APPENDIX DOCUMENT

Rev2 – 10.09.2025

Groundwater Investigation Report

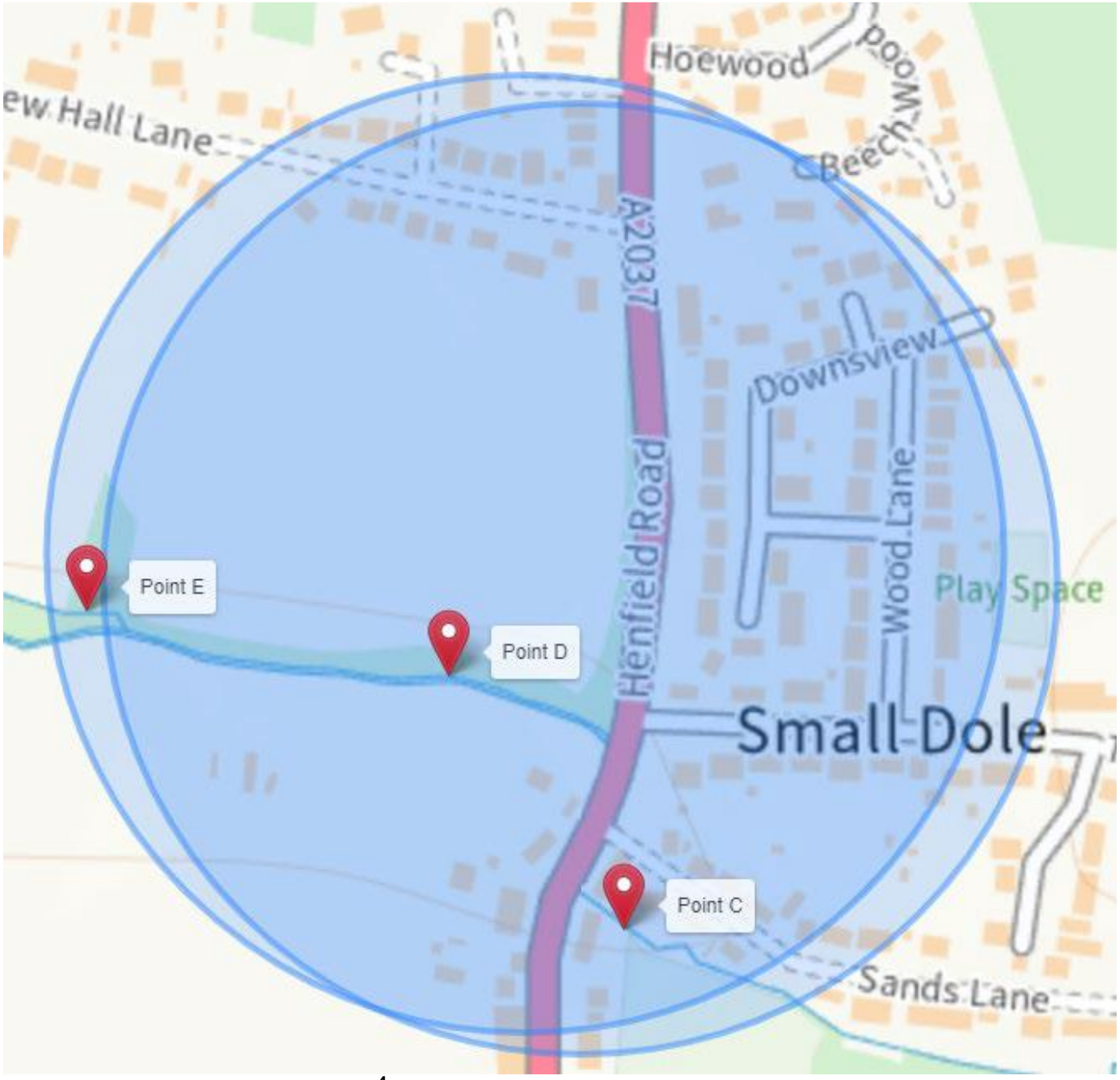
Site: Land at Shoreham Road, Small Dole

Contents

APPENDIX A – Boundary map and site plan

APPENDIX B – Water Features Map

Feature	Location (NGR)
Point C – Ditch/Stream	TQ 21455 12871
Point D – Ditch/Stream	TQ 21363 13004
Point E – Ditch/Stream	TQ 21173 13038
Feature	**Notes**
Point D – Ditch/Stream	Connects to River Adur



