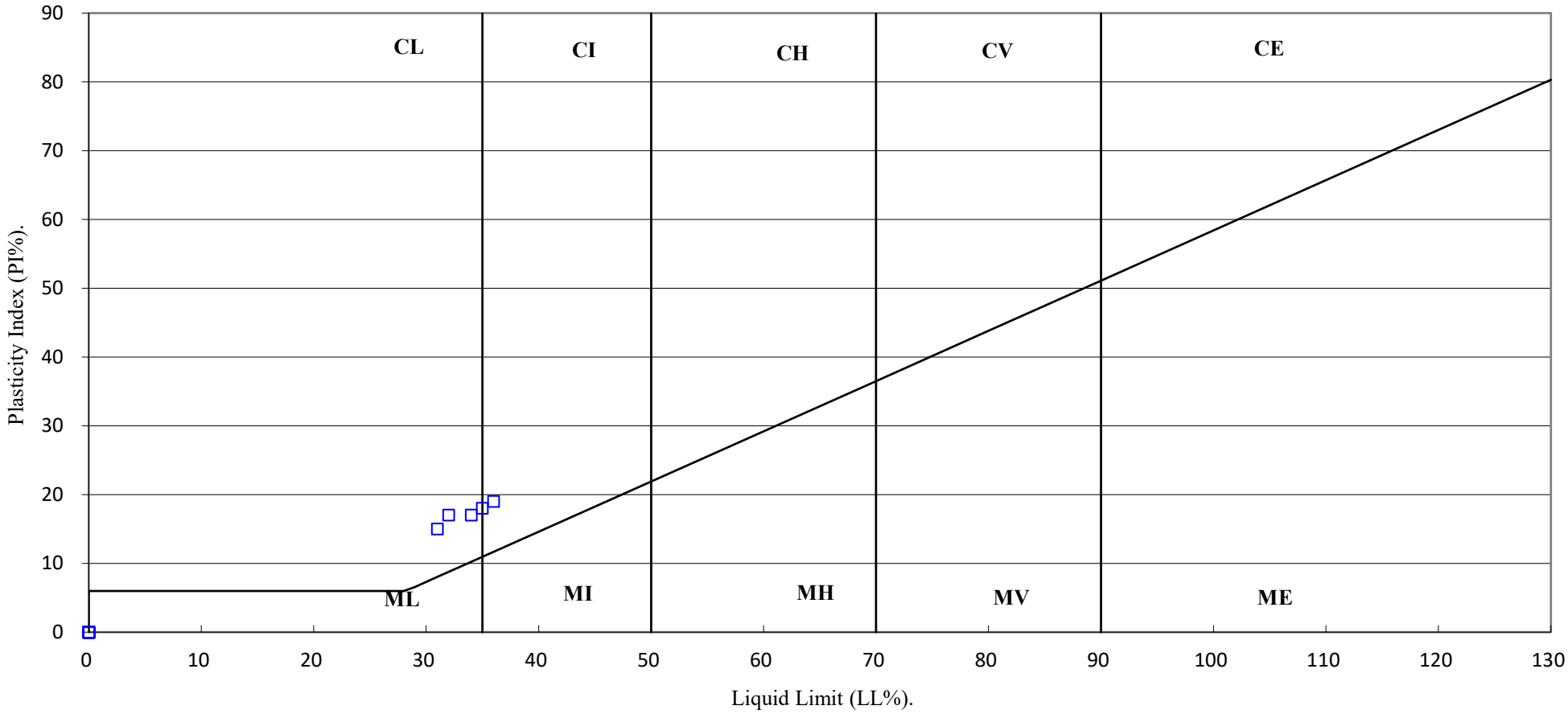
Contract No:

PSL22/0966

Client Ref:

CJB/30925

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043	PSL Professional Soils Laboratory	SW Rugby	Contract No: PSL22/0966
			Client Ref: CJB/30925

PARTICLE SIZE DISTRIBUTION TEST

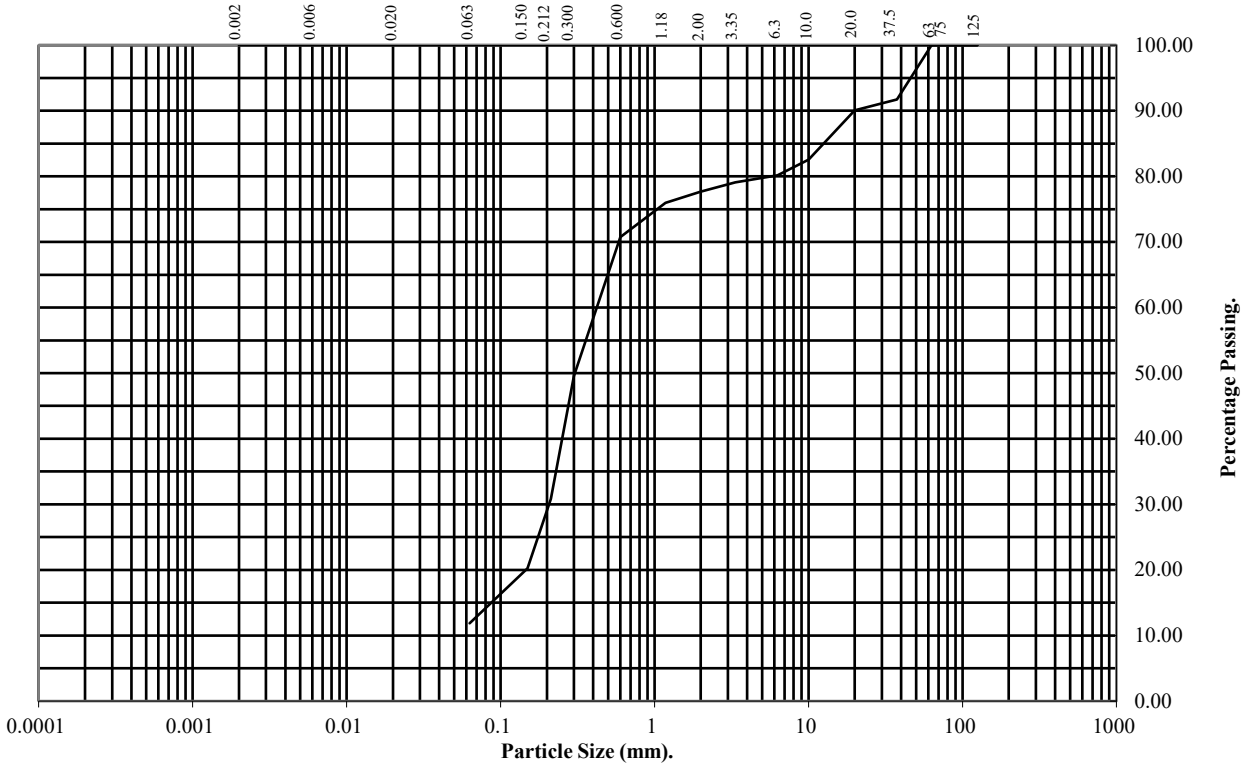
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP01 **Top Depth (m):** 0.70

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	92
20	90
10	83
6.3	80
3.35	79
2	78
1.18	76
0.6	71
0.3	50
0.212	31
0.15	20
0.063	12

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	66
Silt/Clay	12

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

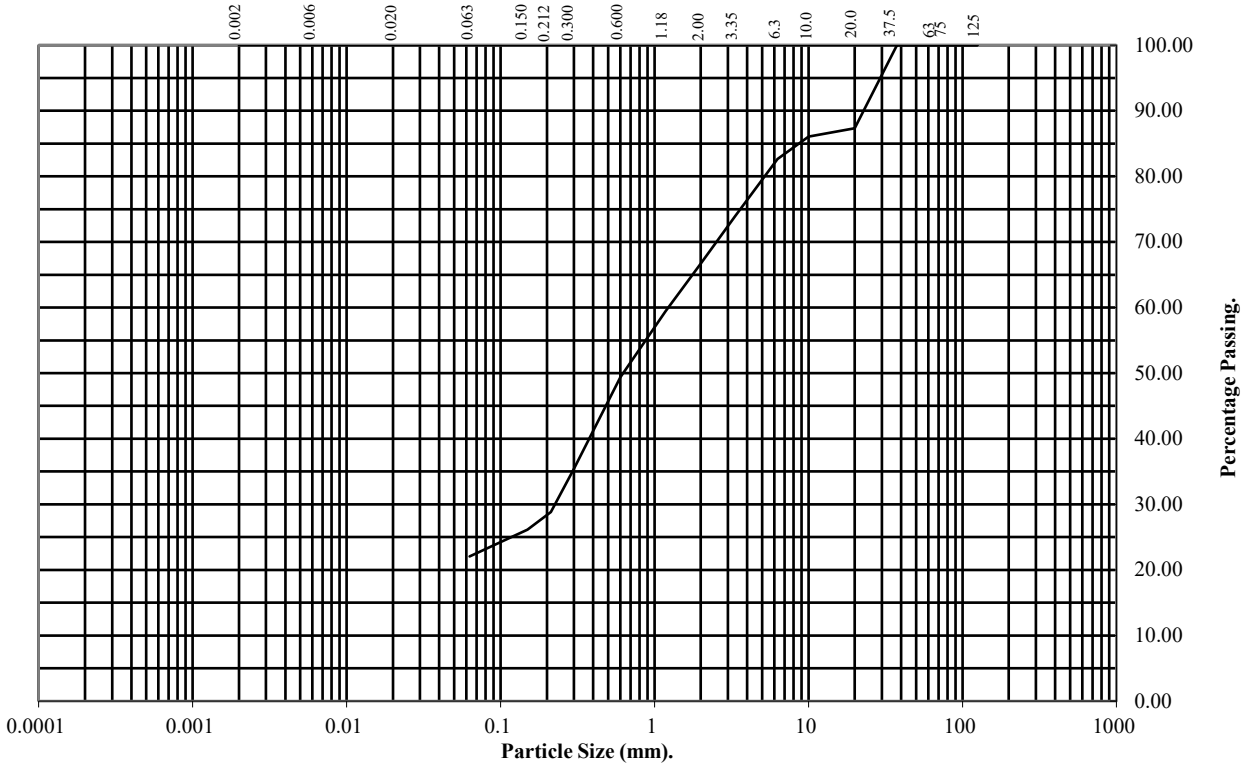
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP02 **Top Depth (m):** 3.40

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	87
10	86
6.3	83
3.35	74
2	67
1.18	59
0.6	49
0.3	35
0.212	29
0.15	26
0.063	22

Soil Fraction	Total Percentage
Cobbles	0
Gravel	33
Sand	45
Silt/Clay	22

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

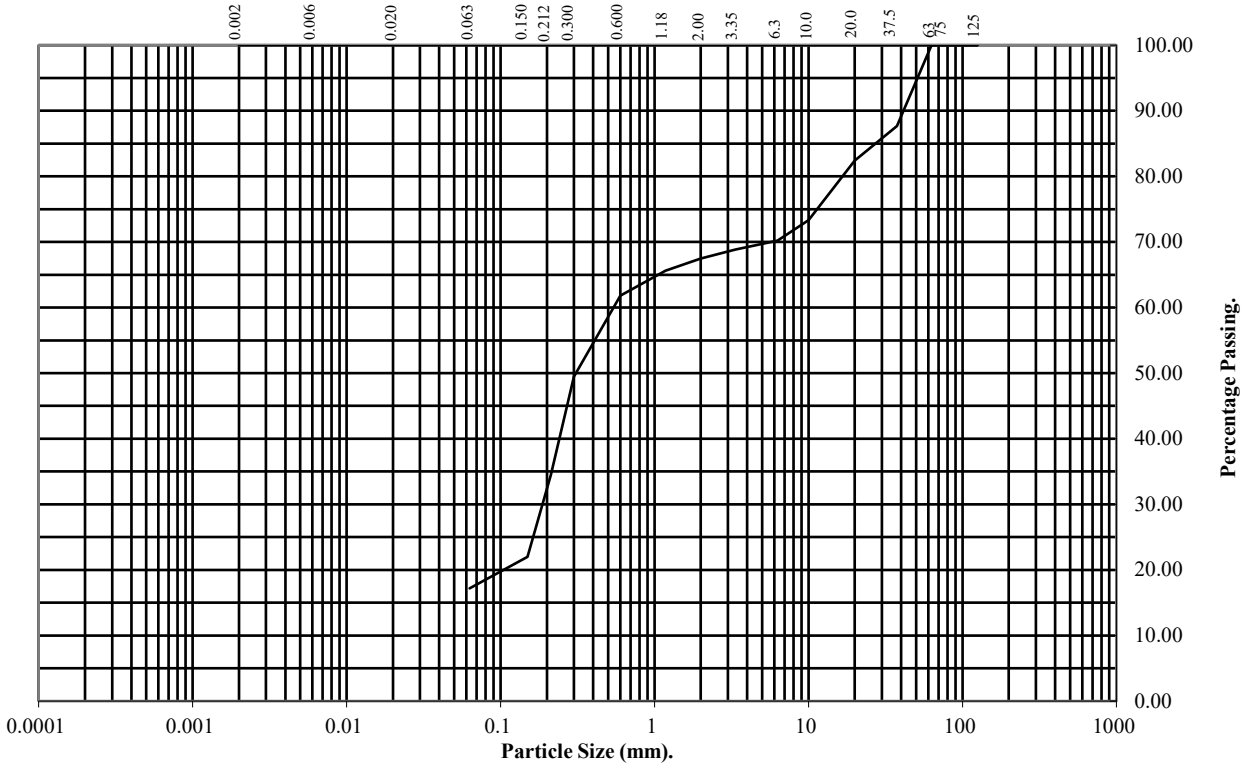
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP05 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	88
20	82
10	73
6.3	70
3.35	69
2	67
1.18	66
0.6	62
0.3	49
0.212	34
0.15	22
0.063	17

Soil Fraction	Total Percentage
Cobbles	0
Gravel	33
Sand	50
Silt/Clay	17

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

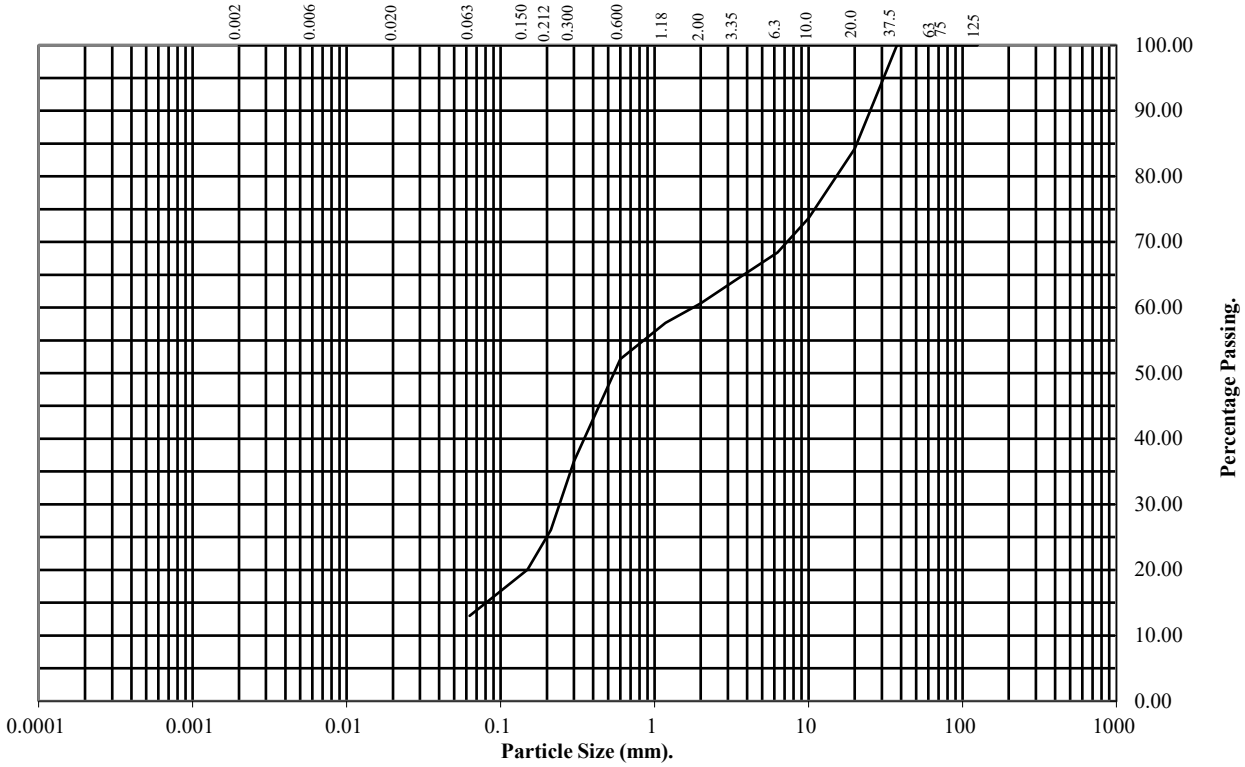
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP08 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	84
10	74
6.3	68
3.35	64
2	61
1.18	58
0.6	52
0.3	37
0.212	26
0.15	20
0.063	13

Soil Fraction	Total Percentage
Cobbles	0
Gravel	39
Sand	48
Silt/Clay	13

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

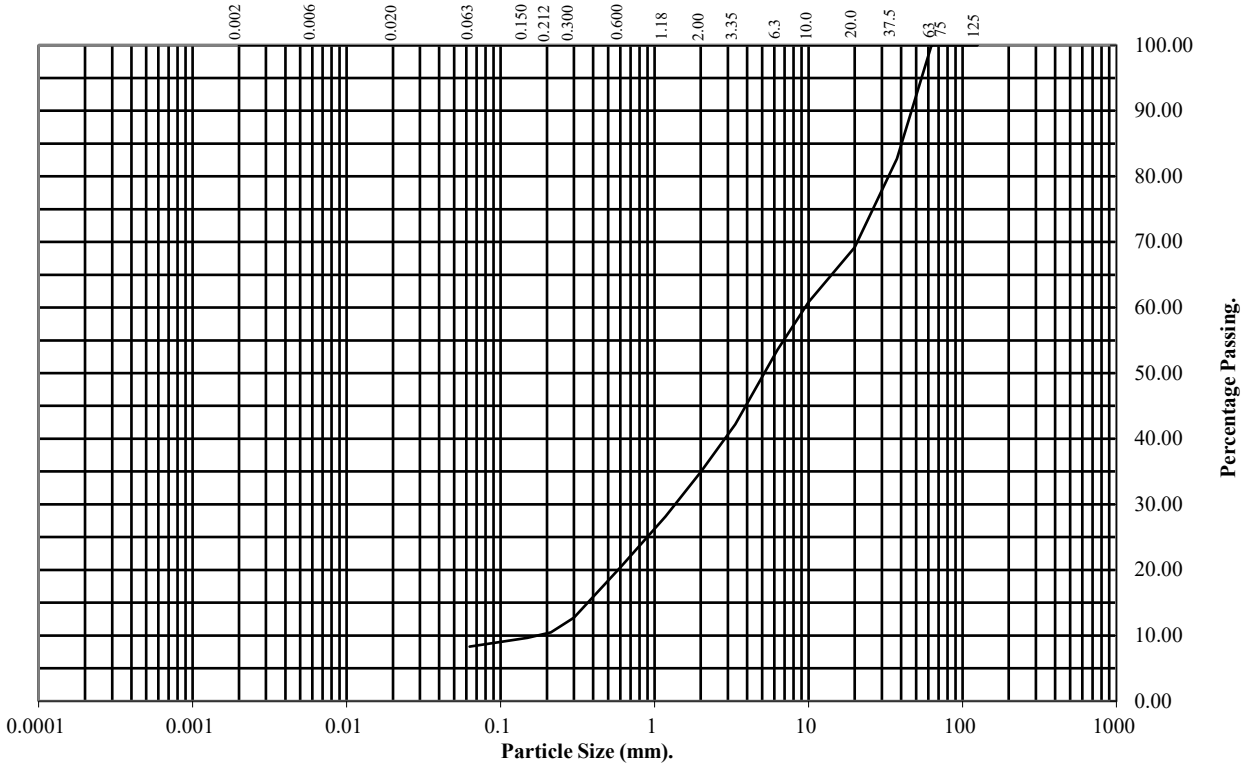
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP10 **Top Depth (m):** 3.30

