Technical Note:

Hamble Quarry: Groundwater Flow

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1 Introduction

1.1 Background

Following submission of a planning application for sand and gravel extraction, followed by restoration with inert materials at Hamble Airfield (the Site), CEMEX UK Materials Ltd (CEMEX) has entered into correspondence with consultees. Correspondence with regard to groundwater flow and groundwater level issues is summarised below.

Flood and Water management team, Economy, Transport & Environment Department, Hampshire County Council;

- Initial letter from Flood and Water management team SWM/2022/0033 dated 7 February 2022 to which Stantec UK Ltd (Stantec) responded by letter on 24 May 2022,
- Stantec letter response 331201108pbond001 dated 24 May 2022,
- Follow up letter from Flood and Water management team SWM/2022/0033 dated 30 January 2023.

The majority of the issues raised by the latest Flood and Water management team letter relate to surface water issues which are addressed separately in Stantec (2023a).

However, the point "*A technical assessment on how the proposed material will impact groundwater flows and any mitigation proposed to manage the risk of groundwater flow obstruction*" relates to hydrogeological issues and this is dealt with in this Technical Note.

Network Rail

- Letter from Nick Donoghue, Network Rail, dated 14 March 2022 to which Stantec responded by letter on 23 June 2023,
- Stantec letter response 331201108pbond002 dated 23 June 2022,
- Subsequent email from Sameem Bhatti dated 1 February 2023,
- Subsequent email from Nicholas Donaghue, Network Rail, dated 27 February 2023.

The majority of the issues raised in the 1 February email from Network Rail relate to the potential for railway settlement due to dewatering associated with the freshwater lagoon construction and this issue is addressed separately in Stantec (2023b). The email also states that mitigation proposed in case of groundwater levels rising up hydraulic gradient of the Site due to lower hydraulic conductivity fill material being placed in the Site following sand and gravel extraction should be put in place prior to development occurring. This Technical Note addresses this issue and demonstrates why such mitigation is unlikely to be required.

The majority of the issues raised in the 27 February email relate to the potential for surface flooding impacting on railway infrastructure and this issue is addressed separately in Stantec (2023a) to which this Technical Note forms an appendix. The email also states that the water storage level in the lagoons will be above the level of the tracks and as such Network Rail's Geotechnical Team may have concerns regarding the potential for increased seepages at the cutting face. This Technical Note addresses this issue.

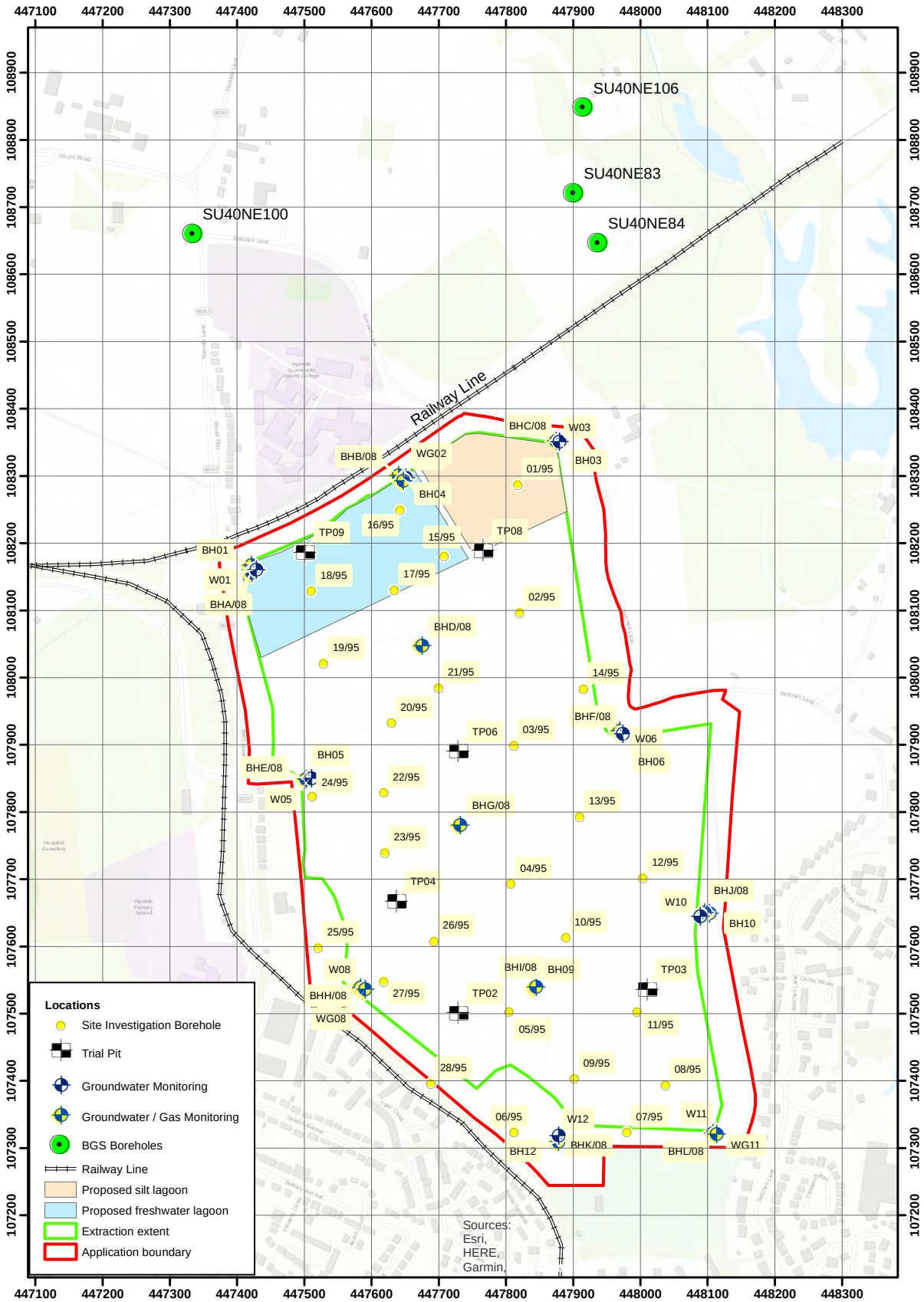
1.2 Scope of work

In order to address hydrogeological concerns raised by the Flood and Water management team and Network Rail, this Technical Note presents further discussion on groundwater levels and flow to demonstrate the likely increase in groundwater levels up hydraulic gradient of the Site following sand and gravel extraction and restoration with inert waste material and the subsequent impacts on groundwater flow rate and direction.

A plan showing the location of boreholes and trial pits referred to in this Technical Note is included as Figure 1.1, which also shows the railway line and Site outline.

Site topography is shown on Figure 1.2 whilst Figure 1.3 shows topography data, constrained to show elevations between 15 and 25 mAOD in the northern part of the Site. This clearly shows the railway line running in a cutting to the north of the Site. To the west of the Site, 1 m resolution LiDAR data are not available for the northern part (see gap in data on Figure 1.3). However, the Terrain 50 data used to infill this data gap, and the southern part of the western side, show that the railway line down the western side is not within a cutting.

Figure 1.1 Site plan showing boreholes and trial pits



Stantec

Figure 1.2 Site topography

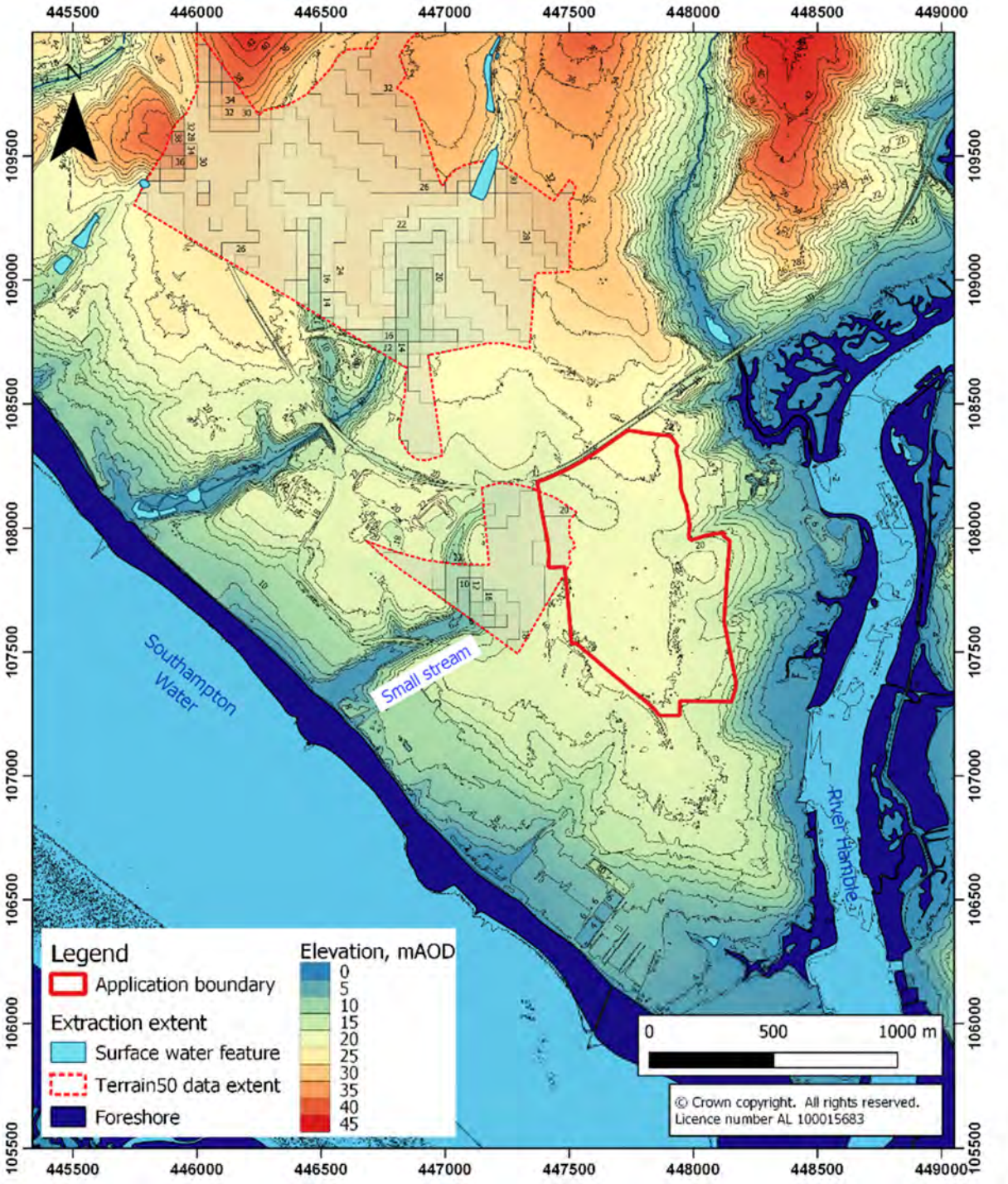
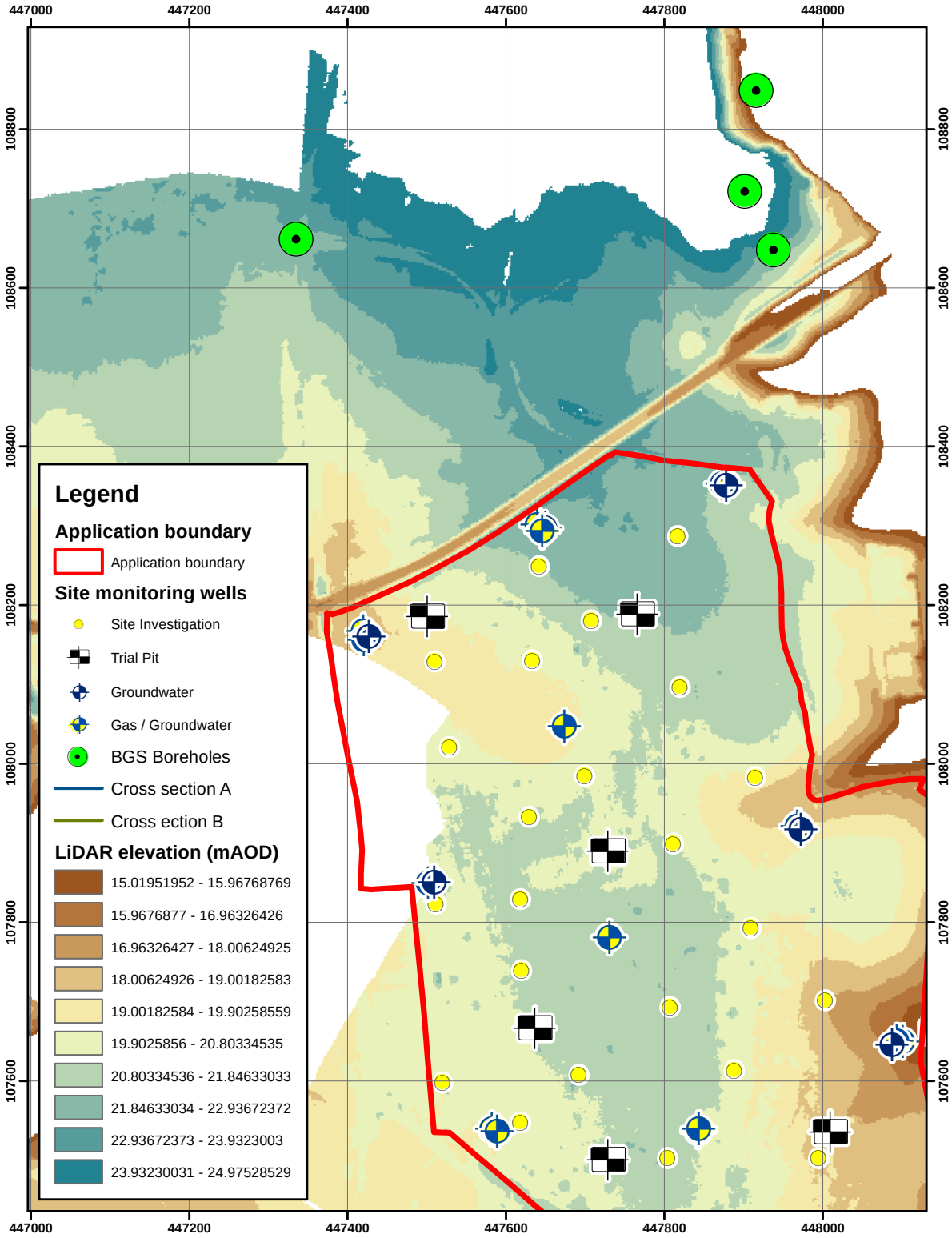


Figure 1.3 Topographic elevation in the northern part of the Site



2 Site geology

2.1 Regional geology

The regionally mapped superficial geology at the Site is shown on Figure 2.1 and the bedrock geology on Figure 2.2.

The superficial geology comprises River Terrace Deposits (RTD) (3rd Terrace). Tidal flat deposits are present along Southampton Water and the River Hamble and alluvial deposits are present along surface water channels, particularly to the west and north-west of the Site.

The solid geology comprises the Marsh Farm Formation (MFF) (cohesive material) running through the centre of the Site; the Earnley Sand Formation (ESF) (fine sands), which lies stratigraphically below the MFF, is shown to the east; and the Selsey Sand Formation (SSF) (mixed silty sand and clay), which lies stratigraphically above the MFF, appears to the west.

2.2 Local geology

Details of site-specific ground investigation are given in the Hydrogeological Impact Assessment (HIA) which forms Chapter 8 of the Environmental Impact Assessment submitted with the planning application. Borehole logs are available for boreholes drilled at the Site. For this Technical Note, additional logs have been sourced from the BGS on-line borehole index. Borehole logs are included here in Appendix A.

Site investigation has proved RTD across the whole Site. Figure 2.3 shows the elevation of the base of the RTD and this shows that the northwestern corner of the Site is situated in a depression in the RTD base.

Three cross sections are presented in Figure 2.5 to Figure 2.7 showing the Site geology and extending northwards of the northern railway line. These sections include the BGS sourced borehole data to the north of the railway cutting.

The HIA notes that, at the Site, the MFF is only present in the northwestern part of the Site and that within the majority of the Site, the RTD is underlain by the SSF, probably with MFF lying below, although this was not proven.

On cross section A-A' (Figure 2.5) and B-B' (Figure 2.6), the approximate location of the railway cutting is shown as determined from LiDAR data.

Borehole SU40NE100 lies to the north of the railway line and is shown on cross section A-A'. RTD are logged in the top section of this hole with the MFF below. The RTD is 2.5 m thick and is described as a sandy gravel. No details of water strikes or levels are provided.

There are two trial pits SU40NE83 and SU40NE84 which are shown on cross section B-B' (Figure 2.6). SU40NE83 is at a slightly higher elevation and has RTD logged as a clay underlain by a clayey sand. SU40NE84 is logged as penetrating the ESF with no RTD present. A further borehole SU40NE106 lies to the northeast of these trial pits, but this is at a much lower elevation and is entirely present within the ESF. It is not shown on cross sections here.

On cross section B-B', the cutting fully penetrates the RTD, with the SSF or MMF intersected in the lower part. On Section A-A', the railway cutting does not fully penetrate the RTD. On cross section C-C', the approximate base of the railway cutting has been extrapolated onto the section. This shows that the cutting falls below the base of the RTD between WG02/W02 and BHC/08/W03.

