

Land Adj 2 Reservoir Place Lewes Road Ashurst Wood

East Grinstead West Sussex RH19 3TB

Ref: SKZ_2782/26_ May 2026

Your ref:

Our ref: SKZ_2782/26

May 2026

For attention of Mr Scott Weller

By email only

Dear Scott,

SITE AT THE LAND ADJ 2 RESERVOIR PLACE ASHURST WOOD RH19 3TB

INTRODUCTION

AVZGeoEng Limited have been commissioned by Mr Scott Weller, to carry out borehole soakaway at the above site in accordance with the AVZ quotation ref: SKZ_2620_2/25 dated 17th July 2025.

As part of the new proposed development, it was proposed to drill and install soakaway borehole to discharge the surface run-off water into the bedrock formation.

The scope of work is advised by the client's engineer and AVZGeoEng is acting as contractor following the instructions from the client, however, cannot take responsibility about suitability of the soakaways to the scheme that it is proposed to serve. Environment Agency or local authorities consent for construction of a deep borehole soakaway to discharge the surface run-off into the ground if required, is beyond the scope included in the commission.

The infiltration test carried out after the drilling and installation work was completed in 2025, provided results indicating that the discharge capacity of the installed borehole soakaway is greater than 5 litres/second.

The client requested additional infiltration test using 10,000 litres water supply from a tanker truck equipped with flowmeter and time recorder, the results are included in this updated Report. This Report is an updated version of the original AVZGeoEng Report ref: SKZ_2620/25

THE SITE

The site, which may be located by approximate National Grid reference 541198E, 137005N is situated at the Land Adj. 2 Reservoir Place Lewes Road Ashurst Wood, East Grinstead, West Sussex RH19 3TB, as shown on **Figure 1**.

The published 1:50,000 scale geological map of the area indicates that the site is underlain by Grinstead Clay Member - Mudstone over Lower Tunbridge Wells Formation and Wadhurst Clay Formation - Mudstone from the bedrock geology.



SITE WORK

The agreed scope of works comprised sinking 200mm rotary borehole using Comacchio MC 305 rotary drilling rig to a provisional of 25.0mbgl., with installation of 125mm UPVC pipe with appropriate filter zone and bentonite seal in accordance with BS 5930:2015.

On completion of the borehole, soakaway infiltration test was carried out in accordance with BS 5930: 2015 and various parts of BS EN ISO 22282.

The borehole (SKW) as shown on the location plan **Figure 2** was advised by the consultant to provide maximum possible distance from the proposed structure and highway. It is worth mentioning that all relevant standards refer to minimum distance for traditional pit or trench soakaway where discharge occurs close to the surface, borehole soakaways discharge the water deep below the ground, in this case below 7.5mbgl., therefore it is unlikely to have adverse effect to the proposed structure or the existing highway. The drilling encountered a ground profile comprising clay, overlying sandstone and siltstone interbedded with thin layers of clay and sand. The borehole log is attached in **Appendix A** of this report.

This appears to confirm the stratigraphical succession suggested by the published geological records.

The ground conditions are summarised in **Table 1** below.

Table 1. General succession of strata encountered

Brief Description	Depth to top of stratum m.bgl	Thickness (m)
Made Ground/Superficial Deposits	G.L.	0.2
Grinstead Clay Member - Mudstone	0.2	3.7
Lower Tunbridge Wells Formation	3.9	Not proven

ORIGINAL INFILTRATION TEST

2No standard IBC tanks with 1000 litres capacity and gravity feed into the borehole soakaway were provided as means of water supply to carry out the infiltration test. The constant head infiltration test method was attempted into the completed soakaways by continuous flow from both tanks (discharge of each tank at average rate of 2.5 litres/second), that could only feel the borehole to approximately 9.2mbgl. Based on the information collected from the test the infiltration capacity exceeded the supply from the tank and the infiltration rates are estimated to be greater of 5 litres/second.

ADDITIONAL INFILTRATION TEST

On 28th of April 2026 infiltration test in accordance with BS 5930: 2015 and various parts of BS EN ISO 22282 was carried out in the installed borehole soakaway using 10,000 litres water supply from a tanker truck equipped with flow meter and water pressure recorder. The water level in the soakaway borehole during the tests was recorded by both hand operated deep meter and an automatic datalogger set at 17.5mbgl or half a meter above the bottom of the standpipe.