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	83
20	69
10	61
6.3	54
3.35	42
2	35
1.18	28
0.6	20
0.3	13
0.212	10
0.15	10
0.063	8

Soil Fraction	Total Percentage
Cobbles	0
Gravel	65
Sand	27
Silt/Clay	8

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

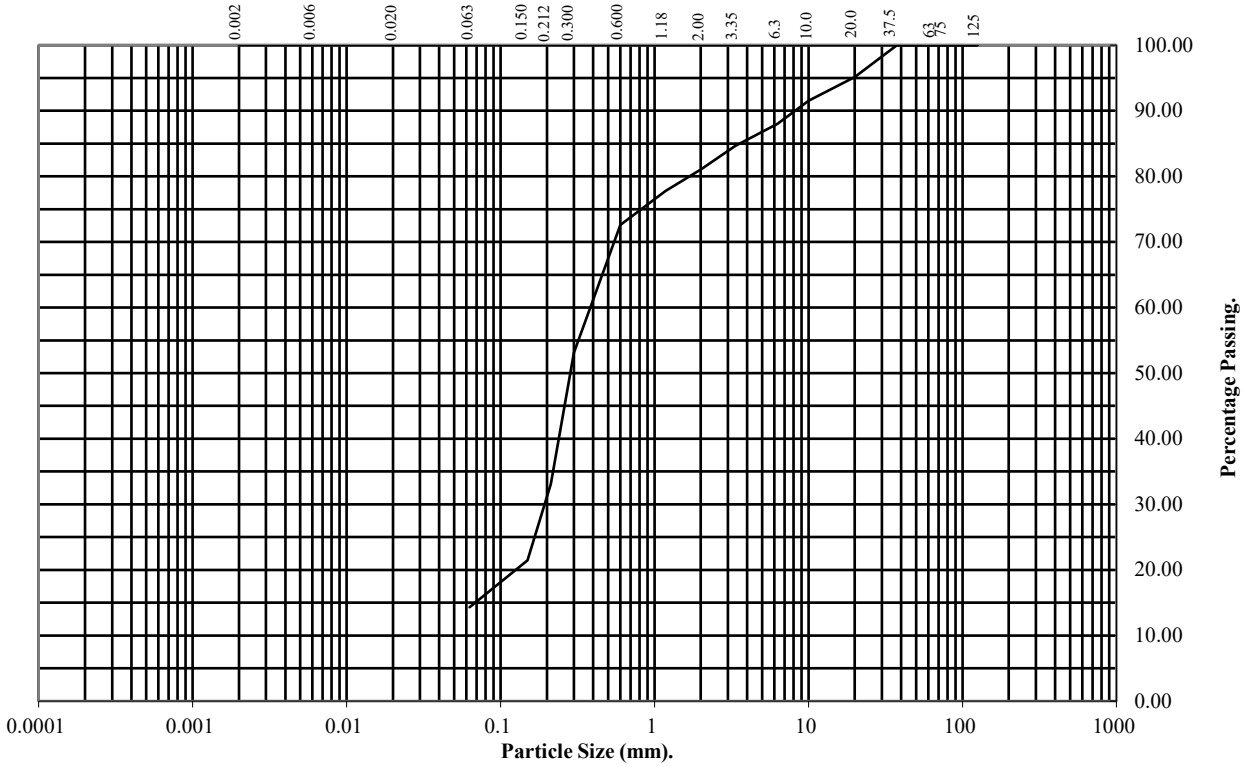
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP13 **Top Depth (m):** 1.30

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	92
6.3	88
3.35	85
2	81
1.18	78
0.6	73
0.3	53
0.212	33
0.15	21
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	19
Sand	67
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

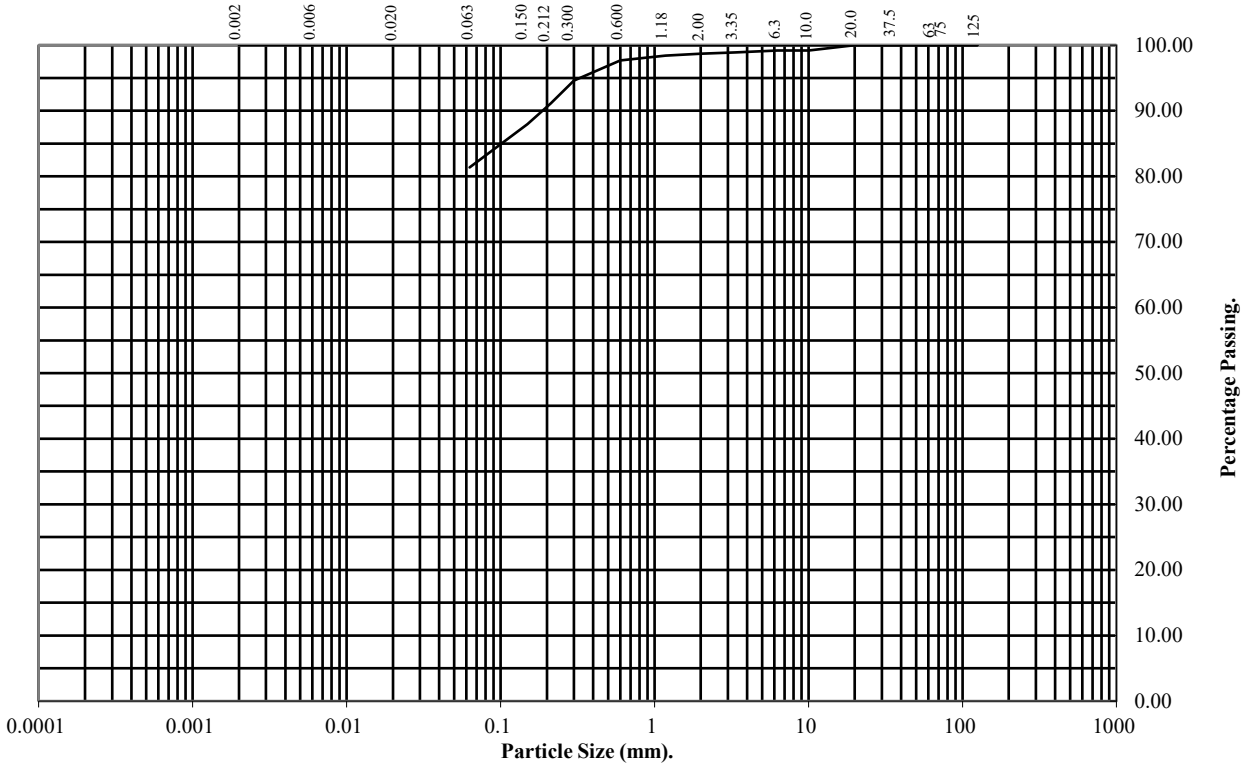
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP15 **Top Depth (m):** 1.60

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	99
3.35	99
2	99
1.18	98
0.6	98
0.3	95
0.212	91
0.15	88
0.063	81

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	18
Silt/Clay	81

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

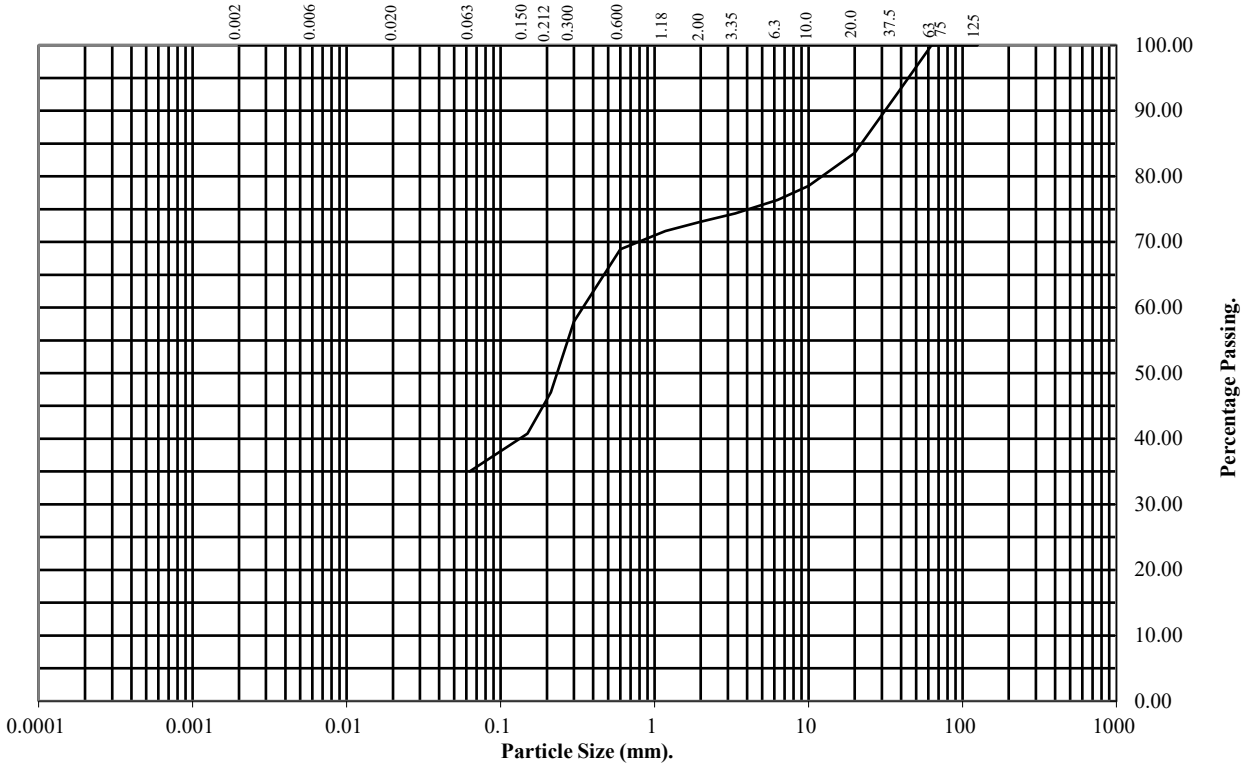
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP21 **Top Depth (m):** 0.40

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	93
20	84
10	79
6.3	76
3.35	74
2	73
1.18	72
0.6	69
0.3	58
0.212	47
0.15	41
0.063	35

Soil Fraction	Total Percentage
Cobbles	0
Gravel	27
Sand	38
Silt/Clay	35

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

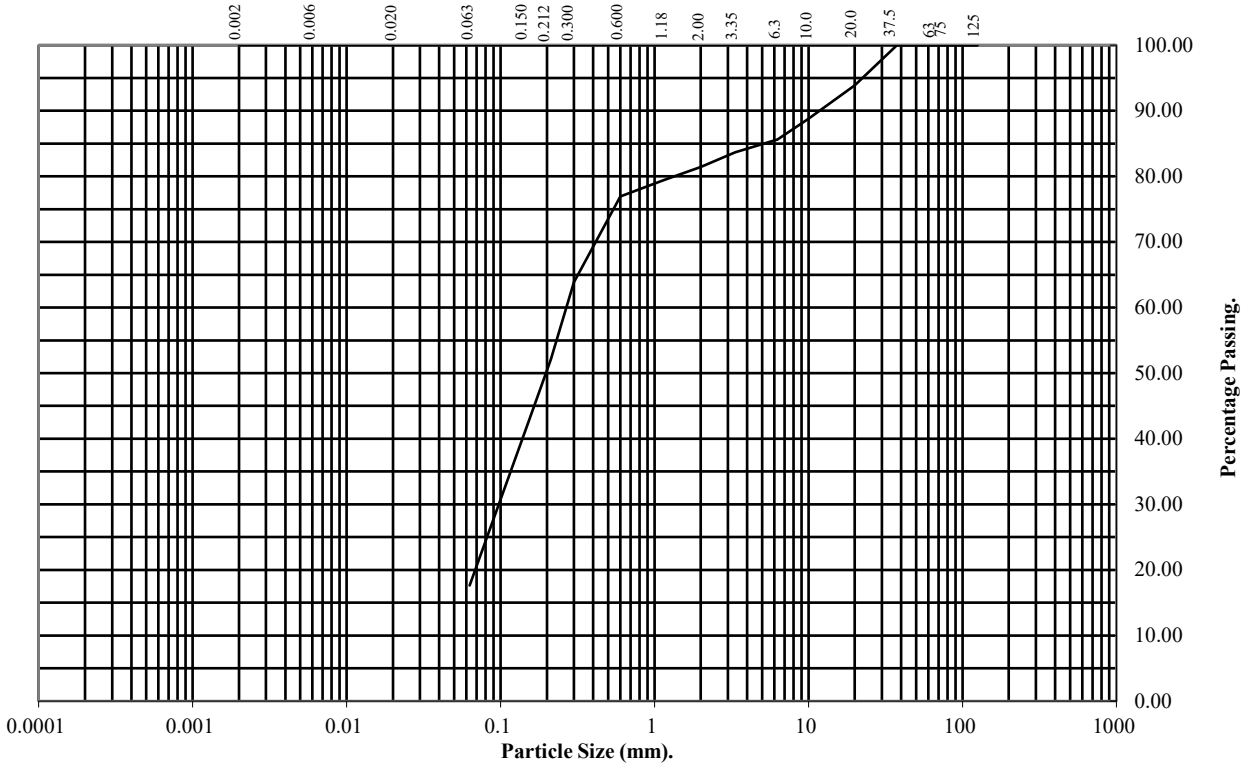
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP24 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	94
10	89
6.3	86
3.35	84
2	81
1.18	80
0.6	77
0.3	64
0.212	52
0.15	42
0.063	18

Soil Fraction	Total Percentage
Cobbles	0
Gravel	19
Sand	63
Silt/Clay	18

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

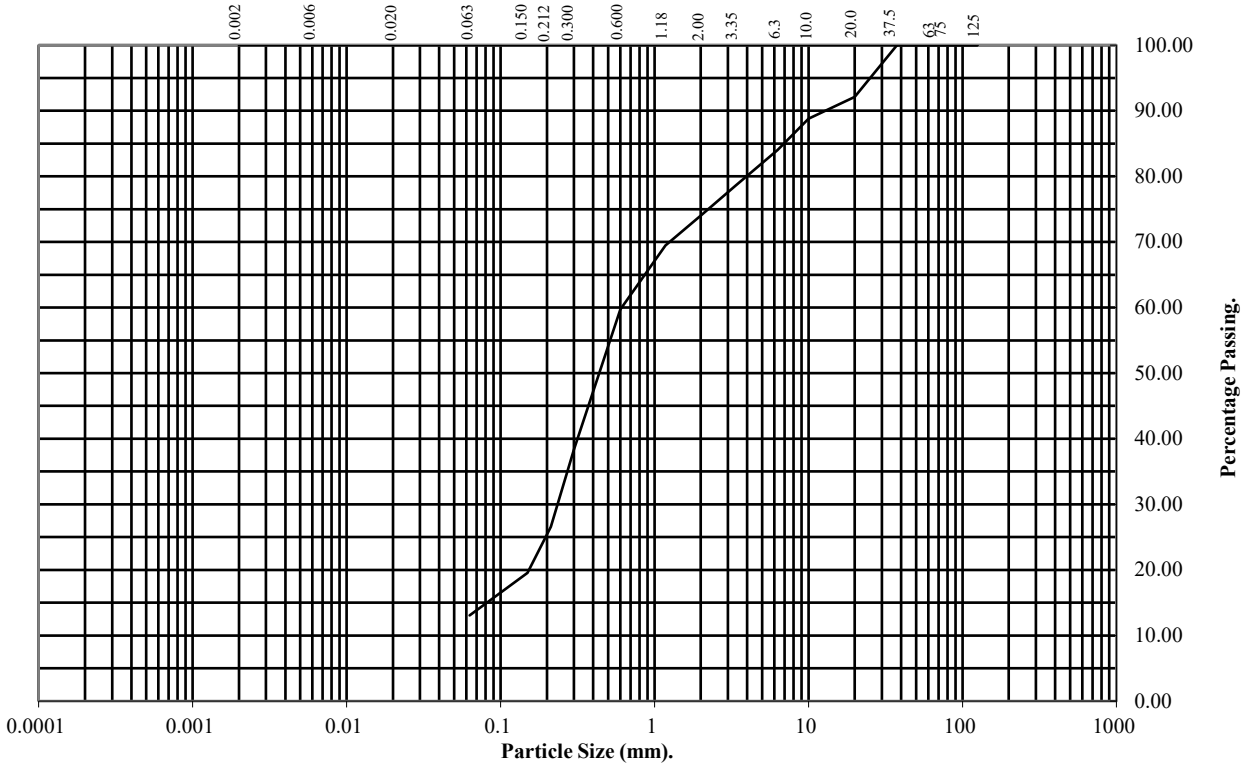
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **WS01** **Top Depth (m):** **3.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	92
10	89
6.3	84
3.35	79
2	74
1.18	69
0.6	60
0.3	38
0.212	27
0.15	20
0.063	13

