Appendix (ii)
Windowless Sample Hole Logs

Introduction

All sampling and in-situ test methods are carried out in accordance with the relevant British and European standards as referenced below.

Abbreviations Used

Exploratory hole records are presented in graphical format with the use of standard abbreviations as outlined below.

Sampling Method

BH	Borehole
TP	Trial Pit
WS	Windowless Sample Hole
CC	Concrete Cored Hole

Sample Types

D	Disturbed Sample
B	Bulk Sample
ES	Environmental Sample
PID	Sample for total VOC screen
L	Liner Tube Sample
U	Undisturbed Sample
UT	Thin Wall Undisturbed Sample
NR	No Recovery
W	Water Sample
C	Rotary Core

In-Situ Tests

DP	Dynamic Probe Test
CPT	Cone Penetrometer Test
SPT	Standard Penetrometer Test
V	Hand Shear Vane Strength Determination (kPa) – manufacturer's calibration of 1.491 applied to direct reading
V*	Hand Shear Vane Strength Determination (kPa) on excavated block of material

References

BS 5930:2015 + A1:2020 Code of Practice for Ground Investigations

BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites – Code of Practice

BS EN ISO 14688-1:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 1 Identification and description.

BS EN ISO 14688-2:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 2 Principles of Classification.

BS EN ISO 22475-1:2006 Geotechnical Investigation and Testing – Sampling Methods and Groundwater measurements: Part 1 Technical Principles for Execution.

BS EN ISO 22476-2:2005+A1:2011 Field Testing Part 2: Dynamic Probing.

BS EN ISO 22476-3:2005 + A1:2011 Geotechnical Investigation and Testing – Field Testing: Part 3: Standard Penetration Test.

EUR 26227 EN, 2013 Eurocode 7 Chapter 5 Ground Investigation and Testing.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS1
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater	
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Water Strike	Backfill/ Installation
0.00 - 0.70	ES					MADE GROUND: Dark grey brown black slightly gravelly slightly sandy clay. Gravel is brown and black fine to coarse angular to rounded chert with occasional red and yellow brick fragments of fine to coarse gravel size, rare plastic and very rare asphalt fragments of fine to medium gravel size.(0.71m)		
0.00 - 1.00	L							
0.20	PID							
				0.71		DISTURBED GROUND: Stiff greyish brown slightly gravelly silty CLAY with occasional gravelly silty clay pockets. Gravel is brown black and white fine to coarse sub angular to sub rounded chert and rare white fine to medium quartz.(0.34m)		
0.90	PID							
0.90 - 1.00	ES							
1.00 - 1.45	SPT(C)	N=17 (5/3,3,4,7)		1.05		Medium dense yellowish brown mottled orange brown slightly clayey slightly gravelly fine to coarse SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(0.57m)		
1.00 - 2.00	L							
1.10	PID							
1.10 - 1.20	ES							
1.65 - 2.00	D			1.62		Medium dense becoming very dense brown and black very sandy slightly clayey fine to coarse angular to rounded chert and rare white fine to coarse sub rounded quartz GRAVEL. Sand is yellowish brown fine to coarse. [River Terrace Deposits].(1.38m)		
1.90	PID							
2.00 - 2.45	SPT(C)	N=18 (6/5,4,4,5)						
2.00 - 3.00	L							
2.60	PID							
						Refusal		
3.00 - 3.45	SPT(C)	N=67 (22/15,17,17,18)		3.00		Borehole Completed at 3.000m		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)
0.00	1.00	PLAIN	50
1.00	3.00	SLOTTED	50

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS2
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.20m)			
0.20 - 0.50	ES			0.20		MADE GROUND: Greyish brown, dark grey and black slightly clayey gravel. Gravel is brick, chert, occasional ACM sheet with rare coal, cinder, yellow brick and mortar.(0.80m)			
0.20 - 0.50	PID								
1.00 - 1.20	ES			1.00		DISTURBED GROUND: Greyish brown slightly clayey slightly silty gravelly fine to coarse SAND. Gravel is black and brown fine to coarse angular to rounded chert.(0.34m)	1		
1.00 - 1.20	PID								
1.00 - 2.00	L								
				1.34		Medium dense yellowish brown slightly clayey slightly silty gravelly fine to coarse SAND with occasional yellowish brown slightly clayey silty fine sand pockets. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine to coarse sub rounded quartz. [River Terrace Deposits].(2.11m)			
1.75 - 1.80	PID								
2.00 - 3.00	D						2		
2.00 - 3.00	L								
2.00 - 3.00	PID								
3.00 - 4.00	L						3		
				3.45		Medium dense light yellowish brown silty fine to coarse SAND and brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL with rare fine sand pockets. [River Terrace Deposits].(1.55m)			
3.55 - 3.65	ES								
3.55 - 3.65	PID								
4.00 - 5.00	L						4		
4.50 - 5.00	D								
4.90 - 5.00	PID								
				5.00		Borehole Completed at 5.000m	5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
5.00	115	1.00	115					3.50	1.00				Water standing at 3.50m bgl on completion

Installation			
Top (m)	Base (m)	Type	Dia (mm)
0.00	1.00	PLAIN	50
1.00	5.00	SLOTTED	50

Remarks:

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS3
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.20m)			
				0.20		MADE GROUND: Yellowish brown slightly gravelly fine to medium sand. Gravel is brown and black fine to coarse angular to rounded chert.(0.11m)			
0.35 - 0.45	ES			0.31		MADE GROUND: Dark greyish brown slightly gravelly slightly sandy silty clay. Gravel is brown and black fine to coarse angular to rounded chert, occasional fine to coarse red brick, lime mortar, oyster shell, tile, coal, ceramic, glass and bone. (0.45m)			
0.35 - 0.45	PID								
0.76 - 0.85	PID			0.76		Disturbed Ground: Greyish brown and dark greyish brown slightly gravelly slightly silty CLAY. Gravel is rare brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz.(0.55m)			
1.00 - 2.00	L						1		
				1.31		Medium dense yellowish brown gravelly slightly clayey fine to medium SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(0.69m)			
1.65 - 1.75	ES								
1.65 - 1.75	PID								
				2.00		Borehole Completed at 2.000m	2		
							3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 2.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS4
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.19m)			
0.20 - 0.25	PID			0.19		MADE GROUND: Yellowish brown gravelly slightly clayey fine to coarse sand. Gravel is brown and black fine to coarse angular to rounded chert, occasional brick, terracotta tile, lime mortar, rare chert cobbles and rare white fine sub rounded quartz.(0.33m)			
0.20 - 0.50	ES								
0.50 - 0.65	PID			0.52		Soft yellowish brown stained grey and black silty slightly gravelly CLAY. Gravel is brown and black fine to coarse angular to rounded chert. Faint hydrocarbon odour. [River Terrace Deposits].(0.48m)			
1.00 - 1.10	ES			1.00		Soft dark yellowish brown slightly gravelly slightly silty CLAY. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. Sand is fine. Hydrocarbon odour. [River Terrace Deposits].(1.13m)	1		
1.00 - 1.10	PID								
1.00 - 2.00	L								
1.50 - 1.60	PID								
1.65 - 1.85	ES					*Stained black with strong hydrocarbon odour.*			
1.75 - 1.85	PID								
2.00 - 3.00	L						2		
2.15 - 2.20	ES			2.13		Medium dense greyish brown gravelly fine to coarse SAND with occasional silty fine sand pockets. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. Hydrocarbon odour. [River Terrace Deposits].(0.87m)			
2.15 - 2.20	PID					*Stained black to 2.38m bgl.*			
2.50 - 2.60	PID								
2.90 - 3.00	PID								
				3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)
0.00	1.00	PLAIN	50
1.00	3.00	SLOTTED	50

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS5
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
Easting:	**Northing:**	**Level (mAOD):**	**Rig Crew:** / **Logged:** / **Checked:**

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out. DPM at base.(0.12m)			
				0.12		MADE GROUND: Brown and black fine to coarse angular to rounded chert gravel with occasional white fine to coarse rounded quartz gravel and occasional brick and concrete fragments.(0.13m)			
0.25 - 0.35	PID			0.25		MADE GROUND: Dark greyish brown slightly gravelly slightly silty clay. Gravel is red brick, mortar, red tile, chert and quartz.(0.54m)			
0.25 - 0.50	ES								
0.80 - 1.00	ES			0.79		Disturbed Ground: Dark greyish brown mottled yellowish brown slightly gravelly slightly sandy silty CLAY. Gravel is rare brown and black fine to coarse angular to rounded chert, rare white fine sub rounded quartz and rare red brick.(0.65m)			
0.80 - 1.00	PID								
1.00 - 1.45	SPT(C)	N=4 (1/1,1,1,1)					1		
1.00 - 2.00	L								
1.35 - 1.40	PID								
1.50 - 2.00	D			1.44		Firm yellowish brown and greyish brown slightly gravelly sandy silty CLAY with rare black carbonaceous material and rare pockets of orange brown clayey sand. Gravel is rare brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(1.56m)			
1.80 - 1.95	ES								
1.90 - 1.95	PID								
2.00 - 2.45	SPT(C)	N=17 (7/4,4,4,5)					2		
2.00 - 3.00	L					*Grading to a yellowish brown slightly clayey slightly gravelly fine to medium SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz.*			
2.00 - 3.00	PID								
3.00 - 3.45	SPT(C)	N=61 (22/16,15,15,15)		3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata. Hole located inside garage.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS6
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: BC
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L			0.11		Concrete - cored out.(0.11m)			
0.15 - 0.25	PID			0.15		MADE GROUND: Brown and black slightly clayey fine to coarse angular to rounded chert gravel.			
0.15 - 0.50	ES					MADE GROUND: Soft to firm greyish brown slightly gravelly silty clay. Gravel is rare brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz, oyster shell fragments, and tile.(0.37m)			
0.55 - 0.65	PID			0.52		Disturbed Ground: Yellowish brown mottled greyish brown slightly gravelly silty CLAY. Gravel is very rare brown and black fine to coarse angular to rounded chert.(0.65m)			
1.00 - 1.45	SPT(C)	N=10 (2/3,2,2,3)					1		
1.00 - 2.00	L								
1.20 - 1.25	PID			1.17		Medium dense orange brown clayey fine to coarse SAND and brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL. [River Terrace Deposits]. (0.57m)			
1.25 - 1.35	ES								
1.35 - 1.70	D			1.74		Dense yellowish brown becoming light yellowish brown gravelly fine to coarse SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(1.26m)			
2.00 - 2.45	SPT(C)	N=33 (11/6,8,10,9)					2		
2.00 - 3.00	L								
2.55 - 2.75	ES								
2.65 - 2.75	PID								
3.00 - 3.45	SPT(C)	N=73 (34/17,18,19,19)		3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata. Hole located inside bus garage.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS7
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
			Rig Crew: BC
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L			0.09		Concrete - cored out.			
0.10 - 0.20	PID					MADE GROUND: Red and yellow brick, mortar, slate, burnt brick, engineering brick and chert gravel infilled with greyish brown slightly clayey fine to coarse sand. Possible ACM sheet fragments. (0.23m)			
0.10 - 0.30	ES			0.32		MADE GROUND: Firm yellowish brown mottled dark greyish brown and black slightly gravelly clay with rare sand pockets. Gravel is chalk, lime mortar, rare flint, burnt salt glazed earthenware.(0.31m)			
0.35 - 0.45	PID					DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)			
0.35 - 0.50	ES			0.63					
0.65 - 0.75	ES								
0.65 - 0.75	PID								
1.00 - 1.45	SPT(C)	N=10 (2/2,1,2,5)					1		
1.00 - 2.00	L			1.15		Medium dense orange brown becoming light yellowish brown slightly clayey gravelly fine to coarse SAND., Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. Becoming less clayey with depth. [River Terrace Deposits].(0.85m)			
1.30 - 1.70	D								
1.60 - 1.70	PID								
2.00 - 2.45	SPT(C)	N=57 (9/10,14,15,18)		2.00		Borehole Completed at 2.000m	2		
							3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 2.0m depth due to very dense nature of strata. Hole located inside bus garage.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS8
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	04/11/2021
Easting:	Northing:	Level (mAOD):	Rig Crew: JW / Logged: TF / Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					MADE GROUND: Asphalt planings.(0.40m)			
0.40 - 0.50	PID			0.40					
0.40 - 0.65	ES					DISTURBED GROUND: Dark greyish brown slightly gravelly silty CLAY. Gravel is rare brown and black fine to coarse angular to sub rounded chert and rare shell fragments. (0.26m)			
				0.66		DISTURBED GROUND: Greyish brown slightly gravelly silty CLAY. Gravel is rare brown and black fine to coarse angular to rounded chert. (0.52m)			
0.90 - 1.00	PID								
1.00 - 1.45	SPT(C)	N=12 (2/3,3,3,3)					1		
1.00 - 2.00	L								
1.20 - 1.30	ES			1.18		Medium dense yellowish brown clayey very gravelly fine to coarse SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(0.63m)			
1.40 - 1.80	D								
1.60 - 1.70	PID								
				1.81		Medium dense yellowish brown gravelly locally very gravelly slightly clayey fine to coarse SAND with occasional light yellowish brown silty fine sand pockets. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(1.19m)			
2.00 - 2.45	SPT(C)	N=12 (8/3,3,3,3)					2		
2.00 - 3.00	L								
2.30 - 2.65	D								
2.55 - 2.65	PID								
3.00 - 3.45	SPT(C)	N=61 (17/12,15,17,17)		3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	3.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS9
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					MADE GROUND: Asphalt planings with a matrix of dark greyish brown silty sand with rare red brick fragments and brown fine to coarse chert gravel.(0.21m)			
0.25 - 0.35	PID			0.21		MADE GROUND: Dark greyish brown becoming dark brown slightly gravelly slightly sandy silt with rare black carbonaceous specs. Gravel is brown and black fine to coarse angular to rounded chert , red brick fragments of fine to coarse gravel size, lime mortar, ceramic and cinder. (0.37m)			
0.25 - 0.50	ES								
0.60 - 0.70	ES			0.58		DISTURBED GROUND: Firm dark yellowish brown slightly sandy slightly gravelly silty CLAY. Gravel is rare brown and black fine to coarse sub angular to rounded chert and rare white fine sub rounded quartz.(0.24m)			
0.60 - 0.70	PID								
0.85 - 0.90	PID			0.82		Medium dense dark yellowish brown slightly gravelly becoming gravelly slightly silty fine to medium occasionally coarse SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits]. (1.18m)	1		
1.00 - 1.45	SPT(C)	N=9 (3/2,2,2,3)				*Occasional pockets of dark yellowish brown silty CLAY and dark yellowish brown gravelly SAND.*			
1.00 - 1.50	D								
1.00 - 2.00	L								
1.60 - 1.70	ES					*Becoming very dense*			
1.60 - 1.70	PID								
2.00 - 2.45	SPT(C)	N=54		2.00		Borehole Completed at 2.000m	2		
2.00 - 3.00	L	(13/15,13,13,13)							
							3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 2.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS10
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					MADE GROUND: Asphalt planings.(0.32m)			
				0.32					
0.35 - 0.70	ES					MADE GROUND: Red brick, aerated block with a matrix of greyish brown silty sand.(0.43m)			
0.35 - 0.70	PID								
0.75 - 0.80	PID			0.75		DISTURBED GROUND: Dark greyish brown slightly gravelly slightly silty slightly sandy CLAY with rare decayed roots. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz.(0.30m)			
1.00 - 1.45	SPT(C)	N=29 (9/6,8,8,7)					1		
1.00 - 2.00	L			1.05		Dense dark yellowish brown gravelly becoming very gravelly slightly silty fine to coarse SAND with occasional pockets of sandy gravel. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(1.43m)			
1.10 - 1.15	ES								
1.10 - 1.15	PID								
2.00 - 2.45	SPT(C)	N=30 (12/6,7,7,10)					2		
2.00 - 3.00	L								
2.05 - 2.10	PID								
2.50 - 3.00	D			2.48		Dense pale yellowish brown fine to coarse SAND and brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL. [River Terrace Deposits].(0.85m)			
3.00 - 3.45	SPT(C)	N=48 (29/12,12,13,11)					3		
3.00 - 3.05	PID								
3.00 - 4.00	L								
				3.33		Dense pale yellowish brown slightly silty fine to medium SAND with very rare fine brown chert gravel. [River Terrace Deposits].(0.30m)			
				3.63		Very dense brown white and black sandy fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL. Sand is pale yellowish brown fine to coarse. [River Terrace Deposits].(0.37m)			
3.70 - 4.00	ES								
4.00 - 4.45	SPT(C)	N=51 (17/13,12,13,13)		4.00		Borehole Completed at 4.000m	4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
4.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 4.0m depth due to very dense nature of strata.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS11
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.20m)			
0.20 - 0.30	PID			0.20		MADE GROUND: Brick, concrete and mortar infilled with greyish brown clay.(0.94m)			
1.00 - 1.45	SPT(C)	N=8 (0/1,1,3,3)					1		
1.00 - 2.00	L								
1.15 - 1.25	ES			1.14		DISTURBED GROUND: Very soft yellowish brown mottled greyish brown slightly sandy slightly gravelly CLAY. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz.(0.24m)			
1.15 - 1.25	PID								
1.40 - 1.75	D			1.38		Medium dense becoming dense brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL infilled with yellowish brown slightly sandy slightly gravelly clay. [River Terrace Deposits].(0.62m)			
2.00 - 2.45	SPT(C)	N=74 (20/17,17,20,20)		2.00		Borehole Completed at 2.000m	2		
							3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)
0.00	1.00	PLAIN	50
1.00	2.00	SLOTTED	50

Remarks:
No sample recovery possible below 2.0m depth due to very dense nature of strata. Hole located inside bus garage.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS12
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.17m)			
0.20 - 1.00	ES			0.17		MADE GROUND: Crushed red brick, mortar, cinder, clinker, plaster, pottery fragments, burnt brick and wood fibre, flint cobbles and occasional chert and quartz gravel infilled with greyish brown slightly sandy clay. (1.11m)			
0.20 - 1.00	PID								
1.00 - 1.45	SPT(C)	N=4 (1/1,1,1,1)					1		
1.00 - 2.00	L								
1.30 - 1.50	ES			1.28		Loose to medium dense yellowish brown mottled orange brown slightly gravelly slightly clayey fine to medium SAND. Gravel is brown and black fine to coarse sub angular to sub rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits]. (1.12m)			
1.30 - 1.50	PID								
2.00 - 2.45	SPT(C)	N=4 (3/1,2,1,0)					2		
2.00 - 3.00	L								
2.40 - 2.50	PID			2.40		Medium dense becoming dense light yellowish brown slightly gravelly fine SAND. Gravel is brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(0.60m)			
3.00 - 3.45	SPT(C)	N=42 (10/9,9,11,13)		3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata. Hole located inside bus garage.

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Windowless Sample Borehole Log

Project ID	Borehole No.
212945	WS13
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/11/2021
			Rig Crew: JW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.00 - 1.00	L					Concrete - cored out.(0.18m)			
				0.18		MADE GROUND: Crushed red brick and concrete.(0.18m)			
0.40 - 1.00	ES			0.36		MADE GROUND: Dark greyish brown slightly gravelly slightly sandy clay. Gravel is rare fine to coarse red brick, mortar, coal fragments, brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz, cinder, tile and ash.(0.99m)			
0.40 - 1.00	PID								
1.00 - 2.00	L						1		
1.35 - 1.40	ES			1.35		Brown and black fine to coarse angular to rounded chert and rare white fine sub rounded quartz GRAVEL infilled with yellowish brown mottled orange brown and light yellowish brown slightly sandy clay. [River Terrace Deposits].(1.26m)			
1.35 - 1.40	PID								
1.50 - 2.00	D								
2.00 - 3.00	L						2		
2.65 - 2.70	PID			2.61		Yellowish brown and light yellowish brown slightly gravelly fine to coarse SAND. Gravel is brown and black fine to coarse sub angular to sub rounded chert and rare white fine sub rounded quartz. [River Terrace Deposits].(0.39m)			
				3.00		Borehole Completed at 3.000m	3		
							4		
							5		

Borehole Diameter		Casing Diameter		Chiselling & Pits				Water Strikes			Observations		
Depth (m)	Diameter	Depth (m)	Diameter	Depth Top	To (m)	Duration	Remarks	Strike at (m)	Casing at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	115	1.00	115										No groundwater seepages encountered

Installation			
Top (m)	Base (m)	Type	Dia (mm)

Remarks:
No sample recovery possible below 3.0m depth due to very dense nature of strata.

Appendix (iii)
Borehole Logs

Introduction

All sampling and in-situ test methods are carried out in accordance with the relevant British and European standards as referenced below.

Abbreviations Used

Exploratory hole records are presented in graphical format with the use of standard abbreviations as outlined below.

Sampling Method

BH	Borehole
TP	Trial Pit
WS	Windowless Sample Hole
CC	Concrete Cored Hole

Sample Types

D	Disturbed Sample
B	Bulk Sample
ES	Environmental Sample
PID	Sample for total VOC screen
L	Liner Tube Sample
U	Undisturbed Sample
UT	Thin Wall Undisturbed Sample
NR	No Recovery
W	Water Sample
C	Rotary Core

In-Situ Tests

DP	Dynamic Probe Test
CPT	Cone Penetrometer Test
SPT	Standard Penetrometer Test
V	Hand Shear Vane Strength Determination (kPa) – manufacturer's calibration of 1.491 applied to direct reading
V*	Hand Shear Vane Strength Determination (kPa) on excavated block of material

References

BS 5930:2015 + A1:2020 Code of Practice for Ground Investigations

BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites – Code of Practice

BS EN ISO 14688-1:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 1 Identification and description.