The following datasets were recorded during the test:

Borehole Infiltration test – Land Adj 2 Reservoir Place Lewes Road Ashurst Wood - 10,000L

2:07pm – Start of test: Flowrate 132L/min (2.2L/s)

2:10pm - Increased Flowrate to 233L/min (3.9L/s)

2:14pm - Increased Flowrate to 435L/min (7.2L/s)

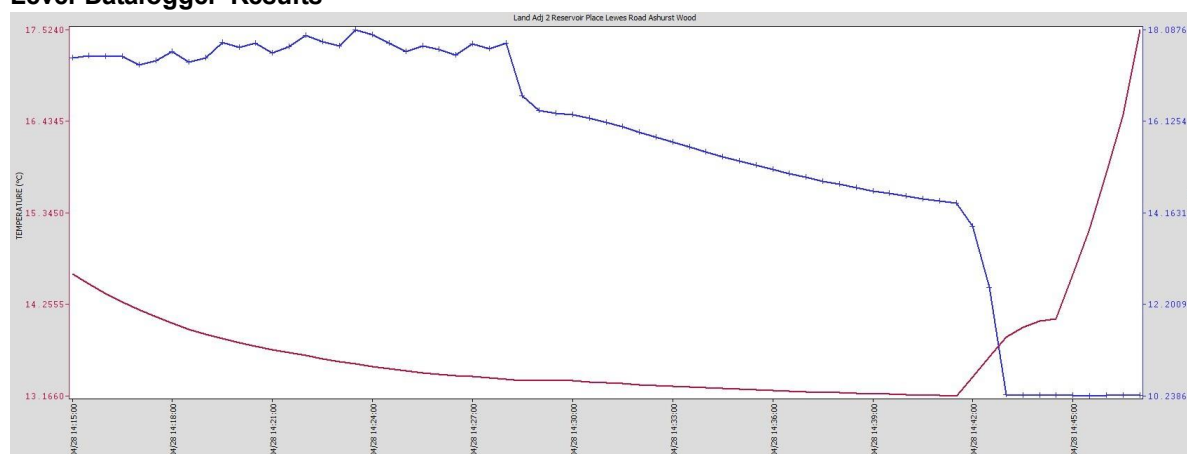
2:20pm - Increased Flowrate to 701L/min (11.7L/s)

2:22pm – Increased Flowrate to 716L/min (11.9L/s)

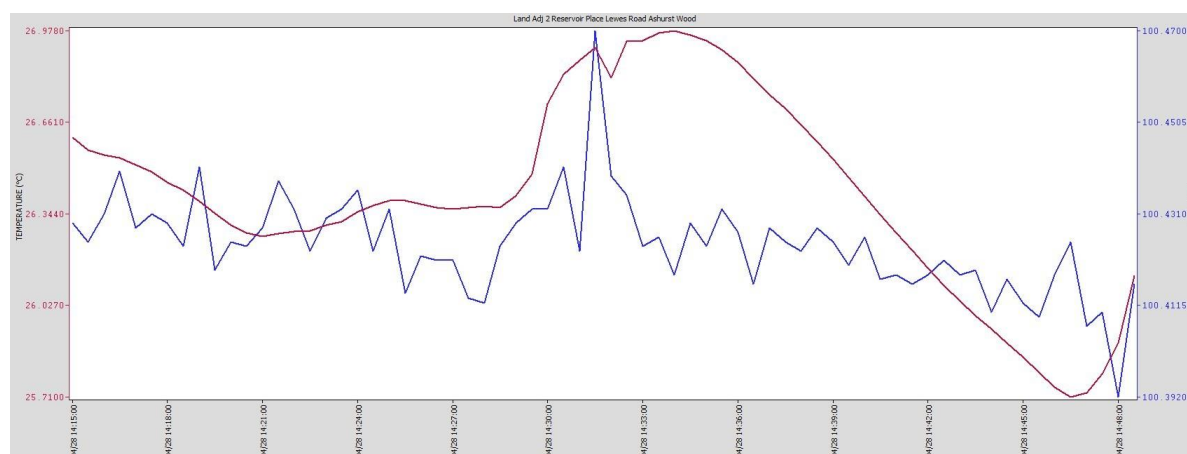
2:29pm – Maintaining 716L/min (11.9L/s)

2:30pm – Total of 10,360L Discharged.