Soil Fraction	Total Percentage
Cobbles	0
Gravel	26
Sand	61
Silt/Clay	13

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

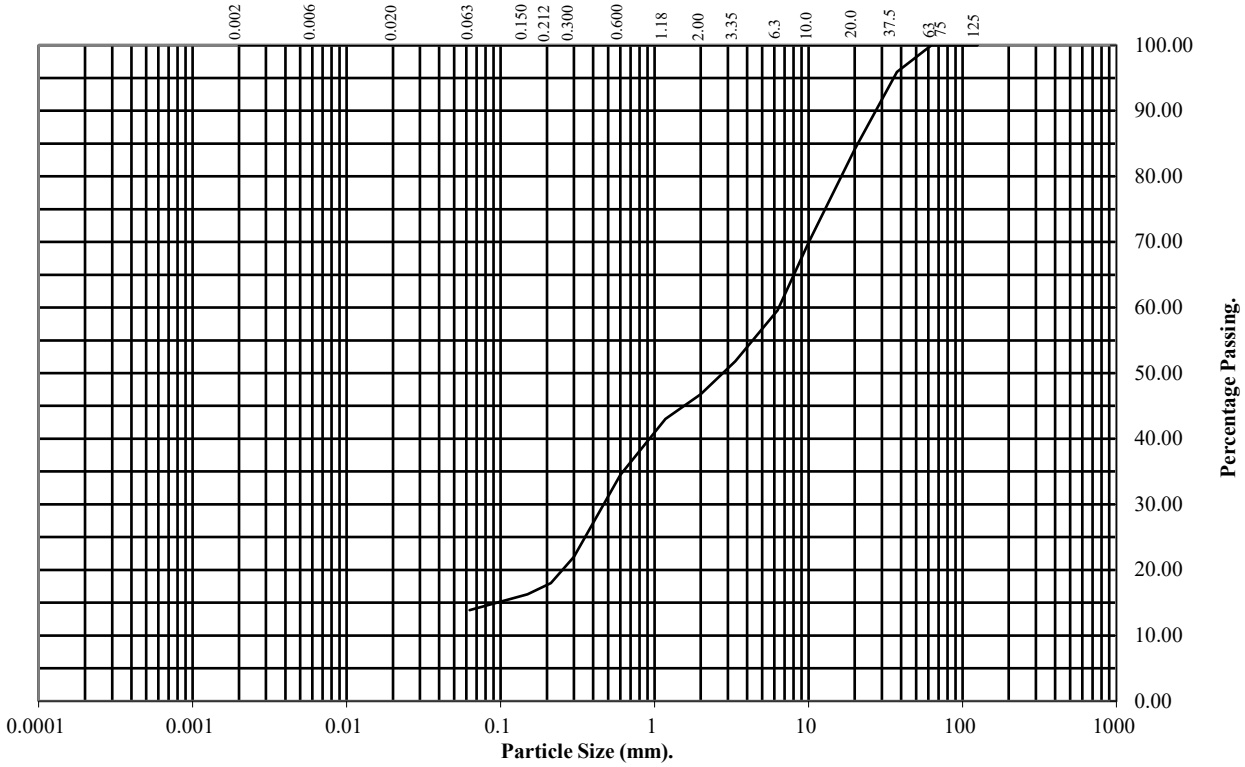
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **WS07** **Top Depth (m):** **3.60**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	96
20	84
10	70
6.3	60
3.35	52
2	47
1.18	43
0.6	34
0.3	22
0.212	18
0.15	16
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	53
Sand	33
Silt/Clay	14

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

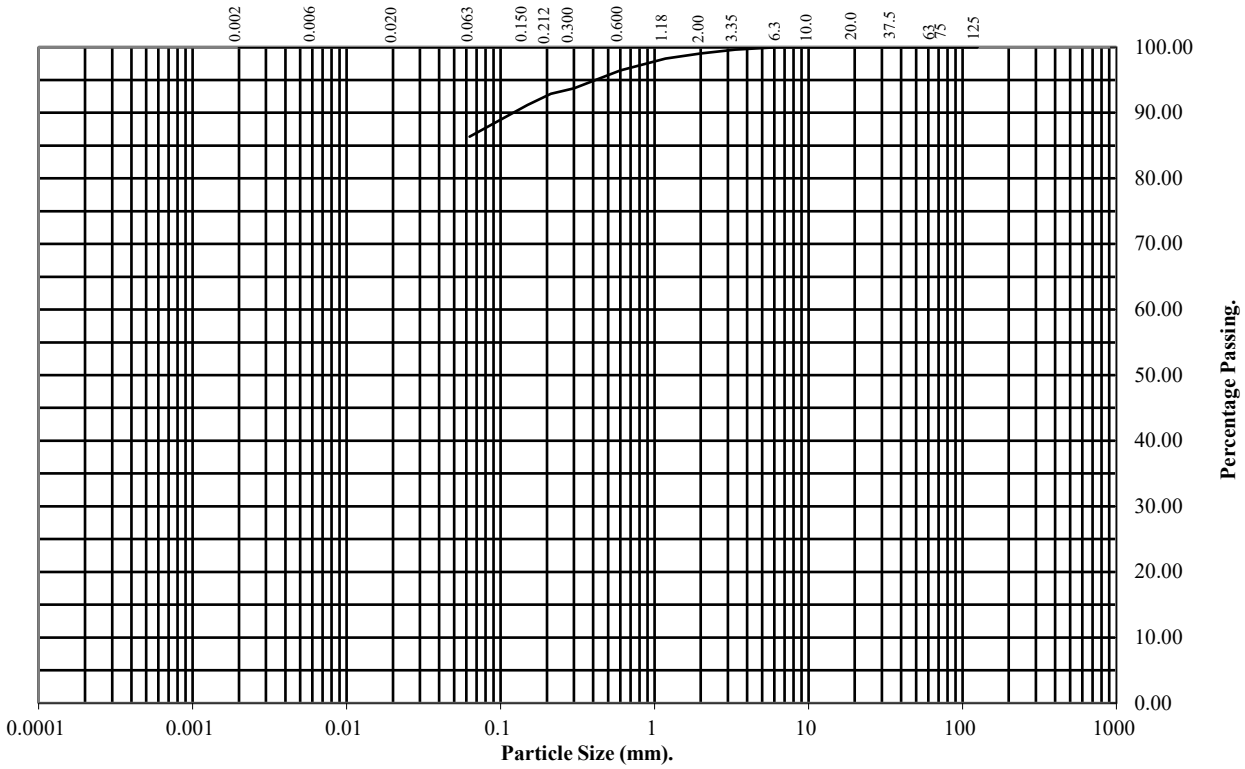
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **WS08** **Top Depth (m):** **3.50**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	99
1.18	98
0.6	96
0.3	94
0.212	93
0.15	91
0.063	86

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	13
Silt/Clay	86

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

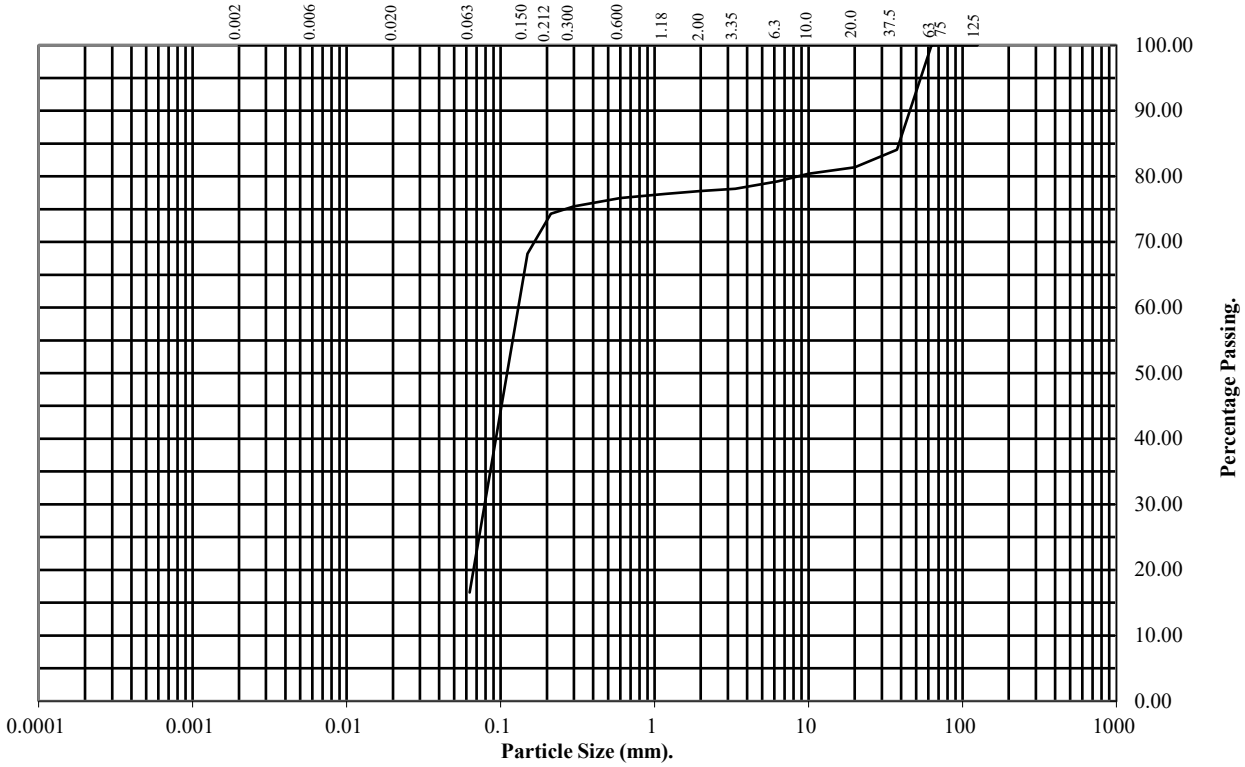
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **WS13** **Top Depth (m):** **3.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	84
20	81
10	80
6.3	79
3.35	78
2	78
1.18	77
0.6	77
0.3	75
0.212	74
0.15	68
0.063	17

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	61
Silt/Clay	17

Remarks:

See Summary of Soil Descriptions

PARTICLE SIZE DISTRIBUTION TEST

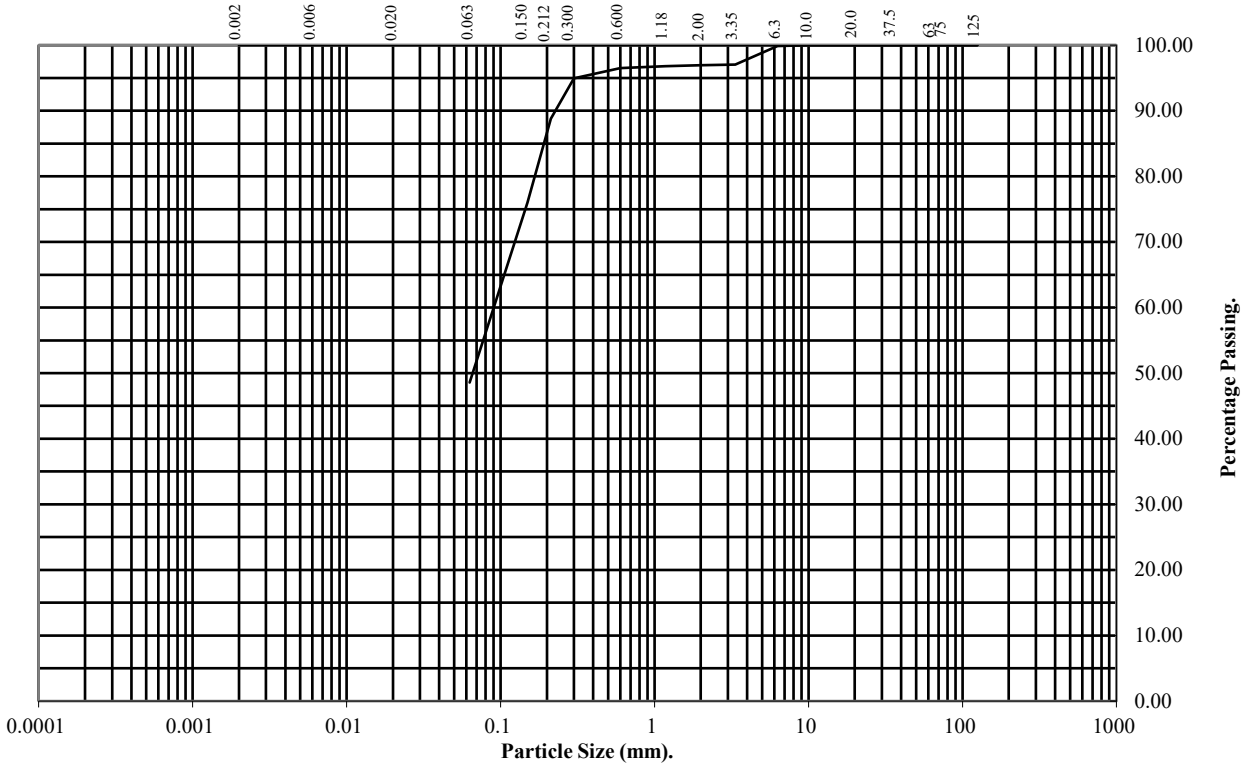
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CPB02 **Top Depth (m):** 7.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	97
2	97
1.18	97
0.6	97
0.3	95
0.212	89
0.15	76
0.063	49

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	48
Silt/Clay	49

Remarks:

See Summary of Soil Descriptions

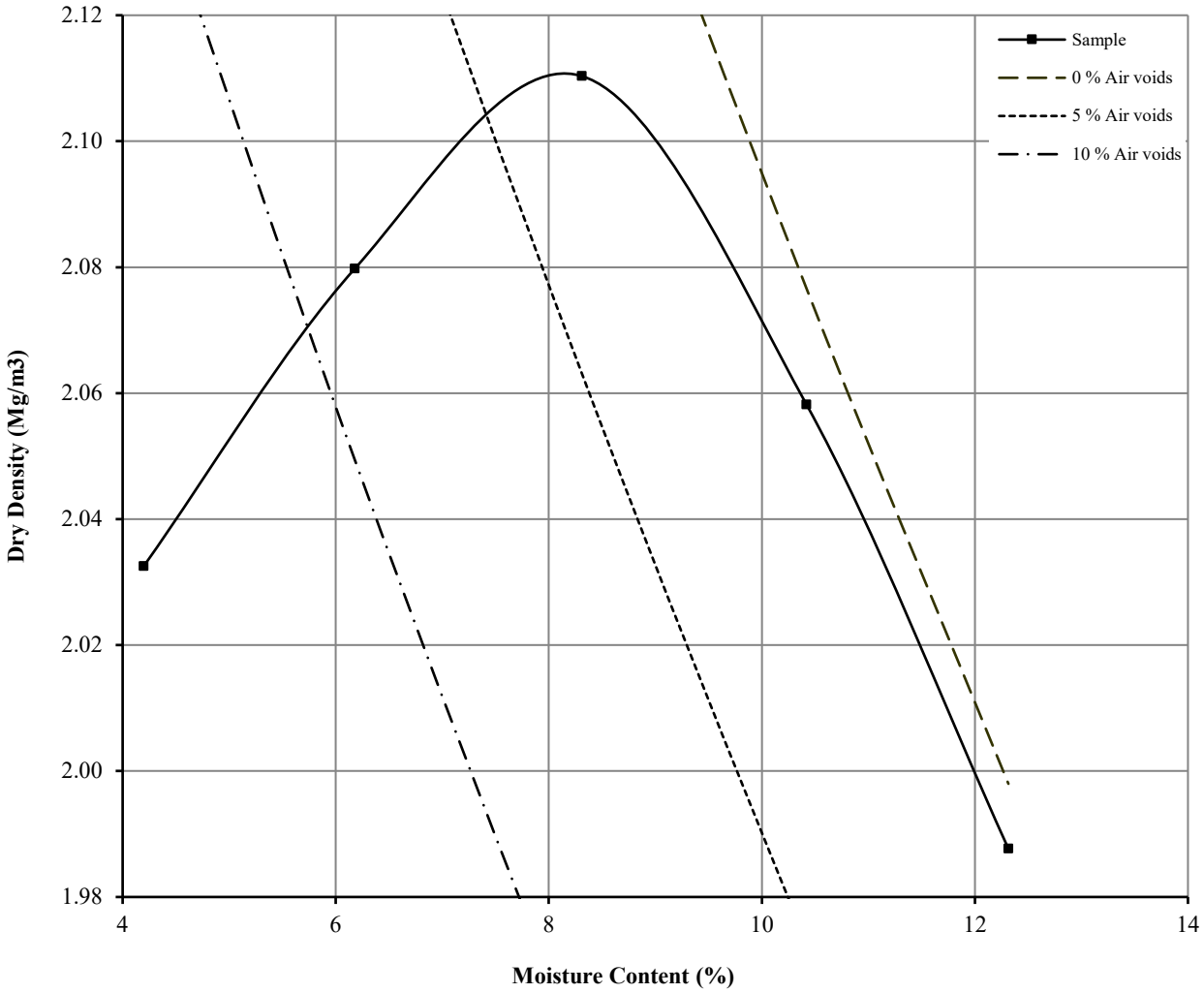
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP01 **Top Depth (m) :** 0.70

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		10	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		8
Maximum Dry Density (Mg/m3):		2.11	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		8			
Remarks See summary of soil descriptions					