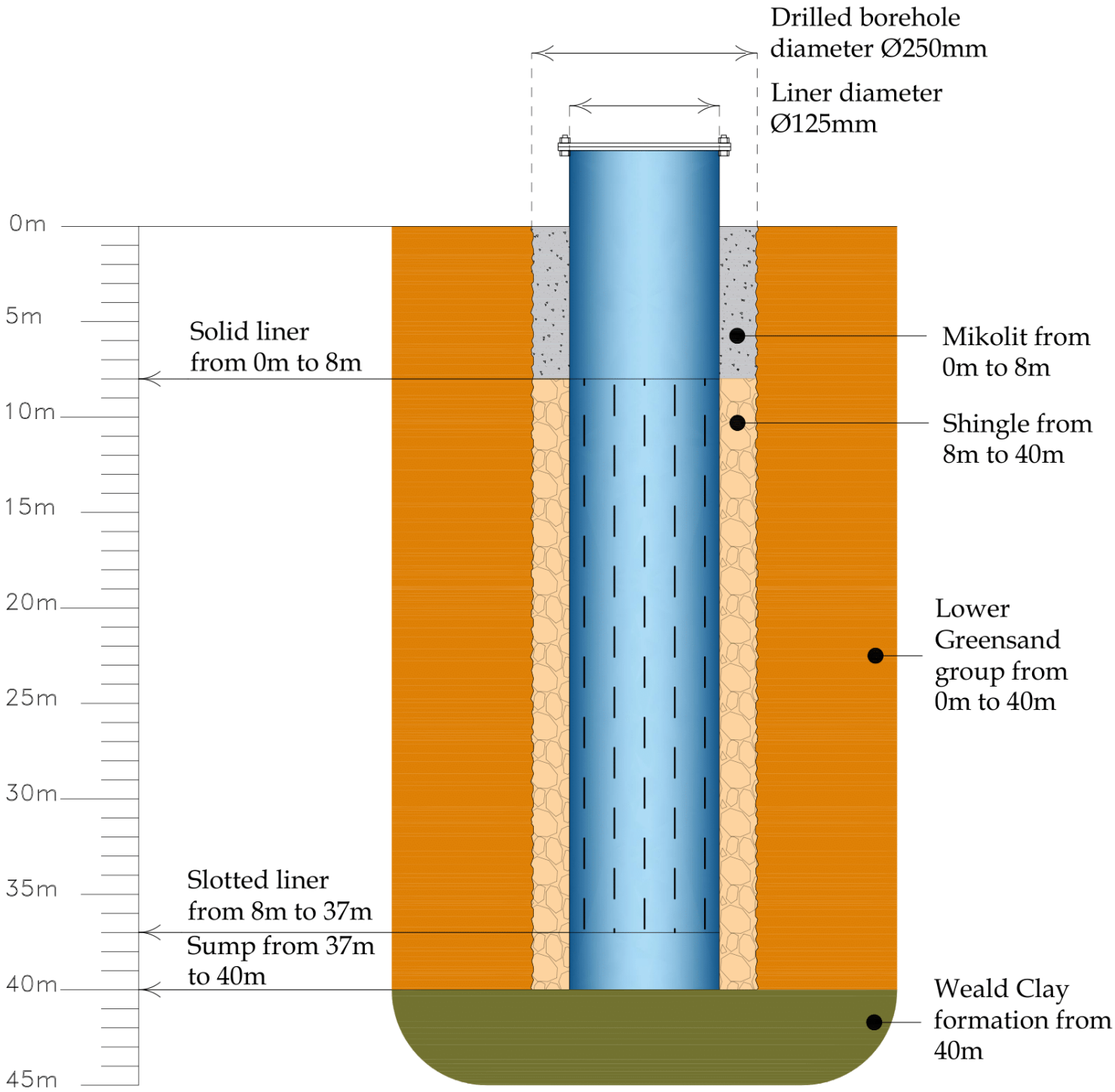
APPENDIX C – SPZ radius Map

Title:	BH1491 - SPZ map		
Client:	Wates Developments		
Date:	23/12/2024		
Revision:	Rev000	Sheet:	1 of 1

Drawn:	Mr Adam Hardiman

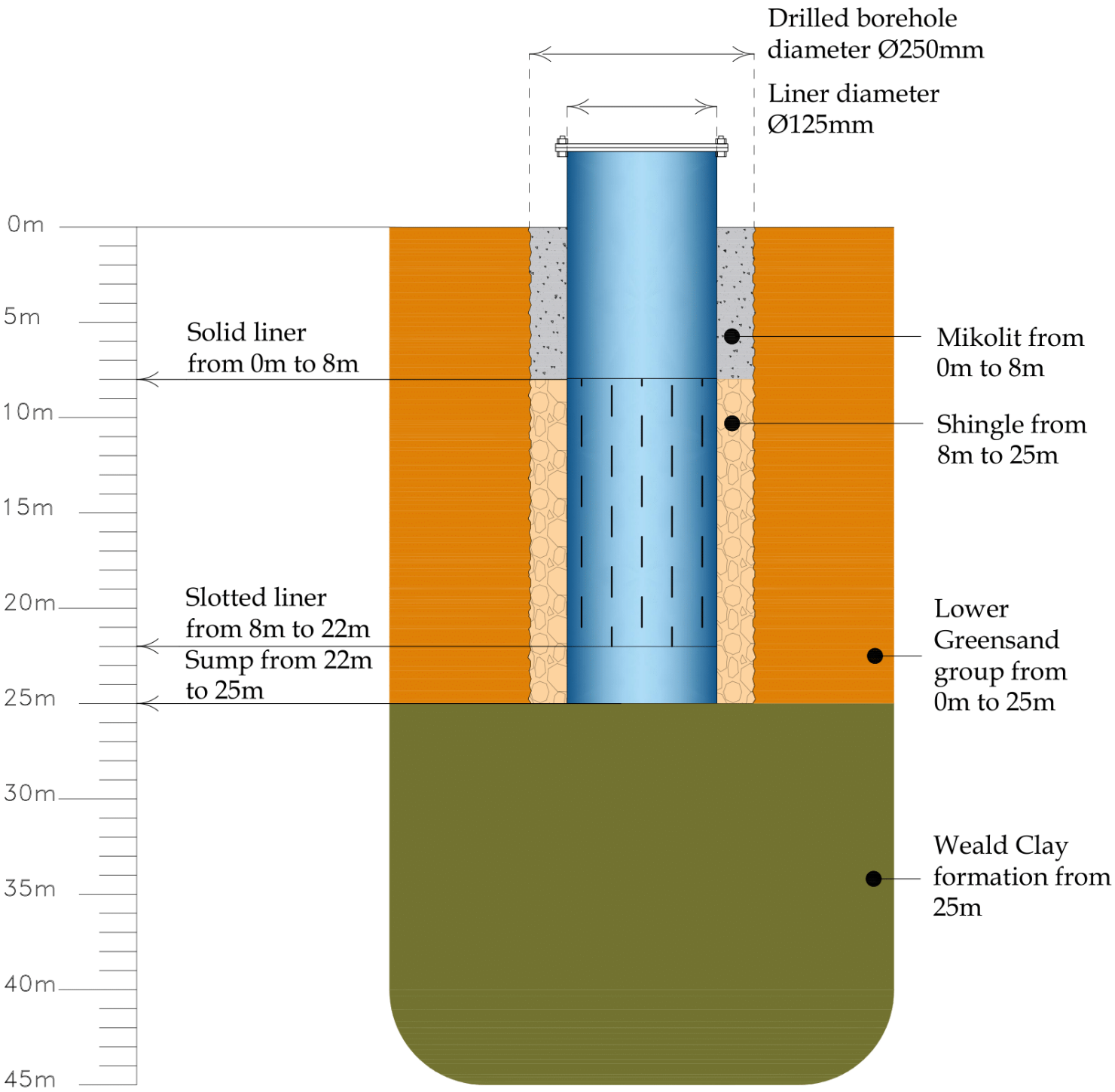
Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.

APPENDIX D.1 – Pre-construction Schematic



Notes:		Title:	BH1491 - Pre-drill Liner/geology section	Drawn:	Mr Adam Hardiman
					NICHOLLS BOREHOLES & GROUND SOURCE
		Sheet:	1 of 2	Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.	

APPENDIX E.1 – As built borehole schematic



Notes:					
	Title:	BH1491 - Liner/geology section - as-built	Drawn:	Mr Adam Hardiman	NICHOLLS BOREHOLES & GROUND SOURCE
	Sheet:	2 of 2	Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.		

