June 2022

Appendix (ii)
Windowless Sample Hole Logs

June 2022

#### 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 SampleB Bulk Sample

ES Environmental Sample
PID Sample for total VOC screen

L Liner Tube SampleU 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.

## **Windowless Sample Borehole Log**

Project ID Borehole No. WS1 212945

Sheet 1 of 1 Date Drilled 04/11/2021

Chambers Bus Depot

1.00

3.00

SLOTTED

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Location: Chambers Bus Depot, Church Square, Bures, CO8 5AB

Rose Builders

Client:

Rig Crew:

		В	ures, CO	8 5AB					Logg	rew: ed:	TF
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	mples & In Situ Te Sample /	esting	Lovel	Don+h		Stra	ta Details		-		ndwater
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend		Strata Descrip	otion	Depth (mBGL)	Water Strike	Backfi Installat
0.00 - 0.70	ES							ck slightly gravelly slightly	-		
0.00 - 1.00	L							fine to coarse angular to			
0.20	PID				<b>*******</b>			d yellow brick fragments o	f -		
								and very rare asphalt	-		
						inaginents of file	e to medium gravel si	20.(0.71111)	Ī		
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				0.71		DISTURBED GRO	UND: Stiff greyish bro	own slightly gravelly silty C	LAY -		
								kets. Gravel is brown black			
0.90	PID							o sub rounded chert and r	are		
0.90 - 1.00	ES CDT(C)	N 47 (5 (2 2 4 7)		1.05		white fine to me	dium quartz.(0.34m)		<b>-</b> 1		
1.00 - 1.45 1.00 - 2.00	SPT(C) L	N=17 (5/3,3,4,7)		1.05		Medium dense y	ellowish brown mott	led orange brown slightly			. : :-
1.10	PID							SAND. Gravel is brown and			
1.10 - 1.20	ES							ed chert and rare white find	e -		· · · —
						sub rounded qua	artz. [River Terrace De	eposits].(0.5/m)	-		::.:-
					7				Ī		
						<del>!</del>			-		
1.65 - 2.00	D			1.62				h			
1.03 - 2.00								brown and black very sand o rounded chert and rare	ıy -		· : :
					7			artz GRAVEL. Sand is yellow	vish		
1.90	PID				-	1	arse. [River Terrace D	•			· · · · —
2.00 - 2.45	SPT(C)	N=18 (6/5,4,4,5)							- 2		:::=
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epth (m) Diamete		Diameter Depth Top	To (m)	Duratio	n	Remarks S	strike at (m) Casing at (m)	Sealed at (m) Time Mins Rose		Rema	
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op (m) Base (n	stallation n) Type	Dia (mm) No sample		0000:1-1	alau: 2.0	adonth due !	danaa matuur (f. 1. )	to.			
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1.00 3.00		50									

## Windowless Sample Borehole Log

212945

Project ID

Borehole No.

WS2

Sheet 1 of 1

cale: 1:25

Date Drilled

Project Title: Chambers Bus Depot

0.00

1.00

PLAIN

SLOTTED

50

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1.00

5.00

**Location:**Chambers Bus Depot, Church Square,

Client: Rose Builders

04/11/2021 **Rig Crew:** JW **Logged:** TF

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asting:			Northing				Level (mAOD):			Check	
Sar	mples & In Situ Te	sting					ta Details				Groundwate
Depth (mBGL)	Sample / Test ID	Test Result	t Level (mAOD	Depth ) (mBGL)	Legend		Strata Desc	ription		Depth (mBGL)	Water Bac Strike Instal
0.00 - 1.00	L					Concrete - cored	out.(0.20m)				
0.30 0.50	FC			0.20		:				.	
0.20 - 0.50 0.20 - 0.50	ES PID			0.20				rk grey and black slight		.	
0.20 - 0.30	FID							onal ACM sheet with ra	re coal,	:	
						cinder, yellow br	ick and mortar.(0.8	0m)		.	
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1.00 1.30	FC			1.00						١.	
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1.00 - 2.00	L							is black and brown fin	e to	:	
						coarse angular to	o rounded chert.(0.	34m)		:	
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					××××			l yellowish brown slight wn and black fine to co		-	
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3.55 - 3.65	ES				$\times$ $\times$ $\times$			ular to rounded chert a		.	
3.55 - 3.65	PID				××××	white fine sub ro	ounded quartz GRA	VEL with rare fine sand		:	
					$\hat{\mathbf{x}}$	River Terrace De	eposits].(1.55m)			:	
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4.90 - 5.00	PID				××××	]				:	:.°
				5.00	× × ×	7				- 5	•
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epth (m) Diamete			h Top To (m	Chiselling ) Duratio		Remarks S		m) Sealed at (m) Time Min			Remarks
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op (m) Base (m		Dia (mm)									

## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS3

Sheet 1 of 1
lle: 1:2
Date Drilled

04/11/2021

Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Bures, CO8 5AB

Rose Builders

Client:

Rig Crew: Logged:

			ures, CO					1				Logg		TF
sting:	mples & In Situ Test		lorthing:			St	Level (m rata Details	nAOD):				Chec		ındwater
Depth	Sample /	Test Result	Level	Depth	Logond			Ctrata Dasaria	tion			Depth	Water	Backfi
(mBGL)	Test ID	lest Result	(mAOD)	(mBGL)	Legend			Strata Descrip	otion			(mBGL)	Strike	Installa
0.00 - 1.00	L					Concrete - core	ed out.(0.20	ım)				t		
												-		
				0.20		MADE GROUN	D: Yellowish	brown slig	htly gravell	y fine to me	edium	ţ.		
0.35 - 0.45	ES			0.31		sand. Gravel is	brown and	black fine t	o coarse an	gular to ro	unded	ŧ		
0.35 - 0.45	PID					chert.(0.11m)					/	-		
0.55 0.45	1.5					MADE GROUN						Ĺ		
						silty clay. Grave						_		
						rounded chert oyster shell, til					ldi,	-		
0.76 - 0.85	PID			0.76								Į.		
						Disturbed Gro						İ		
						gravelly slightly coarse angular						Ł		
1.00 - 2.00	L					quartz.(0.55m)		chert and	are write	inc sub roc	inaca	- 1		
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				1.31	*******	Medium dense	yellowish b	orown grave	elly slightly	clayey fine	to	Ī		
						medium SAND						Ŀ		
						rounded chert	and rare wl	nite fine sub	rounded o	quartz. [Rive	er	-		
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1.65 - 1.75	PID				7							-		
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Ins	stallation	Remarks												

## Windowless Sample Borehole Log

212945

Project ID

Borehole No.

WS4

Sheet 1 of 1
ale: 1:2
Date Drilled

Project Title: Location: Chambers Bus Depot Chamber

Chambers Bus Depot, Church Square,

Client: Rose Builders

04/11/2021 **Rig Crew:** JV **Logged:** T

iailibeis bus L	'			ures, CO	8 5AB			Nose Bi					Rig C		JW TF
sting:				orthing:				Level (n	nAOD):				Logge		IF
Sam	ples & In Situ T	esting					Stra	ata Details	•					Grou	ndwater
Depth (mBGL)	Sample / Test ID	Test	Result	Level (mAOD)	Depth (mBGL)	Legend			Strata Descri	otion			Depth (mBGL)	Water Strike	Backfi Installa
0.00 - 1.00	L				,		Concrete - cored	d out.(0.19	m)				-		
													-		
0.20 - 0.25	PID				0.19		MADE GROUND	: Yellowish	n brown gra	velly slightly	clayey fin	e to	1		
0.20 - 0.50	ES						coarse sand. Gra								
							rounded chert, chert cobbles ar						t l		
0.50 - 0.65	PID				0.52	<u> </u>							<u>-</u>		
						<u> </u>	Soft yellowish b CLAY. Gravel is b						F		
						^×	chert. Faint hyd						F		
						×							ļ		
						×									
1.00 - 1.10	ES				1.00	× × :							<u> </u>		
1.00 - 1.10	PID				1.00		Soft dark yellow						1 1		::::=
1.00 - 2.00	L					×	is brown and bla white fine sub re						-		
						×	[River Terrace D			3 mic. myui	ocar borr o	uoui.	F		:::=
						× ->< :-	·		,				-		
													-		
1.50 - 1.60	PID					^X							-		
1.65 - 1.85	ES					×	Chained blook	with star	a hudra as:	an ada			ŧ l		
						××	Stained black	with strong	y riyarocarbi	on oaour.			-		
1.75 - 1.85	PID					<u> </u>							-		
						^×							-		
2.00 - 3.00	L					×							- 2		
2.00 3.00	-					×							- 1		
2.15 - 2.20	ES				2.13	3.33	Medium dense	greyish bro	own gravell	y fine to coa	rse SAND	with	†		
2.15 - 2.20	PID						occasional silty	fine sand p	ockets. Gra	vel is brow	n and black	c fine to	-		
							coarse angular t						ļ		_
							quartz. Hydroca Stained black			race Depos	its].(0.87m	1)	t		::.:-
2.50 - 2.60	PID						Stuffed black	LU 2.30111 L	ıyı.				-		.: :-
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2.90 - 3.00	PID												ļ		. : :-
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					3.00			Borehole	Complete	ed at 3.000	m				
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rehole Diameter	Casing D	iameter		1	L Chiselling	& Pits			Water Strike	:S		Ok	servati	ons	
oth (m) Diamete	r Depth (m)	Diameter	Depth Top	To (m)	Duration		Remarks			Sealed at (m)	Time Mins		m)	Rema	
3.00 115	1.00	115												groundv	vater
													see	pages	
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	allation Type	Dia (mm)	Remarks:												
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p (m) Base (m)	PLAIN	50	1	, ,	p 0 0 0 1 0 1 0 1		deptil due to ver	y dense na	ture or stra	ta.					

## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS5

Sheet 1 of 1

Project Title:
Chambers Bus Depot

Location:

Chambers Bus Depot, Church Square,

Client: Rose Builders Scale: 1:25

Date Drilled
04/11/2021

Rig Crew:

Chambers Bus [	Depot				pot, Chu	rch Square,	Rose Bu	ıilders				Rig C	04/11/2 rew:	2021
			Bures, CC	8 5AB			,					Logge	ed:	
Easting: San	nples & In Situ T	esting	Northing:			Str	Level (m ata Details	AUD):				Chec		ndwater
Depth	Sample /	Test Result	Level	Depth	Legend			Strata Descri	ption			Depth (mBGL)	Water Strike	Backfill/ Installation
(mBGL) - 0.00 - 1.00	Test ID L		(mAOD)	(mBGL)		Concrete - core	d out. DPM	l at base.(0	.12m)			- (111002)	26186	
- -				0.12	*******	MADE GROUNE	)· Brown an	nd black fin	e to coarse	angular to		-		
0.25 - 0.35	PID ES			0.25		rounded chert g \quartz gravel ar MADE GROUNE clay. Gravel is re	gravel with nd occasion D: Dark grey	occasiona al brick an vish brown	I white fine d concrete f slightly gra	to coarse r ragments.( relly slightl	0.13m) / y silty			
- 0.80 - 1.00 - 0.80 - 1.00	ES PID			0.79		Disturbed Grou						-		
1.00 - 1.45 1.00 - 2.00	SPT(C) L	N=4 (1/1,1,1,	1)			slightly gravelly black fine to co rounded quartz	arse angula	r to round	ed chert, ra			<b>1</b>		
- - 1.35 - 1.40	PID											-		
= =				1.44		Firm vollavish l	hraum and	arovich bro	uum eliahtlu	aravally sa	ndu ciltu	-		
- 1.50 - 2.00 - 1.80 - 1.95 - 1.90 - 1.95 - 2.00 - 2.45	ES PID SPT(C)	N=17 (7/4,4,4	.5)		× × × × × × × × × × × × × × × × × × ×	Firm yellowish I CLAY with rare I orange brown c coarse angular quartz. [River To	black carbo layey sand. to rounded	naceous m . Gravel is r chert and	aterial and are brown a rare white	rare pocke and black fi	ts of ne to	- - - - - - - - - -		
2.00 - 3.00	L				×	Grading to a					<i>6</i>	-		
- 2.00 - 3.00	PID SPT(C)	N=61		3.00	× · · · · · · · · · · · · · · · · · · ·	to medium S. angular to ro	AND. Gravel unded chert	is brown ar	nd black fine rhite fine sub	to coarse rounded qu		3		
		(22/16,15,15,1	.5)				Borenole	Сопрей	ed at 3.000	7111		4		
Borehole Diameter Depth (m) Diameter 3.00 115		iameter Diameter Depth 115	Тор То (т)	Chiselling Duratio		Remarks	-	Water Strike Casing at (m	es Sealed at (m)	Time Mins		No	ons Rema groundw pages	
Ins	tallation	Remar	ks:				I	I	1	1		1		
Top (m) Base (m				possible b	elow 3.0m	depth due to ver	y dense na	ture of stra	ta. Hole loc	ated inside	garage.			

## **Windowless Sample Borehole Log**

Project ID 212945

Borehole No.

WS6

Sheet 1 of 1 2: 1:25
Date Drilled

Location:

Client: Rose Builders

<b>roject Title:</b> nambers Bus [	Conot		Location:	· Puc Do	not Chu	rch Square,	Rose Builders					04/11/2	
iaiiibeis bus i	Jepot		Bures, CO		pot, Chu	ircii square,	Nose Builders				Rig C	rew:	ВС
sting:			Northing:	0 JAD			Level (mAOD):				Logge		TF
	mples & In Situ To		vortning:			Stra	ita Details				cnec		ındwater
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend		Strata Descr	iption			Depth (mBGL)	Water Strike	Backfi Installa
0.00 - 1.00	L		(IIIAOD)	(IIIBGL)	13.13.74	Concrete - cored	l out.(0.11m)						
0.15 - 0.25	PID			0.11 0.15		MADE GROUND	: Brown and black sli	ghtly clayey	fine to coar	se /	:		
0.15 - 0.50	ES			0.13		angular to round				/	-		
							: Soft to firm greyish re brown and black f				-		
						rounded chert a	nd rare white fine su		-	Г	-		
0.55 - 0.65	PID			0.52	****	fragments, and t	tile.(0.37m) nd: Yellowish brown i	mottled grev	ish hrown s	lightly	.		
					×	0	AY. Gravel is very rare				.		
					×	coarse angular t	o rounded chert.(0.6	5m)			:		
					×	2					:		
1.00 - 1.45	SPT(C)	N=10 (2/3,2,2,3	)		×	<u> </u>				F	- 1		
1.00 - 2.00	L				× × :	7				ŀ	-		
1.20 - 1.25	PID			1.17		Medium dense	orange brown clayey	fine to coars	se SAND an	<del></del>	-		
1.25 - 1.35	ES					· [	fine to coarse angul				-		
1.35 - 1.70	D				7	white fine sub roll (0.57m)	ounded quartz GRAV	EL. [River le	rrace Depos	its].	-		
						1				-	-		
										[	.		
				1.74							.		
							brown becoming lig AND. Gravel is brown				.		
						4	ded chert and rare w			L			
2.00 - 2.45	SPT(C)	N=33 (11/6,8,10,	∍)			[River Terrace De	eposits].(1.26m)				_ 2 -		
2.00 - 3.00	L					.]				-	:		
						.1							
											:		
										-	-		
2.55 - 2.75	ES					4				F			
2.65 - 2.75	PID									- E	-		
											-		
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3.00 - 3.45	SPT(C)	N=73		3.00		1					- - 3		
3.00 3.43	31 1(0)	(34/17,18,19,19	)	3.00			Borehole Complet	ed at 3.000	)m	-			
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rehole Diamete	r Casing D	)iameter		Chiselling	2 & Pits		Water Strik	es		Ohe	ervati	ons	
oth (m) Diamete	er Depth (m)	Diameter Depth To	p To (m)	Duratio		Remarks	Strike at (m) Casing at (m		Time Mins		n)	Rema	
3.00 115	1.00	115										groundy	vater
											see	epages	
Ins	tallation	Remark	;;					1					
p (m) Base (m	n) Type	Dia (mm) No samp	le recovery	possible b	elow 3.0m	depth due to very	dense nature of stra	ata. Hole loca	ated inside l	ous garage	e.		



## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS7

Sheet 1 of 1
cale: 1:25
Date Drilled

04/11/2021

**Project Title:**Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Bures. CO8 5AB

Rose Builders

Client:

Rig Crew: Logged:

nples & In Situ Tes Sample / Test ID L PID ES PID ES  ES PID  SPT(C) L  PID  SPT(C)		Level (mAOD)	Depth (mBGL) 0.09 0.32 0.63	Legend  X Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y	Strata Details	Logge Chec	ked:	Backfill Installati
Sample / Test ID  L PID ES  PID ES  SPT(C) L  D  PID	Test Result  N=10 (2/2,1,2,5)  N=57		0.09 0.32 0.63		Strata Description  Concrete - cored out.  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)  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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY. (0.52m)  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	Water	Backfi
Test ID  L PID ES  PID ES  SPT(C) L  D  PID	N=10 (2/2,1,2,5) N=57		0.09 0.32 0.63		Concrete - cored out.  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)  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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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	water Strike	
L PID ES PID ES  SPT(C) L  D  PID	N=57		0.09 0.32 0.63	X X - X - X - X - X - X - X - X - X	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. (IO.23m)  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. (IO.31m)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY. (IO.52m)  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]. (IO.85m)	1		
ES PID ES  ES PID  SPT(C) L  D	N=57		0.32	X	engineering brick and chert gravel infilled with greyish brown slightly clayey fine to coarse sand. Possible ACM sheet fragments. ((0.23m)  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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY. (0.52m)  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		
PID ES ES PID SPT(C) L	N=57		0.63	X	engineering brick and chert gravel infilled with greyish brown slightly clayey fine to coarse sand. Possible ACM sheet fragments. ((0.23m)  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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY. (0.52m)  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		
ES  ES  PID  SPT(C)  L  D	N=57		0.63	X X - X - X - X - X - X - X - X - X	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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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		
ES  ES  PID  SPT(C)  L  D	N=57		0.63	X	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)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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		
ES PID SPT(C) L D	N=57		1.15	X	and black slightly gravelly clay with rare sand pockets. Gravel is chalk, lime mortar, rare flint, burnt salt glazed earthenware.(0.31m)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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		
PID  SPT(C) L  D	N=57		1.15	X	chalk, lime mortar, rare flint, burnt salt glazed earthenware.(0.31m)  DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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		
PID  SPT(C) L  D	N=57		1.15	X	DISTURBED GROUND: Firm dark greyish brown slightly gravelly silty CLAY.(0.52m)  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		
PID  SPT(C) L  D	N=57			X	CLAY.(0.52m)  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)			
SPT(C) L D	N=57			X	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)			
D PID	N=57			X	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)			
D PID	N=57			X	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)			
D PID	N=57				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)			
D PID					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)	2		
PID					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)	2		
PID			2.00		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)	2		
			2.00		sub rounded quartz. Becoming less clayey with depth. [River Terrace Deposits].(0.85m)	2		
			2.00		Terrace Deposits].(0.85m)	2		
			2.00			2		
			2.00		Borehole Completed at 2.000m	2		
SPT(C)			2.00		Borehole Completed at 2.000m	2		
SPT(C)			2.00		Borehole Completed at 2.000m	2		
SPT(C)			2.00		Borehole Completed at 2.000m	2		
SPT(C)			2.00		Borehole Completed at 2.000m	2		
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tallatic :	Dom - ul-	<u> </u>						
t	r Depth (m) 1.00	Depth (m)   Diameter   Depth Top	r Depth (m) Diameter Depth Top To (m)  1.00 115 Remarks:	Depth (m)   Diameter   Depth Top   To (m)   Duratio	Depth (m)   Diameter   Depth Top   To (m)   Duration	r Depth (m) Diameter Depth Top To (m) Duration Remarks Strike at (m) Casing at (m) Sealed at (m) Time Mins Rose to ( 1.00 115  Remarks:	Casing Diameter Chiselling & Pits Water Strikes Observative To Depth (m) Diameter Depth Top To (m) Duration Remarks Strike at (m) Casing at (m) Sealed at (m) Time Mins Rose to (m) No see	Casing Diameter  Depth (m)   Diameter   Chiselling & Pits   Water Strikes   Observations   Depth (m)   Diameter   Depth Top   To (m)   Duration   Remarks   Strike at (m) Casing at (m)   Sealed at (m)   Time Mins   Rose to (m)   Remarks   No groundw   Seepages   Remarks   Rema

Chambers Bus Depot

## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS8

Sheet 1 of 1 ale: 1:25 Date Drilled

04/11/2021

Location:

Chambers Bus Depot, Church Square, Bures, CO8 5AB Client: Rose Builders

Rig Crew: Logged:

		Вц	ires, CO8	5AB			Rig C Logge		JW TF
sting:			orthing:			Level (mAOD):	Chec	ked:	
San Depth	nples & In Situ Te Sample /	1	Level	Depth		Strata Details	Depth	Grou	ndwater Backt
(mBGL)	Test ID	Test Result	(mAOD)	(mBGL)	Legend	Strata Description	(mBGL)	Strike	Install
0.40 - 0.50 0.40 - 0.65	PID ES			0.40		MADE GROUND: Asphalt planings.(0.40m)  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)  DISTURBED GROUND: Greyish brown slightly gravelly silty CLAY. Gravel is rare brown and black fine to coarse angular to rounded			
0.90 - 1.00 1.00 - 1.45 1.00 - 2.00	PID SPT(C) L	N=12 (2/3,3,3,3)		1.18		chert. (0.52m)	1		
1.20 - 1.30 1.40 - 1.80	ES D			1.16		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)	-		
1.60 - 1.70	PID			1.01					
2.00 - 2.45 2.00 - 3.00	SPT(C) L	N=12 (8/3,3,3,3)		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		
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		
							-		
orehole Diameter	Casing Di	ameter		Chiselling	& Pits	Water Strikes (	5 Dbservati	ons	
oth (m) Diamete	er Depth (m)	Diameter Depth Top	To (m)	Duration		Remarks Strike at (m) Casing at (m) Sealed at (m) Time Mins Rose to	(m)	Rema	
3.00 115	3.00	115						groundw pages	<i>r</i> ater
Ins	tallation	Remarks:							
p (m) Base (m	) Type	Dia (mm) No sample	recovery n	nssihla h	2 UM	depth due to very dense nature of strata.			

## **Windowless Sample Borehole Log**

Project ID 212945

Borehole No.

WS9

Sheet 1 of 1 Date Drilled

roject Title:			Location:				Client:		•				Date Drilled
hambers Bus D	Depot				pot, Chu	rch Square,	Rose Bu	uilders					09/11/2021 Crew: JW
			Bures, CC	8 5AB								Logg	
asting:			Northing:				Level (m	1AOD):				Chec	ked:
	nples & In Situ	Testing	Lovel	Donth	1	St	rata Details						Groundwater
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend		:	Strata Descri	ption			Depth (mBGL)	Water Backfill, Strike Installation
0.00 - 1.00 0.25 - 0.35 0.25 - 0.50	L PID ES			0.21		MADE GROUNI brown silty san coarse chert gr MADE GROUNI gravelly slightly Gravel is browr	d with rare avel.(0.21m D: Dark grey sandy silt v	red brick for n) yish brown with rare b	becoming of ack carbon	nd brown f dark brown aceous spe	slightly	-	
0.60 - 0.70 0.60 - 0.70	ES PID			0.58		red brick fragm ceramic and cir DISTURBED GR	nder. (0.37n OUND: Firm	n) n dark yello	wish brown	n slightly sa	ndy	- - -	
0.85 - 0.90	PID			0.82		slightly gravelly coarse sub ang rounded quart:	ular to rour					-	
1.00 - 1.45 1.00 - 1.50 1.00 - 2.00	SPT(C) D L	N=9 (3/2,2,2	2,3)			Medium dense gravelly slightly Gravel is brown and rare white (1.18m)  Occasional pyellowish brown	silty fine to and black fine sub rou ockets of da	o medium of fine to coal unded qual	occasionally rse angular tz. [River To	coarse SAI to rounded errace Dep	ND. I chert osits].	<b>1</b>	
1.60 - 1.70 1.60 - 1.70	ES PID					Becoming ve	ry dense					- - - - - -	
2.00 - 2.45 2.00 - 3.00	SPT(C) L	N=54 (13/15,13,13	,13)	2.00			Borehole	Complete	ed at 2.000	)m		2	
												3	
												- 4 4 	
	Carina			Chiallin	0.014			Mahar Chris		ı	O.b.	- - - - - - - 5	
Jorobala Dicesat		Diameter	h Top To (m)	Chiselling		Remarks		Water Strike Casing at (m)		Time Mins		servati n)	Remarks
		Diamotor Do-+		Duratio	"	nemat KS	purke at (m)	Leasure at (W)	scaled at (M)	Time Wills	nose to (r	11)	
epth (m) Diamete 2.00 115	Depth (m) 1.00	115											groundwater epages
2.00 115	r Depth (m) 1.00	115 Rema	arks:	noscible b	elow 2 0m	depth due to ve	ry dense no	ture of etro	ta ta				-

Project Title:

### **Windowless Sample Borehole Log**

Client:

Location:

**Project ID** 212945

Borehole No.

WS10 Sheet 1 of 1

**Date Drilled** 09/11/2021

Chambers Bus Depot Chambers Bus Depot, Church Square, Rose Builders Rig Crew: Bures, CO8 5AB Logged: Northing: Level (mAOD): Checked: Easting: Samples & In Situ Testing Strata Details Depth Sample / Depth Test ID (mAOD) (mBGL 0.00 - 1.00 MADE GROUND: Asphalt planings.(0.32m) 0.32 0.35 - 0.70 ES MADE GROUND: Red brick, aerated block with a matrix of greyish 0.35 - 0.70 PID brown silty sand.(0.43m) 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 1.00 - 1.45 SPT(C) N=29 (9/6,8,8,7) fine sub rounded quartz.(0.30m) 1.05 1.00 - 2.00 Dense dark yellowish brown gravelly becoming very gravelly 1.10 - 1.15 ES slightly silty fine to coarse SAND with occasional pockets of sandy 1.10 - 1.15 PID 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) 2.00 - 2.45 SPT(C) N=30 (12/6,7,7,10) 2 2.00 - 3.002.05 - 2.10 PID 2.48 2.50 - 3.00 D 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 3 3.00 - 3.05 PID (29/12,12,13,11) 3.00 - 4.00 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 3.70 - 4.00 ES rounded chert and rare white fine sub rounded quartz GRAVEL. Sand is pale yellowish brown fine to coarse. [River Terrace Deposits].(0.37m) 4.00 - 4.45 SPT(C) N=51 4.00 Borehole Completed at 4.000m (17/13,12,13,13) Borehole Diameter Casing Diameter Chiselling & Pits Water Strikes Observations Depth (m) Diameter Depth Top Strike at (m) Casing at (m) Sealed at (m) Time Mins Rose to (m) Depth (m) Diameter To (m) Duration Remarks 1.00 115 No groundwater 4.00 115 seepages Remarks: Installation Top (m) Base (m) Type Dia (mm) No sample recovery possible below 4.0m depth due to very dense nature of strata.

## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS11

Sheet 1 of 1 cale: 1:25 Date Drilled 09/11/2021

**Project Title:**Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Bures. CO8 5AB Client: Rose Builders

Rig Crew: Logged:

		В	ires, CO	8 5AB							ŀ	Logge	od·	TF
asting:		No	orthing:				Level (m	AOD):				Check	ked:	- ' '
Sa	mples & In Situ Te					Stra	ata Details	•					Grour	dwater
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend		S	Strata Descrip	otion			Depth (mBGL)	Water Strike	Backfi Installat
0.00 - 1.00	L		(IIIAOD)	(IIIBGE)	14,14,525	Concrete - cored	d out.(0.20i	m)						
						:					ŀ	:		
0.20 - 0.30	PID			0.20	*******	MADE GROUND	· Brick con	crete and i	mortar infil	ed with grev	/ish	-		
						brown clay.(0.94		ici ete unu i	nortal illin	ica with grey	,,,,,,	.		
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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 GRO	OUND: Verv	soft vellov	vish brown	mottled grev	vish	:		
1.15 - 1.25	PID					brown slightly s						.		:::=
				4 20		black fine to coa	arse angula	r to rounde				:		· : :
1.40 - 1.75	D			1.38		sub rounded qu					/	.		::: <u>-</u>
						Medium dense						-		
						angular to round GRAVEL infilled						.		::.:-
						clay. [River Terra			Slightly Sai	idy siigiitiy g	lavelly	:		·: :=
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	00=(0)											.		::::
2.00 - 2.45	SPT(C)	N=74 (20/17,17,20,20)		2.00			Borehole	Complete	d at 2.000	)m		_ 2		
		(20/17,17,20,20)										:		
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rehole Diamete	er Casing Di	ameter	I .	L Chiselling	& Pits	<del>'</del>	٧	Water Strike	S		Obs	ervatio	ons	
oth (m) Diamet	ter Depth (m)	Diameter Depth Top	To (m)	Duratio		Remarks				Time Mins F			Rema	rks
2.00 115	1.00	115											groundw	ater
												see	pages	
1	1	I	1	1	1	J			I	1		1		

Dia (mm)
No sample recovery possible below 2.0m depth due to very dense nature of strata. Hole located inside bus garage.

Remarks:

Installation

Base (m) 1.00

2.00

Type PLAIN

SLOTTED

50

Top (m) 0.00

1.00

## Windowless Sample Borehole Log

Project ID
212945

Borehole No.

WS12

Sheet 1 of 1 ale: 1:25 Date Drilled

09/11/2021

**Project Title:**Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Bures, CO8 5AB

Rose Builders

Client:

Rig Crew: Logged:

			Bures, CO	0 3/10				100				Logge		TF
sting: Sam	ıples & In Situ T		lorthing:				Level (m Strata Details	nAOD):				Chec		ndwater
Depth	Sample /	Test Result	Level	Depth	Legend			Strata Descrip	tion			Depth	Water Strike	Backfi Installat
(mBGL) 0.00 - 1.00	Test ID L	rest nesare	(mAOD)	(mBGL)	19.15.55	Concrete - co						(mBGL)	Strike	Installa
0.00 1.00	_					Concrete to	100 000.(0.17	,						
0.20 - 1.00	ES			0.17		MADE GROU	ND: Crushed	red brick, m	ortar, cinde	er, clinker,	olaster,			
0.20 - 1.00	PID					pottery fragn								
						occasional ch			lled with gr	eyish brov	vn			
						slightly sandy	clay. (1.11m	)				-		
												-		
												-		
												-		
1.00 - 1.45	SPT(C)	N=4 (1/1,1,1,1)										- 1		
1.00 - 2.00	L (c)	(2/2/2/2/2/										-		
												-		
				1.20								-		
1.30 - 1.50	ES			1.28		Loose to med								
1.30 - 1.50	PID					slightly grave						-		
						brown and b						-		
						and rare whit (1.12m)	e fine sub ro	unded quari	z. ĮKiver Te	rrace Dep	ositsj.	-		
					7	(1.12111)						-		
												-		
												-		
2.00 - 2.45	SPT(C)	N=4 (3/1,2,1,0)			77.	1						<del>-</del> 2		
2.00 - 3.00	L											-		
					-							-		
												_		
2.40, 2.50	DID			2.40								-		
2.40 - 2.50	PID			2.40		Medium den						-		
						gravelly fine						-		
						to rounded c			ub rounde	d quartz. [	River			
						Terrace Depo	sits].(0.60m)					-		
3.00 - 3.45	CDT/C)	N=42		3.00		1						-		
3.00 - 3.43	SPT(C)	(10/9,9,11,13)		3.00			Borehole	e Complete	d at 3.000	m		<del>-</del> 3		
		(10,3,3,11,13)										-		
												-		
												-		
												-		
												-		
												-		
												-		
			1									<b>-</b> 4		
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			1											
			1									-		
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			1									-		
			1									-		
			1									-		
			1											
			1									-		
			1									-		
					<u></u>							<sup>-</sup> 5		<u></u>
rehole Diameter				Chiselling				Water Strike				servati		
oth (m) Diameter		Diameter Depth Top	To (m)	Duratio	n	Remarks	Strike at (m	Casing at (m)	Sealed at (m)	Time Mins	Rose to (n		Rema	
3.00 115	1.00	115		1									groundw	vater
				1								see	pages	
				1										
		1	1	1	1							1		
					_		-							
Inst p (m) Base (m)	allation Type	Dia (mm) No sampl				depth due to v				. 13 3				

## **Windowless Sample Borehole Log**

Project ID 212945

Borehole No.