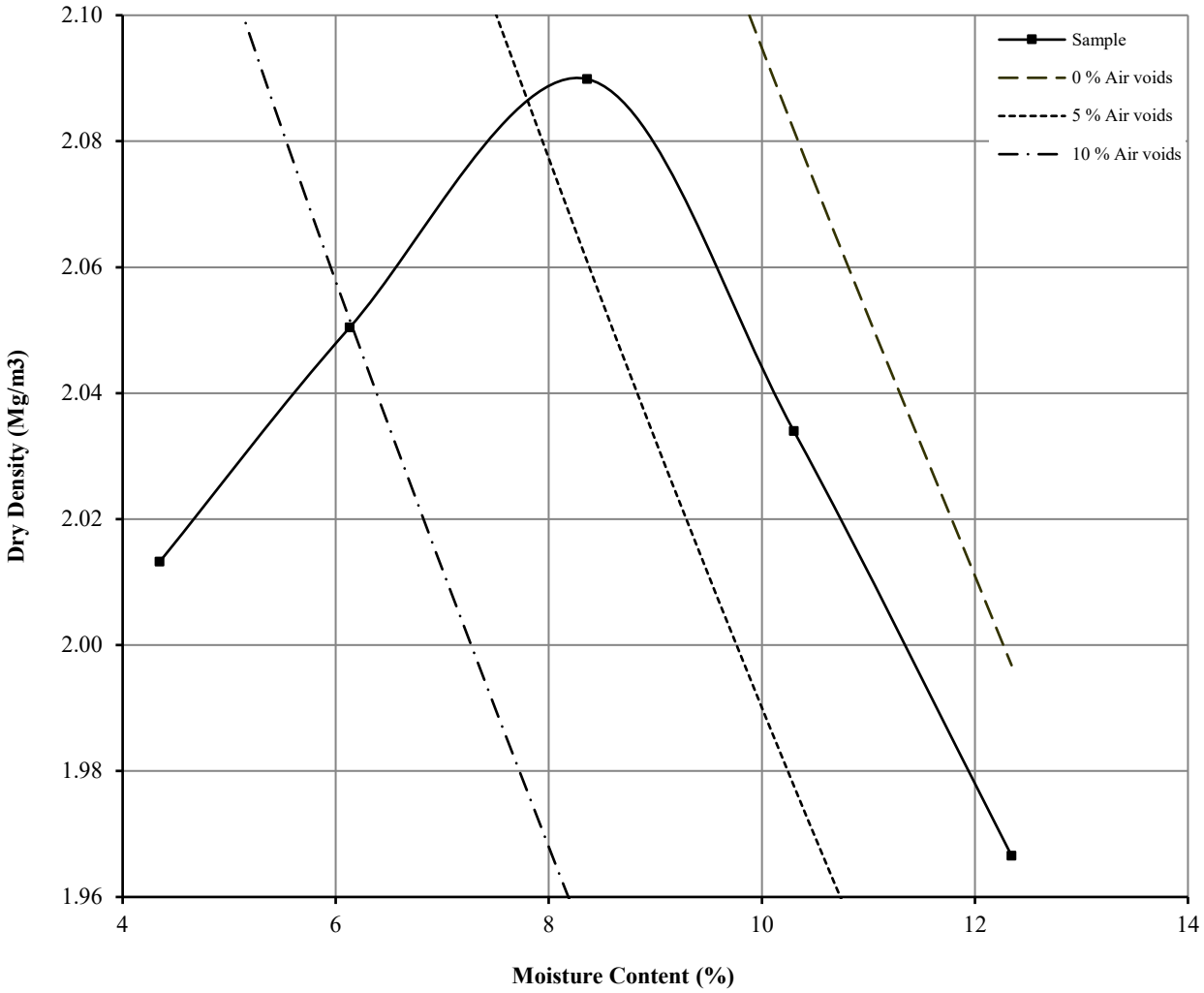
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP05 **Top Depth (m) :** 1.20

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		8.4	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		12
Maximum Dry Density (Mg/m3):		2.09	Material Retained on 20.0 mm Test Sieve (%):		6
Optimum Moisture Content (%):		8			
Remarks See summary of soil descriptions					

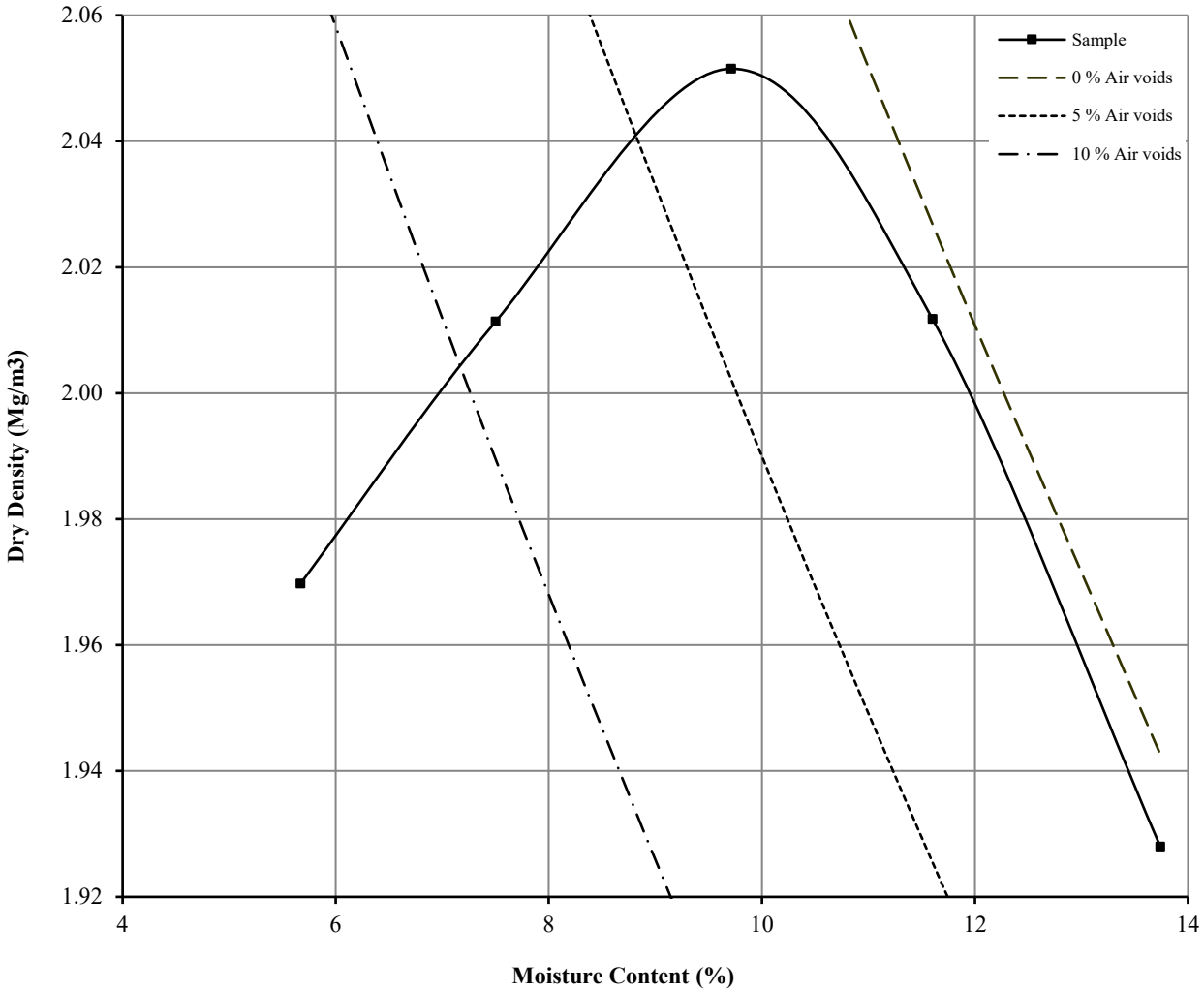
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP08 **Top Depth (m) :** 2.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		12	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		2.05	Material Retained on 20.0 mm Test Sieve (%):		16
Optimum Moisture Content (%):		10			
Remarks See summary of soil descriptions					

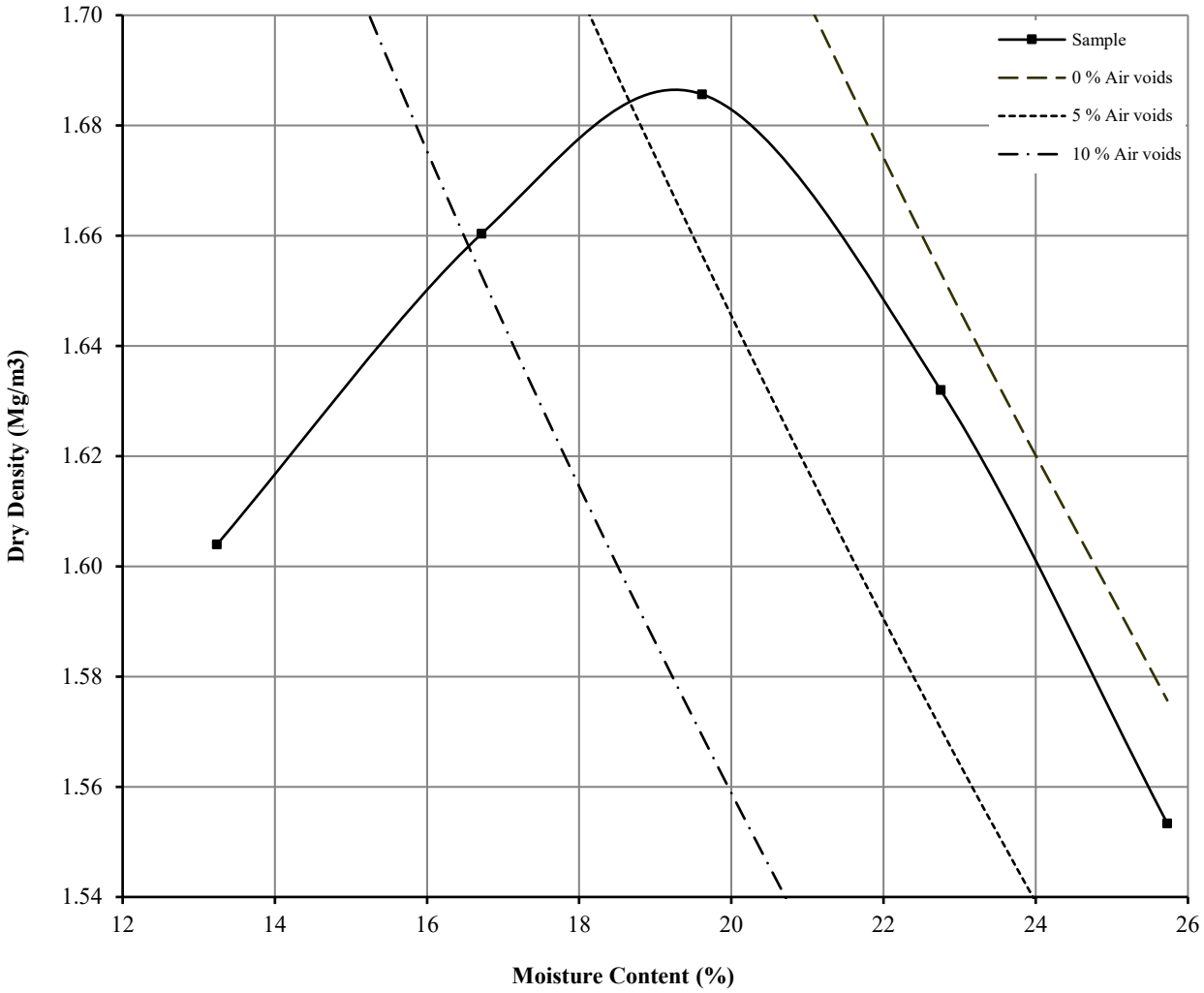
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP15 **Top Depth (m) :** 1.60

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		23	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.69	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		20			
Remarks See summary of soil descriptions					

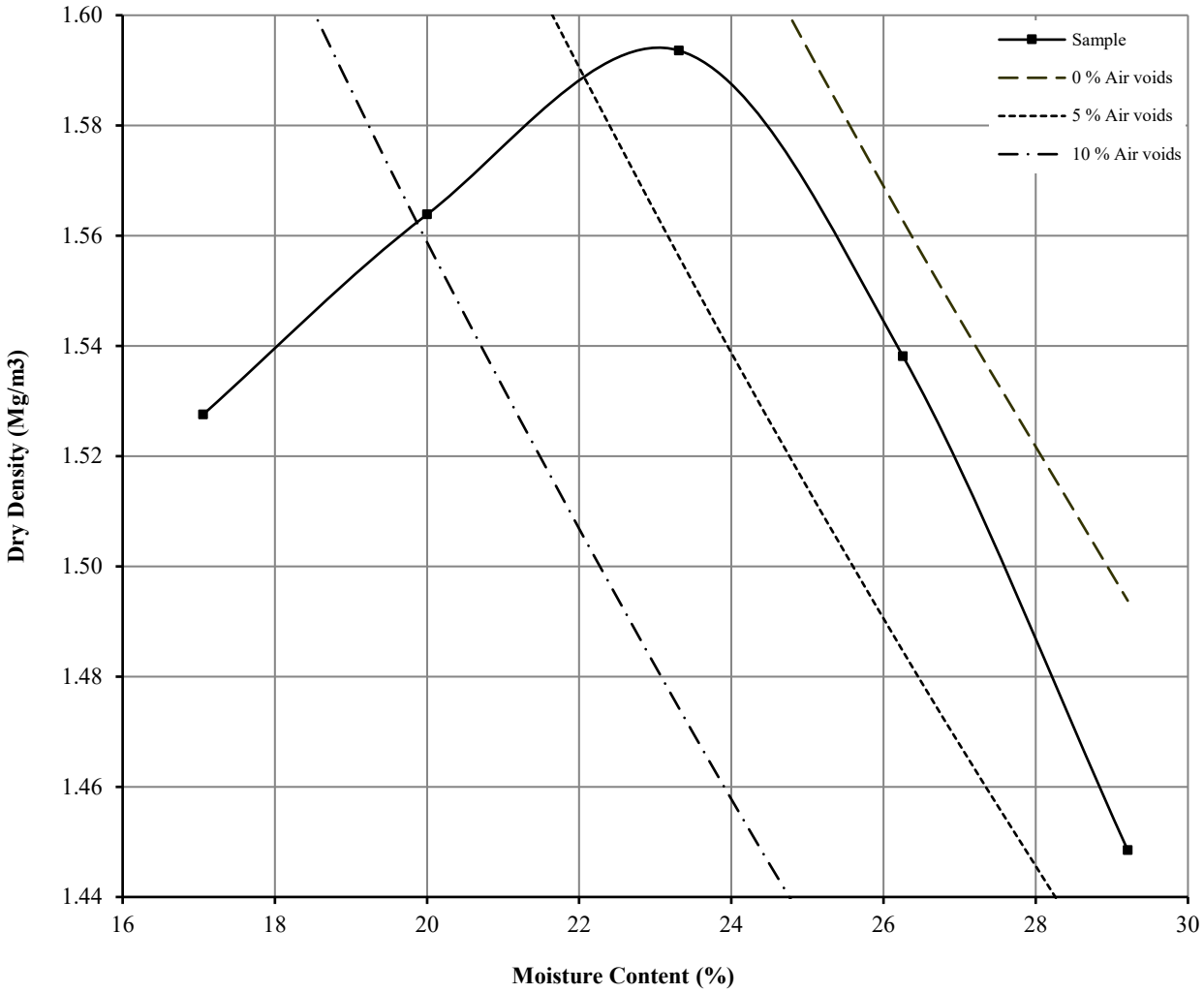
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP16 **Top Depth (m) :** 1.30

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		27	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.59	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		23			
Remarks See summary of soil descriptions					

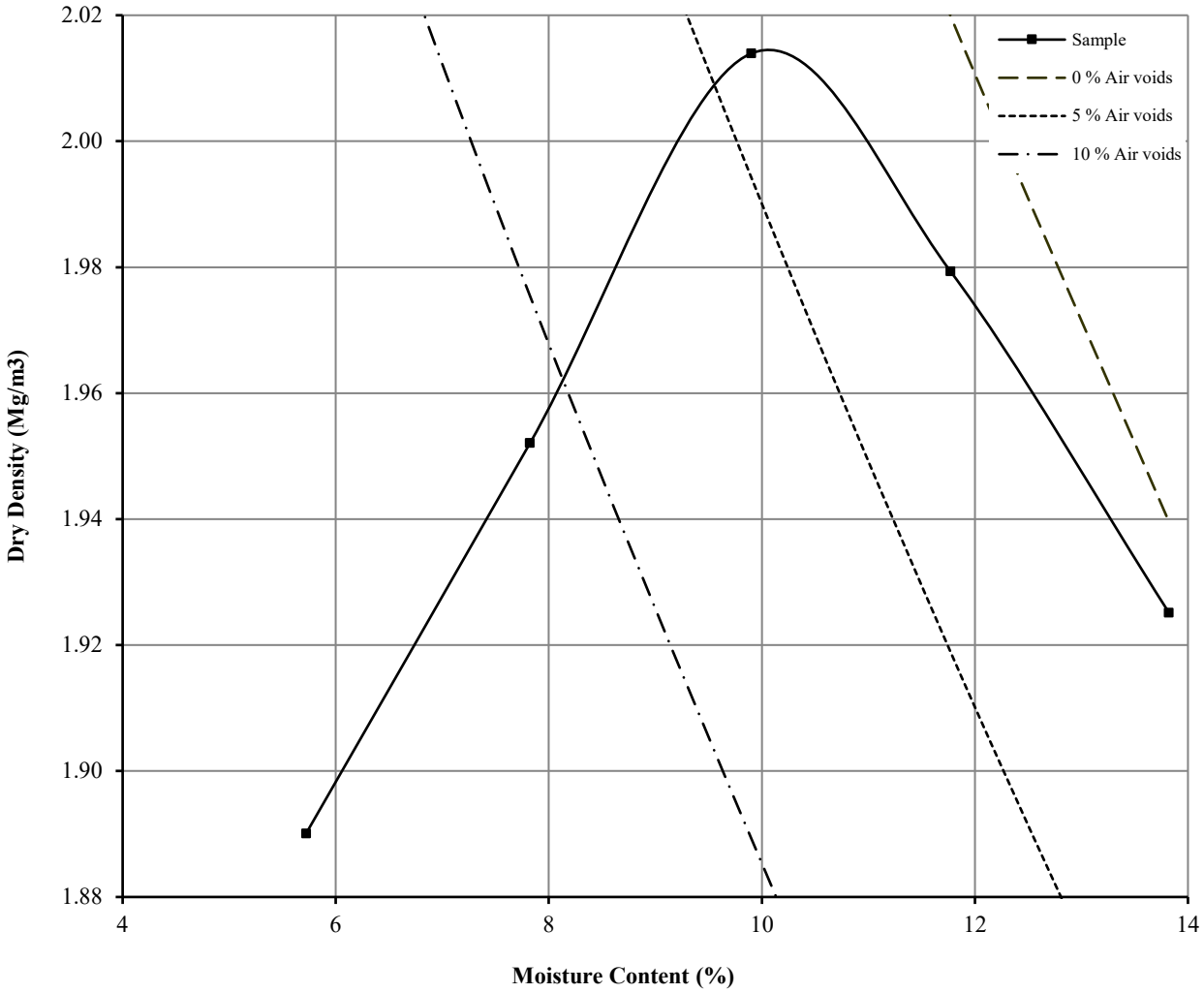
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.3 : 1990

Hole Number: TP18 **Top Depth (m) :** 2.20

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		12	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		2.01	Material Retained on 20.0 mm Test Sieve (%):		2
Optimum Moisture Content (%):		10			
Remarks See summary of soil descriptions					

