

20th February 2024

13508 – Havant Phase 2: - Engineers Response to planning condition 24

Application Summary: -

Reference: APP/22/00172

Proposal: Construction Environmental Management Plan - Minerals Recovery

In relation to minerals recovery, Condition 24 of planning permission Ref: APP/22/00172 requires a statement providing the following:

- I. a method for ensuring that minerals that can be viably recovered during the development operations are recovered and put to beneficial use; and,
- II. a method to record the quantity of recovered mineral (re-use on site or off site) and to report this data to the Local Planning Authority in consultation with the Minerals Planning Authority.

Phase 2 Considerations

Borehole logs from the intrusive investigations carried out by Applied Geology indicate that the site consists of made geology to depths between 1.20m and 2.20m bgl overlaying River Terrace Deposits at depths between 1.0m and 3.5m bgl.

The existing site levels are currently around 4.3m AOD and 4.5m AOD.

Due to significant portions of the site identifying as being in Flood Zone 3 by 2055, and as required under Condition 7, the development's finished floor levels are set at 5.50m AOD. This is circa 1.0m above the existing site levels.

Ground improvements will be utilised on site once the site has been raised, by using Vibro-Stone columns (or similar), where they would extend through the imported fill, existing Made Ground, Superficial Deposits and gain support within the Chalk layer. The potential for encountering recoverable minerals following ground improvements is therefore considered unlikely.

However, if minerals are encountered following ground improvement, these will be recovered. Upon further detailed design, method of recovery and use can be determined.

The Draft Borehole Logs by Applied geology is appended to this letter.

BOREHOLE LOG - CABLE PERCUSSION

CP01

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 03/11/2023

Coordinates E 471262.31 N 105607.54

Scale

1:50

End 06/11/2023

Ground Level 4.64m AOD

Total Depth

16.90m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	0.15	PID = 0.0		4.49	(0.15)	Asphalt.			
ES	0.20				0.15	(MADE GROUND)			
PID	0.20					Grey slightly clayey slightly sandy coarse subangular to angular GRAVEL of limestone.			
D	0.60				(0.85)	(MADE GROUND - SUBBASE)			
D	1.10	N = 22	1.20	3.64	1.00	Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint.			
C	1.20					(MADE GROUND)			
D	1.70				(1.20)				
C	2.00	N = 15	1.50	2.44	2.20	Firm light grey slightly gravelly sandy SILT/CLAY. Sand is medium to coarse subrounded chalk. Gravel is medium to coarse subangular to rounded flint.			
D	2.30					(ALLUVIUM)			
D	2.80	N = 18	3.00		(1.30)				
S	3.00								
D	3.50			1.14	3.50	Light greyish cream silty sandy GRAVEL. Gravel is fine to coarse subangular to subrounded cream chalk with occasional flint.			
B	3.60				(0.60)	(RIVER TERRACE DEPOSITS)			
C	4.10	N = 14	4.10	0.54	4.10	Structureless CHALK composed of cream silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc.			
D	4.30	(20)				(UNDIFFERENTIATED CHALK)			
UT	4.40								
D	5.00	N = 15	5.00						
S	5.00								
D	6.00								
D	6.50	N = 21	6.00			At 6.50m bgl: coarse gravel of flint.			
S	6.50								
B	6.95								
D	8.00	N = 28	8.00						
S	8.00								
D	9.00								
D	9.40	N = 31	9.00						
S	9.40				(11.10)				

Continued next sheet

Chiselling			Groundwater Strikes					Drilled: TS Logged: EY Checked: AS
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed	
			4.00	1.80		3.80		

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 3.00m bgl.

Installation: 50mm diameter standpipe installed to 6.00m bgl.