**WS13** 

Sheet 1 of 1 Date Drilled

09/11/2021

Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Client: Rose Builders

Rig Crew:

			Вι	ures, CO	8 5AB								Rig C Logge		JW TF
sting:	ulas Qua Cita Ta		No	orthing:				Level (m	nAOD):				Chec	ked:	
Depth	ples & In Situ Te Sample /		Result	Level	Depth	Legend	;	Strata Details	Strata Descri	ntion			Depth	Water	ndwater Backfi
(mBGL) 0.00 - 1.00	Test ID L	lest i	resuit	(mAOD)	(mBGL)	Legend	Concrete - co			ption			(mBGL)	Strike	Installat
0.00 1.00	-						001101010		,				-		
					0.18		MADE GROU	ND: Crushed	red brick ar	nd concrete	.(0.18m)		-		
					0.36								-		
0.40 - 1.00 0.40 - 1.00	ES PID						MADE GROUI clay. Gravel is						-		
							brown and bl	ack fine to co	arse angula	ar to round	ed chert an		F		
							white fine sul	rounded qu	iartz, cinde	r, tile and as	sh.(0.99m)				
													-		
													-		
1.00 - 2.00	L												- 1		
													-		
													-		
1.35 - 1.40	ES				1.35								[		
1.35 - 1.40	PID				1.33		Brown and bl white fine sul								
1.50 - 2.00	D						brown mottle						-		
							sandy clay. [R	iver Terrace [	Deposits].(1	L.26m)			-		
													-		
2.00 - 3.00	L												[ - 2		
2.00 3.00	-														
													-		
													-		
													-		
													[		
2.65 - 2.70	PID				2.61		Yellowish bro	wn and light	vellowish h	rown slight	ly gravelly	fine to	-		
2.03 2.70	110						coarse SAND.	Gravel is bro	wn and bla	ck fine to c	oarse sub a	ngular	-		
						7	to sub rounde [River Terrace			fine sub rou	ınded quar	tz.	-		
					2.00		inver lendee	Deposits].(o					-		
					3.00			Borehole	Complete	ed at 3.000	)m		3		
													-		
													_		
													-		
													-		
													[		
													-		
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													ļ		
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													- 5		
orehole Diameter pth (m) Diamete			Depth Top	To (m)	Chiselling Duratio		Remarks		Water Strike Casing at (m)		Time Mins		servati m)	ons Rema	arks
3.00 115	1.00	115	- , rop	- \'''	2.00.0				, 5 == ()			1 22 23 (1	No	groundv	
														epages countere	d
													Cill		
	1 1		N	<u> </u>					1	1	L				
Inst	allation		Remarks:												

June 2022

Appendix (iii) Borehole Logs

June 2022

#### 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 SampleB Bulk Sample

ES Environmental Sample
PID Sample for total VOC screen

L Liner Tube SampleU 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.

## **Cable Percussion Borehole Log**

Project ID Borehole No. BHA 212945

Sheet 1 of 1

**Date Drilled** 09/02/2022

er

Location: Chambers Bus Depot

Chambers Bus Depot, Church Square,

Client:

Chambers Bus	Depot				pot, Chu	rch Square,	Rose Bui	lders			Rig C	09/02/2 crew:	2022 SW
			Bures, CO	8 5AB							Logg	ed:	TF
asting:	Samples & In Situ Testi	nø	Northing:			Ctra	Level (m/	AOD):			Chec		ndwater
Depth	Sample /	Test Result	Level	Depth	Legend	3118		trata Descriptio	n		Depth	Water	Backfill/
(mBGL)	Test ID	lest nesult	(mAOD)	(mBGL)	Legenu	MADE GROUND					(mBGL)	Strike	Installation
0.50 0.50	ES PID			0.30		MADE GROUND rare red brick ar coarse sub angu	: Crushed cond cinder fra clar to rounce	oncrete of fin agments, bro ded chert gra	e to coarse grawn and white the vel infilled with	fine to			
1.00 1.00	ES PID					Soft dark greyish occasional decay fine angular to s	n brown slig yed plant m	htly gravelly aterial. Grave	slightly silty CL el is rare browr	and white	1		
1.50 1.50 2.00	ES PID ES			1.90		Black brown and						Water Added	
2.00 2.50 2.50	PID ES PID					slightly sandy ch hydrocarbon od				i strong	- - - -	=1000 I	
3.00 3.00	ES PID										- 3		
3.50 3.50 4.00	ES PID ES			3.70		Yellowish brown black brown and Faint hydrocarbo	white fine	to coarse an	gular to sub ro	unded chert.	- 4		
4.00 4.50 4.50	PID ES PID					rame nyulocarbe	on ododi. [F	uver reridie	pepositsJ.(1.53	y	-		
5.00 5.00	ES PID			5.25		Greyish brown s	lightly grave	elly fine to co	arse SAND. Gr	avel is brown	5		
5.50 5.50	ES PID					white and black Terrace Deposits	fine to coar				- - - -		
6.00 6.00	ES PID			6.00	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Borehole (	Completed :	at 6.000m		6		
											- - - 7 - -		
											- - - 8		
											- - - - 9		
Chr. et	P. End of Shift Oliver	potions	Darrel	olo Diagra	tor Co	loing Diameter 15	Do wo o where				- 10		
Date T	E & End of Shift Obse Fime Depth (m) 3:00 6.00	Casing (m) Wat	Borer (er (m) Depth ( .00 6.00		mm) Dept	h (m) Dia (mm)	Remarks: Groundwate	r ingress mas	ked by water a	idded to aid d	rilling.		
									Groundwater	Observations			
	Chiselling & Pits				Installation		Strike at (m)	Casing at (m)			Rose t	o (m)	Remarks
om (m) To (m)	) Duration	Remarks	Top (n		(m) Ty							N	0
0.30 1.00	01:00 Ser	vice pit	0.00	3.0	00 PLA	AIN 50						gr	oundw

3.00

SLOTTED

6.00

50

### **Cable Percussion Borehole Log**

Project ID Borehole No. BHB 212945

Sheet 1 of 1 Date Drilled

09/02/2022

er seepage

Chambers Bus Depot

3.00

6.00

SLOTTED

Location:

Chambers Bus Depot, Church Square

Client: Rose Builders

ambers Bus	Depot				epot, Ch	urch Square,	Rose Bu	ilders			Rig C	09/02/2	.022 SW
			Bures, CO	08 5AB							Logge		TF
sting:			Northing:				Level (m	AOD):			Chec	ked:	
	imples & In Situ Test	ing				Str	ata Details				4		ndwater
Depth (mBGL)	Sample / Test ID	Test Result	Level (mAOD)	Depth (mBGL)	Legend		S	trata Descriptio	n		Depth (mBGL)	Water Strike	Backf Installa
0.50 0.50	ES PID		(IIIAOD)	0.15		MADE GROUNE MADE GROUNE gravelly slightly coarse angular red brick and co	D: Firm greyi sandy clay, to sub round	sh brown and Gravel is brov ded chert witl	yellowish brown white and I	olack fine to	- - - - -		
1.00 1.00	ES PID			0.90	× × × × × × × × × × × × × × × × × × ×	Yellowish brow	wish brown	clay pockets.	Gravel is brow	vn white and	1		
1.50 1.50	ES PID			1.30	×	black fine to co Deposits] (0.40 Yellowish brow fine to coarse a	m) n fine to coa	rse SAND and	l black brown	and white	<u>/</u> E	Water Added	
2.00 2.00	ES PID					gravel. [River Te			AVEL, locally	a sanuy	_ 2	=1000	
2.50 2.50	ES PID					Slight hydroc	arbon odour	noted at 2.80r	m bgl				
3.00 3.00	ES PID										- 3		-
3.50 3.50	ES PID					Slightly grey	staining						-
4.00 4.00	ES PID										4		
4.50 4.50	ES PID										-		
5.00 5.00	ES PID										<b>-</b> 5		
5.50 5.50 6.00 6.00	ES PID ES PID			5.70 6.00		Yellowish brow black and white and rare white (0.30m)	fine to coa	rse sub angula	ar to sub roun	ded chert	6		• • • •
						(U.SUIII)	Borehole	Completed a	at 6.000m		-		
											- 7 -		
											- 8		
											- - - 9		
											10		
	& End of Shift Obse			hole Diam			Remarks:					•	•
	me Depth (m) 5:00 6.00	Casing (m) Wat 6.00 2	ter (m) Depth 2.60 6.0			oth (m) Dia (mm) 5.00 150	Groundwate	r ingress mas	ked by water a	added to aid d	rilling.		
										Observations			
	Chiselling & Pits				Installatio		Strike at (m)	Casing at (m)	Sealed at (m)	Time (min)	Rose t		Remar
n (m) To (m)	Duration	Remarks	Тор (			ype Dia (mm)						No.	
.15 1.00	01:00 Ser	rvice pit	0.0			LAIN 50						-	oundv
			3.0	0 6.	00 SLC	OTTED 50				1		er	seepa

## Cable Percussion Borehole Log

212945

Project ID

Borehole No. BHC

Sheet 1 of 1

Scale: 1:50

Date Drilled
10/02/2022

Chambers Bus Depot

10-02-2022

From (m)

0.30

12:00

To (m)

1.00

6.00

Chiselling & Pits

Duration

01:00

6.00

Service pit

Remarks

2.80

6.00

Top (m)

0.00

3.00

150

Base (m)

3.00

6.00

Installation

6.00

Type PLAIN

SLOTTED

150

Dia (mm)

50

50

Groundwater Observations

Remarks

er seepages

No groundwat

Strike at (m) Casing at (m) Sealed at (m) Time (min) Rose to (m)

**Location:**Chambers Bus Depot, Church Square,
Bures, CO8 5AB

Rose Builders

Client:

Rig Crew: Logged:

ing:			Northing:			Level (mAOD):	Chec	ed:	I F
	mples & In Situ Test		i toi tiiiligi			Strata Details	Cited		ndwater
Depth	Sample /		Level	Depth	Logond		Depth	Water	Backfill,
(mBGL)	Test ID	Test Result	(mAOD)	(mBGL)	Legend	Strata Description	(mBGL)	Strike	Installatio
						MADE GROUND: Reinforced Concrete.(0.30m)	t		<b>X</b>
				0.30	******	MADE GROUND: Yellowish brown slightly sandy gravelly clay.	-		
0.50	ES					Gravel is brown black white fine to coarse sub angular chert,	F		
0.50	PID					occasional fine to coarse concrete and fine brick fragments. (0.70n	a)		<b>&gt;</b>
						occasional line to course concrete and line shok magnitudes, on	"		
1.00	ES			1.00			1		
1.00	PID			1.00		DISTURBED GROUND: Soft yellowish brown slightly sandy slightly	1		
1.00	110					gravelly slightly silty clay. Gravel is brown and white fine to coarse	į		
				1.40	********	chert and rare brick.(0.40m)	_		
1.50	ES					Yellowish brown slightly gravelly clayey silty fine SAND. Gravel is	-	Water	
1.50	PID					white and brown fine to coarse angular to sub rounded chert.	+	Added	
				1.90	-	[River Terrace Deposits].(0.50m)	<del>_</del>	=1000 l	
2.00	ES					Yellowish brown fine to coarse SAND and brown, white and black	_ 2		
2.00	PID					fine to coarse angular to sub rounded chert and rare white fine	-		
						quartz GRAVEL. Locally slightly sandy gravel. [River Terrace	t		
2.50	ES					Deposits].(4.10m)	-		
2.50	PID						į		
							-		
3.00	ES						- 3		
3.00	PID						} `		. : :
5.55							-		–
2.50	FC .						-		::::-
3.50 3.50	ES PID						F		
3.30	PID						Ė		
							-		::::
4.00	ES						_ 4		
4.00	PID					4	-		
							Ī		:
4.50	ES						F		
4.50	PID						ļ.		
						q	-		. :-
5.00	ES						- - 5		· · · -
5.00	PID						-		
							-		l : :-
5.50	ES						Ĺ		· · · -
5.50	PID						-		
3.30	115					· •	Ī		· :-
6.00	50			6.00		1	+ _		–
6.00	ES			6.00		Borehole Completed at 6.000m	6		
6.00	PID					·	t		
							F		
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					<u> </u>		_ 10		<u> </u>
Start 8	& End of Shift Obs	ervations	Boreh	ole Diame		sing Diameter Remarks:			
		Casing (m) Water				h (m) Dia (mm) Groundwater ingress masked by water added to aid	drilling.		
12 2022   12	.00 6.00	600 20	n I 6 nn	15	n I 6	00 150	_		

01:00

1.00

Service pit

3.00

6.00

SLOTTED

50

### **Cable Percussion Borehole Log**

212945

Project ID

Borehole No. BHD

Sheet 1 of 1 Date Drilled 10/02/2022

groundwat

er seepages

Chambers Bus Depot

Location: Chambers Bus Depot, Church Square, Client: Rose Builders

Chambers Bus		Chambers Bus Depot, Church Square, Bures, CO8 5AB								Rig C	10/02/2 crew:	2022 SW	
				8 5AB							Logge	ed:	TF
asting:	amples & In Situ Testi	ng	Northing:			Stu	Level (m/	AOD):			Chec		ndwater
Depth	Sample /	Test Result	Level	Depth	Legend	50		trata Descriptio	n		Depth	Water Strike	Backfill
(mBGL)	Test ID		(mAOD)	(mBGL)	12,72,72	MADE GROUNI					(mBGL)	Strike	Installati
											-		
0.50	ES			0.40		MADE GROUNI	D; Dark yello	wish brown s	lightly clayey s	lightly	† '		
0.50	PID					gravelly fine to pockets. Grave							
						rounded chert,					-		
1.00 1.00	ES PID					(1.00m)					- 1		
				1.40							_ [		
1.50	ES			1.40		DISTURBED GR		•			-		
1.50	PID					gravelly fine to pockets. Grave					-		
2.00	ES			1.90	*******	rounded chert	and rare brid	ck. (0.50m)			/- <sub>2</sub>		
2.00	PID				7.	Dark yellowish medium SAND					-		
				2.30		brown black an					/ I		
2.50 2.50	ES PID					Terrace Deposi Dark brown slig		liabth, arous	lu siltu fina CAI	ID with	/		
2.50				2.80		occasional blac					-		
3.00	ES					white and brov	vn fine to coa				- 3	Water	·
3.00	PID					Deposits].(0.50 Yellowish brow		rse slightly g	ravelly fine to	narse SAND	/ [	Added	
3.50	ES			3.40		with rare clay p					£ '	=1000	–
3.50	PID					rounded chert.					/ <u> </u>		-: <u> -</u>
						Yellowish brow fine to coarse s					- '		
4.00	ES					greyish brown	silty clay poc				- 4		:: :=
4.00	PID					Deposits].(2.60	m)						
4.50	ES					.1					-		
4.50	PID										ļ. '		
5.00 5.00	ES PID										<del>-</del> 5		.:.=
5.00											-		
5.50	ES										- 1		
5.50	PID					1					[		
6.00	ES			6.00							6		–
6.00	PID			0.00			Borehole (	Completed	at 6.000m		"		
											- '		
											7		
											-		
											-		
											<b>8</b>		
											-		
											-		
											-		
											-		
											<del>-</del> 9		
											-		
											-		
											-		
					1	<u> </u>					<sup>-</sup> 10		
Date T	& End of Shift Obse ime Depth (m) ( 5:00 6.00	Casing (m) Wa	ter (m) Depth (		nm) Dept	h (m) Dia (mm)	Remarks: Groundwate	r ingress mas	ked by water a	dded to aid o	frilling.		
									Groundwater	Observation	s		
	Chiselling & Pits				Installation		Strike at (m)	Casing at (m)		Time (min)	Rose t		Remark
m (m) To (m) 0.40 1.00	Duration 01:00 Ser	Remarks vice pit	Top (n									N gr	o oundw
I.UU	1 01.00   361	VICE PIL	1 0.00	ا.د	, I FLA	v   JU		1	1	i	1	1 51	JuliuW

June 2022

Appendix (iv)
Trial Pit Logs

June 2022

#### 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 SampleB Bulk Sample

ES Environmental Sample
PID Sample for total VOC screen

L Liner Tube SampleU 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.