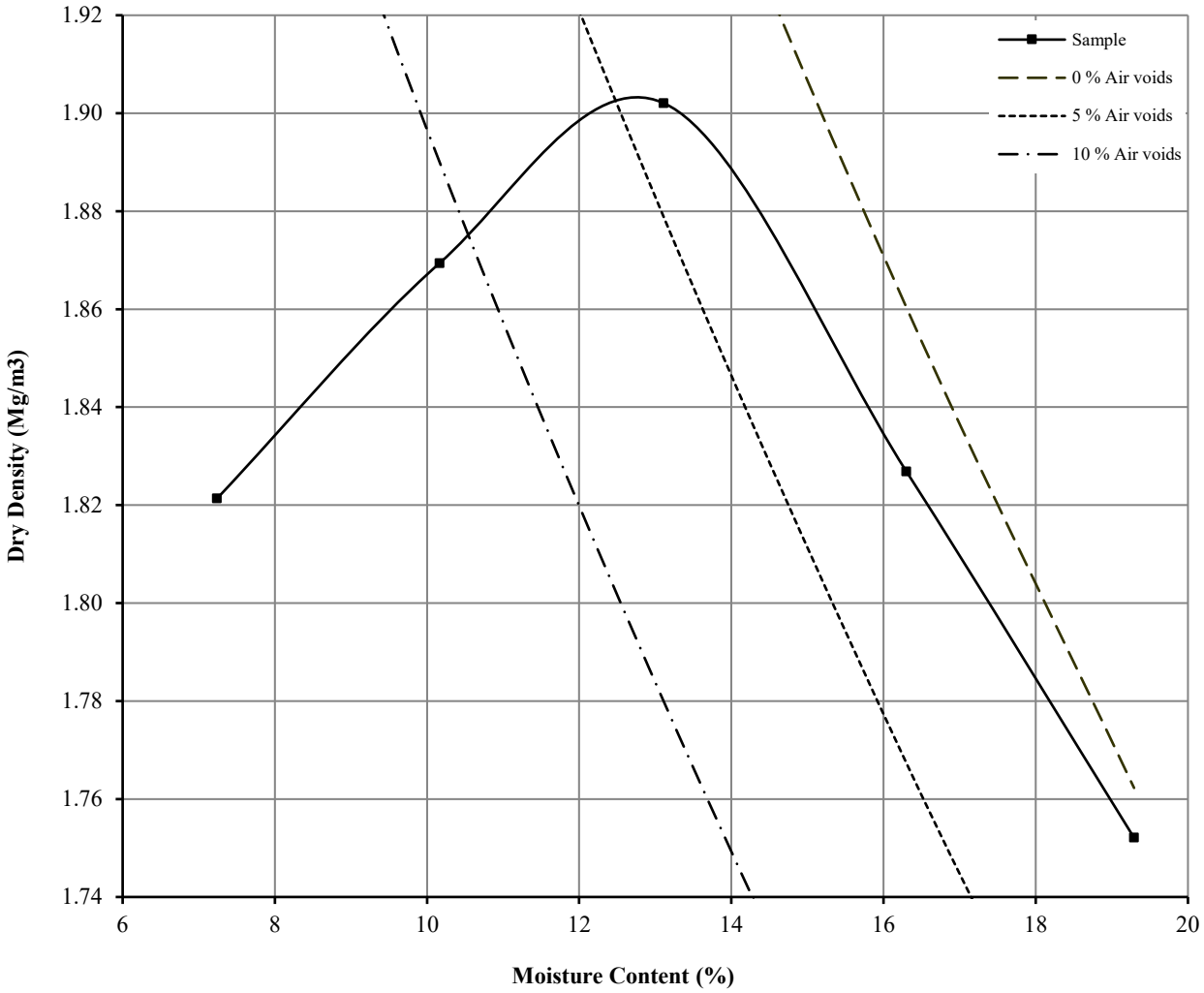
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.4 : 1990

Hole Number: TP24 **Top Depth (m) :** 3.00

Sample Number: **Base Depth (m) :**

Sample Type: B



Initial Moisture Content:		19	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.67	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.90	Material Retained on 20.0 mm Test Sieve (%):		6
Optimum Moisture Content (%):		13			
Remarks See summary of soil descriptions					

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

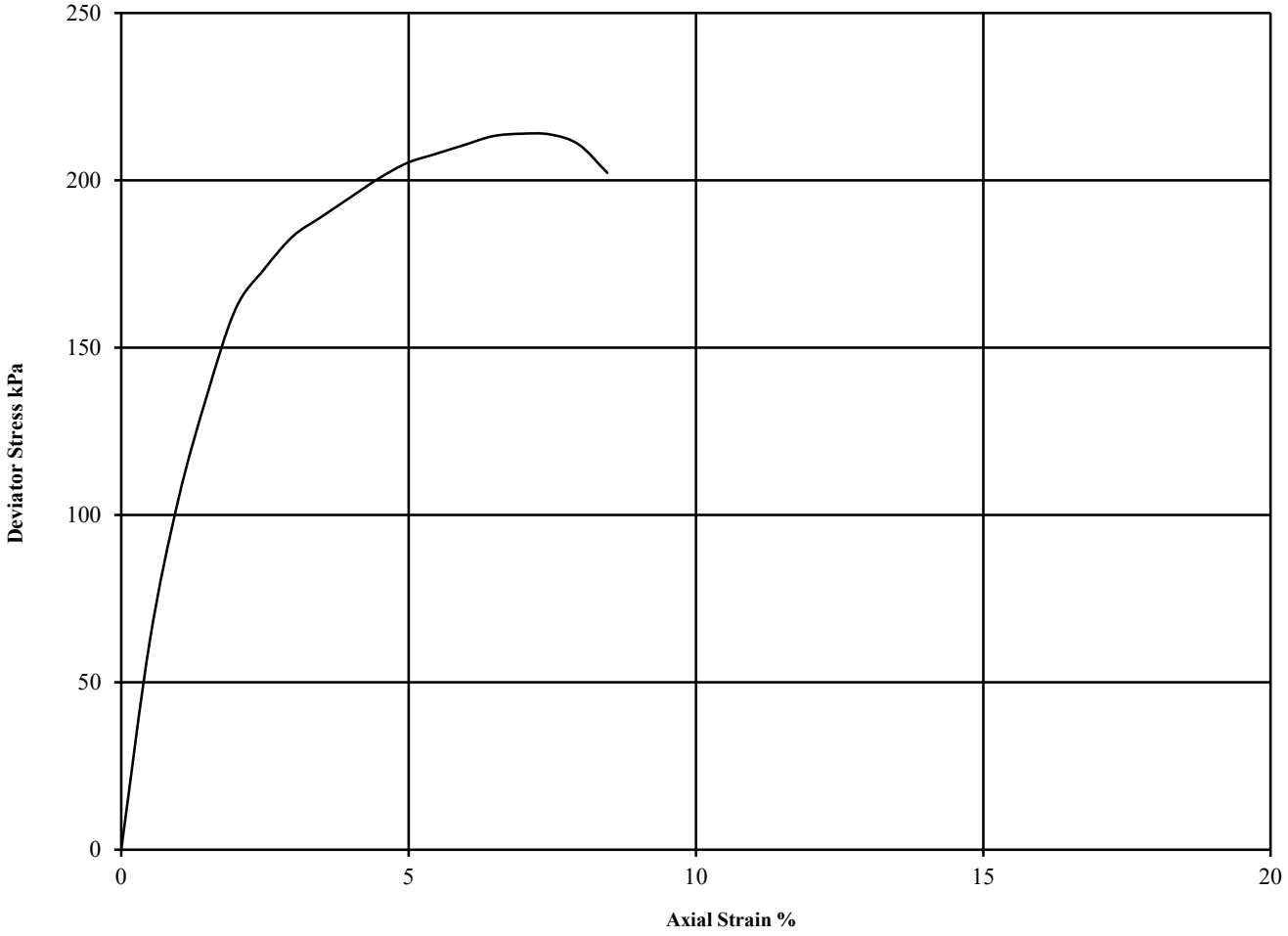
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **CPB01** **Top Depth (m):** **5.00**

Sample Number: **Base Depth (m):**

Sample Type **U**



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36
1	16	2.13	1.84	50	214	107	7.0	Brittle	See summary of soil descriptions

*** Single stage test due to early brittle failure**

UKAS TESTING 4043	PSL Professional Soils Laboratory	**SW Rugby**	**Contract No:** PSL22/0966 **Client Ref:** CBJ/30925

Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Final Report

Report No.:	22-04492-1
Initial Date of Issue:	11-Feb-2022
Client	Ground Investigation & Piling Ltd
Client Address:	Building 62 Third Ave The Pensnett Estate Kingswinford West Midlands DY6 7XT
Contact(s):	Chris Browning Matthew Laws
Project	CJB/30925 SW Rugby
Quotation No.:	Q20-21473
Order No.:	CB/2022/016
No. of Samples:	2
Turnaround (Wkdays):	5
Date Approved:	11-Feb-2022
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	08-Feb-2022
Date Instructed:	08-Feb-2022
Results Due:	14-Feb-2022

Results - Soil

Project: CJB/30925 SW Rugby

Client: Ground Investigation & Piling Ltd			**Chemtest Job No.:**		22-04492	22-04492
Quotation No.: Q20-21473			**Chemtest Sample ID.:**		1367254	1367255
			Sample Location:		CPB01	CPB01
			Sample Type:		SOIL	SOIL
			Top Depth (m):		6.0	7.5
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Moisture	N	2030	%	0.020	14	18
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones
Soil Texture	N	2040		N/A	Clay	Clay
pH (2.5:1)	N	2010		4.0	[A] 8.4	[A] 8.8
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	[A] 0.30	[A] 0.095

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request.The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Sample:	Sample Ref:	Sample ID:	Sample Location:	Sampled Date:	Deviation Code(s):	Containers Received:
1367254			CPB01		A	Plastic Tub 500g
1367255			CPB01		A	Plastic Tub 500g

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

Appendix 6
Chemical Laboratory Test Results

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/00841
Issue Number: 1 **Date:** 10 February, 2022

Client:
Wardell Armstrong (Birmingham)
2 Devon Way
Longbridge
Birmingham
UK
B31 2TS

Project Manager: Jamie Lucas
Project Name: South West Rugby
Project Ref: BM11254
Order No: BM9159
Date Samples Received: 26/01/22
Date Instructions Received: 01/02/22
Date Analysis Completed: 10/02/22

Approved by:

