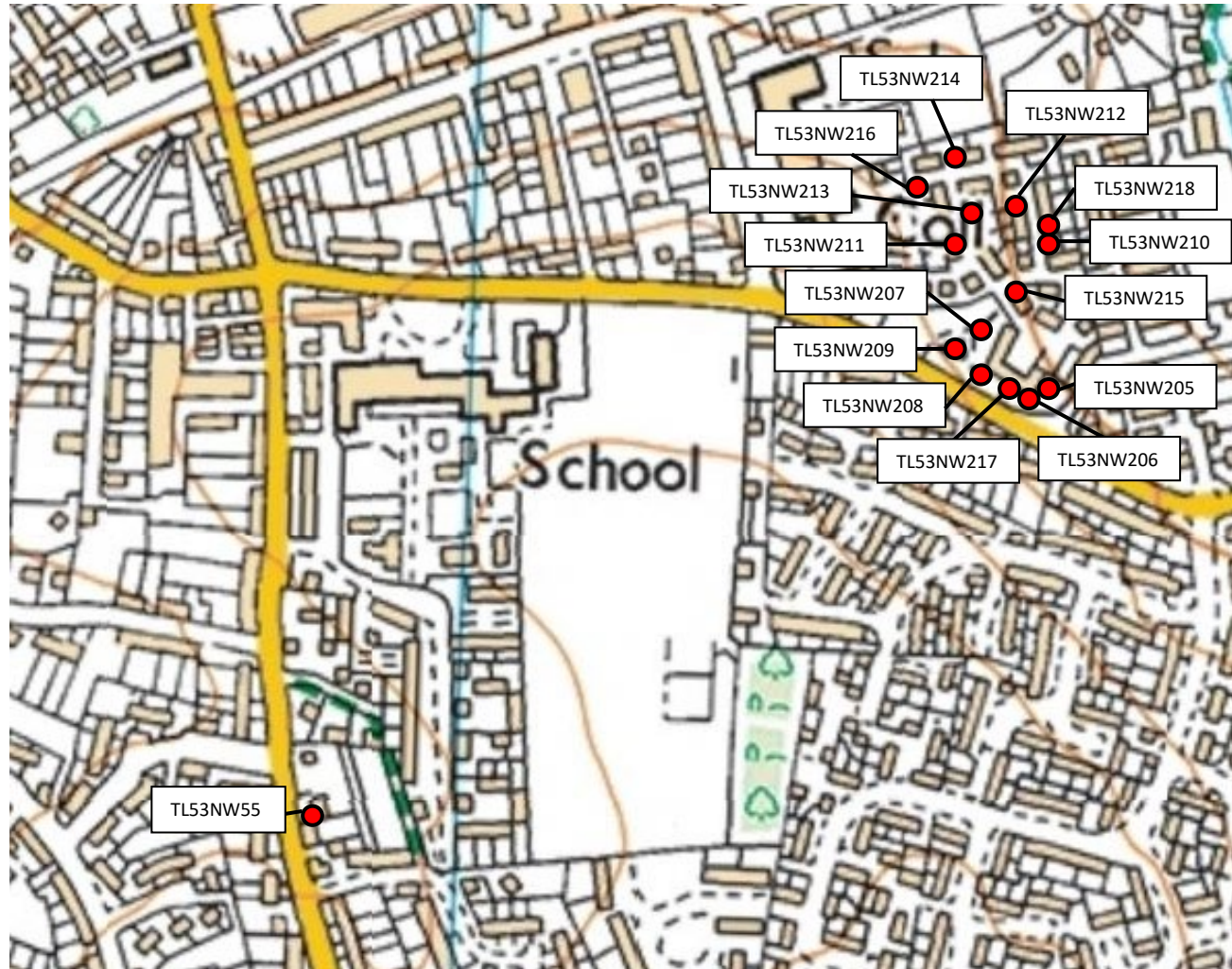



# **APPENDIX C**

*BGS historical boreholes*



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<p>Client</p> <p><b>Chase New Homes Limited</b></p>	<p>Project</p> <p><b>Friends School, Saffron Walden</b></p>	<p>Job No</p> <p><b>CG/39877</b></p>
	<p>Title</p> <p><b>BGS historical borehole location plan</b></p>	<p><b>Appendix C</b></p>

TL 53/75

TL 5390 3 736.