### **Trial Pit Log**

Project ID 212945

Trial Pit No. TP1

Sheet 1 of 1

Location: Client:

**Date Excavated** Chambers Bus Depot Chambers Bus Depot, Church Square, Rose Builders 25/02/2022 Bures, CO8 5AB Logged: Easting: Northing: Level (mAOD): Checked: Samples & In Situ Testing Strata Details dwater Depth Sample / Level (mBGL Test ID (mAOD) (mBGL MADE GROUND: Asphalt Planings(0.28m) 0.28 0.30 - 0.40 ES MADE GROUND: Brick and concrete fragments of fine gravel to cobble size with rare glass and plastic. (0.29m) 0.57 Firm yellowish brown slightly gravelly silty CLAY. Gravel is brown, <u>>e</u> white and black fine to coarse angular to rounded chert.(0.86m) 0.70 - 0.80 ES ২৫ 1.43 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 2.38 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 3 44 Trial Pit Completed at 3.440m 4 Pit Dimensions Pit Stability and Comments Water Strikes Observations Pit Width (m) Pit Stability Shoring Used Time Mins Rose to (m) Pit Length (m) Remarks Strike at (m) Sealed at (m) Remarks 2.20 Stable No groundwater 0.60 None seepages encountered

Plant Used: JCB 3CX

Remarks:

### **Trial Pit Log**

Project ID

Trial Pit No.

Sheet 1 of 1

www.compassgeotechnical.co.uk Project Title: Location: Client: **Date Excavated** Chambers Bus Depot Chambers Bus Depot, Church Square, Rose Builders 25/02/2022 Bures, CO8 5AB Logged: Easting: Northing: Level (mAOD): Checked: Samples & In Situ Testing Strata Details dwater Depth Sample / (mBGL Test ID (mAOD) (mBGL MADE GROUND: Asphalt planings.(0.08m) 0.08 MADE GROUND: Dark greyish brown and black slightly gravelly sandy clay. Gravel is black, brown and white fine to coarse sub 0.20 - 0.30 ES angular to rounded chert with occasional asphalt planings, concrete and brick of fine gravel to cobble size.(0.57m) 0.65 Soft yellowish brown slightly gravelly silty CLAY. Gravel is rare 0.70 - 0.80 ES ৽ brown, white and black fine to coarse angular to rounded chert. <u>>ং</u> (0.81m)<u>১</u> 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) 3.00 Trial Pit Completed at 3.000m 4 Pit Dimensions Pit Stability and Comments Water Strikes Observations Pit Width (m) Pit Stability Time Mins Rose to (m) Pit Length (m) Shoring Used Remarks Strike at (m) Sealed at (m) Remarks 3.00 Stable No groundwater 0.60 None seepages encountered Plant Used: Remarks: JCB 3CX

#### Project ID Trial Pit No. **Compass Geotechnical** TP3 13 Willow Park, Stoke Golding **Trial Pit Log** 212945 CV13 6EU Sheet 1 of 1 www.compassgeotechnical.co.uk Client: Location: **Date Excavated** Chambers Bus Depot Chambers Bus Depot, Church Square, Rose Builders 25/02/2022 Bures, CO8 5AB Logged: Easting: Northing: Level (mAOD): Checked: Samples & In Situ Testing Strata Details dwater Sample / Test Result (mBGL Test ID (mAOD) (mBGL MADE GROUND: Scrub over very dark grey/black sandy gravelly 0.10 - 0.20 ES clay. Gravel is brown, black and white fine to coarse angular to sub rounded chert with occasional brick and concrete fragments. 0.20 - 0.30 ES 0.20 (0.20m) 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) 2 Hole continually collapsed during excavation. 2.50 Trial Pit Completed at 2.500m 3

Pit Dim	ensions		Pit Stability an	d Comments	Water	Strikes		Obse	rvations
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:

	Compass Geo 13 Willow Park, S CV13 6 www.compassgeo	Stoke Golding SEU			Tria	l Pit Lo	g		Project II	5		TP4 Sheet 1	
Project Title: Chambers Bu			Location:		pot, Chu	rch Square,	Client: Rose Builder	S			Da	i <b>te Exca</b> 25/02/2	vated
Easting:			Northing:				Level (mAOD)	:		C	heck	ed:	RF
Depth	Samples & In Situ Testi Sample /		Level	Depth	Legend	Str	ata Details	lescription			Depth	Water	dwater Backfill/
Deptn (mBGL)	Sample / Test ID	Test Result	Level	0.03  0.35	Legend	MADE GROUNI with occasional clayey sand.(0.3	o: Asphalt(0.03m) o: Concrete and b plastic, timber a s2m) o encountered (old	rick of fine grave nd metal in a yel	llowish brov	size -	Depth mBGL)	Water Strike	Bacfil/ Installation
											2		
D	it Dimensions	1	Di+	Stability an	d Comment	<u> </u>	Water	Strikes		Obse		ins	
Pit Length (m	n) Pit Width		ability Sho	ring Used		Remarks	Strike at (m)	Sealed at (m)	Time Mins			Rema	
3.00	2.50		ible	None							see	groundw pages puntered	

Plant Used:

JCB 3CX

Remarks:

## **Compass Geotechnical** 13 Willow Park, Stoke Golding CV13 6EU Project Title: Chambers Bus Depot Easting: Samples & In Situ Testing

### **Trial Pit Log**

Project ID

Trial Pit No. TP5

212945 Sheet 1 of 1 www.compassgeotechnical.co.uk Client: Location: **Date Excavated** Chambers Bus Depot, Church Square, Rose Builders 25/02/2022 Bures, CO8 5AB Logged: Northing: Level (mAOD): Checked: Strata Details dwater Depth (mBGL) Depth Sample / Test Result (mBGL Test ID (mAOD) 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 0.30 - 0.40 ES cable, fabric and plastic in occasionally infilled with greyish brown clay.(2.39m) 1.00 - 1.10 ES 2 Hole continually collapsed during excavation. 2 45 Trial Pit Completed at 2.450m 3 4 Pit Dimensions Pit Stability and Comments Water Strikes Observations Pit Width (m) Pit Stability Time Mins Rose to (m) Pit Length (m) Shoring Used Remarks Strike at (m) Sealed at (m) Remarks 2.20 0.60 Unstable None No groundwater seepages encountered Plant Used: Remarks: JCB 3CX

June 2022

## Appendix (v) Photolonisation Detector Results – Soil Samples



#### PHOTO IONISATION DETECTION RESULTS

Site	Chambers Bus	Garage, Bures		
Date	5 <sup>th</sup> November 3	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	

June 2022

Site	Chambers Bus	Garage, Bures		
Date	5 <sup>th</sup> 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

June 2022

Site	Chambers Bus	Garage, Bures		
Date	9 <sup>th</sup> February 20	)22	Operative	TF
Location	Depth (m)	Peak Reading (ppm)	Residual Reading (ppm)	Comment
BHA	0.5	0.3		
	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		Readings taken
	5.5	0.3		as drilling
	6.0	0.3		progressed to
ВНВ	0.5	0.4		assess extent of
	1.0	0.2		contamination
	1.5	0.5		in soils
	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		

June 2022

Site	Chambers Bus	Garage, Bures		
Date	10 <sup>th</sup> February 2	.022	Operative	TF
Location	Depth (m)	Peak Reading (ppm)	Residual Reading (ppm)	Comment
BHC	0.5	0.2		
	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		Readings taken
	5.5	0.2		as drilling
	6.0	0.3		progressed to
BHD	0.5	0.3		assess extent of
	1.0	0.2		contamination
	1.5	0.2		in soils
	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		

June 2022

Appendix (vi)
Gas Monitoring Results

## **Gas and Groundwater Monitoring Record Sheet**

Site		Chambers Bus Depot, Bures WS1											Job No			212945
Position		WS1											Technicia	ın	СТ	
Response 2	Zone	Top m bg	i	1.	00	Bottom r	n bgl	3.	.00	Response	Zone Str	atum	MG/RTD			
Date	Depth m bgl	Meti % Peak	hane %		<b>Dixoide</b> %	_	ygen % Steady		Monoxide pm Steady		Sulphide om	Atmospheric Pressure mBar	Relative Pressure mBar		Flow /h Steady	Water Level m bgl
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
Observation			ble		ble		able		able	-	ble	Rising	0.07		able	al y
Ambient Co			.1		.1		1.3		0		0	1022	Weather (		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
Observation	าร	Stable Stable Stable Stable Stable				High		Stable								
Ambient Co	nditions	0.	.1	0	.1	2:	1.2		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
Observation			ble		ble		able	•	able		ble	Falling	0.03		able	G., 7
Ambient Co	nditions	0.	.1	0	.1	2:	1.5		0		0	1027	Weather (		Overcast 6	5°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
Observation			ble		ble		able	Sta	able	Sta		Falling			able	
Ambient Co	nditions	0.	.1	0	.1	2:	1.3		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
Observation	าร	Sta	ble	Sta	ble	Sta	able	Sta	able	Sta	ble	High		St	able	·
Ambient Co	nditions	0.	.1	0	.1	2:	1.4		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	des
Observation			ble		ble		able	-	able		ble	Low	0.05		able	dry
Ambient Co							0		0	993	Weather (		Overcast 7	"°C		
		0.1 0.1														
Comments		N/R = Not Recorded														

## **Gas and Groundwater Monitoring Record Sheet**

Site		Chambers Bus Depot, Bures WS2											Job No			212945
Position		WS2											Technicia	ın	СТ	
Response 2	Zone	Top m bg	;I	1.	00	Bottom ı	n bgl	4.	00	Response	e Zone Str	atum	MG/RTD			
										l						
	Depth	Metl		Carbon	Dixoide	Оху	/gen	Carbon N	/lonoxide	Hydroger	Sulphide	Atmospheric	Relative		Flow	Water
Date	m bgl	9	6	9	%	9	%	p	om	pp	om	Pressure	Pressure	I,	/h	Level
		Peak	Steady	Peak	Steady	Low	Steady	Peak	Steady	Peak	Steady	mBar	mBar	Peak	Steady	m bgl
					1		1		1		1	T	1			
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
Observation			ble		ible		able		ble		ble	Rising			able	10.0
Ambient Co	nditions	0.	.1	0	.1	2:	1.7		0		0	1022	Weather 0	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
Observation			ble	le Stable Stable Stable Hig					High	1		able	J.,			
Ambient Co	nditions	0.					1022	Weather Conditions Overcast 1°C								
				0.1												
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
Observation	-		ble		ble		able	Sta	ıble	Sta	ble	Falling			able	
Ambient Co	nditions	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
Observation			ble		ble		able		ible		ible	Falling	0.02		able	ury
Ambient Co	nditions	0.	.1	0	.1	2:	2.2		0		0	1006	Weather (		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
Observation	-	Sta			ble		able	Sta	ble	Sta	ble	High			able	
Ambient Co	nditions	0.	.1	0	.1	2.	2.2		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
Observation			ble		ble		able	-	ble		ble	Low	0.02		able	5.27
Ambient Co								0		0	994	Weather (		Overcast 7	°C	
		0.12														
Comments																
		N/R = Not Recorded														



## **Gas and Groundwater Monitoring Record Sheet**

Site		Chamber	s Bus Dep	ot, Bures									Job No			212945
Position		WS4											Technicia	ın	СТ	
Response	Zone	Top m bgl		1.	00	Bottom r	n bgl	3.	00	Response	e Zone Str	atum	MG/RTD			
Date	Depth m bgl		hane % Steady		<b>Dixoide</b> 6 Steady		<b>/gen</b> % Steady		<b>Monoxide</b> om Steady		Steady	Atmospheric Pressure mBar	Relative Pressure mBar		Flow /h Steady	Water Level m bgl
14.11.21 Observation			0.1		1.3 ial fall		20.4 ual rise		0 ible		0 able	1022 Rising	0.05		0.1	dry
Ambient Co	nditions	0	.1	0	.1	2:	1.8		0		0	1021	weather (	Londitions	Overcast 7	, · (
23.11.21 Observation	2.79 ns	0.1 Sta	0.1 ble	1.8 Gradu	1.2 ıal fall	19.5 Gradu	20.7 ual rise	0 Sta	0 ble	0 Sta	0 able	1022 High	0.03	0.1 Sta	0.1 able	dry
Ambient Co	Ambient Conditions		.1	0	.1	22	2.2	(	0		0	1022	Weather (	Weather Conditions Overcast 1°C		l°C
20.12.21  Observation  Ambient Co			0.1 ble		2.1 ual fall		20.3 able 2.1		0 ble		0 able	1028 Falling 1028	0.00		0.1 able Overcast 6	dry
07.01.22 Observation	2.78	0.1	0.1	2.9	2.0	18.5	20.4	0	0 ble	0	0 able	1007 Falling	0.07	0.1	0.1	dry
Ambient Co		0	.1	0	.1	22	2.5		0		0	1006	Weather (		Clear and	cold 3°C
13.01.22 Observation			0.1 ble		1.4 ual fall		21.5 ual rise		0 ble		0 able	1039 High	0.09		0.2	dry
Ambient Co	nditions	0	.1	0	.1	2.	2.5		0		0	1039	Weather (	Conditions	Frosty 0°C	
14.02.22  Observation  Ambient Co			0.1 ble		1.8 Ial fall		19.9 ual rise 2.0		0 lble		0 able	994 Low 994	0.09 <b>Weather (</b>		0.2 able Overcast 7	dry 7°C
Comments			gases moi	nitored fo	r 10 minu	tes rather	than 5 mi	nutes		•		-				