Richard Wong
Client Manager

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/2	22/00841/3	22/00841/4	22/00841/5	22/00841/6	22/00841/8	22/00841/9	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP01	TP02	TP02	TP03	TP03	TP04	TP05			
Depth to Top	1.1	0.15	0.7	1.8	2.4	1.2	0.25			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4AE	4A	4A	4A	4A	4A			
% Stones >10mm$_A$	14.8	18.3	8.0	2.0	30.5	6.5	26.8	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	9.61	7.51	7.49	7.32	7.43	5.64	7.23	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.04	<0.01	0.03	0.03	<0.01	0.07	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	300	260	<200	<400	<1000	<1000	<200	mg/kg	200	A-T-028s
Sulphur (total)$_D$	183	145	<50	<50	-	165	69	mg/kg	50	A-T-024s
Cyanide (total)$_A$$^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	-	-	-	-	<0.2	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	-	-	-	-	<5	-	-	mg/kg	5	A-T-043-s
Organic matter$_D$$^{M\#}$	-	-	-	-	<0.1	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	16	12	12	32	28	41	10	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	-	-	-	-	<1.0	-	-	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.6	1.4	1.1	2.4	2.8	4.0	1.2	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	37	16	12	27	23	26	12	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	14	20	13	22	22	32	15	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	-	-	-	-	<1	-	-	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	31	22	8	19	17	22	16	mg/kg	1	A-T-024s
Mercury$_D$	0.55	<0.17	<0.17	<0.17	<0.34	<0.34	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	18	15	17	28	32	42	13	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1	<2	<2	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	53	66	44	112	131	186	60	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/2	22/00841/3	22/00841/4	22/00841/5	22/00841/6	22/00841/8	22/00841/9	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP01	TP02	TP02	TP03	TP03	TP04	TP05			
Depth to Top	1.1	0.15	0.7	1.8	2.4	1.2	0.25			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4AE	4A	4A	4A	4A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	-	-	-	-	NAD	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	-	-	-	-	N/A	-	-			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/2	22/00841/3	22/00841/4	22/00841/5	22/00841/6	22/00841/8	22/00841/9	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP01	TP02	TP02	TP03	TP03	TP04	TP05			
Depth to Top	1.1	0.15	0.7	1.8	2.4	1.2	0.25			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4AE	4A	4A	4A	4A	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	-	-	-	-	<0.02	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	-	-	-	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	-	-	-	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	-	-	-	-	<0.05	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	-	-	-	-	<0.05	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	-	-	-	-	<0.07	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	-	-	-	-	<0.06	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	-	-	-	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	-	-	-	-	<0.08	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	-	-	-	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	-	-	-	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	-	-	-	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	-	-	-	-	<0.07	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	-	-	-	-	<0.08	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/2	22/00841/3	22/00841/4	22/00841/5	22/00841/6	22/00841/8	22/00841/9	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP01	TP02	TP02	TP03	TP03	TP04	TP05			
Depth to Top	1.1	0.15	0.7	1.8	2.4	1.2	0.25			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4AE	4A	4A	4A	4A	4A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	-	-	-	-	<1	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	-	-	-	-	<0.01	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/10	22/00841/11	22/00841/12	22/00841/14	22/00841/15	22/00841/16	22/00841/17	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP05	TP06	TP06	TP07	TP08	TP08	TP09			
Depth to Top	2	0.6	1.4	2	0.3	3.50	1.5			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	4A	4A	4A	4A			
% Stones >10mm$_A$	11.2	7.6	17.5	32.7	42.6	1.5	28.5	% w/w	0.1	A-T-044
pH$_D^{M\#}$	7.34	6.81	6.40	7.51	7.52	7.01	6.78	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	<0.01	0.02	0.03	0.03	<0.01	<0.01	0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D^{M\#}$	<200	<200	<400	<400	<200	<200	<200	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	-	-	<50	62	<50	<50	mg/kg	50	A-T-024s
Cyanide (total)$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	<0.2	-	-	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	140	190	-	-	-	-	mg/kg	5	A-T-043-s
Organic matter$_D^{M\#}$	0.2	<0.1	<0.1	-	-	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	21	8	10	18	14	8	25	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	<1.0	<1.0	-	-	-	-	mg/kg	1	A-T-027s
Cadmium$_D^{M\#}$	1.9	1.0	1.2	1.7	1.4	1.1	2.4	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	17	12	14	13	9	10	17	mg/kg	1	A-T-024s
Chromium$_D^{M\#}$	16	13	12	14	22	18	22	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	12	8	9	9	13	11	12	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	19	14	29	18	17	20	24	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	72	40	45	61	49	57	81	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/10	22/00841/11	22/00841/12	22/00841/14	22/00841/15	22/00841/16	22/00841/17	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP05	TP06	TP06	TP07	TP08	TP08	TP09			
Depth to Top	2	0.6	1.4	2	0.3	3.50	1.5			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	4A	4A	4A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	NAD	-	-	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	N/A	-	-	-	-			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/10	22/00841/11	22/00841/12	22/00841/14	22/00841/15	22/00841/16	22/00841/17	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP05	TP06	TP06	TP07	TP08	TP08	TP09			
Depth to Top	2	0.6	1.4	2	0.3	3.50	1.5			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	4A	4A	4A	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	<0.02	-	-	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	-	-	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	<0.04	-	-	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	<0.05	-	-	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	<0.05	-	-	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	<0.07	-	-	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	<0.06	-	-	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	<0.04	-	-	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	<0.08	-	-	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	<0.03	-	-	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	<0.03	-	-	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	<0.03	<0.03	-	-	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	<0.07	<0.07	-	-	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	<0.08	<0.08	-	-	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/10	22/00841/11	22/00841/12	22/00841/14	22/00841/15	22/00841/16	22/00841/17	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP05	TP06	TP06	TP07	TP08	TP08	TP09			
Depth to Top	2	0.6	1.4	2	0.3	3.50	1.5			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22	24-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	4A	4A	4A	4A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	<1	<1	-	-	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	<0.01	-	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/18	22/00841/19	22/00841/21	22/00841/22	22/00841/23	22/00841/24	22/00841/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP09	TP10	TP11	TP11	TP12	TP12	TP13			
Depth to Top	3.1	0.1	0.2	1.5	0.85	1.8	0.1			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Solid	Soil - D			
Sample Matrix Code	4A	4AE	4AE	4A	4A	7	4AE			
% Stones >10mm$_A$	4.1	0.5	14.9	21.5	7.7	<0.1	16.0	% w/w	0.1	A-T-044
pH$_D^{M\#}$	6.53	6.89	6.67	6.84	7.23	6.67	6.74	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.05	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D^{M\#}$	<1000	390	310	<500	<200	<1000	350	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	209	163	-	54	<100	154	mg/kg	50	A-T-024s
Cyanide (total)$_A^{M\#}$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	-	<0.2	-	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	200	-	-	140	-	-	-	mg/kg	5	A-T-043-s
Organic matter$_D^{M\#}$	<0.1	-	-	<0.1	-	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	53	16	15	33	58	30	13	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	-	-	<1.0	-	-	-	mg/kg	1	A-T-027s
Cadmium$_D^{M\#}$	4.7	2.3	1.8	2.9	5.3	5.1	1.5	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	29	24	18	14	25	22	21	mg/kg	1	A-T-024s
Chromium$_D^{M\#}$	33	27	28	22	32	46	24	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	26	40	25	16	22	32	24	mg/kg	1	A-T-024s
Mercury$_D$	<0.34	<0.17	<0.17	<0.34	<0.17	<0.34	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	51	21	17	35	41	58	15	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	<2	<1	<1	<2	<1	<2	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	217	123	72	95	150	204	71	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/18	22/00841/19	22/00841/21	22/00841/22	22/00841/23	22/00841/24	22/00841/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP09	TP10	TP11	TP11	TP12	TP12	TP13			
Depth to Top	3.1	0.1	0.2	1.5	0.85	1.8	0.1			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Solid	Soil - D			
Sample Matrix Code	4A	4AE	4AE	4A	4A	7	4AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	-	NAD	-	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	-	N/A	-	-	-			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/18	22/00841/19	22/00841/21	22/00841/22	22/00841/23	22/00841/24	22/00841/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP09	TP10	TP11	TP11	TP12	TP12	TP13			
Depth to Top	3.1	0.1	0.2	1.5	0.85	1.8	0.1			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Solid	Soil - D			
Sample Matrix Code	4A	4AE	4AE	4A	4A	7	4AE			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	-	-	<0.02	-	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	-	-	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	-	-	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	-	-	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	-	-	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	-	-	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	-	-	<0.06	-	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	-	-	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	-	-	<0.08	-	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	-	-	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	-	-	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	-	-	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	-	-	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	-	-	<0.08	-	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/18	22/00841/19	22/00841/21	22/00841/22	22/00841/23	22/00841/24	22/00841/25	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP09	TP10	TP11	TP11	TP12	TP12	TP13			
Depth to Top	3.1	0.1	0.2	1.5	0.85	1.8	0.1			
Depth To Bottom										
Date Sampled	24-Jan-22	24-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Solid	Soil - D			
Sample Matrix Code	4A	4AE	4AE	4A	4A	7	4AE			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	2	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	2	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	-	-	<1	-	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	2	-	-	<1	-	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	-	-	<0.01	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/26	22/00841/28	22/00841/30	22/00841/32	22/00841/34	22/00841/35	22/00841/38	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	TP19			
Depth to Top	1.2	1.75	2.05	1.2	2.9	0.75	1.25			
Depth To Bottom										
Date Sampled	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	6A	6A	4A	5A			
% Stones >10mm$_A$	8.0	13.3	<0.1	<0.1	<0.1	8.0	37.4	% w/w	0.1	A-T-044
pH$_D$[M#]	7.38	7.56	7.17	8.19	7.99	7.80	7.04	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$[M#]	<0.01	<0.01	<0.01	<0.01	0.15	0.02	0.29	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$[M#]	<200	<1000	<200	430	1600	<200	<1000	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	-	<50	313	-	<50	-	mg/kg	50	A-T-024s
Cyanide (total)$_A$[M#]	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	<0.2	-	-	<0.2	-	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	190	150	-	-	180	-	98	mg/kg	5	A-T-043-s
Organic matter$_D$[M#]	0.2	0.2	-	-	1.7	-	0.1	% w/w	0.1	A-T-032 OM
Arsenic$_D$[M#]	17	47	9	10	8	6	47	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	<1.0	-	-	<1.0	-	<1.0	mg/kg	1	A-T-027s
Cadmium$_D$[M#]	2.0	4.2	1.0	1.6	1.5	0.7	3.3	mg/kg	0.5	A-T-024s
Copper$_D$[M#]	11	23	12	26	24	6	20	mg/kg	1	A-T-024s
Chromium$_D$[M#]	21	31	18	31	33	15	29	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-040s
Lead$_D$[M#]	13	22	8	15	14	8	21	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.34	<0.17	1.30	1.10	<0.17	<0.34	mg/kg	0.17	A-T-024s
Nickel$_D$[M#]	20	47	16	34	32	10	43	mg/kg	1	A-T-024s
Selenium$_D$[M#]	<1	<2	<1	1	2	<1	<2	mg/kg	1	A-T-024s
Zinc$_D$[M#]	54	153	42	67	63	29	147	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/26	22/00841/28	22/00841/30	22/00841/32	22/00841/34	22/00841/35	22/00841/38	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	TP19			
Depth to Top	1.2	1.75	2.05	1.2	2.9	0.75	1.25			
Depth To Bottom										
Date Sampled	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	6A	6A	4A	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	NAD	-	-	NAD	-	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	N/A	-	-	N/A	-	N/A			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/26	22/00841/28	22/00841/30	22/00841/32	22/00841/34	22/00841/35	22/00841/38	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	TP19			
Depth to Top	1.2	1.75	2.05	1.2	2.9	0.75	1.25			
Depth To Bottom										
Date Sampled	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	6A	6A	4A	5A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	<0.02	-	-	<0.02	-	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	<0.04	-	-	<0.04	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	<0.04	-	-	<0.04	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	<0.05	-	-	<0.05	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	<0.05	-	-	<0.05	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	<0.07	-	-	<0.07	-	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	<0.06	-	-	<0.06	-	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	<0.04	-	-	<0.04	-	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	<0.08	-	-	<0.08	-	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	<0.03	-	-	<0.03	-	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	<0.03	-	-	<0.03	-	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	<0.03	-	-	<0.03	-	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	<0.07	-	-	<0.07	-	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	<0.08	-	-	<0.08	-	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/26	22/00841/28	22/00841/30	22/00841/32	22/00841/34	22/00841/35	22/00841/38	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP13	TP14	TP15	TP16	TP17	TP18	TP19			
Depth to Top	1.2	1.75	2.05	1.2	2.9	0.75	1.25			
Depth To Bottom										
Date Sampled	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22	25-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4A	4A	4A	6A	6A	4A	5A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	<1	<1	-	-	6	-	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	<1	-	-	6	-	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	<1	-	-	<1	-	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	<1	-	-	1	-	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	<1	-	-	1	-	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	<1	-	-	2	-	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	<1	-	-	5	-	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	<1	-	-	11	-	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	<0.01	-	-	<0.01	-	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/39	22/00841/41	22/00841/42	22/00841/44	22/00841/45	22/00841/46	22/00841/47	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP20	TP21	TP21	TP22	TP23	TP23	TP24			
Depth to Top	0.35	0.8	2.2	4.0	0.5	3.1	0.5			
Depth To Bottom										
Date Sampled	25-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4AE	5A	3A	5A	4A	6A	4A			
% Stones >10mm$_A$	25.8	11.7	<0.1	<0.1	24.3	13.9	40.2	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.38	7.74	8.19	8.36	7.42	7.48	6.81	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.17	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	230	<200	220	260	260	<200	970	mg/kg	200	A-T-028s
Sulphur (total)$_D$	109	-	-	-	122	<50	4490	mg/kg	50	A-T-024s
Cyanide (total)$_A$$^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	-	<0.2	<0.2	<0.2	-	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	-	<5	<5	<5	-	-	-	mg/kg	5	A-T-043-s
Organic matter$_D$$^{M\#}$	-	0.4	1.0	0.5	-	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	16	8	2	<1	14	17	18	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	-	<1.0	<1.0	<1.0	-	-	-	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.7	1.3	1.4	0.8	1.3	1.4	1.1	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	15	13	23	16	14	22	5	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	20	27	44	23	17	39	16	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	22	11	16	9	24	13	7	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	0.78	0.52	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	17	19	41	21	14	32	16	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	77	49	69	41	63	70	32	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/39	22/00841/41	22/00841/42	22/00841/44	22/00841/45	22/00841/46	22/00841/47	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP20	TP21	TP21	TP22	TP23	TP23	TP24			
Depth to Top	0.35	0.8	2.2	4.0	0.5	3.1	0.5			
Depth To Bottom										
Date Sampled	25-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4AE	5A	3A	5A	4A	6A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	-	NAD	NAD	NAD	-	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	-	N/A	N/A	N/A	-	-	-			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/39	22/00841/41	22/00841/42	22/00841/44	22/00841/45	22/00841/46	22/00841/47	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP20	TP21	TP21	TP22	TP23	TP23	TP24			
Depth to Top	0.35	0.8	2.2	4.0	0.5	3.1	0.5			
Depth To Bottom										
Date Sampled	25-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4AE	5A	3A	5A	4A	6A	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	-	<0.02	<0.02	<0.02	-	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	-	<0.04	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	-	<0.04	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	-	<0.05	<0.05	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	-	<0.05	<0.05	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	-	<0.07	<0.07	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	-	<0.06	<0.06	<0.06	-	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	-	<0.04	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	-	<0.08	<0.08	<0.08	-	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	-	<0.03	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	-	<0.03	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	-	<0.03	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	-	<0.07	<0.07	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	-	<0.08	<0.08	<0.08	-	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/39	22/00841/41	22/00841/42	22/00841/44	22/00841/45	22/00841/46	22/00841/47	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP20	TP21	TP21	TP22	TP23	TP23	TP24			
Depth to Top	0.35	0.8	2.2	4.0	0.5	3.1	0.5			
Depth To Bottom										
Date Sampled	25-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	4AE	5A	3A	5A	4A	6A	4A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	-	<1	<1	<1	-	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	-	<0.01	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/49	22/00841/50	22/00841/51	22/00841/52	22/00841/53	22/00841/54	22/00841/57	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP25	TP25	TP26	TP26	WS01	WS01	WS03			
Depth to Top	0.5	3.5	1	4.2	0.2	1.2	0.8			
Depth To Bottom										
Date Sampled	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	4	6A	5A	4AE	4A	5A			
% Stones >10mm$_A$	<0.1	<0.1	<0.1	<0.1	25.8	1.8	8.0	% w/w	0.1	A-T-044
pH$_D^{M\#}$	7.97	8.37	7.82	8.44	7.34	7.84	7.70	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.20	0.05	0.04	0.02	<0.01	<0.01	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D^{M\#}$	940	510	<200	370	280	<200	<1000	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	1550	-	-	157	<50	-	mg/kg	50	A-T-024s
Cyanide (total)$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	<0.2	<0.2	-	-	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	-	<5	<5	-	-	<5	mg/kg	5	A-T-043-s
Organic matter$_D^{M\#}$	1.3	-	0.3	0.7	-	-	0.2	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	6	2	7	<1	9	9	59	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	-	<1.0	<1.0	-	-	<1.0	mg/kg	1	A-T-027s
Cadmium$_D^{M\#}$	0.8	0.7	1.8	0.9	1.1	1.2	6.1	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	17	12	14	13	14	15	44	mg/kg	1	A-T-024s
Chromium$_D^{M\#}$	26	14	31	19	21	17	43	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	11	8	13	9	20	9	29	mg/kg	1	A-T-024s
Mercury$_D$	0.33	0.68	<0.17	0.61	<0.17	<0.17	<0.85	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	28	17	28	21	13	17	63	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	1	<1	<1	<1	<1	<1	<5	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	49	35	61	42	56	44	274	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/49	22/00841/50	22/00841/51	22/00841/52	22/00841/53	22/00841/54	22/00841/57	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP25	TP25	TP26	TP26	WS01	WS01	WS03			
Depth to Top	0.5	3.5	1	4.2	0.2	1.2	0.8			
Depth To Bottom										
Date Sampled	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	4	6A	5A	4AE	4A	5A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	NAD	NAD	-	-	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	N/A	N/A	-	-	N/A			A-T-045

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/49	22/00841/50	22/00841/51	22/00841/52	22/00841/53	22/00841/54	22/00841/57	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP25	TP25	TP26	TP26	WS01	WS01	WS03			
Depth to Top	0.5	3.5	1	4.2	0.2	1.2	0.8			
Depth To Bottom										
Date Sampled	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	4	6A	5A	4AE	4A	5A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	-	<0.02	<0.02	-	-	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	-	<0.05	<0.05	-	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	-	<0.05	<0.05	-	-	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	-	<0.07	<0.07	-	-	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	-	<0.06	<0.06	-	-	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	-	<0.08	<0.08	-	-	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	-	<0.07	<0.07	-	-	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	-	<0.08	<0.08	-	-	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/49	22/00841/50	22/00841/51	22/00841/52	22/00841/53	22/00841/54	22/00841/57	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	TP25	TP25	TP26	TP26	WS01	WS01	WS03			
Depth to Top	0.5	3.5	1	4.2	0.2	1.2	0.8			
Depth To Bottom										
Date Sampled	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22	26-Jan-22			
Sample Type	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D	Soil - D			
Sample Matrix Code	6A	4	6A	5A	4AE	4A	5A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	-	<1	<1	-	-	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00841

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00841/59	22/00841/61	22/00841/62					Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS04	WS05	WS05							
Depth to Top	0.1	0.5	3							
Depth To Bottom										
Date Sampled	26-Jan-22	26-Jan-22	26-Jan-22							
Sample Type	Soil - D	Soil - D	Soil - D							
Sample Matrix Code	4AE	4AE	5A							
% Stones >10mm$_A$	10.5	44.8	1.2					% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	7.34	7.40	6.97					pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	<0.01	0.02					g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	350	<200	<1000					mg/kg	200	A-T-028s
Sulphur (total)$_D$	196	55	<100					mg/kg	50	A-T-024s
Arsenic$_D$$^{M\#}$	18	7	13					mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	1.8	0.8	2.2					mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	17	8	17					mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	21	11	36					mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	32	9	16					mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.34					mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	21	9	34					mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<2					mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	83	36	115					mg/kg	5	A-T-024s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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

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

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

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

EPH CWG GCxGC ID from TPH CWG

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

Please contact us if you need any further information.

v2

Envirolab Deviating Samples Report

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

Client: Wardell Armstrong (Birmingham), 2 Devon Way, Longbridge, Birmingham, UK, B31 2TS

Project No: 22/00841

Date Received: 01/02/2022 (am)

Project: South West Rugby

Cool Box Temperatures (°C): 5.5

Clients Project No: BM11254

Lab Sample ID	22/00841/6	22/00841/10	22/00841/11	22/00841/12	22/00841/18	22/00841/22	22/00841/26	22/00841/28	22/00841/34	22/00841/38	22/00841/41	22/00841/42
Client Sample No												
Client Sample ID/Depth	TP03 2.4m	TP05 2m	TP06 0.6m	TP06 1.4m	TP09 3.1m	TP11 1.5m	TP13 1.2m	TP14 1.75m	TP17 2.9m	TP19 1.25m	TP21 0.8m	TP21 2.2m
Date Sampled	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	26/01/22	26/01/22
Deviation Code												
F	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Lab Sample ID	22/00841/44	22/00841/49	22/00841/51	22/00841/52	22/00841/57
Client Sample No					
Client Sample ID/Depth	TP22 4.0m	TP25 0.5m	TP26 1m	TP26 4.2m	WS03 0.8m
Date Sampled	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22
Deviation Code					
F	✓	✓	✓	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/00841/6	22/00841/10	22/00841/11	22/00841/12	22/00841/18	22/00841/22	22/00841/26	22/00841/28	22/00841/34	22/00841/38	22/00841/41	22/00841/42
Client Sample No												
Client Sample ID/Depth	TP03 2.4m	TP05 2m	TP06 0.6m	TP06 1.4m	TP09 3.1m	TP11 1.5m	TP13 1.2m	TP14 1.75m	TP17 2.9m	TP19 1.25m	TP21 0.8m	TP21 2.2m
Date Sampled	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	26/01/22	26/01/22
Sulphide	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Lab Sample ID	22/00841/44	22/00841/49	22/00841/51	22/00841/52	22/00841/57
Client Sample No					
Client Sample ID/Depth	TP22 4.0m	TP25 0.5m	TP26 1m	TP26 4.2m	WS03 0.8m
Date Sampled	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22
Sulphide	✓	✓	✓	✓	✓

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples 5 ± 3°C), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/00841/2	22/00841/3	22/00841/4	22/00841/5	22/00841/6	22/00841/8	22/00841/9	22/00841/10	22/00841/11	22/00841/12	22/00841/14	22/00841/15
Client Sample No												
Client Sample ID/Depth	TP01 1.1m	TP02 0.15m	TP02 0.7m	TP03 1.8m	TP03 2.4m	TP04 1.2m	TP05 0.25m	TP05 2m	TP06 0.6m	TP06 1.4m	TP07 2m	TP08 0.3m
Date Sampled	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22	24/01/22
A-T-019s					08/02/2022			08/02/2022	08/02/2022	08/02/2022		
A-T-022s					09/02/2022			09/02/2022	09/02/2022	09/02/2022		
A-T-024s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	10/02/2022	10/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-026s	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
A-T-027s					09/02/2022			09/02/2022	09/02/2022	09/02/2022		
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-032 OM					08/02/2022			08/02/2022	08/02/2022	08/02/2022		
A-T-040s					08/02/2022			08/02/2022	08/02/2022	08/02/2022		
A-T-042sTCN					07/02/2022			07/02/2022	07/02/2022	07/02/2022		
A-T-043-s					08/02/2022			08/02/2022	08/02/2022	08/02/2022		
A-T-044	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022
A-T-045					02/02/2022			02/02/2022	02/02/2022	02/02/2022		
A-T-050s					07/02/2022			07/02/2022	07/02/2022	07/02/2022		
A-T-055s					09/02/2022			09/02/2022	09/02/2022	09/02/2022		

Lab Sample ID	22/00841/16	22/00841/17	22/00841/18	22/00841/19	22/00841/21	22/00841/22	22/00841/23	22/00841/24	22/00841/25	22/00841/26	22/00841/28	22/00841/30
Client Sample No												
Client Sample ID/Depth	TP08 3.50m	TP09 1.5m	TP09 3.1m	TP10 0.1m	TP11 0.2m	TP11 1.5m	TP12 0.85m	TP12 1.8m	TP13 0.1m	TP13 1.2m	TP14 1.75m	TP15 2.05m
Date Sampled	24/01/22	24/01/22	24/01/22	24/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22
A-T-019s			08/02/2022			08/02/2022				08/02/2022	08/02/2022	
A-T-022s			09/02/2022			09/02/2022				09/02/2022	09/02/2022	
A-T-024s	09/02/2022	09/02/2022	10/02/2022	09/02/2022	09/02/2022	10/02/2022	09/02/2022	10/02/2022	09/02/2022	09/02/2022	10/02/2022	09/02/2022
A-T-026s	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
A-T-027s			09/02/2022			09/02/2022				09/02/2022	09/02/2022	
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-032 OM			08/02/2022			08/02/2022				08/02/2022	08/02/2022	
A-T-040s			08/02/2022			08/02/2022				08/02/2022	08/02/2022	
A-T-042sTCN			07/02/2022			07/02/2022				07/02/2022	07/02/2022	
A-T-043-s			08/02/2022			08/02/2022				08/02/2022	08/02/2022	
A-T-044	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022
A-T-045			02/02/2022			02/02/2022				02/02/2022	02/02/2022	
A-T-050s			07/02/2022			07/02/2022				07/02/2022	07/02/2022	
A-T-055s			09/02/2022			09/02/2022				09/02/2022	09/02/2022	

Lab Sample ID	22/00841/32	22/00841/34	22/00841/35	22/00841/38	22/00841/39	22/00841/41	22/00841/42	22/00841/44	22/00841/45	22/00841/46	22/00841/47	22/00841/49
Client Sample No												
Client Sample ID/Depth	TP16 1.2m	TP17 2.9m	TP18 0.75m	TP19 1.25m	TP20 0.35m	TP21 0.8m	TP21 2.2m	TP22 4.0m	TP23 0.5m	TP23 3.1m	TP24 0.5m	TP25 0.5m
Date Sampled	25/01/22	25/01/22	25/01/22	25/01/22	25/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22
A-T-019s		08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022				08/02/2022
A-T-022s		09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022				09/02/2022
A-T-024s	09/02/2022	09/02/2022	09/02/2022	10/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-026s	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
A-T-027s		09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022				09/02/2022
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-032 OM		08/02/2022		09/02/2022		08/02/2022	08/02/2022	08/02/2022				08/02/2022
A-T-040s		08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022				08/02/2022
A-T-042sTCN		07/02/2022		07/02/2022		07/02/2022	07/02/2022	07/02/2022				07/02/2022
A-T-043-s		08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022				08/02/2022
A-T-044	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022
A-T-045		02/02/2022		02/02/2022		02/02/2022	02/02/2022	02/02/2022				02/02/2022
A-T-050s		07/02/2022		07/02/2022		07/02/2022	07/02/2022	07/02/2022				07/02/2022
A-T-055s		09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022				09/02/2022

