

Crayfern Homes

Thomas Telford House
Sun Valley Business Park
Winnall Close
Winchester SO23 0LS

Our ref.: 16971/LR_R36

25th April 2019

Dear Alastair,

RE: Land at Arundel Road, Fontwell, West Sussex BN18 0QP

We are writing regarding the scheme of winter groundwater monitoring undertaken at the above-named site.

Brief

The scope of the investigation was set out within email correspondence between John Hills (Soils Limited), Craig Morrison (Soils Limited), Kazys Narbutas (Esher Silverman) and Alastair Dineen (Crayfern Homes). The scheme consisted of seven groundwater monitoring visits over a period of five months and was commissioned to inform the client and the Local Planning Authority (Arun District Council) on groundwater levels beneath the site over the winter period.

This letter report must be read in conjunction with the following reports undertaken on the site by Soils Limited:

- Preliminary Investigation Report – 16971/PIR, dated July 2018
- Main Investigation Report – 16971/MIR, dated July 2018

General

The site was located at land at Arundel Road, Fontwell, West Sussex BN18 0QP and had an O.S Land Ranger Grid Reference of SU 960 068. At the time of the Main Investigation Report (July 2018), no permanent structures or buildings were present on site. A small road towable caravan was located near the centre of the site. The majority of the site was covered in long grass, with areas of dense vegetation. The access track comprised concrete and brick rubble surfacing.

A site location plan has been included as Figure 1.

Ground Conditions

The ground conditions encountered during the previous site investigation (16971/MIR, dated July 2018) have been summarised in Table 1 and comprised:

Topsoil (TS)
Head (HEAD)
Lambeth Group (LMBE)

Table 1. Ground Conditions

Strata	Epoch	Depth Encountered (m bgl)		Typical Thickness (m)	Typical Description
		Top	Bottom		
TS	Anthropocene	G.L.	0.25 – 0.55	0.50	Dark orangish brown sandy gravelly SILT.
HEAD	Quaternary	0.25 – 0.55	1.00 ¹ – 4.90 ³	2.80	Dark orangish brown very clayey sandy fine to coarse sub-angular to angular flint GRAVEL.
LMBE	Thanetian	2.00 ¹ – 4.90 ³	3.00 ^{1,3} – 7.00 ^{1,3}	Not Proven ²	Orangish brown clayey fine to medium SAND with occasional bands of soft light grey sandy CLAY.

Note: ¹ Final depth of trial hole. ² Base of strata not encountered. ³ Inferred from DP logs

Groundwater - Intrusive Investigation

Groundwater was encountered within two trial holes (TP1 and TP3) during the intrusive investigation and was struck at depths of 2.00m bgl and 3.50m bgl respectively. No change in water depth was noted after a 20minute period.

Changes in groundwater level occur for a number of reasons including seasonal effects and variations in drainage. The investigation was conducted in May 2018, when groundwater levels should have been falling from their annual maximum (highest) elevation, which typically occurs around March.

Groundwater strike information has been included with Table 2.

Table 2. Groundwater Strikes During Intrusive Investigation

Trial Hole	Depth (m bgl)	Trial Hole	Depth (m bgl)
WS1 _w	Not encountered	TP1	2.10
WS2	Not encountered	TP2	Not encountered
WS3 _w	Not encountered	TP3	3.50
WS4	Not encountered	TP4	Not encountered

Note: _w = Well installation

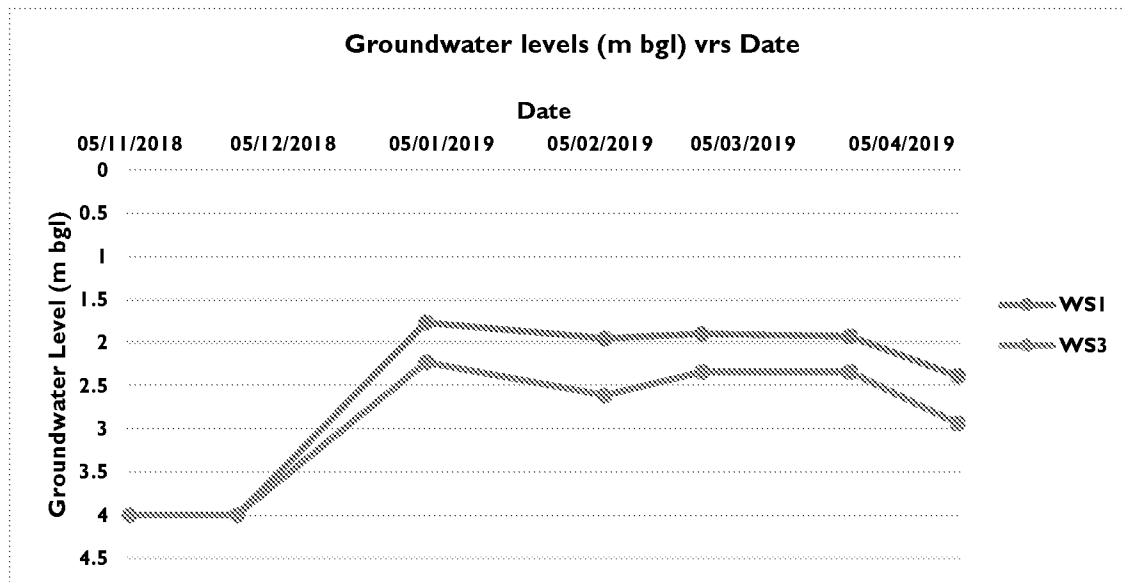
Groundwater – Post Works Monitoring

Groundwater monitoring was conducted within the standpipes installed with borehole locations WS1 and WS3 during the site works. The groundwater monitoring was undertaken between 5th November 2018 and the 16th April 2019. The data obtained from the monitoring visits have been reported in Table 3 and Graph 1.