Figure 2.1 Published superficial geology

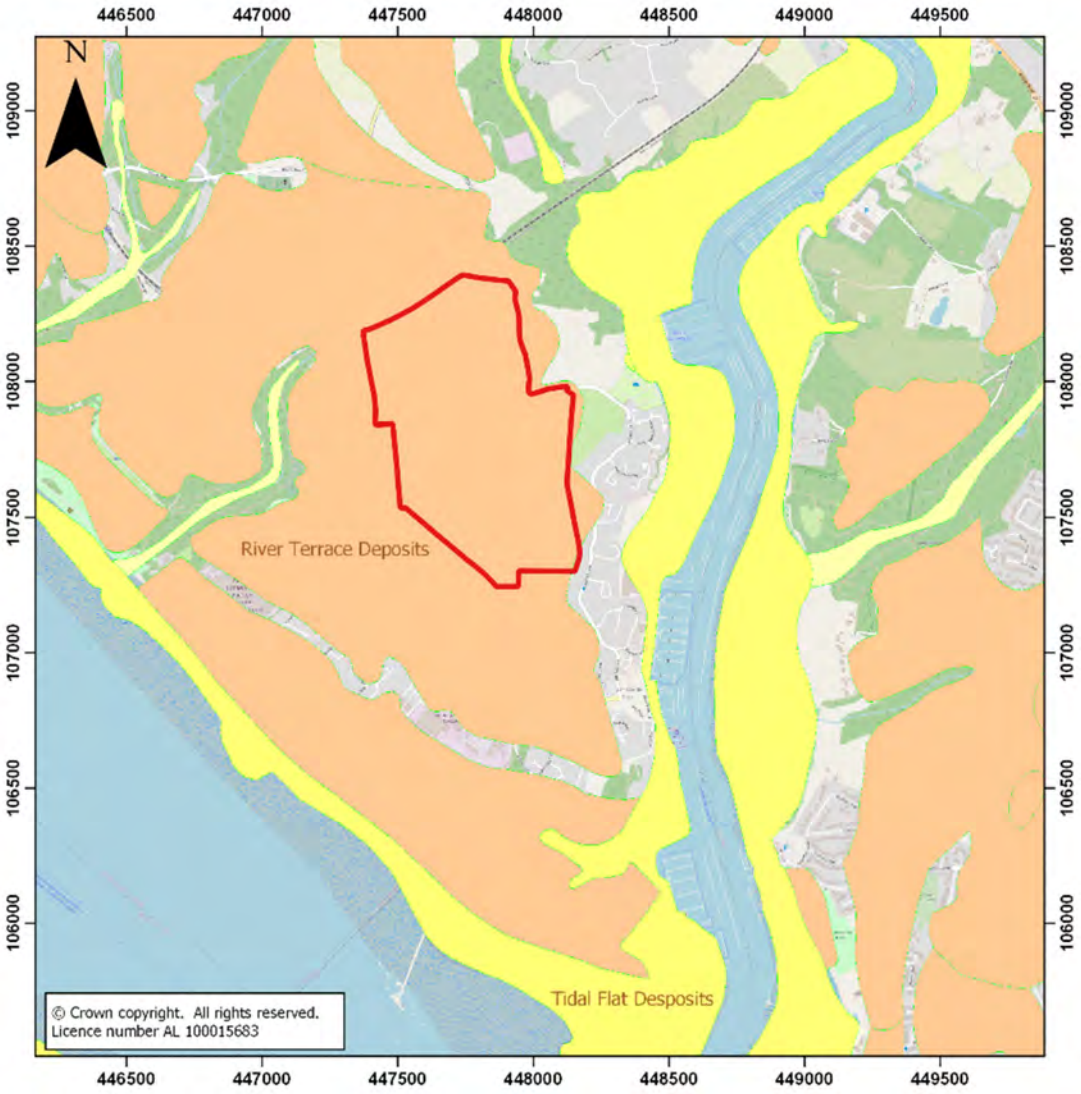


Figure 2.2 Published bedrock geology

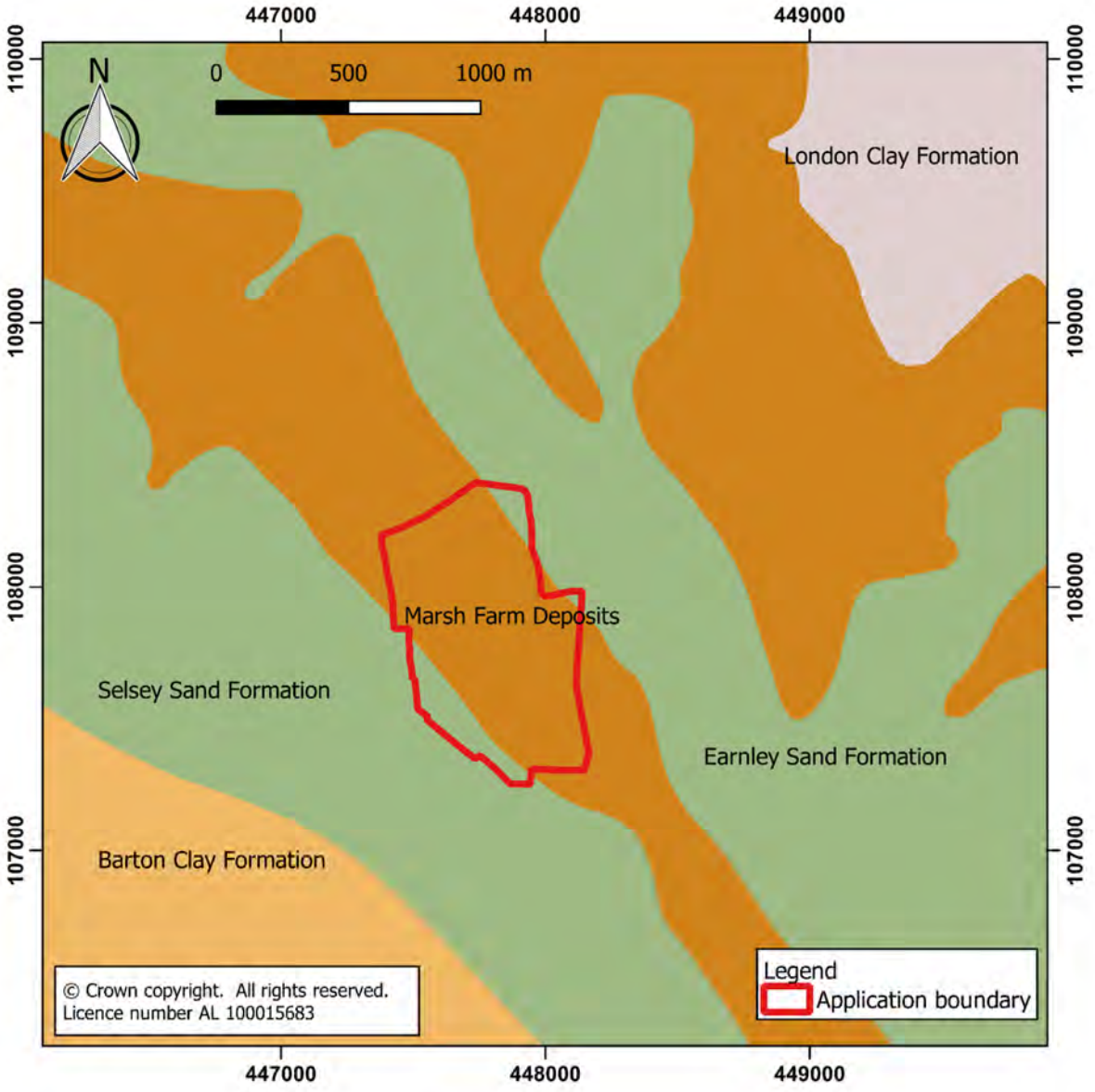


Figure 2.3 Elevation of base of RTD (mAOD)

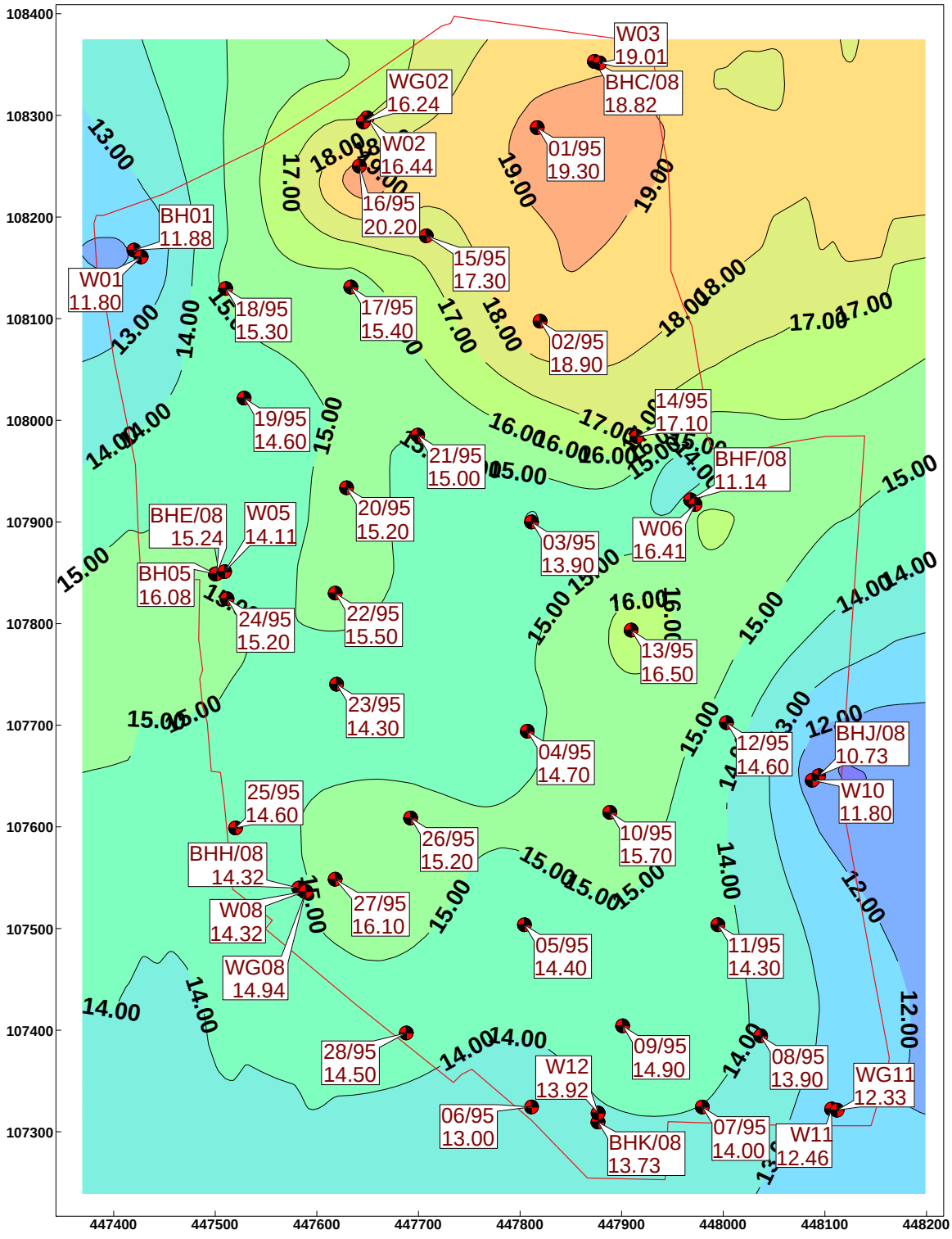


Figure 2.4 Locations of cross sections

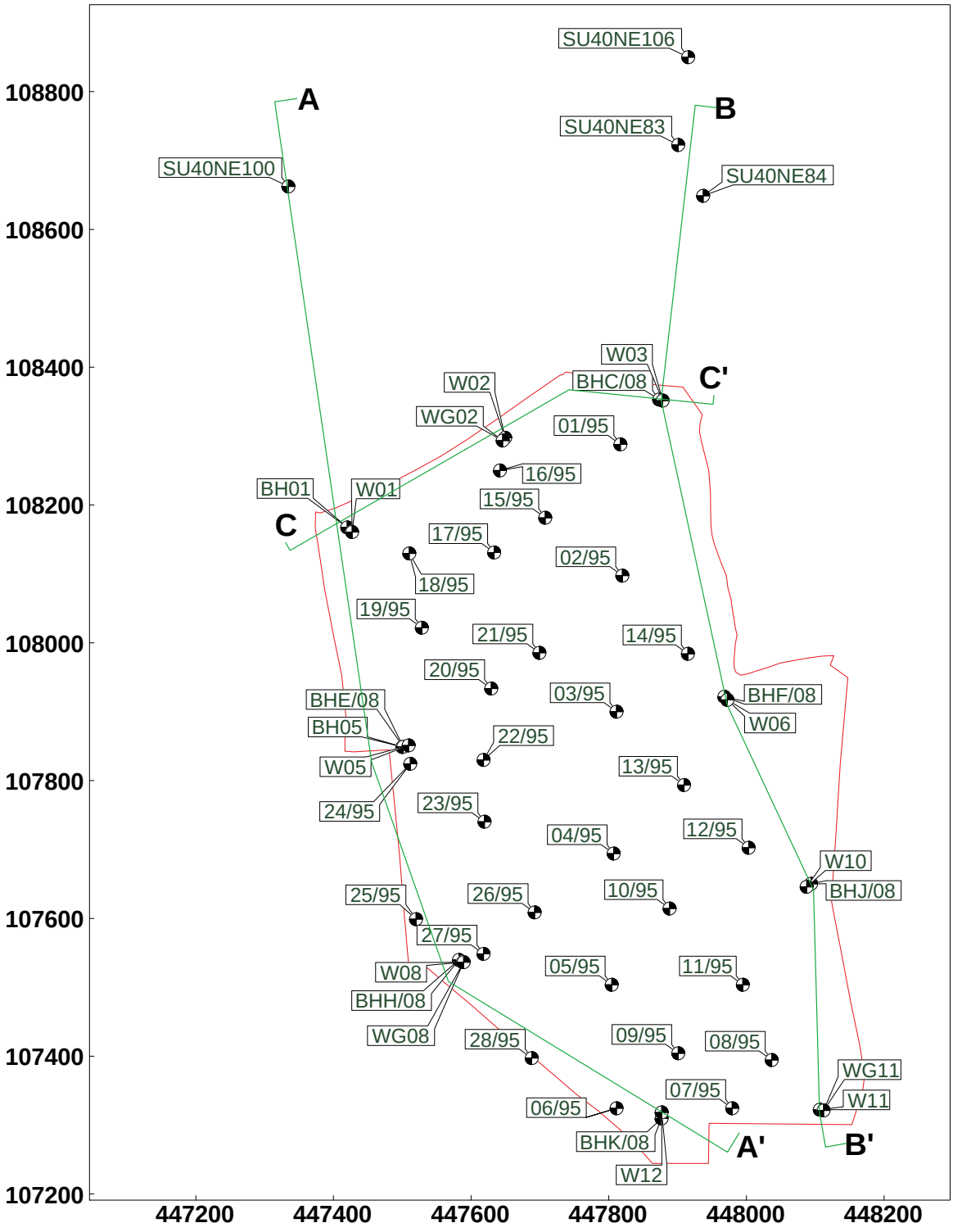


Figure 2.5 Cross section A-A'

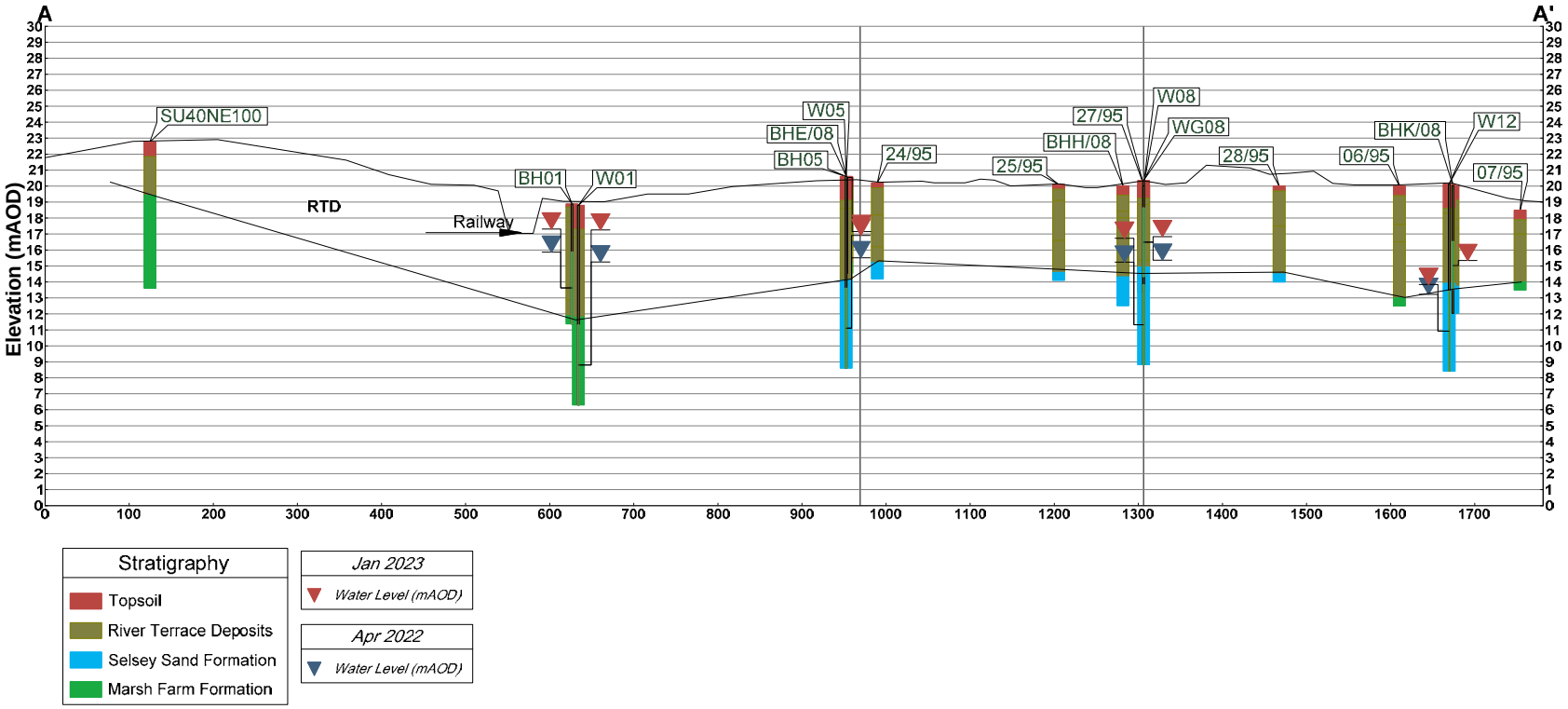


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Figure 2.6 Cross section B-B'

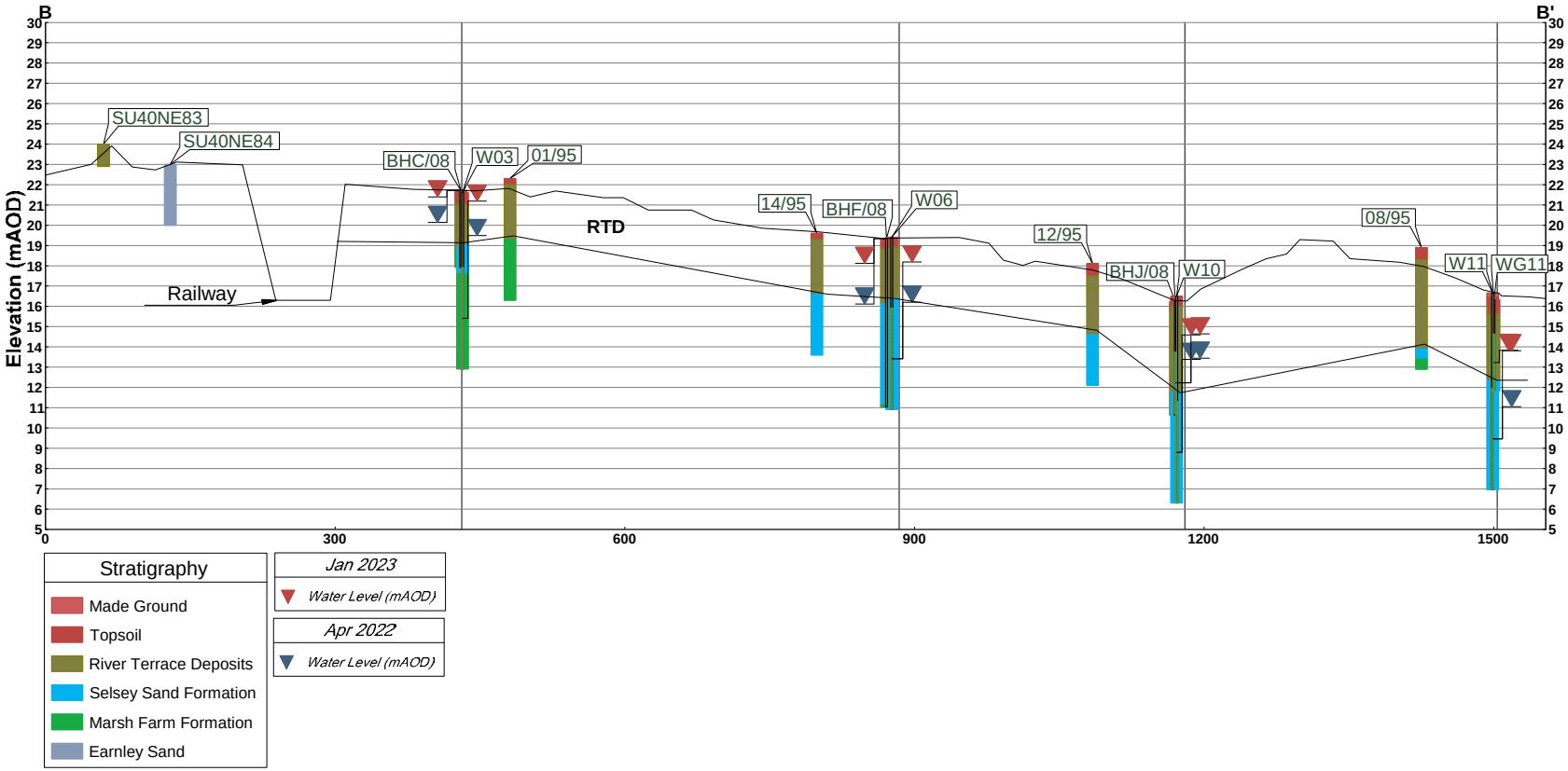

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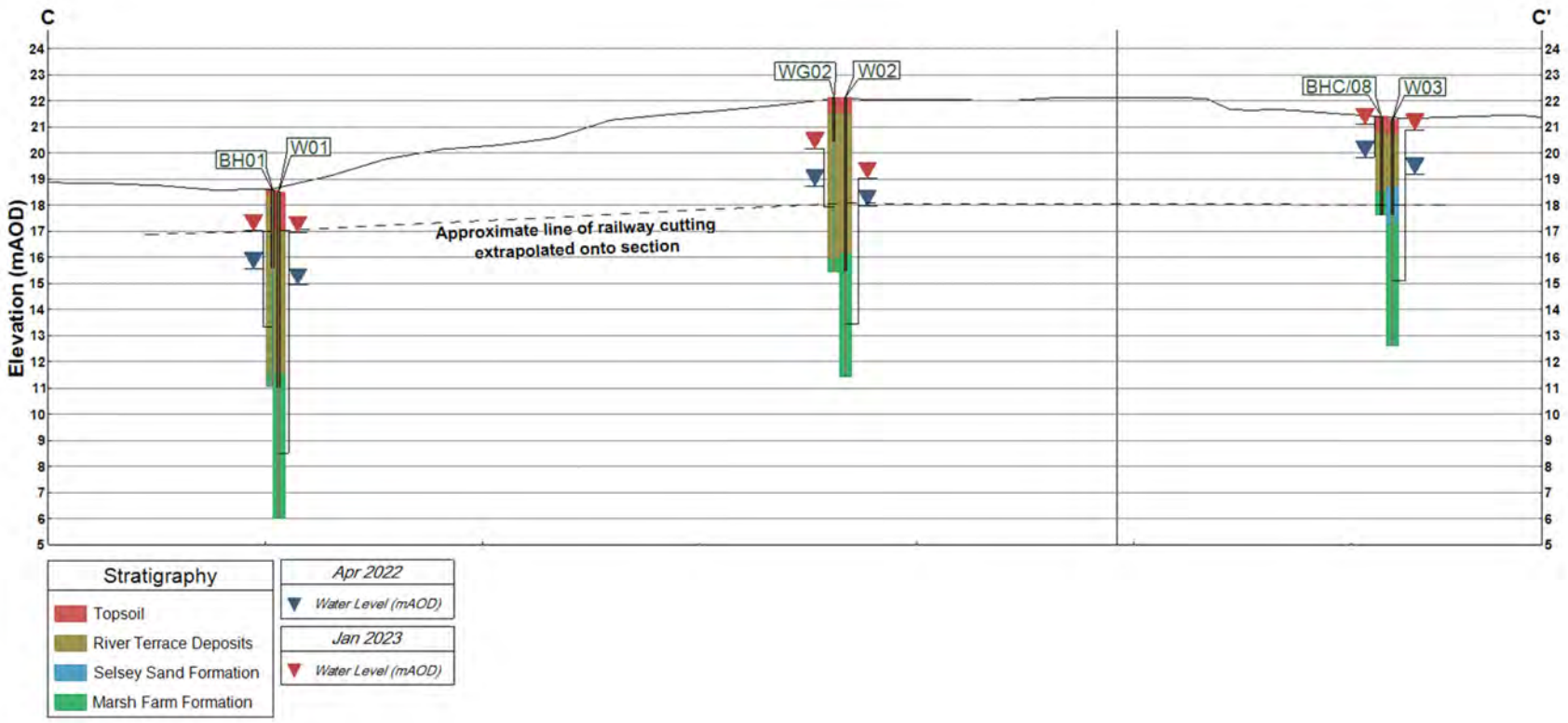
Figure 2.7 Cross section C-C'



3 Hydrogeology

3.1 Water levels and flow directions

As shown on Figure 1.1, groundwater monitoring is undertaken at Site perimeter wells. The monitoring frequency is monthly. At each location there are a pair of wells, the shallower well monitors within the RTD and the deeper within the solid strata.