APPENDIX F.1 – BGS Borehole 1

WR38: Borehole record form

Borehole record form

NICHOLLS BOREHOLES & GROUND SOURCE

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

Water Resources Act 1991 (as amended by the Water Act 2003)

A Site details

Borehole drilled for: WATES

Location: NEW HALL LANE, SMALL DOLE, BN5 9YH

NGR (ten digits): TQ 21433 13055 Please attach site plan

Ground level (if known): _____ metres Above Ordnance Datum

Drilling company: NICHOLLS BOREHOLES

Date drilling commenced: 09/01/2024 (DD/MM/YYYY) Completed: 09/01/2024 (DD/MM/YYYY)

B Construction details

Borehole datum (if not ground level) _____ metres (m). Please tick if this is above ☐ or below ☐ ground level.
(point from which all measurements of depth are taken, for example, flange, edge of chamber)

Borehole drilled diameter: 250 mm from 0 to 26 m/depth
_____ mm from _____ to _____ m/depth
_____ mm from _____ to _____ m/depth
_____ mm from _____ to _____ m/depth

Casing material: Solid uPVC diameter: 125 mm from: 0 to: 7.9 m/depth
and type (for example, if plain steel, plastic slotted). Please record permanent casing details, not temporary casing.

Casing material: Slotted uPVC diameter: 125 mm from: 7.9 to: 22 m/depth

Casing material: Solid uPVC diameter: 125 mm from: 22 to: 25 m/depth

Casing material: _____ diameter: _____ mm from: _____ to: _____ m/depth

Grouting details: 45 bags of shingle, 14 bags of mikolit. Drilled with mud

Water struck at 1. N/A m (depth below datum – mbd) 2. _____ m (mbd)
3. _____ m (mbd) 4. _____ m (mbd)

C Test pumping summary (Please supply full details on form WR39)

Test pumping datum (if different from borehole datum) _____ m. Please tick if this is above ☐ or below ☐ ground level.

Pump suction depth _____ mbd

Water level (start of test) _____ mbd

Water level (end of test) _____ mbd

Type of test (for example, bailer, step, constant rate)
_____

Pumping rate _____ m^3/hour ☐ or litres/second ☐. Please tick as appropriate.
for _____ days, _____ hours, _____ mins

Recovery to _____ mbd in _____ days, _____ hours, _____ mins
(from end of pumping)

Date(s) of measurements Pump started _____ (DD/MM/YYYY)
Pump stopped _____ (DD/MM/YYYY)

Please supply chemical analysis if available. If you have included this please tick this box ☐

APPENDIX F.1 cont'd – BGS Borehole 1

NICHOLLS LICENSING & CONSULTING

Client:	**wates**	**WELL LOG**	
Project:	**New Hall Lane**	**Well No.**	**BH 1491, BH-1**
Address:	**New Hall Lane, Small Dole, West Sussex, United Kingdom**	**Page:**	**1 of 2**

Drilling Start Date:	**09/01/2024**	Boring Depth (m):	**26**	Well Depth (m):	**26**
Drilling End Date:	**09/01/2024**	Boring Diameter (mm):	**250.0**	Well Diameter (mm):	**125**
Drilling Company:		Sampling Method(s):	**N/A**	Screen Slot (mm):	**0.300**
Drilling Method:	**Mud Rotary**	DTW During Drilling (m):	**N/A**	Riser Material:	**Other**
Drilling Equipment:		DTW After Drilling (m):	**N/A**	Screen Material:	**PVC Prepack**
Driller:		Ground Surface Elev. (m):	**N/A**	Seal Material(s):	**N/A**
Logged By:	**aparna sinha**	Location (Lat, Long):	**50.90665, -0.27825**	Filter Pack:	

DEPTH (m)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (m)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (m)
0								(0.00m) Topsoil			0
								(0.50m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, few clay, medium dense, brown (10YR 5/3)			
5											5
10								(9.50m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, few clay, dense, brown (7.5YR 4/2)			10
15											15
								(18.00m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, few clay, medium dense, pale brown (10YR 6/3)			
20											20

NOTES:

APPENDIX F.1 cont'd – BGS Borehole 1

NICHOLLS LICENSING & CONSULTING

Client:	**wates**	**WELL LOG**
Project:	**New Hall Lane**	**Well No.** **BH 1491, BH-1**
Address:	**New Hall Lane, Small Dole, West Sussex, United Kingdom**	**Page:** **2 of 2**

Drilling Start Date:	**09/01/2024**	Boring Depth (m):	**26**	Well Depth (m):	**26**
Drilling End Date:	**09/01/2024**	Boring Diameter (mm):	**250.0**	Well Diameter (mm)	**125**
Drilling Company:		Sampling Method(s):	**N/A**	Screen Slot (mm):	**0.300**
Drilling Method:	**Mud Rotary**	DTW During Drilling (m):	**N/A**	Riser Material:	**Other**
Drilling Equipment:		DTW After Drilling (m):	**N/A**	Screen Material:	**PVC Prepack**
Driller:		Ground Surface Elev. (m):	**N/A**	Seal Material(s):	**N/A**
Logged By:	**aparna sinha**	Location (Lat, Long):	**50.90665, -0.27825**	Filter Pack:	

DEPTH (m)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (m)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (m)
20								(18.00m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, few clay, medium dense, pale brown (10YR 6/3)			20
25								(24.00m) Fat CLAY (CH); stiff, dark gray (N 4/)			25
								(26.00m) Boring terminated			
30											30
35											35
40											40

NOTES:

APPENDIX F.2– BGS Borehole 2

WR38: Borehole record form

Borehole record form

NICHOLLS BOREHOLES & GROUND SOURCE

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Environment Agency

Water Resources Act 1991 (as amended by the Water Act 2003)

A Site details

Borehole drilled for: WATES DEVELOPMENTS

Location: NEW HALL LANE, SMALL DOLE, BN5 9YH

NGR (ten digits): TQ 21404 13068 Please attach site plan

Ground level (if known): _____ metres Above Ordnance Datum

Drilling company: NICHOLLS BOREHOLES

Date drilling commenced: 10/01/2024 (DD/MM/YYYY) Completed: 10/01/2024 (DD/MM/YYYY)

B Construction details

Borehole datum (if not ground level) _____ metres (m). Please tick if this is above ☐ or below ☐ ground level.
(point from which all measurements of depth are taken, for example, flange, edge of chamber)

Borehole drilled diameter

250	mm from	0	to	26 m/depth
	mm from		to	m/depth
	mm from		to	m/depth
	mm from		to	m/depth

Casing material: Solid uPVC diameter: 125 mm from: 0 to: 7.9 m/depth
and type (for example, if plain steel, plastic slotted). Please record permanent casing details, not temporary casing.