The trial hole locations have been presented in Figure 2.

Table 3. Groundwater Monitoring

Trial Hole	Depth to Water (m bgl)							Base depth (m bgl)	
	05/11/2018	26/11/2018	02/01/2019	06/02/2019	25/02/2019	26/03/2019	16/04/2019	31/05/2018	16/04/2019
WS1	Dry	Dry	1.77	1.95	1.9	1.93	2.39	4.00	3.33
WS3	Dry	Dry	2.23	2.61	2.34	2.34	2.94	4.00	3.82

Graph 1. Groundwater Levels

Over the monitoring period, which included winter months, the data set shows a clear rise in groundwater level throughout these months with the highest water levels recorded in January 2019. In line with expected seasonal fluctuations, groundwater was noted to fall in April 2019, beginning the decline towards their lowest levels, typically recorded in September.

The following figures make up the remainder of this letter report.

Figure 1 – Site Location Plan

Figure 2 – Trial Hole Location Plan

Should you have any queries, please do not hesitate to contact the undersigned.

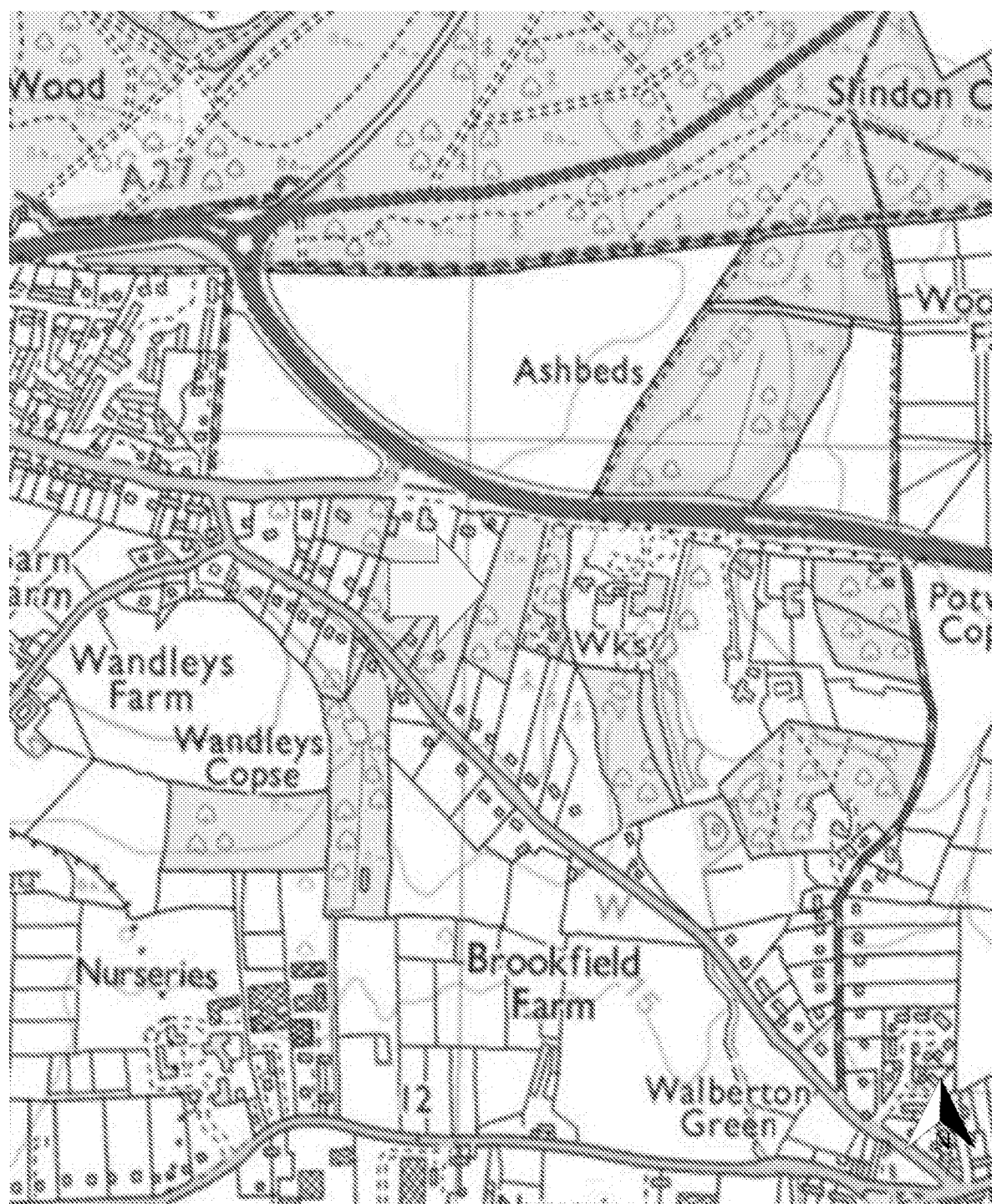
Yours sincerely

J Hills BSc (Hons) AMIEnvSc

Geo-Environmental Engineer

For and on behalf of Soils Limited

Figure I - Site Location Plan



Job Number
16971

Project
Land at Arundel Road, Fontwell, West Sussex BN18 0QP

Client
Crayfern Homes

Date
April 2019

Figure 2 – Trial Hole Location Plan



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Project
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Date
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