BS EN ISO 14688-2:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 2 Principles of Classification.

BS EN ISO 22475-1:2006 Geotechnical Investigation and Testing – Sampling Methods and Groundwater measurements: Part 1 Technical Principles for Execution.

BS EN ISO 22476-2:2005+A1:2011 Field Testing Part 2: Dynamic Probing.

BS EN ISO 22476-3:2005 + A1:2011 Geotechnical Investigation and Testing – Field Testing: Part 3: Standard Penetration Test.

EUR 26227 EN, 2013 Eurocode 7 Chapter 5 Ground Investigation and Testing.

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Cable Percussion Borehole Log

Project ID	Borehole No.
212945	BHA
	Sheet 1 of 1
	Scale: 1:50

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/02/2022
			Rig Crew: SW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater	
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Water Strike	Backfill/ Installation
				0.30		MADE GROUND: Reinforced concrete.(0.30m)		
0.50	ES					MADE GROUND: Crushed concrete of fine to coarse gravel size with rare red brick and cinder fragments, brown and white fine to coarse sub angular to rounded chert gravel infilled with greyish brown slightly clayey fine to coarse sand.(0.50m)		
0.50	PID			0.80		Soft dark greyish brown slightly gravelly slightly silty CLAY with occasional decayed plant material. Gravel is rare brown and white fine angular to sub rounded chert. [River Terrace Deposits].(1.10m)		
1.00	ES							
1.00	PID							
1.50	ES							
1.50	PID							
2.00	ES			1.90		Black brown and white fine to coarse angular to sub rounded slightly sandy chert GRAVEL. Gravel is stained grey with strong hydrocarbon odour. [River Terrace Deposits].(1.80m)	Water Added =1000 l	
2.00	PID							
2.50	ES							
2.50	PID							
3.00	ES							
3.00	PID							
3.50	ES							
3.50	PID			3.70		Yellowish brown slightly gravelly medium to coarse SAND. Gravel is black brown and white fine to coarse angular to sub rounded chert. Faint hydrocarbon odour. [River Terrace Deposits].(1.55m)		
4.00	ES							
4.00	PID							
4.50	ES							
4.50	PID							
5.00	ES							
5.00	PID			5.25		Greyish brown slightly gravelly fine to coarse SAND. Gravel is brown white and black fine to coarse angular to sub rounded chert. [River Terrace Deposits].(0.75m)		
5.50	ES							
5.50	PID							
6.00	ES			6.00		Borehole Completed at 6.000m		
6.00	PID							

Start & End of Shift Observations					Borehole Diameter		Casing Diameter	
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
09-02-2022	13:00	6.00	6.00	3.00	6.00	150	6.00	150

Remarks:
Groundwater ingress masked by water added to aid drilling.

Chiselling & Pits				Installation			
From (m)	To (m)	Duration	Remarks	Top (m)	Base (m)	Type	Dia (mm)
0.30	1.00	01:00	Service pit	0.00	3.00	PLAIN	50
				3.00	6.00	SLOTTED	50

Groundwater Observations

Strike at (m)	Casing at (m)	Sealed at (m)	Time (min)	Rose to (m)	Remarks
					No groundwater

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Cable Percussion Borehole Log

Project ID	Borehole No.
212945	BHB
	Sheet 1 of 1
	Scale: 1:50

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	09/02/2022
			Rig Crew: SW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater	
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Water Strike	Backfill/ Installation
0.50	ES			0.15		MADE GROUND: Reinforced Concrete.(0.15m)		
0.50	PID					MADE GROUND: Firm greyish brown and yellowish brown slightly gravelly slightly sandy clay, Gravel is brown white and black fine to coarse angular to sub rounded chert with occasional fine to coarse red brick and concrete.(0.75m)		
1.00	ES			0.90		Yellowish brown slightly gravelly slightly clayey silty fine SAND with occasional yellowish brown clay pockets. Gravel is brown white and black fine to coarse angular to sub angular chert. [River Terrace Deposits].(0.40m)		
1.00	PID			1.30		Yellowish brown fine to coarse SAND and black brown and white fine to coarse angular to sub rounded GRAVEL, locally a sandy gravel. [River Terrace Deposits].(4.40m)	Water Added =1000 l	
1.50	ES					*Slight hydrocarbon odour noted at 2.80m bgl*		
1.50	PID					*Slightly grey staining*		
2.00	ES							
2.00	PID							
2.50	ES							
2.50	PID							
3.00	ES							
3.00	PID							
3.50	ES							
3.50	PID							
4.00	ES							
4.00	PID							
4.50	ES							
4.50	PID							
5.00	ES							
5.00	PID							
5.50	ES							
5.50	PID			5.70		Yellowish brown gravelly fine to coarse SAND. Gravel is brown, black and white fine to coarse sub angular to sub rounded chert and rare white fine to coarse quartz. [River Terrace Deposits]. (0.30m)		
6.00	ES			6.00		Borehole Completed at 6.000m		
6.00	PID							

Depth (mBGL): 1 2 3 4 5 6 7 8 9 10

Start & End of Shift Observations					Borehole Diameter		Casing Diameter	
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
09-02-2022	16:00	6.00	6.00	2.60	6.00	150	6.00	150

Remarks:
Groundwater ingress masked by water added to aid drilling.

Chiselling & Pits				Installation			
From (m)	To (m)	Duration	Remarks	Top (m)	Base (m)	Type	Dia (mm)
0.15	1.00	01:00	Service pit	0.00	3.00	PLAIN	50
				3.00	6.00	SLOTTED	50

Groundwater Observations

Strike at (m)	Casing at (m)	Sealed at (m)	Time (min)	Rose to (m)	Remarks
					No groundwater seepage

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Cable Percussion Borehole Log

Project ID	Borehole No.
212945	BHC
	Sheet 1 of 1
	Scale: 1:50

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	10/02/2022
			Rig Crew: SW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
				0.30		MADE GROUND: Reinforced Concrete.(0.30m)			
0.50	ES					MADE GROUND: Yellowish brown slightly sandy gravelly clay. Gravel is brown black white fine to coarse sub angular chert, occasional fine to coarse concrete and fine brick fragments.(0.70m)			
0.50	PID								
1.00	ES			1.00		DISTURBED GROUND: Soft yellowish brown slightly sandy slightly gravelly slightly silty clay. Gravel is brown and white fine to coarse chert and rare brick.(0.40m)	1		
1.00	PID								
1.50	ES			1.40		Yellowish brown slightly gravelly clayey silty fine SAND. Gravel is white and brown fine to coarse angular to sub rounded chert. [River Terrace Deposits].(0.50m)		Water Added =1000 l	
1.50	PID								
2.00	ES			1.90		Yellowish brown fine to coarse SAND and brown, white and black fine to coarse angular to sub rounded chert and rare white fine quartz GRAVEL. Locally slightly sandy gravel. [River Terrace Deposits].(4.10m)	2		
2.00	PID								
2.50	ES								
2.50	PID								
3.00	ES						3		
3.00	PID								
3.50	ES								
3.50	PID								
4.00	ES						4		
4.00	PID								
4.50	ES								
4.50	PID								
5.00	ES						5		
5.00	PID								
5.50	ES								
5.50	PID								
6.00	ES			6.00		Borehole Completed at 6.000m	6		
6.00	PID								
							7		
							8		
							9		
							10		

Start & End of Shift Observations					Borehole Diameter		Casing Diameter	
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
10-02-2022	12:00	6.00	6.00	2.80	6.00	150	6.00	150

Remarks:
Groundwater ingress masked by water added to aid drilling.

Chiselling & Pits				Installation			
From (m)	To (m)	Duration	Remarks	Top (m)	Base (m)	Type	Dia (mm)
0.30	1.00	01:00	Service pit	0.00	3.00	PLAIN	50
				3.00	6.00	SLOTTED	50

Groundwater Observations

Strike at (m)	Casing at (m)	Sealed at (m)	Time (min)	Rose to (m)	Remarks
					No groundwater seepages

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Cable Percussion Borehole Log

Project ID	Borehole No.
212945	BHD
	Sheet 1 of 1
	Scale: 1:50

Project Title:	Location:	Client:	Date Drilled
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	10/02/2022
			Rig Crew: SW
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked:

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.50	ES			0.40		MADE GROUND: Reinforced Concrete.(0.40m)			
0.50	PID					MADE GROUND; Dark yellowish brown slightly clayey slightly gravelly fine to medium sand with soft yellowish brown clay pockets. Gravel is brown black and white fine to coarse sub rounded chert, chert cobbles, rare white quartz, brick and concrete (1.00m)	1		
1.00	ES			1.40		DISTURBED GROUND: Dark yellowish brown slightly clayey slightly gravelly fine to medium SAND with soft yellowish brown clay pockets. Gravel is brown black and white fine to coarse sub rounded chert and rare brick. (0.50m)			
1.00	PID			1.90		Dark yellowish brown slightly clayey slightly gravelly fine to medium SAND with soft yellowish brown clay pockets. Gravel is brown black and white fine to coarse sub rounded chert. [River Terrace Deposits].(0.40m)	2		
1.50	ES			2.30		Dark brown slightly clayey slightly gravelly silty fine SAND with occasional black organic matter/decayed plant material. Gravel is white and brown fine to coarse sub angular chert. [River Terrace Deposits].(0.50m)			
1.50	PID			2.80		Yellowish brown fine to coarse slightly gravelly fine to coarse SAND with rare clay pockets. Gravel is brown and white fine to coarse sub rounded chert. [River Terrace Deposits].(0.60m)	3	Water Added =1000 l	
2.00	ES			3.40		Yellowish brown fine to coarse SAND and brown white and black fine to coarse sub angular to sub rounded chert GRAVEL with rare greyish brown silty clay pockets. locally sandy gravel. [River Terrace Deposits].(2.60m)			
2.00	PID						4		
2.50	ES								
2.50	PID						5		
3.00	ES								
3.00	PID						6		
3.50	ES			6.00		Borehole Completed at 6.000m			
3.50	PID						7		
4.00	ES								
4.00	PID						8		
4.50	ES								
4.50	PID						9		
5.00	ES								
5.00	PID						10		
5.50	ES								
5.50	PID								
6.00	ES								
6.00	PID								

Start & End of Shift Observations					Borehole Diameter		Casing Diameter	
Date	Time	Depth (m)	Casing (m)	Water (m)	Depth (m)	Dia (mm)	Depth (m)	Dia (mm)
10-02-2022	15:00	6.00	6.00	2.80	6.00	150	6.00	150

Remarks:
Groundwater ingress masked by water added to aid drilling.

Chiselling & Pits				Installation			
From (m)	To (m)	Duration	Remarks	Top (m)	Base (m)	Type	Dia (mm)
0.40	1.00	01:00	Service pit	0.00	3.00	PLAIN	50
				3.00	6.00	SLOTTED	50

Groundwater Observations

Strike at (m)	Casing at (m)	Sealed at (m)	Time (min)	Rose to (m)	Remarks
					No groundwater seepages

Appendix (iv)
Trial Pit Logs

Introduction

All sampling and in-situ test methods are carried out in accordance with the relevant British and European standards as referenced below.

Abbreviations Used

Exploratory hole records are presented in graphical format with the use of standard abbreviations as outlined below.

Sampling Method

BH	Borehole
TP	Trial Pit
WS	Windowless Sample Hole
CC	Concrete Cored Hole

Sample Types

D	Disturbed Sample
B	Bulk Sample
ES	Environmental Sample
PID	Sample for total VOC screen
L	Liner Tube Sample
U	Undisturbed Sample
UT	Thin Wall Undisturbed Sample
NR	No Recovery
W	Water Sample
C	Rotary Core

In-Situ Tests

DP	Dynamic Probe Test
CPT	Cone Penetrometer Test
SPT	Standard Penetrometer Test
V	Hand Shear Vane Strength Determination (kPa) – manufacturer's calibration of 1.491 applied to direct reading
V*	Hand Shear Vane Strength Determination (kPa) on excavated block of material

References

BS 5930:2015 + A1:2020 Code of Practice for Ground Investigations

BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites – Code of Practice

BS EN ISO 14688-1:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 1 Identification and description.

BS EN ISO 14688-2:2018 Geotechnical Investigation and Testing – Identification and Classification of Soil: Part 2 Principles of Classification.

BS EN ISO 22475-1:2006 Geotechnical Investigation and Testing – Sampling Methods and Groundwater measurements: Part 1 Technical Principles for Execution.

BS EN ISO 22476-2:2005+A1:2011 Field Testing Part 2: Dynamic Probing.

BS EN ISO 22476-3:2005 + A1:2011 Geotechnical Investigation and Testing – Field Testing: Part 3: Standard Penetration Test.

EUR 26227 EN, 2013 Eurocode 7 Chapter 5 Ground Investigation and Testing.

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Trial Pit Log

Project ID	Trial Pit No.
212945	TP1
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Excavated
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	25/02/2022
Easting:	Northing:	Level (mAOD):	Logged: TF / Checked: RF

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.30 - 0.40	ES			0.28		MADE GROUND: Asphalt Planings(0.28m)			
				0.57		MADE GROUND: Brick and concrete fragments of fine gravel to cobble size with rare glass and plastic. (0.29m)			
0.70 - 0.80	ES			1.43		Firm yellowish brown slightly gravelly silty CLAY. Gravel is brown, white and black fine to coarse angular to rounded chert.(0.86m)	1		
				2.38		Medium dense brown slightly silty slightly gravelly fine to coarse SAND. Gravel is brown, white and black fine to coarse angular to rounded chert with occasional white fine to coarse sub angular to rounded quartz.(0.95m)	2		
				3.44		Dense light yellowish brown fine to coarse SAND and brown, white and black fine to coarse angular to rounded chert GRAVEL with occasional white fine to coarse sub angular to rounded quartz. [River Terrace Deposits](1.06m)	3		
						Trial Pit Completed at 3.440m	4		
							5		

Pit Dimensions		Pit Stability and Comments			Water Strikes		Observations		
Pit Length (m)	Pit Width (m)	Pit Stability	Shoring Used	Remarks	Strike at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.20	0.60	Stable	None						No groundwater seepages encountered

Plant Used:
JCB 3CX

Remarks:

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Trial Pit Log

Project ID	Trial Pit No.
212945	TP2
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Excavated
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	25/02/2022
Easting:	Northing:	Level (mAOD):	Logged: TF / Checked: RF

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.20 - 0.30	ES			0.08		MADE GROUND: Asphalt planings.(0.08m)			
						MADE GROUND: Dark greyish brown and black slightly gravelly sandy clay. Gravel is black, brown and white fine to coarse sub angular to rounded chert with occasional asphalt planings, concrete and brick of fine gravel to cobble size.(0.57m)			
0.70 - 0.80	ES			0.65		Soft yellowish brown slightly gravelly silty CLAY. Gravel is rare brown, white and black fine to coarse angular to rounded chert. (0.81m)	1		
				1.46		Medium dense yellowish brown gravelly fine to coarse SAND. Gravel is brown, white and black fine to coarse angular to rounded chert with occasional white fine to coarse sub angular to rounded quartz.(0.34m)			
				1.80		Dense light yellowish brown fine to coarse SAND and brown, white and black fine to coarse angular to rounded chert GRAVEL with occasional white fine to coarse sub angular to rounded quartz. [River Terrace Deposits](1.20m)	2		
				3.00		Trial Pit Completed at 3.000m	3		
							4		
							5		

Pit Dimensions		Pit Stability and Comments			Water Strikes		Observations		
Pit Length (m)	Pit Width (m)	Pit Stability	Shoring Used	Remarks	Strike at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	0.60	Stable	None						No groundwater seepages encountered

Plant Used:
JCB 3CX

Remarks:

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Trial Pit Log

Project ID	Trial Pit No.
212945	TP3
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Excavated
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	25/02/2022
			Logged: TF
Easting:	Northing:	Level (mAOD):	Checked: RF

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.10 - 0.20	ES					MADE GROUND: Scrub over very dark grey/black sandy gravelly clay. Gravel is brown, black and white fine to coarse angular to sub rounded chert with occasional brick and concrete fragments. (0.20m)			
0.20 - 0.30	ES			0.20		MADE GROUND: Consisting of rubber matting, wood, plastic, electrical cable, metal, fabric, hydraulic pipes, timber, slate and decaying batteries with occasional pockets of yellowish brown gravelly clayey sand and ACM.(2.30m)			
						Hole continually collapsed during excavation.			
				2.50		Trial Pit Completed at 2.500m			

Pit Dimensions		Pit Stability and Comments			Water Strikes		Observations		
Pit Length (m)	Pit Width (m)	Pit Stability	Shoring Used	Remarks	Strike at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
11.00	0.60	Unstable	None						No groundwater seepages encountered

Plant Used:
JCB 3CX

Remarks:

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Trial Pit Log

Project ID	Trial Pit No.
212945	TP4
	Sheet 1 of 1
	Scale: 1:10

Project Title:	Location:	Client:	Date Excavated
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	25/02/2022
Easting:	Northing:	Level (mAOD):	Logged: TF / Checked: RF

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
				0.03		MADE GROUND: Asphalt(0.03m)			
						MADE GROUND: Concrete and brick of fine gravel to cobble size with occasional plastic, timber and metal in a yellowish brown clayey sand.(0.32m)			
						Concrete slab encountered (old bus wash) at 0.35m bgl - trial pit terminated			
				0.35		Trial Pit Completed at 0.350m	1		
							2		

Pit Dimensions		Pit Stability and Comments			Water Strikes		Observations		
Pit Length (m)	Pit Width (m)	Pit Stability	Shoring Used	Remarks	Strike at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
3.00	2.50	Stable	None						No groundwater seepages encountered

Plant Used:
JCB 3CX

Remarks:

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Trial Pit Log

Project ID	Trial Pit No.
212945	TP5
	Sheet 1 of 1
	Scale: 1:25

Project Title:	Location:	Client:	Date Excavated
Chambers Bus Depot	Chambers Bus Depot, Church Square, Bures, CO8 5AB	Rose Builders	25/02/2022
Easting:	Northing:	Level (mAOD):	Logged: TF / Checked: RF

Samples & In Situ Testing			Strata Details				Groundwater		
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend	Strata Description	Depth (mBGL)	Water Strike	Backfill/ Installation
0.30 - 0.40	ES			0.06		MADE GROUND: Asphalt planings(0.06m) MADE GROUND: Consisting of black brown and white fine to coarse angular to sub rounded chert with concrete and brick of fine gravel to boulder size with occasional asphalt, metal, electrical cable, fabric and plastic in occasionally infilled with greyish brown clay.(2.39m)	1		
1.00 - 1.10	ES								
							2		
						Hole continually collapsed during excavation.			
				2.45		Trial Pit Completed at 2.450m			
							3		
							4		
							5		

Pit Dimensions		Pit Stability and Comments			Water Strikes		Observations		
Pit Length (m)	Pit Width (m)	Pit Stability	Shoring Used	Remarks	Strike at (m)	Sealed at (m)	Time Mins	Rose to (m)	Remarks
2.20	0.60	Unstable	None						No groundwater seepages encountered

Plant Used:
JCB 3CX

Remarks:

Appendix (v)
PhotoIonisation Detector Results – Soil Samples

PHOTO IONISATION DETECTION RESULTS

Site	Chambers Bus Garage, Bures			
Date	5th November 2021		**Operative**	TF
Location	**Depth (m)**	**Peak Reading (ppm)**	**Residual Reading (ppm)**	**Comment**
WS1	0.2	2.1	2.1	
	0.9	0.8	0.6	
	1.1	66	30.2	
	1.9	0.7	0.1	
	2.6	0.5	0.1	
WS2	0.2-0.5	1.3	1.1	
	1.0-1.2	0.5	0.3	
	1.75-1.8	0.4	0.3	
	2.0-3.0	5.9	4.3	
	3.55-3.65	0.6	0.5	
	4.9-5.0	1.9	1.7	
WS3	0.35-0.45	1.7-1.8	1.7	
	0.76-0.85	1.2	1.1	
	1.65-1.75	0.7	0.5	
WS4	0.2-0.25	8.2	5.6	
	0.5-0.65	**140.1**	91	
	1.0-1.1	**227**	150	
	1.5-1.6	**117.5**	64.5	
	1.75-1.85	**196.9**	138.3	
	2.15-2.2	**252.3**	149.2	
	2.5-2.6	**228.1**	175.8	
	2.9-3.0	**219.5**	132.6	
WS5	0.25-0.35	7.6	5.5	
	0.8-1.0	2.3	2.2	
	1.35-1.45	1.6	1.5	
	1.9-1.95	0.6	0.5	
	2.0-3.0	1.8	1.7	
WS6	0.15-0.25	0.2-0.3	0.2	
	0.55-0.65	0.2	0.2	
	1.2-1.25	0.4	0.3	
	2.65-2.75	0.3	0.2	
WS7	0.1-0.2	0.6	0.4	
	0.35-0.45	0.1	0.1	
	0.65-0.75	0.3	0.2	

Site	Chambers Bus Garage, Bures			
Date	5th November 2021		**Operative**	TF
Location	**Depth (m)**	**Peak Reading (ppm)**	**Residual Reading (ppm)**	**Comment**
WS7	1.6-1.7	0.2	0.2	
WS8	0.4-0.5	1.2	1.0	
	0.9-1.0	0.6	0.5	
	1.6-1.7	2.1	1.8	
	2.55-2.65	0.7	0.5	
WS9	0.25-0.35	1.5	1.3	
	0.6-0.7	0.8	0.5	
	0.85-0.9	0.9	0.4	
	1.6-1.7	1.0	0.6	
WS10	0.35-0.7	0.9	0.6	
	0.75-0.8	0.8	0.5	
	1.1-1.15	1.5	1.4	
	2.05-2.1	1.1	1.0	
	3.0-3.05	1.2	1.1	
WS11	0.2-0.3	0.9	0.6	
	1.15-1.25	0.7	0.5	
	1.4-1.75	1.3	1.2	
WS12	0.2-1.0	1.2	1.1	
	1.3-1.5	0.9	0.7	
	2.4-2.5	0.8	0.5	
WS13	0.4-1.0	11.7	9.7	
	1.35-1.4	1.9	1.4	
	2.65-2.7	1.3	0.9	