## **Gas and Groundwater Monitoring Record Sheet**

Site		Chamber	s Bus Dep	ot, Bures									Job No			212945
Position		WS11											Technicia	ın	СТ	
Response 2	Zone	Top m bg	ţl .	1.	00	Bottom ı	n bgl	3.	00	Response	e Zone Str	atum	MG/RTD			
Date	Depth m bgl	Meti % Peak			<b>Dixoide</b> %		ygen % Steady		Monoxide om Steady		Steady	Atmospheric Pressure mBar	Relative Pressure mBar		Flow /h Steady	Water Level m bgl
14.11.21 Observation		0.1 Sta			2.0 ual fall		19.0 ual rise		0 ible		0 ble	1022 Rising	0.09		0.1	dry
Ambient Co	nditions	0.	.1	0	.1	2	1.9		0		0	1022	Weather (	Conditions	Overcast 7	"°C
23.11.21 Observation	2.39 ns	0.1 Sta	0.1 ble	3.3 Gradi	2.3 ual fall	16.8 Gradu	18.8 ual rise	0 Sta	0 able	0 Sta	0 ble	1022 High	0.49	0.1 Sta	0.1 able	dry
Ambient Co	nditions	0.	.1	0	.1	2:	2.2		0		0	1022	Weather (	Conditions	Overcast 1	°C
20.12.21 Observation	2.39 <b>ns</b>	0.1 Sta	0.1 ble	3.1 Gradi	2.1 ual fall		18.9 ual rise	0 Sta	0 able	0 Sta	0 ble	1028 Falling	0.02		0.1 able	dry
Ambient Co	nditions	0.	.0	0	.0	2:	2.2		0		0	1027	Weather (	Conditions	Overcast 6	5°C
07.01.22 Observation	2.39 ns	0.1 Sta	0.1 ble	3.3 Gradu	2.2 ual fall	17.5 Gradu	19.7 ual rise	0 Sta	0 able	0 Sta	0 ble	1007 Falling	0.07	0.1 Sta	0.1	dry
Ambient Co	onditions	0.	.1	0	.1	2:	2.6		0		0	1007	Weather (	Conditions	Clear and	cold 3°C
13.01.22 Observation	-	0.1 Sta			1.8 ual fall		20.2 ual rise		0 able		0 ble	1040 High	-0.03		0.1	dry
Ambient Co	onditions	0.	.1	0	.0	2:	2.5		0		0	1039	Weather (	Conditions	Frosty 0°C	
14.02.22 Observation Ambient Co		0.1 Sta	0.1 ble		2.3 ual fall		18.7 ual rise 2.2		0 able		0 ble	994 Low 994	0.09 <b>Weather (</b>		0.0 able Overcast 7	dry '°C
Comments		N/R = Not	Recorded													

## Summary of Gas Monitoring Results

Site	Chambers Bus Depot, Bures Job	ob No	212945
------	-------------------------------	-------	--------

Date	Borehole ID		hane %		Dixoide %		ow /h	Q <sub>hg</sub> CH <sub>4</sub> (peak)	Q <sub>hg</sub> CO <sub>2</sub> (peak)	Stratum Screened	Flooded Response Zone (Yes/No)	Barometric Pressure	
		Peak	Steady	Peak	Steady	Peak	Steady						
	WC1	0.1	0.1	7.0	C 4	0.0	0.0	0.0001	0.0070	MC/DTD	No	1	
	WS1	0.1	0.1	7.0	6.4	0.0	0.0			MG/RTD	No	1	
14.11.21	WS2	0.1	0.1	3.3	3.3	0.2	0.2	0.0002	0.0066	MG/RTD	No	Rising	
	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		
	WS1	0.1	0.1	7.3	7.3	0.1	0.1	0.0001	0.0073	MG/RTD	No		
23.11.21	WS2	0.1	0.1	3.4	3.4	0.0	0.0	0.0001	0.0034	MG/RTD	No	— High	
23.11.21	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		
	WS1	0.1	0.1	9.1	9.1	0.1	0.1	0.0001	0.0091	MG/RTD	No		
20.12.21	WS2	0.1	0.1	3.0	3.0	0.1	0.1	0.0001	0.0030	MG/RTD	No	- Falling	
20.12.21	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	1	
	WS1	0.1	0.1	8.9	8.9	0.1	0.1	0.0001	0.0089	MG/RTD	No		
07.01.22	WS2	0.1	0.1	3.1	3.1	0.1	0.1	0.0001	0.0031	MG/RTD	No	Falling	
07.01.22	WS4	0.1	0.1	2.9	2.0	0.1	0.1	0.0001	0.0029	MG/RTD	No	Falling	
	WS11	0.1	0.1	3.3	2.2	0.1	0.1	0.0001	0.0033	MG/RTD	No		
	WS1	0.2	0.1	8.8	8.8	0.3	0.3	0.0006	0.0264	MG/RTD	No		
13.01.22	WS2	0.1	0.1	3.0	2.9	0.2	0.2	0.0002	0.0060	MG/RTD	No	Hiah	
13.01.22	WS4	0.1	0.1	1.6	1.4	0.2	0.2	0.0002	0.0032	MG/RTD	No	High	
	WS11	0.1	0.1	2.6	1.8	0.1	0.1	0.0001	0.0026	MG/RTD	Partially		
	WS1	0.1	0.1	8.6	8.5	0.2	0.2	0.0002	0.0172	MG/RTD	No		
14 02 22	WS2	0.1	0.1	2.9	2.9	0.2	0.2	0.0002	0.0058	MG/RTD	Partially	Low	
14.02.22	WS4	0.1	0.1	3.2	1.8	0.2	0.2	0.0002	0.0064	MG/RTD	No	Low	
	WS11	0.0	0.0	3.8	2.3	0.1	0.0	0.0001	0.0038	MG/RTD	No		

Comments Q<sub>hg</sub> calculated using peak concentrations and steady state flow

### **Characteristic Gas Situation (CS)**

Site	Chambers Bus Dep	oot, Bures	Job No	212945			
Borehole ID	C <sub>hg</sub> CH <sub>4</sub> %	C <sub>hg</sub> CO <sub>2</sub> %	Flow rate (max) q L/h	Q <sub>hg</sub> CH <sub>4</sub> L/h	Q <sub>hg</sub> CO <sub>2</sub> L/h	Implied CH <sub>4</sub> CS	Implied CO <sub>2</sub> 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 <sub>hg</sub> CH <sub>4</sub> %	C <sub>hg</sub> CO <sub>2</sub> %	Flow rate (max) q L/h	Q <sub>hg</sub> CH <sub>4</sub> L/h	Q <sub>hg</sub> CO <sub>2</sub> L/h	Implied CH₄ CS	Implied CO <sub>2</sub> CS
	0.2	9.1	0.3	0.0006	0.0273	CS1	CS1

I	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

Report No: 212945B

June 2022

Appendix (vii)
VOC Monitoring Results



#### **VOC MEASUREMENTS IN WINDOW SAMPLE HOLES**

Site	Chambers Bus	Garage, Bures		
Date	9 <sup>th</sup> December 2	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	

Report No: 212945B

June 2022

Site	Chambers Bus	Chambers Bus Garage, Bures							
Date	9 <sup>th</sup> December 2	.021	Operative	TF					
Location	Depth (m) Peak Reading (ppm)		Elapsed Time (minutes)	Comment					
		(PP111)	(						
WS11	2.00	0.2	2						
WS11	2.00		2 3						
WS11	2.00	0.2	2						

Figures in bold >100ppm

Report No: 212945B

June 2022

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	4.02.22 BHA 3.12		5.47	
	ВНВ	3.18	5.87	
	внс	3.15	5.79	
	BHD	3.16	5.90	
	WS2	3.27	3.49	
23.02.22	вна	2.79	5.47	
	внв	2.85	5.84	
	ВНС	2.83	5.78	
	BHD	2.84	5.90	
04.03.22	ВНА	2.76	5.50	
	внв	2.83	5.74	
	ВНС	2.80	5.71	
	BHD	2.81	5.89	
	WS2	2.91	3.48	

Report No: 212945B

June 2022

# Appendix (ix) Laboratory Test Results – Material Properties



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021



UKAS

Contract	:	Bures						
Serial No	).	39688_1						
Client:	Compass	Geotechnical Limite	d	Soil Property Testing Ltd				
	13 Willow Upton Lar	-		15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon,				
	Stoke Gol	· ·		Cambridgeshire, PE29 6DG				
Nuneaton								
	Warwicks	_		Tel: 01480 455579				
	CV13 6EU			Email: enquiries@soilpropertytesting.com				
Samples	Submitted	l Rv		Website: www.soilpropertytesting.com Approved Signatories:				
Jampies		Geotechnical Limite	Ч	Approved signatories.				
	Compass	deotecimical Limite	u	☐ J.C. Garner B.Eng (Hons) FGS				
				Technical Director & Quality Manager				
Samples Labelled:				☐ W. Johnstone				
Bures				Materials Lab Manager				
				✓ D. Sabnis Operations Manager				
				Drilor Salowo				
Date R	eceived:	08/11/2021	Samples	s Tested Between: 08/11/2021 and 18/11/2021				
Remarks	For the a	ttention of Rachel Fo erence No: 212945c	oord					
Notes:	1	All remaining samples o unless we are notified to		from this contract will be disposed of after 21 days from today, ary.				
	2 Opinions and interpretations			xpressed herein are outside the scope of UKAS accreditation.				
	3 Tests marked "NOT UKAS ACCRE Schedule for this testing laborat			EDITED" in this test report are not included in the UKAS Accreditation ory.				
	4	This test report may not issuing laboratory.	t be reprodu	uced other than in full except with the prior written approval of the				
	5	The results within this re	eport only r	relate to the items tested or sampled.				



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021



998

Contra	act		Bures															
Serial	No.		39688_	1										Ta	arg	et Da	te	22/11/2021
Sched	uled I	Ву	Compa	ss C	ieot	tech	nic	al Lim	ite	d								
Sched	ule R	emarks																
Bore Hole No.	Туре	Sample Ref.	Top Depth	/8	aride v	Site of	ariori Ariori	1833) 1843) 1864) 1864)	egarati	OT.								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



### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021**



												0998	
Contract		Bures											
Serial No.		39688	_1										
		DFT	FRMINAT	ION OF W	ATER CO	NTFNT.	LIOL	IID LIMIT A	ND PLASTIC LIM	ΙΤ ΑΝΓ	)		
						-			JIDITY INDEX	,			
Borehole / Pit No.	Depth m		Sample Reference	Water Content (W) %	Description					Remarks			
W/\$5	L.50 - 2.00	. <sub>D</sub>	-	18.7	Soft brown slightly gravally sandy silty CLAV Graval is brown black and								
PREPARATION Liquid Limit						Liquid Limit			23 %				
Method of p	orepa	aration			Wet si	eved ove	er 0.42	25mm sieve	Plastic Limit			17 %	
Sample reta	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 reta	ined	2mm	sieve	(Meası	ıred)			4 %	NHBC Modified (	l'p)		5 %	
Curing time	Curing time 25 hrs Clay Content Not analysed D			Derived Activity		Not a	inalysed						
C=CLAY  Plasticity Inc.  (Ip)	dex	70 60 50 40		CL	CI	CH		CV	CE		Medium High	NHBC Volume Change Potential	
M=SILT		10		×	MI	МН		MV	ME		Low	- <del>I</del>	
		0	10	20 30	40 5	60 60	7(		90 100 110 ity Chart BS5930: 2015: F	120 igure 8	Liquid	Limit %	

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

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

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

Corrected water content assume material greater than 0.425mm non-porous. See BS1377: Part2: 1990 Clause 3 Note 1 Comments:

Volume Change Potential: NHBC Standards Chapter 4.2 Unmodified Plasticity Index

Note: Modified Plasticity Index I'p = Ip x (% less than 425microns/100)



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021

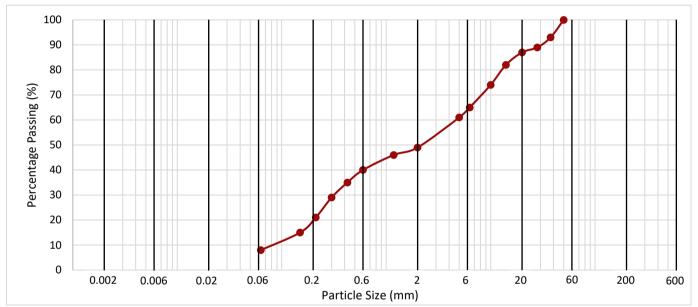


naag

Contract	Bures
Serial No.	39688_1

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





CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAT		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d			
r			
0			
m			Clay by
е			Clay by Drv Mass
			Dry Mass
e t e			
e t			Dry Mass
e t e			Dry Mass

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

Fines By Dry Mas	ss (%)
<0.063mm	8

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50	100	
37.5	93	51
28	89	51
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



## **TEST REPORT**

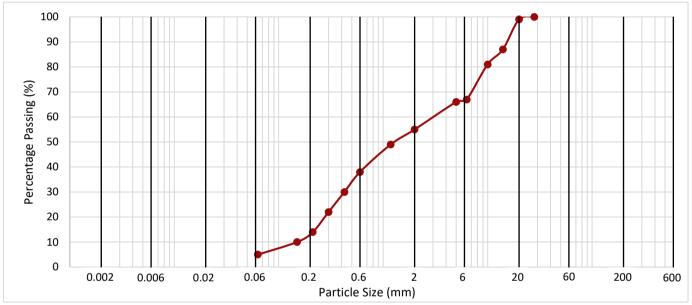
### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021**



Contract	Bures
Serial No.	39688_1

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

**Wet Sieve** Method of Pretreatment: Not required 100



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
CLAT		SILT			SAND			GRAVEL		COBBLES	BOULDER3

Н		Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d				
l r				
n				Clay by
е				Dry Mass
t				(%)
е	:			(70)
r	.			