Diameter: 150mm to 16.90m

Exploratory hole logs should be read in conjunction with key sheets

APPLIED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP02

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 02/11/2023

Coordinates E 471335.45 N 105499.92

Scale

1:50

End 03/11/2023

Ground Level 4.33m AOD

Total Depth

17.29m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	0.15	PID = 0.0		4.18	(0.15)	Asphalt.			
ES	0.20				0.15	(MADE GROUND)			
PID	0.20				(0.45)	Brownish grey slightly clayey slightly sandy medium to coarse subangular to angular GRAVEL of limestone.			
D	0.60			3.73	0.60	(MADE GROUND - SUBBASE)			
					(0.50)	Brown very sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded flint, brick, concrete and rare ash.			
D	1.10			3.23	1.10	(MADE GROUND)			
C	1.20	N = 26	1.20		(0.50)	Brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to subrounded flint.			
D	1.50			2.73	1.60	(MADE GROUND)			
B	1.60					Medium dense brown slightly sandy medium to coarse subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are rounded flint.			
C	2.10	N >50	2.00			(RIVER TERRACE DEPOSITS)			
B	2.30					At 2.30m to 2.50m bgl: flint cobble.			
B	2.50								
B	3.00				(2.70)				
C	3.00								
C	4.00	N = 19	4.00						
D	4.10								
D	4.30								
D	4.60			0.03	4.30	Structureless CHALK composed of yellowish cream silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is yellowish cream. Grade Dc.			
S	4.60				(1.10)	(UNDIFFERENTIATED CHALK)			
D	5.40			-1.07	5.40	Structureless CHALK composed cream silty GRAVEL. Clasts are extremely weak cream with occasional black speckles and brown staining. Matrix is cream. Grade Dc.			
D	5.80					(UNDIFFERENTIATED CHALK)			
S	5.80								
D	6.60								
D	7.30								
S	7.30								
D	8.40								
D	8.60								
S	8.60								
D	9.50								
D	10.00				(8.60)				

Continued next sheet

Chiselling			Groundwater Strikes					Drilled: TS Logged: EY Checked: AS
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed	
2.30	2.50	01:00	1.60	1.40		1.50		

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 1.60m bgl.

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Diameter: 150mm to 17.29m

Exploratory hole logs should be read in conjunction with key sheets

APPLIED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP03

Project Langstone Technology Park, Havant

Project No.

AG3544-23

Client Havant S.a.r.l.

Sheet

1 of 2

Start 31/10/2023

Coordinates E 471346.91 N 105559.39

Scale

1:50

End 01/11/2023

Ground Level 4.66m AOD

Total Depth

17.20m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	0.20	PID = 0.0		4.46	(0.20)	Asphalt.			
ES	0.20				0.20	(MADE GROUND)			
PID	0.20			4.16	(0.30)	Reddish brown slightly clayey slightly sandy GRAVEL. Gravel is medium to coarse subangular to angular igneous.			
D	0.50				0.50	(MADE GROUND - SUBBASE)			
D	1.00	N = 14	1.20		(0.70)	Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint with rare fine subangular brick.			
C	1.20			3.46	1.20	(MADE GROUND)			
					(0.60)	Medium dense brown very clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to rounded flint.			
B	1.80			2.86	1.80	(MADE GROUND)			
D	1.80	N = 24	2.00			Medium dense brown slightly sandy GRAVEL with low cobble content. Gravel is medium to coarse angular to subrounded flint. Cobbles are rounded flint.			
C	2.00					(RIVER TERRACE DEPOSITS)			
B	2.10								
B	3.00	N = 31	3.00						
C	3.00								
					(3.30)				
B	4.00	N = 25	4.00						
C	4.00								
D	5.10	N = 20	5.00	-0.44	5.10	Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc.			
D	5.20					(UNDIFFERENTIATED CHALK)			
S	5.20								
D	6.00	N = 17	6.50						
D	6.50								
S	6.50								
D	7.50	N = 22	8.00						
D	8.00								
S	8.00								
D	9.00	N = 28	9.50						
D	9.50								
S	9.50								

Continued next sheet

Chiselling			Groundwater Strikes					Drilled: TS Logged: EY Checked: AS
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed	
			2.20	2.20		1.50		

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 7.20m bgl.