Figures in bold >100ppm

Site	Chambers Bus Garage, Bures			
Date	9th February 2022		**Operative**	TF
Location	**Depth (m)**	**Peak Reading (ppm)**	**Residual Reading (ppm)**	**Comment**
BHA	0.5	0.3		Readings taken as drilling progressed to assess extent of contamination in soils
	1.0	0.3		
	1.5	0.2		
	2.0	10.7		
	2.5	32.8		
	3.0	40.9		
	3.5	8.1		
	4.0	54.8		
	4.5	10.2		
	5.0	1.2		
	5.5	0.3		
	6.0	0.3		
BHB	0.5	0.4		
	1.0	0.2		
	1.5	0.5		
	2.0	0.4		
	2.5	0.2		
	3.0	0.2		
	3.5	21.6		
	4.0	17.9		
	4.5	6.4		
	5.0	0.4		
	5.5	0.3		
	6.0	0.3		

Site	Chambers Bus Garage, Bures			
Date	10th February 2022		Operative	TF
Location	**Depth (m)**	**Peak Reading (ppm)**	**Residual Reading (ppm)**	**Comment**
BHC	0.5	0.2		Readings taken as drilling progressed to assess extent of contamination in soils
	1.0	0.4		
	1.5	0.2		
	2.0	0.3		
	2.5	0.3		
	3.0	0.3		
	3.5	0.2		
	4.0	0.3		
	4.5	0.3		
	5.0	0.2		
	5.5	0.2		
	6.0	0.3		
BHD	0.5	0.3		
	1.0	0.2		
	1.5	0.2		
	2.0	0.3		
	2.5	0.4		
	3.0	0.2		
	3.5	0.3		
	4.0	0.2		
	4.5	0.2		
	5.0	0.2		
	5.5	0.3		
	6.0	0.3		

Appendix (vi)
Gas Monitoring Results

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Gas and Groundwater Monitoring Record Sheet

Site	Chambers Bus Depot, Bures					**Job No**	212945
Position	WS1					**Technician**	CT
Response Zone	**Top m bgl**	1.00	**Bottom m bgl**	3.00	**Response Zone Stratum**	MG/RTD	

Date	Depth m bgl	Methane %		Carbon Dixoide %		Oxygen %		Carbon Monoxide ppm		Hydrogen Sulphide ppm		Atmospheric Pressure mBar	Relative Pressure mBar	Gas Flow l/h		Water Level m bgl
		Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady			Peak	Steady	
14.11.21	2.93	0.1	0.1	7.0	6.4	13.5	14.5	0	0	0	0	1022	0.07	0.0	0.0	dry
Observations		Stable		Stable		Stable		Stable		Stable		Rising		Stable		
Ambient Conditions		0.1		0.1		21.3		0		0		1022	**Weather Conditions**	Overcast 7°C		
23.11.21	2.93	0.1	0.1	7.3	7.3	13.1	13.1	0	0	0	0	1023	0.05	0.1	0.1	dry
Observations		Stable		Stable		Stable		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		21.2		0		0		1022	**Weather Conditions**	Overcast 1°C		
20.12.21	2.93	0.1	0.1	9.1	9.1	11.1	11.1	0	0	0	0	1028	0.09	0.1	0.1	dry
Observations		Stable		Stable		Stable		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		21.5		0		0		1027	**Weather Conditions**	Overcast 6°C		
07.01.22	2.93	0.1	0.1	8.9	8.9	11.4	11.4	0	0	0	0	1007	-0.02	0.1	0.1	dry
Observations		Stable		Stable		Stable		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		21.3		0		0		1006	**Weather Conditions**	Clear and cold 3°C		
13.01.22	2.93	0.2	0.1	8.8	8.8	11.4	11.4	0	0	0	0	1040	0.02	0.3	0.3	dry
Observations		Stable		Stable		Stable		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		21.4		0		0		1039	**Weather Conditions**	Frosty 0°C		
14.02.22	2.93	0.1	0.1	8.6	8.5	13.0	13.1	0	0	0	0	993	0.05	0.2	0.2	dry
Observations		Stable		Stable		Stable		Stable		Stable		Low		Stable		
Ambient Conditions		0.1		0.1		21.4		0		0		993	**Weather Conditions**	Overcast 7°C		

Comments	N/R = Not Recorded

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Gas and Groundwater Monitoring Record Sheet

Site	Chambers Bus Depot, Bures					**Job No**	212945
Position	WS2					**Technician**	CT
Response Zone	**Top m bgl**	1.00	**Bottom m bgl**	4.00	**Response Zone Stratum**	MG/RTD	

Date	Depth m bgl	Methane %		Carbon Dixoide %		Oxygen %		Carbon Monoxide ppm		Hydrogen Sulphide ppm		Atmospheric Pressure mBar	Relative Pressure mBar	Gas Flow l/h		Water Level m bgl
		Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady			Peak	Steady	
14.11.21	3.39	0.1	0.1	3.3	3.3	13.5	13.5	0	0	0	0	1022	0.03	0.2	0.2	damp
Observations		Stable		Stable		Stable		Stable		Stable		Rising		Stable		
Ambient Conditions		0.1		0.1		21.7		0		0		1022	**Weather Conditions**	Overcast 7°C		
23.11.21	3.39	0.1	0.1	3.4	3.4	13.8	13.8	0	0	0	0	1023	0.00	0.0	0.0	dry
Observations		Stable		Stable		Stable		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		21.8		0		0		1022	**Weather Conditions**	Overcast 1°C		
20.12.21	3.39	0.1	0.1	3.0	3.0	14.5	14.5	0	0	0	0	1028	0.07	0.1	0.1	dry
Observations		Stable		Stable		Stable		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		22.0		0		0		1028	**Weather Conditions**	Overcast 6°C		
07.01.22	3.39	0.1	0.1	3.1	3.1	14.6	14.6	0	0	0	0	1007	0.02	0.1	0.1	dry
Observations		Stable		Stable		Stable		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		22.2		0		0		1006	**Weather Conditions**	Clear and cold 3°C		
13.01.22	3.49	0.1	0.1	3.0	2.9	14.8	14.8	0	0	0	0	1040	0.00	0.2	0.2	dry
Observations		Stable		Stable		Stable		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		22.2		0		0		1039	**Weather Conditions**	Frosty 0°C		
14.02.22	3.49	0.1	0.1	2.9	2.9	15.8	15.9	0	0	0	0	995	0.02	0.2	0.2	3.27
Observations		Stable		Stable		Stable		Stable		Stable		Low		Stable		
Ambient Conditions		0.1		0.1		21.8		0		0		994	**Weather Conditions**	Overcast 7°C		

Comments	N/R = Not Recorded

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Gas and Groundwater Monitoring Record Sheet

Site	Chambers Bus Depot, Bures					**Job No**	212945
Position	WS4					**Technician**	CT
Response Zone	**Top m bgl**	1.00	**Bottom m bgl**	3.00	**Response Zone Stratum**	MG/RTD	

Date	Depth m bgl	Methane %		Carbon Dixoide %		Oxygen %		Carbon Monoxide ppm		Hydrogen Sulphide ppm		Atmospheric Pressure mBar	Relative Pressure mBar	Gas Flow l/h		Water Level m bgl
		Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady			Peak	Steady	
14.11.21	2.73	0.1	0.1	1.8	1.3	19.2	20.4	0	0	0	0	1022	0.05	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Rising		Stable		
Ambient Conditions		0.1		0.1		21.8		0		0		1021	**Weather Conditions**	Overcast 7°C		
23.11.21	2.79	0.1	0.1	1.8	1.2	19.5	20.7	0	0	0	0	1022	0.03	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		22.2		0		0		1022	**Weather Conditions**	Overcast 1°C		
20.12.21	2.78	0.1	0.1	2.9	2.1	19.0	20.3	0	0	0	0	1028	0.00	0.1	0.1	dry
Observations		Stable		Gradual fall		Stable		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		22.1		0		0		1028	**Weather Conditions**	Overcast 6°C		
07.01.22	2.78	0.1	0.1	2.9	2.0	18.5	20.4	0	0	0	0	1007	0.07	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		22.5		0		0		1006	**Weather Conditions**	Clear and cold 3°C		
13.01.22	2.78	0.1	0.1	1.6	1.4	21.2	21.5	0	0	0	0	1039	0.09	0.2	0.2	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		22.5		0		0		1039	**Weather Conditions**	Frosty 0°C		
14.02.22	2.78	0.1	0.1	3.2	1.8	16.8	19.9	0	0	0	0	994	0.09	0.2	0.2	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Low		Stable		
Ambient Conditions		0.1		0.1		22.0		0		0		994	**Weather Conditions**	Overcast 7°C		

Comments	20.12.21 gases monitored for 10 minutes rather than 5 minutes N/R = Not Recorded

Compass Geotechnical
Geotechnical, Geoenvironmental and Civil Engineering Consultants

Gas and Groundwater Monitoring Record Sheet

Site	Chambers Bus Depot, Bures					**Job No**	212945
Position	WS11					**Technician**	CT
Response Zone	**Top m bgl**	1.00	**Bottom m bgl**	3.00	**Response Zone Stratum**	MG/RTD	

Date	Depth m bgl	Methane %		Carbon Dixoide %		Oxygen %		Carbon Monoxide ppm		Hydrogen Sulphide ppm		Atmospheric Pressure mBar	Relative Pressure mBar	Gas Flow l/h		Water Level m bgl
		Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady			Peak	Steady	
14.11.21	2.39	0.1	0.1	2.7	2.0	17.7	19.0	0	0	0	0	1022	0.09	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Rising		Stable		
Ambient Conditions		0.1		0.1		21.9		0		0		1022	**Weather Conditions**	Overcast 7°C		
23.11.21	2.39	0.1	0.1	3.3	2.3	16.8	18.8	0	0	0	0	1022	0.49	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.1		22.2		0		0		1022	**Weather Conditions**	Overcast 1°C		
20.12.21	2.39	0.1	0.1	3.1	2.1	17.1	18.9	0	0	0	0	1028	0.02	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Falling		Stable		
Ambient Conditions		0.0		0.0		22.2		0		0		1027	**Weather Conditions**	Overcast 6°C		
07.01.22	2.39	0.1	0.1	3.3	2.2	17.5	19.7	0	0	0	0	1007	0.07	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Falling		Stable		
Ambient Conditions		0.1		0.1		22.6		0		0		1007	**Weather Conditions**	Clear and cold 3°C		
13.01.22	2.39	0.1	0.1	2.6	1.8	18.7	20.2	0	0	0	0	1040	-0.03	0.1	0.1	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		High		Stable		
Ambient Conditions		0.1		0.0		22.5		0		0		1039	**Weather Conditions**	Frosty 0°C		
14.02.22	2.39	0.1	0.1	3.8	2.3	16.2	18.7	0	0	0	0	994	0.09	0.1	0.0	dry
Observations		Stable		Gradual fall		Gradual rise		Stable		Stable		Low		Stable		
Ambient Conditions		0.1		0.1		22.2		0		0		994	**Weather Conditions**	Overcast 7°C		

Comments	N/R = Not Recorded

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Summary of Gas Monitoring Results

Site	Chambers Bus Depot, Bures	Job No	212945

Date	Borehole ID	Methane %		Carbon Dioxide %		Flow L/h		Q_{hg} CH_4 (peak)	Q_{hg} CO_2 (peak)	Stratum Screened	Flooded Response Zone (Yes/No)	Barometric Pressure
		Peak	Steady	Peak	Steady	Peak	Steady					
14.11.21	WS1	0.1	0.1	**7.0**	**6.4**	0.0	0.0	0.0001	0.0070	MG/RTD	No	Rising
	WS2	0.1	0.1	3.3	3.3	0.2	0.2	0.0002	0.0066	MG/RTD	No	
	WS4	0.1	0.1	1.8	1.3	0.1	0.1	0.0001	0.0018	MG/RTD	No	
	WS11	0.1	0.1	2.7	2.0	0.1	0.1	0.0001	0.0027	MG/RTD	No	
23.11.21	WS1	0.1	0.1	**7.3**	**7.3**	0.1	0.1	0.0001	0.0073	MG/RTD	No	High
	WS2	0.1	0.1	3.4	3.4	0.0	0.0	0.0001	0.0034	MG/RTD	No	
	WS4	0.1	0.1	1.8	1.2	0.1	0.1	0.0001	0.0018	MG/RTD	No	
	WS11	0.1	0.1	3.3	2.3	0.1	0.1	0.0001	0.0033	MG/RTD	No	
20.12.21	WS1	0.1	0.1	**9.1**	**9.1**	0.1	0.1	0.0001	0.0091	MG/RTD	No	Falling
	WS2	0.1	0.1	3.0	3.0	0.1	0.1	0.0001	0.0030	MG/RTD	No	
	WS4	0.1	0.1	2.9	2.1	0.1	0.1	0.0001	0.0029	MG/RTD	No	
	WS11	0.1	0.1	3.1	2.1	0.1	0.1	0.0001	0.0031	MG/RTD	No	
07.01.22	WS1	0.1	0.1	**8.9**	**8.9**	0.1	0.1	0.0001	0.0089	MG/RTD	No	Falling
	WS2	0.1	0.1	3.1	3.1	0.1	0.1	0.0001	0.0031	MG/RTD	No	
	WS4	0.1	0.1	2.9	2.0	0.1	0.1	0.0001	0.0029	MG/RTD	No	
	WS11	0.1	0.1	3.3	2.2	0.1	0.1	0.0001	0.0033	MG/RTD	No	
13.01.22	WS1	0.2	0.1	**8.8**	**8.8**	0.3	0.3	0.0006	0.0264	MG/RTD	No	High
	WS2	0.1	0.1	3.0	2.9	0.2	0.2	0.0002	0.0060	MG/RTD	No	
	WS4	0.1	0.1	1.6	1.4	0.2	0.2	0.0002	0.0032	MG/RTD	No	
	WS11	0.1	0.1	2.6	1.8	0.1	0.1	0.0001	0.0026	MG/RTD	Partially	
14.02.22	WS1	0.1	0.1	**8.6**	**8.5**	0.2	0.2	0.0002	0.0172	MG/RTD	No	Low
	WS2	0.1	0.1	2.9	2.9	0.2	0.2	0.0002	0.0058	MG/RTD	Partially	
	WS4	0.1	0.1	3.2	1.8	0.2	0.2	0.0002	0.0064	MG/RTD	No	
	WS11	0.0	0.0	3.8	2.3	0.1	0.0	0.0001	0.0038	MG/RTD	No	

Comments	Q_{hg} calculated using peak concentrations and steady state flow

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Characteristic Gas Situation (CS)

Site	Chambers Bus Depot, Bures	Job No	212945

Borehole ID	C_{hg} CH_4 %	C_{hg} CO_2 %	Flow rate (max) q L/h	Q_{hg} CH_4 L/h	Q_{hg} CO_2 L/h	Implied CH_4 CS	Implied CO_2 CS
WS1	0.2	**9.1**	0.3	0.0006	0.0273	CS1	CS1
WS2	0.1	3.4	0.2	0.0002	0.0068	CS1	CS1
WS4	0.1	3.2	0.2	0.0002	0.0064	CS1	CS1
WS11	0.1	3.8	0.1	0.0001	0.0038	CS1	CS1

Comments	Implied maximum CS derived from consideration of the maximum hazardous gas flow rate calculated from any single borehole standpipe during any of these subsequent monitoring results

Worst Case Check

Worst Case Check	C_{hg} CH_4 %	C_{hg} CO_2 %	Flow rate (max) q L/h	Q_{hg} CH_4 L/h	Q_{hg} CO_2 L/h	Implied CH_4 CS	Implied CO_2 CS
	0.2	**9.1**	0.3	0.0006	0.0273	CS1	CS1

Comments	Worst case implied CS dervied by combining the maximum observed flow rate and maximum observed concentrations from different boreholes during any of these subsequent monitoring results

Appendix (vii)
VOC Monitoring Results

VOC MEASUREMENTS IN WINDOW SAMPLE HOLES

Site	Chambers Bus Garage, Bures			
Date	9th December 2021		Operative	TF
Location	Depth (m)	Peak Reading (ppm)	Elapsed Time (minutes)	Comment
WS1	2.50	0.2	1	
		0.3	2	
		0.3	3	
		0.3	4	
		0.4	5	
WS2	2.00	0.4	1	
		0.7	2	
		0.8	3	
		0.9	4	
		0.9	5	
WS4	1.00-1.10	10.9	2	
		18.3	4	
		20.5	5	
		21.7	6	
		23.0	7	
		23.9	8	
		24.5	9	
		24.7	10	
WS4	1.50	34.8	1	
		37.7	2	
		37.8	3	
		37.3	4	
		36.7	5	
WS4	2.00	52.4	1	
		58.6	2	
		62.2	3	
		64.2	4	
		65.2	5	
WS4	2.50	76.2	1	
		80.7	2	
		83.6	3	
		85.7	4	
		87.2	5	
		88.5	6	
		88.3	7	
WS11	2.00	0.2	1	

Site	Chambers Bus Garage, Bures			
Date	9th December 2021		Operative	TF
Location	Depth (m)	Peak Reading (ppm)	Elapsed Time (minutes)	Comment
WS11	2.00	0.2	2	
		0.2	3	
		0.2	4	
		0.1	5	

Figures in bold >100ppm

Appendix (viii)
Groundwater Monitoring Results

Groundwater Monitoring

SITE	Former Chambers Bus Garage, Bures

Date	Position	Depth to Water (m bgl)	Total Depth (m bgl)	Comments
14.02.22	BHA	3.12	5.47	
	BHB	3.18	5.87	
	BHC	3.15	5.79	
	BHD	3.16	5.90	
	WS2	3.27	3.49	
23.02.22	BHA	2.79	5.47	
	BHB	2.85	5.84	
	BHC	2.83	5.78	
	BHD	2.84	5.90	
04.03.22	BHA	2.76	5.50	
	BHB	2.83	5.74	
	BHC	2.80	5.71	
	BHD	2.81	5.89	
	WS2	2.91	3.48	

Appendix (ix)
Laboratory Test Results – Material Properties

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

0998

Contract	**Bures**
Serial No.	**39688_1**

Client:

Compass Geotechnical Limited

13 Willow Park
Upton Lane
Stoke Golding
Nuneaton
Warwickshire
CV13 6EU

Soil Property Testing Ltd

15, 16, 18 Halcyon Court, St Margaret's Way,
Stukeley Meadows, Huntingdon,
Cambridgeshire, PE29 6DG

Tel: 01480 455579
Email: enquiries@soilpropertytesting.com
Website: www.soilpropertytesting.com

Samples Submitted By:

Compass Geotechnical Limited

Samples Labelled:

Bures

Approved Signatories:

☐ **J.C. Garner B.Eng (Hons) FGS**
Technical Director & Quality Manager

☐ **W. Johnstone**
Materials Lab Manager

☑ **D. Sabnis**
Operations Manager

Dinlar Sabnis

Date Received: 08/11/2021

Samples Tested Between: 08/11/2021 **and** 18/11/2021

Remarks:

For the attention of Rachel Foord
Your Reference No: 212945c

Notes:

1. All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary.
2. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
3. Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory.
4. This test report may not be reproduced other than in full except with the prior written approval of the issuing laboratory.
5. The results within this report only relate to the items tested or sampled.