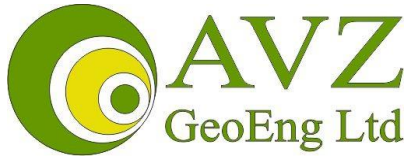
Level Datalogger Results



Baro Datalogger Results



The available pump capacity of 11.9L/s per second was insufficient to fill the borehole and the head remained steady at approximately 9m below the top of the borehole as measured by the hand operated deep meter, or around 9.5m below the top as recorded by the datalogger, the difference between the two methods is considered to be due to the high velocity of the water pumped into the



well and the deep meter recording the head at the top of the water column, while the data logger positioned at the bottom recording the change in hydrostatic pressure.

As could be concluded by the above records, the flow was at 716L/min for approximately 8 minutes, before all the water from the bowser had been discharged, with the capacity of the borehole soakaway confirmed as at least 11.9l/sec.

The infiltration in the geology found at the site location is usually governed by the presence of interconnected fractures in the bedrock rather than through the soil/rock mass which consists of fine particles with limited pore structure. Therefore, the high infiltration rates recorded in the test are most likely associated with significant fractures present in the formation.

The value of infiltration rates obtained by the test are normally factored to account for the 'silting-up' of the fissures in the adjacent soil. This is done to enable the soakaway to function at a design rate for a design period rather than quote a maximum which may deteriorate with time. Provision of an interceptor in the design could assure only clean water is entering the soakaway and minimise potential deterioration of the infiltration rates.

GROUNDWATER MONITORING

Groundwater monitoring visit was carried out on 18th October 2025, 28th February 2026 and 28 April 2026 before start of the additional infiltration test, there was no groundwater recorded in the standpipe.

SOAKAWAY DESIGN

Required storage volume in the soakaway, must equal or be greater than inflow minus outflow, and is the required effective volume available between the syphon head and the invert of the drain discharging to the soakaway.

Schematic drawing showing deep borehole soakaway standard details is presented in **Appendix B**.

The storage volume could be provided by a cylindrical or square chamber lined with brickwork, pre-cast concrete or polyethylene rings into which the surface run-off from the catchment area is collected. The chamber is usually formed from precast cylindrical rings approximately 1 metre high which are stacked upon each other to produce the required height to achieve the required effective storage volume. Typical diameters of soakaway rings are 1.2m, 1.5m, 1.8m, 2.1m and 2.4m, but the dimensions could vary for different manufacturers. The rings are located upon a concrete base to prevent the soil being washed away and eventually undermining the bottom rings. If this should occur the soakaway and associated inlet pipework is likely to become unstable. The concrete base also assists cleaning out of the debris that collect in the chamber. All joints, soakaway holes and lifting eyes in the precast concrete rings located in unsuitable strata should be sealed with mortar or other approved sealing materials. This shall prevent perched groundwater ingress into the chamber or seepage of water by any other means than through the deep bored liner.

Capping the liner which protrudes 1 metre above the base of the chamber is a syphon head placed to prevent the blockage of the deep bore. This also helps to inhibit the ingress of silt into the liner. The chamber needs regular maintenance and cleaning to prevent debris entering the pipe and reducing



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East Grinstead West Sussex RH19 3TB

Ref: SKZ_2782/26_ May 2026

the capacity by siltation. Access into the soakaway chamber to install the syphon head must be treated as a confined space and can only be undertaken with the necessary safety precautions (Gas detector, safety harness, tripod winch, backup crew etc).

Yours Sincerely,
For AVZGeoEng Ltd

Author:
BSc (Hons) Silvanka Kadieva-Zarkovska
Senior Geotechnical Engineer

A handwritten signature in blue ink, appearing to read 'Silvanka'.

Approved:
Dipl. Ing. Boban Zarkovski CEng MICE
Director

A handwritten signature in blue ink, appearing to read 'Boban'.

Enc:

Figure 1: Site Location Plan
Figure 2: Borehole Location Plan
Figure 3: Photographic Logs