Casing material: Slotted uPVC diameter: 125 mm from: 7.9 to: 22 m/depth

Casing material: Solid uPVC diameter: 125 mm from: 22 to: 25 m/depth

Casing material: _____ diameter: _____ mm from: _____ to: _____ m/depth

Grouting details: 43 bags of shingle, 12 bags of mikolit. Drilled with mud

Water struck at 1. N/A m (depth below datum – mbd) 2. _____ m (mbd)
3. _____ m (mbd) 4. _____ m (mbd)

C Test pumping summary (Please supply full details on form WR39)

Test pumping datum _____ m. Please tick if this is above ☐ or below ☐ ground level.
(if different from borehole datum)

Pump suction depth _____ mbd

Water level (start of test) _____ mbd

Water level (end of test) _____ mbd

Type of test (for example, bailer, step, constant rate)

_____

Pumping rate _____ m^3/hour ☐ or litres/second ☐. Please tick as appropriate.

for _____ days, _____ hours, _____ mins

Recovery to _____ mbd in _____ days, _____ hours, _____ mins
(from end of pumping)

Date(s) of measurements Pump started _____ (DD/MM/YYYY)

Pump stopped _____ (DD/MM/YYYY)

Please supply chemical analysis if available. If you have included this please tick this box ☐

APPENDIX F.2 Cont'd– BGS Borehole 2

NICHOLLS LICENSING & CONSULTING

Client:	**wates**	**WELL LOG**	
Project:	**New Hall Lane BH2**	**Well No.**	**BH 1491, BH-2**
Address:	**New Hall Lane, Small Dole, West Sussex, United Kingdom**	**Page:**	**1 of 2**

Drilling Start Date:	**10/01/2024**	Boring Depth (m):	**26**	Well Depth (m):	**26**
Drilling End Date:	**10/01/2024**	Boring Diameter (mm):	**250.0**	Well Diameter (mm):	**125**
Drilling Company:		Sampling Method(s):	**N/A**	Screen Slot (mm):	**0.300**
Drilling Method:	**Mud Rotary**	DTW During Drilling (m):	**N/A**	Riser Material:	**Other**
Drilling Equipment:		DTW After Drilling (m):	**N/A**	Screen Material:	**PVC Prepack**
Driller:		Ground Surface Elev. (m):	**N/A**	Seal Material(s):	**N/A**
Logged By:	**aparna sinha**	Location (Lat, Long):	**50.90667, -0.27824**	Filter Pack:	

DEPTH (m)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (m)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (m)
0								(0.00m) Topsoil (0.50m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, loose, light yellowish-brown			0
5											5
10								(10.00m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, medium dense, dark gray			10
15								(17.50m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, dense, light brown			15
20											20

NOTES:

APPENDIX F.2 Cont'd– BGS Borehole 2

NICHOLLS
LICENSING & CONSULTING

Client:	**wates**	**WELL LOG**	
Project:	**New Hall Lane BH2**	**Well No.**	**BH 1491, BH-2**
Address:	**New Hall Lane, Small Dole, West Sussex, United Kingdom**	**Page:**	**2 of 2**

Drilling Start Date:	**10/01/2024**	Boring Depth (m):	**26**	Well Depth (m):	**26**
Drilling End Date:	**10/01/2024**	Boring Diameter (mm):	**250.0**	Well Diameter (mm)	**125**
Drilling Company:		Sampling Method(s):	**N/A**	Screen Slot (mm):	**0.300**
Drilling Method:	**Mud Rotary**	DTW During Drilling (m):	**N/A**	Riser Material:	**Other**
Drilling Equipment:		DTW After Drilling (m):	**N/A**	Screen Material:	**PVC Prepack**
Driller:		Ground Surface Elev. (m):	**N/A**	Seal Material(s):	**N/A**
Logged By:	**aparna sinha**	Location (Lat, Long):	**50.90667, -0.27824**	Filter Pack:	

DEPTH (m)	LITHOLOGY	WATER LEVEL	WELL COMPLETION	COLLECT: Sample Type	COLLECT: Time	COLLECT: Blow Counts	COLLECT: Recovery (m)	SOIL/ROCK VISUAL DESCRIPTION	MEASURE: PID (ppm)	MEASURE: Lab Sample	DEPTH (m)
20								(17.50m) Poorly graded SAND with silt (SP-SM); fine grained, little silt, dense, light brown			20
								(24.00m) Lean CLAY (CL); dark gray			
25								(26.00m) Boring terminated			25
30											30
35											35
40											40

NOTES:

APPENDIX G.1– BH1 water quality results

South East Water Scientific Services
3 Columbus Drive, Farnborough
Hampshire, GU14 0NZ
E-Mail: sales@southeastwater.co.uk
Website: www.sewscientificservices.co.uk

south east water
scientific services

ANALYTICAL REPORT

NICHOLLS BOREHOLES
Brownings Barn
Glasshouse Lane
Kirdford
West Sussex
RH14 0LW

Collected From: NEW HALL LANE, SMALL DOLE

Date Received: 30/08/2024

Certificate Number: 1300384-1 Final

Order Number: BH 1491 BH1

Date Reported: 20/09/2024

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Desc: RAW BOREHOLE BH1 Collect From: NEW HALL LANE, SMALL DOLE Order No: BH 1491 BH1 Received Date: 30/08/2024 Tested Date: 30/08/2024 Sampling Date: 30/08/2024 11:00 Sample Type: GW : Ground Water Product: SS-DWREGS	255	Ammonium (Ammonia and Ammonium Ions)	<0.020	mg/l	<0.500	
		245	Nitrate	19.6	mg/l	<50.0	
		225	Nitrite	<0.004	mg/l	<0.500	
		calc	Nitrite/Nitrate	0.392	mg/l	<1.000	*
		230	Odour - Qualitative	None			*
		230	Odour - Quantitative	0			
		430	Colony Count 3 Days at 22°C	>300	cfu/ml		
		400	E coli	0	mpn/100ml	0	
		400	**Total Coliforms**	**2**	**mpn/100ml**	**0**	F
		660	Colour	<2	mg/l Pt/Co	<20	
		660	Conductivity	679	uS/cm		
		660	Hydrogen Ion (pH)	7.1	pH_unit	6.5 to 9.5	
		660	Turbidity	0.140	NTU	<4.000	
		ext	Acrylamide	<0.006	µg / l	<0.100	
		ext	Epichloroydrin	<0.1	µg / l	<0.10	*
		ext	Vinyl Chloride	<0.113	µg / l	<0.500	
		3401	Bromate	<0.8	µg / l	<10.0	
		390	**Enterococci**	**3**	**cfu/100ml**	**0**	F
		5413	Total Cyanide	<4.1	µg / l	<50.0	
		765	Mercury	<0.04	µg / l	<1.00	
		745	Antimony	<0.2	µg / l	<5.0	
		745	Arsenic	<1.0	µg / l	<10.0	
		745	Selenium	0.9	µg / l	<10.0	
		740	Boron	0.071	mg/l	<1.000	
		740	Calcium	138.3	mg/l		
		740	Magnesium	5.6	mg/l		
		740	Sodium	14.6	mg/l	<200.0	
		3371	Fluoride	0.067	mg/l	<1.500	
		3545	2,4,5-T	<0.007	µg / l	<0.100	
		3545	2,4-D	<0.007	µg / l	<0.100	
		3545	Bentazone	<0.007	µg / l	<0.100	