Figure 3.1 and Figure 3.2 shows the groundwater elevation and depth to groundwater below ground level respectively for the wells monitoring in the RTD whilst Figure 3.3 and Figure 3.4 show the same data for the wells monitoring in the solid strata. Minimum (April 2022) and maximum (January 2023) groundwater levels are also shown on the cross sections (Figure 2.5 to Ljxu#51:).

Of the nine wells that monitor the RTD, only one shows the *maximum* water level within 1 m of the ground surface. This is BHC/08 and it shows the shallowest groundwater levels at the Site. However, even at this location groundwater is only above 1 m below ground surface for very short periods after the Site has experienced very wet conditions.

The saturated thickness at BHC/08 is the smallest along the northern Site boundary at around 2 m (Figure 3.2), but as the RTD is found at its shallowest depths here, the groundwater levels are correspondingly higher.

We also note that there is generally relatively little groundwater present within the RTD in the central and southern parts of the Site and the gaps in the hydrographs indicate that these wells are frequently dry. This is in contrast to the wells that monitor within the solid strata where there is a continuous record.

The solid strata hydrographs typically show seasonal fluctuations with an approximate 1 m amplitude. The hydrographs also respond to seasonal extremes, with particularly low groundwater levels during the dry summer of 2020 and high levels following the wet autumn of 2022. This implies a good connection with the overlying RTD. This is confirmed by Figure 3.5 (which are organised on the page roughly in the position they appear on the ground) which shows the pairs of wells monitoring the RTD and solid strata. For most of the pairs, the shallow RTD hydrograph and the deeper solid strata hydrograph show the same pattern implying that there is no vertical gradient present and recharging water is able to penetrate to the deeper solid strata. The pair WG02 / W02 and BHK/08 / W12 are the two exceptions to this.

The water level in WG02 is generally higher than in W02 implying that there is a downwards hydraulic gradient present, and this is most pronounced during wetter periods when levels are highest. W02 was drilled into the MFF, and it is likely that the lower hydraulic conductivity of the MFF restricts the downward movement of recharge water to the solid strata at this location. However, it is noted that MFF is also logged in W01 immediately below the RTD, but there is no vertical gradient present at this location. This implies a variable amount of clay, silt and sand within the MFF resulting in varying impedance to groundwater movement at a local scale.

There is very little groundwater present at BHK/08 and consistent dips have only been obtained during the wetter months. Where they are obtained, the water level in BHK/08 is generally higher than in W12 implying that there is a downwards hydraulic gradient present. This water must be able to dissipate horizontally or vertically as the well becomes dry under reduced recharge conditions.

Figure 3.6 presents RTD groundwater contours for April 2022 when groundwater levels were at a median level. Note that some of the RTD wells are dry under these conditions. Given the shallow

RTD saturated thickness it is likely that there is no continuous groundwater body within the RTD under these conditions and it may not actually be appropriate to plot the data as contours. Nevertheless, the data shows groundwater flow from the northeastern corner where it is highest, towards the southwest in the northern part of the Site. Groundwater then largely seeps down into the solid strata and there is no particular flow direction in the southern part of the Site.

Figure 3.7 presents RTD groundwater contours for January 2023 when groundwater levels were high, and a water level was recorded in all the wells. Again, this shows groundwater flow from the northeastern corner in a southwesterly direction, a southerly flow in the centre of the Site and a southeasterly flow in the southern part. These apparent changes in flow direction also suggest that the RTD does not form a continuous groundwater body and groundwater levels are strongly influenced by the underlying base of the RTD and seepage down to the underlying solid strata.

Figure 3.8 presents the solid strata groundwater contours for January 2023. These are very similar to the RTD contours for the same month, confirming that the groundwater response is similar in both strata.

Figure 3.1 Groundwater level in superficial deposits

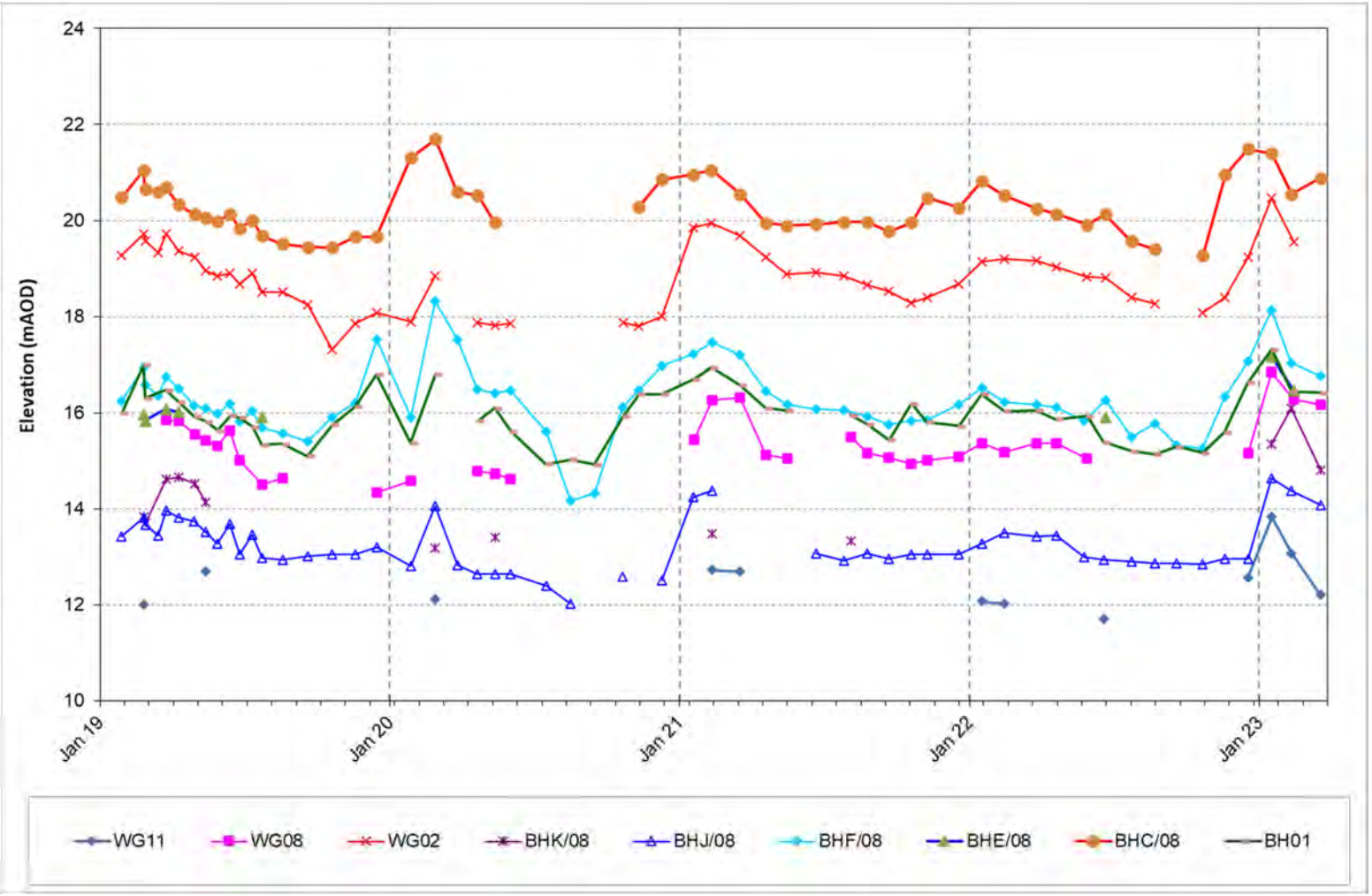


Figure 3.2 Groundwater depth in superficial deposits

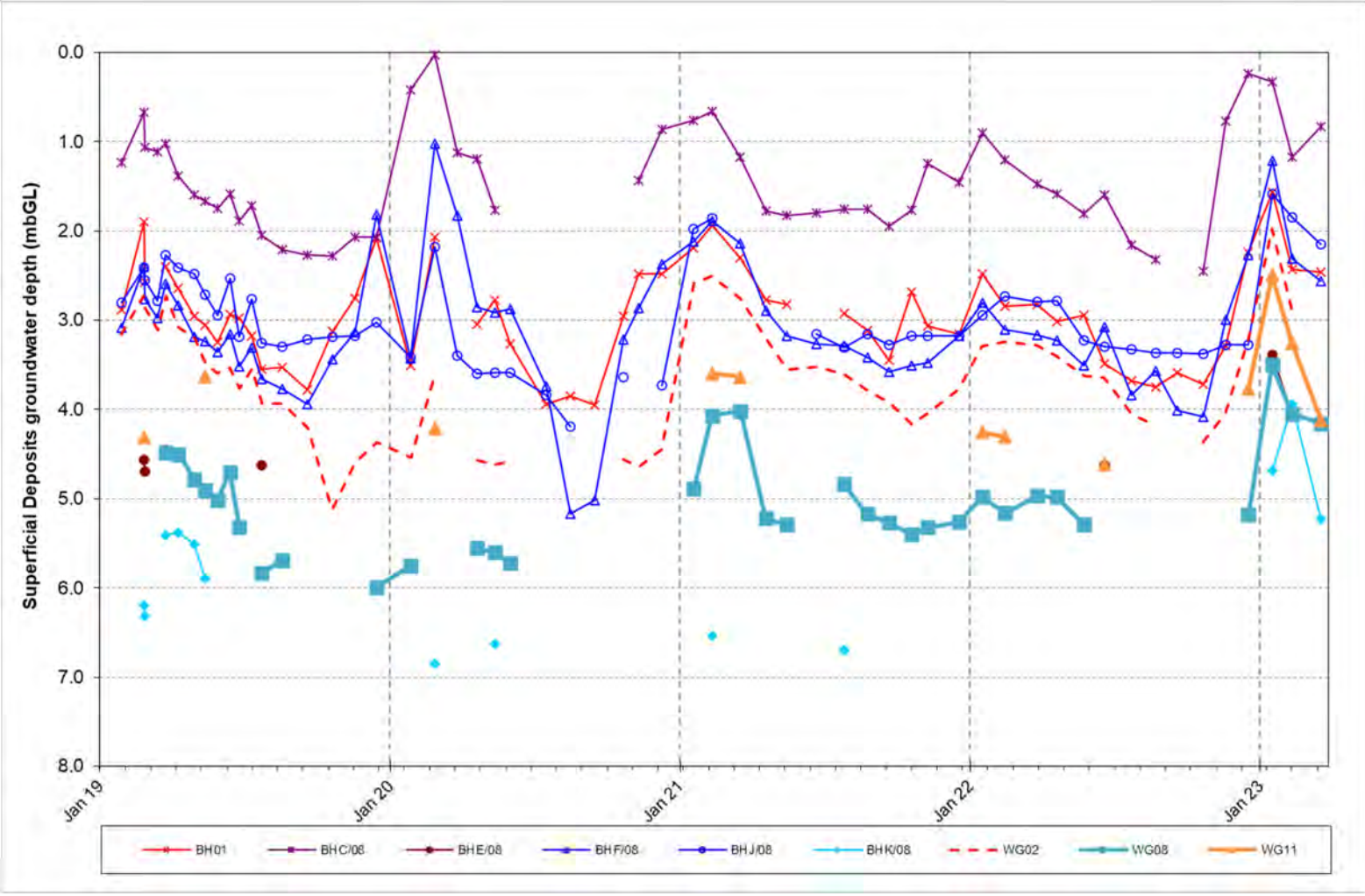


Figure 3.3 Groundwater level in solid strata

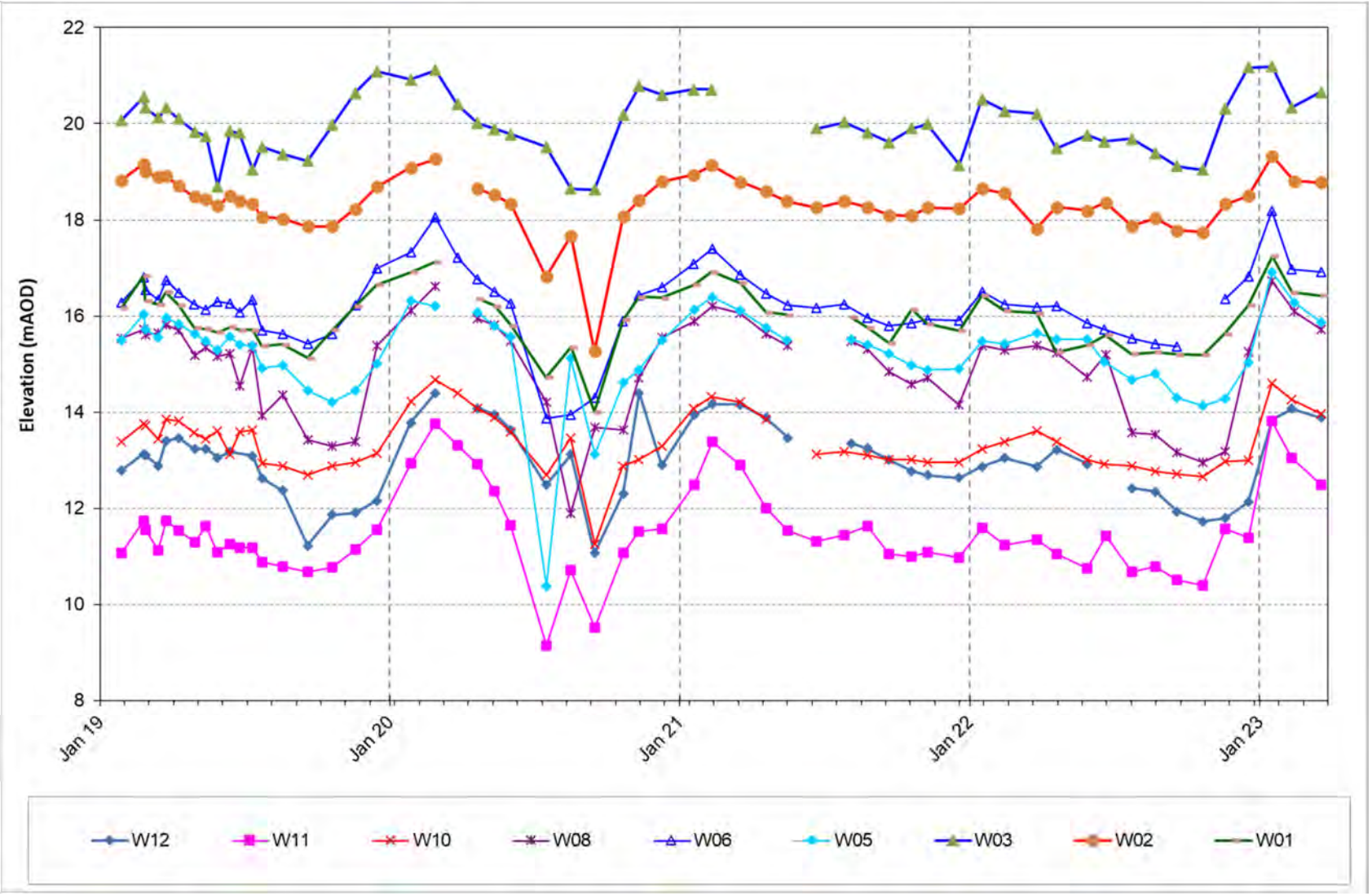
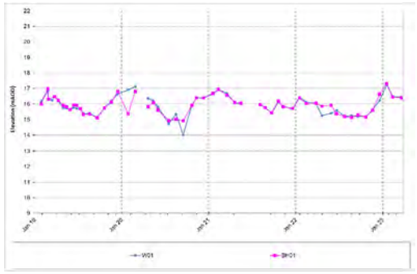


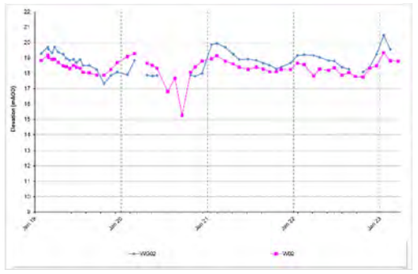
Figure 3.4 Groundwater depth in solid strata