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

0998

Contract	**Bures**		
Serial No.	**39688_1**	**Target Date**	22/11/2021
Scheduled By	Compass Geotechnical Limited		
Schedule Remarks			

Bore Hole No.	Type	Sample Ref.	Top Depth	Particle Size Distribution (BS1377)	Water Content (BSEN)	Liquid/Plastic Limits	Wet Sieve Preparation															Sample Remarks
WS1	D	-	1.65	1																		
WS2	D	-	4.50	1																		
WS5	D	-	1.50		1	1	1															
WS6	D	-	1.35	1																		
WS8	D	-	1.40	1																		
WS8	D	-	2.30	1																		
Totals				**5**	**1**	**1**	**1**															**End of Schedule**

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

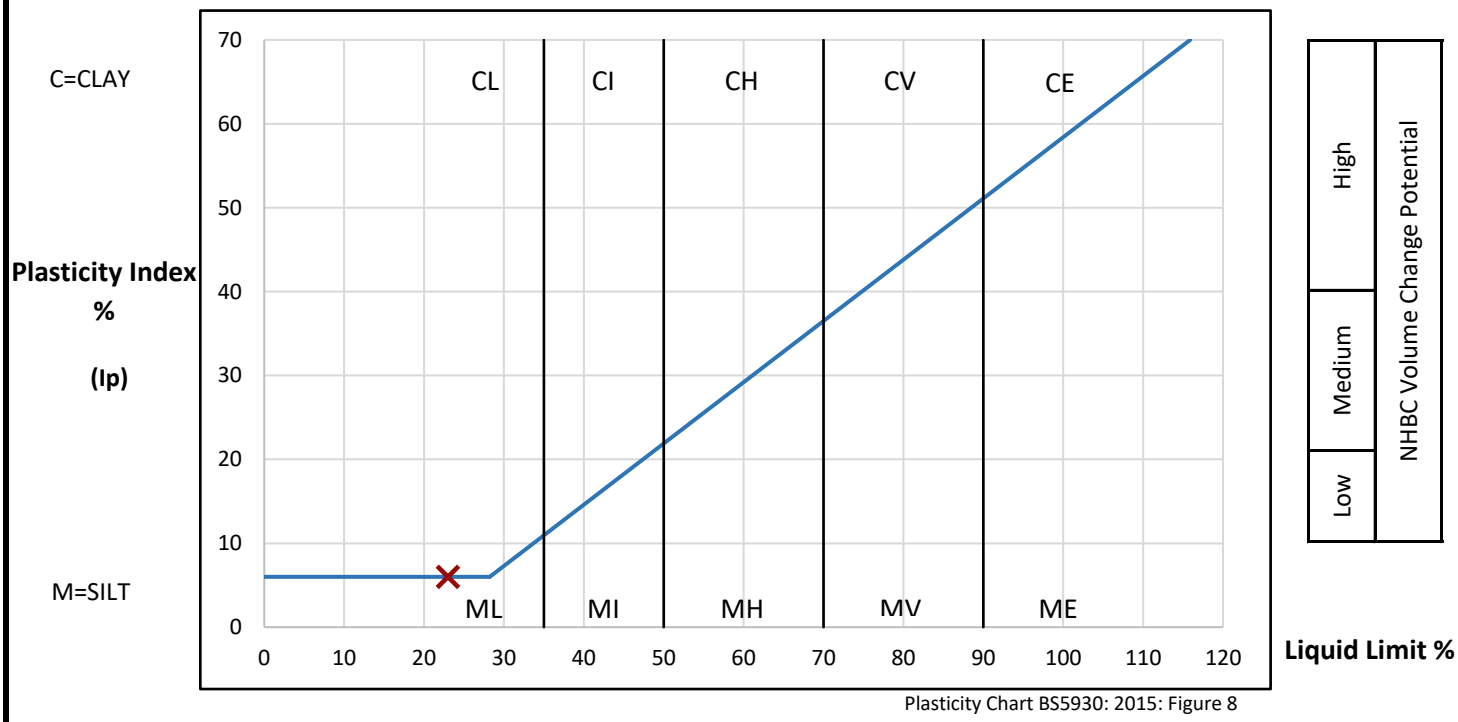
0998

Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole / Pit No.	Depth m	Sample Type	Sample Reference	Water Content (W) %	Description	Remarks
WS5	1.50 - 2.00	D	-	18.7	Soft brown slightly gravelly sandy silty CLAY. Gravel is brown, black and white fine to medium angular to subrounded chert and quartzite.	

PREPARATION				Liquid Limit	23 %
Method of preparation	Wet sieved over 0.425mm sieve			Plastic Limit	17 %
Sample retained 0.425mm sieve	(Measured)	12 %		Plasticity Index	6 %
Corrected water content for material passing 0.425mm		21.3 %		Liquidity Index	0.29
Sample retained 2mm sieve	(Measured)	4 %		NHBC Modified (I'p)	5 %
Curing time	25 hrs	Clay Content	Not analysed	Derived Activity	Not analysed



Plasticity Chart BS5930: 2015: Figure 8

Method of Preparation:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2
Method of Test:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:	Corrected water content assume material greater than 0.425mm non-porous. See BS1377: Part2: 1990 Clause 3 Note 1 Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index Note: Modified Plasticity Index I'p = Ip x (% less than 425microns/100)

TEST REPORT

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DATE ISSUED: 18/11/2021

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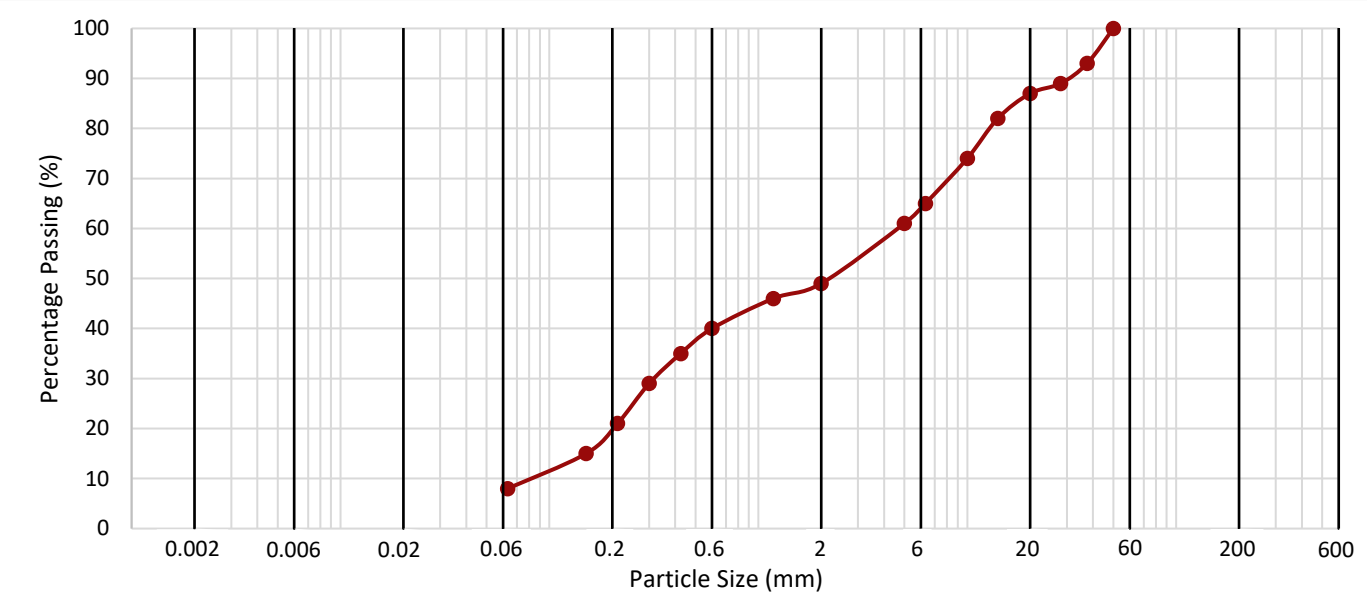
Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS1	1.65 - 2.00	D	-	Brown, black and white angular to rounded chert, and occasional white and brown subrounded to rounded quartzite very sandy slightly clayey GRAVEL. Sand and clay are brown.	Dry mass of sample required 6kg. Mass of sample submitted 2.577kg. Sample Unrepresentative BS1377:Part 2:1990 Table 3.

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	**Silt by Dry Mass (%)**
			Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	**Sand By Dry Mass (%)**
2.00	49	**41**
1.18	46	
0.600	40	
0.425	35	
0.300	29	
0.212	21	
0.150	15	
0.063	8	

Fines By Dry Mass (%)	
<0.063mm	**8**

Sieve Size (mm)	Passing (%)	**2mm+ By Dry Mass (%)**
300		**51**
125		
90		
63		
50	100	
37.5	93	
28	89	
20	87	
14	82	
10	74	
6.3	65	
5	61	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

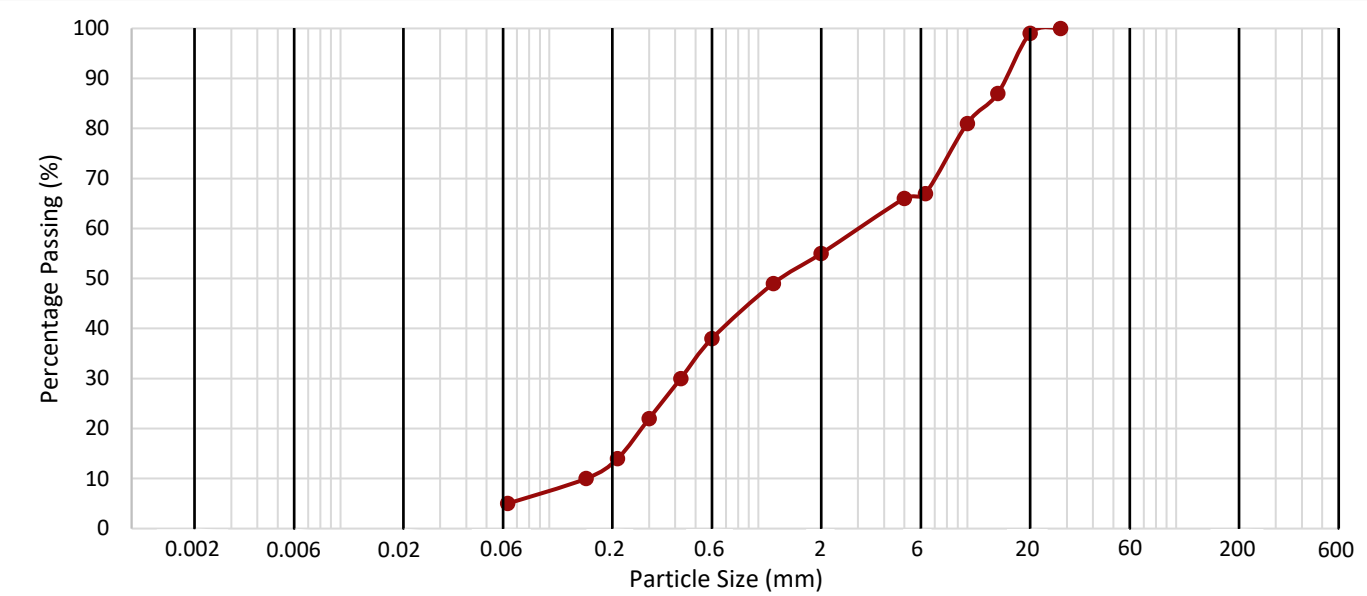
0998

Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS2	4.50 - 5.00	D	-	Yellowish brown silty SAND and black, white and brown angular to rounded chert, and occasional white and brown subrounded to rounded quartzite GRAVEL.	

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	55	50
1.18	49	
0.600	38	
0.425	30	
0.300	22	
0.212	14	
0.150	10	
0.063	5	

Fines By Dry Mass (%)	
<0.063mm	5

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		45
125		
90		
63		
50		
37.5		
28	100	
20	99	
14	87	
10	81	
6.3	67	
5	66	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

TEST REPORT

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DATE ISSUED: 18/11/2021

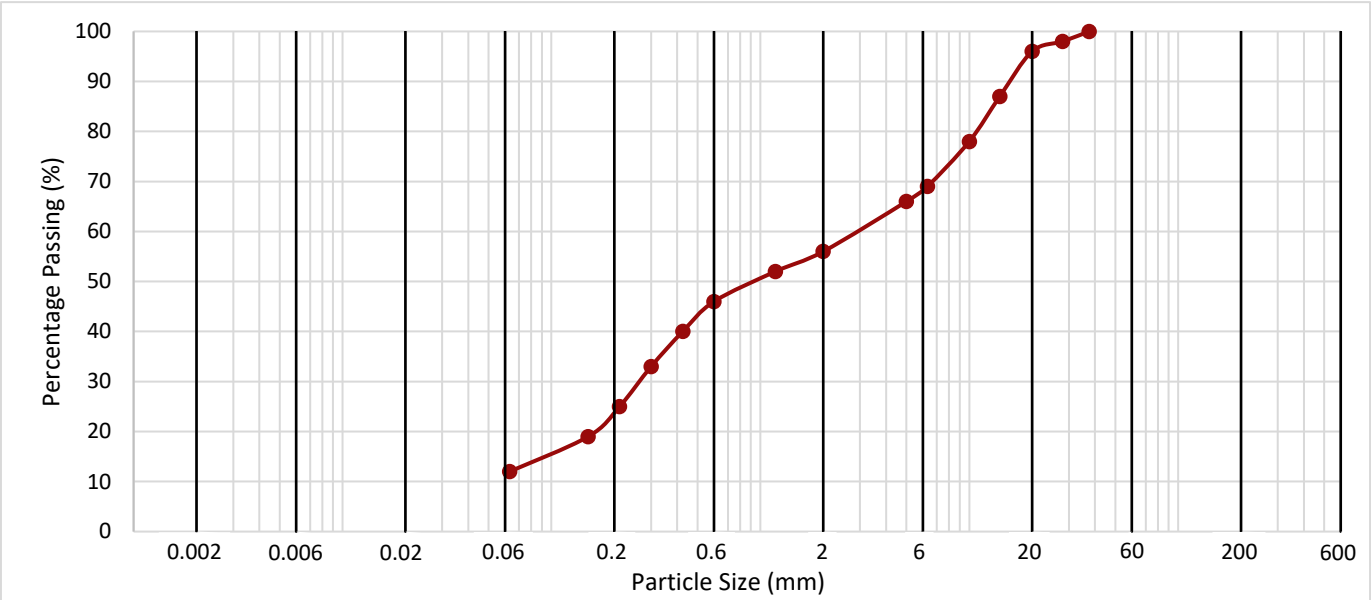
0998

Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS6	1.35 - 1.70	D	-	Brown clayey SAND and black, brown and white angular to subrounded chert, and rare white rounded quartzite GRAVEL.	

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	56	44
1.18	52	
0.600	46	
0.425	40	
0.300	33	
0.212	25	
0.150	19	
0.063	12	

Fines By Dry Mass (%)	
<0.063mm	12

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		44
125		
90		
63		
50		
37.5	100	
28	98	
20	96	
14	87	
10	78	
6.3	69	
5	66	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

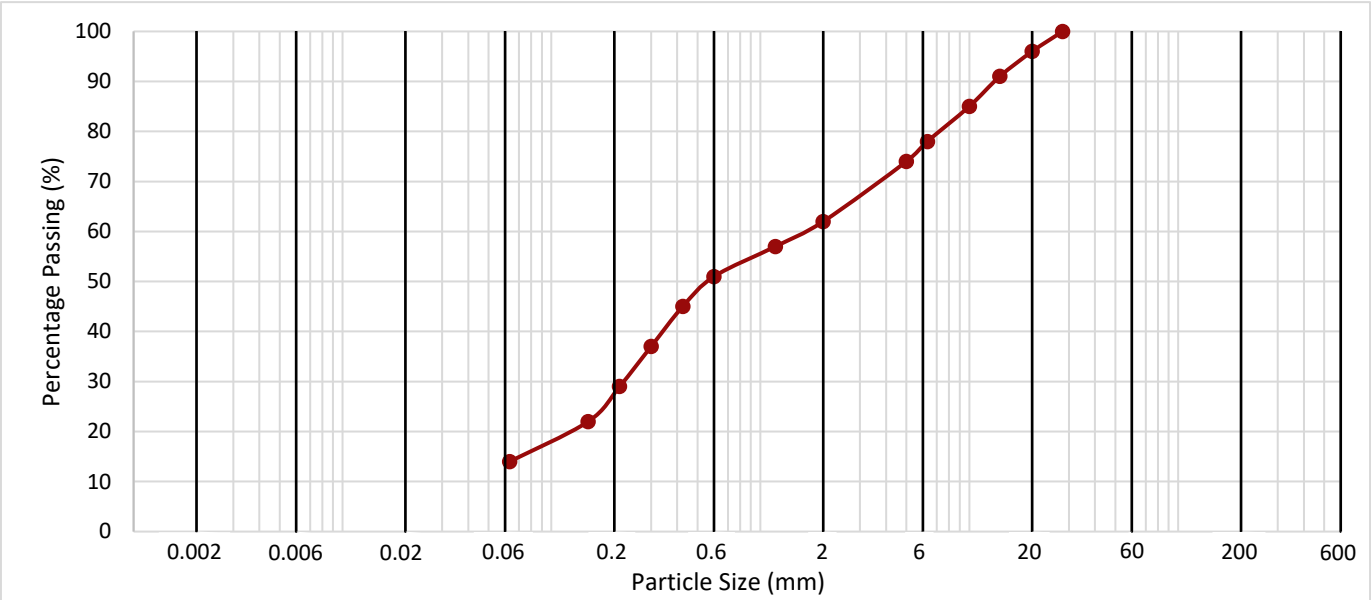
0998

Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS8	1.40 - 1.80	D	-	Brown very gravelly clayey SAND. Gravel is brown, black and white chert, and occasional white and brown subrounded to rounded quartzite.	

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	**Silt by Dry Mass (%)**
			Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	**Sand By Dry Mass (%)**
2.00	62	**48**
1.18	57	
0.600	51	
0.425	45	
0.300	37	
0.212	29	
0.150	22	
0.063	14	

Fines By Dry Mass (%)	
<0.063mm	**14**

Sieve Size (mm)	Passing (%)	**2mm+ By Dry Mass (%)**
300		**38**
125		
90		
63		
50		
37.5		
28	100	
20	96	
14	91	
10	85	
6.3	78	
5	74	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 18/11/2021

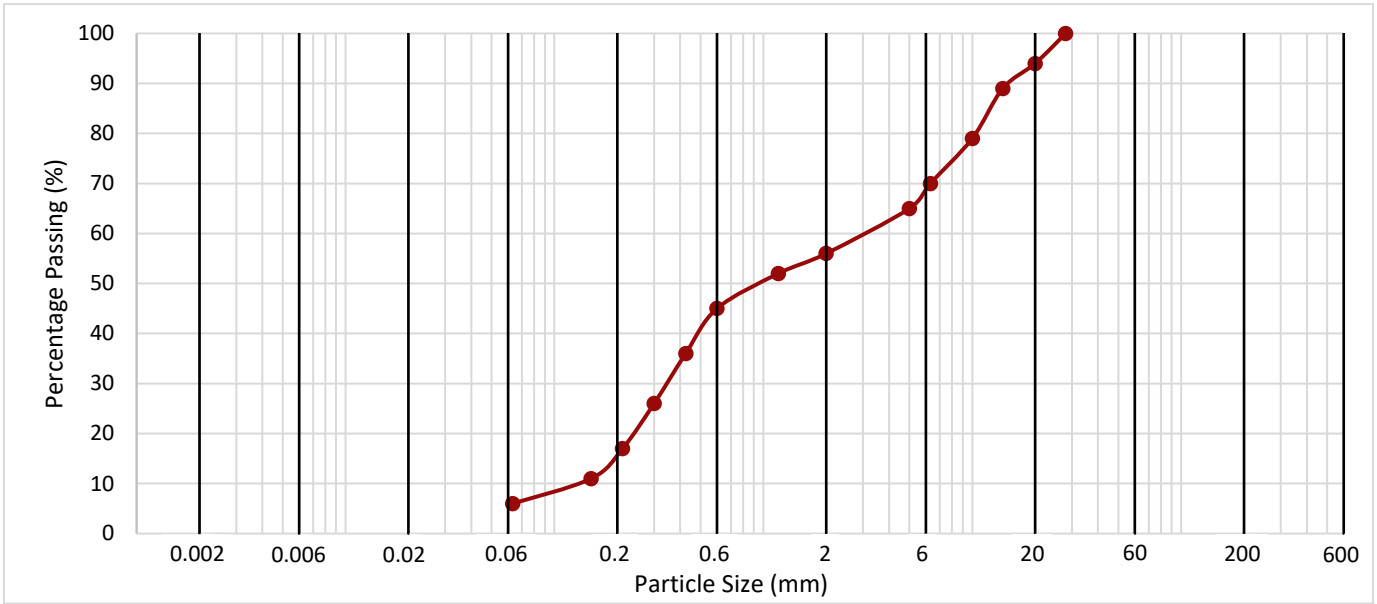
0998

Contract	**Bures**
Serial No.	**39688_1**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS8	2.30 - 2.65	D	-	Brown very gravelly slightly clayey SAND. Gravel is brown, black, and white angular to rounded chert, and occasional white and brown subrounded to rounded quartzite.	

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	56	50
1.18	52	
0.600	45	
0.425	36	
0.300	26	
0.212	17	
0.150	11	
0.063	6	

Fines By Dry Mass (%)	
<0.063mm	6

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		44
125		
90		
63		
50		
37.5		
28	100	
20	94	
14	89	
10	79	
6.3	70	
5	65	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

0998

Contract	**Bures**
Serial No.	**39688_2**

Client:

Compass Geotechnical Limited

13 Willow Park
Upton Lane
Stoke Golding
Nuneaton
Warwickshire
CV13 6EU

Soil Property Testing Ltd

15, 16, 18 Halcyon Court, St Margaret's Way,
Stukeley Meadows, Huntingdon,
Cambridgeshire, PE29 6DG

Tel: 01480 455579
Email: enquiries@soilpropertytesting.com
Website: www.soilpropertytesting.com

Samples Submitted By:

Compass Geotechnical Limited

Samples Labelled:

Bures

Approved Signatories:

☐ **J.C. Garner B.Eng (Hons) FGS**
Technical Director & Quality Manager

☐ **W. Johnstone**
Materials Lab Manager

☑ **D. Sabnis**
Operations Manager

Dinlar Sabnis

Date Received: 08/11/2021

Samples Tested Between: 08/11/2021 **and** 29/11/2021

Remarks:

For the attention of Rachel Foord
Your Reference No: 212945g

Notes:

1. All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary.
2. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
3. Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory.
4. This test report may not be reproduced other than in full except with the prior written approval of the issuing laboratory.
5. The results within this report only relate to the items tested or sampled.