Appendix A: Borehole Logs
Appendix B: Deep Borehole Soakaway Standard Detail

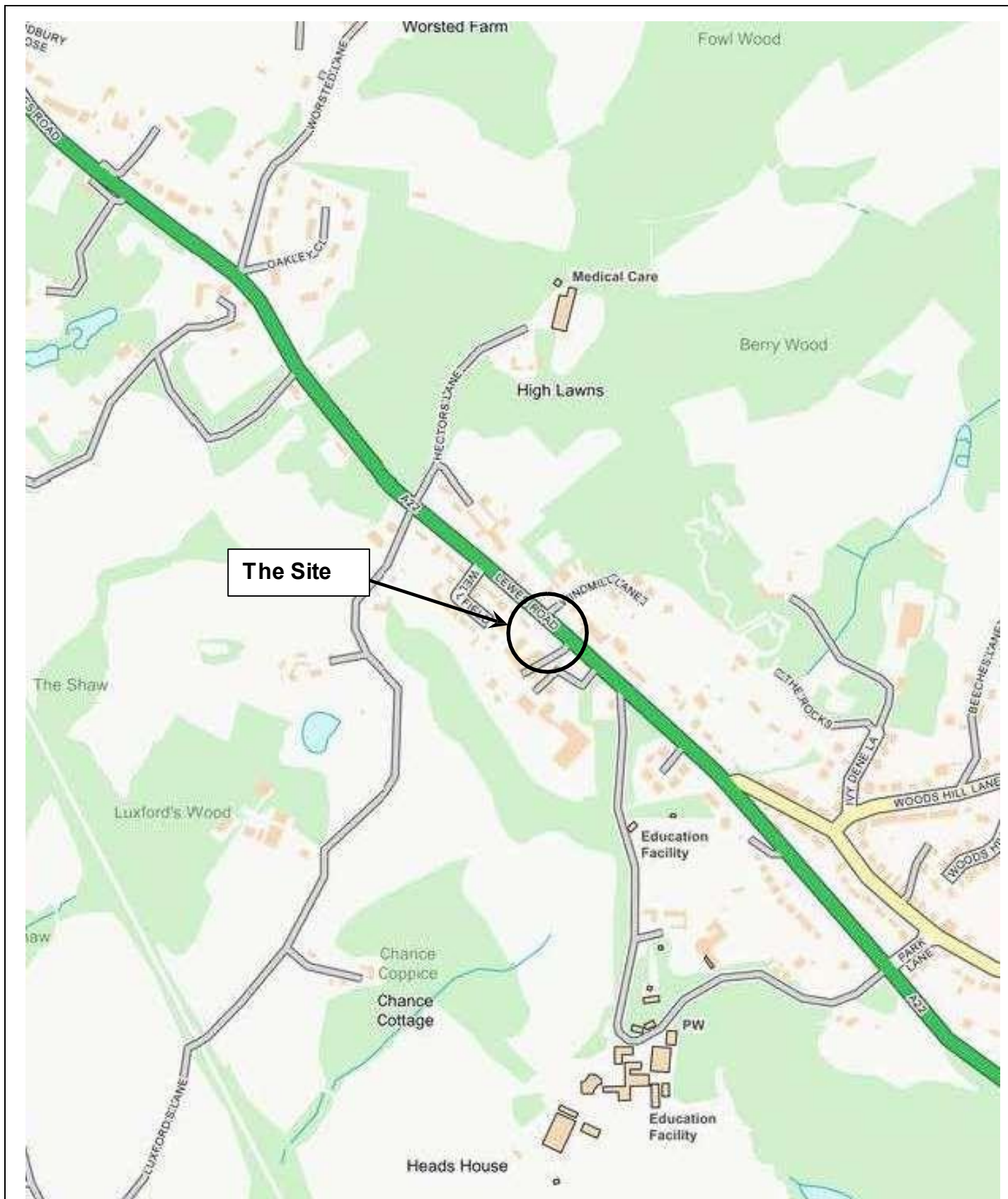


Land Adj 2 Reservoir Place Lewes Road Ashurst Wood

East Grinstead West Sussex RH19 3TB

Ref: SKZ_2782/26_ May 2026

FIGURES



Client: Scott Weller

Scale: NTS

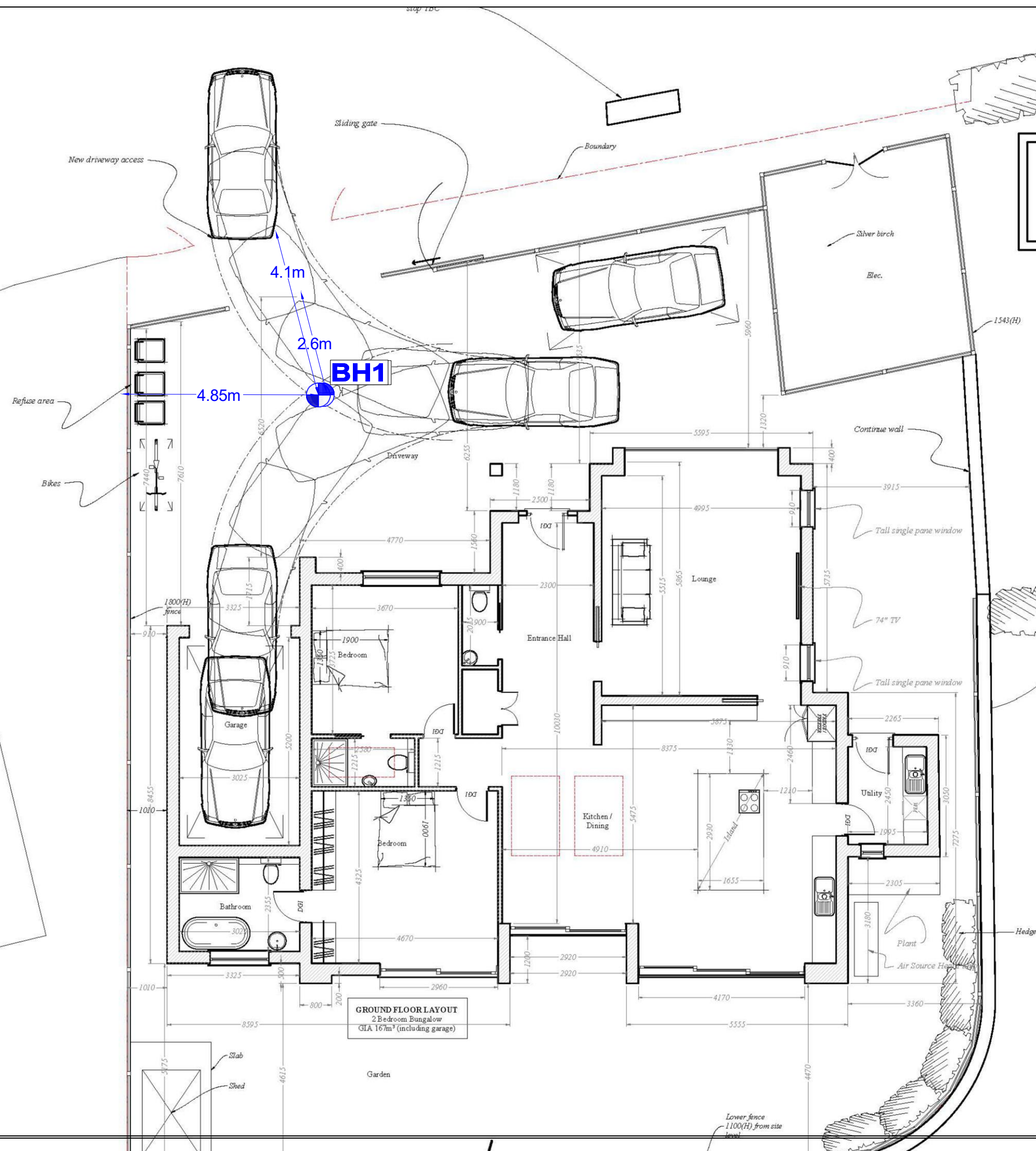
Site: Land Adj 2 Reservoir Place Lewes Road Ashurst Wood
East Grinstead West Sussex RH19 3TB

SITE LOCATION PLAN

Job No: SKZ_2782/26

Figure No: 1

SCALE



LEGEND:
BH - Borehole



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Client
Scott Weller

Project Title
Land Adj 2 Reservoir Place Lewes Road
Ashurst Wood, East Grinstead
West Sussex RH19 3TB

Drawing Title
Layout Investigation
Points Plan

Drawn	Date	Checked	Date	Approved	Date
SKZ	05/05/2026	BZ	05/05/2026	BZ	05/05/2026
Scale	Orig Size		Dimensions		
NTS			M		
Project No.			Drawing File		
SKZ_2782/26					
Drawing No.			Rev.		
FIGURE 2					

		Letter Report	PHOTOGRAPHIC LOG
Client: Scott Weller		Site: Land Adj 2 Reservoir Place Lewes Road Ashurst Wood, East Grinstead West Sussex RH19 3TB	Job No: SKZ_2620/25
Photo No.1	Figure 3_1		
Description: Comacchio rotary rig Drilling at the location			
Photo No.2	Figure 3_1		
Description: Borehole installation			

Figure 3_1

		Letter Report	PHOTOGRAPHIC LOG
Client: Scott Weller		Site: Land Adj 2 Reservoir Place Lewes Road Ashurst Wood, East Grinstead West Sussex RH19 3TB	Job No: SKZ_2782/26
Photo No.1	Figure 3		
10,000 litres water supply			