Figure 3.5 Plots of pairs of wells monitoring RTD and solid strata

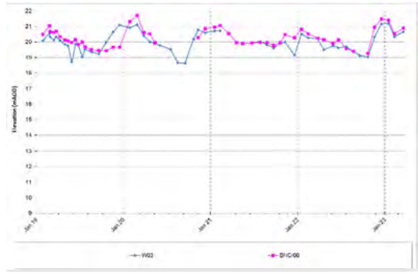
Groundwater level BH01 & W01



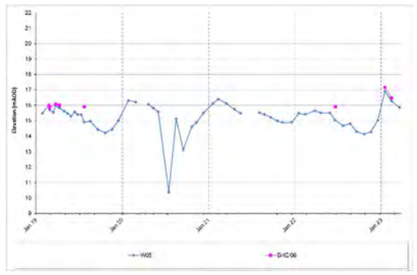
Groundwater level WG02 & W02



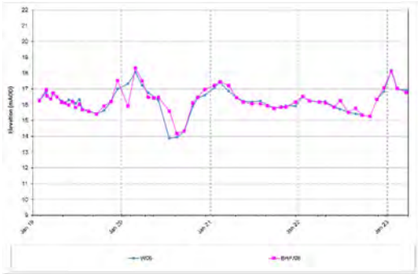
Groundwater level BHC/08 & W03



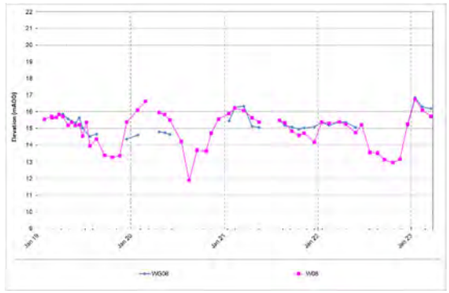
Groundwater level BHE/08 & W05



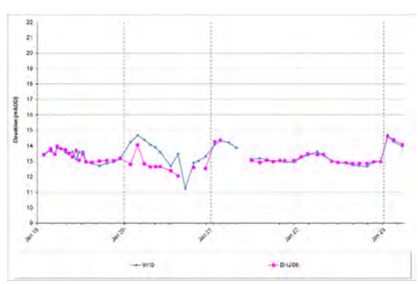
Groundwater level BHF/08 & W06



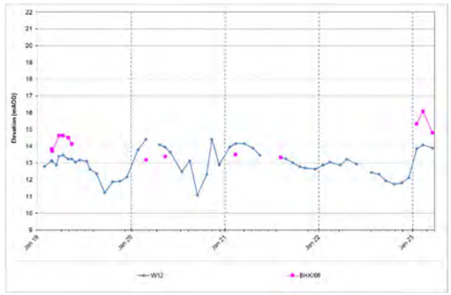
Groundwater level WG08 & W08



Groundwater level BHJ/08 & W10



Groundwater level BHK/08 & W12



Groundwater level WG11 & W11

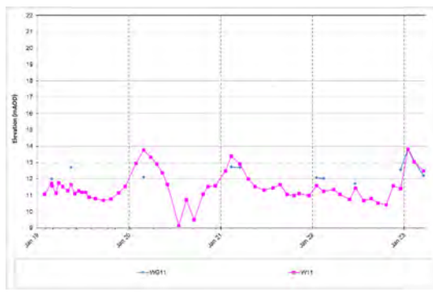


Figure 3.6 RTD groundwater level contours April 2022

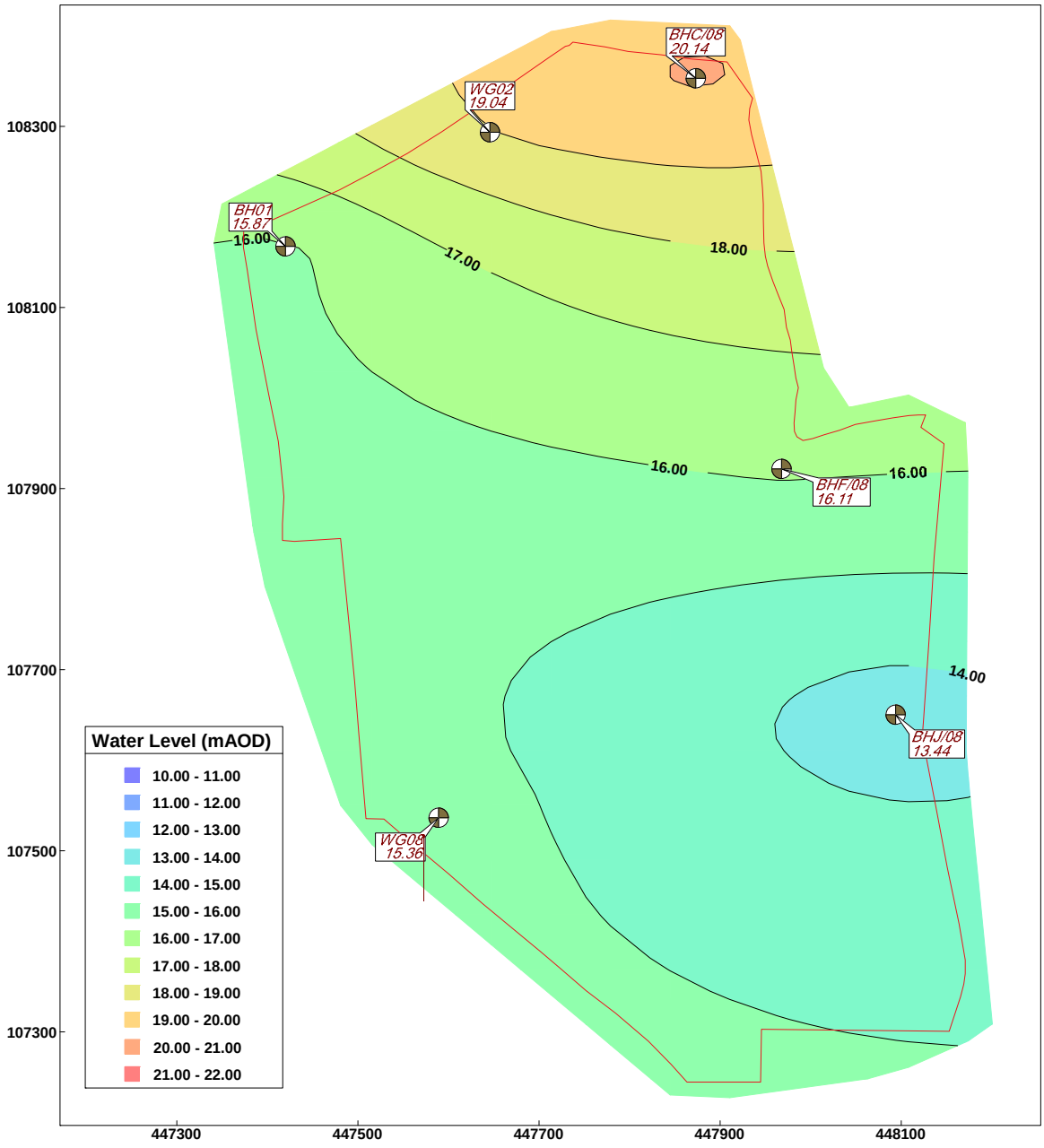


Figure 3.7 RTD groundwater level contours January 2023

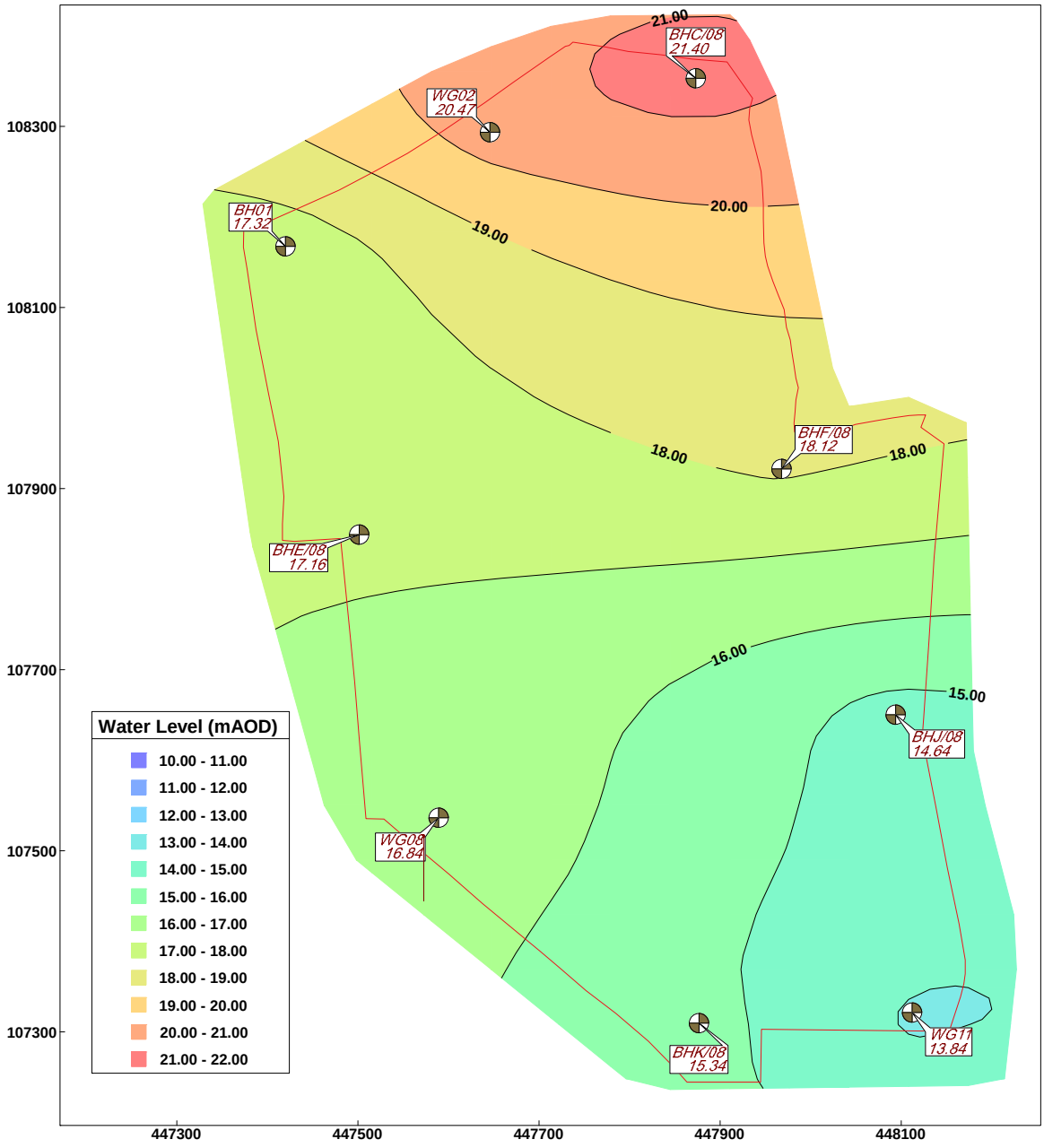
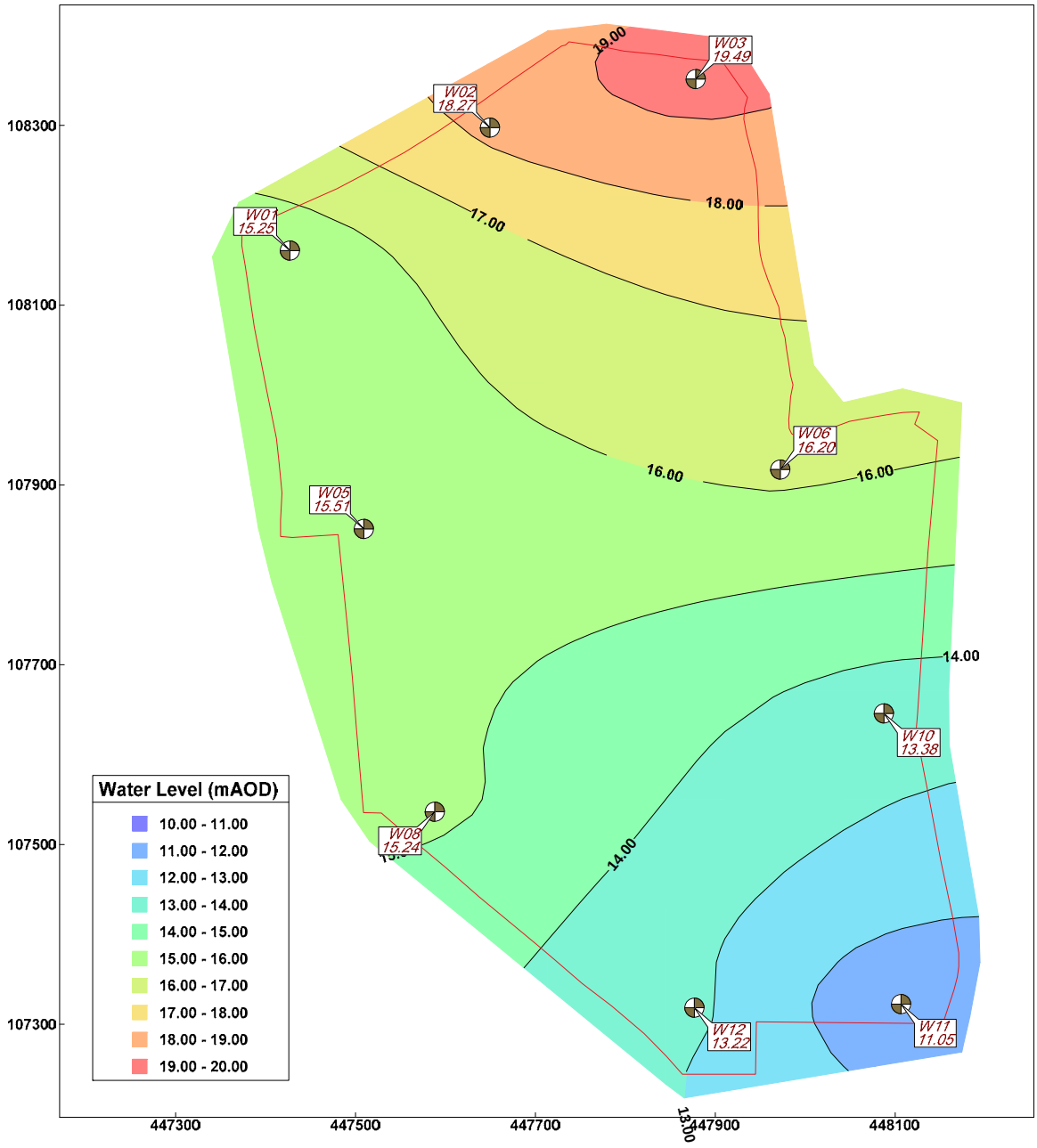


Figure 3.8 Solid strata groundwater level contours January 2023



4 Site development

On the basis of water level and saturated thickness observations, it has been determined that the optimum location for a groundwater-fed freshwater lagoon at Hamble Quarry (the Site) is in the northwest corner of the Site.

The Site phasing plans are shown in Appendix D. Following establishment of the Plant Site, initially soils will be removed from Phase 1, followed by sand and gravel extraction to facilitate construction of the freshwater lagoon and Silt Pond. The Site will then be developed in a series of phases in an

anticlockwise direction with sand and gravel extraction in each of the phases followed by restoration with imported materials back to original ground levels. Towards the end of the development, any remaining void in the silt lagoon and the freshwater lagoon will be restored with imported materials, followed by extraction of sand and gravel from under the Plant Site and restoration of that final area with imported restoration material.

There will be no 'impermeable surround' placed around the freshwater lagoon or silt pond. These features have been located within the Site where the groundwater saturated thickness is greatest, and the freshwater lagoon will be in hydraulic continuity with the local groundwater. The sand and gravel reserve at these locations will be excavated wet without any dewatering. Where silt is placed (in the north east corner of the Site), this will be placed by settlement into water and there will be no dewatering at any time in the Site's lifecycle at the silt ponds.

Prior to placement of imported restoration material, it is likely that an attenuation layer will be required on the base and sides of the phases. In order to facilitate this at the northern end of the Site, where the silt and freshwater lagoons are located, there may be a requirement to temporarily dewater the freshwater lagoon, prior to placing the attenuation layer followed by the imported restoration material. Once the attenuation layer has been placed, imported material will be placed on top and the groundwater level allowed to recover. The timescale for dewatering will thus be limited to a maximum of three months.

5 Conceptual Site Model

On the basis of the geological and hydrogeological data presented above, a conceptual site model (CSM) of the groundwater system prior to development, during development and post development has been developed.

5.1 Groundwater system prior to development

The Site lies on relatively flat ground which then slopes down steeply to the east, west and south towards Southampton Water and the River Hamble, and this topography will strongly influence groundwater flow directions. Immediately north of the Site lies the railway within a cutting. To the north of the railway, the ground rises slightly.

Site data shows that it is unlikely there is a continuous groundwater body within the RTD and that continuous saturation of this stratum only occurs during the winter months when groundwater levels are high. Given the location of the Site on high ground, it is likely that such a dis-continuous groundwater body extends northwards of the railway.

On the eastern side of the Site, any groundwater flow from the north in the RTD will be cut-off by the railway cutting which extends below the base of the RTD.

On the western side, groundwater can flow within the RTD below the railway cutting. Site groundwater elevation data suggests that the base of the cutting is close to maximum groundwater levels i.e. there will be relatively little groundwater discharge into the cutting.

Figure 5.1 shows surface water catchments computed from LiDAR data. The Site itself is located on an interfluve with surface water drainage to the west within Catchments 2 and 3 and drainage to the east within Catchments 4, 5, 6, 7 and 8. RTD groundwater contours from 2019 are superimposed over the surface water catchments. The groundwater contours mostly cross the surface water catchment boundaries at right angles confirming that groundwater catchments are similar to surface water catchments.

To the west of the Site the land falls away to a small water course which is fed from a spring close to the northwestern corner of the Site. This spring is probably located at the base of the RTD, where it is cut through by the stream valley. Groundwater in the northwestern third of the Site (i.e. the part where groundwater is able to flow beneath the railway cutting) probably discharges to this water course and this is what influences the RTD groundwater flow direction in the northern part of the Site. Groundwater contours suggest that groundwater flow is approximately parallel to the Site's northern boundary and thus there is little natural groundwater flow into the Site across this boundary. It is reasonable to expect that the groundwater flow direction to the north of the railway cutting will also be to the southwest, probably with discharge to the spring.

5.2 Groundwater system during development

During the majority of the operation of the Site, the freshwater lagoon will be present adjacent to the central and western parts of the northern Site boundary.

In response to Network Rails concern that "the water storage level in the lagoons will be above the level of the tracks and as such Network Rail's Geotechnical Team may have concerns regarding the potential for increased seepages at the cutting face", we note that as the water in the freshwater lagoon will be in hydraulic continuity with groundwater there will be no change on groundwater level or flow compared to the baseline and hence no potential for increased seepages within the railway cutting.

The lagoon will effectively form a hydraulic barrier and any minor dewatering to the south of this to facilitate sand and gravel extraction, attenuation layer construction or restoration material placement is very unlikely to significantly impact on groundwater levels to the north of the lagoon.

5.3 Groundwater system post restoration

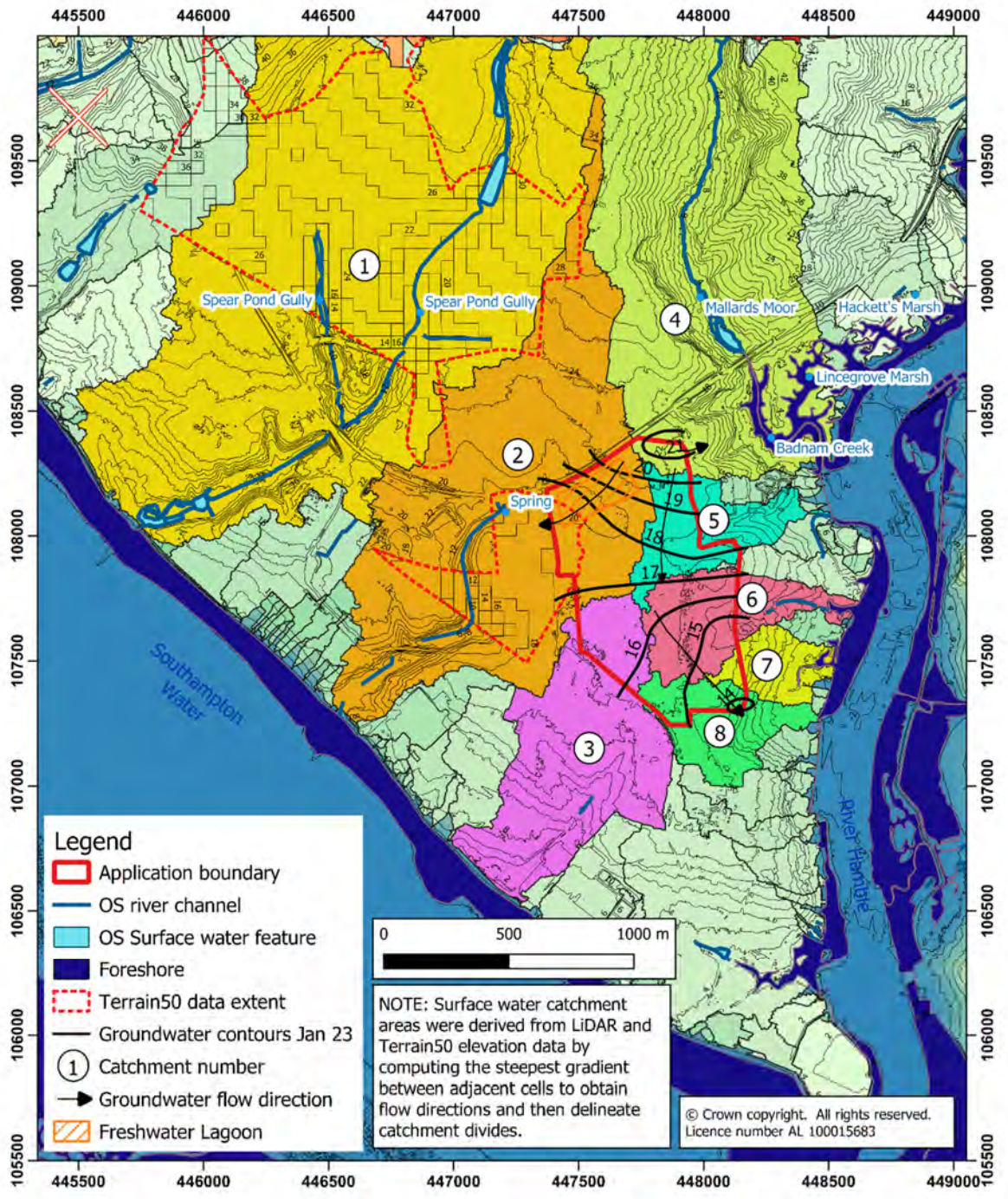
Towards the end of the Site's development, there may be a requirement to construct a low permeability geological barrier or attenuation layer around the perimeter and base of the imported material (the requirement for this will be determined following discussion with the Environment Agency in relation to an Environmental Permit to restore the Site with imported restoration materials).

Given the limited groundwater saturated thickness at the Site, it is anticipated that limited dewatering will be required. Water collecting in the void, either from groundwater inflow, direct rainfall or rainfall runoff, will be pumped out to an adjacent area, thus allowing the mineral to be dug dry and facilitate the placement of the low permeability geological barrier / attenuation layer.

It is considered unlikely that there will be any significant rise in groundwater level to the north of the Site, which could impact the railway cutting drainage. As detailed in Section 5.1, on the eastern side of the Site, any groundwater flow from the north in the RTD will be cut-off by the railway cutting which extends below the base of the RTD. Thus, the area recharging groundwater on the eastern side, up hydraulic gradient of the Site, is very limited, and this will prevent any significant backup of groundwater due to the placement of the silt lagoons and lower permeability restoration materials.

On the western side, groundwater can flow within the RTD below the railway cutting. However, the groundwater flow direction is to the southwest, towards the spring close to the northwest corner of the Site, rather than towards the Site. Thus, there will be little impedance to this flow following restoration of the Site with lower permeability material as this spring will not be affected by the Site development.