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

Fines By Dry Mas	ss (%)
<0.063mm	5

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		45
28	100	45
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



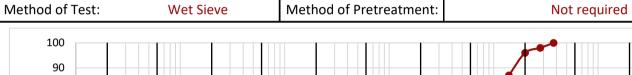
## **TEST REPORT**

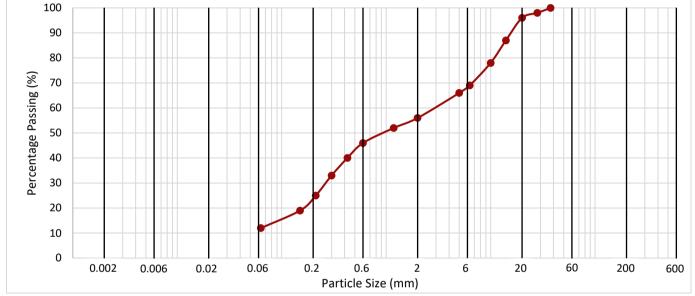
### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021**



Contract	Bures
Serial No.	39688_1

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





CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	CODDIEC	BOULDERS
CLAT		SILT			SAND			GRAVEL		COBBLES	BOOLDERS

н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
У			
d			
r			
0			
m			Clay by
m e			Clay by Dry Mass
			Dry Mass
е			
e t			Dry Mass
e t e			Dry Mass

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

Fines By Dry Mas	ss (%)
<0.063mm	12

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5	100	44
28	98	44
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



## **TEST REPORT**

### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021**



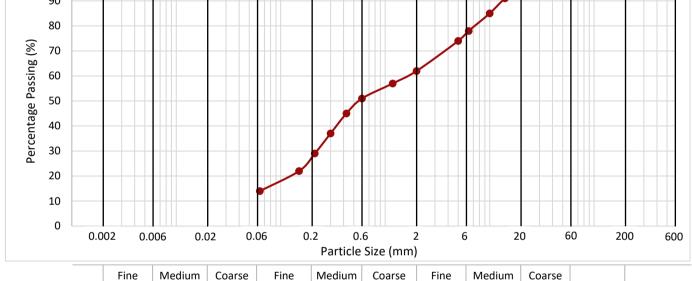
Contract	Bures
Serial No.	39688_1

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

Method of Pretreatment:



Wet Sieve



Medium

SAND

Coarse

Fine

**GRAVEL** 

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d			
r			
0			
m			Clay by
е			Dry Mass
t			(%)
e r			
1			

Fine

CLAY

Medium

SILT

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	62	
1.18	57	
0.600	51	
0.425	45	48
0.300	37	40
0.212	29	
0.150	22	
0.063	14	

Fines By Dry Mas	ss (%)
<0.063mm	14

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		38
28	100	30
20	96	
14	91	
10	85	
6.3	78	
5	74	

COBBLES

**BOULDERS** 

Coarse

Not required

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

Fine



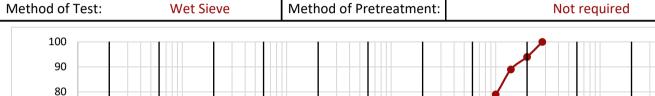
## **TEST REPORT**

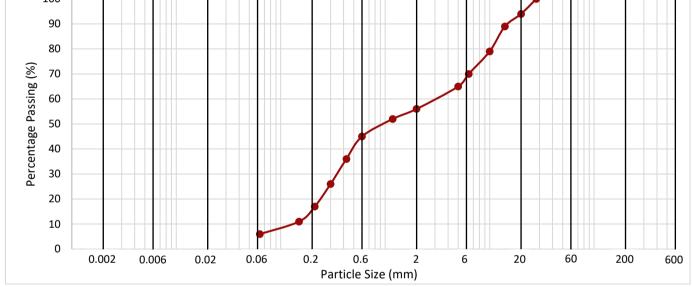
### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 18/11/2021**



Contract	Bures
Serial No.	39688_1

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





CLAV	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	CODDIEC	BOLII DERS
CLAY		SILT			SAND			GRAVEL		CORRIES	DOOLDERS

н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d			
r			
О			
m			Clay by
е			Clay by Dry Mass
e t			
е			Dry Mass
e t			Dry Mass
e t e			Dry Mass

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	56	
1.18	52	
0.600	45	
0.425	36	50
0.300	26	30
0.212	17	
0.150	11	
0.063	6	

Fines By Dry Mas	ss (%)
<0.063mm	6

Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)
300		
125		
90		
63		
50		
37.5		44
28	100	44
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



### ISSUED BY SOIL PROPERTY TESTING LTD **DATE ISSUED: 29/11/2021**



Contract		Bures							
Serial No	).	39688_2							
Client:	Compass	Geotechnical Limite	d	Soil Property Testing Ltd					
	13 Willow Upton Lan Stoke Gold	e		15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon, Cambridgeshire, PE29 6DG					
	Nuneaton Warwicksl CV13 6EU			Tel: 01480 455579 Email: enquiries@soilpropertytesting.com					
	<u> </u>	• -		Website: www.soilpropertytesting.com					
Samples	Submitted	•		Approved Signatories:					
	Compass	Geotechnical Limite	d	☐ J.C. Garner B.Eng (Hons) FGS  Technical Director & Quality Manager					
Samples	<b>Labelled:</b> Bures			☐ <b>W. Johnstone</b> Materials Lab Manager					
				Operations Manager  Onilor Salowo					
Date R	eceived:	08/11/2021	Samples	s Tested Between: 08/11/2021 and 29/11/2021					
Remarks	For the a	ttention of Rachel Fo	oord						
Notes:	1	All remaining samples of unless we are notified t		from this contract will be disposed of after 21 days from today, ary.					
	2	Opinions and interpreta	ations expre	essed 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 no issuing laboratory.	t be reprodi	uced other than in full except with the prior written approval of the					
	5	The results within this r	eport only r	relate to the items tested or sampled.					



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021



998

Contra	act		Bures	ıres														
Serial	No.		39688_	9688_2 Target Date 26/11/2021								26/11/2021						
Sched	uled I	Ву	Compa	ompass Geotechnical Limited														
Sched	ule R	emarks																
Bore Hole No.	Туре	Sample Ref.	Top Depth	/	3ride	Site Of	Stribus Stribus	legies de de la legies de la le	2) ati	or/							Sample Remarks	
WS10	D	-	2.50	1														
WS11	D	-	1.40		1 1 1													
WS13	D	-	1.50	1.50 1 1 1 1														
		Totals		1	2	2	2										End of Schedule	



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021



0998

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

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

				_	,					,			<u> </u>	
Dorobale	Danish	т	Det	Water	Liquid	Plastic	Plasti-	Liquid-	S	ample Pr				
Borehole /Pit No.	Depth	Туре	Ref.	Content	Limit	Limit	city	ity Index	Method	Ret'd 0.425mm	Corr'd W/C	Curing Time	Description	Class
/PIL NO.	(m)			(%)	(%)	(%)	Index (%)	index		(%)	<0.425mm	(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

\*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



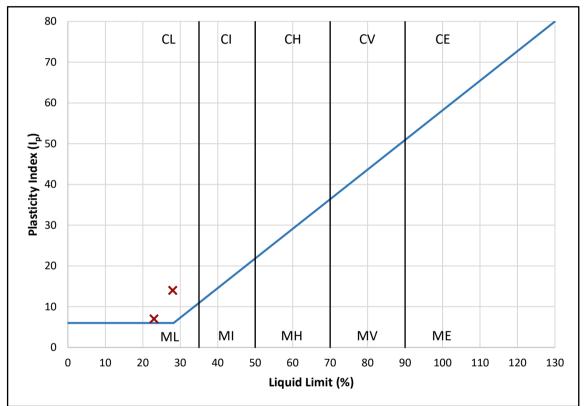
### **ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021**

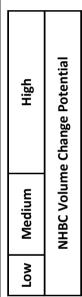


Contract	Bures
Serial No.	39688_2

### 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



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021



0998

Contract		Bures														
Serial No.		39688	_2													
		DET	ERMINATI			-						MIT	ΓΑΝΙ	D		
- 5 - 1 - 1			DEF	RIVATION	OF PLAS	TICITY II	NDEX	AND LIC	MIDI.	TY IND	EX					
Borehole / Pit No.	Depth m		Sample Reference	Water Content (W) %			De	scription						Remarks		
W/\$11	1.40 - 1.75	- D	-	11.1		rown, black and white fine to coarse angular to subrounded chert RAVEL in a very soft yellowish brown sandy silty clay matrix										
			PI	REPARATIO	ON				Liq	uid Lim	it					28 %
Method of բ	prepa	aration	l		Wet si	eved ove	r 0.42	25mm siev	/e Pla	stic Lim	iit					14 %
Sample retained 0.425mm sieve (Measured) 69 % Plasticity Index					14 %											
Corrected v	Corrected water content for material passing 0.425mm				n	Not reported Liquidity Index -0.21										
Sample reta	ained	2mm	sieve	(Measu	ured)			51 %	NH	BC Mod	dified	l (I'p	o)			4 %
Curing time	÷		24	hrs	Clay C	ontent	Not a	nalysed	Der	ived A	ctivit	у			Not ar	nalysed
		70 _												7		-
C=CLAY		60		CL	CI	СН		CV		CE					High	ntial
		50													<del>'</del>   	Change Potential
Plasticity In %	ıdex	40														me Char
(lp)		30													Medium	NHBC Volume
		20		×											Low	킬
M=SILT		10														<u> </u>
		0 0	10 2	ML 0 30	MI 40 5	MH 50 60	7(	MV 0 80	90	ME 100	110	)	120	Li	quid I	Limit %
	L									rt BS5930				╛		

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)



# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021



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Contract		Bures														
Serial No.		39688	_2													
		DET	ERMINATI	ON OF W	ATER CO	NTENT,	LIQU	ID LIMIT	AND PI	LASTI	C LIN	/IIT A	ND			
<del></del>			DEF	RIVATION	OF PLAS	TICITY I	NDEX	AND LIQ	UIDITY	' IND	EX	T				
Borehole / Pit No.	Depth		Sample	Water Content			De:	scription					R	Remarks		
W/\$13 I	m 1.50 - 2.00	- D	Reference -	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										
_			Pi	REPARATIO	ON				Liquid	d Limi	t				23 %	
Method of p	prepa	aration	l		Wet si	eved ove	er 0.42	25mm siev	e Plasti	c Limi	it				16 %	
Sample reta	ained	0.4251	mm sieve	(Measu	ıred)			69 %	Plasti	city Ir	ndex			7 %		
Corrected v	Corrected water content for material passing 0.425mm Not reported Liquidity Index							-1.19								
Sample reta	ained	2mm	sieve	(Measu	ıred)	-		52 %	NHBC	Mod	ified	(I'p)			2 %	
Curing time	÷		25	hrs	Clay Co	ontent	Not a	nalysed	Deriv	ed Ac	tivity			Not ar	nalysed	
		70 _														
C=CLAY		60		CL	CI	СН		CV		CE				High	ential	
Plasticity In	ndex	50												<u> </u>	Change Potential	
% (Ip)		30												Medium	NHBC Volume C	
		20												Low	NHBC	
M=SILT		10		X ML	МІ	МН	 	MV		ME						
		0 0	10 2	20 30		50 60	-		90	100	110	120	)  L	iquid L	imit %	
	L							Plasti	city 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)



20100

0.002

0.006

0.02

0.06

## **TEST REPORT**

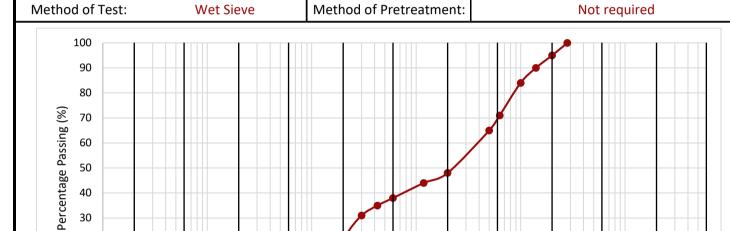
# ISSUED BY SOIL PROPERTY TESTING LTD DATE ISSUED: 29/11/2021



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Contract	Bures
Serial No.	39688_2

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



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

0.6

Particle Size (mm)

Н	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)
y d			
r			
0			
m			Clay by
е			Dry Mass
t			(%)
e			
r			

Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)
2.00	48	
1.18	44	
0.600	38	
0.425	35	45
0.300	31	45
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		
125		
90		
63		
50		
37.5		52
28	100	32
20	95	
14	90	
10	84	
6.3	71	
5	65	

200

600

20

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





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		Che	ntest Jo	ob 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	
		Bot	tom Dep	oth (m):	2.0	3.0	2.0	1.70	1.7	1.8
			Date Sa	ımpled:	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021	05-Nov-2021
			Time Sa	ımpled:	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	рН	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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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		ob No.:	21-39705		
Quotation No.: Q19-18078	(	Chemte	st Sam	ple ID.:	1318298
	Client Sample ID				ES
		Sa	ocation:	WS9	
			е Туре:	SOIL	
			oth (m):	1.0	
		Bot	tom Dep	oth (m):	1.5
			Date Sa	ampled:	10-Nov-2021
			Time Sa	ampled:	12:00
Determinand	Accred.	SOP	Units	LOD	
Moisture	N	2030	%	0.020	7.5
рН	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	рН	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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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

Report No: 212945B

June 2022

# 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

Project: Bures													
Client: Compass Geotechnical			24 20475	24 20475	24 20175	24 20475	24 20475	24 20175	21-39175	21-39175	21 20175		
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	0.0	8.4	1.0	8.3	J.,	10.1	1.0	
Arsenic	Ü	2450		1.0	8.7		9.7		9.9		6.7		
Cadmium	U	2450			0.11		< 0.10		0.31		< 0.10		
Copper	Ü	2450		0.50	67		32		68		53		
Mercury	Ü	2450		0.10	0.11		< 0.10		0.34		0.22		
Nickel	Ü	2450		0.10	16		15		19		11		
Lead	U	2450		0.50	44		16		69		150		
Selenium	U	2450		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		0.50	< 0.50		< 0.50		< 0.50		< 0.50		
Diesel Present	N	2670		N/A	< 0.50		< 0.50		< 0.50		< 0.50		
TPH >C8-C10	N	2670		1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C10-C12	N	2670		1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C10-C12 TPH >C12-C16	N N	2670		1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C12-C16	N			1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
TPH >C16-C21		2670 2670		1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
	N					_			_				
TPH >C35-C40 Total TPH >C8-C40	N N	2670 2670		1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0			
Aliphatic TPH >C5-C6	N N	2680			< 10	< 10	< 10	.10	< 10	< 10		.10	.10
Aliphatic TPH >C5-C6 Aliphatic TPH >C6-C8				1.0				< 1.0				< 1.0	< 1.0
	N	2680		1.0				< 1.0			1	< 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		1.0				< 1.0			<u> </u>	230	1000
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0				< 1.0				< 1.0	400
Aliphatic TPH >C35-C44	N	2680		1.0				< 1.0				< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680						< 5.0				430	2300
Aromatic TPH >C5-C7	N	2680		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

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
Quotation 110 Q10 10070		Client Sample ID.	ES	ES	ES	ES	ES	ES	ES	ES	ES
	+	Sample Location		WS2	WS2	WS2	WS3	WS3	WS4	WS4	WS4
	+	Sample Type		SOIL							
		Top Depth (m)		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
		Time Sampled		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
		Asbestos Lab		NEW-ASB		.2.00	DURHAM	.2.00	DURHAM		
Determinand	Accred.	SOP Units LOD					2011111111		2011111111		
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

Project: Bures													
Client: Compass Geotechnical		Cho	mtest J	oh No :	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	24 20175	21-39175
Limited		Cite	illiest J	OD 140	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175	21-39175
Quotation No.: Q19-18078	(	Chemte	est Sam	ple ID.:	1315696	1315697	1315698	1315699	1315700	1315702	1315703	1315704	1315705
		Cli	ent Sam	ple ID.:	ES	ES	ES	ES	ES	ES	ES	ES	ES
		Sa	ample Lo	ocation:	WS4	WS5	WS5	WS5	WS6	WS6	WS7	WS7	WS7
			Sampl	e Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top De	pth (m):	2.15	0.25	0.8	1.8	0.15	2.55	0.1	0.35	0.65
		Bot	ttom De	pth (m):	2.2	0.50	1.0	1.95	0.50	2.75	0.3	0.50	0.75
			Date Sa	ampled:	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 Sa	ampled:	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
			Asbest	os 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	
Mojeture	N	2030	%	0.020	5.1	1.6	3.8	5.5	3.0	2.8	4.2	Detected	2.7
Moisture pH	U	2010		4.0	ა. I	8.2	7.9	ა.ა	8.6	2.0	4.2		8.0
	U	2450		1.0		10	6.2		11				4.1
Arsenic	U					0.20							
Cadmium	U	2450 2450		0.10		69	0.16 56		0.15 140				0.11 55
Copper	_								_				
Mercury	U	2450	0 0	0.10		0.66	0.17		0.52				< 0.10
Nickel		2450	mg/kg	0.50		18	13		22				10
Lead	U	2450	mg/kg	0.50		480	100		52				28
Selenium	U	2450		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		0.50		< 0.50	< 0.50		< 0.50				< 0.50
Diesel Present	N	2670		N/A	True								
TPH >C8-C10	N	2670		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		1.0			< 1.0	< 1.0		< 1.0	< 1.0		< 1.0
TPH >C16-C21	N	2670		1.0			< 1.0	< 1.0		< 1.0	7.6		< 1.0
TPH >C21-C35	N	2670		1.0			< 1.0	< 1.0		< 1.0	96		< 1.0
TPH >C35-C40	N	2670		1.0			< 1.0	< 1.0		< 1.0	5.5		< 1.0
Total TPH >C8-C40	N	2670		10			< 10	< 10		< 10	110		< 10
Aliphatic TPH >C5-C6	N	2680		1.0	< 1.0								
Aliphatic TPH >C6-C8	N	2680		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		1.0	3700								
Aliphatic TPH >C21-C35	U	2680	mg/kg	1.0	1300								
Aliphatic TPH >C35-C44	N	2680		1.0	< 1.0								
Total Aliphatic Hydrocarbons	N	2680			9000								
Aromatic TPH >C5-C7	N	2680		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								