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Diameter: 150mm to 17.20m

Exploratory hole logs should be read in conjunction with key sheets

APPLIED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP03

Project

Langstone Technology Park, Havant

Project No.

AG3544-23

Client

Havant S.a.r.l.

Sheet

2 of 2

Start

31/10/2023

Coordinates

E 471346.91 N 105559.39

Scale

1:50

End

01/11/2023

Ground Level

4.66m AOD

Total Depth

17.20m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	10.50					Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream with occasional black specks. Matrix is cream. Grade Dc. (UNDIFFERENTIATED CHALK)			
D S	11.00 11.00	N = 37	11.00						
D D	12.00 12.00			-7.34	12.00	CHALK recovered as cream silty GRAVEL and COBBLES. Gravel is very weak cream with brown staining. Matrix is cream. (UNDIFFERENTIATED CHALK) (RIVER TERRACE DEPOSITS)			
S	12.60	N = 50	12.60						
D	13.50								
D S	14.20 14.20	N = 50	14.20	(5.20)					
D	15.30								
D S	15.70 15.70	N >50	15.70						
D D S	16.60 16.80 16.80	N >50	16.80	-12.54	17.20				
End of Borehole at 17.20m									

Chiselling			Groundwater Strikes					Drilled: TS Logged: EY Checked: AS
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed	
			2.20	2.20		1.50		

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 7.20m bgl.

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Diameter: 150mm to 17.20m

Exploratory hole logs should be read in conjunction with key sheets

APPLIED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS01

Project

Langstone Technology Park, Havant

Client

Havant S.a.r.l.

Start

01/11/2023

End

01/11/2023

Coordinates

E 471372.35 N 105525.53

Ground Level

4.77m AOD

Project No.

AG3544-23

Sheet

1 of 2

Scale

1:25

Total Depth

5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
ES	0.40			4.67	(0.10)	Asphalt.			
					0.10	(MADE GROUND)			
				4.52	(0.15)	Grey slightly clayey slightly sandy GRAVEL. Gravel is coarse angular limestone.			
					0.25	(MADE GROUND - SUBBASE)			
						Brown slightly clayey medium to coarse subangular to rounded GRAVEL of flint and occasional fragments of brick.			
						(MADE GROUND)			
					(1.15)				
C	1.20	N = 14							
B	1.40			3.37	1.40	Medium dense greyish brown very clayey GRAVEL with low cobble content. Gravel is medium to coarse subangular to rounded flint. Cobbles are subrounded flint.			
			116mm /80%		(0.45)	(RIVER TERRACE DEPOSITS)			
D	1.80			2.92	1.85	Soft light brown to cream slightly sandy very gravelly CLAY. Gravel is fine to coarse subangular to subrounded flint and chalk.			
B	2.00	N = 17		2.77	(0.15)	(RIVER TERRACE DEPOSITS)			
C	2.00				2.00	Medium dense light brown slightly sandy clayey GRAVEL. Gravel is fine to coarse subangular to subrounded flint and occasional chalk.			
						(RIVER TERRACE DEPOSITS)			
D	2.50		101mm /70%		(1.60)				
C	3.00	N = 18							
D	3.50		101mm /80%	1.17	3.60	Firm cream slightly sandy slightly gravelly SILT. Gravel is subangular chalk and flint. (UNDIFFERENTIATED CHALK)			
D	3.90	N = 19							
C	4.00				(1.40)				
			101mm /50%						
S	5.00	N = 16		-0.23	5.00	Continued next sheet			

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes					Drilled: DH Logged: EY Checked: AS
Depth Strike	Rose to	Remarks	Cased	Sealed	
2.10	2.10				

DCS01

Project No. AG3544-23

Sheet 2 of 2

Scale 1:25

Total Depth 5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
						End of Borehole at 5.45m			

Groundwater Strikes					Drilled: DH Logged: EY Checked: AS
Depth Strike	Rose to	Remarks	Cased	Sealed	
2.10	2.10				

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS02

Project

Langstone Technology Park, Havant

Client

Havant S.a.r.l.