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

0998

Contract	**Bures**		
Serial No.	**39688_2**	**Target Date**	26/11/2021
Scheduled By	Compass Geotechnical Limited		
Schedule Remarks			

Bore Hole No.	Type	Sample Ref.	Top Depth	Particle Size Distribution (BS1377)	Water Content (BSEN)	Liquid/Plastic Limits	Wet Sieve Preparation															Sample Remarks
WS10	D	-	2.50	1																		
WS11	D	-	1.40		1	1	1															
WS13	D	-	1.50		1	1	1															
Totals				**1**	**2**	**2**	**2**															**End of Schedule**

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

0998

Contract	**Bures**
Serial No.	**39688_2**

SUMMARY OF WATER CONTENT, LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole /Pit No.	Depth (m)	Type	Ref.	Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasti-city Index (%)	Liquid-ity Index	Sample Preparation				Description	Class
									Method	Ret'd 0.425mm (%)	Corr'd W/C <0.425mm	Curing Time (hrs)		
WS11	1.40 - 1.75	D	-	**11.1**	28	14	14	-0.21	Wet Sieved	69 (M)	N/R*	24	Brown, black and white fine to coarse angular to subrounded chert GRAVEL in a very soft yellowish brown sandy silty clay matrix	CL
WS13	1.50 - 2.00	D	-	**7.7**	23	16	7	-1.19	Wet Sieved	69 (M)	N/R*	25	Brown, black and white fine to coarse angular to subrounded chert GRAVEL in a very soft yellowish brown sandy silty clay/very clayey sand matrix	CL

Method Of Preparation: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:4.2

Method of Test: BS EN ISO: 17892-1: 2014 & BS 1377: Part 2:1990:3.2, 4.4, 5.3, 5.4

Type of Sample Key: U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter

Comments: *Corrected water content assume material greater than 0.425mm is non-porous. See BS1377: Part 2: 1990 Clause 3 Note 1. Where N/R, corrected water content is not reported due to material type.

Table Notation: Ret'd 0.425mm: (A) = Assumed, (M) = Measured

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

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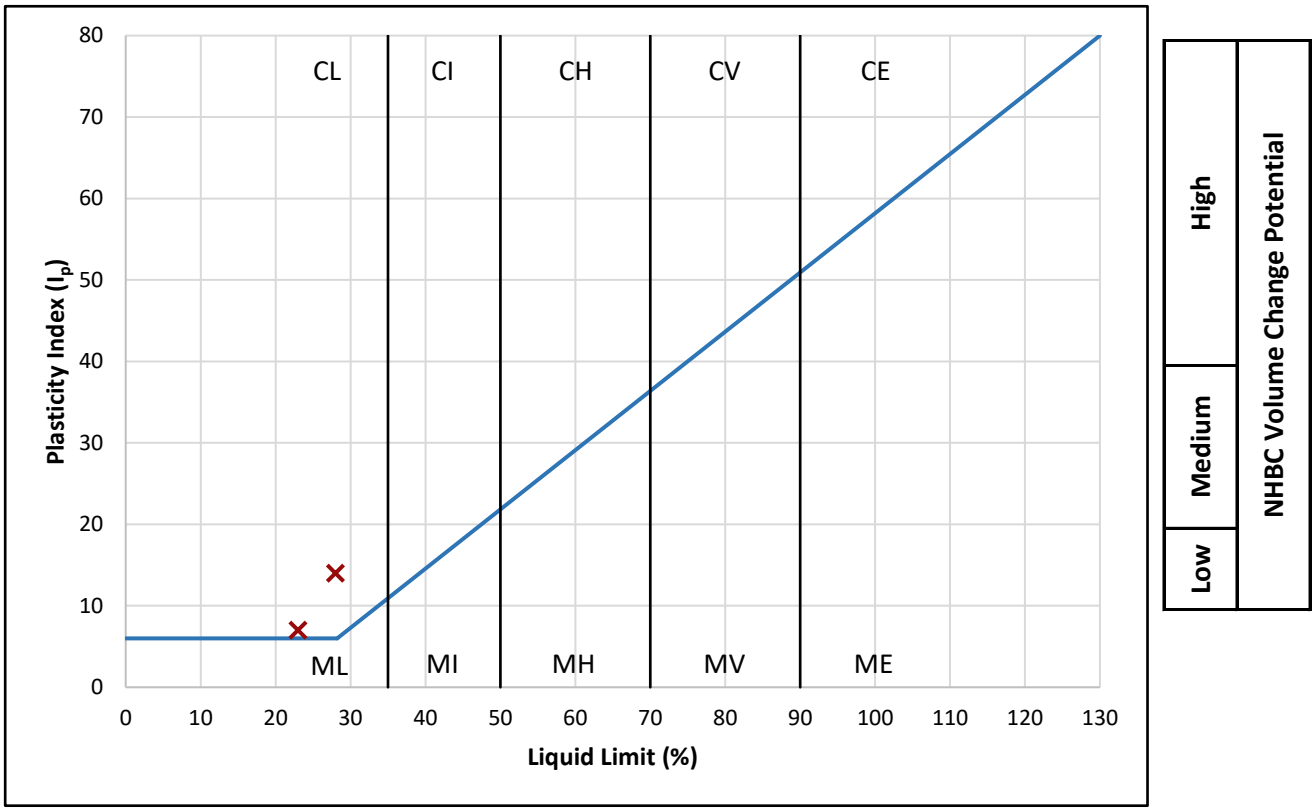
Contract	**Bures**
Serial No.	**39688_2**

PLOT OF PLASTICITY INDEX AGAINST LIQUID LIMIT USING CASAGRANDE CLASSIFICATION CHART

Plasticity				
Low	Medium	High	Very High	Extremely High



Plasticity Chart BS5930: 2015: Figure 8

Method of Preparation:	BS 1377: Part 2: 1990: 4.2
Method of Test:	BS1377: Part 2: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U = Undisturbed, B = Bulk, D = Disturbed, J = Jar, W = Water, SPT = Split Spoon Sample, C = Core Cutter
Comments:	Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

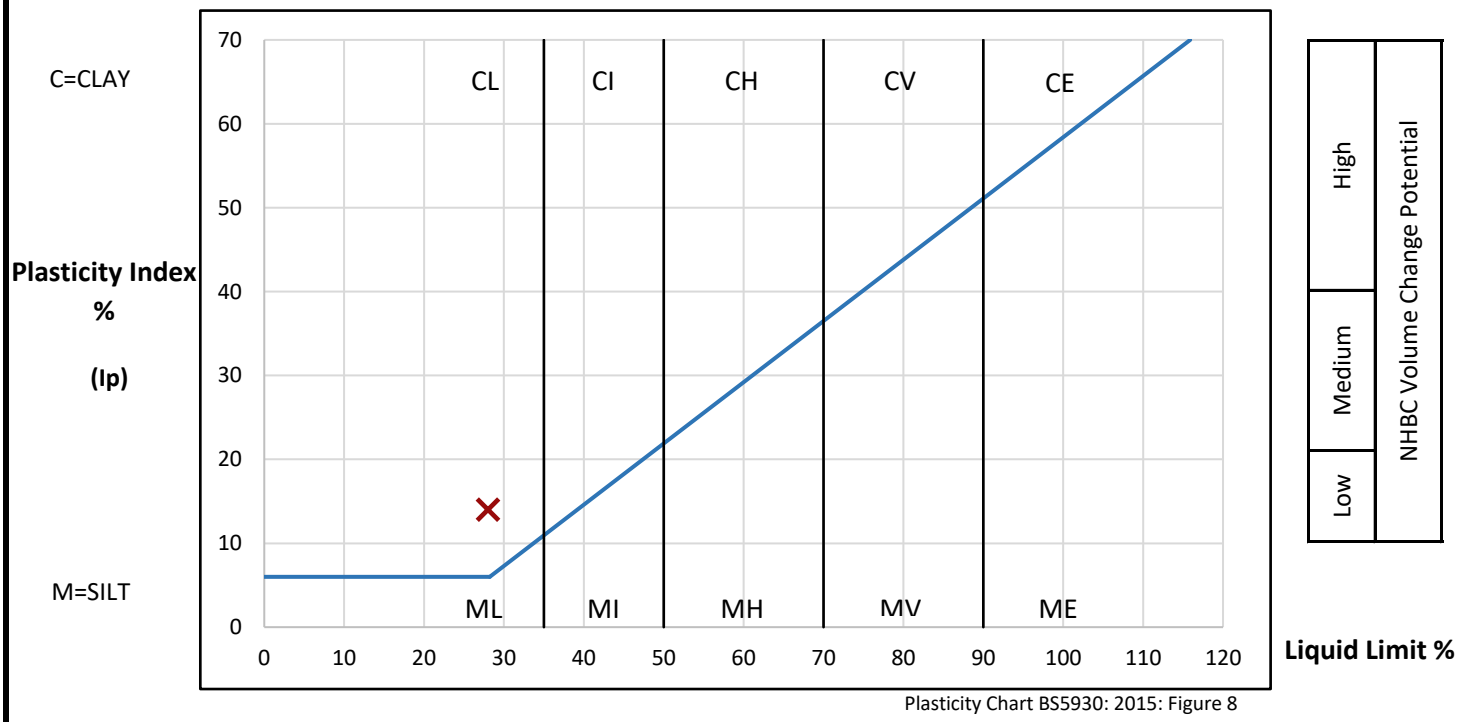
0998

Contract	**Bures**
Serial No.	**39688_2**

DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole / Pit No.	Depth m	Sample Type	Sample Reference	Water Content (W) %	Description	Remarks
WS11	1.40 - 1.75	D	-	11.1	Brown, black and white fine to coarse angular to subrounded chert GRAVEL in a very soft yellowish brown sandy silty clay matrix	

PREPARATION				Liquid Limit	28 %
Method of preparation	Wet sieved over 0.425mm sieve			Plastic Limit	14 %
Sample retained 0.425mm sieve	(Measured)	69 %		Plasticity Index	14 %
Corrected water content for material passing 0.425mm	Not reported			Liquidity Index	-0.21
Sample retained 2mm sieve	(Measured)	51 %		NHBC Modified (I'p)	4 %
Curing time	24 hrs	Clay Content	Not analysed	Derived Activity	Not analysed



Plasticity Chart BS5930: 2015: Figure 8

Method of Preparation:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2
Method of Test:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:	Corrected water content not reported due to material type. Corrected water content assume material greater than 0.425mm non-porous. See BS1377: Part2: 1990 Clause 3 Note 1 Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index Note: Modified Plasticity Index I'p = Ip x (% less than 425microns/100)

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

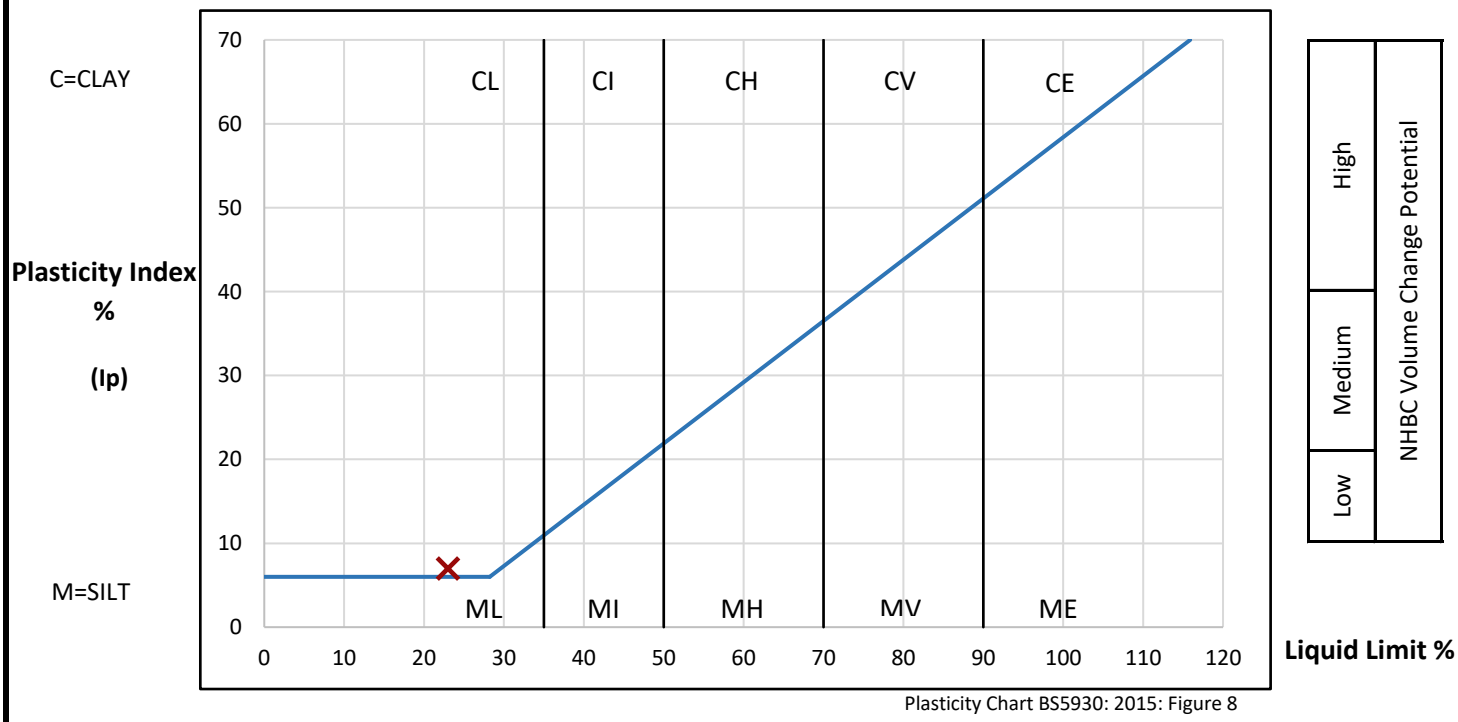
0998

Contract	**Bures**
Serial No.	**39688_2**

DETERMINATION OF WATER CONTENT, LIQUID LIMIT AND PLASTIC LIMIT AND DERIVATION OF PLASTICITY INDEX AND LIQUIDITY INDEX

Borehole / Pit No.	Depth m	Sample Type	Sample Reference	Water Content (W) %	Description	Remarks
WS13	1.50 - 2.00	D	-	7.7	Brown, black and white fine to coarse angular to subrounded chert GRAVEL in a very soft yellowish brown sandy silty clay/very clayey sand matrix	

PREPARATION				Liquid Limit	23 %
Method of preparation		Wet sieved over 0.425mm sieve		Plastic Limit	16 %
Sample retained 0.425mm sieve	(Measured)	69 %		Plasticity Index	7 %
Corrected water content for material passing 0.425mm		Not reported		Liquidity Index	-1.19
Sample retained 2mm sieve	(Measured)	52 %		NHBC Modified (I'p)	2 %
Curing time	25 hrs	Clay Content	Not analysed	Derived Activity	Not analysed



Plasticity Chart BS5930: 2015: Figure 8

Method of Preparation:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 4.2
Method of Test:	BS EN ISO: 17892-1: 2014 & BS 1377: Part 2: 1990: 3.2, 4.4, 5.3, 5.4
Type of Sample Key:	U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:	Corrected water content not reported due to material type. Corrected water content assume material greater than 0.425mm non-porous. See BS1377: Part2: 1990 Clause 3 Note 1 Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index Note: Modified Plasticity Index I'p = Ip x (% less than 425microns/100)

TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD

DATE ISSUED: 29/11/2021

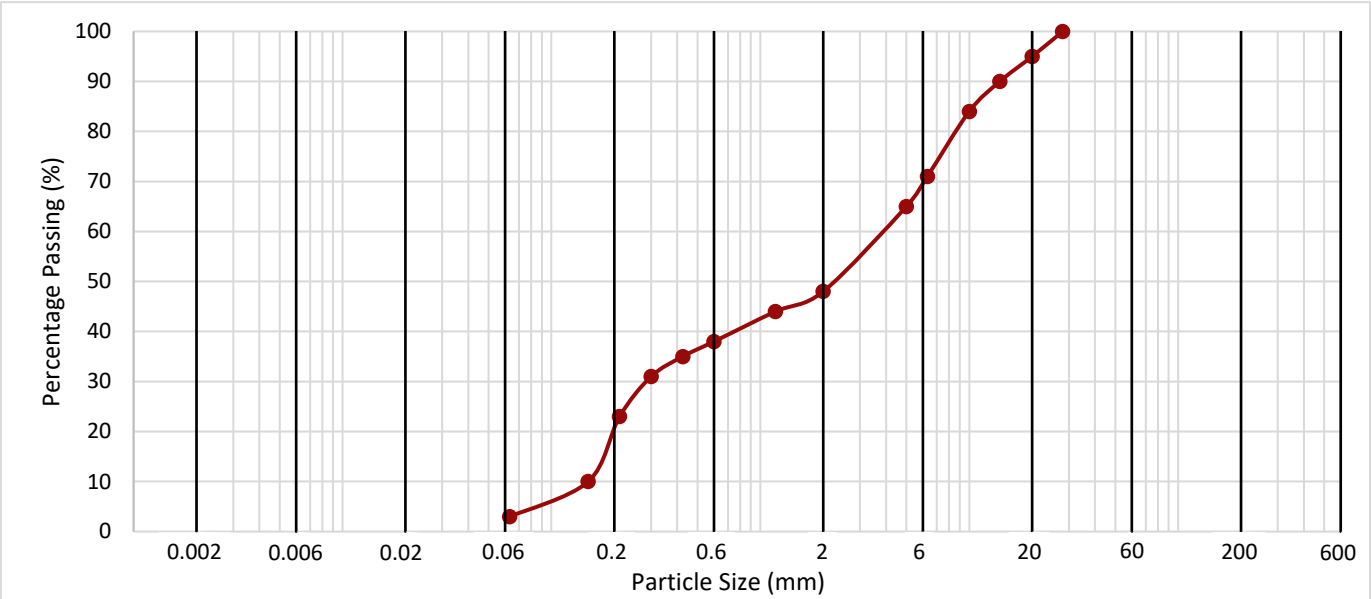
0998

Contract	**Bures**
Serial No.	**39688_2**

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks
WS10	2.50 - 3.00	D	-	Yellowish brown slightly silty SAND and black, brown and white angular to subrounded chert, occasional yellowish brown quartzite and rare yellowish brown sandstone GRAVEL	

Method of Test:	Wet Sieve	Method of Pretreatment:	Not required



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Hydrometer	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	Clay by Dry Mass (%)

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	48	45
1.18	44	
0.600	38	
0.425	35	
0.300	31	
0.212	23	
0.150	10	
0.063	3	

Fines By Dry Mass (%)	
<0.063mm	3

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		52
125		
90		
63		
50		
37.5		
28	100	
20	95	
14	90	
10	84	
6.3	71	
5	65	

Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5
Method of test: BS1377: Part 2: 1990: 9.2
Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter
Comments:

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

Final Report

Report No.:	21-39171-1
Initial Date of Issue:	15-Nov-2021
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	09-Nov-2021
Order No.:	212945B	**Date Instructed:**	09-Nov-2021
No. of Samples:	6		
Turnaround (Wkdays):	5	**Results Due:**	15-Nov-2021
Date Approved:	15-Nov-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39171	21-39171	21-39171	21-39171	21-39171	21-39171
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315668	1315669	1315670	1315671	1315672	1315673
			Client Sample ID.:		ES	ES	ES	ES	ES	ES
			Sample Location:		WS1	WS2	WS5	WS6	WS7	WS8
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		1.65	2.0	1.5	1.35	1.3	1.4
			Bottom Depth (m):		2.0	3.0	2.0	1.70	1.7	1.8
			Date Sampled:		05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
			Time Sampled:		0:00	0:00	0:00	0:00	0:00	0:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Moisture	N	2030	%	0.020	5.8	5.4	16	6.1	6.9	9.1
pH	U	2010		4.0	8.9	9.1	8.0	8.6	9.0	7.9
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.013	< 0.010	0.092	< 0.010	< 0.010	< 0.010

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

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	21-39705-1
Initial Date of Issue:	18-Nov-2021
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	12-Nov-2021
Order No.:	212945F	**Date Instructed:**	12-Nov-2021
No. of Samples:	1		
Turnaround (Wkdays):	5	**Results Due:**	18-Nov-2021
Date Approved:	18-Nov-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39705
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1318298
			Client Sample ID.:		ES
			Sample Location:		WS9
			Sample Type:		SOIL
			Top Depth (m):		1.0
			Bottom Depth (m):		1.5
			Date Sampled:		10-Nov-2021
			Time Sampled:		12:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Moisture	N	2030	%	0.020	7.5
pH	U	2010		4.0	8.7
Sulphate (2:1 Water Soluble) as SO4	U	2120	g/l	0.010	0.17

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

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix (x)
Laboratory Test Results – Contamination