222/2923 9, Pleasant Valley, Saffron Walden. (Filled in)

W.S.E. p. 13. Surface +275. Shaft. Depth unknown. Date unknown.  
R.W.L. +158%. Apr. 1900.

Uck





...

...

116+

116+

<b>Project</b> BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN British Geological Survey	<b>Client</b> [REDACTED] <b>Engineer</b> [REDACTED] British Geological Survey	<b>Boring Methods</b> PERCUSSIVE WINDOW SAMPLER British Geological Survey	<b>Hole No.</b> <b>WS1</b> <b>Sheet</b> 1 of 1 <b>Job No</b> <b>10485</b>
<b>Ground Level</b>	<b>Coordinates</b> m.E. m.N.		

WATER			Inst.	STRATA			SAMPLING/IN SITU TEST				LAB TESTING					OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m		Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	Wp %	W <sub>L</sub> %	ρ <sub>s</sub> Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>	
12/10/06	DRY C		British Geological Survey	Made Ground (Soft brown sandy [silty] clay with occasional fine-medium gravel sized chalk, flint, brick, ash and glass with occasional roots and rootlets)			0.10	D1								CLEA screen with speciated polyaromatic hydrocarbons on soil and leachate extract Asbestos screening pH and water soluble sulphate  Particle size distribution - wet sieve analysis British Geological Survey  No groundwater recorded during fieldwork  Window sampler hole complete at 2.00m - becoming too dense to continue		
				Made Ground (Soft brown sandy [silty] clay with rare fine-medium gravel sized flint, brick and ash fragments and rare roots up to 2mm diameter)			0.30											
				Light brown slightly clayey very sandy SILT with some angular-subangular fine-medium chalk gravel and occasional angular fine-medium flint gravel (Head Deposits?)			0.40	D2										
				Off white structureless weathered CHALK with rare angular-subangular fine-medium flint gravel and rare orange brown staining (Upper Chalk)			0.90	D3										
						1.30	1.30-2.00	D4										
						2.00												

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▼ 1 First Strike  
 ▣ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

<b>Fieldwork By</b>	AJD
<b>Dates</b>	12/10/06
<b>Log</b>	AJD

Sheet 1 of 1  
**WS1**

<b>Project</b> BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN British Geological Survey	<b>Client</b> [REDACTED] British Geological Survey	<b>Boring Methods</b> PERCUSSIVE WINDOW SAMPLER British Geological Survey	<b>Hole No.</b> <b>WS2</b> <b>Sheet</b> 1 of 1 <b>Job No</b> <b>10485</b>
<b>Ground Level</b>	<b>Coordinates</b> m.E. m.N.		

WATER			STRATA				SAMPLING/IN SITU TEST			LAB TESTING					OTHER TESTS AND NOTES	
Date/Time at Depth	Depth of Casing m	Depth to Water m	Inst.	Description	Legend	Level	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ <sub>s</sub> <sup>3</sup> Mg/m <sup>3</sup>		C <sub>u</sub> <sup>2</sup> kN/m <sup>2</sup>
				Made Ground (Grass over soft brown sandy (silty) clay with occasional fine-medium gravel sized flint, chalk, brick and ash fragments and occasional roots and rootlets)	[Pattern]		0.10	D1								
				Made Ground (Soft brown sandy (silty) clay with occasional angular-subrounded fine-coarse flint gravel and occasional fine-medium gravel sized brick and ash fragments and rare roots up to 4mm diameter)	[Pattern]		0.30 0.40 0.50	D2								
				Off white and brown slightly clayey very sandy SILT with much angular fine-coarse chalk gravel and some angular fine-coarse flint gravel (Head Deposits)	[Pattern]		0.90 1.20	D3								
				Off white structureless weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk)	[Pattern]		1.60	D4								
				- becoming very hard with depth	[Pattern]		2.60	D5								
12/10/06		DRY					3.00									