Start

01/11/2023

End

01/11/2023

Coordinates

E 471270.18 N 105549.66

Ground Level

4.45m AOD

Project No.

AG3544-23

Sheet

1 of 2

Scale

1:25

Total Depth

5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
ES	0.20	N = 18	116mm /80%	4.35	(0.10) 0.10	Asphalt. (MADE GROUND) Reddish brown slightly clayey slightly sandy GRAVEL. Gravel is coarse angular limestone. (MADE GROUND - SUBBASE)			
D	0.60			3.75	0.70	Brown slightly sandy very gravelly CLAY. Gravel is fine to coarse subangular to rounded flint and rare brick fragments. (MADE GROUND)			
D	0.90			3.45	1.00	Soft dark grey mottled orangish brown slightly sandy slightly gravelly SILT. Gravel is fine to medium subrounded flint. (POSSIBLE BURIED TOPSOIL)			
D	1.10			3.25	1.20	Firm brown slightly gravelly slightly sandy CLAY. Gravel is fine to medium subrounded chalk and flint. (POSSIBLE BURIED TOPSOIL)			
C	1.20	N = 18	101mm /70%	3.00	1.45	Light brown slightly sandy very clayey GRAVEL with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are subangular to rounded flint. (RIVER TERRACE DEPOSITS)			
D	1.30			2.40	2.05	Light brown slightly sandy slightly clayey GRAVEL. Gravel is medium to coarse subangular to subrounded flint. (RIVER TERRACE DEPOSITS)			
B	1.50			(1.35)					
C	2.00			1.05	3.40	Soft light grey slightly sandy slightly gravelly SILT. Gravel is fine rounded chalk.			
D	2.20	N = 14	92mm /80%	0.50	3.95	Structureless CHALK composed of slightly sandy slightly gravelly cream SILT. Gravel is fine to coarse subangular extremely weak cream chalk with occasional black specks. Grade Dm. (UNDIFFERENTIATED CHALK)			
D	3.60			(1.50)					
C	4.00								
D	4.20								
D	4.80	N = 19							
S	5.00								

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes					Drilled: DH Logged: EY Checked: AS
Depth Strike	Rose to	Remarks	Cased	Sealed	
2.30	2.10				

DCS03

Project No. AG3544-23

Sheet 1 of 1

Scale 1:25

Total Depth 0.40m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
				4.78	(0.01)	Asphalt.			
					0.01	(MADE GROUND)			
					(0.29)	Grey slightly clayey slightly sandy GRAVEL. Gravel is coarse angular limestone.			
				4.49	0.30	(MADE GROUND - SUBBASE)			
				4.39	(0.10)	CONCRETE.			
					0.40	(MADE GROUND)			
						End of Borehole at 0.40m			

Installation:

Remarks: Hand dug service inspection pit excavated to 0.40m bgl. Borehole terminated at 0.40m bgl due to concrete obstruction. Borehole backfilled with arisings on completion.

Groundwater Strikes					Drilled: DH Logged: EY Checked: AS
Depth Strike	Rose to	Remarks	Cased	Sealed	

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS3A

Project

Langstone Technology Park, Havant

Client

Havant S.a.r.l.

Start

02/11/2023

End

02/11/2023

Coordinates

E 471378.00 N 105591.00

Ground Level

4.99m AOD

Project No.