Photo No.2	Figure 3	

Figure 3

Photo No.2	Figure 3	
Start of the tests with rates of 132 litres per minutes		

Photo No.2	Figure 3	

Figure 3

Photo No.2	Figure 3	
Start of the tests with rates of 132 litres per minutes		

Photo No.2	Figure 3	
Start of the tests with rates of 132 litres per minutes		

Figure 3

Photo No.2	Figure 3	
Start of the tests with rates of 132 litres per minutes		

Photo No.2	Figure 3	
Start of the tests with rates of 132 litres per minutes		

Figure 3



Land Adj 2 Reservoir Place Lewes Road Ashurst Wood

East Grinstead West Sussex RH19 3TB

Ref: SKZ_2782/26_ May 2026

APPENDIX A



BOREHOLE LOG

Project Land Adj 2 Reservoir Place Lewes Road Ashurst Wood East Grinstead RH19 3TB				BOREHOLE No BH1
Job No SKZ_2620/25	Date 18-09-25 19-09-25	Ground Level (m)	Co-Ordinates (Local)	
Contractor AVZGeoEng Ltd				Sheet 1 of 3

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)		
<								

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL
Depth	Date	Time	Depth	Casing Dia. mm	Water Depth	From	To	Hours	From	To	REMARKS
											The location was CAT scanned and inspection pit excavated by hand prior the commencement of the drilling. A 125mm standpipe was installed on completion of the work. Water level could not be measured as drilling flush used for drilling.

Logged By
B Zarkovski

Report ID: AGS4 UKBH || Project: GINT STD AGS 4 0.GPJ || Library: GINT STD AGS 4 0.GLB || Date: 28 September 2025

BOREHOLE LOG

Project Land Adj 2 Reservoir Place Lewes Road Ashurst Wood East Grinstead RH19 3TB				BOREHOLE No BH1	
Job No SKZ_2620/25	Date 18-09-25 19-09-25	Ground Level (m)	Co-Ordinates (Local)		
Contractor AVZGeoEng Ltd				Sheet 2 of 3	

SAMPLES & TESTS			Water				STRATA	Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)	DESCRIPTION		
							Grey brown sandstone and siltstone, with thin laminas of sand and clay. <i>(continued)</i>		
							</		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL
Depth	Date	Time	Depth	Casing Dia. mm	Water Depth	From	To	Hours	From	To	REMARKS
											The location was CAT scanned and inspection pit excavated by hand prior the commencement of the drilling. A 125mm standpipe was installed on completion of the work. Water level could not be measured as drilling flush used for drilling.

All dimensions in metres Scale 1:50	Client Scott Weller	Method/ Plant Use Cdomacchio MC 305 rotary rig	Logged By B Zarkovski
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Report ID: AGS4 UKBH || Project: GINT STD AGS 4. 0.GPJ || Library: GINT STD AGS 4. 0.GLB || Date: 28 September 2025



BOREHOLE LOG

Project Land Adj 2 Reservoir Place Lewes Road Ashurst Wood East Grinstead RH19 3TB				BOREHOLE No BH1
Job No SKZ_2620/25	Date 18-09-25 19-09-25	Ground Level (m)	Co-Ordinates (Local)	
Contractor AVZGeoEng Ltd				Sheet 3 of 3

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)		
							Grey brown sandstone and siltstone, with thin laminas of sand and clay. <i>(continued)</i> 16.00 - 18.00 @ total loss of drilling flush	

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL
Depth	Date	Time	Depth	Casing Dia. mm	Water Depth	From	To	Hours	From	To	REMARKS
											The location was CAT scanned and inspection pit excavated by hand prior the commencement of the drilling. A 125mm standpipe was installed on completion of the work. Water level could not be measured as

drilling flush used for drilling.

All dimensions in metres
Scale 1:50

Client Scott Weller

Method/	
Plant Use	Cdomacchio MC305 rotary rig

Logged By
B Zarkovski

Report ID: AGS4 UKBH || Project: GINT STD AGS 4 0.GPJ || Library: GINT STD AGS 4 0.GLB || Date: 28 September 2025



Land Adj 2 Reservoir Place Lewes Road Ashurst Wood

East Grinstead West Sussex RH19 3TB

Ref: SKZ_2782/26_ May 2026

APPENDIX B