CLEA screen with speciated polyaromatic hydrocarbons  
Polychlorinated biphenyls

Particle size distribution - wet sieve analysis  
British Geological Survey

pH and water soluble sulphate

Window sampler hole complete at 3.00m

On completion of fieldwork a 33mm slotted pipe with granular surround was installed to 3.00m

Pipework capped with a gas valve and protected with a flush lockable cover

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**

1 First Strike  
2 Subsequent Strike  
N - Overnight Depth  
C - Completion Depth  
S - Seepage not rising

**SAMPLE KEY**

D Small disturbed sample  
B Bulk disturbed sample  
W Water sample  
U Undisturbed sample  
P Piston sample

**TEST KEY**

S Standard penetration test  
C Cone penetration test  
K Permeability test  
V In situ vane test

**BLOWS / STRENGTH**

N = N value  
26/150 blows, for 150mm, drive after seating  
26\*, blows for part or whole of seating drive only  
(26) U sample blow count  
V = Vane Strength - kN/m<sup>2</sup>

<b>Fieldwork By</b>	AJD	<b>WS2</b> Sheet 1 of 1
<b>Dates</b>	12/10/06	
<b>Log</b>	AJD	

Project BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN British Geological Survey	Client [REDACTED] British Geological Survey	Boring Methods PERCUSSIVE WINDOW SAMPLER British Geological Survey	Hole No. <b>WS3</b>
Ground Level	Engineer [REDACTED]	Coordinates m.E.                      m.N.	Sheet 1 of 1
			Job No <b>10485</b>

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES	
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>
12/10/06		DRY C	Topsoil - Grass over brown sandy (silty) clay with occasional angular-subangular fine-medium flint gravel and roots up to 1mm diameter			0.20	0.20	D1								CLEA screen with speciated polyanomatic hydrocarbons
			Light brown clayey very sandy SILT with occasional fine-medium chalk gravel and rare angular fine-medium flint gravel (Head Deposits?)			0.80	0.80	D2								
			Soft white structureless weathered CHALK with occasional angular-subangular fine-medium chalk gravel and occasional orange brown staining (Upper Chalk)			2.00	2.00									No groundwater recorded during fieldwork
																Window sampler hole complete at 2.00m

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▼ 1 First Strike  
 ▽ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S - Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By: **AJD**  
 Dates: **12/10/06**  
 Log: **AJD**

Sheet 1 of 1  
**WS3**

Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	WS4
British Geological Survey		Engineer	[REDACTED]	British Geological Survey		Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	10485

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES	
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>
12/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter	[Pattern]		0.30	0.20	D1								CLEA screen with speciated polyaromatic hydrocarbons on soil and leachate extract  Particle size distribution - wet sieve analysis   No groundwater recorded during fieldwork  Window sampler hole complete at 2.00m
			Light brown clayey sandy SILT with some angular-subangular fine-coarse chalk gravel with occasional angular-subangular fine-coarse flint gravel (Head Deposits) - becoming slightly clayey from 0.30 to 0.50m	[Pattern]		0.60		D2								
			Off white structureless weathered CHALK with occasional angular fine-medium flint gravel and orange brown staining (Upper Chalk)	[Pattern]		1.10	1.10	D3								
						1.30-1.90		D4								
						2.00										

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▽ 1 First Strike  
 ∇ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By	AJD	Sheet 1 of 1	WS4
Dates	12/10/06		
Log	AJD		

Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	<b>WS5</b>
British Geological Survey		Engineer	British Geological Survey	British Geological Survey		Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	<b>10485</b>