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

Amended Report

Report No.:	21-39175-2		
Initial Date of Issue:	16-Nov-2021	**Date of Re-Issue:**	17-Nov-2021
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel@compassgeotechnical.co.uk		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	09-Nov-2021
Order No.:	212945A	**Date Instructed:**	09-Nov-2021
No. of Samples:	20		
Turnaround (Wkdays):	5	**Results Due:**	15-Nov-2021
Date Approved:	17-Nov-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315686	1315688	1315689	1315690	1315691	1315692	1315693	1315694	1315695
			Client Sample ID.:		ES	ES	ES	ES	ES	ES	ES	ES	ES
			Sample Location:		WS1	WS2	WS2	WS2	WS3	WS3	WS4	WS4	WS4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.90	0.2	1.0	3.55	0.35	1.65	0.2	1.0	1.65
			Bottom Depth (m):		1.00	0.5	1.2	3.65	0.75	1.75	0.5	1.1	1.85
			Date Sampled:		05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
			Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
			Asbestos Lab:			NEW-ASB			DURHAM		DURHAM		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
ACM Type	U	2192		N/A		Cement			-		-		
Asbestos Identification	U	2192		N/A		Chrysotile			No Asbestos Detected		No Asbestos Detected		
Moisture	N	2030	%	0.020	2.5	3.5	1.1	1.6	2.2	3.1	0.64	1.8	4.7
pH	U	2010		4.0	8.0		8.4		8.3		10.1		
Arsenic	U	2450	mg/kg	1.0	8.7		9.7		9.9		6.7		
Cadmium	U	2450	mg/kg	0.10	0.11		< 0.10		0.31		< 0.10		
Copper	U	2450	mg/kg	0.50	67		32		68		53		
Mercury	U	2450	mg/kg	0.10	0.11		< 0.10		0.34		0.22		
Nickel	U	2450	mg/kg	0.50	16		15		19		11		
Lead	U	2450	mg/kg	0.50	44		16		69		150		
Selenium	U	2450	mg/kg	0.20	< 0.20		< 0.20		< 0.20		< 0.20		
Zinc	U	2450	mg/kg	0.50	76		47		92		34		
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50		< 0.50		< 0.50		< 0.50		
Diesel Present	N	2670		N/A									
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C10-C12	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C12-C16	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C16-C21	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C21-C35	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C35-C40	N	2670	mg/kg	1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
Total TPH >C8-C40	N	2670	mg/kg	10	< 10	< 10	< 10		< 10	< 10			
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0				< 1.0				3.4	160
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0				< 1.0				190	710
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0				< 1.0				230	1000
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0				< 1.0				< 1.0	400
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0				< 5.0				430	2300
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0				< 1.0				< 1.0	100

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315686	1315688	1315689	1315690	1315691	1315692	1315693	1315694	1315695
			Client Sample ID.:		ES	ES	ES	ES	ES	ES	ES	ES	ES
			Sample Location:		WS1	WS2	WS2	WS2	WS3	WS3	WS4	WS4	WS4
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.90	0.2	1.0	3.55	0.35	1.65	0.2	1.0	1.65
			Bottom Depth (m):		1.00	0.5	1.2	3.65	0.75	1.75	0.5	1.1	1.85
			Date Sampled:		05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
			Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
			Asbestos Lab:			NEW-ASB			DURHAM		DURHAM		
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0				< 1.0				< 1.0	340
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0				< 1.0				< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0				< 5.0				< 5.0	440
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0				< 10				430	2700
Naphthalene	U	2700	mg/kg	0.10		< 0.10					< 0.10		
Acenaphthylene	U	2700	mg/kg	0.10		< 0.10					< 0.10		
Acenaphthene	U	2700	mg/kg	0.10		< 0.10					< 0.10		
Fluorene	U	2700	mg/kg	0.10		< 0.10					< 0.10		
Phenanthrene	U	2700	mg/kg	0.10		< 0.10					0.48		
Anthracene	U	2700	mg/kg	0.10		< 0.10					0.21		
Fluoranthene	U	2700	mg/kg	0.10		< 0.10					0.65		
Pyrene	U	2700	mg/kg	0.10		< 0.10					0.86		
Benzo[a]anthracene	U	2700	mg/kg	0.10		< 0.10					0.74		
Chrysene	U	2700	mg/kg	0.10		< 0.10					1.1		
Benzo[b]fluoranthene	U	2700	mg/kg	0.10		< 0.10					1.2		
Benzo[k]fluoranthene	U	2700	mg/kg	0.10		< 0.10					0.81		
Benzo[a]pyrene	U	2700	mg/kg	0.10		< 0.10					1.1		
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10		< 0.10					0.48		
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10		< 0.10					1.0		
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10		< 0.10					0.81		
Total Of 16 PAH's	U	2700	mg/kg	2.0		< 2.0					9.4		
Benzene	U	2760	µg/kg	1.0				< 1.0				< 1.0	< 1.0
Toluene	U	2760	µg/kg	1.0				< 1.0				< 1.0	< 1.0
Ethylbenzene	U	2760	µg/kg	1.0				< 1.0				34	2.5
m & p-Xylene	U	2760	µg/kg	1.0				< 1.0				170	90
o-Xylene	U	2760	µg/kg	1.0				< 1.0				< 1.0	< 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0				< 1.0				< 1.0	< 1.0

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited					**Chemtest Job No.:**	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175
Quotation No.: Q19-18078					**Chemtest Sample ID.:**	1315696	1315697	1315698	1315699	1315700	1315702	1315703	1315704	1315705
					Client Sample ID.:	ES	ES	ES	ES	ES	ES	ES	ES	ES
					Sample Location:	WS4	WS5	WS5	WS5	WS6	WS6	WS7	WS7	WS7
					Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
					Top Depth (m):	2.15	0.25	0.8	1.8	0.15	2.55	0.1	0.35	0.65
					Bottom Depth (m):	2.2	0.50	1.0	1.95	0.50	2.75	0.3	0.50	0.75
					Date Sampled:	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
					Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
					Asbestos Lab:		DURHAM			DURHAM		NEW-ASB	DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**										
ACM Type	U	2192		N/A			-			-		Cement	-	
Asbestos Identification	U	2192		N/A			No Asbestos Detected			No Asbestos Detected		Chrysotile	No Asbestos Detected	
Moisture	N	2030	%	0.020		5.1	1.6	3.8	5.5	3.0	2.8	4.2		2.7
pH	U	2010		4.0			8.2	7.9		8.6				8.0
Arsenic	U	2450	mg/kg	1.0			10	6.2		11				4.1
Cadmium	U	2450	mg/kg	0.10			0.20	0.16		0.15				0.11
Copper	U	2450	mg/kg	0.50			69	56		140				55
Mercury	U	2450	mg/kg	0.10			0.66	0.17		0.52				< 0.10
Nickel	U	2450	mg/kg	0.50			18	13		22				10
Lead	U	2450	mg/kg	0.50			480	100		52				28
Selenium	U	2450	mg/kg	0.20			< 0.20	< 0.20		< 0.20				< 0.20
Zinc	U	2450	mg/kg	0.50			86	58		64				48
Chromium (Hexavalent)	N	2490	mg/kg	0.50			< 0.50	< 0.50		< 0.50				< 0.50
Diesel Present	N	2670		N/A		True								
TPH >C8-C10	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C10-C12	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C12-C16	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C16-C21	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	7.6		< 1.0
TPH >C21-C35	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	96		< 1.0
TPH >C35-C40	N	2670	mg/kg	1.0				< 1.0	< 1.0		< 1.0	5.5		< 1.0
Total TPH >C8-C40	N	2670	mg/kg	10				< 10	< 10		< 10	110		< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0								
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0								
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		280								
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		780								
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		2900								
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		3700								
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		1300								
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0								
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		9000								
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0								
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		38								
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		53								
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		560								

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315696	1315697	1315698	1315699	1315700	1315702	1315703	1315704	1315705
			Client Sample ID.:		ES	ES	ES	ES	ES	ES	ES	ES	ES
			Sample Location:		WS4	WS5	WS5	WS5	WS6	WS6	WS7	WS7	WS7
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		2.15	0.25	0.8	1.8	0.15	2.55	0.1	0.35	0.65
			Bottom Depth (m):		2.2	0.50	1.0	1.95	0.50	2.75	0.3	0.50	0.75
			Date Sampled:		05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
			Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
			Asbestos Lab:			DURHAM			DURHAM		NEW-ASB	DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	2100								
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	1100								
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	520								
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0								
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	4400								
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	13000								
Naphthalene	U	2700	mg/kg	0.10					< 0.10				
Acenaphthylene	U	2700	mg/kg	0.10					< 0.10				
Acenaphthene	U	2700	mg/kg	0.10					< 0.10				
Fluorene	U	2700	mg/kg	0.10					< 0.10				
Phenanthrene	U	2700	mg/kg	0.10					< 0.10				
Anthracene	U	2700	mg/kg	0.10					< 0.10				
Fluoranthene	U	2700	mg/kg	0.10					< 0.10				
Pyrene	U	2700	mg/kg	0.10					< 0.10				
Benzo[a]anthracene	U	2700	mg/kg	0.10					< 0.10				
Chrysene	U	2700	mg/kg	0.10					< 0.10				
Benzo[b]fluoranthene	U	2700	mg/kg	0.10					< 0.10				
Benzo[k]fluoranthene	U	2700	mg/kg	0.10					< 0.10				
Benzo[a]pyrene	U	2700	mg/kg	0.10					< 0.10				
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10					< 0.10				
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10					< 0.10				
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10					< 0.10				
Total Of 16 PAH's	U	2700	mg/kg	2.0					< 2.0				
Benzene	U	2760	µg/kg	1.0	< 1.0								
Toluene	U	2760	µg/kg	1.0	< 1.0								
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0								
m & p-Xylene	U	2760	µg/kg	1.0	2.5								
o-Xylene	U	2760	µg/kg	1.0	3.2								
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0								

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39175	21-39175
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315706	1315707
			Client Sample ID.:		ES	ES
			Sample Location:		WS8	WS8
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.4	1.2
			Bottom Depth (m):		0.65	1.3
			Date Sampled:		05-Nov-2021	05-Nov-2021
			Time Sampled:		12:00	12:00
			Asbestos Lab:		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A	-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected	
Moisture	N	2030	%	0.020	4.0	4.4
pH	U	2010		4.0	8.1	
Arsenic	U	2450	mg/kg	1.0	8.1	
Cadmium	U	2450	mg/kg	0.10	0.15	
Copper	U	2450	mg/kg	0.50	54	
Mercury	U	2450	mg/kg	0.10	0.30	
Nickel	U	2450	mg/kg	0.50	14	
Lead	U	2450	mg/kg	0.50	98	
Selenium	U	2450	mg/kg	0.20	< 0.20	
Zinc	U	2450	mg/kg	0.50	110	
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	
Diesel Present	N	2670		N/A		
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C10-C12	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C12-C16	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C16-C21	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C21-C35	N	2670	mg/kg	1.0	< 1.0	< 1.0
TPH >C35-C40	N	2670	mg/kg	1.0	< 1.0	< 1.0
Total TPH >C8-C40	N	2670	mg/kg	10	< 10	< 10
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39175	21-39175
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315706	1315707
			Client Sample ID.:		ES	ES
			Sample Location:		WS8	WS8
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.4	1.2
			Bottom Depth (m):		0.65	1.3
			Date Sampled:		05-Nov-2021	05-Nov-2021
			Time Sampled:		12:00	12:00
			Asbestos Lab:		DURHAM	
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		
Naphthalene	U	2700	mg/kg	0.10	< 0.10	
Acenaphthylene	U	2700	mg/kg	0.10	< 0.10	
Acenaphthene	U	2700	mg/kg	0.10	< 0.10	
Fluorene	U	2700	mg/kg	0.10	< 0.10	
Phenanthrene	U	2700	mg/kg	0.10	< 0.10	
Anthracene	U	2700	mg/kg	0.10	< 0.10	
Fluoranthene	U	2700	mg/kg	0.10	1.3	
Pyrene	U	2700	mg/kg	0.10	1.5	
Benzo[a]anthracene	U	2700	mg/kg	0.10	< 0.10	
Chrysene	U	2700	mg/kg	0.10	< 0.10	
Benzo[b]fluoranthene	U	2700	mg/kg	0.10	< 0.10	
Benzo[k]fluoranthene	U	2700	mg/kg	0.10	< 0.10	
Benzo[a]pyrene	U	2700	mg/kg	0.10	< 0.10	
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10	< 0.10	
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10	< 0.10	
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10	< 0.10	
Total Of 16 PAH's	U	2700	mg/kg	2.0	2.8	
Benzene	U	2760	µg/kg	1.0		
Toluene	U	2760	µg/kg	1.0		
Ethylbenzene	U	2760	µg/kg	1.0		
m & p-Xylene	U	2760	µg/kg	1.0		
o-Xylene	U	2760	µg/kg	1.0		
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0		

TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
21-39175	1315696	S	WS4		ES	2.15	Yes	Diesel

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	21-39178-1
Initial Date of Issue:	15-Nov-2021
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	09-Nov-2021
Order No.:	212945	**Date Instructed:**	09-Nov-2021
No. of Samples:	1		
Turnaround (Wkdays):	5	**Results Due:**	15-Nov-2021
Date Approved:	15-Nov-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39178
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315712
			Client Sample ID.:		ES
			Sample Location:		WS1
			Sample Type:		SOIL
			Top Depth (m):		0.0
			Bottom Depth (m):		0.7
			Date Sampled:		05-Nov-2021
			Time Sampled:		0:00
			Asbestos Lab:		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	6.5
pH	M	2010		4.0	8.9
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.72
Arsenic	M	2450	mg/kg	1.0	11
Beryllium	U	2450	mg/kg	1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.21
Manganese	M	2450	mg/kg	5.0	340
Molybdenum	M	2450	mg/kg	2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	5.3
Copper	M	2450	mg/kg	0.50	89
Mercury	M	2450	mg/kg	0.10	< 0.10
Nickel	M	2450	mg/kg	0.50	18
Lead	M	2450	mg/kg	0.50	64
Selenium	M	2450	mg/kg	0.20	< 0.20
Zinc	M	2450	mg/kg	0.50	93
Chromium (Trivalent)	N	2490	mg/kg	1.0	20
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Naphthalene	M	2700	mg/kg	0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	3.1
Anthracene	M	2700	mg/kg	0.10	1.2
Fluoranthene	M	2700	mg/kg	0.10	6.3
Pyrene	M	2700	mg/kg	0.10	6.4
Benzo[a]anthracene	M	2700	mg/kg	0.10	2.8
Chrysene	M	2700	mg/kg	0.10	2.3
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	4.4
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	1.7
Benzo[a]pyrene	M	2700	mg/kg	0.10	3.6
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	3.2
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.74

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39178
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1315712
			Client Sample ID.:		ES
			Sample Location:		WS1
			Sample Type:		SOIL
			Top Depth (m):		0.0
			Bottom Depth (m):		0.7
			Date Sampled:		05-Nov-2021
			Time Sampled:		0:00
			Asbestos Lab:		DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	3.4
Total Of 16 PAH's	M	2700	mg/kg	2.0	39

Results - 2 Stage WAC

Project: Bures

							Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-39178								
Chemtest Sample ID:	1315712								
Sample Ref:									
Sample ID:	ES								
Sample Location:	WS1								
Top Depth(m):	0.0								
Bottom Depth(m):	0.7								
Sampling Date:	05-Nov-2021								
Determinand	**SOP**	**Accred.**	**Units**				**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%			3.8	3	5	6
Loss On Ignition	2610	M	%			6.0	--	--	10
Total BTEX	2760	M	mg/kg			< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg			< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg			42	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg			39	100	--	--
pH	2010	M				8.9	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg			< 0.0020	--	To evaluate	To evaluate
Eluate Analysis			**2:1 mg/l**	**8:1 mg/l**	**2:1 mg/kg**	**Cumulative mg/kg 10:1**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0079	0.0064	0.016	0.066	0.5	2	25
Barium	1455	U	0.010	0.005	0.019	0.057	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	0.0034	0.0017	0.0067	0.018	0.5	10	70
Copper	1455	U	0.0094	0.0051	0.019	0.0074	2	50	100
Mercury	1455	U	0.00005	< 0.00005	0.00010	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0063	0.0018	0.013	0.021	0.5	10	30
Nickel	1455	U	0.0012	0.0005	0.0023	0.0059	0.4	10	40
Lead	1455	U	0.0015	0.0021	0.0030	0.020	0.5	10	50
Antimony	1455	U	0.0064	0.0023	0.013	0.027	0.06	0.7	5
Selenium	1455	U	0.0010	< 0.0005	0.0021	0.0008	0.1	0.5	7
Zinc	1455	U	0.006	0.005	0.012	0.048	4	50	200
Chloride	1220	U	4.3	1.5	< 10	17	800	15000	25000
Fluoride	1220	U	0.30	0.17	< 1.0	1.8	10	150	500
Sulphate	1220	U	22	5.8	44	71	1000	20000	50000
Total Dissolved Solids	1020	N	140	64	270	690	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	11	8.5	< 50	87	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	6.5

Leachate Test Information	
Leachant volume 1st extract/l	0.338
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.138

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Test Methods

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Test Methods

SOP	Title	Parameters included	Method summary
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
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Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	21-39700-1		
Initial Date of Issue:	19-Nov-2021		
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel@compassgeotechnical.co.uk		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	12-Nov-2021
Order No.:	212945D	**Date Instructed:**	12-Nov-2021
No. of Samples:	6		
Turnaround (Wkdays):	5	**Results Due:**	18-Nov-2021
Date Approved:	19-Nov-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39700	21-39700	21-39700	21-39700	21-39700	21-39700
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1318245	1318246	1318248	1318251	1318252	1318253
			Client Sample ID.:		ES	ES	ES	ES	ES	ES
			Sample Location:		WS9	WS9	WS10	WS11	WS12	WS13
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.25	0.6	0.35	1.15	1.3	1.35
			Bottom Depth (m):		0.35	0.7	0.7	1.25	1.5	1.4
			Date Sampled:		10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021
			Time Sampled:		12:00	0:00	0:00	0:00	0:00	0:00
			Asbestos Lab:		DURHAM		DURHAM			
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
ACM Type	U	2192		N/A	-		-			
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected			
Moisture	N	2030	%	0.020	12	12	13	12	8.4	8.4
pH	U	2010		4.0	8.4			8.3		
Arsenic	U	2450	mg/kg	1.0	13			9.7		
Cadmium	U	2450	mg/kg	0.10	0.25			0.14		
Copper	U	2450	mg/kg	0.50	60			37		
Mercury	U	2450	mg/kg	0.10	0.62			< 0.10		
Nickel	U	2450	mg/kg	0.50	18			15		
Lead	U	2450	mg/kg	0.50	100			20		
Selenium	U	2450	mg/kg	0.20	0.33			0.26		
Zinc	U	2450	mg/kg	0.50	80			51		
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50			< 0.50		
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
TPH >C10-C12	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
TPH >C12-C16	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
TPH >C16-C21	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
TPH >C21-C35	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
TPH >C35-C40	N	2670	mg/kg	1.0	< 1.0			< 1.0	< 1.0	< 1.0
Total TPH >C8-C40	N	2670	mg/kg	10	< 10			< 10	< 10	< 10
Naphthalene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10		
Acenaphthylene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10		
Acenaphthene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10		
Fluorene	U	2700	mg/kg	0.10		< 0.10	< 0.10	< 0.10		
Phenanthrene	U	2700	mg/kg	0.10		< 0.10	17	< 0.10		
Anthracene	U	2700	mg/kg	0.10		< 0.10	4.2	< 0.10		
Fluoranthene	U	2700	mg/kg	0.10		0.29	20	0.24		
Pyrene	U	2700	mg/kg	0.10		0.32	18	0.28		
Benzo[a]anthracene	U	2700	mg/kg	0.10		< 0.10	7.6	< 0.10		
Chrysene	U	2700	mg/kg	0.10		< 0.10	6.9	< 0.10		
Benzo[b]fluoranthene	U	2700	mg/kg	0.10		< 0.10	8.5	< 0.10		
Benzo[k]fluoranthene	U	2700	mg/kg	0.10		< 0.10	3.7	< 0.10		
Benzo[a]pyrene	U	2700	mg/kg	0.10		< 0.10	7.1	< 0.10		
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10		< 0.10	5.0	< 0.10		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39700	21-39700	21-39700	21-39700	21-39700	21-39700
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1318245	1318246	1318248	1318251	1318252	1318253
			Client Sample ID.:		ES	ES	ES	ES	ES	ES
			Sample Location:		WS9	WS9	WS10	WS11	WS12	WS13
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.25	0.6	0.35	1.15	1.3	1.35
			Bottom Depth (m):		0.35	0.7	0.7	1.25	1.5	1.4
			Date Sampled:		10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021
			Time Sampled:		12:00	0:00	0:00	0:00	0:00	0:00
			Asbestos Lab:		DURHAM		DURHAM			
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10		< 0.10	1.1	< 0.10		
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10		< 0.10	4.0	< 0.10		
Total Of 16 PAH's	U	2700	mg/kg	2.0		< 2.0	100	< 2.0		