AG3544-23

Sheet

1 of 2

Scale

1:25

Total Depth

5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install	
ES	0.15	N = 14		4.79	(0.20) 0.20	Grass over soft brown very sandy slightly gravelly CLAY with frequent roots and rootlets. Gravel is fine to coarse subrounded flint. (MADE GROUND/TOPSOIL)				
D	0.60			(0.90)	Soft brown very gravelly slightly sandy CLAY with low cobble content. Gravel is fine to coarse subrounded to rounded flint. Cobbles are rounded flint. (MADE GROUND)					
D	1.20			3.89	1.10	Soft dark brownish grey slightly sandy slightly gravelly SILT. Gravel is fine to coarse subrounded flint. (POSSIBLE BURIED TOPSOIL)				
C	1.20			3.69	1.30	Medium dense light brownish cream very clayey slightly gravelly coarse SAND. Gravel is fine to coarse subangular to rounded flint. (RIVER TERRACE DEPOSITS)				
B	1.30	N = 15	116mm /80%	(0.55)						
D	1.80			3.14	1.85	Medium dense light brown slightly clayey slightly sandy GRAVEL with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are subangular to rounded flint. (RIVER TERRACE DEPOSITS)				
C	2.00			101mm /80%	(1.75)					
D	2.10									
B	2.20	N = 14								
C	3.00									
				101mm /80%	1.39	3.60	Firm cream sandy gravelly SILT/CLAY. Gravel is fine to coarse subangular to subrounded chalk and flint. (UNDIFFERENTIATED CHALK)			
D	3.80									
C	4.00	N = 15			(1.10)					
				101mm /100%						
					0.29	4.70	Structureless CHALK composed of cream slightly silty GRAVEL and COBBLES. Clasts are extremely weak cream chalk with occasional black specks. Matrix is cream. Grade Dc.			
D	4.80									
S	5.00	N = 18								
Continued next sheet										

Installation: 50mm diameter standpipe installed to 2.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes					Drilled: DH Logged: EY Checked: AS
Depth Strike	Rose to	Remarks	Cased	Sealed	
2.20	2.10				

TRIAL PIT LOG

SA01

Project Langstone Technology Park, Havant

Project No. AG3544-23

Client Havant S.a.r.l.

Sheet 1 of 1

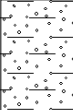
Date 23/10/2023

Scale 1:25

Ground Level 4.82m AOD

Coordinates E 471321.58 N 105599.43

Total Depth 1.20m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW	
ES	0.60		4.64	(0.18)		Asphalt. (MADE GROUND)			
				0.18		Grey slightly sandy coarse angular GRAVEL of quartzite. (MADE GROUND - SUBBASE)			
				(0.37)					
				4.27			0.55		Soft to firm brown very gravelly CLAY. Gravel is fine to medium subangular to subrounded flint. (MADE GROUND)
				(0.25)					
4.02	0.80	Very soft light brown very clayey GRAVEL. Gravel is fine to coarse subangular to subrounded flint. (RIVER TERRACE DEPOSITS)							
(0.40)									
3.62	1.20	End of Trial Pit at 1.20m							
Draft									

Method: Wheeled backhoe excavator

Groundwater: Groundwater standing at 1.20m bgl.

Stability: Stable.

Remarks: Trial pit terminated at 1.20m bgl as deemed not suitable for soakaway test due to high groundwater level. Trial pit backfilled with arisings on completion.

Length: 2.10m

Width: 0.60m

Logged: EY

Checked: AS

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
				(0.18)		Asphalt.		
			4.20	0.18		(MADE GROUND)		
			4.14	(0.07)		Grey slightly sandy coarse angular GRAVEL of limestone.		
			4.04	0.25		(MADE GROUND - SUBBASE)		
				(0.10)		Firm to soft dark brown slightly gravelly SILT. Gravel is fine to medium subrounded flint.		
			3.88	0.35		(MADE GROUND)		
			3.78	(0.15)		Soft brown very gravelly CLAY with low cobble content. Gravel is fine to coarse subangular to rounded flint. Cobbles are rounded flint.		
				0.50		(MADE GROUND)		
				(0.10)		CONCRETE.		
				0.60		(MADE GROUND)		
						At 0.60m bgl: concrete obstruction encountered.		
						End of Trial Pit at 0.60m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Trial pit terminated at 0.60m bgl due to concrete obstruction. Trial pit backfilled with arisings on completion.