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES	
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>
12/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter			0.20	0.10	D1								CLEA screen with speciated polyaromatic hydrocarbons pH and water soluble sulphate  No groundwater recorded during fieldwork  Window sampler hole complete at 2.00m
			Made Ground (Soft brown sandy [silty] clay with occasional angular fine-medium flint gravel, rare fine gravel sized brick and occasional roots up to 1mm diameter)			0.40	0.30	D2								
			Light brown and off white sandy structureless weathered CHALK with occasional angular fine-medium flint gravel (Upper Chalk)			0.70	0.60	D3								
			Off white structureless weathered CHALK with occasional angular fine-medium flint gravel and occasional orange brown staining (Upper Chalk) - less gravel with depth			2.00	1.10	D4								

Water Level observations during boring, depths below GL.					<b>WATER</b>	<b>SAMPLE KEY</b>	<b>TEST KEY</b>	<b>BLOWS / STRENGTH</b>	Fieldwork By	Sheet 1 of 1	<b>WS5</b>
Strike	Depth Obs.	Depth after			1 First Strike 2 Subsequent Strike N - Overnight Depth C - Completion Depth S Seepage not rising	D Small disturbed sample B Bulk disturbed sample W Water sample U Undisturbed sample P Piston sample	S Standard penetration test C Cone penetration test K Permeability test V In situ vane test	N = N value 26/150 blows, for 150mm, drive after seating 26*, blows for part or whole of seating drive only (26) U sample blow count V = Vane Strength - kN/m <sup>2</sup>	Dates		
		5min	10 min	15 min					12/10/06		
									Log	AJD	



Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	WS6
British Geological Survey		Engineer	British Geological Survey	British Geological Survey		Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	10485

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m	Inst.	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% <425	W %	W <sub>p</sub> %	W <sub>L</sub> %		ρ <sub>s</sub> Mg/m <sup>3</sup>	C <sub>u</sub> kN/m <sup>2</sup>
				Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter	[Pattern]		0.30	0.20	D1								CLEA screen with speciated polyanomatic hydrocarbons
				Made Ground (Firm brown sandy [silty] clay with much fine-medium chalk gravel and occasional angular fine-medium flint gravel)	[Pattern]		0.70	0.60	D2			14					pH and water soluble sulphate
				Made Ground (Firm-stiff brown sandy [silty] clay with occasional fine-medium gravel sized flint, chalk, brick and ash fragments)	[Pattern]		1.10	1.00	D3		90	13	14	26			
				Light brown very sandy SILT with some angular-subangular fine-medium chalk gravel and occasional angular fine-medium flint gravel (Head Deposits)	[Pattern]		2.00	1.30-1.90	D4								Particle size distribution - wet sieve analysis
				Off white structureless weathered CHALK with occasional angular fine-medium chalk and flint gravel and occasional orange brown staining (Upper Chalk)	[Pattern]		3.00	2.20-3.00	D5								No groundwater recorded during fieldwork
12/10/06		DRY C						3.00									Window sampler hole complete at 3.00m
																	On completion of fieldwork a 33mm slotted pipe with granular surround was installed to 3.00m
																	Pipework capped with a gas valve and protected with a flush lockable cover

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▼ 1 First Strike  
 ▽ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S - Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By	AJD	Sheet 1 of 1	WS6
Dates	12/10/06		
Log	AJD		

Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	WS7
British Geological Survey		Engineer	[REDACTED]	British Geological Survey		Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	10485

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES	
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ <sub>s</sub> Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>
13/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter			0.20	0.20	D1								CLEA screen including speciated PAH and asbestos screen
			Stiff brown and light brown [silty] sandy CLAY with much fine-coarse chalk gravel and occasional angular fine-medium flint gravel (Head Deposits)			0.80	0.80	D2	94	14	14	22				
			Off white structureless weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk)			1.38 - 1.90	1.38 - 1.90	D3								
			- becoming less structured with depth			2.00										No groundwater recorded during fieldwork
																Window sampler hole complete at 2.00m

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▼ 1 First Strike  
 ▽ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By	AJD	Sheet 1 of 1	WS7
Dates	13/10/06		
Log	AJD		

Project BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN Client [REDACTED]  
 British Geological Survey Engineer [REDACTED] British Geological Survey Boring Methods PERCUSSIVE WINDOW SAMPLER  
 Hole No. **WS8**  
 Sheet 1 of 1  
 Job No **10485**