Figure 5.1 Surface water catchments



6 Site mitigation

On the basis of the data presented here and the CSM, we do not consider that it is likely that the Site will result in raised groundwater levels to the north with any subsequent increase in groundwater discharge to the railway cutting drains or impact on its stability. On this basis, we do not consider it appropriate to construct groundwater drains prior to the development proceeding as suggested by

Network Rail. As suggested in our previous correspondence (Stantec, 2022), we propose the following mitigation.

Groundwater monitoring wells which are located to the north of the fill area; BH01, WG02 and BHC/08 monitor the RTD along the northern boundary of the Site. Groundwater levels are measured on a monthly basis and these data would provide an early warning should groundwater levels rise due to placement of the imported restoration fill and allow for remedial action to be taken.

CEMEX proposes to define action levels of 1 m below ground level at BH01 and WG02. This is a depth that was not quite reached following the wet period at the end of 2022 (see hydrograph on Figure 3.2). Should groundwater levels in these wells rise above the action level for 3 consecutive months, remedial action will be taken in the form of constructing a groundwater drain to transfer groundwater to the west and south, away from the railway line.

7 References

Stantec, 2022. Proposed extraction of sand and gravel at Hamble Airfield: further response to consultee queries. Our ref: 331201108pbond002. 23 June 2022.

Stantec, 2023a. Hamble Quarry, updated drainage design. Report No. 331201108TN3. June 2023.

Stantec. 2023b. Former Hamble Airfield, Hamble-le-Rice, Hampshire. Ground Movement Assessment for Network Rail Assets. Project Ref: 331201108, Document: RP-3501-V01a, June 2023.

Appendices

Appendix A

Borehole logs

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 01/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
22.30 **m AOD**

CO-ORDINATES
E 447817.00 **N** 108285.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Top SOIL	22.00	0.30			0.50
HOGGIN (Brown clay and stone)		(2.70)			1.00
Yellow soft CLAY	19.30	3.00			4.00
		(1.50)			4.40
Blue firm CLAY	17.80	4.50			
		(1.50)			
	16.30	6.00			6.00

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 02/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
21.10 **m AOD**

CO-ORDINATES
E 447817.00 **N** 108095.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.50		(0.60) 0.60			
HOGGIN			(1.60)			
	18.90		2.20			
Yellow find SAND			(2.30)			
	16.60		4.50			
Yellow CLAY	16.10		(0.50) 5.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
5.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 03/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.90 **m AOD**

CO-ORDINATES
E 447809.00 **N** 107898.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.30		(0.60) 0.60			
Brown sandy soft CLAY			(1.40)			
	18.90		2.00			
HOGGIN			(1.00)			
	17.90		3.00			
Yellow fine SAND	17.40		(0.50) 3.50			
Brown sandy GRAVEL			(3.30)		▼ 6.00	
	13.90		7.00			
Yellow CLAY	13.40		(0.50) 7.50			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

▼ - Water strike 1
▼¹ - Standing water 1
▼ - Water strike 2
▼² - Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 7.50 METRES
LOGGED BY WKJ Osborn
DATE LOGGED 13/06/1995
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 04/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

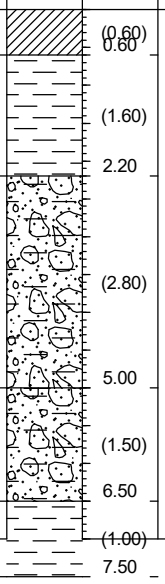
DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
21.20 **m AOD**

CO-ORDINATES
E 447807.00 **N** 107695.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.60	(0.60) 0.60			
Brown soft CLAY		(1.60)			
	19.00	2.20			
HOGGIN		(2.80)			
	16.20	5.00			
Brown sandy GRAVEL		(1.50)			
	14.70	6.50		6.80	
Yellow CLAY		(1.00)			
	13.70	7.50			



KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
7.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 05/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.90 **m AOD**

CO-ORDINATES
E 447803.00 **N** 107501.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.30		(0.60) 0.60			
Brown soft CLAY			(2.40)			
	17.90		3.00			
HOGGIN	17.40		(0.50) 3.50			
Brown sandy GRAVEL			(3.00)		5.50	
	14.40		6.50			
Yellow CLAY			(1.00)			
	13.40		7.50			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
7.50
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 06/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.00 **m AOD**

CO-ORDINATES
E 447810.00 **N** 107324.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.40		(0.60) 0.60			
Brown soft CLAY			(1.80)			
	17.60		2.40			
HOGGIN			(1.10)			
	16.50		3.50			
Brown sandy GRAVEL			(3.50)		▼ 6.00	
	13.00		7.00			
Yellow CLAY	12.50		(0.50) 7.50			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

▼ - Water strike 1
▽ - Standing water 1
▼ - Water strike 2
▽ - Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 7.50 METRES
LOGGED BY WKJ Osborn
DATE LOGGED 13/06/1995
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 07/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
18.50 **m AOD**

CO-ORDINATES
E 447979.00 **N** 107324.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	17.90		(0.60) 0.60			
Brown soft CLAY	17.00		(0.90) 1.50			
Brown HOGGIN	14.00		(3.00) 4.50			
Yellow CLAY	13.50		(0.50) 5.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
5.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 08/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
18.90 **m AOD**

CO-ORDINATES
E 448036.00 **N** 107395.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	18.30		(0.60) 0.60			
HOGGIN			(4.40)			
	13.90		5.00			
Yellow fine SAND	13.40		(0.50) 5.50			
Yellow CLAY	12.90		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 09/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
19.90 **m AOD**

CO-ORDINATES
E 447900.00 **N** 107401.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.30		(0.60) 0.60			
Brown sandy CLAY			(1.40)			
	17.90		2.00			
HOGGIN			(3.00)			
	14.90		5.00			
Yellow CLAY			(1.00)			
	13.90		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 10/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.20 **m AOD**

CO-ORDINATES
E 447889.00 **N** 107614.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.60		(0.60) 0.60			
Brown sandy CLAY	18.70		(0.90) 1.50			
HOGGIN	15.70		(3.00) 4.50			
Grey fine clayey SAND	14.20		(1.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 11/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
18.80 **m AOD**

CO-ORDINATES
E 447993.00 **N** 107505.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	18.20		(0.60) 0.60			
Brown sandy CLAY	17.30		(0.90) 1.50			
HOGGIN	14.30		(3.00) 4.50			
Yellow fine SAND	12.80		(1.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 12/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
18.10 **m AOD**

CO-ORDINATES
E 448001.00 **N** 107700.00

DATE DRILLED
START : 13/6/95
FINISH : 13/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	17.50		(0.60) 0.60			
Brown sandy CLAY	16.90		(0.60) 1.20			
HOGGIN			(2.30)			
	14.60		3.50			
Yellow fine SAND					4.50	
			(2.50)			
	12.10		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
13/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 13/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.00 **m AOD**

CO-ORDINATES
E 447909.00 **N** 107794.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.40		(0.60) 0.60			
Soft sandy CLAY	18.80		(0.60) 1.20			
HOGGIN			(2.30)			
Yellow fine SAND	16.50		3.50 (0.50)			
	16.00		4.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
4.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 14/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
19.60 **m AOD**

CO-ORDINATES
E 447915.00 **N** 107893.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.30		0.30			
HOGGIN			(2.20)			
	17.10		2.50			
Blue sandy CLAY	16.60		(0.50) 3.00			
Yellow fine SAND			(3.00)			
	13.60		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 15/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
21.20 **m AOD**

CO-ORDINATES
E 447709.00 **N** 108180.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.60		(0.60) 0.60			
Yellow soft CLAY			(1.80)			
	18.80		2.40			
HOGGIN			(1.50)			
	17.30		3.90			
Yellow fine clayey SAND			(1.10)			
	16.20		5.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 5.00 METRES

LOGGED BY WKJ Osborn

DATE LOGGED 14/06/1995

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 16/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
21.70 **m AOD**

CO-ORDINATES
E 447643.00 **N** 108248.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	21.10		(0.60) 0.60			
HOGGIN	20.20		(0.90) 1.50			
Yellow fine clayey SAND	16.70		(3.50) 5.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 5.00 METRES

LOGGED BY WKJ Osborn

DATE LOGGED 14/06/1995

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 17/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
19.90 **m AOD**

CO-ORDINATES
E 447634.00 **N** 108128.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.30		(0.60) 0.60			
Yellow/brown softy CLAY some stone			(2.90)			
	16.40		3.50			
Dark brown damp GRAVEL			(1.00)			
	15.40		4.50			
Yellow fine clayey SAND			(1.50)			
	13.90		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 18/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
19.30 **m AOD**

CO-ORDINATES
E 447510.00 **N** 108128.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	18.70		(0.60) 0.60			
HOGGIN			(3.40)			
	15.30		4.00			
Yellow fine clayey SAND			(2.00)			
	13.30		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 19/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.10 **m AOD**

CO-ORDINATES
E 447528.00 **N** 108019.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL and SUBSOIL	19.50		(0.60) 0.60			
Yellow CLAY	18.90		(0.60) 1.20			
HOGGIN			(2.30)			
	16.60		3.50		3.50	
Brown GRAVEL			(2.00)			
	14.60		5.50			
Yellow fine SAND	14.10		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 20/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.70 **m AOD**

CO-ORDINATES
E 447628.00 **N** 107935.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.40		0.30			
Soft brown sandy CLAY	19.80		(0.60) 0.90			
HOGGIN			(4.60)			
	15.20		5.50			
Yellow green fine SAND	14.70		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 21/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.50 **m AOD**

CO-ORDINATES
E 447701.00 **N** 107984.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.20		0.30			
Brown CLAY			(1.70)			
	18.50		2.00			
HOGGIN			(3.50)			
	15.00		5.50			
Yellow green fine SAND	14.50		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 22/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
21.00 **m AOD**

CO-ORDINATES
E 447617.00 **N** 107829.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.70		0.30			
Brown sandy CLAY			(1.70)			
	19.00		2.00			
HOGGIN			(1.50)			
	17.50		3.50			
Brown sandy GRAVEL			(2.00)			
	15.50		5.50			
Yellow green fine SAND	15.00		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.00 METRES

LOGGED BY WKJ Osborn

DATE LOGGED 14/06/1995

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 23/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.80 **m AOD**

CO-ORDINATES
E 447619.00 **N** 107739.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.20		(0.60) 0.60			
Brown soft CLAY			(1.60)			
	18.60		2.20			
HOGGIN			(1.30)			
	17.30		3.50			
Yellow green CLAY	16.80		(0.50) 4.00			
Brown GRAVEL			(2.50)			
	14.30		6.50			
Yellow green fine SAND			(1.00)			
	13.30		7.50			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
7.50
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 24/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.20 **m AOD**

CO-ORDINATES
E 447511.00 **N** 107821.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.90		0.30			
Brown soft CLAY			(1.70)			
	18.20		2.00			
HOGGIN			(2.00)			
	16.20		4.00			
Brown sandy GRAVEL			(1.00)			
	15.20		5.00			
Green yellow fine SAND			(1.00)			
	14.20		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 25/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.10 **m AOD**

CO-ORDINATES
E 447520.00 **N** 107601.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.80		0.30			
Brown clayey SAND	19.10		(0.70) 1.00			
HOGGIN			(2.50)			
Brown sandy GRAVEL	16.60		3.50 (2.00)			
Green yellow SAND	14.60		5.50 (0.50)			
	14.10		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 26/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.70 **m AOD**

CO-ORDINATES
E 447670.00 **N** 107609.00

DATE DRILLED
START : 14/6/95
FINISH : 14/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	20.40		0.30			
Brown sandy CLAY			(1.10)			
	19.30		1.40			
HOGGIN			(1.10)			
	18.20		2.50			
Brown sandy GRAVEL			(3.00)			
	15.20		5.50			
Yellow green fine SAND			(0.50)			
	14.70		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
14/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 27/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.10 **m AOD**

CO-ORDINATES
E 447618.00 **N** 107548.00

DATE DRILLED
START : 15/6/95
FINISH : 15/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.80		0.30			
Soft sandy CLAY			(1.80)			
	18.00		2.10			
HOGGIN			(1.90)			
	16.10		4.00			
Yellow fine SAND			(1.00)			
	15.10		5.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
5.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
15/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. 28/95

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Ready Mixed Concrete (UK) Ltd
EQUIPMENT AND METHOD: Power Auger

GROUND LEVEL
20.00 **m AOD**

CO-ORDINATES
E 447691.00 **N** 107399.00

DATE DRILLED
START : 15/6/95
FINISH : 15/6/95

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOP SOIL	19.70		0.30			
Brown sandy CLAY			(2.20)			
	17.50		2.50			
HOGGIN			(3.00)			
	14.50		5.50			
Yellow fine SAND	14.00		(0.50) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
6.00
METRES

LOGGED BY
WKJ Osborn

DATE LOGGED
15/06/1995

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH01

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL	CO-ORDINATES	DATE DRILLED
18.69 **m AOD**	**E N**	**START** : 2/6/11
		FINISH : 2/6/11

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass and TOPSOIL	18.49	0.20			0.50 Cement seal installed with raised cover
CLAY and SOIL		(0.90)			Bentonite seal 50mm plain uPVC pipe
	17.59	1.10			1.80
Flint GRAVEL					Gravel pack 50mm plain uPVC pipe
					3.00
		(4.90)		4.50	
					Gravel pack 50mm slotted uPVC pipe
	12.69	6.00			
Dark orange GRAVEL		(1.00)			
	11.69	7.00			
Stiff orange CLAY		(0.50)			
	11.19	7.50			7.50

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. 18.69mAOD mAOD

TOTAL DEPTH 7.50 METRES
LOGGED BY Driller
DATE LOGGED 02/06/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH01A

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL m AOD | **CO-ORDINATES** E N | **DATE DRILLED** **START** : 24/5/11 **FINISH** : 24/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass and TOPSOIL			(0.60) 0.60			
Brown orange gravely CLAY			(0.70) 1.30			
Gravel			(1.70) 3.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 3.00 METRES
LOGGED BY Driller
DATE LOGGED 24/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH02

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL m AOD | **CO-ORDINATES** E N | **DATE DRILLED** **START** : 24/5/11 **FINISH** : 24/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION	
TOPSOIL			0.20			0.30	Cement seal installed with flush daisy cover
Brown clayey TOPSOIL			0.60				
Brown Clayey GRAVEL			(0.50)			1.00	Bentonite seal 50mm plain uPVC pipe
Gravely CLAY			1.10				
Sandy GRAVEL			1.30			1.60	Gravel pack 50mm slotted uPVC pipe
			1.60				

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Drilling terminated on cobbles/boulder.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 1.60 METRES
LOGGED BY Driller
DATE LOGGED 24/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH03

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL 21.48 **m AOD**
CO-ORDINATES **E N**
DATE DRILLED **START** : 23/5/11 **FINISH** : 23/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
TOPSOIL	21.28	0.20			0.30 Cement seal installed with flush daisy cover
Brown GRAVEL and CLAY		(3.00)			Arisings 1.80 Bentonite seal 50mm plain uPVC pipe
	18.28	3.20			2.80
Orange clayey GRAVEL	17.68	(0.60) 3.80			
Stiff grey CLAY		(3.20)			Gravel pack 50mm slotted uPVC pipe
	14.48	7.00			6.80 Gravel bottom fill 7.00

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. 21.48mAOD mAOD

TOTAL DEPTH 7.00 METRES
LOGGED BY Driller
DATE LOGGED 23/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH04

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL m AOD | **CO-ORDINATES** E N | **DATE DRILLED** **START** : 31/5/11 **FINISH** : 1/6/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass and TOPSOIL			0.20			0.40 Cement seal installed with flush daisy cover
Clayey TOPSOIL			(0.80) 1.00			1.00 Bentonite seal 50mm plain uPVC pipe
Brown CLAY			(0.60) 1.60			Arisings 1.80 50mm plain uPVC pipe
Gravely CLAY			(0.50) 2.10			Bentonite seal 50mm plain uPVC pipe
Brown orange sandy CLAY			(1.00) 3.10			2.80 Gravel pack 3.00 50mm plain uPVC pipe
Dense flint GRAVEL			(2.40) 5.50			Gravel pack 50mm slotted uPVC pipe
Orange sandy CLAY			(0.50) 6.00			6.00

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.00 METRES
LOGGED BY Driller
DATE LOGGED 01/06/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH05

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL 20.58 **m AOD**
CO-ORDINATES **E N**
DATE DRILLED **START** : 25/5/11 **FINISH** : 25/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION	
TOPSOIL	20.38		0.20			0.30	Cement seal installed with flush daisy cover
Clayey TOPSOIL	20.08		0.50				
Brown CLAY			(1.10)				Bentonite seal 50mm plain uPVC pipe
	18.98		1.60			2.00	
Dense GRAVEL			(2.20)				Gravel pack 50mm slotted uPVC pipe
	16.78		3.80				
Brown Sandy GRAVEL			(0.70)				
	16.08		4.50			4.50	

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.58mAOD mAOD

TOTAL DEPTH 4.50 METRES
LOGGED BY Driller
DATE LOGGED 25/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH06

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL 19.29 **m AOD**
CO-ORDINATES **E N**
DATE DRILLED **START** : 27/5/11 **FINISH** : 27/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Brown TOPSOIL			(1.30)			0.40 Cement seal installed with flush daisy cover Bentonite seal 50mm plain uPVC pipe
	17.99		1.30			1.30
GRAVEL			(1.70)			1.50 Gravel pack 50mm plain uPVC pipe Gravel pack 50mm slotted uPVC pipe
	16.29		3.00			3.00

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. 19.29mAOD mAOD

TOTAL DEPTH 3.00 METRES
LOGGED BY Driller
DATE LOGGED 27/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH09

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
20.70 **m AOD**

CO-ORDINATES
E 447843.11 **N** 107537.04

DATE DRILLED
START : 28/2/08
FINISH : 29/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL	20.20	(0.50) 0.50			0.50 Raised cover installed
Soft and firm light brown/orange sandy CLAY	20.00	0.70			
Soft brown clayey SAND/sandy CLAY.		(1.60)			
	18.40	2.30			Bentonite seal
Red brown clayey sand and and GRAVEL.	18.00	2.70	2.70		100mm uPVC plain pipe
Brown sandy GRAVEL.Sub-angular to sub-rounded gravel. Sand is generally medium to coarse grained.		(4.00)	B		4.60
				1 5.65	Gravel filter pack
			6.10		100mm uPVC slotted pipe
	14.00	6.70	6.70	6.70	
Yellow/green silty SAND with sandy clay bands. Sand is fine to medium grained.		(2.10)	B		7.60 Gravel bottom fill
	11.90	8.80			8.80
			9.00		

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
1 - Standing water 1
- Water strike 2
2 - Standing water 2

NOTES
Water added to assist drilling 2.7 - 4.5 m.
Borehole cover repaired by Apex Drilling Services Ltd. in 2011.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 8.80 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH10

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
15.94 **m AOD**

CO-ORDINATES
E 448083.18 **N** 107647.35

DATE DRILLED
START : 20/2/08
FINISH : 20/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION	
Grass over TOPSOIL	15.44	(0.50) 0.50	0.50		0.50	Raised cover installed
Brown sandy GRAVEL			B			Bentonite seal 100mm uPVC plain pipe
			2.50	1 2.46	2.50	
		(4.60)		3.00		
			B			Gravel filter pack 100mm uPVC slotted pipe
	10.84	5.10	5.10			
Brown SAND	10.44	5.50			5.50	Gravel bottom fill
Firm stiff brown CLAY	10.34	5.60			5.60	

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- 1 - Standing water 1
- Water strike 2
- 2 - Standing water 2

NOTES
Water added to assist drilling 1.0-5.5 m.
Borehole cover repaired by Apex Drilling Services Ltd. in 2011

MONITORING POINT ELEVATION & ID
Ref. Elev. 15.94mAOD mAOD

TOTAL DEPTH 5.60 METRES

LOGGED BY

DATE LOGGED

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH11

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Apex Drilling Services Ltd
EQUIPMENT AND METHOD: Dando Light Percussion Rig

GROUND LEVEL m AOD | **CO-ORDINATES** E N | **DATE DRILLED** **START** : 26/5/11 **FINISH** : 26/5/11

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION	
Brown clayey TOPSOIL			(1.60) 1.60			0.50	Cement seal installed with flush daisy cover Bentonite seal 50mm plain uPVC pipe
Dense brown GRAVEL			(2.90) 4.50			1.80	Gravel pack 50mm slotted uPVC pipe
Stiff brown CLAY			(0.50) 5.00			4.80 5.00	Gravel bottom fill

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 5.00 METRES
LOGGED BY Driller
DATE LOGGED 26/05/2011
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BH12

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
20.07 **m AOD**

CO-ORDINATES
E 447876.73 **N** 107309.65

DATE DRILLED
START : 3/3/08
FINISH : 3/3/08

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL	19.17	(0.90) 0.90			0.50 Raised cover installed
Soft brown sandy CLAY	17.97	(1.20) 2.10			Bentonite seal 100mm uPVC plain pipe
Red brown clayey sandy GRAVEL	17.37	(0.60) 2.70	2.70		
Brown sandy GRAVEL. Subangular to subrounded fine to coarse flint gravel with some cobbles. Sand generally medium/coarse grained.		(3.60)	B	5.53	3.50 Gravel filter pack 100mm uPVC slotted pipe
Yellow SAND with yellow brown sandy clay bands.	13.77	6.30	6.30	6.30	6.50 Gravel bottom fill
	12.07	(1.70) 8.00			8.00

