British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

GeoReports

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Borehole Prognosis:

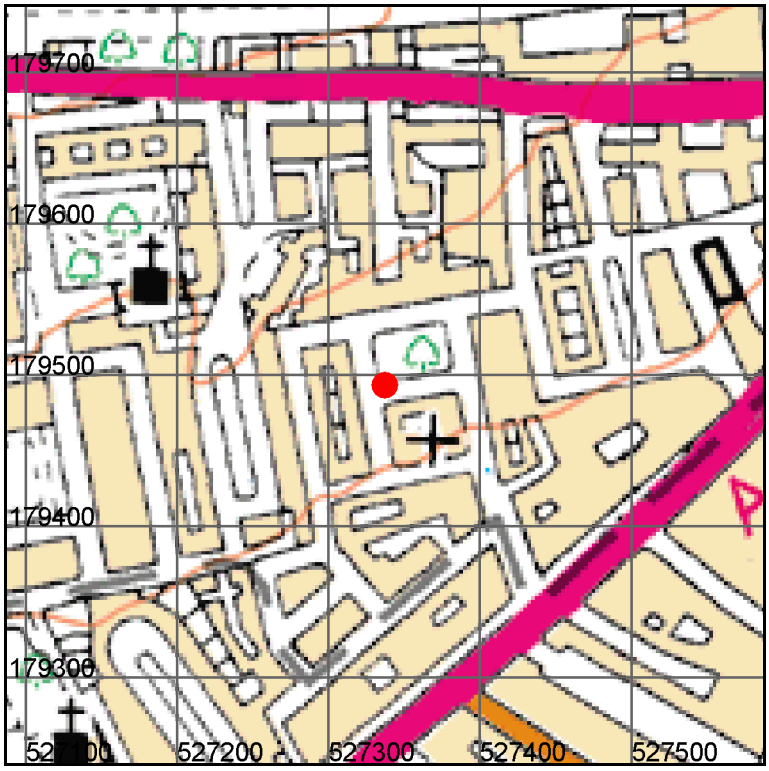
This report contains the geological succession derived from 1:10 000 data (where available) at a specific point. This includes geological map extracts for the surrounding area, taken from the 1:50 000 scale BGS digital geological map of Great Britain (DiGMapGB-50).

Modules:
Geological Map Extracts
Borehole prognosis (point)
Groundwater abstraction
Geoscience Data List

Report Id: ***GR_204258/1***

Client reference: MONTSQ

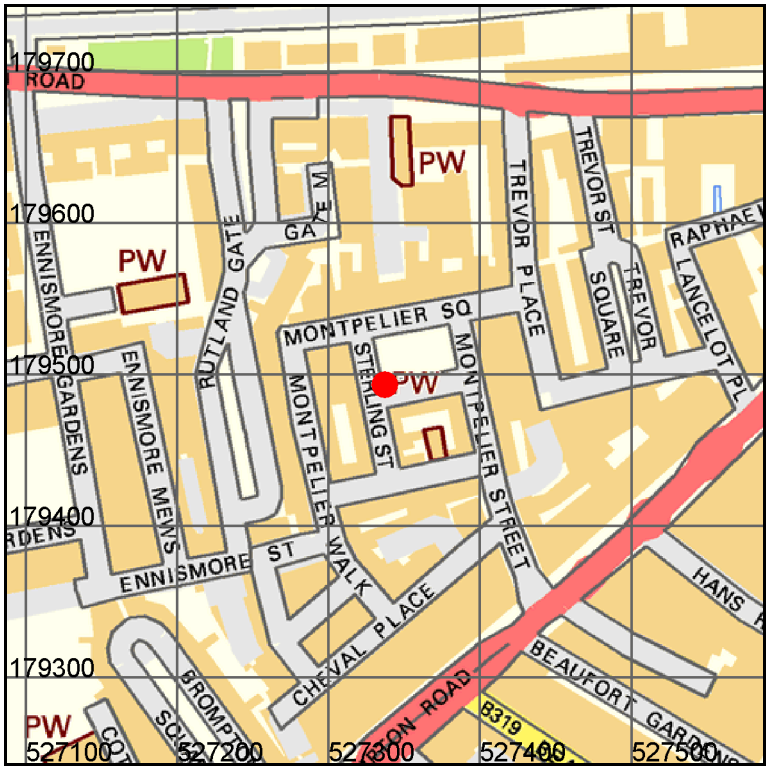
Location and extent of site



Point centred at:
527337,179493

Search area indicated in red

Scale: 1:5 000 (1cm = 50 m)



OS Street View: Scale: 1:5 000 (1cm = 50 m)

Geological Map Extracts

This part of the report contains extracts of geological maps taken from the 1:50 000 scale BGS Digital Geological Map of Great Britain (DiGMapGB-50). The geological information in DiGMapGB is separated into four themes: artificial ground, landslide deposits, superficial deposits and bedrock, shown here in separate maps. The fifth 'combined geology' map superimposes all four of these themes, to show the geological formations that occur at the surface, just beneath the soil.