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 Sa	mple ID.:	1315696	1315697	1315698	1315699	1315700	1315702	1315703	1315704	1315705
		Client Sa		ES								
		Sample	Location:		WS5	WS5	WS5	WS6	WS6	WS7	WS7	WS7
		Sam	ple Type:		SOIL							
			epth (m):	2.15	0.25	0.8	1.8	0.15	2.55	0.1	0.35	0.65
		Bottom D	epth (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
			Sampled:		12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
			stos Lab:		DURHAM			DURHAM		NEW-ASB	DURHAM	
Determinand	Accred.	SOP Unit	s LOD									
Aromatic TPH >C12-C16	U	2680 mg/k	g 1.0	2100								
Aromatic TPH >C16-C21	U	2680 mg/k		1100								
Aromatic TPH >C21-C35	U	2680 mg/k	g 1.0	520								
Aromatic TPH >C35-C44	N	2680 mg/k	_	< 1.0								
Total Aromatic Hydrocarbons	N	2680 mg/k	g 5.0	4400								
Total Petroleum Hydrocarbons	N	2680 mg/k		13000								
Naphthalene	U	2700 mg/k						< 0.10				
Acenaphthylene	U	2700 mg/k	g 0.10					< 0.10				
Acenaphthene	U	2700 mg/k	_					< 0.10				
Fluorene	U	2700 mg/k	g 0.10					< 0.10				
Phenanthrene	U	2700 mg/k	g 0.10					< 0.10				
Anthracene	U	2700 mg/k	g 0.10					< 0.10				
Fluoranthene	U	2700 mg/k	g 0.10					< 0.10				
Pyrene	U	2700 mg/k	g 0.10					< 0.10				
Benzo[a]anthracene	U	2700 mg/k	g 0.10					< 0.10				
Chrysene	U	2700 mg/k	g 0.10					< 0.10				
Benzo[b]fluoranthene	U	2700 mg/k	g 0.10					< 0.10				
Benzo[k]fluoranthene	U	2700 mg/k	g 0.10					< 0.10				
Benzo[a]pyrene	U	2700 mg/k	g 0.10					< 0.10				
Indeno(1,2,3-c,d)Pyrene	U	2700 mg/k	g 0.10					< 0.10				
Dibenz(a,h)Anthracene	U	2700 mg/k	g 0.10					< 0.10				
Benzo[g,h,i]perylene	U	2700 mg/k	g 0.10					< 0.10				
Total Of 16 PAH's	U	2700 mg/k						< 2.0				
Benzene	U	2760 μg/k	g 1.0	< 1.0								
Toluene	U	2760 μg/k	g 1.0	< 1.0								
Ethylbenzene	U	2760 μg/k		< 1.0								
m & p-Xylene	U	2760 μg/k		2.5								
o-Xylene	U	2760 μg/k		3.2								
Methyl Tert-Butyl Ether	U	2760 μg/k		< 1.0								

Client: Compass Geotechnical		Chei	mtest Jo	ob No.:	21-39175	21-39175
Limited Quotation No.: Q19-18078		Chemte	st Sam	ple ID.:	1315706	1315707
Quotation No.: Q10 10070	`		ent Sam		ES	ES
			ample Lo		WS8	WS8
				е Туре:	SOIL	SOIL
			Top De	oth (m):	0.4	1.2
		Bot	tom De	oth (m):	0.65	1.3
			Date Sa	ampled:	05-Nov-2021	05-Nov-2021
			Time Sa	12:00	12:00	
			Asbest	os Lab:	DURHAM	
Determinand	Accred.					
ACM Type	U	2192		N/A	-	
Asbestos Identification	U	2192		N/A	No Asbestos Detected	
Moisture	N	2030	%	0.020	4.0	4.4
рН	U	2010		4.0	8.1	
Arsenic	U		mg/kg	1.0	8.1	
Cadmium	U		mg/kg	0.10	0.15	
Copper	U		mg/kg	0.50	54	
Mercury	U		mg/kg	0.10	0.30	
Nickel	U	2450	)	0.50	14	
Lead	U	2450			98	
Selenium	U	2450	mg/kg	0.20	< 0.20	
Zinc	U	2450	mg/kg	0.50	110	
Chromium (Hexavalent) Diesel Present	N N	2490 2670	mg/kg	0.50 N/A	< 0.50	
TPH >C8-C10	N		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		mg/kg	1.0	< 1.0	< 1.0
TPH >C16-C21	N	2670		1.0	< 1.0	< 1.0
TPH >C21-C35	N		mg/kg	1.0	< 1.0	< 1.0
TPH >C35-C40	N	2670		1.0	< 1.0	< 1.0
Total TPH >C8-C40	N		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	)	1.0		
Aliphatic TPH >C35-C44	N		mg/kg	1.0		
Total Aliphatic Hydrocarbons	N	2680	)	5.0		
Aromatic TPH >C5-C7	N	2680	0	1.0		
Aromatic TPH >C7-C8	N	2680		1.0		
Aromatic TPH >C8-C10	U	2680		1.0		
Aromatic TPH >C10-C12	U	2680	mg/kg	1.0		

Client: Compass Geotechnical Limited		Che	mtest Jo	ob No.:	21-39175	21-39175
Quotation No.: Q19-18078	(		st Sam		1315706	1315707
			ent Sam		ES	ES
		Sample Location:				WS8
		Sample Type:				SOIL
			Top Dep	oth (m):	0.4	1.2
		Bot	tom Dep		0.65	1.3
			Date Sa		05-Nov-2021	05-Nov-2021
			Time Sa		12:00	12:00
			Asbest	os Lab:	DURHAM	
Determinand	Accred.	SOP	Units	LOD		
Aromatic TPH >C12-C16	U	2680		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	рН	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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis This analysis has been subcontracted to an unaccredited laboratory Т 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

Client: Compass Geotechnical		Chor	mtest Jo	ah No :	21-39178			
Limited								
Quotation No.: Q19-18078			st Sam		1315712			
			ent Sam		ES WS1			
		Sample Location Sample Type						
			Top Der	,,	SOIL			
			tom Dep		0.0			
		DUI	Date Sa		0.7 05-Nov-2021			
			ampled:	0:00				
			Asbest	_	DURHAM			
Determinand	Accred.	SOP	Units		DOMINAN			
ACM Type	U	2192	Omio	N/A	-			
Asbestos Identification	U	2192		N/A	No Asbestos Detected			
Moisture	N	2030	%	0.020	6.5			
рН	М	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	)	1.0	< 1.0			
Cadmium	M	2450	ט	0.10	0.21			
Manganese	M	2450	0	5.0	340			
Molybdenum	M	2450	)	2.0	< 2.0			
Antimony	N	2450		2.0	5.3			
Copper	M	2450	5	0.50	89			
Mercury	M	2450	ט	0.10	< 0.10			
Nickel	M	2450	)		18			
Lead	M	2450	0	0.50	64			
Selenium	M	2450		0.20	< 0.20			
Zinc	M	2450		0.50	93			
Chromium (Trivalent)	N N	2490	0	1.0	20			
Chromium (Hexavalent) Naphthalene	M	2490 2700	5	0.50	< 0.50 < 0.10			
Acenaphthylene	M	2700	J	0.10	< 0.10			
Acenaphthene	M	2700		0.10	< 0.10			
Fluorene	M	2700		0.10	< 0.10			
Phenanthrene	M	2700	J	0.10	3.1			
Anthracene	M	2700			1.2			
Fluoranthene	M	2700	,		6.3			
Pyrene	M	2700		0.10	6.4			
Benzo[a]anthracene	M	2700		0.10	2.8			
Chrysene	M	2700		0.10	2.3			
Benzo[b]fluoranthene	M	2700	,		4.4			
Benzo[k]fluoranthene	М	2700			1.7			
Benzo[a]pyrene	М	2700		0.10	3.6			
Indeno(1,2,3-c,d)Pyrene	M	2700		0.10	3.2			
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	0.74			

Client: Compass Geotechnical Limited		Chei	ob No.:	21-39178	
Quotation No.: Q19-18078	(	hemte	st Sam	ole ID.:	1315712
		Cli	ple ID.:	ES	
		Sa	cation:	WS1	
			e Type:	SOIL	
		oth (m):	0.0		
		oth (m):	0.7		
			Date Sa	mpled:	05-Nov-2021
			Time Sa	mpled:	0:00
			os Lab:	DURHAM	
Determinand	Accred. SOP Units LOD				
Benzo[g,h,i]perylene	М	2700	mg/kg	0.10	3.4
Total Of 16 PAH's	М	2700	mg/kg	2.0	39

### Results - 2 Stage WAC

Project: Bures									
Chemtest Job No:	21-39178						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1315712							Limits	
Sample Ref:								Stable, Non-	
Sample ID:	ES							reactive	
Sample Location:	WS1							hazardous	Hazardous
Top Depth(m):	0.0						Inert Waste	waste in non-	Waste
Bottom Depth(m):	0.7						Landfill	hazardous	Landfill
Sampling Date:	05-Nov-2021							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	M	%			3.8	3	5	6
Loss On Ignition	2610	М	%			6.0			10
Total BTEX	2760	М	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		
рН	2010	M		]		8.9		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			< 0.0020		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative		for compliance	•
			mg/l	mg/l	mg/kg	mg/kg 10:1		S 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	рН	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	Waste material including soil, sludges and	ComplianceTest for Leaching of Granular
650	(Leaching WAC)	granular waste	Waste Material and Sludge

#### **Report Information**

#### Key **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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.:** 21-39700-1

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

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
		Clie	ent Sam	ple ID.:	ES	ES	ES	ES	ES	ES
		Sa	ample Lo	cation:	WS9	WS9	WS10	WS11	WS12	WS13
			Sampl	е Туре:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Dep	oth (m):	0.25	0.6	0.35	1.15	1.3	1.35
		Bot	tom Dep	oth (m):	0.35	0.7	0.7	1.25	1.5	1.4
			Date Sa	ampled:	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021
			Time Sa	ampled:	12:00	0:00	0:00	0:00	0:00	0:00
			Asbest	os 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
Hq	U	2010		4.0	8.4			8.3		
Arsenic	U		mg/kg	1.0	13			9.7		
Cadmium	Ü	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		

Client: Compass Geotechnical Limited	Chemtest Job No.:		21-39700	21-39700	21-39700	21-39700	21-39700	21-39700		
Quotation No.: Q19-18078	(	Chemte	st Sam	ple ID.:	1318245	1318246	1318248	1318251	1318252	1318253
		Cli	ent Sam	ple ID.:	ES	ES	ES	ES	ES	ES
		Sa	ample Lo	ocation:	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 Sa	ampled:	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021	10-Nov-2021
			Time Sa	ampled:	12:00	0:00	0:00	0:00	0:00	0:00
			Asbest	os 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	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	рН	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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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

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

# **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

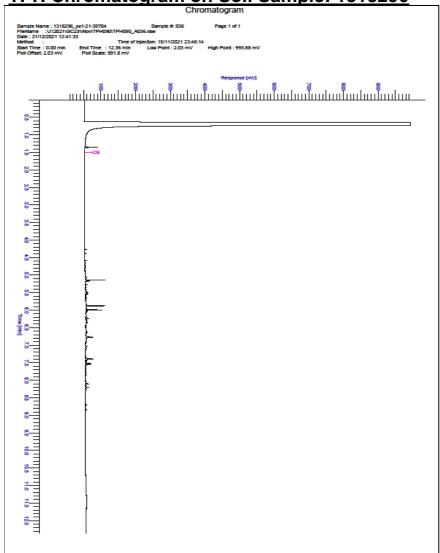
Date Approved: 23-Dec-2021

Approved By:

**Details:** Glynn Harvey, Technical Manager

Client: Compass Geotechnical						
Limited	Chemtest Job No.:				21-39704	21-39704
Quotation No.: Q19-18078	(		st Sam		1318296	1318297
			ent Sam		ES	ES
		Sa	ample Lo		WS12	WS13
				е Туре:	SOIL	SOIL
			Top Dep	oth (m):	0.2	0.4
		Bot	tom Dep	oth (m):	1.0	1.0
			Date Sa		10-Nov-2021	10-Nov-2021
			Time Sa		0:00	0:00
			Asbest	os Lab:	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A	i	-
Asbestos Identification	U	2192		N/A	No Asbestos	No Asbestos
Aspestos identification	U	2192		IN/ A	Detected	Detected
Moisture	N	2030	%	0.020	11	1.2
Chromatogram (TPH)	N			N/A	See Attached	
рН	М	2010		4.0	8.5	8.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.4	1.6
Arsenic	М	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	М	2450	mg/kg	5.0	670	410
Molybdenum	М	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		10	960	

TPH Chromatogram on Soil Sample: 1318296



### Results - 2 Stage WAC

Project: Bures	24 20704			1			l andfill V	V-sta Assontant	Critorio
Chemtest Job No:	21-39704						Lanatiii v	Vaste Acceptano	e Criteria
Chemtest Sample ID:	1318296							Limits	
Sample Ref:								Stable, Non-	i
Sample ID:	ES							reactive	1
Sample Location:	WS12							hazardous	Hazardous
Top Depth(m):	0.2						Inert Waste	waste in non-	Waste
Bottom Depth(m):	1.0						Landfill	hazardous	Landfill
Sampling Date:	10-Nov-2021							Landfill	i
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	М	%			3.0	3	5	6
Loss On Ignition	2610	М	%	]		8.9			10
Total BTEX	2760	М	mg/kg	]		< 0.010	6		
Total PCBs (7 Congeners)	2815	М	mg/kg	]		< 0.10	1		
TPH Total WAC	2670	М	mg/kg	]		960	500		
Total (Of 17) PAH's	2700	N	mg/kg	]		1400	100		
pH	2010	М		]		8.5		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			0.0050		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S EN 12457 at L/	/S 10 I/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
D							_	I	

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

1920

1610

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						

0.59

250

500

800

1000

0.36

< 50

#### Waste Acceptance Criteria

Dissolved Organic Carbon

Phenol Index

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.

0.046

26

0.18

20

### Results - 2 Stage WAC

Project: Bures									
Chemtest Job No:	21-39704						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1318297							Limits	
Sample Ref:								Stable, Non-	
Sample ID:	ES							reactive	
Sample Location:	WS13							hazardous	Hazardous
Top Depth(m):	0.4						Inert Waste	waste in non-	Waste
Bottom Depth(m):	1.0						Landfill	hazardous	Landfill
Sampling Date:	10-Nov-2021							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	M	%			2.0	3	5	6
Loss On Ignition	2610	М	%			3.5			10
Total BTEX	2760	М	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		
рН	2010	M				8.0		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			0.023		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S 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
						0.000	-		000
Zinc	1455	U	0.003	0.003	0.007	0.033	4	50	200
Zinc Chloride	1455 1220	U U	0.003 1.7	0.003 < 1.0	0.007 < 10	0.033 < 10	800	50 15000	25000
							-		

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

1220

1020

1920

1610

U

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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						

81

840

< 0.50

360

1000

4000

500

20000

60000

800

50000

100000

1000

60

340

< 0.30

< 50

#### Waste Acceptance Criteria

Sulphate

Phenol Index

Total Dissolved Solids

Dissolved Organic Carbon

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.