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- ▼ - Water strike 1
- ▽1 - Standing water 1
- ▼ - Water strike 2
- ▽2 - Standing water 2

NOTES
Water added to assist drilling 2.7 - 8.0 m.
Borehole cover repaired by Apex Drilling Services Ltd. in 2011

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.07mAOD mAOD

TOTAL DEPTH 8.00 METRES

LOGGED BY

DATE LOGGED

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHA/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
18.70 **m AOD**

CO-ORDINATES
E 447420.42 **N** 108156.24

DATE DRILLED
START : 25/2/08
FINISH : 26/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	18.00		(0.70) 0.70	0.70		
Yellow & orange brown clayey to very clayey SAND & GRAVEL (hoggin). ang. to subrounded fine to medium gravel (occ. coarse) of flint. sand is fine to coarse.	16.10		(1.90) 2.60	B	1 2.74	
Grey brown, brown with depth silty sandy GRAVEL. subanugular to rounded flint gravel, sand is fine to coarse.	15.10		(1.00) 3.60	3.60	2 3.60	
Brown sandy GRAVEL, fine to course gravel gen. med/coarse occ. cobbles of flint. sand is fin to coarse.	12.70		(2.40) 6.00	B 6.00		
Brown sandy CLAY.	12.50		6.20			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Water added to assist drilling 2.6 - 6.0 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.20 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHB/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
22.42 **m AOD**

CO-ORDINATES
E 447639.22 **N** 108301.06

DATE DRILLED
START : 21/2/08
FINISH : 21/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	22.02		0.40			
Firm brown SILT/CLAY.	21.72		0.70	0.70		
Light brown SAND & GRAVEL / sandy GRAVEL. sub ang. to rounded fine to coarse gravel (clayey to 1.3 m) occ/some cobbles of black & brown flint. Sand is fine to coarse.			(3.00)	B	2.50 (1) 3.04 (1)	
	18.72		3.70	3.70		
Orange brown silty SAND with frequent soft brown sandy clay bands.			(1.70)			
	17.02		5.40	5.50 B		
Firm blue grey slightly sandy CLAY.			(1.00)			
	16.02		6.40			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
(1) - Standing water 1
- Water strike 2
(2) - Standing water 2

NOTES
Water added to assist drilling 1.3 - 5.2 m.
Caving below 3.7m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.40 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHC/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
21.75 **m AOD**

CO-ORDINATES
E 447873.19 **N** 108353.22

DATE DRILLED
START : 18/2/08
FINISH : 19/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	21.15		(0.60) 0.60			
Soft & firm orange brown mottled grey SILT/CLAY.	20.65		(0.50) 1.10	1.10 B	1 1.37	
Light brown slightly silty SAND & GRAVEL. Ang. to subrounded fine to coarse gravel of brown, grey & while flint. Sand is fine to coarse.	18.85		(1.80) 2.90	2.90	2 2.90	
Soft & firm orange grey sandy CLAY.	18.25		(0.60) 3.50			
Firm and stiff grey blue CLAY weathered brown on top.	17.95		3.80			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 3.80 METRES

LOGGED BY

DATE LOGGED

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHD/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
19.63 **m AOD**

CO-ORDINATES
E 447673.80 **N** 108047.44

DATE DRILLED
START : 26/2/08
FINISH : 26/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.			(0.80)			
	18.83		0.80			
Orange brown very sandy CLAY. Fine to medium sand, traces of fine gravel.			(0.80)			
	18.03		1.60			
Brown sandy gravelly CLAY / very clayey sand & gravel. Fine to medium flint gravel (hoggin).			(1.60)			
	16.43		3.20	3.20	3.20	
Brown sandy GRAVEL. Subangular to subrounded fine tocoarse gravel, occ./some cobbles - of white grey & brown flints. Sand is fine to coarse.			(1.70)	B	3.86	
	14.73		4.90	4.90		
Firm orange brown sandy CLAY with sand lenses.			(1.10)			
	13.63		6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Water added to assist drilling 3.2 - 5.5 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.00 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHE/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
20.54 **m AOD**

CO-ORDINATES
E 447511.00 **N** 107821.00

DATE DRILLED
START : 27/2/08
FINISH : 27/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	19.94		(0.60) 0.60			
Soft light brown slightly sandy SILT/CLAY.	18.94		(1.00) 1.60			
Brown claey GRAVEL / gravelly CLAY (poor hogin), gravel fine to medium.	18.24		(0.70) 2.30	2.30	2.40	
Brown sandy GRAVEL. Fine to coarse flint gravel occ. cobble. Sand generally medium / coarse.	17.04		(1.20) 3.50	B		
Suspect hydrocarbon contamination at 4.5-4.8 m. Black dry residue on gravel. No oil sheen on water.	15.24		(1.80) 5.30	5.30	1 4.72	
Firm yellow brown slightly sandy CLAY.	14.54		(0.70) 6.00			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
1 - Standing water 1
- Water strike 2
2 - Standing water 2

NOTES
Water added to assist drilling 2.3 - 5.5 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 6.00 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHF/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
19.31 **m AOD**

CO-ORDINATES
E 447967.79 **N** 107921.56

DATE DRILLED
START : 19/2/08
FINISH : 20/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	18.81		(0.50) 0.50	0.50		
Brown silty SAND & GRAVEL in part gravelly sand. To clayey sand & gravel down. Ang. To rounded fine to medium gravel of flint. Sand is fine to coarse (hoggin).			(2.70)	B		
	16.11		3.20	3.20	1 3.10 3.20	
Yellow brown clayey SAND with frequent brown sandy clay bands. Sand is fine.			(5.00)	B		
	11.11		8.20	8.20		
Firm to stiff yellow brown slightly sandy CLAY.	11.01		8.30			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Water added to assist drilling 3.0 - 8.0 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 8.30 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHG/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
21.40 **m AOD**

CO-ORDINATES
E 447730.70 **N** 107781.38

DATE DRILLED
START : 27/2/08
FINISH : 28/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	20.70		(0.70) 0.70			
Soft light brown very sandy CLAY.	19.30		(1.40) 2.10			
Soft brown gravelly CLAY.	18.60		(0.70) 2.80			
Brown silty SAND & GRAVEL (hoggin).	18.20		3.20	3.20		
Brown SAND & GRAVEL. Ang. To subrounded fine to coarse flint gravel occ. Cobble. Sand is fine to coarse generally coarse.	16.90		(1.30) 4.50			
Some slight hydrocarbon contamination 4.0-5.0 m depth. Dry black residue on gravel. No oil sheen on water.	14.90		(2.00) 6.50	B	1 5.80 6.00	
Yellow brown SILTY SAND with some brown sandy clay bands.	14.10		(0.80) 7.30	6.50		

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Water added to assist drilling 2.6 - 7.0 m.
Possible perched water 2.6 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 7.30 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHH/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
19.90 **m AOD**

CO-ORDINATES
E 447582.12 **N** 107539.80

DATE DRILLED
START : 4/3/08
FINISH : 4/3/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	19.30		(0.60) 0.60			
Firm brown SILT/CLAY.			(1.00)			
Brown clayey sandy GRAVEL / gravelly CLAY (hoggin).	18.30 17.90		1.60 2.00	2.00		
Brown sandy GRAVEL. Ang. to subrounded fine to coarse gravel & flint occ. cobbles. Sand generally med / coarse.			(3.70)	B	1 ▽ 4.52	
Brown silty SAND with brown clay bands.	14.20		5.70	5.70	▼ 5.70	
			(1.80)			
	12.40		7.50			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

▼ - Water strike 1
1 ▽ - Standing water 1
▼ - Water strike 2
2 ▽ - Standing water 2

NOTES
Water added to assist drilling 2.0 - 7.5 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH
7.50
METRES

LOGGED BY

DATE LOGGED

SCALE
1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. BHL/08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: D K Symes Assoc.
EQUIPMENT AND METHOD:

GROUND LEVEL
16.40 **m AOD**

CO-ORDINATES
E 448109.14 **N** 107324.77

DATE DRILLED
START : 21/2/08
FINISH : 21/2/08

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Grass over TOPSOIL.	15.80		(0.60) 0.60			
Very dense silty sandy GRAVEL. Ang. To subrounded fine to coarse gravel of flint occ. cobble. Sand is fine to coarse. Water draining away immediately. Unable to progress borehole.	15.00		(0.80) 1.40			

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Water added to assist drilling 1.0 - 1.4 m.

MONITORING POINT ELEVATION & ID
Ref. Elev. mAOD

TOTAL DEPTH 1.40 METRES
LOGGED BY
DATE LOGGED
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W01

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL 18.80 **m AOD**

CO-ORDINATES **E** 447427.05 **N** 108160.76

DATE DRILLED **START** : 22/11/18 **FINISH** : 23/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	18.70	0.10 (1.40)			Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
Soft orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	17.30	1.50 (0.50)			
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (RIVER TERRACE DEPOSITS).	16.80	2.00			
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).		(5.00)		5.00	Bentonite seal from 0.50-7.00m bgl 50mm black HDPE plain pipe from +0.30m to 7.50m bgl
	11.80	7.00			Bedding sand from 7.00-7.10mbgl
Firm brown slightly sandy silty CLAY. Sand is fine (MARSH FARM FORMATION)	11.60	7.20			
Firm to stiff thinly laminated dark grey silty CLAY (MARSH FARM FORMATION)		(5.30)			10mm non-calcareous gravel pack from 7.10-12.50m bgl 50mm black HDPE slotted pipe with 1mm screen from 7.50-12.50m bgl
	6.30	12.50			

0.50
7.00
7.10
7.50
12.50

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 7.20m. 50mm plain pipe from +0.30-7.50 and slotted from 7.50- 12.50m. Bentonite seal from 0.50-7.0 with 100mm bedding sand and gravel filter pack from 7.10-12.50m. GW static at 5.00mbgl.

MONITORING POINT ELEVATION & ID

Ref. Elev. 18.8mAOD mAOD

Top Cover 19.102 mAOD

TOTAL DEPTH 12.50 METRES

LOGGED BY P Hird

DATE LOGGED 22/11/2018

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W02

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

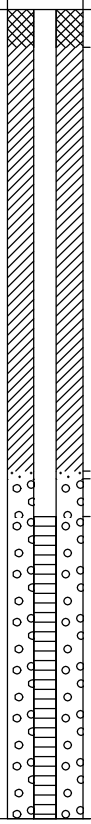
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL 22.44 **m AOD**

CO-ORDINATES **E** 447649.45 **N** 108297.56

DATE DRILLED **START** : 20/11/18 **FINISH** : 21/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	22.24	0.20		
	21.84	0.60		
Soft orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).		(1.60)		
	20.24	2.20		
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (RIVER TERRACE DEPOSITS).				
Yellowish orange slightly gravelly clayey fine to coarse SAND with occasional lenses of orangish grey sandy clay (RIVER TERRACE DEPOSITS)		(3.80)		
	16.44	6.00		
Firm to stiff thinly laminated dark grey silty CLAY (MARSH FARM FORMATION)		(4.70)		
	11.74	10.70		



Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl

Bentonite seal from 0.50-6.10m bgl
50mm blue UPVC plain pipe from +0.30m to 6.70m bgl

Bedding sand from 6.10-6.20mbgl

10mm non-calcareous gravel pack from 6.20-10.70m bgl
50mm blue UPVC slotted pipe with 1mm screen from 6.70-10.70m bgl

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 6.00m. 50mm plain pipe from +0.30-6.70 and slotted from 6.70- 10.70m. Bentonite seal from 0.50-6.10 with 100mm bedding sand and gravel filter pack from 6.20-10.70m. GW static at 5.50mbgl.

MONITORING POINT ELEVATION & ID

Ref. Elev. 22.44mAOD mAOD

Top Cover 22.718 mAOD

TOTAL DEPTH 10.70 METRES

LOGGED BY P Hird

DATE LOGGED 20/11/2018

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W03

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

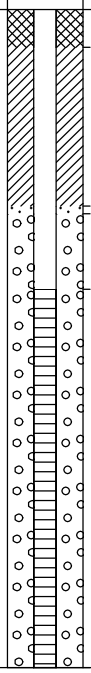
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
21.61 **m AOD**

CO-ORDINATES
E 447878.27 **N** 108351.57

DATE DRILLED
START : 19/11/18
FINISH : 20/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	21.41	0.20			
	21.01	0.60			
		(1.10)			
Soft orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	19.91	1.70			
		(0.90)			
Firm orangish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to rounded, fine to coarse of flint (RIVER TERRACE DEPOSITS).	19.01	2.60			
		(1.40)			
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	17.61	4.00			
Brownish grey silty very clayey fine to medium SAND (EARNLEY SAND FORMATION).					
Firm to stiff thinly laminated dark grey silty CLAY (MARSH FARM FORMATION)		(4.70)			
	12.91	8.70			



Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl

Bentonite seal from 0.50-2.60m bgl
50mm blue UPVC plain pipe from +0.30m to 3.70m bgl

Bedding sand from 2.60-3.70mbgl

10mm non-calcareous gravel pack from 7.70-8.70m bgl
50mm blue UPVC slotted pipe with 1mm screen from 3.70-8.70m bgl

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 3.00m. 50mm plain pipe from +0.30-3.70 and slotted from 3.70- 8.70m. Bentonite seal from 0.50-2.60 with 100mm bedding sand and gravel filter pack from 2.70-8.70m. No GW strike noted.

MONITORING POINT ELEVATION & ID

Ref. Elev. 21.61mAOD mAOD

Top Cover 21.989 mAOD

TOTAL DEPTH 8.70 METRES

LOGGED BY P Hird

DATE LOGGED 19/11/2018

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W05

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
20.61 **m AOD**

CO-ORDINATES
E 447509.19 **N** 107851.10

DATE DRILLED
START : 23/11/18
FINISH : 26/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	20.31	0.30 (1.20)			0.50 Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
Soft orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	19.11	1.50 (0.50)			
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (RIVER TERRACE DEPOSITS).	18.61	2.00			Bentonite seal from 0.50-6.50m bgl 50mm blue UPVC plain pipe from +0.30m to 7.00m bgl
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).		(4.50)			
	14.11	6.50			6.50 Bedding sand from 6.50-6.60mbgl 6.60
Yellowish orange clayey silty fine to medium SAND (SELSEY SAND FORMATION).					7.00
		(5.50)			10mm non-calcareous gravel pack from 6.60-12.00m bgl 50mm blue UPVC slotted pipe with 1mm screenand 600 micron filter sock from 7.00-12.00m bgl
	8.61	12.00			12.00

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 10.50m. 50mm plain pipe from +0.30-7.00 and slotted from 7.00- 12.00m. Bentonite seal from 0.50-6.50 with 100mm bedding sand and gravel filter pack from 6.60-12.00m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.61mAOD mAOD
Top Cover 20.814 mAOD

TOTAL DEPTH 12.00 METRES
LOGGED BY P Hird
DATE LOGGED 23/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W06

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

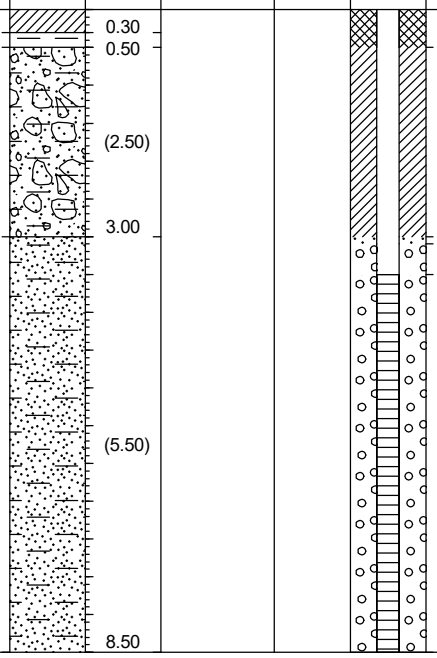
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
19.41 **m AOD**

CO-ORDINATES
E 447972.26 **N** 107917.16

DATE DRILLED
START : 27/11/18
FINISH : 27/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	19.11	0.30			
	18.91	0.50			
Soft orangish brown silty slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint (SUPERFICIAL DEPOSITS).		(2.50)			
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse with lenses of grey fine to medium sand from 2.50m (RIVER TERRACE DEPOSITS).	16.41	3.00			
Yellowish orangish brown clayey silty fine SAND (SELSEY SAND FORMATION).		(5.50)			
	10.91	8.50			



Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl

Bentonite seal from 0.50-3.00m bgl
50mm blue UPVC plain pipe from +0.30m to 3.50m bgl

Bedding sand from 3.00-3.10mbgl

10mm non-calcareous gravel pack from 3.10-8.50m bgl
50mm blue UPVC slotted pipe with 1mm screen and 600 micron filter sock from 3.50-8.50m bgl

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 7.50m. 50mm plain pipe from +0.30-3.50 and slotted from 3.50- 8.50m. Bentonite seal from 0.50-3.00 with 100mm bedding sand and gravel filter pack from 3.00-8.50m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 19.41mAOD mAOD
Top Cover 19.771 mAOD

TOTAL DEPTH 8.50 METRES
LOGGED BY P Hird
DATE LOGGED 27/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
20.02 **m AOD**

CO-ORDINATES
E 447588.11 **N** 107536.47

DATE DRILLED
START : 26/11/18
FINISH : 27/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	19.72	0.30 (1.10)			0.50 Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
Soft orangish brown silty slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint (SUPERFICIAL DEPOSITS).	18.62	1.40 (1.30)			
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS).	17.32	2.70			Bentonite seal from 0.50-5.70m bgl 50mm blue UPVC plain pipe from +0.30m to 6.20m bgl
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).		(3.00)			
	14.32	5.70			5.70 Bedding sand from 5.70-5.80mbgl 5.80 6.20
Brownish yellowish orange silty slightly clayey fine SAND (SELSEY SAND FORMATION).		(5.50)			10mm non-calcareous gravel pack from 5.80-11.20m bgl 50mm blue UPVC slotted pipe with 1mm screen and 600 micron filter sock from 6.20-11.20m bgl
	8.82	11.20			11.20

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 9.00m. 50mm plain pipe from +0.30-6.20 and slotted from 6.20- 11.20m. Bentonite seal from 0.50-5.70 with 100mm bedding sand and gravel filter pack from 5.80-11.20m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.02mAOD mAOD
Top Cover 20.337 mAOD

TOTAL DEPTH 11.20 METRES
LOGGED BY P Hird
DATE LOGGED 26/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W10

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

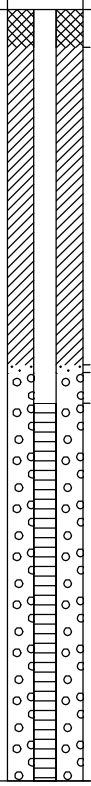
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
16.50 **m AOD**

CO-ORDINATES
E 448087.49 **N** 107645.84

DATE DRILLED
START : 27/11/18
FINISH : 28/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	16.30	0.20			
	16.00	0.50			
		(1.00)			
Soft orangish brown slightly sandy very gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	15.00	1.50			
		(1.00)			
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	14.00	2.50			
Brownish orange slightly clayey fine to medium SAND (RIVER TERRACE DEPOSITS).		(2.20)			
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	11.80	4.70			
Yellowish orange clayey silty fine to medium SAND (SELSEY SAND FORMATION).		(5.50)			
	6.30	10.20			



Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl

Bentonite seal from 0.50-4.70m bgl
50mm blue UPVC plain pipe from +0.30m to 5.20m bgl

Bedding sand from 4.70-4.80mbgl

10mm non-calcareous gravel pack from 4.80-10.20m bgl
50mm blue UPVC slotted pipe with 1mm screen and 600 micron filter sock from 5.20-10.20m bgl

KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 9.00m. 50mm plain pipe from +0.30-5.20 and slotted from 5.20- 10.20m. Bentonite seal from 0.50-4.70 with 100mm bedding sand and gravel filter pack from 4.80-10.20m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 16.5mAOD mAOD
Top Cover 16.913 mAOD

TOTAL DEPTH 10.20 METRES
LOGGED BY P Hird
DATE LOGGED 27/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W11

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

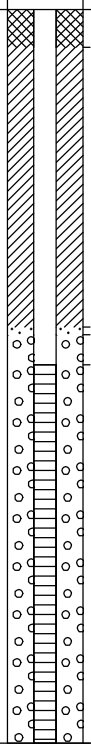
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
16.66 **m AOD**

CO-ORDINATES
E 448106.55 **N** 107322.46

DATE DRILLED
START : 28/11/18
FINISH : 29/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION	
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint and brick. Rootlets are <1mm (REWORKED TOPSOIL).	16.46		0.20 (0.50)				
	15.96		0.70				
Soft orangish brown slightly sandy gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	15.66		1.00 (0.50)				
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (RIVER TERRACE DEPOSITS).	15.16		1.50 (2.70)				
Greenish grey fine to medium SAND (RIVER TERRACE DEPOSITS).							
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	12.46		4.20				
Yellowish orange clayey silty fine to medium SAND. Occasional orangish grey sandy silty clay lenses (SELSEY SAND FORMATION).			(5.50)				
	6.96		9.70				



KEY
- B - Bulk distrubed sample
- D - Small distrubed sample
- U - Undistrubed sample
- W - Water sample
- X - Cuttings sample
- c - Coarse grained
- m - Medium grained
- f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES

Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 9.00m. 50mm plain pipe from +0.30-4.70 and slotted from 4.70- 9.70m. Bentonite seal from 0.50-4.20 with 100mm bedding sand and gravel filter pack from 4.30-9.70m. No GW strike noted.