Disclaimers:

Unless otherwise stated, all results apply to the sample as received. Information provided by the customer (includes Date, Time, Sample Matrix & Sample Description) can affect the validity of the result.
Opinions and interpretations expressed in this report are outside the scope of UKAS accreditation.
Details of Uncertainty of Measurement and Analytical Quality Control are available on request.
Where a statement of conformity to a Regulatory Standard or customer limit is provided, the uncertainty of measurement is not taken into account unless shown on the certificate.
*** - denotes non UKAS accredited test**
A result of 0 cfu denotes none found in volume analysed
F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018
ext - Analysis subcontracted to an external laboratory

UKAS TESTING
1579

APPENDIX G.1 cont'd– BH1 water quality results

Certificate Number: 1300384-1 Final

Order Number: BH 1491 BH1

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Continued from Page 1	3545	Bromoxynil	<0.007	µg / l	<0.100	
		3545	Dicamba	<0.020	µg / l	<0.100	
		3545	Dichlorprop	<0.003	µg / l	<0.100	
		3545	Fluroxypyr	<0.008	µg / l	<0.100	
		3545	MCPA	<0.008	µg / l	<0.100	
		3545	MCPB	<0.008	µg / l	<0.100	
		3545	Mecoprop (MCPP)	<0.005	µg / l	<0.100	
		3545	Triclopyr	<0.015	µg / l	<0.100	
		2587	Atrazine	<0.002	µg / l	<0.100	
		2587	Carbendazim	<0.001	µg / l	<0.100	
		2587	Carbetamide	<0.002	µg / l	<0.100	
		2587	Chlortoluron	<0.003	µg / l	<0.100	
		2587	Diuron	<0.004	µg / l	<0.100	
		2587	Epoxiconazole	<0.003	µg / l	<0.100	
		2587	Flutriafol	<0.003	µg / l	<0.100	
		2587	Isoproturon	<0.003	µg / l	<0.100	
		2587	Linuron	<0.003	µg / l	<0.100	
		2587	Oxadixyl	<0.003	µg / l	<0.100	
		2587	Pendimethalin	<0.007	µg / l	<0.100	
		2587	Prometryn	<0.002	µg / l	<0.100	
		2587	Propazine	<0.002	µg / l	<0.100	
		2587	Simazine	<0.003	µg / l	<0.100	
		2587	Terbutryn	<0.002	µg / l	<0.100	
		2587	Trietazine	<0.004	µg / l	<0.100	
		480	Benzo (a) pyrene	<0.003	µg / l	<0.010	
		480	Benzo(1,12)perylene	<0.003	µg / l		
		480	Benzo(11,12)fluoranthene	<0.003	µg / l		
		480	Benzo(3,4)fluoranthene	<0.003	µg / l		
		480	Indeno(1,2,3-cd)pyrene	<0.003	µg / l		
		calc	PAH Total	0.000	ug/l	<0.100	*
		775	1,1,1 Trichloroethane	<0.60	µg / l		
		775	1,2-Dichloroethane	<0.12	µg / l	<3.00	
		775	Benzene	<0.02	µg / l	<1.00	
		775	Dibromochloromethane	<0.50	µg / l		
		775	Dichlorobromomethane	<0.43	µg / l		
		775	Tetrachloroethene	<0.15	µg / l	<10.00	
		calc	Tetrachloroethene/Trichloroethene- Sum	0.00	µg / l		*
		775	Tetrachloromethane	<0.11	µg / l	<3.00	
		calc	Total Trihalomethanes	0.00	µg / l	<100.00	*
		775	Tribromomethane	<0.60	µg / l		
		775	Trichloroethene	<0.10	µg / l	<10.00	
		775	Trichloromethane	<0.50	µg / l		
		730	Aluminium	<6.1	µg / l	<200.0	
		730	Iron	<7.3	µg / l	<200.0	
		730	Manganese	2.3	µg / l	<50.0	

Disclaimers:

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Details of Uncertainty of Measurement and Analytical Quality Control are available on request.
Where a statement of conformity to a Regulatory Standard or customer limit is provided, the uncertainty of measurement is not taken into account unless shown on the certificate.
*** - denotes non UKAS accredited test**
A result of 0 cfu denotes none found in volume analysed
F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018
ext - Analysis subcontracted to an external laboratory

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APPENDIX G.1 cont'd– BH1 water quality results

Certificate Number: 1300384-1 Final

Order Number: BH 1491 BH1

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4844586	Continued from Page 2	735	Cadmium	<0.12	µg / l	<5.00	
		735	Chromium	<0.5	µg / l	<50.0	
		730	First Draw Copper	0.011	mg/l	<2.000	
		730	First Draw Lead	<0.9	µg / l	<10.0	
		730	First Draw Nickel	1.0	µg / l	<20.0	
		360	Clostridium perfringens (including spore	0	cfu/100ml	0	
		calc	Pesticides - Total Substances	0.000	ug/l		*
		5823	Aldrin	<0.007	µg / l	<0.030	
		5823	Dichlobenil	<0.004	µg / l	<0.100	
		5823	Dieldrin	<0.006	µg / l	<0.030	
		5823	Gamma-HCH (Lindane)	<0.010	µg / l	<0.100	
		5823	Heptachlor	<0.009	µg / l	<0.030	
		5823	Heptachlor Epoxide	<0.005	µg / l	<0.030	
		5823	Propyzamide	<0.005	µg / l	<0.100	
		5823	Tri-allate	<0.005	µg / l	<0.100	
		730	Iron (Free)	<7.3	µg / l		
		295	Gross Alpha	0.02	Bq/l	<0.10	
		295	Gross Beta	<0.28	Bq/l	<1.00	
		calc	Hardness (CaCO3)	371.4	mg CaCO3/l		*

Richard Brown

Laboratory Manager

Disclaimers:

Unless otherwise stated, all results apply to the sample as received. Information provided by the customer (includes Date, Time, Sample Matrix & Sample Description) can affect the validity of the result.
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*** - denotes non UKAS accredited test**
A result of 0 cfu denotes none found in volume analysed
F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018
ext - Analysis subcontracted to an external laboratory

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APPENDIX G.1 cont'd– BH1 water quality results

B. A. Hydro Solutions Ltd.
3 & 4 The Sidings
Shepreth
Herts
SG8 6PZ
Telephone: **+44 1763 26 27 26**
Email: **info@bahsltd.com**
Web: **www.bahsltd.com**