WATER			STRATA				SAMPLING/IN SITU TEST			LAB TESTING					OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>	
13/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional angular-subangular fine-medium flint gravel and roots up to 1mm diameter			0.20		D1								CLEA screen with speciated polycyclic aromatic hydrocarbons on soil and leachate extract pH and water soluble sulphate  Particle size distribution - wet sieve analysis British Geological Survey  No groundwater recorded during fieldwork  Window sampler hole complete at 2.00m	
			Off white and light brown sandy weathered structureless CHALK with occasional angular fine-medium flint gravel (Head Deposits)			0.40		D2									
			Light brown clayey very sandy SILT with some angular fine-medium chalk and flint gravel (Head Deposits?)			0.60				D3							
			Off white weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk)			1.15											
						2.00											

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▽ 1 First Strike  
 ✕ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S - Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By **AJD**  
 Dates **13/10/06**  
 Log **AJD**

Sheet 1 of 1  
**WS8**

Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	WS9
	British Geological Survey	Engineer	British Geological Survey		British Geological Survey	Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	10485

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ <sub>s</sub> Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>	
13/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter	[Pattern]		0.10		D1									
			Stiff brown and light brown [silty] sandy CLAY with much fine-coarse chalk gravel and occasional angular fine-medium flint gravel (Head Deposits?)	[Pattern]		0.30											
			Off white weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk)	[Pattern]		0.80					93	14	15	21			
			- becoming less structured with depth	[Pattern]		1.00											
						2.00											

British Geological Survey

No groundwater recorded during fieldwork

Window sampler hole complete at 2.00m

British Geological Survey

Water Level observations during boring, depths below GL.					
Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**

☒ 1 First Strike

☒ 2 Subsequent Strike

N - Overnight Depth

C - Completion Depth

S - Seepage not rising

**SAMPLE KEY**

D Small disturbed sample

B Bulk disturbed sample

W Water sample

U Undisturbed sample

P Piston sample

**TEST KEY**

S Standard penetration test

C Cone penetration test

K Permeability test

V In situ vane test

**BLOWS / STRENGTH**

N = N value

26/150 blows, for 150mm, drive after seating

26\*, blows for part or whole of seating drive only

(26) U sample blow count

V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By	AJD	Sheet 1 of 1	WS9
Dates	13/10/06		
Log	AJD		

<b>Project</b> BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	<b>Client</b> [REDACTED]	<b>Boring Methods</b> PERCUSSIVE WINDOW SAMPLER	<b>Hole No.</b> WS10
British Geological Survey	<b>Engineer</b> [REDACTED] British Geological Survey	British Geological Survey	<b>Sheet</b> 1 of 1
<b>Ground Level</b>	<b>Coordinates</b> m.E. m.N.		<b>Job No</b> 10485

WATER			STRATA				SAMPLING/IN SITU TEST			LAB TESTING				OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	Wp %	W <sub>L</sub> %		ρ Mg/m <sup>3</sup>	C <sub>u</sub> kN/m <sup>2</sup>
13/10/06		DRY C	Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter	[Pattern]		0.10		D1								
			Firm brown sandy [silty] CLAY with much angular-subangular fine-medium chalk gravel and occasional angular fine-medium flint gravel (Head Deposits)	[Pattern]		0.30		0.40		D2	71	20	20	36		
			Off white weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk) becoming less structured from 1.10m	[Pattern]		0.45		0.90		D3						
						2.00										

CLEA screen with speciated polyaromatic hydrocarbons

pH and water soluble sulphate.