MONITORING POINT ELEVATION & ID

Ref. Elev. 16.66mAOD mAOD

Top Cover 16.999 mAOD

TOTAL DEPTH 9.70 METRES

LOGGED BY P Hird

DATE LOGGED 28/11/2018

SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. W12

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

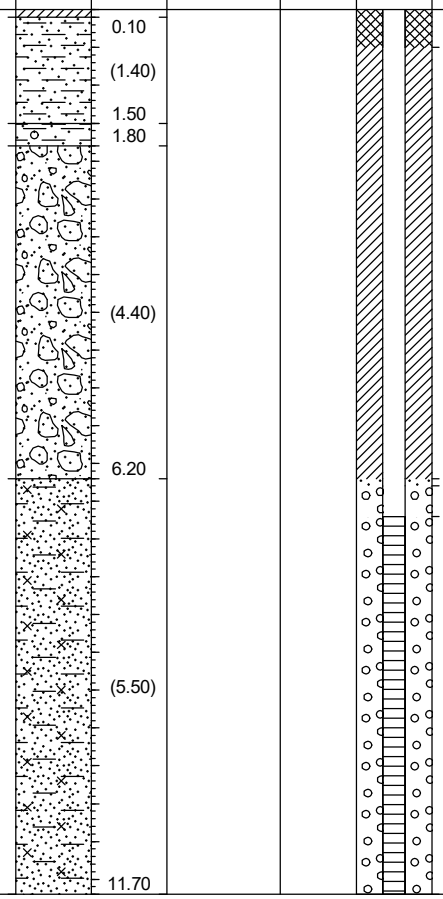
DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
20.12 **m AOD**

CO-ORDINATES
E 447876.81 **N** 107318.46

DATE DRILLED
START : 29/11/18
FINISH : 3/12/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	20.02	0.10 (1.40)
Soft orangish brown slightly sandy slightly CLAY. Sand is fine to medium (SUPERFICIAL DEPOSITS).	18.62	1.50
Soft brownish orange slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (RIVER TERRACE DEPOSITS).	18.32	1.80
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	13.92	6.20 (4.40)
Yellowish orange clayey silty fine to medium SAND. Occasional orangish grey sandy silty clay lenses (SELSEY SAND FORMATION).	8.42	11.70 (5.50)



Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl

Bentonite seal from 0.50-6.20m bgl
50mm blue UPVC plain pipe from +0.30m to 6.70m bgl

Bedding sand from 6.20-6.30mbgl

10mm non-calcareous gravel pack from 6.30-11.70m bgl
50mm blue UPVC slotted pipe with 1mm screen and 600 micron filter sock from 6.70-11.70m bgl

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 9.00m. 50mm plain pipe from +0.30-6.70 and slotted from 6.70- 11.70m. Bentonite seal from 0.50-6.20 with 100mm bedding sand and gravel filter pack from 6.30-11.70m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.12mAOD mAOD
Top Cover 20.374 mAOD

TOTAL DEPTH 11.70 METRES
LOGGED BY P Hird
DATE LOGGED 29/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. WG02

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
22.44 **m AOD**

CO-ORDINATES
E 447645.82 **N** 108293.54

DATE DRILLED
START : 21/11/18
FINISH : 21/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	22.24	0.20			
	21.84	0.60			
Soft orangish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (SUPERFICIAL DEPOSITS).	21.44	1.00			
		(2.10)			
Soft brownish orange slightly sandy gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded, fine to medium of flint (RIVER TERRACE DEPOSITS).	19.34	3.10			
Orangish brown sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (RIVER TERRACE DEPOSITS).					
Yellowish orange slightly clayey fine to medium SAND (RIVER TERRACE DEPOSITS)		(3.10)			
	16.24	6.20			
Firm to stiff thinly laminated dark grey silty CLAY (MARSH FARM FORMATION)	15.74	(0.50) 6.70			

0.50 — Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
Bentonite seal from 0.50-1.60m bgl
1.40
50mm blue UPVC plain pipe from +0.30m to 1.70m bgl
1.50
1.70 — Bedding sand from 1.60-1.70mbgl

10mm non-calcareous gravel pack from 1.70-6.70m bgl
50mm blue UPVC slotted pipe with 1.5mm screen from 1.70-6.70m bgl

6.70

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 6.00m. 50mm plain pipe from +0.30-1.70 and slotted from 1.70- 6.70m. Bentonite seal from 0.50-1.60 with 100mm bedding sand and gravel filter pack from 1.70-6.70m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 22.44mAOD mAOD
Top Cover 22.787 mAOD

TOTAL DEPTH 6.70 METRES
LOGGED BY P Hird
DATE LOGGED 21/11/2018
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. WG08

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR:
EQUIPMENT AND METHOD: Dando 2000

GROUND LEVEL
19.96 **m AOD**

CO-ORDINATES
E 447589.13 **N** 107536.46

DATE DRILLED
START : 25/2/19
FINISH : 25/2/19

DESCRIPTION	REDUCED LEVEL (m AOD)	LEGEND	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint. Rootlets are <1mm (TOPSOIL).	19.56		0.40 (0.70)			
Soft orangish brown silty slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint (SUPERFICIAL DEPOSITS).	18.86		1.10 (0.40)			
Firm orangish brown slightly sandy very gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded, fine to coarse of flint (RIVER TERRACE DEPOSITS).	18.46		1.50 (3.50)			
Orangish brown sandy subangular to subrounded fine to coarse GRAVEL of flint with some cobbles. Sand is fine to coarse. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).	14.96		5.00			
Firm greyish brownish orange sandy very gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint (RIVER TERRACE DEPOSITS).	14.56		5.40 (1.60)			
Brownish yellowish orange silty slightly clayey fine SAND (SELSEY SAND FORMATION).	12.96		7.00			

0.50 — Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
1.40 — Bentonite seal from 0.50-1.60m bgl
1.50 — 50mm yellow UPVC plain pipe from +0.30m to 1.70m bgl
1.70 — Bedding sand from 1.60-1.70mbgl
10mm non-calcareous gravel pack from 1.70-6.70m bgl
50mm yellow UPVC slotted pipe with 2mm screen from 1.70-6.0m bgl
6.00
7.00

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 7.00m. 50mm plain pipe from +0.30-1.70 and slotted from 1.70- 6.00m. Bentonite seal from 0.50-1.60 with 100mm bedding sand and gravel filter pack from 1.70-6.00m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 20.34mAOD mAOD
Top Cover 20.34 mAOD

TOTAL DEPTH 7.00 METRES
LOGGED BY P Hird
DATE LOGGED 25/02/2019
SCALE 1 : 100

Geological Services Department
CEMEX UK Operations Ltd

BOREHOLE No. WG11

SHEET 1 OF 1

SITE NAME
Hamble Airfield
Southampton, Hampshire

SITE REF. SU 4708

DRILLING CONTRACTOR: Southeastern Drilling Services Ltd.
EQUIPMENT AND METHOD: Dando 4000

GROUND LEVEL
16.33 **m AOD**

CO-ORDINATES
E 448112.03 **N** 107321.30

DATE DRILLED
START : 29/11/18
FINISH : 29/11/18

DESCRIPTION	REDUCED LEVEL (m AOD)	DEPTH & (THICKNESS) (m)	SAMPLE DEPTH (m) & TYPE	WATER STRIKE	MONITOR INSTALL-ATION
Soft dark brown silty slightly sandy slightly gravelly CLAY with rootlets. Sand is fine to medium. Gravel is subangular to subrounded fine to medium of flint and brick. Rootlets are <1mm (TOPSOIL).	16.03	0.30			0.50 Borehole completed with upstanding blue lockable steel secure covers concreted to 0.50m bgl
	15.63	0.70			
Orangish brown clayey sandy subangular to subrounded fine to coarse GRAVEL of flint. Sand is fine to coarse (SUPERFICIAL DEPOSITS).	15.33	1.00			Bentonite seal from 0.50-1.60m bgl
					1.50 50mm blue UPVC plain pipe from +0.30m to 1.70m bgl
					1.60
Greenish Grey fine to medium SAND (RIVER TERRACE DEPOSITS).		(3.00)			1.70 Bedding sand from 1.60-1.70mbgl
Brownish orange sandy subangular to subrounded GRAVEL of flint with low cobble content. Cobbles are subrounded of flint (RIVER TERRACE DEPOSITS).					10mm non-calcareous gravel pack from 1.70-4.50m bgl
	12.33	4.00			50mm blue UPVC slotted pipe with 1.5mm screen from 1.70-4.50m bgl
Yellowish orange clayey silty fine to medium SAND. Occasional orangish grey sandy silty clay lenses (SELSEY SAND FORMATION).	11.83	(0.50) 4.50			4.50

KEY
B - Bulk distrubed sample
D - Small distrubed sample
U - Undistrubed sample
W - Water sample
X - Cuttings sample
c - Coarse grained
m - Medium grained
f - Fine grained

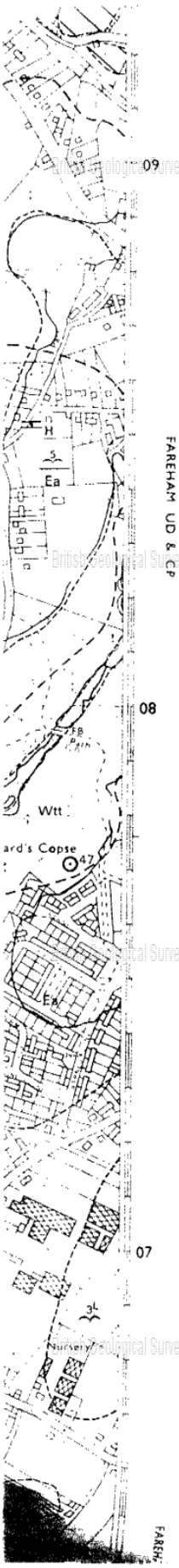
- Water strike 1
- Standing water 1
- Water strike 2
- Standing water 2

NOTES
Location cleared by Geotechnics. Hand pitted to 1.2m. Cable percusive drilling in 150mm & cased from GL to 4.00m. 50mm plain pipe from +0.30-1.70 and slotted from 1.70- 4.50m. Bentonite seal from 0.50-1.50 with 100mm bedding sand and gravel filter pack from 1.60-4.50m. No GW strike noted.

MONITORING POINT ELEVATION & ID
Ref. Elev. 16.33mAOD mAOD
Top Cover 16.706 mAOD

TOTAL DEPTH 4.50 METRES
LOGGED BY P Hird
DATE LOGGED 29/11/2018
SCALE 1 : 100

SU40NE/78 -S



SOFT GREY CLAYEY SANDY SILT 9.14

8 4919 0982
SL c+1.5
DRIFT (RIVER DEPOSITS)
SOFT DARK ALLUVIAL SOIL 1.22
DARK CLAYEY GRAVEL 1.52
LONDON CLAY FORMATION
SOFT YELLOW CLAY 3.66
DARK BLUE CLAY 6.10
HARD DARK BLUE CLAY 7.92
LIGHT COLOURED COMPACT SANDSTONE (? SEPTARIA) 8.23

17 4747 0646
SL c+4.88
MADE GROUND 1.22
DRIFT (RIVER DEPOSITS)
LOAM 1.52
FINE, MEDIUM AND COARSE GRAVEL WITH FINE, MEDIUM AND COARSE SAND 2.59
BARTON CLAY FORMATION
SOFT TO FIRM GREYISH GREEN SANDY CLAY 7.92

20 4845 0720
SL +2.59
DRIFT (RIVER DEPOSITS)
SOFT BROWN SANDY CLAY AND STONES 1.83
SOFT GREY SILTY CLAY WITH SHELLS 4.12
BROWN PEAT 6.40
FIRM BROWNISH GREY MOTTLED SILTY CLAY WITH POCKETS OF SAND AND STONES AND SHELLS 12.80
MARSH FARM FORMATION
STIFF GREY SILTY AND SANDY CLAY WITH POCKETS OF SAND 15.24

23 4852 0607
SL+2.08
DRIFT (RIVER DEPOSITS)
SOFT BLUE CLAY 0.76
PEAT 3.05
BROWN CLAY WITH GRIT CONTENT 5.64
SELSEY SAND FORMATION
SAND 5.94

27 4680 0618
SL-22.8
DRIFT (RIVER DEPOSITS)
VERY SOFT BLACK SILTY CLAY OXIDISING TO LIGHT GREYISH BROWN 1.83
SOFT LIGHT GREY SILTY FISSURED CLAY WITH SOME SHELLS 5.18
SOFT GREY SILTY FISSURED CLAY WITH SOME BROWN PEAT 8.08
SOFT BLACK COMPRESSIBLE PEAT 8.69
GREY FINE, MEDIUM AND COARSE SHELLY SAND WITH FINE, MEDIUM AND COARSE GRAVEL, SOME SILT AND CLAY AT THE TOP 12.19
BARTON CLAY FORMATION
SOFT TO FIRM GREENISH GREY SILTY FISSURED CLAY WITH VARIABLE AMOUNTS OF SAND BECOMING STIFF AT BASE 18.29

32 4856 0554
SL -0.98
DRIFT (RIVER DEPOSITS)
SOFT SILTY CLAY WITH SHELLS AND OCCASIONAL GRAVEL 0.61
GREY AND BLACK ANGULAR GRAVEL 1.22
SOFT GREEN MOTTLED YELLOW-BROWN SANDY SILTY CLAY WITH SOME GRAVEL 1.52
GREEN AND YELLOW-BROWN FINE SILTY SANDS WITH SOME BLACK GRAVEL AND OCCASIONAL PEAT 1.98
SOFT TO FIRM GREEN AND BROWN SILTY SANDY CLAY WITH POCKETS OF FINE SAND AND OCCASIONAL FRAGMENTS OF PEAT 2.82
MEDIUM DENSE, BROWN GRAVEL AND BROWNISH-GREEN SAND, SILTY AT THE TOP 3.96
BARTON CLAY FORMATION
FIRM BECOMING STIFF WITH DEPTH, GREEN, SILTY SANDY CLAY, OCCASIONALLY FISSURED AND WITH SMALL POCKETS OF FINE SAND 9.45

36A 4934 0948
SL c+3.0
MADE GROUND (CHALK, CLAY AND STONES) 2.70
DRIFT (RIVER DEPOSITS)
SOFT GREY ORGANIC SILTY CLAY 3.80
GRAVEL WITH SOME CLAYEY SAND 4.85
LONDON CLAY FORMATION
FIRM GREYISH BROWN MOTTLED SILTY CLAY 6.45
STIFF GREY SILTY CLAY 8.00
GREY SILTY CLAY INTERBEDDED WITH LENSES OF SAND 9.00

47 4991 0770
SL c+26.0
WITTERING FORMATION
BROWN TO GREYISH BROWN ROUGHLY BANDED SANDY TO SLIGHTLY SANDY CLAY WITH SOME LAYERS OF PALE YELLOW FINE SAND WHICH ARE OCCASIONALLY GLAUCONITIC 2.65
BUFF INTERLAMINATED CLAY AND FINE SILTY SAND, 4.75
BUFF MEDIUM-GRAINED SAND WITH SOME CLAY SEAMS, BECOMES COARSER DOWNWARDS WITH LIGNITE FLECKS 7.00
OLIVE GREY TO BROWNISH GREY INTERLAMINATED CLAY AND THIN SLIGHTLY GLAUCONITIC SANDS YELLOWISH BROWN IN THE TOP 0.1m, BECOMING BROWNISH GREY LOWER DOWN 8.75
INTERLAMINATED GREENISH AND BROWNISH GREY CLAY AND GREENISH GREY GLAUCONITIC THIN SANDS 11.00
GREENISH GREY GLAUCONITIC CLAYEY SAND WITH BROWN CLAY LAYERS AND PATCHES 13.06

SELECTED SECTIONS

A 4627 0994 DISUSED GRAVEL PIT SU40NE/78
SL c+28.0
DRIFT (RIVER DEPOSITS)
ORANGE-BROWN LOAM WITH A FEW FLINT PEBBLES . . . 2.0
ORANGE-BROWN SANDY GRAVEL . . . . . OVER 2.0

B 4570 0980 DISUSED GRAVEL PIT SU40NE/79
SL c+26.0
DRIFT
ORANGE-BROWN GRAVEL WITH OCCASIONAL COBBLES UP TO 10cm ACROSS, BUT MOSTLY IN THE 1 TO 3cm RANGE. SOME SAND LAYERS . . . . . OVER 3.0

C 4658 0880 ROAD CUTTING SU40NE/80
SL c+20.0
DRIFT (RIVER DEPOSITS)
GRAVEL 1.0
LAMINATED GREYISH BROWN COARSE TO MEDIUM SAND WITH STRINGERS OF FLINT PEBBLES 3.0
ORANGE-BROWN AND GREY GRAVEL 3.0
MARSH FARM FORMATION
GREYISH BROWN TO BROWNISH GREY LAMINATED CLAY WITH SAND PARTINGS . . . . . OVER 2.0

D 4682 0888 PIT SU40NE/81
SL c18
DRIFT (RIVER DEPOSITS)
SANDY GRAVEL 0.4
MARSH FARM FORMATION
FINE BUFF AND YELLOW LAMINATED AND CROSS-LAMINATED CLEAN SAND WITH SOME CLAY LAMINAE AND LIGNITIC BROWN LAMINAE 2.0
BUFF TO ORANGE BANDED CLAYEY FINE SAND AND CLAY LAMINAE, A LITTLE GLAUCONITE, SOME BANDS OF LAMINATED CLAY . . . . . OVER 2.0

E 4692 0887 OLD PIT SU40NE/82
SL c+21.0
MARSH FARM FORMATION
LAMINATED GREYISH BROWN CLAY WITH SAND LAYERS . . . . . OVER 1.0

F 4788 0874 PIT SU40NE/83
SL c+24.0
DRIFT (RIVER DEPOSITS)
EXTREMELY SANDY ORANGE-BROWN CLAY WITH STRINGERS OF SCATTERED FLINT PEBBLES . . . 1.5
ORANGE-BROWN POORLY LAMINATED CLAYEY SAND . . 1.0
GRAVEL . . . . . OVER 1.0

G 4792 0865 PIT SU40NE/84
SL c+23.0
EARNLEY SAND FORMATION
YELLOWISH GREEN AND GREYISH YELLOW SLIGHTLY CLAYEY FINE SAND, HIGHLY GLAUCONITIC AND BIOTURBATED, WITH SOME LAYERS OF DISRUPTED LAMINATED CLAY . . . . . OVER 3.0

H 4983 0852 TRENCH SU40NE/85
SL c+31.0
DRIFT (RIVER DEPOSITS)
GRAVELLY CLAYEY SAND 1.0
ORANGE-BROWN CLAYEY SAND WITH SOME RED STAINING AT THE TOP AND BECOMING LESS CLAYEY DOWNWARDS 1.3
GRAVEL . . . . . OVER 0.2

PALAEOGENE
EOCENE
LUTETIAN
CUISIAN

RECORD OF BOREHOLE No: 1

Location : HOUND CORNER, HAMBLE
Contract No. : F69/800
Type of Boring : shell + Auger
Date (started) : 28.1.71