Lab Sample ID	22/00841/50	22/00841/51	22/00841/52	22/00841/53	22/00841/54	22/00841/57	22/00841/59	22/00841/61	22/00841/62
Client Sample No									
Client Sample ID/Depth	TP25 3.5m	TP26 1m	TP26 4.2m	WS01 0.2m	WS01 1.2m	WS03 0.8m	WS04 0.1m	WS05 0.5m	WS05 3m
Date Sampled	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22	26/01/22
A-T-019s		08/02/2022	08/02/2022			08/02/2022			
A-T-022s		09/02/2022	09/02/2022			09/02/2022			
A-T-024s	10/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	10/02/2022	09/02/2022	09/02/2022	10/02/2022
A-T-026s	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022	08/02/2022
A-T-027s		09/02/2022	09/02/2022			09/02/2022			
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	08/02/2022
A-T-032 OM		08/02/2022	08/02/2022			08/02/2022			
A-T-040s		08/02/2022	08/02/2022			08/02/2022			
A-T-042sTCN		07/02/2022	07/02/2022			07/02/2022			
A-T-043-s		08/02/2022	08/02/2022			08/02/2022			
A-T-044	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022	04/02/2022
A-T-045		02/02/2022	02/02/2022			02/02/2022			
A-T-050s		07/02/2022	07/02/2022			07/02/2022			
A-T-055s		09/02/2022	09/02/2022			09/02/2022			

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

End of Report

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/00867
Issue Number: 1 **Date:** 10 February, 2022

Client:
Wardell Armstrong (Birmingham)
2 Devon Way
Longbridge
Birmingham
UK
B31 2TS

Project Manager: Jamie Lucas
Project Name: South West Rugby
Project Ref: BM11254
Order No: TBC
Date Samples Received: 01/02/22
Date Instructions Received: 01/02/22
Date Analysis Completed: 10/02/22

Approved by:

Richard Wong
Client Manager

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME
UKAS TESTING 1247

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/1	22/00867/2	22/00867/3	22/00867/4	22/00867/5	22/00867/6	22/00867/8	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HA01	WS06	WS06	WS07	WS07	WS08	WS09			
Depth to Top	0.3	1	2.8	0.5	2.2	0.9	0.5			
Depth To Bottom										
Date Sampled	28-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5A	5A	4AE	5A	4A	4A			
% Stones >10mm$_A$	16.1	12.1	41.3	14.8	32.7	8.7	29.5	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.62	6.96	6.94	7.28	6.86	7.30	7.48	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	0.03	0.01	<0.01	0.01	0.04	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	270	<400	<1000	<200	<1000	<200	<200	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	78	-	161	-	-	-	mg/kg	50	A-T-024s
Cyanide (total)$_A$$^{M\#}$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	<0.2	-	<0.2	<0.2	<0.2	mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	-	<5	-	<5	<5	<5	mg/kg	5	A-T-043-s
Organic matter$_D$$^{M\#}$	1.8	-	0.1	-	0.1	0.4	0.7	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	9	54	23	14	29	10	6	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	-	<1.0	-	<1.0	<1.0	<1.0	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.1	4.2	3.0	1.4	2.4	1.4	0.9	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	6	33	16	14	16	10	4	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	19	35	21	16	22	14	11	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	16	23	15	24	12	11	8	mg/kg	1	A-T-024s
Mercury$_D$	<0.17	<0.17	<0.34	<0.17	-	<0.17	<0.17	mg/kg	0.17	A-T-024s
Mercury$_D$$^{\#}$	-	-	-	-	<0.17	-	-	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	9	44	38	15	27	16	10	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<2	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	33	149	129	70	91	56	27	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/1	22/00867/2	22/00867/3	22/00867/4	22/00867/5	22/00867/6	22/00867/8	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HA01	WS06	WS06	WS07	WS07	WS08	WS09			
Depth to Top	0.3	1	2.8	0.5	2.2	0.9	0.5			
Depth To Bottom										
Date Sampled	28-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5A	5A	4AE	5A	4A	4A			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	NAD	-	NAD	NAD	NAD			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	N/A	-	N/A	N/A	N/A			A-T-045

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Lab Sample ID	22/00867/1	22/00867/2	22/00867/3	22/00867/4	22/00867/5	22/00867/6	22/00867/8	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HA01	WS06	WS06	WS07	WS07	WS08	WS09			
Depth to Top	0.3	1	2.8	0.5	2.2	0.9	0.5			
Depth To Bottom										
Date Sampled	28-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5A	5A	4AE	5A	4A	4A			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	-	<0.02	-	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	-	<0.05	-	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	-	<0.07	-	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	-	<0.06	-	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	-	<0.08	-	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	-	<0.03	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	-	<0.03	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	-	<0.03	-	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	-	<0.07	-	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	-	<0.08	-	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/1	22/00867/2	22/00867/3	22/00867/4	22/00867/5	22/00867/6	22/00867/8	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HA01	WS06	WS06	WS07	WS07	WS08	WS09			
Depth to Top	0.3	1	2.8	0.5	2.2	0.9	0.5			
Depth To Bottom										
Date Sampled	28-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5A	5A	4AE	5A	4A	4A			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	<1	-	2	-	<1	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics$_A$	<1	-	2	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	-	<1	-	<1	<1	<1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	<1	-	2	-	<1	<1	<1	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	-	<0.01	-	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/9	22/00867/11	22/00867/12	22/00867/13	22/00867/14	22/00867/15	22/00867/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS09	WS10	WS11	WS11	WS12	WS12	WS13			
Depth to Top	4	3.8	2	4	0.7	2.6	0.15			
Depth To Bottom										
Date Sampled	26-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22	26-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6E	6E	5	3A	6A	5	6E			
% Stones >10mm$_A$	<0.1	<0.1	<0.1	<0.1	22.3	<0.1	<0.1	% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	8.33	8.31	7.78	8.74	8.00	7.90	6.64	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	0.32	0.19	0.02	0.02	<0.01	0.02	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	1800	1600	<200	440	<200	<200	1200	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	6110	-	780	-	53	906	mg/kg	50	A-T-024s
Cyanide (total)$_A$$^{M\#}$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	<0.2	-	<0.2	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	-	<5	-	<5	-	-	mg/kg	5	A-T-043-s
Organic matter$_D$$^{M\#}$	1.8	-	0.2	-	0.5	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D$$^{M\#}$	11	5	11	2	10	1	10	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	-	<1.0	-	<1.0	-	-	mg/kg	1	A-T-027s
Cadmium$_D$$^{M\#}$	1.4	1.5	1.1	1.1	1.4	1.0	1.2	mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	23	22	19	18	8	17	18	mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	27	41	25	28	18	29	27	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-040s
Lead$_D$$^{M\#}$	14	14	13	11	11	12	45	mg/kg	1	A-T-024s
Mercury$_D$	1.05	0.86	<0.17	0.63	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	33	37	26	29	14	31	20	mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	67	68	62	57	41	59	92	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/9	22/00867/11	22/00867/12	22/00867/13	22/00867/14	22/00867/15	22/00867/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS09	WS10	WS11	WS11	WS12	WS12	WS13			
Depth to Top	4	3.8	2	4	0.7	2.6	0.15			
Depth To Bottom										
Date Sampled	26-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22	26-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6E	6E	5	3A	6A	5	6E			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	NAD	-	NAD	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	N/A	-	N/A	-	-			A-T-045

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/9	22/00867/11	22/00867/12	22/00867/13	22/00867/14	22/00867/15	22/00867/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS09	WS10	WS11	WS11	WS12	WS12	WS13			
Depth to Top	4	3.8	2	4	0.7	2.6	0.15			
Depth To Bottom										
Date Sampled	26-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22	26-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6E	6E	5	3A	6A	5	6E			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	-	<0.02	-	<0.02	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	-	<0.05	-	<0.05	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	-	<0.05	-	<0.05	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	-	<0.07	-	<0.07	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	-	<0.06	-	<0.06	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	-	<0.04	-	<0.04	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	-	<0.08	-	<0.08	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	-	<0.03	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	-	<0.03	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	-	<0.03	-	<0.03	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	-	<0.07	-	<0.07	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	-	<0.08	-	<0.08	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/9	22/00867/11	22/00867/12	22/00867/13	22/00867/14	22/00867/15	22/00867/16	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS09	WS10	WS11	WS11	WS12	WS12	WS13			
Depth to Top	4	3.8	2	4	0.7	2.6	0.15			
Depth To Bottom										
Date Sampled	26-Jan-22	27-Jan-22	27-Jan-22	27-Jan-22	26-Jan-22	26-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6E	6E	5	3A	6A	5	6E			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	2	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	2	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	2	-	<1	-	<1	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	-	<0.01	-	<0.01	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/17	22/00867/18	22/00867/19	22/00867/20	22/00867/21	22/00867/22	22/00867/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS13	WS14	WS14	WS15	WS15	WS16	WS16			
Depth to Top	1.8	0.6	2.5	0.7	2.2	0.2	3			
Depth To Bottom										
Date Sampled	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4AE	5A	5A	5A	6AE	4			
% Stones >10mm$_A$	<0.1	<0.1	3.2	5.0	6.1	28.6	<0.1	% w/w	0.1	A-T-044
pH$_D^{M\#}$	8.93	6.24	8.62	6.04	7.01	5.88	8.60	pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D^{M\#}$	0.09	<0.01	<0.01	0.02	<0.01	<0.01	0.03	g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D^{M\#}$	1200	490	210	<200	<200	330	410	mg/kg	200	A-T-028s
Sulphur (total)$_D$	-	297	-	-	127	191	1200	mg/kg	50	A-T-024s
Cyanide (total)$_A^{M\#}$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-042sTCN
Phenols - Total by HPLC$_A$	<0.2	-	<0.2	<0.2	-	-	-	mg/kg	0.2	A-T-050s
Sulphide$_A$	<5	-	<5	<5	-	-	-	mg/kg	5	A-T-043-s
Organic matter$_D^{M\#}$	1.4	-	0.6	0.3	-	-	-	% w/w	0.1	A-T-032 OM
Arsenic$_D^{M\#}$	13	11	6	7	7	7	3	mg/kg	1	A-T-024s
Boron (water soluble)$_D$	<1.0	-	<1.0	<1.0	-	-	-	mg/kg	1	A-T-027s
Cadmium$_D^{M\#}$	1.2	0.9	1.0	1.0	1.0	0.8	0.6	mg/kg	0.5	A-T-024s
Copper$_D^{M\#}$	19	19	15	9	12	7	9	mg/kg	1	A-T-024s
Chromium$_D^{M\#}$	38	22	25	18	20	26	10	mg/kg	1	A-T-024s
Chromium (hexavalent)$_D$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-040s
Lead$_D^{M\#}$	14	37	12	8	9	18	8	mg/kg	1	A-T-024s
Mercury$_D$	0.78	<0.17	0.87	<0.17	<0.17	<0.17	0.62	mg/kg	0.17	A-T-024s
Nickel$_D^{M\#}$	39	14	27	13	18	10	13	mg/kg	1	A-T-024s
Selenium$_D^{M\#}$	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024s
Zinc$_D^{M\#}$	73	62	67	34	51	37	28	mg/kg	5	A-T-024s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/17	22/00867/18	22/00867/19	22/00867/20	22/00867/21	22/00867/22	22/00867/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS13	WS14	WS14	WS15	WS15	WS16	WS16			
Depth to Top	1.8	0.6	2.5	0.7	2.2	0.2	3			
Depth To Bottom										
Date Sampled	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4AE	5A	5A	5A	6AE	4			
Asbestos in Soil (inc. matrix)										
Asbestos in soil$_{D}^{\#}$	NAD	-	NAD	NAD	-	-	-			A-T-045
Asbestos Matrix (visual)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos Matrix (microscope)$_{D}$	-	-	-	-	-	-	-			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?$_{D}$	N/A	-	N/A	N/A	-	-	-			A-T-045

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/17	22/00867/18	22/00867/19	22/00867/20	22/00867/21	22/00867/22	22/00867/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS13	WS14	WS14	WS15	WS15	WS16	WS16			
Depth to Top	1.8	0.6	2.5	0.7	2.2	0.2	3			
Depth To Bottom										
Date Sampled	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4AE	5A	5A	5A	6AE	4			
PAH-16MS										
Acenaphthene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Acenaphthylene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Anthracene$_A^{M\#}$	<0.02	-	<0.02	<0.02	-	-	-	mg/kg	0.02	A-T-019s
Benzo(a)anthracene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(a)pyrene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene$_A^{M\#}$	<0.05	-	<0.05	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene$_A^{M\#}$	<0.05	-	<0.05	<0.05	-	-	-	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene$_A^{M\#}$	<0.07	-	<0.07	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Chrysene$_A^{M\#}$	<0.06	-	<0.06	<0.06	-	-	-	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene$_A^{M\#}$	<0.04	-	<0.04	<0.04	-	-	-	mg/kg	0.04	A-T-019s
Fluoranthene$_A^{M\#}$	<0.08	-	<0.08	<0.08	-	-	-	mg/kg	0.08	A-T-019s
Fluorene$_A^{M\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene$_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Naphthalene $_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Phenanthrene$_A^{M\#}$	<0.03	-	<0.03	<0.03	-	-	-	mg/kg	0.03	A-T-019s
Pyrene$_A^{M\#}$	<0.07	-	<0.07	<0.07	-	-	-	mg/kg	0.07	A-T-019s
Total PAH-16MS$_A^{M\#}$	<0.08	-	<0.08	<0.08	-	-	-	mg/kg	0.01	A-T-019s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/17	22/00867/18	22/00867/19	22/00867/20	22/00867/21	22/00867/22	22/00867/23	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS13	WS14	WS14	WS15	WS15	WS16	WS16			
Depth to Top	1.8	0.6	2.5	0.7	2.2	0.2	3			
Depth To Bottom										
Date Sampled	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	6AE	4AE	5A	5A	5A	6AE	4			
TPH CWG with Clean Up *C1										
Ali >C5-C6$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C6-C8$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Ali >C8-C10$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C10-C12$_A^{M\#}$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C12-C16$_A^{M\#}$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C16-C21$_A^{M\#}$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Ali >C21-C35$_A^{M\#}$	2	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Total Aliphatics$_A$	2	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C5-C7$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C7-C8$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
Aro >C8-C10$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C10-C12$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C12-C16$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C16-C21$_A^{M\#}$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Aro >C21-C35$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
Total Aromatics$_A$	<1	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35)$_A$	2	-	<1	<1	-	-	-	mg/kg	1	A-T-055s
BTEX - Benzene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Toluene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
BTEX - o Xylene$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s
MTBE$_A^{\#}$	<0.01	-	<0.01	<0.01	-	-	-	mg/kg	0.01	A-T-022s

Envirolab Job Number: 22/00867

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/00867/24	22/00867/25	22/00867/26	22/00867/27				Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS17	WS17	WS18	WS18						
Depth to Top	0.9	3.2	0.25	1.25						
Depth To Bottom										
Date Sampled	28-Jan-22	28-Jan-22	28-Jan-22	28-Jan-22						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	6A	6AE	6AE	6						
% Stones >10mm$_A$	<0.1	<0.1	<0.1	3.5				% w/w	0.1	A-T-044
pH$_D$$^{M\#}$	6.91	8.68	6.03	7.52				pH	0.01	A-T-031s
Sulphate (water sol 2:1)$_D$$^{M\#}$	<0.01	0.05	<0.01	<0.01				g/l	0.01	A-T-026s
Sulphate (acid soluble)$_D$$^{M\#}$	<400	750	410	<400				mg/kg	200	A-T-028s
Sulphur (total)$_D$	68	3110	262	69				mg/kg	50	A-T-024s
Arsenic$_D$$^{M\#}$	6	4	9	17				mg/kg	1	A-T-024s
Cadmium$_D$$^{M\#}$	1.7	1.1	0.9	2.1				mg/kg	0.5	A-T-024s
Copper$_D$$^{M\#}$	20	24	10	23				mg/kg	1	A-T-024s
Chromium$_D$$^{M\#}$	45	32	91	37				mg/kg	1	A-T-024s
Lead$_D$$^{M\#}$	14	12	29	16				mg/kg	1	A-T-024s
Mercury$_D$	<0.17	0.73	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel$_D$$^{M\#}$	38	29	14	41				mg/kg	1	A-T-024s
Selenium$_D$$^{M\#}$	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc$_D$$^{M\#}$	95	59	53	112				mg/kg	5	A-T-024s

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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

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

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

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

EPH CWG GCxGC ID from TPH CWG

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

Please contact us if you need any further information.

v2

Envirolab Deviating Samples Report

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

Client: Wardell Armstrong (Birmingham), 2 Devon Way, Longbridge, Birmingham, UK, B31 2TS

Project No: 22/00867

Date Received: 01/02/2022 (am)

Project: South West Rugby

Cool Box Temperatures (°C): 7.7 - 8.5

Clients Project No: BM11254

Lab Sample ID	22/00867/3	22/00867/5	22/00867/6	22/00867/8	22/00867/9	22/00867/12	22/00867/14
Client Sample No							
Client Sample ID/Depth	WS06 2.8m	WS07 2.2m	WS08 0.9m	WS09 0.5m	WS09 4m	WS11 2m	WS12 0.7m
Date Sampled	27/01/22	27/01/22	27/01/22	26/01/22	26/01/22	27/01/22	26/01/22
Deviation Code							
F	✓	✓	✓	✓	✓	✓	✓

Key

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

HOLDING TIME EXCEEDANCES

Lab Sample ID	22/00867/3	22/00867/5	22/00867/6	22/00867/8	22/00867/9	22/00867/12	22/00867/14
Client Sample No							
Client Sample ID/Depth	WS06 2.8m	WS07 2.2m	WS08 0.9m	WS09 0.5m	WS09 4m	WS11 2m	WS12 0.7m
Date Sampled	27/01/22	27/01/22	27/01/22	26/01/22	26/01/22	27/01/22	26/01/22
Sulphide	✓	✓	✓	✓	✓	✓	✓

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples 5 ± 3°C), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/00867/1	22/00867/2	22/00867/3	22/00867/4	22/00867/5	22/00867/6	22/00867/8	22/00867/9	22/00867/11	22/00867/12	22/00867/13	22/00867/14
Client Sample No												
Client Sample ID/Depth	HA01 0.3m	WS06 1m	WS06 2.8m	WS07 0.5m	WS07 2.2m	WS08 0.9m	WS09 0.5m	WS09 4m	WS10 3.8m	WS11 2m	WS11 4m	WS12 0.7m
Date Sampled	28/01/22	27/01/22	27/01/22	27/01/22	27/01/22	27/01/22	26/01/22	26/01/22	27/01/22	27/01/22	27/01/22	26/01/22
A-T-019s	09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022	09/02/2022		09/02/2022		09/02/2022
A-T-022s	08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022	08/02/2022		08/02/2022		08/02/2022
A-T-024s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-026s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-027s	09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022	09/02/2022		09/02/2022		09/02/2022
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-032 OM	09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022	09/02/2022		09/02/2022		09/02/2022
A-T-040s	09/02/2022		09/02/2022		09/02/2022	09/02/2022	09/02/2022	09/02/2022		09/02/2022		09/02/2022
A-T-042sTCN	07/02/2022		07/02/2022		07/02/2022	07/02/2022	07/02/2022	07/02/2022		07/02/2022		07/02/2022
A-T-043-s	08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022	08/02/2022		08/02/2022		08/02/2022
A-T-044	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-045	02/02/2022		02/02/2022		02/02/2022	02/02/2022	02/02/2022	02/02/2022		02/02/2022		02/02/2022
A-T-050s	08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022	08/02/2022		08/02/2022		08/02/2022
A-T-055s	08/02/2022		08/02/2022		08/02/2022	08/02/2022	08/02/2022	08/02/2022		08/02/2022		08/02/2022