More information about DiGMapGB-50 and how the various geological units are classified can be found on the BGS website (www.bgs.ac.uk). The maps are labelled with two-part computer codes that indicate the name of the geological unit and its composition. Descriptions of the units listed in the map keys may be available in the BGS Lexicon of Named Rock Units, which is also on the BGS website (http://www.bgs.ac.uk/lexicon/). If available, these descriptions can be found by searching against the first part of the computer code used on the maps. Please treat this labelling with caution in areas of complex geology, where some of the labels may overlap occurrences of several geological formations. If in doubt, please contact BGS Enquiries for clarification.

In the map keys the geological units are listed in order of their age, as defined in the BGS Lexicon, with the youngest first. However, where units are of the same defined age they are listed alphabetically and this may differ from the actual geological sequence.

Artificial ground

This is ground at or near the surface that has been modified by man. It includes ground that has been deposited (Made Ground) or excavated (Worked Ground), or some combination of these: Landscaped Ground or Disturbed Ground.

Scale: 1:25 000 (1cm = 250 m)

Search area indicated in red

Key to Artificial ground:

Map colour	Computer Code	Name of geological unit	Composition
	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

Landslide deposits

These are deposits formed by localised mass-movement of soils and rocks on slopes under the action of gravity. Landslides may occur within the bedrock, superficial deposits or artificial ground; and the landslide deposits may themselves be artificially modified.

Scale: 1:25 000 (1cm = 250 m)

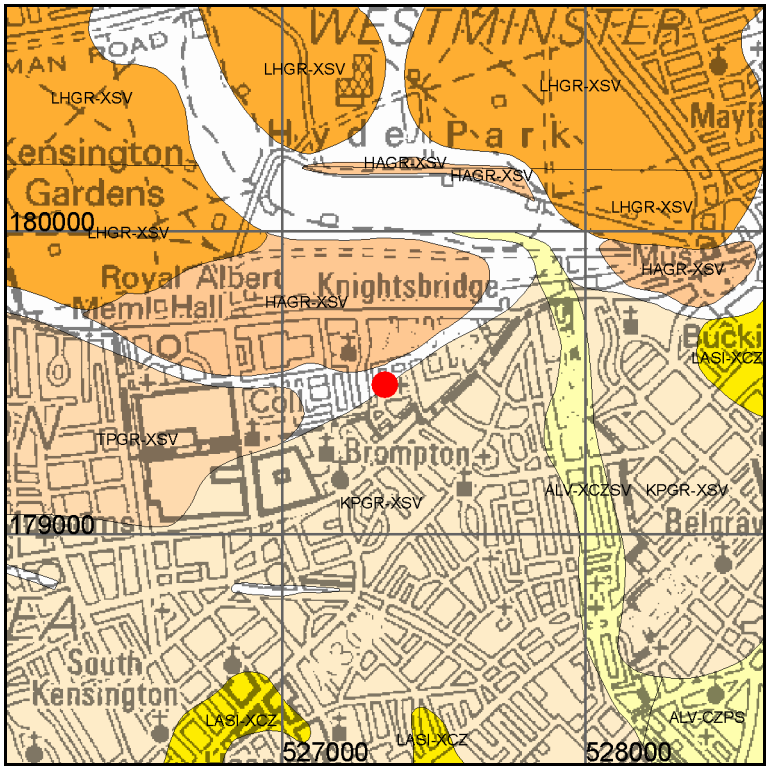
Search area indicated in red

Key to Landslide deposits:

No deposits found in the search area

Superficial deposits

These are relatively young geological deposits, formerly known as 'Drift', which lie on the bedrock in many areas. They include deposits such as unconsolidated sands and gravels formed by rivers, and clayey tills formed by glacial action. They may be overlain by landslide deposits or by artificial deposits, or both.



Scale: 1:25 000 (1cm = 250 m)

Search area indicated in red

Key to Superficial deposits:

Map colour	Computer Code	Name of geological unit	Composition
	ALV-CZPS	ALLUVIUM	SILTY PEATY SANDY CLAY
	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
	KPGR-XSV	KEMPTON PARK GRAVEL FORMATION	SAND AND GRAVEL
	TPGR-XSV	TAPLOW GRAVEL FORMATION	SAND AND GRAVEL
	HAGR-XSV	HACKNEY GRAVEL MEMBER	SAND AND GRAVEL
	LHGR-XSV	LYNCH HILL GRAVEL MEMBER	SAND AND GRAVEL

Bedrock

Bedrock forms the ground underlying the whole of an area, commonly overlain by superficial deposits, landslide deposits or artificial deposits, in any combination. The bedrock formations were formerly known as the 'Solid Geology'.

Search area indicated in red

Fault

Coal, ironstone or mineral vein

Note: Faults are shown for illustration and to aid interpretation of the map. Because these maps are generalised from more detailed versions not all such features are shown and their absence on the map face does not necessarily mean that none are present. Coals, ironstone beds and mineral veins occur only in certain rock types and regions of the UK; if present here, they will be described under 'bedrock' below.