B. A. HYDRO Solutions
Providing Effective Surface & Groundwater Solutions

LABORATORY REPORT - Page 1 of 2

Client:	Nicholls Boreholes	**Certificate No:**	23240908-1
	Brownings Barn	**Order No:**	BH1491 BH1
	Glass House Lane	**Date Reported:**	23/01/2024
	Kirdford	**Site Name:**	BH1491
	RH14 0LW	**Sample Desc:**	BH1491

Test	Results	Limit	Units	Comment	Sample Details	
Alkalinity	332	-	mg/l			
Aluminium	<20.00	200	µg/l			
Ammonium	<0.020	0.5	mg/l		**Sampling Date:**	15/01/2024
Boron	72	1000	µg/l		**Sampling Time:**	14:09
Calcium	152.4	-	mg/l		**Date Received:**	16/01/2024
Chloride	29.2	250	mg/l		**Date Tested:**	16/01/2024
Copper	<100.00	2000	µg/l			
Fluoride	<100.00	1500	ug/l			
Dissolved Iron (Fe II)	<10.00	-	µg/l			
Total Iron (FeII+FeIII)	51	200	µg/l			
Lead	<2.00	10	µg/l			
Magnesium	0.24	-	mg/l			
Manganese	6	50	µg/l			
Nitrate	<22.00	50	mg/l			
Nitrite	105	500	µg/l			
Nitrite/Nitrate	0.4	≤1	-			
Phosphate	<0.15	-	mg/l			
Potassium	6.79	-	mg/l			
Sodium	43	200	mg/l			
Sulphate	58.8	250	mg/l			
Electrical Conductivity	754	2500	µS/cm			
Calcium Hardness	381	-	mg/l			
Total Hardness as CaCO3	382	-	mg/l	V Hard		
Magnesium Hardness	1	-	mg/l			
pH	6.91	6.5-9.5	pH units			
Total Dissolved Solids	369	-	mg/l			
Turbidity	0.54	4	NTU			

Disclaimers:

The results provided are not UKAS accredited and can only be used for non-regulatory purposes

*** Denotes concentrations above UK drinking water standards**

 # Denotes results which must be treated with caution due to sampling, transit or storage issues prior to delivery to laboratory

</> Denotes concentration found within sample below/above the equipment's detection level

∞ Indicates test has been repeated due to uncertainty or testing issues

$ Indicates sample was tested outside of the stability period, validity of results may be affected

All analytical quality control associated with these results was satisfactory, details are available on request

APPENDIX G.1 cont'd– BH1 water quality

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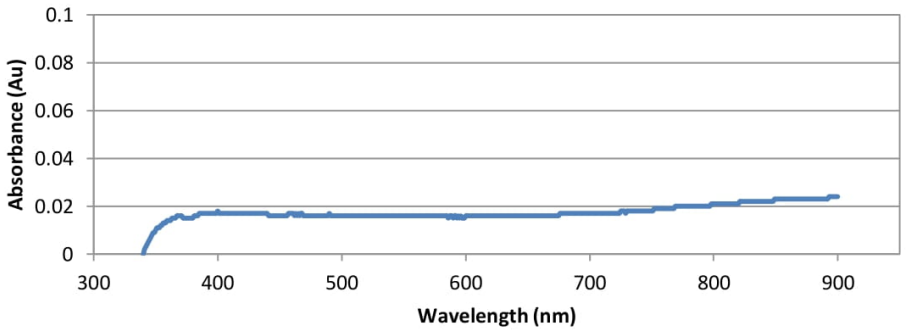
LABORATORY REPORT - Page 2 of 2

Client:	Nicholls Boreholes	**Certificate No:**	23240908-1
	Brownings Barn	**Order No:**	BH1491 BH1
	Glass House Lane	**Date Reported:**	23/01/2024
	Kirdford	**Site Name:**	BH1491
	RH14 0LW	**Sample Desc:**	BH1491

Test	Results	Limit	Units	Comment	Sample Details	
E.coli	0	0	cfu/100ml		Sampling Date:	15/01/2024
Total Coliforms	55	0	cfu/100ml	*	Sampling Time:	14:09
Enterococci	0	0	cfu/100ml		Date Received:	16/01/2024
TVC 3 at 22°C	>300	no abnormal change	cfu/ml		Date Tested:	16/01/2024
TVC 2 at 37°C	>300		cfu/ml			

Absorbance vs. Wavelength



Patrycja Malinowska
Laboratory Manager

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NICHOLLS
BOREHOLES & GROUND SOURCE

APPENDIX G.2– BH2 water quality results

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south east water
scientific services

ANALYTICAL REPORT

NICHOLLS BOREHOLES
Brownings Barn
Glasshouse Lane
Kirdford
West Sussex
RH14 0LW

Certificate Number: 1296326-1 Final

Order Number: BH1491 BH2

Collected From: NEW HALL LANE, SMALL DOLE

Date Received: 21/08/2024

Date Reported: 16/09/2024

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Desc: RAW BOREHOLE Collect From: NEW HALL LANE, SMALL DOLE Order No: BH1491 BH2 Received Date: 21/08/2024 Tested Date: 21/08/2024 Sampling Date: 20/08/2024 08:00 Sample Type: GW : Ground Water Product: SS-DWREGS	255	Ammonium (Ammonia and Ammonium Ions)	<0.020	mg/l	<0.500	
		245	Nitrate	16.0	mg/l	<50.0	
		225	Nitrite	<0.004	mg/l	<0.500	
		calc	Nitrite/Nitrate	0.320	mg/l	<1.000	*
		230	Odour - Qualitative	None			*
		230	Odour - Quantitative	0			
		430	Colony Count 3 Days at 22°C	>300	cfu/ml		
		400	E coli	0	mpn/100ml	0	
		400	**Total Coliforms**	**3**	**mpn/100ml**	**0**	F
		660	Colour	<2	mg/l Pt/Co	<20	
		660	Conductivity	701	uS/cm		
		660	Hydrogen Ion (pH)	7.1	pH_unit	6.5 to 9.5	
		660	Turbidity	0.205	NTU	<4.000	
		ext	Acrylamide	<0.006	µg / l	<0.100	
		ext	Epichloroydrin	<0.1	µg / l	<0.10	*
		ext	Vinyl Chloride	<0.113	µg / l	<0.500	
		3401	Bromate	<0.8	µg / l	<10.0	
		390	**Enterococci**	**4**	**cfu/100ml**	**0**	F
		5413	Total Cyanide	<4.1	µg / l	<50.0	
		765	Mercury	<0.04	µg / l	<1.00	
		745	Antimony	<0.2	µg / l	<5.0	
		745	Arsenic	<1.0	µg / l	<10.0	
		745	Selenium	<0.8	µg / l	<10.0	
		740	Boron	0.063	mg/l	<1.000	
		740	Calcium	134.9	mg/l		
		740	Magnesium	5.0	mg/l		
		740	Sodium	14.5	mg/l	<200.0	
		3371	Fluoride	0.130	mg/l	<1.500	
		3545	2,4,5-T	<0.007	µg / l	<0.100	
		3545	2,4-D	<0.007	µg / l	<0.100	
		3545	Bentazone	<0.007	µg / l	<0.100	