British Geological Survey

No groundwater recorded during fieldwork

Window sampler hole complete at 2.00m

<b>Water Level observations during boring, depths below GL.</b> <table border="1"> <tr> <th rowspan="2">Strike</th> <th rowspan="2">Depth Obs.</th> <th colspan="4">Depth after</th> </tr> <tr> <th>5min</th> <th>10 min</th> <th>15 min</th> <th>20 min</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				Strike	Depth Obs.	Depth after				5min	10 min	15 min	20 min							<b>WATER</b> 1 First Strike 2 Subsequent Strike N - Overnight Depth C - Completion Depth S Seepage not rising		<b>SAMPLE KEY</b> D Small disturbed sample B Bulk disturbed sample W Water sample U Undisturbed sample P Piston sample		<b>TEST KEY</b> S Standard penetration test C Cone penetration test K Permeability test V In situ vane test		<b>BLOWS / STRENGTH</b> N = N value 26/150 blows, for 150mm, drive after seating 26* blows for part or whole of seating drive only (26) U sample blow count V = Vane Strength - kN/m <sup>2</sup>		<b>Fieldwork</b> By AJD Dates 13/10/06 Log AJD		Sheet 1 of 1 <b>WS10</b>
Strike	Depth Obs.	Depth after																												
		5min	10 min	15 min	20 min																									

Project	BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client	[REDACTED]	Boring Methods	PERCUSSIVE WINDOW SAMPLER	Hole No.	WS11
	British Geological Survey	Engineer	British Geological Survey		British Geological Survey	Sheet	1 of 1
Ground Level		Coordinates	m.E. m.N.			Job No	10485

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES		
Date/Time at Depth	Depth of Casing m	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %	ρ Mg/m <sup>3</sup>		C <sub>u</sub> kN/m <sup>2</sup>	
13/10/06	DRY C		Topsoil - Grass over brown sandy [silty] clay with occasional angular-subangular fine-medium flint gravel and roots up to 1mm diameter	[Pattern]		0.10		D1								pH and water soluble sulphate  Particle size distribution - wet sieve analysis  British Geological Survey  No groundwater recorded during fieldwork  Window sampler hole complete at 2.00m	
			Made Ground (Soft brown sandy [silty] clay with occasional fine-medium chalk gravel and rare fine gravel sized ash and brick fragments)	[Pattern]		0.30		D2			15						
			Light brown clayey very sandy SILT with some angular-subangular fine-coarse chalk gravel and occasional angular fine-medium flint gravel (Head Deposits?)	[Pattern]		0.45		D3									
			Off white weathered structureless CHALK with rare angular fine-medium chalk and flint gravel and occasional orange brown staining (Upper Chalk)	[Pattern]		0.90		D4	1.30	1.30-2.00							
						2.00											

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▽ 1 First Strike  
 ▽ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S - Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26", blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By	AJD	Sheet 1 of 1	WS11
Dates	13/10/06		
Log	AJD		

Project BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN Client [REDACTED] Boring Methods PERCUSSIVE WINDOW SAMPLER Hole No. **WS12**  
 British Geological Survey Engineer [REDACTED] British Geological Survey Sheet 1 of 1  
 Ground Level Coordinates m.E. m.N. Job No **10485**

WATER			STRATA				SAMPLING/IN SITU TEST				LAB TESTING				OTHER TESTS AND NOTES						
Date/Time at Depth	Depth of Casing m	Depth to Water m	Inst.	Description	Legend	Level	Depth m	Depth m	Type & No.	Blows/Strength	% < 425	W %	W <sub>p</sub> %	W <sub>L</sub> %		ρ <sub>s</sub> Mg/m <sup>3</sup>	C <sub>u</sub> kN/m <sup>2</sup>				
13/10/06	DRY C		[Diagram of casing]	Topsoil - Grass over brown sandy [silty] clay with occasional fine-medium gravel sized flint and chalk and occasional roots and rootlets up to 3mm diameter	[Pattern]		0.10		D1												
				Off white weathered CHALK with rare angular fine-medium flint gravel and rare orange brown staining (Upper Chalk)	[Pattern]		0.30														
				- becoming more stained with depth	[Pattern]																pH and water soluble sulphate
				- becoming structureless with depth	[Pattern]																British Geological Survey
					[Pattern]																
							2.00		D4												
							2.30-2.90		D5										No groundwater recorded during fieldwork		
							3.00												Window sampler hole complete at 3.00m		
																			On completion of fieldwork a 33mm slotted pipe with granular surround was installed to 3.00m		
																			Pipework capped with a gas valve and protected with a flush lockable cover		

Water Level observations during boring, depths below GL.

Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

**WATER**  
 ▼ 1 First Strike  
 √ 2 Subsequent Strike  
 N - Overnight Depth  
 C - Completion Depth  
 S - Seepage not rising

**SAMPLE KEY**  
 D Small disturbed sample  
 B Bulk disturbed sample  
 W Water sample  
 U Undisturbed sample  
 P Piston sample

**TEST KEY**  
 S Standard penetration test  
 C Cone penetration test  
 K Permeability test  
 V In situ vane test

**BLOWS / STRENGTH**  
 N = N value  
 26/150 blows, for 150mm, drive after seating  
 26\*, blows for part or whole of seating drive only  
 (26) U sample blow count  
 V = Vane Strength - kN/m<sup>2</sup>

Fieldwork By **AJD**  
 Dates **13/10/06**  
 Log **AJD**

Sheet 1 of 1  
**WS12**





Project BELL SCHOOL, PEASLANDS ROAD, SAFFRON WALDEN	Client [REDACTED]	Trial Pit Excavation Methods NEW HOLLAND 180 DEGREE EXCAVATOR	Hole No. <b>TP2</b>
British Geological Survey	Engineer [REDACTED] British Geological Survey	Pit Dimensions: Length - 2.10 m Width - 0.50 m	Sheet 1 of 1
Ground Level	Coordinates m.E. m.N.	Orientation: Length -	Job No <b>10485</b>

WATER		STRATA			SAMPLING/IN SITU TEST			LAB TESTING			OTHER TESTS AND NOTES			
Date/Time at Depth	Depth to Water m	Description	Legend	Level	Depth m	Depth m	Type & No.	Test Result	% < 425	W %		W <sub>p</sub> %	W <sub>L</sub> %	
26/10/06	DRY C	Topsoil (Soft brown [silty] sandy clay with occasional angular-subangular fine-medium flint gravel and occasional roots and rootlets up to 2mm diameter)			0.30	0.20	D1						<p>No groundwater recorded during excavation</p> <p>Trial pit complete at 2.00m</p> <p>Pit backfilled with stone for soakage tests</p>	
		Made Ground (Brown [silty] sandy clay with occasional angular-subangular fine-medium flint gravel, rare fine-medium gravel sized brick fragments and rare rootlets)			0.50	0.40	D2							
		60/40 mix of light brown silty fine-coarse SAND and off white fine-coarse chalk gravel with some fine gravel-cobble sized angular-subangular flint gravel (Head Deposits?) - becoming more chalky from 0.50 to 1.00m				1.60	0.90	D3						
		Structureless CHALK composed of off white (50/50) mix of gravel sized off weak-moderately weak chalk and silt sand sized fragments with some black speckling and occasional orange brown staining [Grade Dc] (Upper Chalk)				1.90	1.60	D4						
						2.00	2.00	D5						

<b>Pit Stability, Shoring, etc.</b>
No collapse of sides of trial pit

Water Level observations during digging, depths below GL.					
Strike	Depth Obs.	Depth after			
		5min	10 min	15 min	20 min

WATER		SAMPLE AND TEST KEY	
▼ 1 First Strike	D Small disturbed sample	PP Perth Penetrometer Test	
⚡ 2 Subsequent Strike	B Bulk disturbed sample	HV Hand shear vane test	
N - Overnight Depth	W Water sample	SRD Sand replacement density test	
C - Completion Depth	U Undisturbed sample	CBR In situ CBR test	
S Seepage not rising	K Percolation Test	PB Plate Bearing Test	

TEST RESULT	
N <sub>p</sub> =	N <sub>p</sub> Value
V =	Average Hand Shear Vane Strength - kN/m <sup>2</sup>
BD =	In-Situ Bulk Density - Mg/m <sup>3</sup>
CBR =	California Bearing Ratio - %

Fieldwork By	AJD	Sheet 1 of 1	<b>TP2</b>
Dates	26/10/06		
Log	AJD		