6.5

78

< 0.030

37

30

170

< 0.030

18

### **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	РАН

# **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	рН	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	Waste material including soil, sludges and	ComplianceTest for Leaching of Granular
650	(Leaching WAC)	granular waste	Waste Material and Sludge

### **Report Information**

#### Key **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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.:** 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

Project: Bures													
Client: Compass Geotechnical		Che	mtest J	ob No.:	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296
Limited													22 00200
Quotation No.: Q19-18078	Chemtest Sample ID.:			1371272	1371274	1371276	1371278	1371287	1371288	1371289	1371292	1371294	
			ent Sam		ES								
		Sa	ample L			BHA	BHA	BHA	BHB	BHB	BHB	BHB	BHC
				le Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top De	pth (m):	2.0	3.0	4.0	5.0	3.5	4.0	4.5	6.0	1.0
				ampled:	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 Sa	ampled:	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
рН	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	Ü	2450	mg/kg	0.50									24
Selenium	U	2450	mg/kg	0.20									< 0.20
Zinc	Ü	2450	mg/kg	0.50									32
Chromium (Hexavalent)	N	2490	mg/kg	0.50									< 0.50
Organic Matter	U	2625	%	0.40									1 0.00
Diesel Present	N	2670	70	N/A			True						
TPH >C8-C10	N	2670	mg/kg	1.0	< 1.0		Huc						< 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 >C10-C21	N	2670	mg/kg	1.0	< 1.0								64
TPH >C35-C40	N	2670		1.0	< 1.0								8.8
Total TPH >C8-C40	N	2670	mg/kg	1.0									96
			mg/kg		< 10	.4.0	.4.0	.4.0	.4.0	.4.0	.4.0	.4.0	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	

Client: Compass Geotechnical		Cho	mtost I	oh No :	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296	22-05296
Limited		Chemtest Job No.:		22-05296	22-05296	22-03290	22-03290	22-03290	22-03290	22-05296	22-03290	22-05290	
Quotation No.: Q19-18078		Chemtest Sample ID.:		1371272	1371274	1371276	1371278	1371287	1371288	1371289	1371292	1371294	
		Clie	ent Sam	ple ID.:	ES	ES	ES	ES	ES	ES	ES	ES	ES
		Sa	ample L		BHA	BHA	BHA	BHA	BHB	BHB	BHB	BHB	BHC
				e Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top De	pth (m):	2.0	3.0	4.0	5.0	3.5	4.0	4.5	6.0	1.0
					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 Sa	ampled:	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	

Client: Compass Geotechnical Limited		Chemtest Job No.:		22-05296	22-05296	22-05296	22-05296	22-05296	
Quotation No.: Q19-18078	(	Chemtest Sample		ple ID.:	1371299	1371300	1371305	1371310	1371311
		Client Sample ID.:		ple ID.:	ES	ES	ES	ES	ES
		Sa	ample Lo	ocation:	BHC	BHC	BHD	BHD	BHD
			Sample	е Туре:	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Dep	oth (m):	3.5	4.0	0.5	3.0	3.5
			Date Sa	ampled:	10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022
			Time Sa		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

Client: Compass Geotechnical Limited		Chemtest Job No.:		22-05296	22-05296	22-05296	22-05296	22-05296	
Quotation No.: Q19-18078		Chemte	st Sam	ple ID.:	1371299	1371300	1371305	1371310	1371311
		Cli	ent Sam	ple ID.:	ES	ES	ES	ES	ES
		Sa	ample Lo	ocation:	BHC	BHC	BHD	BHD	BHD
			Sampl	е Туре:	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Dep		3.5	4.0	0.5	3.0	3.5
			Date Sa		10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022	10-Feb-2022
			Time Sa	ampled:	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	вна		ES	4.0	Yes	Diesel

### **Test Methods**

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	рН	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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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.: 212945l 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 Your Ref.:

Date Received: 02-Mar-2022

Site Address:

Project: Bures

Date Sampled: 25-Feb-2022

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

Project: Bures												
Client: Compass Geotechnical Limited		Che	mtest J	ob No.:	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680
Quotation No.: Q19-18078		Chemte	est Sam	nle ID.:	1382269	1382270	1382271	1382272	1382273	1382275	1382276	1382277
Quotation No.: Q15 10070	· ·		ent Sam		ES1	ES2	ES1	ES2	ES1	ES2	ES1	ES2
			ample Lo		TP1	TP1	TP2	TP2	TP3	TP3	TP5	TP5
				e Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top De		0.3	0.7	0.2	0.7	0.1	0.2	0.3	1.0
		Bo	ttom De		0.3	0.7	0.2	0.7	0.1	0.2	0.3	1.1
		ВО	Date Sa	. ,	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 Sa		0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
			Asbest		COVENTRY	0.00	DURHAM	0.00	DURHAM	DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units		COVENTRI		DUNIAW		DUNITAW	DUNITAW	DONITANI	DONIAN
ACM Type	U Accrea.	2192	Ullits	N/A	_		_		_	-	-	Fibres/Clumps
ACM Type	+ -	2192		IN/A	No Asbestos			-			No Asbestos	Fibres/Clumps
Asbestos Identification	U	2192		N/A	Detected		No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	Detected	Chrysotile
Moisture	N	2030	%	0.020		13	7.0	14	15	25	8.5	14
pН	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	Ü	2700	mg/kg	0.10			0.78		0.60	0.50		2.4
Anthracene	Ü	2700	mg/kg	0.10			0.66	İ	0.13	0.18		0.68
Fluoranthene	Ü	2700	mg/kg				3.3		1.5	1.3		4.0
Pyrene	Ü	2700	mg/kg	0.10			3.9		1.7	1.4		3.8
Benzo[a]anthracene	Ü	2700	mg/kg	0.10			2.3		0.86	0.99		1.7
Chrysene	Ü	2700	mg/kg	0.10			2.3		1.1	1.4		1.8
Benzo[b]fluoranthene	Ü	2700	mg/kg	0.10		1	4.3	1	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	T U	2700	mg/kg	0.10			3.7	1	1.1	1.0		1.9
Indeno(1,2,3-c,d)Pyrene	U		mg/kg				2.6	<del> </del>	< 0.10	0.76		1.3
		55	<sub>9′</sub> 9	J. 10	I	I.		I.	- 3.10		l	

# Results - Soil

## Project: Bures

Client: Compass Geotechnical Limited				ob No.:		22-07680	22-07680	22-07680	22-07680	22-07680	22-07680	22-07680
Quotation No.: Q19-18078	(			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								
		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		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 Sa	ampled:	0:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00
			Asbest	os 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	рН	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					
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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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.:** 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.: 212945l 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 Your Ref.:

Date Received: 08-Mar-2022

Site Address: Project: Bures

Date Sampled: 25-Feb-2022 Job Number: 22-08629

No Samples:

Date Reported: 08-Mar-2022

Sample No.	Sample ID	Sample Ref.	Description	Top (m) Bo	ottom (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

### **Report Information**

#### Key **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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: <u>customerservices@chemtest.com</u>

June 2022

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		Chem	itest Jo	b No.:	21-37645	21-37645	21-37645	21-37645
Quotation No.: Q19-18078	С	hemtes	t Samp	le ID.:	1308153	1308154	1308155	1308156
		Clie	nt Samp	le ID.:	ES	ES	ES	ES
		Sample Type: W		Catch Pit	Soakaway	IN1	IN2	
				WATER	WATER	WATER	WATER	
				27-Oct-2021	28-Oct-2021	28-Oct-2021	28-Oct-2021	
		Т	Time Sampled:		0:00	0:00	0:00	0:00
Determinand	Accred.	I. 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
	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, >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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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: <u>customerservices@chemtest.com</u>





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		Chem	ntest Jo	22-07679	22-07679	
Limited		h a mat	4 Came	In ID	4000007	4202200
Quotation No.: Q19-18078	<del>                                     </del>		t Samp		1382267	1382268
Order No.: 212945J		Client Sample Ref.: Client Sample ID.:				D
					ES	ES
			mple Lo		Cell 1	Cell 3
			Sample		WATER	WATER
			Date Sar		25-Feb-2022	25-Feb-2022
			ime Sar	-	0:00	0:00
Determinand	Accred.	SOP	Units			
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
	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, >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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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: <u>customerservices@chemtest.com</u>

June 2022

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

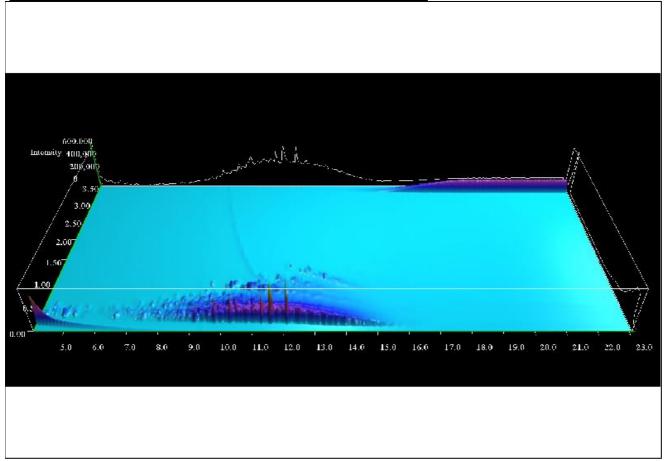
Manager

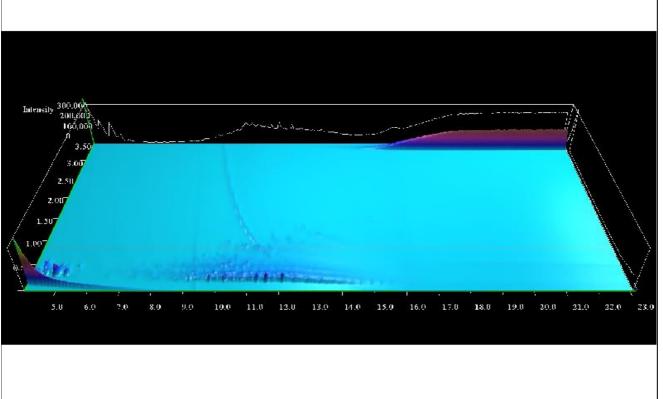
# **Results - Water**

## Project: Bures

Client: Compass Geotechnical Limited		Chem	itest Jo	b No.:	22-06966	22-06966	22-06966	22-06966
Quotation No.: Q19-18078	С	hemtes	t Samp	le ID.:	1378708	1378709	1378710	1378711
			nt Samp		ES	ES	ES	ES
		Sar	nple Lo	cation:	BHA	BHB	BHC	BHD
			Sample	Type:	WATER	WATER	WATER	WATER
		[	Date Sar	npled:	23-Feb-2022	23-Feb-2022	23-Feb-2022	23-Feb-2022
		Time Sampled:		0:00	0:00	0:00	0:00	
Determinand	Accred.	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 Interpretation**

Job	Sample	Matrix	Location	Sample Ref	Sample ID	Sample Depth (m)	Gasoline / Diesel Present	TPH Interpretation
22-06966	1378708	W	ВНА		ES		Yes	Diesel
22-06966	1378709	W	внв		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		
	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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- B Sample age exceeds stability time (sampling to extraction)
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- D Broken Container
- E Insufficient Sample (Applies to LOI in Trommel Fines Only)

#### Sample Retention and Disposal

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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.:** 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		Chem	itest Jo	b No.:	22-08157	22-08157	22-08157	22-08157
Quotation No.: Q19-18078	С	hemtes	t Samp	le ID.:	1384349	1384350	1384351	1384352
		Clie	nt Samp	le ID.:	ES	ES	ES	ES
		Sar	nple Lo	cation:	ВНА	BHB	BHC	BHD
			Sample	Type:	WATER	WATER	WATER	WATER
			Date Sar	npled:	04-Mar-2022	04-Mar-2022	04-Mar-2022	04-Mar-2022
		Т	ïme Sar	npled:	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**

SOP	Title	Parameters included	Method summary	
	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, >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 **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Т 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

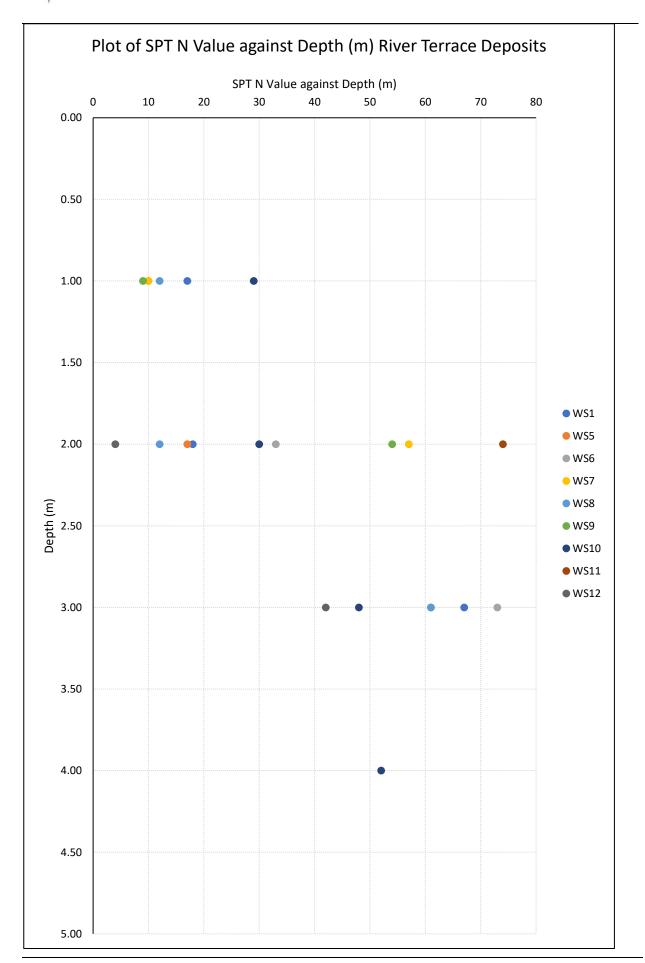
Charges may apply to extended sample storage

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

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Appendix (xiii)
Plots

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Appendix (xiv)
ULS & SLS Calculations

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## **Calculation of Preliminary Bearing Pressure - Strip Foundation on Clays**

 $R/_A = (\pi + 2)Cu + q$ 

For undrained conditions using

#### **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	В	0.6	m
density of soil	$\Upsilon_{s;k}$	20	kN/m³
density of concrete	$\Upsilon_{c;k}$	24	kN/m³
density of brick and infill	$\Upsilon_{b;k}$	22	kN/m³
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	Α 0.6	m2/mrun
AICA OI IOOLIIE	A 0.0	111 <b>2</b> /1111 u11

## 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  $V_{d1} \le R_{d1}$  acceptable for Design Approach 1 Combination 1

### Combination 2 (A2, M2, R1)

Design Load (A2) V<sub>d2</sub> 93.14 kN/mrun

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Design Strength (M2)  $C_{ud2}$ 46.4 kPa Soil surcharge adj to footing 20 kPa  $q_{d2}$ Design Bearing Resistance (R1)  $R_{d2}$ 155.2 kPa Check if  $V_{d2} \le R_{d2}$ acceptable for Design Approach 1 Combination 2 **Critical Combination Check**  $R_{d1}/V_{d1}$  1.6903 Combination 1  $R_{d2}/V_{d2}$ Combination 2 Combination 2 is more critical 1.6668 **Settlements (SLS Limit State)** Limit to settlements by  $V_k = R_k/3$ using unfactored values Vertical Load  $V_k$ 93.14 kN/mrun 212.54 kN/mrun **Bearing Resistance**  $R_k$  $R_k/V_k$ 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