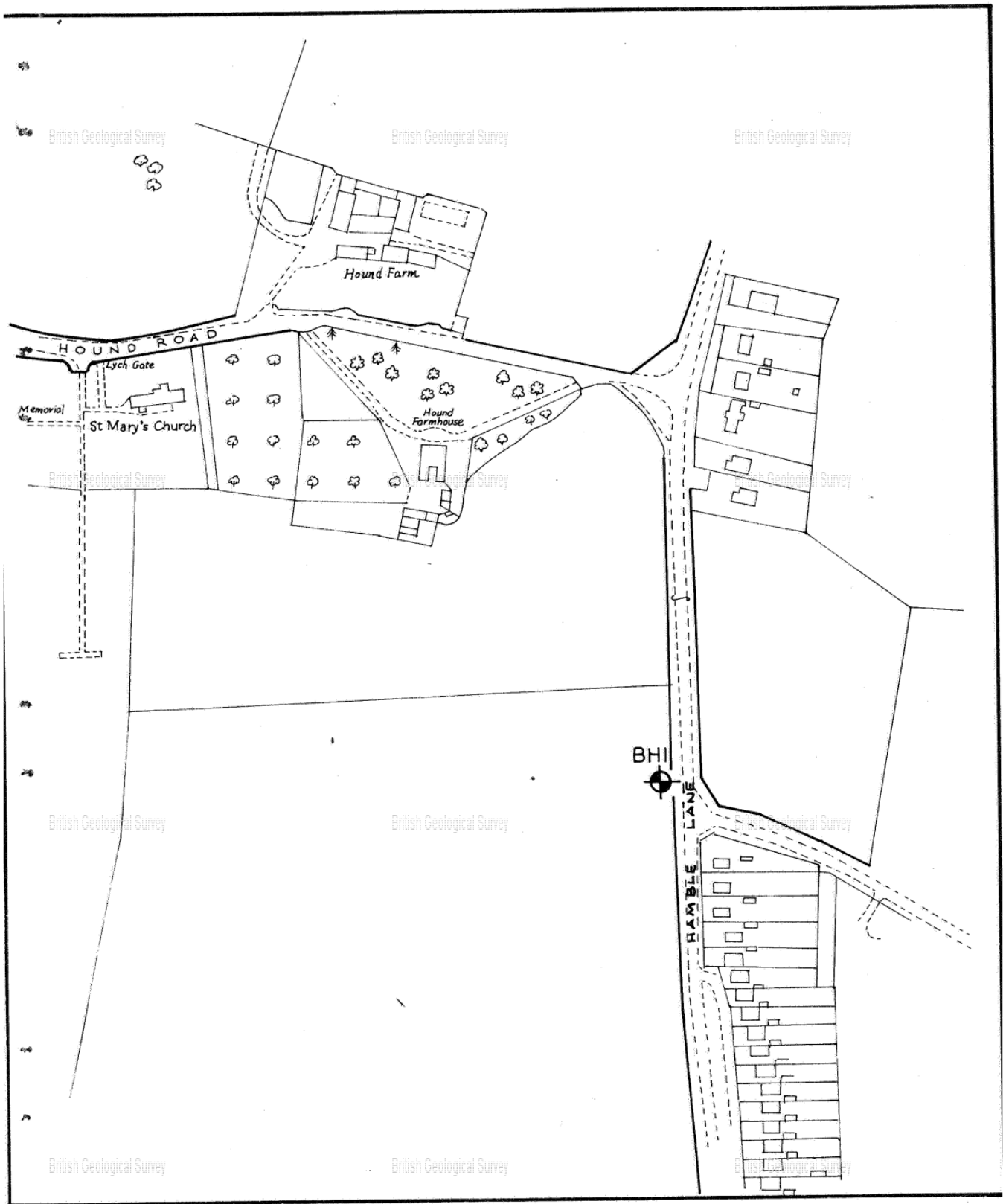
Borehole Dia : 8"
Casing : 8" to 12:6"
Ground Level :

Depth of Casing	Water Level	SAMPLES Depth	Type	No.	STRATA Legend	Depth	Thickness	DESCRIPTION OF STRATA
						1:0	1:0	clayey TOPSOIL
		2:6 - 3:6	U	1		3:0	2:0	Firm brown sandy CLAY
		5:0 (N=10)	D	2			8:0	Med. dense brown sandy c.m.f GRAVEL
		7:6"	D	3				
		10:0	D	4		11:0	1:0	Firm grey gravelly CLAY
		12:6 - 14:0	U	5		12:0		
		15:0	D	6			18:0	Stiff grey sandy very silty CLAY
		17:6	D/U*	7				
		20:0 - 21:6	U	8				
		22:6	D	9				
		25:0 - 26:6	U	10				
		27:6	D	11				
		30:0 - 31:6	U	12		30:0		Borehole Terminated

REMARKS: Water added to assist shelling.

SCALE 1" = 5'

Foundation Engineering Ltd.



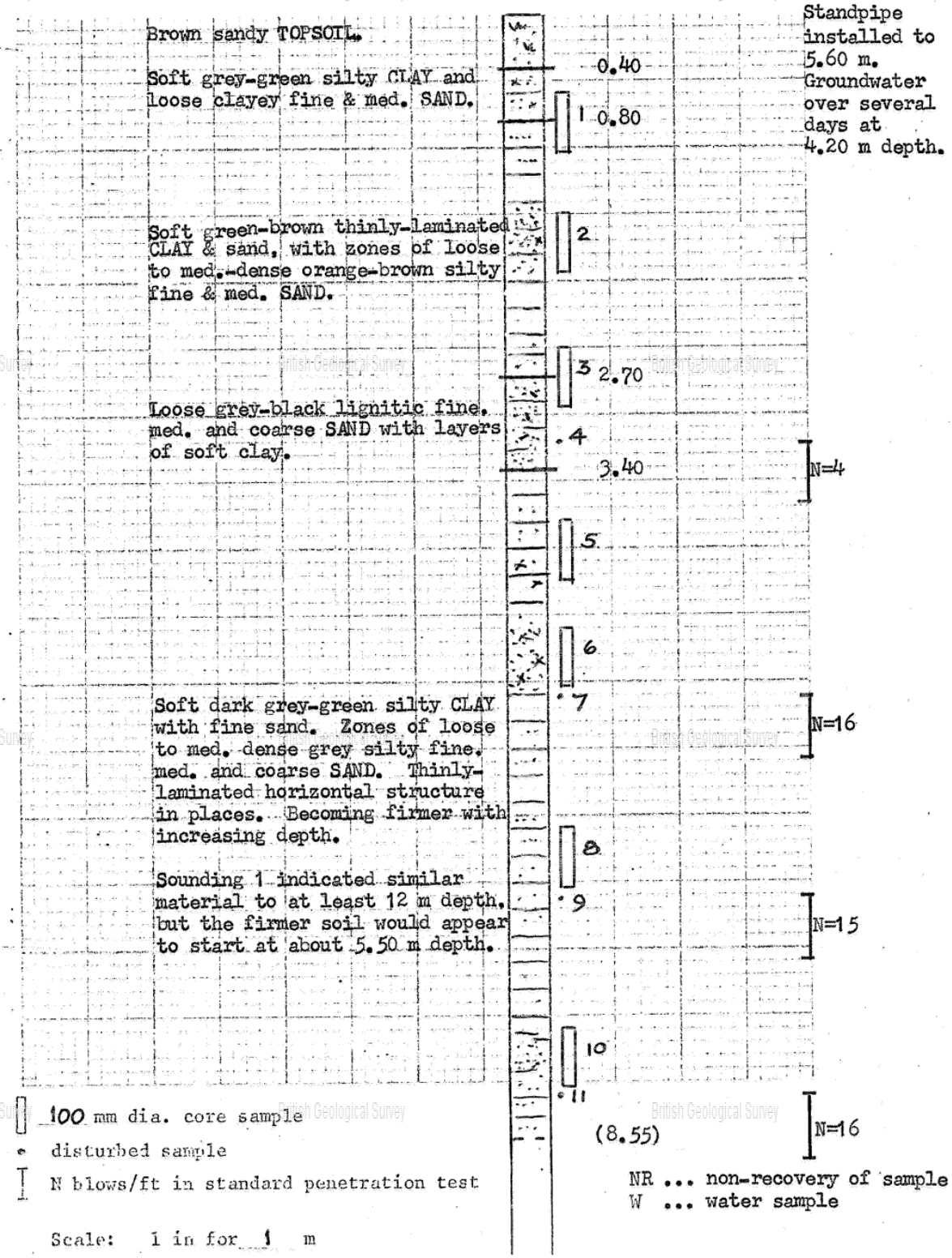
HOUND CORNER, HAMBLE

FOUNDATION ENGINEERING LTD

F69/800

SITE BURSLEDON S.D.W. FIG. 1a

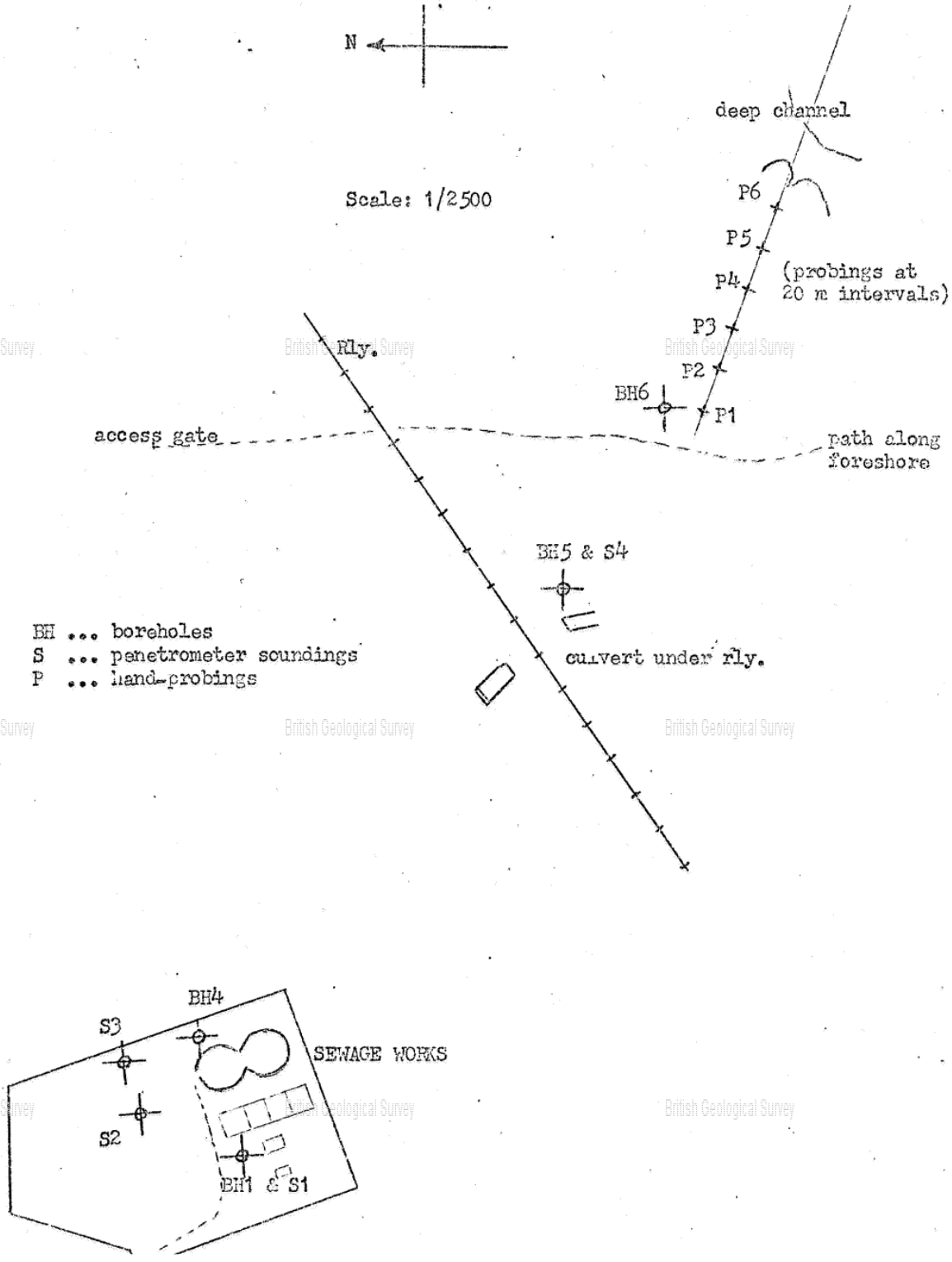
BOREHOLE 1 DIAMETER 200 mm DEPTH 8.55 m DATE 3-4.10.73



HURSLEDON S.D.W. FIG.3

SKETCH LOCATION PLAN

(from Client's drawing No.S/141/17)



Appendix B

Site Phasing Plans

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

Models		
	Drawn from	21-12_HAMBLE_PHASING OVERVIEW.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

FISHER GERMAN

Minerals Department
Fisher German LLP
The Estate Office, Norman Court
Ivanhoe Busniess Park
Ashby de la Zouch, LE65 2UZ
Telephone 01530 412821

Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phasing Overview
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASING OVERVIEW.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 1.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

FISHER GERMAN

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 1
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 1.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

Models		
	Drawn from	21-12_HAMBLE_PHASE 2.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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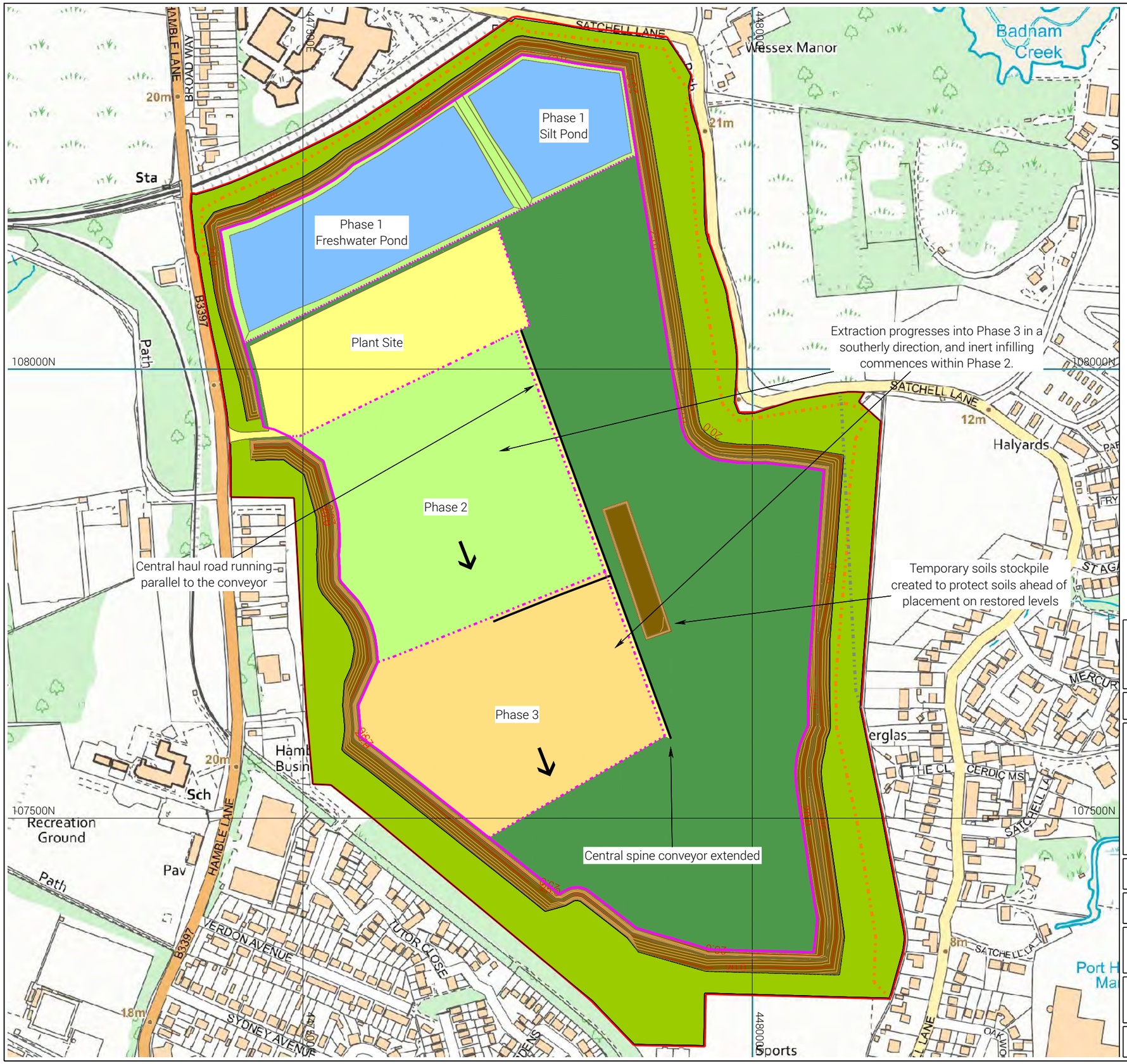
Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 2
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 2.LSS



Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 3.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 3
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 3.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 4.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 4
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 4.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

Models		
	Drawn from	21-12_HAMBLE_PHASE 5.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 5
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 5.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

Models		
	Drawn from	21-12_HAMBLE_PHASE 6.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 6
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 6.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 7.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 7
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 7.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

Models		
	Drawn from	21-12_HAMBLE_PHASE 7B.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 7b
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 7B.LSS

Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 8.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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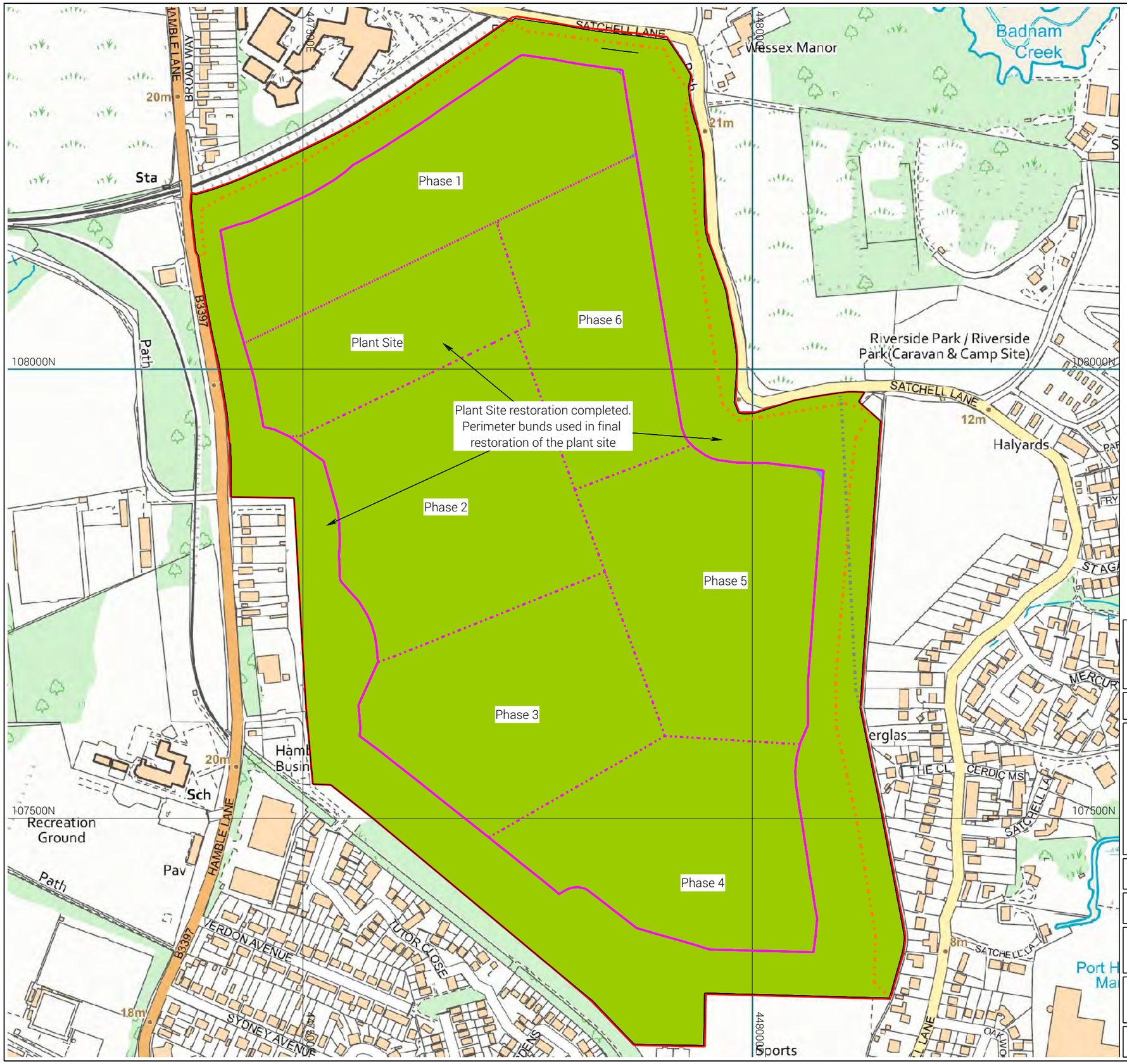
Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 8
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 8.LSS



Legend

- Site Boundary
- Extraction Boundary
- Phase Boundary
- Conveyor Alignment
- Perimeter Path
- Area To Be Extracted
- Plant Site / Haul Road
- Undergoing Extraction
- Undergoing Restoration Infilling
- Restored / Final Levels
- Soils Storage Screening Bunds
- Definitive line of FP1 (abandoned)

N

Models		
	Drawn from	21-12_HAMBLE_PHASE 9.LSS
	Overlay 1	OS Vector.IPF
	Overlay 2	
	Overlay 3	
	Overlay 4	
	Revision Notes	Method of Working : Version 7

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Drawn By: TRG	Client: CEMEX UK Operations Ltd
Date: 22.11.22	Site: Land at Hamble Airfield
Scale(S): 1:4000 A3	Project: Sand & Gravel Extraction
Chkd/Model(s): FP 129936-028	Title: Method of Working Phase 9
Site Ref.: HAM	Drawing No.: 21-12_HAMBLE_PHASE 9.LSS