Lab Sample ID	22/00867/15	22/00867/16	22/00867/17	22/00867/18	22/00867/19	22/00867/20	22/00867/21	22/00867/22	22/00867/23	22/00867/24	22/00867/25	22/00867/26
Client Sample No												
Client Sample ID/Depth	WS12 2.6m	WS13 0.15m	WS13 1.8m	WS14 0.6m	WS14 2.5m	WS15 0.7m	WS15 2.2m	WS16 0.2m	WS16 3m	WS17 0.9m	WS17 3.2m	WS18 0.25m
Date Sampled	26/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22	28/01/22
A-T-019s			09/02/2022		09/02/2022	09/02/2022						
A-T-022s			08/02/2022		08/02/2022	08/02/2022						
A-T-024s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-026s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-027s			09/02/2022		09/02/2022	09/02/2022						
A-T-028s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-031s	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022
A-T-032 OM			09/02/2022		09/02/2022	09/02/2022						
A-T-040s			09/02/2022		09/02/2022	09/02/2022						
A-T-042sTCN			07/02/2022		07/02/2022	07/02/2022						
A-T-043-s			08/02/2022		08/02/2022	08/02/2022						
A-T-044	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	09/02/2022	10/02/2022	09/02/2022
A-T-045			02/02/2022		02/02/2022	02/02/2022						
A-T-050s			08/02/2022		08/02/2022	08/02/2022						
A-T-055s			08/02/2022		08/02/2022	08/02/2022						

Lab Sample ID	22/00867/27
Client Sample No	
Client Sample ID/Depth	WS18 1.25m
Date Sampled	28/01/22
A-T-019s	
A-T-022s	
A-T-024s	09/02/2022
A-T-026s	09/02/2022
A-T-027s	
A-T-028s	09/02/2022
A-T-031s	09/02/2022
A-T-032 OM	
A-T-040s	
A-T-042sTCN	
A-T-043-s	
A-T-044	09/02/2022
A-T-045	
A-T-050s	
A-T-055s	

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

End of Report

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 22/01086
Issue Number: 1 **Date:** 16 February, 2022

Client: Wardell Armstrong (Birmingham)
2 Devon Way
Longbridge
Birmingham
UK
B31 2TS

Project Manager: William Phillips
Project Name: South West Rugby
Project Ref: BM11254
Order No: BM9163
Date Samples Received: 08/02/22
Date Instructions Received: 08/02/22
Date Analysis Completed: 16/02/22

Approved by:

Richard Wong
Client Manager

UKAS TESTING
1247

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
pH (w)$_{A}^{\#}$	6.38	7.90	7.60	7.22	7.59	7.35		pH	0.01	A-T-031w
Alkalinity (total) (w) Colorimetry$_{A}^{\#}$	48	259	150	222	357	277		mg/l Ca CO3	20	A-T-038w
Sulphate (w)$_{A}^{\#}$	68	662	105	41	241	26		mg/l	1	A-T-026w
Cyanide (free) (w)$_{A}^{\#}$	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		mg/l	0.005	A-T-042wFCN
Cyanide (total) (w)$_{A}^{\#}$	0.029	0.217	<0.005	0.013	<0.005	<0.005		mg/l	0.005	A-T-042wTCN
Thiocyanate (w)$_{A}$	<0.1	0.6	<0.1	<0.1	<0.1	<0.1		mg/l	0.1	A-T-041w
Phenols - Total by HPLC (w)$_{A}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/l	0.01	A-T-050w
Sulphide (w)$_{A}$	<0.1	<0.1	0.4	0.1	<0.1	0.2		mg/l	0.1	A-T-043-w
DOC (w)$_{A}^{\#}$	6.1	11.0	6.4	13.2	149	217		mg/l	2	A-T-032w
Arsenic (dissolved)$_{A}^{\#}$	<1	<1	4	<1	<1	3		µg/l	1	A-T-025w
Boron (dissolved)$_{A}^{\#}$	30	36	35	48	46	70		µg/l	10	A-T-025w
Cadmium (dissolved)$_{A}^{\#}$	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		µg/l	0.2	A-T-025w
Calcium (dissolved)$_{A}^{\#}$	68	99	46	59	63	54		mg/l	1	A-T-049w
Copper (dissolved)$_{A}^{\#}$	2	1	4	3	3	10		µg/l	1	A-T-025w
Chromium (dissolved)$_{A}^{\#}$	<1	<1	<1	2	<1	5		µg/l	1	A-T-025w
Chromium (hexavalent) (w)$_{A}^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/l	0.01	A-T-040w
Lead (dissolved)$_{A}^{\#}$	<1	<1	<1	<1	<1	1		µg/l	1	A-T-025w
Mercury (dissolved)$_{A}^{\#}$	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		µg/l	0.1	A-T-025w
Nickel (dissolved)$_{A}^{\#}$	3	3	1	2	2	2		µg/l	1	A-T-025w
Selenium (dissolved)$_{A}^{\#}$	<1	2	2	<1	1	2		µg/l	1	A-T-025w

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
PAH 16MS (w)										
Acenaphthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.18	0.95		µg/l	0.01	A-T-019w
Acenaphthylene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(a)anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(a)pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Chrysene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Fluorene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	0.17		µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Naphthalene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.21	1.10		µg/l	0.01	A-T-019w
Phenanthrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.14	<0.10		µg/l	0.01	A-T-019w
Pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.11	<0.10		µg/l	0.01	A-T-019w
Total PAH 16MS (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.64	2.22		µg/l	0.01	A-T-019w

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
TPH CWG (w) with Clean Up *C1										
Ali >C5-C6 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Ali >C6-C8 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Ali >C8-C10 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C10-C12 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C12-C16 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C16-C21 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C21-C35 $(w)_A^{\#}$	<50	93	<50	<50	<50	<50		µg/l	5	A-T-055w
Total Aliphatics $(w)_A^{\#}$	<50	93	<50	<50	<60	<500		µg/l	5	A-T-055w
Aro >C5-C7 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Aro >C7-C8 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Aro >C8-C10 $(w)_A$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C10-C12 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C12-C16 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C16-C21 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C21-C35 $(w)_A$	<100	<100	<100	<100	<100	<100		µg/l	10	A-T-055w
Total Aromatics $(w)_A$	<100	<100	<100	<100	<100	<1000		µg/l	10	A-T-055w
TPH (Ali & Aro >C5-C35) $(w)_A$	<100	<100	<100	<100	<100	<1000		µg/l	10	A-T-055w
BTEX - Benzene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - Toluene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - Ethyl Benzene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - m & p Xylene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - o Xylene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
MTBE $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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

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

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

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

EPH CWG GCxGC ID from TPH CWG

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

Please contact us if you need any further information.

v2

Envirolab Deviating Samples Report

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

Client: Wardell Armstrong (Birmingham), 2 Devon Way, Longbridge, Birmingham, UK, B31 2TS

Project: South West Rugby

Clients Project No: BM11254

Project No: 22/01086

Date Received: 08/02/2022 (am)

Cool Box Temperatures (°C): 9.4

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

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples 5 ± 3°C), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6
Client Sample No						
Client Sample ID/Depth	WS01	WS04	WS08	WS11	WS14	WS16
Date Sampled	04/02/22	04/02/22	03/02/22	04/02/22	03/02/22	03/02/22
A-T-019w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-022w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-025w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-026w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-031w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-032w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	15/02/2022	15/02/2022
A-T-038w	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022
A-T-040w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-041w	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022
A-T-042wFCN	15/02/2022	15/02/2022	11/02/2022	15/02/2022	11/02/2022	11/02/2022
A-T-042wTCN	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-043-w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-049w	15/02/2022	15/02/2022	15/02/2022	15/02/2022	15/02/2022	15/02/2022
A-T-050w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-055w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022

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

End of Report

envirolab
Units 7 & 8 Sandpits Business Park
Mottram Road, Hyde, Cheshire, SK14 3AR

FINAL ANALYTICAL TEST REPORT
SUPPLEMENT TO TEST REPORT 22/01086/1

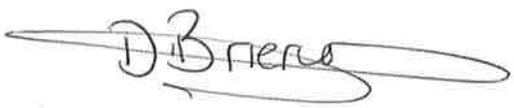
Amendments: Re-issue following query/investigation

Envirolab Job Number: 22/01086
Issue Number: 2 **Date:** 17 February, 2022

Client:
Wardell Armstrong (Birmingham)
2 Devon Way
Longbridge
Birmingham
UK
B31 2TS

Project Manager: William Phillips
Project Name: South West Rugby
Project Ref: BM11254
Order No: BM9163
Date Samples Received: 08/02/22
Date Instructions Received: 08/02/22
Date Analysis Completed: 16/02/22

Approved by:



Danielle Brierley
Deputy Client Services Supervisor

UKAS TESTING
1247

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
pH (w)$_{A}^{\#}$	6.38	7.09	7.06	7.22	7.59	7.35		pH	0.01	A-T-031w
Alkalinity (total) (w) Colorimetry$_{A}^{\#}$	48	259	150	222	357	277		mg/l Ca CO3	20	A-T-038w
Sulphate (w)$_{A}^{\#}$	68	662	105	41	241	26		mg/l	1	A-T-026w
Cyanide (free) (w)$_{A}^{\#}$	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		mg/l	0.005	A-T-042wFCN
Cyanide (total) (w)$_{A}^{\#}$	0.029	0.217	<0.005	0.013	<0.005	<0.005		mg/l	0.005	A-T-042wTCN
Thiocyanate (w)$_{A}$	<0.1	0.6	<0.1	<0.1	<0.1	<0.1		mg/l	0.1	A-T-041w
Phenols - Total by HPLC (w)$_{A}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/l	0.01	A-T-050w
Sulphide (w)$_{A}$	<0.1	<0.1	0.4	0.1	<0.1	0.2		mg/l	0.1	A-T-043-w
DOC (w)$_{A}^{\#}$	6.1	11.0	6.4	13.2	149	217		mg/l	2	A-T-032w
Arsenic (dissolved)$_{A}^{\#}$	<1	<1	4	<1	<1	3		µg/l	1	A-T-025w
Boron (dissolved)$_{A}^{\#}$	30	36	35	48	46	70		µg/l	10	A-T-025w
Cadmium (dissolved)$_{A}^{\#}$	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2		µg/l	0.2	A-T-025w
Calcium (dissolved)$_{A}^{\#}$	68	99	46	59	63	54		mg/l	1	A-T-049w
Copper (dissolved)$_{A}^{\#}$	2	1	4	3	3	10		µg/l	1	A-T-025w
Chromium (dissolved)$_{A}^{\#}$	<1	<1	<1	2	<1	5		µg/l	1	A-T-025w
Chromium (hexavalent) (w)$_{A}^{\#}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/l	0.01	A-T-040w
Lead (dissolved)$_{A}^{\#}$	<1	<1	<1	<1	<1	1		µg/l	1	A-T-025w
Mercury (dissolved)$_{A}^{\#}$	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		µg/l	0.1	A-T-025w
Nickel (dissolved)$_{A}^{\#}$	3	3	1	2	2	2		µg/l	1	A-T-025w
Selenium (dissolved)$_{A}^{\#}$	<1	2	2	<1	1	2		µg/l	1	A-T-025w

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
PAH 16MS (w)										
Acenaphthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.18	0.95		µg/l	0.01	A-T-019w
Acenaphthylene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(a)anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(a)pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(b)fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(ghi)perylene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Benzo(k)fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Chrysene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Dibenzo(ah)anthracene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Fluoranthene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Fluorene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	0.17		µg/l	0.01	A-T-019w
Indeno(123-cd)pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		µg/l	0.01	A-T-019w
Naphthalene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.21	1.10		µg/l	0.01	A-T-019w
Phenanthrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.14	<0.10		µg/l	0.01	A-T-019w
Pyrene (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.11	<0.10		µg/l	0.01	A-T-019w
Total PAH 16MS (w)$_A^{\#}$	<0.10	<0.10	<0.10	<0.10	0.64	2.22		µg/l	0.01	A-T-019w

Envirolab Job Number: 22/01086

Client Project Name: South West Rugby

Client Project Ref: BM11254

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6		Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	WS01	WS04	WS08	WS11	WS14	WS16				
Depth to Top										
Depth To Bottom										
Date Sampled	04-Feb-22	04-Feb-22	03-Feb-22	04-Feb-22	03-Feb-22	03-Feb-22				
Sample Type	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW	Water - EW				
Sample Matrix Code	N/A	N/A	N/A	N/A	N/A	N/A				
TPH CWG (w) with Clean Up *C1										
Ali >C5-C6 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Ali >C6-C8 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Ali >C8-C10 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C10-C12 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C12-C16 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C16-C21 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Ali >C21-C35 $(w)_A^{\#}$	<50	93	<50	<50	<50	<50		µg/l	5	A-T-055w
Total Aliphatics $(w)_A^{\#}$	<50	93	<50	<50	<60	<500		µg/l	5	A-T-055w
Aro >C5-C7 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Aro >C7-C8 $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
Aro >C8-C10 $(w)_A$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C10-C12 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C12-C16 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C16-C21 $(w)_A^{\#}$	<50	<50	<50	<50	<50	<50		µg/l	5	A-T-055w
Aro >C21-C35 $(w)_A$	<100	<100	<100	<100	<100	<100		µg/l	10	A-T-055w
Total Aromatics $(w)_A$	<100	<100	<100	<100	<100	<1000		µg/l	10	A-T-055w
TPH (Ali & Aro >C5-C35) $(w)_A$	<100	<100	<100	<100	<100	<1000		µg/l	10	A-T-055w
BTEX - Benzene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - Toluene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - Ethyl Benzene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - m & p Xylene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
BTEX - o Xylene $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w
MTBE $(w)_A^{\#}$	<1	<1	<1	<1	<1	<1		µg/l	1	A-T-022w

REPORT NOTES

General
This report shall not be reproduced, except in full, without written approval from Envirolab.
The results reported herein relate only to the material supplied to the laboratory.
The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.
Analytical results reflect the quality of the sample at the time of analysis only.
Opinions and interpretations expressed are outside the scope of our accreditation.
If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.
A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.
The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

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

TPH analysis of water by method A-T-007:
Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

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

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

Predominant Matrix Codes:
1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample, 9 = INCINERATOR ASH.
Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.
Secondary Matrix Codes:
A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal, E = contains roots/twigs.

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

EPH CWG GCxGC ID from TPH CWG

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

Please contact us if you need any further information.

v2

Envirolab Deviating Samples Report

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

Client: Wardell Armstrong (Birmingham), 2 Devon Way, Longbridge, Birmingham, UK, B31 2TS

Project: South West Rugby

Clients Project No: BM11254

Project No: 22/01086

Date Received: 08/02/2022 (am)

Cool Box Temperatures (°C): 9.4

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

Note: If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3 (for water samples 5 ± 3°C), ISO 18400-105:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

Envirolab Analysis Dates

Lab Sample ID	22/01086/1	22/01086/2	22/01086/3	22/01086/4	22/01086/5	22/01086/6
Client Sample No						
Client Sample ID/Depth	WS01	WS04	WS08	WS11	WS14	WS16
Date Sampled	04/02/22	04/02/22	03/02/22	04/02/22	03/02/22	03/02/22
A-T-019w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-022w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-025w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-026w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-031w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-032w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	15/02/2022	15/02/2022
A-T-038w	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022
A-T-040w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-041w	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022	16/02/2022
A-T-042wFCN	15/02/2022	15/02/2022	11/02/2022	15/02/2022	11/02/2022	11/02/2022
A-T-042wTCN	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-043-w	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022	11/02/2022
A-T-049w	15/02/2022	15/02/2022	15/02/2022	15/02/2022	15/02/2022	15/02/2022
A-T-050w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022
A-T-055w	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022	14/02/2022

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

End of Report

DRAWINGS

DO NOT SCALE FROM THIS DRAWING

KEY

Site Boundary

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
A	FIRST ISSUE	01/04	JL	JL	LP

CLIENT

L&Q ESTATES

PROJECT

LAND SOUTH OF CAWSTON LANE, RUGBY

DRAWING TITLE

SITE LOCATION PLAN

DRG No.	REV
BM11254-001	A

DRG SIZE	SCALE	DATE
A3	1:10000	24/08/2021

DRAWN BY	CHECKED BY	APPROVED BY
WP	WP	SN

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DO NOT SCALE FROM THIS DRAWING

KEY

Site Boundary

15m Buffer - Site Boundary

SI_Locations

California Bearing Ratio Test

Trial Pit Excavation

Windowless Sampling Borehole

Cable Percussion Borehole

Soakaway Test

Windowless Sampling Borehole with Standpipe

Hand Auger

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
A	FIRST ISSUE	01/04	JL	JL	LP
V2	Version 2	17/01	WP	WP	SN

CLIENT

L&Q ESTATES

PROJECT

LAND SOUTH OF CAWSTON LANE, RUGBY

DRAWING TITLE

SITE INVESTIGATION PLAN

DRG No.	REV
BM11254-002	A

DRG SIZE	SCALE	DATE
A3	1:2500	17/03/2022

DRAWN BY	CHECKED BY	APPROVED BY
FL	WP	SN

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DO NOT SCALE FROM THIS DRAWING

KEY

- Site Boundary
- 15m Buffer - Site Boundary

SI_Locations

- California Bearing Ratio Test
- Trial Pit Excavation
- Windowless Sampling Borehole
- Cable Percussion Borehole
- Soakaway Test
- Windowless Sampling Borehole with Standpipe
- Hand Auger

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
A	FIRST ISSUE	01/04	JL	JL	LP
V2	Version 4	17/01	WP	WP	SN

CLIENT

L&Q ESTATES

PROJECT

LAND SOUTH OF CAWSTON LANE, RUGBY

DRAWING TITLE

INDICATIVE SITE PLAN

DRG No.	REV
BM11254-003	A

DRG SIZE	SCALE	DATE
A3	1:2500	17/03/2022

DRAWN BY	CHECKED BY	APPROVED BY
FL	WP	SN

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