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Amended Report

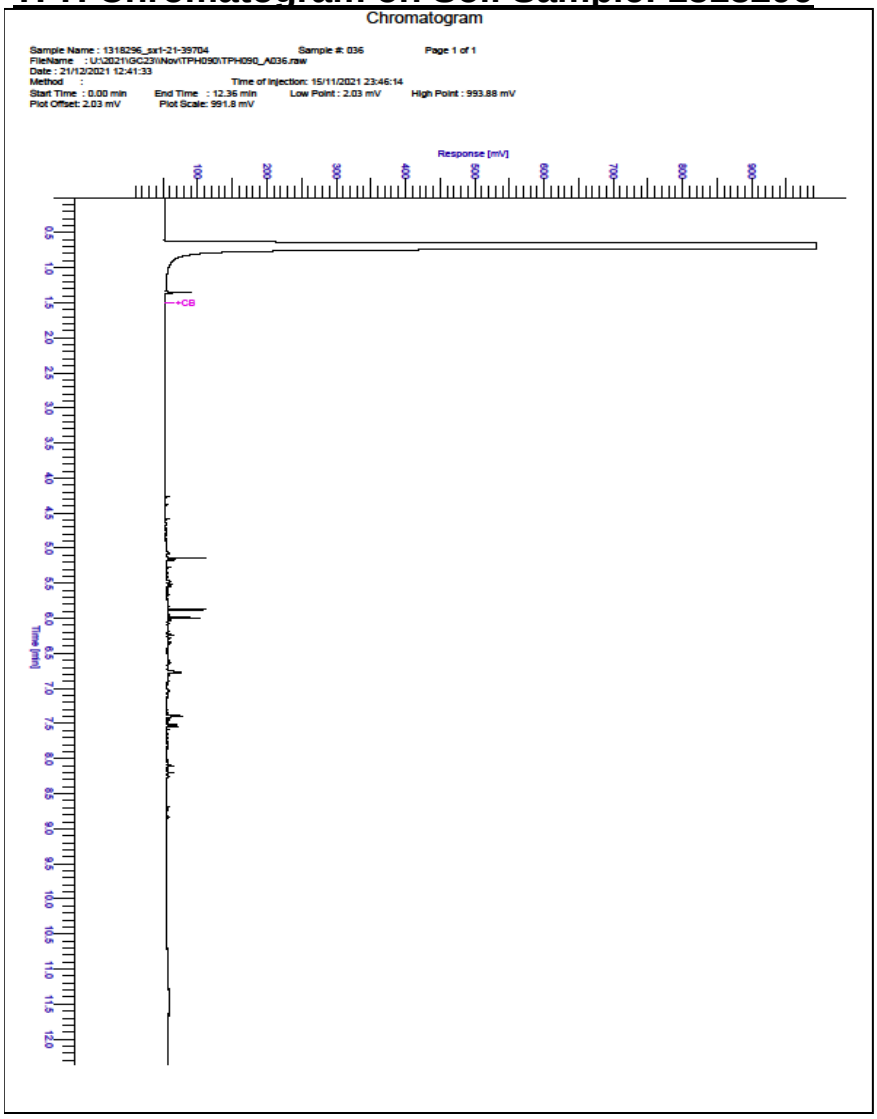
Report No.:	21-39704-2		
Initial Date of Issue:	19-Nov-2021	**Date of Re-Issue:**	23-Dec-2021
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel@compassgeotechnical.co.uk		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	12-Nov-2021
Order No.:	212945E	**Date Instructed:**	12-Nov-2021
No. of Samples:	2		
Turnaround (Wkdays):	30	**Results Due:**	23-Dec-2021
Date Approved:	23-Dec-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		21-39704	21-39704
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1318296	1318297
			Client Sample ID.:		ES	ES
			Sample Location:		WS12	WS13
			Sample Type:		SOIL	SOIL
			Top Depth (m):		0.2	0.4
			Bottom Depth (m):		1.0	1.0
			Date Sampled:		10-Nov-2021	10-Nov-2021
			Time Sampled:		0:00	0:00
			Asbestos Lab:		DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
ACM Type	U	2192		N/A	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	11	1.2
Chromatogram (TPH)	N			N/A	See Attached	
pH	M	2010		4.0	8.5	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.4	1.6
Arsenic	M	2450	mg/kg	1.0	10	7.9
Beryllium	U	2450	mg/kg	1.0	< 1.0	< 1.0
Cadmium	M	2450	mg/kg	0.10	0.17	0.52
Manganese	M	2450	mg/kg	5.0	670	410
Molybdenum	M	2450	mg/kg	2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	5.1	< 2.0
Copper	M	2450	mg/kg	0.50	74	74
Mercury	M	2450	mg/kg	0.10	0.30	0.30
Nickel	M	2450	mg/kg	0.50	18	25
Lead	M	2450	mg/kg	0.50	130	220
Selenium	M	2450	mg/kg	0.20	0.24	0.23
Zinc	M	2450	mg/kg	0.50	53	260
Chromium (Trivalent)	N	2490	mg/kg	1.0	19	11
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Diesel Present	N	2670		N/A	False	
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0	
TPH >C10-C12	N	2670	mg/kg	1.0	4.0	
TPH >C12-C16	N	2670	mg/kg	1.0	62	
TPH >C16-C21	N	2670	mg/kg	1.0	420	
TPH >C21-C35	N	2670	mg/kg	1.0	460	
TPH >C35-C40	N	2670	mg/kg	1.0	12	
Total TPH >C8-C40	N	2670	mg/kg	10	960	

TPH Chromatogram on Soil Sample: 1318296



Results - 2 Stage WAC

Project: Bures

							Landfill Waste Acceptance Criteria Limits		
Chemtest Job No:	21-39704								
Chemtest Sample ID:	1318296								
Sample Ref:									
Sample ID:	ES								
Sample Location:	WS12								
Top Depth(m):	0.2								
Bottom Depth(m):	1.0								
Sampling Date:	10-Nov-2021								
Determinand	**SOP**	**Accred.**	**Units**				**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Total Organic Carbon	2625	M	%			3.0	3	5	6
Loss On Ignition	2610	M	%			8.9	--	--	10
Total BTEX	2760	M	mg/kg			< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg			< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg			960	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg			1400	100	--	--
pH	2010	M				8.5	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg			0.0050	--	To evaluate	To evaluate
Eluate Analysis			**2:1 mg/l**	**8:1 mg/l**	**2:1 mg/kg**	**Cumulative mg/kg 10:1**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0024	0.0029	0.0049	0.029	0.5	2	25
Barium	1455	U	0.014	0.005	0.027	0.063	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.0066	0.0043	0.013	0.0065	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.024	0.0057	0.047	0.074	0.5	10	30
Nickel	1455	U	0.0021	0.0008	0.0042	0.0088	0.4	10	40
Lead	1455	U	< 0.0005	0.0010	< 0.0005	0.0092	0.5	10	50
Antimony	1455	U	0.0010	0.0006	0.0020	0.0061	0.06	0.7	5
Selenium	1455	U	0.0028	< 0.0005	0.0056	0.0028	0.1	0.5	7
Zinc	1455	U	0.007	< 0.003	0.013	0.006	4	50	200
Chloride	1220	U	36	3.8	71	70	800	15000	25000
Fluoride	1220	U	0.084	0.084	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	66	13	130	180	1000	20000	50000
Total Dissolved Solids	1020	N	340	110	670	1300	4000	60000	100000
Phenol Index	1920	U	0.18	0.046	0.36	0.59	1	-	-
Dissolved Organic Carbon	1610	U	20	26	< 50	250	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	11

Leachate Test Information	
Leachant volume 1st extract/l	0.327
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.172

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Results - 2 Stage WAC

Project: Bures

Chemtest Job No:	21-39704						**Landfill Waste Acceptance Criteria Limits**		
Chemtest Sample ID:	1318297								
Sample Ref:									
Sample ID:	ES						**Inert Waste Landfill**	**Stable, Non-reactive hazardous waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Sample Location:	WS13								
Top Depth(m):	0.4								
Bottom Depth(m):	1.0								
Sampling Date:	10-Nov-2021								
Determinand	**SOP**	**Accred.**	**Units**						
Total Organic Carbon	2625	M	%			2.0	3	5	6
Loss On Ignition	2610	M	%			3.5	--	--	10
Total BTEX	2760	M	mg/kg			< 0.010	6	--	--
Total PCBs (7 Congeners)	2815	M	mg/kg			< 0.10	1	--	--
TPH Total WAC	2670	M	mg/kg			< 10	500	--	--
Total (Of 17) PAH's	2700	N	mg/kg			3.8	100	--	--
pH	2010	M				8.0	--	>6	--
Acid Neutralisation Capacity	2015	N	mol/kg			0.023	--	To evaluate	To evaluate
Eluate Analysis			**2:1 mg/l**	**8:1 mg/l**	**2:1 mg/kg**	**Cumulative mg/kg 10:1**	**Limit values for compliance leaching test using BS EN 12457 at L/S 10 l/kg**		
Arsenic	1455	U	0.0078	0.0044	0.016	0.046	0.5	2	25
Barium	1455	U	< 0.005	< 0.005	< 0.0005	< 0.0005	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.0098	0.0063	0.020	0.0066	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.0070	0.0022	0.014	0.026	0.5	10	30
Nickel	1455	U	0.0015	0.0008	0.0030	0.0088	0.4	10	40
Lead	1455	U	< 0.0005	0.0013	< 0.0005	0.012	0.5	10	50
Antimony	1455	U	0.0014	0.0006	0.0028	0.0067	0.06	0.7	5
Selenium	1455	U	0.0006	< 0.0005	0.0012	< 0.0005	0.1	0.5	7
Zinc	1455	U	0.003	0.003	0.007	0.033	4	50	200
Chloride	1220	U	1.7	< 1.0	< 10	< 10	800	15000	25000
Fluoride	1220	U	0.087	0.088	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	30	6.5	60	81	1000	20000	50000
Total Dissolved Solids	1020	N	170	78	340	840	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	18	37	< 50	360	500	800	1000

Solid Information	
Dry mass of test portion/kg	0.175
Moisture (%)	1.2

Leachate Test Information	
Leachant volume 1st extract/l	0.348
Leachant volume 2nd extract/l	1.400
Eluant recovered from 1st extract/l	0.119

Waste Acceptance Criteria

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes. This analysis is only applicable for hazardous waste landfill acceptance and does not give any indication as to whether a waste may be hazardous or non-hazardous.

TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
21-39704	1318296	S	WS12		ES	0.2	No	PAH

Test Methods

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Test Methods

SOP	Title	Parameters included	Method summary
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

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>	"greater than"
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None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
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Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Amended Report

Report No.:	22-05296-2		
Initial Date of Issue:	18-Feb-2022	**Date of Re-Issue:**	24-Feb-2022
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel@compassgeotechnical.co.uk		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	11-Feb-2022
Order No.:	212945G	**Date Instructed:**	14-Feb-2022
No. of Samples:	14		
Turnaround (Wkdays):	11	**Results Due:**	28-Feb-2022
Date Approved:	24-Feb-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited		**Chemtest Job No.:**			22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296
Quotation No.: Q19-18078		**Chemtest Sample ID.:**			1371272	1371274	1371276	1371278	1371287	1371288	1371289	1371292	1371294
		Client Sample ID.:			ES	ES	ES	ES	ES	ES	ES	ES	ES
		Sample Location:			BHA	BHA	BHA	BHA	BHB	BHB	BHB	BHB	BHC
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			2.0	3.0	4.0	5.0	3.5	4.0	4.5	6.0	1.0
		Date Sampled:			09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	10-Feb-2022
		Time Sampled:			12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Moisture	N	2030	%	0.020	12	15	17	11	12	9.2	11	13	10
pH	U	2010		4.0									10.1
Arsenic	U	2450	mg/kg	1.0									8.9
Cadmium	U	2450	mg/kg	0.10									< 0.10
Copper	U	2450	mg/kg	0.50									23
Mercury	U	2450	mg/kg	0.10									0.15
Nickel	U	2450	mg/kg	0.50									9.6
Lead	U	2450	mg/kg	0.50									24
Selenium	U	2450	mg/kg	0.20									< 0.20
Zinc	U	2450	mg/kg	0.50									32
Chromium (Hexavalent)	N	2490	mg/kg	0.50									< 0.50
Organic Matter	U	2625	%	0.40									
Diesel Present	N	2670		N/A			True						
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0								< 1.0
TPH >C10-C12	N	2670	mg/kg	1.0	< 1.0								< 1.0
TPH >C12-C16	N	2670	mg/kg	1.0	< 1.0								< 1.0
TPH >C16-C21	N	2670	mg/kg	1.0	< 1.0								23
TPH >C21-C35	N	2670	mg/kg	1.0	< 1.0								64
TPH >C35-C40	N	2670	mg/kg	1.0	< 1.0								8.8
Total TPH >C8-C40	N	2670	mg/kg	10	< 10								96
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	120	< 1.0	< 1.0	22	< 1.0	< 1.0	
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0		410	880	< 1.0	< 1.0	44	< 1.0	< 1.0	
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0		430	1000	< 1.0	< 1.0	33	< 1.0	< 1.0	
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	130	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		850	2200	< 5.0	< 5.0	100	< 5.0	< 5.0	
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		< 1.0	38	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0		48	280	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1371272	1371274	1371276	1371278	1371287	1371288	1371289	1371292	1371294
			Client Sample ID.:		ES	ES	ES	ES	ES	ES	ES	ES	ES
			Sample Location:		BHA	BHA	BHA	BHA	BHB	BHB	BHB	BHB	BHC
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		2.0	3.0	4.0	5.0	3.5	4.0	4.5	6.0	1.0
			Date Sampled:		09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	09-Feb-2022	10-Feb-2022
			Time Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		48	390	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		900	2500	< 10	< 10	100	< 10	< 10	
Naphthalene	U	2700	mg/kg	0.10									
Acenaphthylene	U	2700	mg/kg	0.10									
Acenaphthene	U	2700	mg/kg	0.10									
Fluorene	U	2700	mg/kg	0.10									
Phenanthrene	U	2700	mg/kg	0.10									
Anthracene	U	2700	mg/kg	0.10									
Fluoranthene	U	2700	mg/kg	0.10									
Pyrene	U	2700	mg/kg	0.10									
Benzo[a]anthracene	U	2700	mg/kg	0.10									
Chrysene	U	2700	mg/kg	0.10									
Benzo[b]fluoranthene	U	2700	mg/kg	0.10									
Benzo[k]fluoranthene	U	2700	mg/kg	0.10									
Benzo[a]pyrene	U	2700	mg/kg	0.10									
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10									
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10									
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10									
Total Of 16 PAH's	U	2700	mg/kg	2.0									
Benzene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Toluene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Ethylbenzene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	
m & p-Xylene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	
o-Xylene	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0		< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		22-05296	22-05296	22-05296	22-05296	22-05296
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1371299	1371300	1371305	1371310	1371311
			Client Sample ID.:		ES	ES	ES	ES	ES
			Sample Location:		BHC	BHC	BHD	BHD	BHD
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		3.5	4.0	0.5	3.0	3.5
			Date Sampled:		10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022
			Time Sampled:		12:00	12:00	12:00	12:00	12:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Moisture	N	2030	%	0.020	15	7.1	7.6	13	18
pH	U	2010		4.0					
Arsenic	U	2450	mg/kg	1.0					
Cadmium	U	2450	mg/kg	0.10					
Copper	U	2450	mg/kg	0.50					
Mercury	U	2450	mg/kg	0.10					
Nickel	U	2450	mg/kg	0.50					
Lead	U	2450	mg/kg	0.50					
Selenium	U	2450	mg/kg	0.20					
Zinc	U	2450	mg/kg	0.50					
Chromium (Hexavalent)	N	2490	mg/kg	0.50					
Organic Matter	U	2625	%	0.40		1.1		< 0.40	
Diesel Present	N	2670		N/A					
TPH >C8-C10	N	2670	mg/kg	1.0					
TPH >C10-C12	N	2670	mg/kg	1.0					
TPH >C12-C16	N	2670	mg/kg	1.0					
TPH >C16-C21	N	2670	mg/kg	1.0					
TPH >C21-C35	N	2670	mg/kg	1.0					
TPH >C35-C40	N	2670	mg/kg	1.0					
Total TPH >C8-C40	N	2670	mg/kg	10					
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0				< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0				< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C8-C10	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C12-C16	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C21-C35	U	2680	mg/kg	1.0	< 1.0				< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0				< 1.0

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		22-05296	22-05296	22-05296	22-05296	22-05296
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1371299	1371300	1371305	1371310	1371311
			Client Sample ID.:		ES	ES	ES	ES	ES
			Sample Location:		BHC	BHC	BHD	BHD	BHD
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		3.5	4.0	0.5	3.0	3.5
			Date Sampled:		10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022
			Time Sampled:		12:00	12:00	12:00	12:00	12:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**					
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0				< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10				< 10
Naphthalene	U	2700	mg/kg	0.10			< 0.10		
Acenaphthylene	U	2700	mg/kg	0.10			< 0.10		
Acenaphthene	U	2700	mg/kg	0.10			< 0.10		
Fluorene	U	2700	mg/kg	0.10			< 0.10		
Phenanthrene	U	2700	mg/kg	0.10			< 0.10		
Anthracene	U	2700	mg/kg	0.10			< 0.10		
Fluoranthene	U	2700	mg/kg	0.10			< 0.10		
Pyrene	U	2700	mg/kg	0.10			< 0.10		
Benzo[a]anthracene	U	2700	mg/kg	0.10			< 0.10		
Chrysene	U	2700	mg/kg	0.10			< 0.10		
Benzo[b]fluoranthene	U	2700	mg/kg	0.10			< 0.10		
Benzo[k]fluoranthene	U	2700	mg/kg	0.10			< 0.10		
Benzo[a]pyrene	U	2700	mg/kg	0.10			< 0.10		
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10			< 0.10		
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10			< 0.10		
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10			< 0.10		
Total Of 16 PAH's	U	2700	mg/kg	2.0			< 2.0		
Benzene	U	2760	µg/kg	1.0	< 1.0				< 1.0
Toluene	U	2760	µg/kg	1.0	< 1.0				< 1.0
Ethylbenzene	U	2760	µg/kg	1.0	< 1.0				< 1.0
m & p-Xylene	U	2760	µg/kg	1.0	< 1.0				< 1.0
o-Xylene	U	2760	µg/kg	1.0	< 1.0				< 1.0
Methyl Tert-Butyl Ether	U	2760	µg/kg	1.0	< 1.0				< 1.0

TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-05296	1371276	S	BHA		ES	4.0	Yes	Diesel

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
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.

Report Information

Key

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

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	22-07680-1
Initial Date of Issue:	08-Mar-2022
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	02-Mar-2022
Order No.:	212945I	**Date Instructed:**	02-Mar-2022
No. of Samples:	9		
Turnaround (Wkdays):	5	**Results Due:**	08-Mar-2022
Date Approved:	08-Mar-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Bulk Identification Certificate

Client: Compass Geotechnical Limited
Site Address:
Date Sampled: 25-Feb-2022
Date Received: 02-Mar-2022

Your Ref.:
Project: Bures
Job Number: 22-07680
No Samples:
Date Reported: 08-Mar-2022

Sample No.	Sample ID	Sample Ref.	Description	Top (m)	Bottom (m)	SOP	Accred.	Laboratory	Material	Result
1382274	ES1		TP3	0.1	0.2	2185	U	COVENTRY	Cement	Chrysotile

The in-house procedure SOP2185 is in accordance with the requirements of Appendix 2 of the Analyst Guide (HSG 248).
The results relate only to items tested as supplied by the client.
Comments and interpretations are beyond the scope of UKAS accreditation.
Samples associated with asbestos in building surveys are retained for six months (HSG 264 refers)

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited		**Chemtest Job No.:**			22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680
Quotation No.: Q19-18078		**Chemtest Sample ID.:**			1382269	1382270	1382271	1382272	1382273	1382275	1382276	1382277
		Client Sample ID.:			ES1	ES2	ES1	ES2	ES1	ES2	ES1	ES2
		Sample Location:			TP1	TP1	TP2	TP2	TP3	TP3	TP5	TP5
		Sample Type:			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		Top Depth (m):			0.3	0.7	0.2	0.7	0.1	0.2	0.3	1.0
		Bottom Depth (m):			0.4	0.8	0.3	0.8	0.2	0.3	0.4	1.1
		Date Sampled:			25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022
		Time Sampled:			0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
		Asbestos Lab:			COVENTRY		DURHAM		DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
ACM Type	U	2192		N/A	-		-		-	-	-	Fibres/Clumps
Asbestos Identification	U	2192		N/A	No Asbestos Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	Chrysotile
Moisture	N	2030	%	0.020		13	7.0	14	15	25	8.5	14
pH	U	2010		4.0		8.3		8.1	8.2		8.8	8.6
Arsenic	U	2450	mg/kg	1.0		7.3		7.2	12		9.1	8.0
Cadmium	U	2450	mg/kg	0.10		0.12		0.15	0.64		0.60	0.49
Copper	U	2450	mg/kg	0.50		12		15	73		380	80
Mercury	U	2450	mg/kg	0.10		0.13		< 0.10	0.88		< 0.10	0.21
Nickel	U	2450	mg/kg	0.50		11		12	17		22	67
Lead	U	2450	mg/kg	0.50		82		23	480		170	100
Selenium	U	2450	mg/kg	0.20		< 0.20		< 0.20	0.24		< 0.20	< 0.20
Zinc	U	2450	mg/kg	0.50		43		48	320		240	360
Chromium (Hexavalent)	N	2490	mg/kg	0.50		< 0.50		< 0.50	< 0.50		< 0.50	< 0.50
TPH >C8-C10	N	2670	mg/kg	1.0		< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C10-C12	N	2670	mg/kg	1.0		8.6	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C12-C16	N	2670	mg/kg	1.0		12	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C16-C21	N	2670	mg/kg	1.0		71	< 1.0		14	8.1		5.7
TPH >C21-C35	N	2670	mg/kg	1.0		190	< 1.0		260	23		9.7
TPH >C35-C40	N	2670	mg/kg	1.0		20	< 1.0		150	< 1.0		< 1.0
Total TPH >C8-C40	N	2670	mg/kg	10		300	< 10		430	31		16
Naphthalene	U	2700	mg/kg	0.10			< 0.10		< 0.10	< 0.10		< 0.10
Acenaphthylene	U	2700	mg/kg	0.10			< 0.10		< 0.10	< 0.10		< 0.10
Acenaphthene	U	2700	mg/kg	0.10			< 0.10		< 0.10	< 0.10		< 0.10
Fluorene	U	2700	mg/kg	0.10			< 0.10		< 0.10	< 0.10		< 0.10
Phenanthrene	U	2700	mg/kg	0.10			0.78		0.60	0.50		2.4
Anthracene	U	2700	mg/kg	0.10			0.66		0.13	0.18		0.68
Fluoranthene	U	2700	mg/kg	0.10			3.3		1.5	1.3		4.0
Pyrene	U	2700	mg/kg	0.10			3.9		1.7	1.4		3.8
Benzo[a]anthracene	U	2700	mg/kg	0.10			2.3		0.86	0.99		1.7
Chrysene	U	2700	mg/kg	0.10			2.3		1.1	1.4		1.8
Benzo[b]fluoranthene	U	2700	mg/kg	0.10			4.3		1.2	1.2		2.6
Benzo[k]fluoranthene	U	2700	mg/kg	0.10			1.9		0.63	0.71		1.2
Benzo[a]pyrene	U	2700	mg/kg	0.10			3.7		1.1	1.0		1.9
Indeno(1,2,3-c,d)Pyrene	U	2700	mg/kg	0.10			2.6		< 0.10	0.76		1.3