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A result of 0 cfu denotes none found in volume analysed
F - Result Exceeds The Maximum Pcv As Defined In The Water Supply (Water Quality) (Amendment) Regulations 2018
ext - Analysis subcontracted to an external laboratory

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APPENDIX G.2 cont'd– BH2 water quality results

Certificate Number: 1296326-1 Final

Order Number: BH1491 BH2

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Continued from Page 1	3545	Bromoxynil	<0.007	µg / l	<0.100	
		3545	Dicamba	<0.020	µg / l	<0.100	
		3545	Dichlorprop	<0.003	µg / l	<0.100	
		3545	Fluroxypyr	<0.008	µg / l	<0.100	
		3545	MCPA	<0.008	µg / l	<0.100	
		3545	MCPB	<0.008	µg / l	<0.100	
		3545	Mecoprop (MCPP)	<0.005	µg / l	<0.100	
		3545	Triclopyr	<0.015	µg / l	<0.100	
		2587	Atrazine	<0.002	µg / l	<0.100	
		2587	Carbendazim	<0.001	µg / l	<0.100	
		2587	Carbetamide	<0.002	µg / l	<0.100	
		2587	Chlortoluron	<0.003	µg / l	<0.100	
		2587	Diuron	<0.004	µg / l	<0.100	
		2587	Epoxiconazole	<0.003	µg / l	<0.100	
		2587	Flutriafol	<0.003	µg / l	<0.100	
		2587	Isoproturon	<0.003	µg / l	<0.100	
		2587	Linuron	<0.003	µg / l	<0.100	
		2587	Oxadixyl	<0.003	µg / l	<0.100	
		2587	Pendimethalin	<0.007	µg / l	<0.100	
		2587	Prometryn	<0.002	µg / l	<0.100	
		2587	Propazine	<0.002	µg / l	<0.100	
		2587	Simazine	<0.003	µg / l	<0.100	
		2587	Terbutryn	<0.002	µg / l	<0.100	
		2587	Trietazine	<0.004	µg / l	<0.100	
		480	Benzo (a) pyrene	<0.003	µg / l	<0.010	
		480	Benzo(1,12)perylene	<0.003	µg / l		
		480	Benzo(11,12)fluoranthene	<0.003	µg / l		
		480	Benzo(3,4)fluoranthene	<0.003	µg / l		
		480	Indeno(1,2,3-cd)pyrene	<0.003	µg / l		
		calc	PAH Total	0.000	ug/l	<0.100	*
		775	1,1,1 Trichloroethane	<0.60	µg / l		
		775	1,2-Dichloroethane	<0.12	µg / l	<3.00	
		775	Benzene	<0.02	µg / l	<1.00	
		775	Dibromochloromethane	<0.50	µg / l		
		775	Dichlorobromomethane	<0.43	µg / l		
		775	Tetrachloroethene	<0.15	µg / l	<10.00	
		calc	Tetrachloroethene/Trichloroethene- Sum	0.00	µg / l		*
		775	Tetrachloromethane	<0.11	µg / l	<3.00	
		calc	Total Trihalomethanes	0.00	µg / l	<100.00	*
		775	Tribromomethane	<0.60	µg / l		
		775	Trichloroethene	<0.10	µg / l	<10.00	
		775	Trichloromethane	<0.50	µg / l		
		730	Aluminium	<6.1	µg / l	<200.0	
		730	Iron	<7.3	µg / l	<200.0	
		730	Manganese	<1.7	µg / l	<50.0	

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APPENDIX G.2 cont'd– BH2 water quality results

Certificate Number: 1296326-1 Final

Order Number: BH1491 BH2

Lab Ref.	Sample Details	Method	Test	Result	Units	Limit	Flag
4838353	Continued from Page 2	735	Cadmium	<0.12	µg / l	<5.00	
		735	Chromium	<0.5	µg / l	<50.0	
		730	First Draw Copper	<0.009	mg/l	<2.000	
		730	First Draw Lead	<0.9	µg / l	<10.0	
		730	First Draw Nickel	2.0	µg / l	<20.0	
		360	Clostridium perfringens (including spore	0	cfu/100ml	0	
		calc	Pesticides - Total Substances	0.000	ug/l		*
		5823	Aldrin	<0.007	µg / l	<0.030	
		5823	Dichlobenil	<0.004	µg / l	<0.100	
		5823	Dieldrin	<0.006	µg / l	<0.030	
		5823	Gamma-HCH (Lindane)	<0.010	µg / l	<0.100	
		5823	Heptachlor	<0.009	µg / l	<0.030	
		5823	Heptachlor Epoxide	<0.005	µg / l	<0.030	
		5823	Propyzamide	<0.005	µg / l	<0.100	
		5823	Tri-allate	<0.005	µg / l	<0.100	
		730	Iron (Free)	<7.3	µg / l		
		calc	Hardness (CaCO3)	388.5	mg CaCO3/l		*
		295	Gross Alpha	0.02	Bq/l	<0.10	
		295	Gross Beta	<0.28	Bq/l	<1.00	

Richard Brown

Laboratory Manager

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APPENDIX G.2 cont'd– BH2 water quality results

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B. A. HYDRO Solutions
Providing Effective Surface & Groundwater Solutions

LABORATORY REPORT - Page 1 of 2

Client:	Nicholls Boreholes	**Certificate No:**	23240908-2
	Brownings Barn	**Order No:**	BH1491 BH2
	Glass House Lane	**Date Reported:**	23/01/2024
	Kirdford	**Site Name:**	BH1491
	RH14 0LW	**Sample Desc:**	BH2

Test	Results	Limit	Units	Comment	Sample Details	
Alkalinity	333	-	mg/l			
Aluminium	<20.00	200	µg/l			
Ammonium	<0.020	0.5	mg/l		**Sampling Date:**	15/01/2024
Boron	69	1000	µg/l		**Sampling Time:**	14:10
Calcium	156.8	-	mg/l		**Date Received:**	16/01/2024
Chloride	27.1	250	mg/l		**Date Tested:**	16/01/2024
Copper	<100.00	2000	µg/l			
Fluoride	<100.00	1500	ug/l			
Dissolved Iron (Fe II)	<10.00	-	µg/l			
Total Iron (FeII+FeIII)	50	200	µg/l			
Lead	<2.00	10	µg/l			
Magnesium	0.24	-	mg/l			
Manganese	<5.00	50	µg/l			
Nitrate	<22.00	50	mg/l			
Nitrite	<50.00	500	µg/l			
Nitrite/Nitrate	<0.46	≤1	-			
Phosphate	<0.15	-	mg/l			
Potassium	7.16	-	mg/l			
Sodium	39	200	mg/l			
Sulphate	40.7	250	mg/l			
Electrical Conductivity	751	2500	µS/cm			
Calcium Hardness	392	-	mg/l			
Total Hardness as CaCO3	393	-	mg/l	V Hard		
Magnesium Hardness	1	-	mg/l			
pH	6.95	6.5-9.5	pH units			
Total Dissolved Solids	367	-	mg/l			
Turbidity	0.38	4	NTU			