Length:	1.90m
Width:	0.60m
Logged:	EY
Checked:	AS

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
ES	0.30		4.25	(0.12)		Asphalt.		
			4.17	0.12		(MADE GROUND)		
				(0.08)		Grey slightly sandy coarse angular GRAVEL of limestone.		
				0.20		(MADE GROUND - SUBBASE)		
						Soft brown very gravelly slightly sandy CLAY. Gravel is fine to coarse subangular to subrounded flint.		
				(0.70)		(MADE GROUND)		
			3.47	0.90		Soft dark greyish brown slightly gravelly SILT. Gravel is fine to coarse subrounded flint.		
				(0.20)		(MADE GROUND)		
			3.27	1.10		Brown slightly clayey slightly sandy GRAVEL. Gravel is fine to coarse subangular to subrounded flint.		
				(0.20)		(RIVER TERRACE DEPOSITS)		
			3.07	1.30		End of Trial Pit at 1.30m		

Method:

Wheeled backhoe excavator

Groundwater:

Groundwater standing at 1.30m bgl.

Stability:

Stable.

Remarks:

Trial pit terminated at 1.30m bgl as deemed unsuitable for soakaway test due to groundwater. Trial pit backfilled with arisings on completion.

Length:

1.90m

Width:

0.60m

Logged:

EY

Checked:

AS

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
D	0.90		4.44	(0.09)		Asphalt.		
				0.09		(MADE GROUND)		
			4.33	(0.11)		Grey slightly sandy coarse angular GRAVEL of limestone.		
				0.20		(MADE GROUND - SUBBASE)		
						Soft brown very gravelly CLAY. Gravel is fine to coarse subrounded to subangular flint.		
				(0.60)		(MADE GROUND)		
			3.73	0.80		Soft dark brown slightly gravelly SILT. Gravel is fine to coarse subangular to subrounded flint.		
				(0.20)		(MADE GROUND)		
			3.53	1.00		Grey slightly sandy slightly clayey GRAVEL with low cobble content. Gravel is fine to coarse subangular to subrounded flint. Cobbles are subrounded flint.		
						(RIVER TERRACE DEPOSITS)		
				(0.60)				
B	1.50		2.93	1.60		End of Trial Pit at 1.60m		

Method:

Wheeled backhoe excavator

Groundwater:

Groundwater seepage at 1.60m bgl.

Stability:

Stable.

Remarks:

Soakaway test undertaken within trial pit, see separate results sheet for details. Trial pit backfilled with 20mm single sized gravel and standpipe installed to allow soakaway test to be undertaken.

Length:

1.90m

Width:

0.60m

Logged:

EY

Checked:

AS

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
ES	0.40		4.12	(0.14)		Asphalt. (MADE GROUND)		
				0.14		Grey slightly sandy coarse angular GRAVEL of limestone.		
			3.96	(0.16)		(MADE GROUND - SUBBASE)		
D	0.70			0.30		Firm brown slightly sandy very gravelly CLAY. Gravel is fine to coarse subrounded flint. (MADE GROUND)		
				(0.60)				
			3.36	0.90		Soft dark greyish brown slightly sandy slightly gravelly SILT. Gravel is fine to medium subrounded to rounded flint.		
D	1.50		3.21	(0.15)		(MADE GROUND)		
				1.05		Light brown to cream slightly clayey slightly sandy medium to coarse subangular to subrounded GRAVEL of flint with low cobble content. Gravel is chalk and flint. Cobbles are flint.		
				(1.25)		(RIVER TERRACE DEPOSITS)		
D	2.00							
			1.96	2.30		End of Trial Pit at 2.30m		

Method:

Wheeled backhoe excavator

Groundwater:

Groundwater at 2.28m bgl.

Stability:

Stable.

Remarks:

Soakaway test undertaken within trial pit, see separate results sheet for details. Trial pit backfilled with 20mm single sized gravel and standpipe installed to allow soakaway test to be undertaken.

Length:

2.10m

Width:

0.60m

Logged:

EY

Checked:

AS