Results - Soil

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1382269	1382270	1382271	1382272	1382273	1382275	1382276	1382277
			Client Sample ID.:		ES1	ES2	ES1	ES2	ES1	ES2	ES1	ES2
			Sample Location:		TP1	TP1	TP2	TP2	TP3	TP3	TP5	TP5
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.3	0.7	0.2	0.7	0.1	0.2	0.3	1.0
			Bottom Depth (m):		0.4	0.8	0.3	0.8	0.2	0.3	0.4	1.1
			Date Sampled:		25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022	25-Feb-2022
			Time Sampled:		0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
			Asbestos Lab:		COVENTRY		DURHAM		DURHAM	DURHAM	DURHAM	DURHAM
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Dibenz(a,h)Anthracene	U	2700	mg/kg	0.10			0.71		< 0.10	0.18		0.31
Benzo[g,h,i]perylene	U	2700	mg/kg	0.10			3.2		< 0.10	1.1		1.7
Total Of 16 PAH's	U	2700	mg/kg	2.0			30		8.8	11		23

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
2185	Asbestos	Asbestos	Polarised light microscopy
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)

Report Information

Key

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I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	22-08629-1		
Initial Date of Issue:	08-Mar-2022		
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel Foord		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	08-Mar-2022
Order No.:	212945I	**Date Instructed:**	08-Mar-2022
No. of Samples:	1		
Turnaround (Wkdays):	5	**Results Due:**	14-Mar-2022
Date Approved:	08-Mar-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Bulk Identification Certificate

Client: Compass Geotechnical Limited
Site Address:
Date Sampled: 25-Feb-2022
Date Received: 08-Mar-2022

Your Ref.:
Project: Bures
Job Number: 22-08629
No Samples:
Date Reported: 08-Mar-2022

Sample No.	Sample ID	Sample Ref.	Description	Top (m)	Bottom (m)	SOP	Accred.	Laboratory	Material	Result
1386813	ES1	DL of 1382273	TP3	0.1		2185	U	DURHAM	Cement	Chrysotile

The in-house procedure SOP2185 is in accordance with the requirements of Appendix 2 of the Analyst Guide (HSG 248).
The results relate only to items tested as supplied by the client.
Comments and interpretations are beyond the scope of UKAS accreditation.
Samples associated with asbestos in building surveys are retained for six months (HSG 264 refers)

Test Methods

SOP	Title	Parameters included	Method summary
2185	Asbestos	Asbestos	Polarised light microscopy
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry

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N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Appendix (xi)
Laboratory Test Results – Interceptors

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

Final Report

Report No.:	21-37645-1
Initial Date of Issue:	03-Nov-2021
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	28-Oct-2021
Order No.:	212945	**Date Instructed:**	28-Oct-2021
No. of Samples:	4		
Turnaround (Wkdays):	5	**Results Due:**	03-Nov-2021
Date Approved:	03-Nov-2021		

Approved By:

Details: Glynn Harvey, Technical Manager

Results - Water

Project: Bures

Client: Compass Geotechnical Limited		**Chemtest Job No.:**			21-37645	21-37645	21-37645	21-37645
Quotation No.: Q19-18078		**Chemtest Sample ID.:**			1308153	1308154	1308155	1308156
		Client Sample ID.:			ES	ES	ES	ES
		Sample Location:			Catch Pit	Soakaway	IN1	IN2
		Sample Type:			WATER	WATER	WATER	WATER
		Date Sampled:			27-Oct-2021	28-Oct-2021	28-Oct-2021	28-Oct-2021
		Time Sampled:			0:00	0:00	0:00	0:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	230	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	230	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	230	< 10	< 10
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.

Report Information

Key

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>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

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D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

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

Final Report

Report No.:	22-07679-1
Initial Date of Issue:	04-Mar-2022
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	02-Mar-2022
Order No.:	212945J	**Date Instructed:**	02-Mar-2022
No. of Samples:	2		
Turnaround (Wkdays):	5	**Results Due:**	08-Mar-2022
Date Approved:	04-Mar-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Water

Project: Bures

Client: Compass Geotechnical Limited			**Chemtest Job No.:**		22-07679	22-07679
Quotation No.: Q19-18078			**Chemtest Sample ID.:**		1382267	1382268
Order No.: 212945J			Client Sample Ref.:		INTERCEPTOR	INTERCEPTOR
			Client Sample ID.:		ES	ES
			Sample Location:		Cell 1	Cell 3
			Sample Type:		WATER	WATER
			Date Sampled:		25-Feb-2022	25-Feb-2022
			Time Sampled:		0:00	0:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**		
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	< 10	< 10
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0

Test Methods

SOP	Title	Parameters included	Method summary
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.

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customerservices@chemtest.com

Appendix (xii)
Laboratory Test Results – Groundwater

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

Amended Report

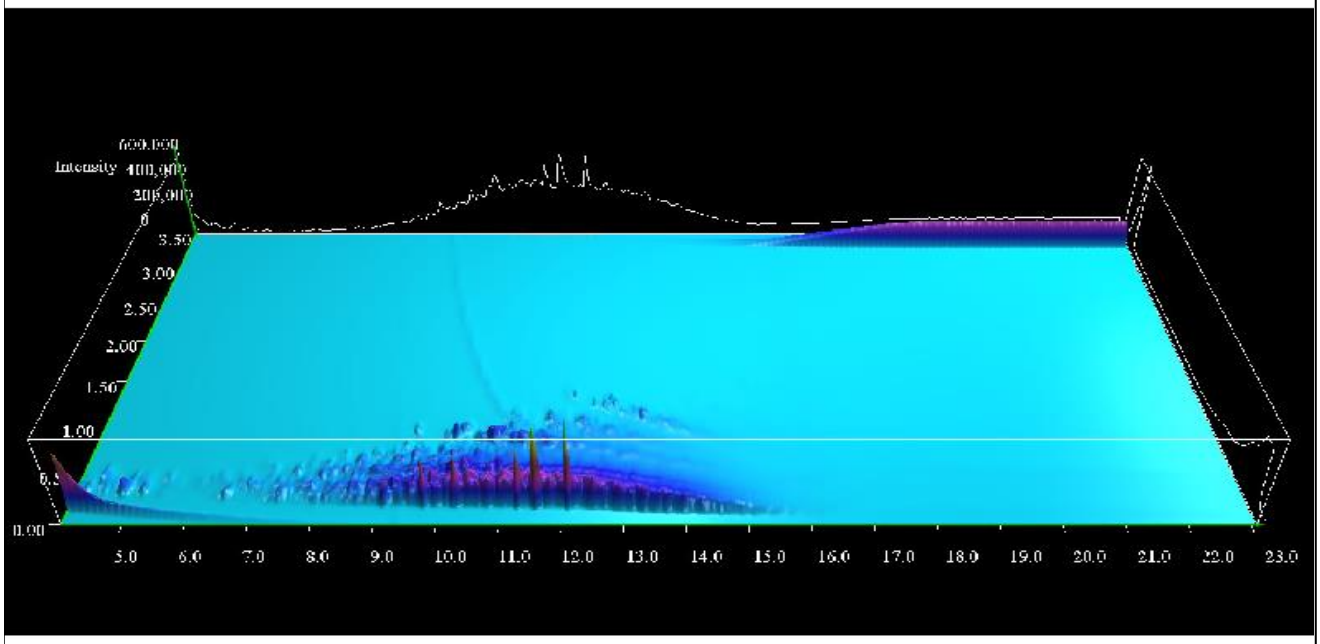
Report No.:	22-06966-2		
Initial Date of Issue:	28-Feb-2022	**Date of Re-Issue:**	07-Mar-2022
Client	Compass Geotechnical Limited		
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU		
Contact(s):	Rachel@compassgeotechnical.co.uk		
Project	Bures		
Quotation No.:	Q19-18078	**Date Received:**	24-Feb-2022
Order No.:	212945H	**Date Instructed:**	24-Feb-2022
No. of Samples:	4		
Turnaround (Wkdays):	9	**Results Due:**	08-Mar-2022
Date Approved:	07-Mar-2022		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Water

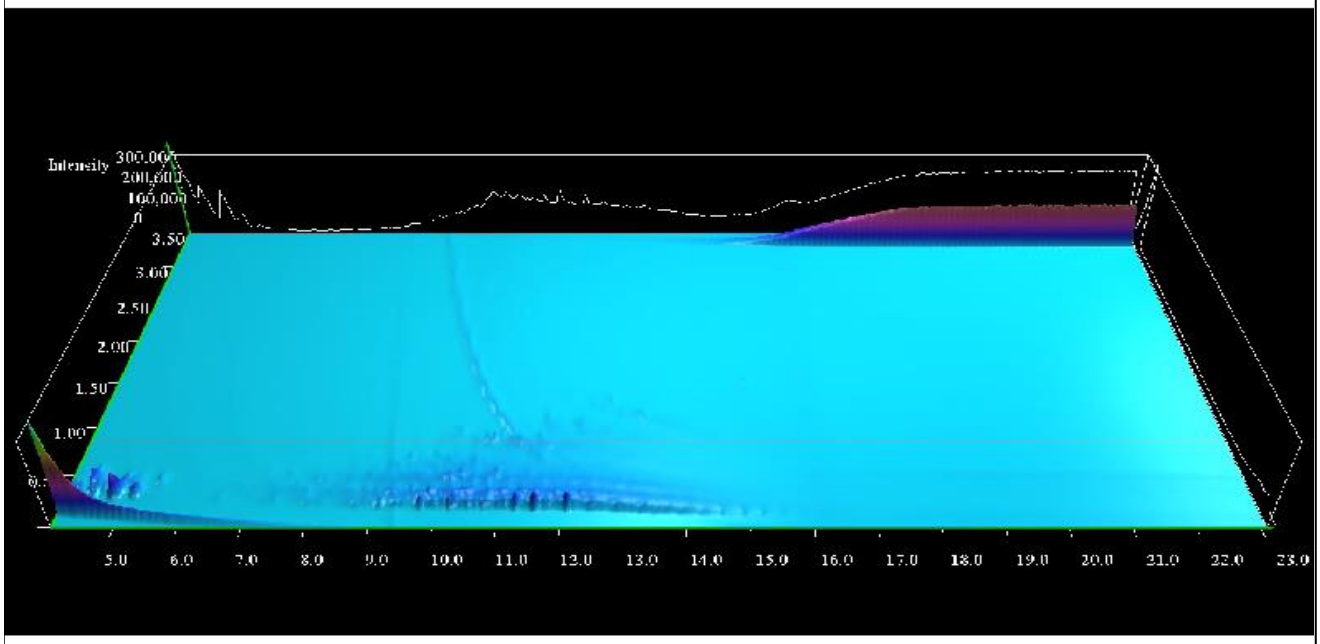
Project: Bures

Client: Compass Geotechnical Limited		**Chemtest Job No.:**			22-06966	22-06966	22-06966	22-06966
Quotation No.: Q19-18078		**Chemtest Sample ID.:**			1378708	1378709	1378710	1378711
		Client Sample ID.:			ES	ES	ES	ES
		Sample Location:			BHA	BHB	BHC	BHD
		Sample Type:			WATER	WATER	WATER	WATER
		Date Sampled:			23-Feb-2022	23-Feb-2022	23-Feb-2022	23-Feb-2022
		Time Sampled:			0:00	0:00	0:00	0:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Diesel Present	N	1670		N/A	True	True		
Chromatogram (TPH)	N			N/A	See Attached	See Attached		
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	160	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	670	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	320	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	3000	450	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	18000	2700	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	24000	3200	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	8300	1500	1400	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	54000	7900	1400	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	270	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	310	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	860	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	2200	250	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	20000	2500	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	21000	2800	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	2700	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	47000	5500	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	100000	13000	1400	< 10
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0

TPH Chromatogram on Water Sample: 1378708



TPH Chromatogram on Water Sample: 1378709



TPH Interpretation

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-06966	1378708	W	BHA		ES		Yes	Diesel
22-06966	1378709	W	BHB		ES		Yes	Diesel

Test Methods

SOP	Title	Parameters included	Method summary
1670	Total Petroleum Hydrocarbons (TPH) in Waters by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO	Pentane extraction / GC FID detection
1675	TPH Aliphatic/Aromatic split in Waters by GC-FID(cf. Texas Method 1006 / TPH CWG)	Aliphatics: >C5–C6, >C6–C8, >C8– C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Pentane extraction / GCxGC FID detection
1760	Volatile Organic Compounds (VOCs) in Waters by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics. (cf. USEPA Method 8260)	Automated headspace gas chromatographic (GC) analysis of water samples with mass spectrometric (MS) detection of volatile organic compounds.

Report Information

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<	"less than"
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LOD	Limit of detection

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The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

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

For all other tests the samples were dried at < 37°C prior to analysis
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Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

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

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

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

Final Report

Report No.:	22-08157-1
Initial Date of Issue:	07-Mar-2022
Client	Compass Geotechnical Limited
Client Address:	13 Willow Park, Upton Lane Stoke Golding Warwickshire CV13 6EU
Contact(s):	Rachel@compassgeotechnical.co.uk
Project	Bures

Quotation No.:	Q19-18078	**Date Received:**	04-Mar-2022
Order No.:	212945J	**Date Instructed:**	04-Mar-2022
No. of Samples:	4		
Turnaround (Wkdays):	5	**Results Due:**	10-Mar-2022
Date Approved:	07-Mar-2022		

Approved By:

Details: Stuart Henderson, Technical Manager

Results - Water

Project: Bures

Client: Compass Geotechnical Limited		**Chemtest Job No.:**			22-08157	22-08157	22-08157	22-08157
Quotation No.: Q19-18078		**Chemtest Sample ID.:**			1384349	1384350	1384351	1384352
			Client Sample ID.:		ES	ES	ES	ES
			Sample Location:		BHA	BHB	BHC	BHD
			Sample Type:		WATER	WATER	WATER	WATER
			Date Sampled:		04-Mar-2022	04-Mar-2022	04-Mar-2022	04-Mar-2022
			Time Sampled:		0:00	0:00	0:00	0:00
Determinand	**Accred.**	**SOP**	**Units**	**LOD**				
Aliphatic TPH >C5-C6	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.10	55	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.10	670	260	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.10	3800	1900	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.10	4700	2500	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.10	2300	1300	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5.0	12000	6000	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.10	210	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.10	610	190	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.10	4900	1900	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.10	4900	2200	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.10	1300	560	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5.0	12000	4900	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	1675	µg/l	10	23000	11000	< 10	< 10
Benzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	U	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl Tert-Butyl Ether	N	1760	µg/l	1.0	< 1.0	< 1.0	< 1.0	< 1.0

Test Methods

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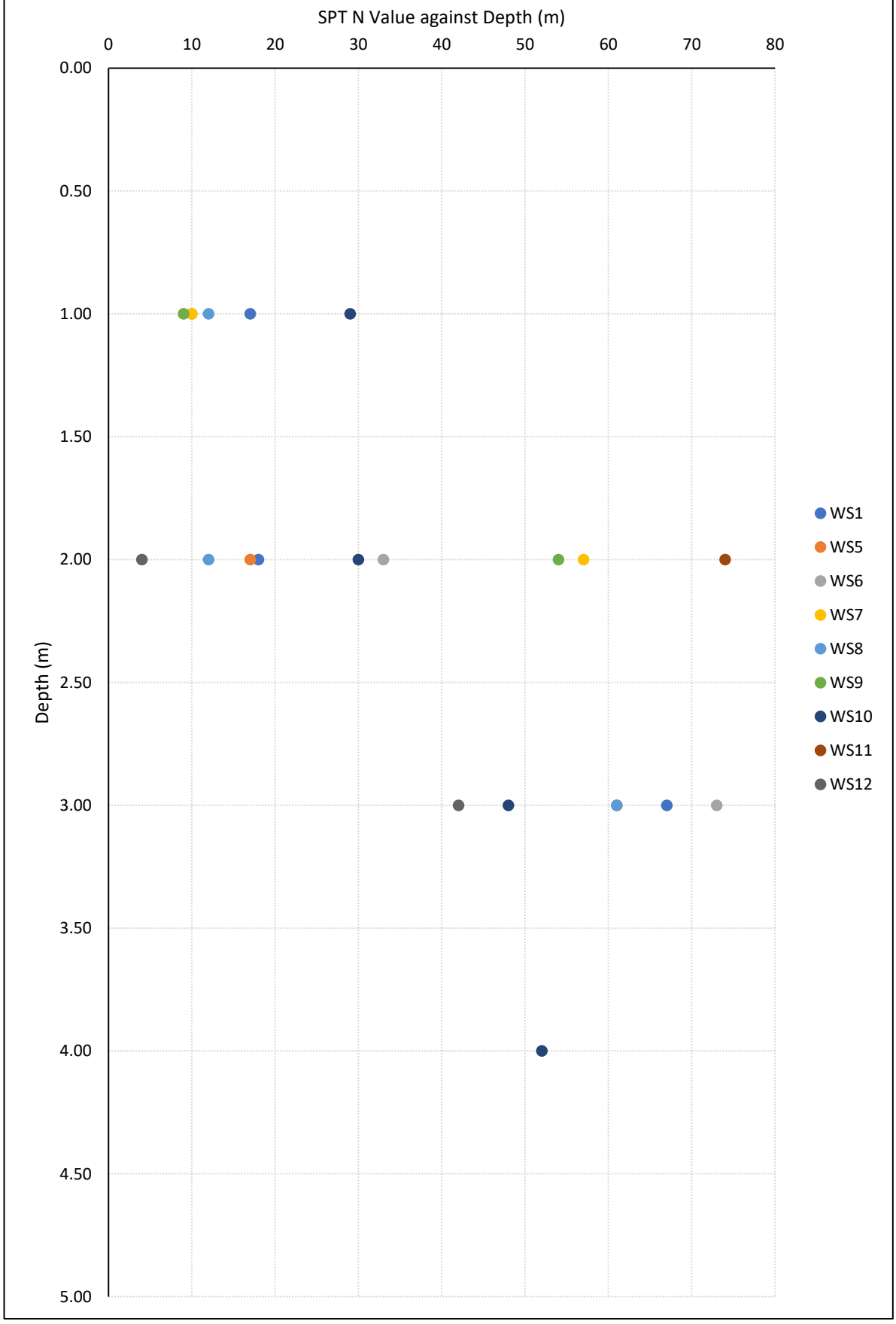
Appendix (xiii)
Plots

Plot of SPT N Value against Depth (m) River Terrace Deposits



Appendix (xiv)
ULS & SLS Calculations

Calculation of Preliminary Bearing Pressure - Strip Foundation on Clays

For undrained conditions using $R/A = (\pi + 2)Cu + q$

Input Parameters

Term	Symbol	Value	Units
Width of rising wall	d	0.3	m
Height of concrete foundation	h	0.3	m
Depth below ground level	D	1	m
Breadth of foundation	B	0.6	m
density of soil	$\Upsilon_{s;k}$	20	kN/m^3
density of concrete	$\Upsilon_{c;k}$	24	kN/m^3
density of brick and infill	$\Upsilon_{b;k}$	22	kN/m^3
Undrained shear strength	Cu	65	kPa
Assumed imposed vertical load		80	kN/mrun

Permanent characterisitic vertical load

Weight of rising wall		4.62	kN/mrun
Weight of foundation		4.32	kN/mrun
Weight of backfill		4.2	kN/mrun
Total characterisitic vertical load	V_k	93.14	kN/mrun

Design Approach 1

Undrained Conditions simplified for the case of a vertical load action at the centre of strip

Area of footing	A	0.6	m2/mrun

Combination 1 (A1, M1, R1)

Design Load (A1)	V_{d1}	125.74	kN/mrun
Design Strength (M1)	C_{ud1}	65	kPa
Soil Surcharge adj to footing	q_{d1}	20	kPa
Design Bearing Resistance (R1)	R_{d1}	212.54	kPa

Check if $V_{d1} \leq R_{d1}$ acceptable for Design Approach 1 Combination 1

Combination 2 (A2, M2, R1)

Design Load (A2)	V_{d2}	93.14	kN/mrun

Design Strength (M2)	C_{ud2}	46.4	kPa	
Soil surcharge adj to footing	q_{d2}	20	kPa	
Design Bearing Resistance (R1)	R_{d2}	155.2	kPa	
Check if $V_{d2} \leq R_{d2}$		acceptable for Design Approach 1 Combination 2		
Critical Combination Check				
Combination 1	R_{d1}/V_{d1}	1.6903		
Combination 2	R_{d2}/V_{d2}	1.6668		Combination 2 is more critical

Settlements (SLS Limit State)

Limit to settlements by $V_k = R_k/3$	using unfactored values			
Vertical Load	V_k	93.14	kN/mrun	
Bearing Resistance	R_k	212.54	kN/mrun	
	R_k/V_k	2.2819		Less than 3 consider increasing foundation size or reducing load
To give V_k for $R_k/3$	V_k	70.846	kN/mrun	
Preliminary design bearing resistance		118.08	kPa	
Imposed wall loading		57.706	kN/mrun	

Compass Geotechnical
Geotechnical, Geoenvironmental and Civil Engineering Consultants
13 Willow Park, Upton Lane, Stoke Golding, Warwickshire, CV13 6EU
Tel: 01455 213311: Fax: 01455 213969
www.compassgeotechnical.co.uk