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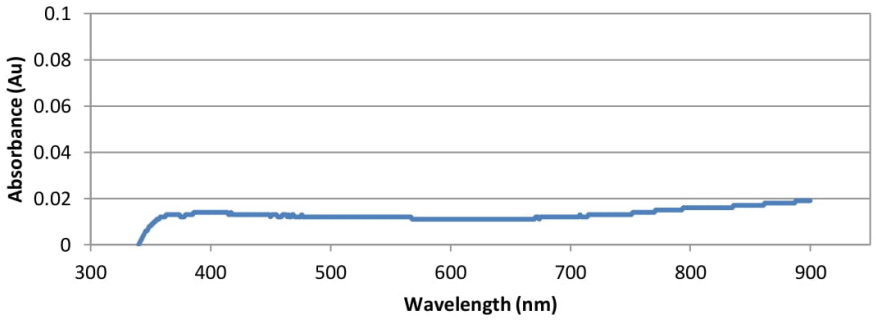
LABORATORY REPORT - Page 2 of 2

Client:	Nicholls Boreholes	**Certificate No:**	23240908-2
	Brownings Barn	**Order No:**	BH1491 BH2
	Glass House Lane	**Date Reported:**	23/01/2024
	Kirdford	**Site Name:**	BH1491
	RH14 0LW	**Sample Desc:**	BH2

Test	Results	Limit	Units	Comment	Sample Details	
E.coli	9	0	cfu/100ml	*	Sampling Date:	15/01/2024
Total Coliforms	9	0	cfu/100ml	*	Sampling Time:	14:10
Enterococci	0	0	cfu/100ml		Date Received:	16/01/2024
TVC 3 at 22°C	>300	no abnormal change	cfu/ml		Date Tested:	16/01/2024
TVC 2 at 37°C	35		cfu/ml			

Absorbance vs. Wavelength



Patrycja Malinowska
Laboratory Manager

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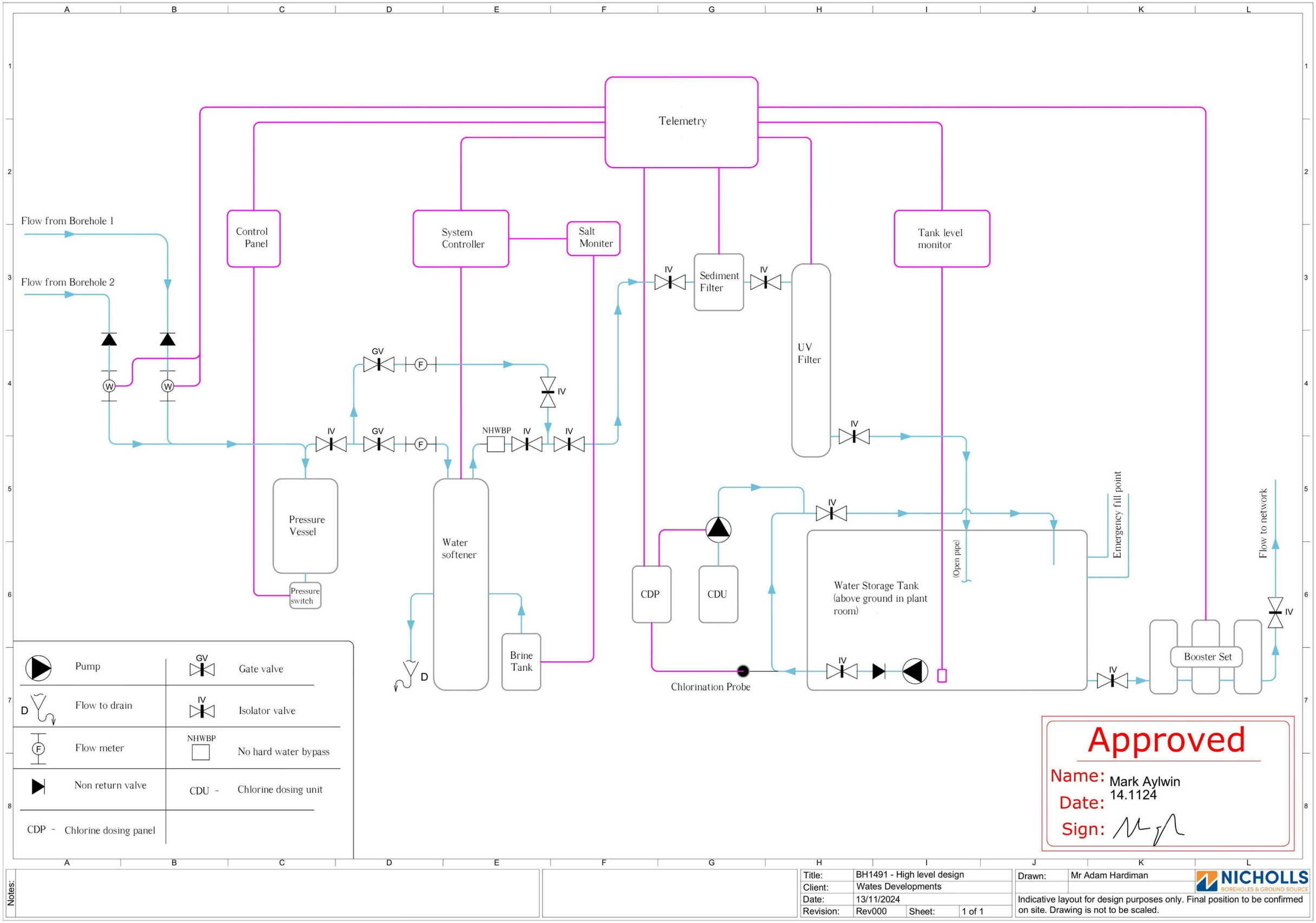

Approved

Name: Mark Aylwin
Date: 14.1124
Sign:

Notes:

Title:	BH1491 - High level design		
Client:	Wates Developments		
Date:	13/11/2024		
Revision:	Rev000	Sheet:	1 of 1

Drawn:	Mr Adam Hardiman

NICHOLLS BOREHOLES & GROUND SOURCE

Indicative layout for design purposes only. Final position to be confirmed on site. Drawing is not to be scaled.