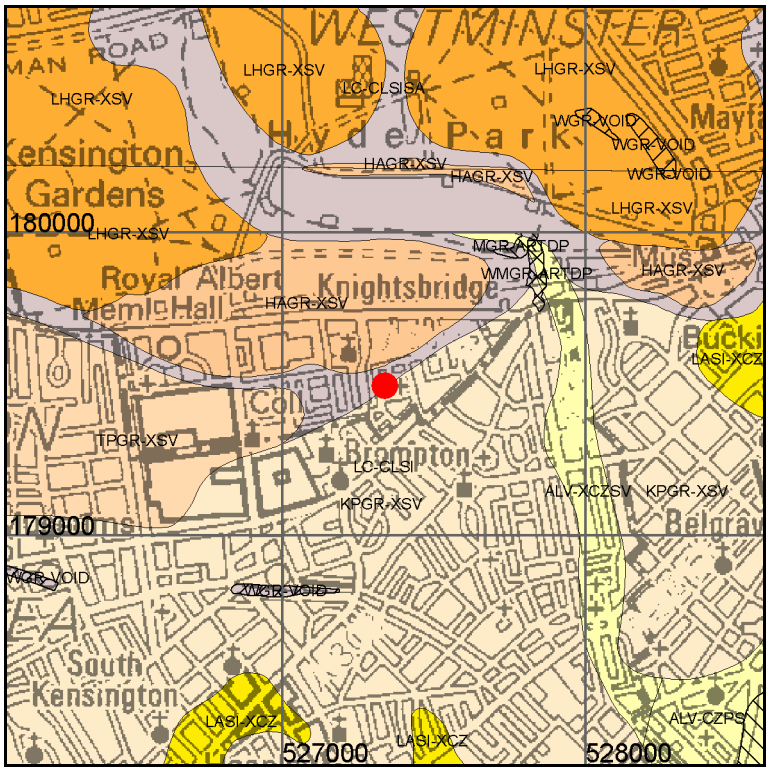
Scale: 1:25 000 (1cm = 250 m)

Key to Bedrock geology:

Map colour	Computer Code	Name of geological unit	Rock type
	LC-CLSI	LONDON CLAY FORMATION	CLAY AND SILT
	LC-CLSISA	LONDON CLAY FORMATION	CLAY, SILT AND SAND

Combined 'Surface Geology' Map

This map shows all the geological themes from the previous four maps overlaid in order of age.



Scale: 1:25 000 (1cm = 250 m)

Search area indicated in red

Please see the Keys to the Artificial, Landslide, Superficial and Bedrock geology maps.

Borehole Prognosis

This module provides an evaluation of the expected geological sequence beneath a site to a depth appropriate for the specified use. This interpretation is based on the information available in the surrounding area. Due to natural geological variation the conditions encountered on drilling may differ. This module does not cover the possibility of artesian conditions or gas being encountered. (Information on artesian conditions is included in the 'Groundwater abstraction' and 'Hydrogeology – non abstraction' modules).

Setting:

This urban site stands at an elevation of 12 m above Ordnance Datum (OD). It is located on ground that slopes gently towards the south-east. The nearest water feature is the artificial lake of The Serpentine in Hyde Park, 500 m to the north; the nearest natural water feature is the River Thames that flows west-east about 1.8 km to the south.

Geology

It is anticipated that the following succession of strata will be encountered in a borehole below the site:

Unit	Typical composition	Potential for difficult ground	Thickness	Depth to the base of the unit
Artificial ground				
No artificial ground has been recorded but some likely in any urban or landscaped area (see note below)				
Superficial deposits				
No superficial deposits have been recorded (see note below)				
Bedrock (below rockhead)				
London Clay Formation	Silty clay with beds of silty sand. Glauconitic at base		About 60-65 m	About 60-65 m
Lambeth Group	Clay, mottled in part, with beds of sand, shelly clay and pebbles	Possible running sands	16-19 m	About 80 m
Thanet Formation	Greyish-green, fine-grained sand that can be clayey. Glauconite-coated nodular flints at base (Bullhead Bed)	Possible running sands	6-8 m	About 85 m
White Chalk Subgroup	Chalk, nodular in places, with flints and discrete marl seams.		Over 100 m	Over 185 m

Notes: Although not shown on the map above, but given that the site is in a garden and in an urban area, there may be some artificial ground underlying the site that has not been recorded. If present, any artificial ground will reduce the thickness of the underlying London Clay Formation, but will not alter the projected depth of the base of the formation.

There are no superficial deposits mapped at the preferred site, taken from the client-supplied map. However, the geological map shows the occurrence of the Kempton Park Gravel Formation immediately to the south of the site, covering the south-east corner of Montpelier Square. Therefore there may be a thin horizon of these sands and gravels underlying any potential borehole location, depending upon its final siting.

The blue line in this table indicates 'rockhead', which is the base of superficial deposits. This is the 'geological rockhead', as distinct from the 'engineering rockhead', which is the base of 'engineering soil' (in the sense of BS5930:1999).

For further definitions of stratigraphic terms that appear in the table above, on our maps and in our publications please see 'The BGS Lexicon' www.bgs.ac.uk/lexicon

Information on the distribution of contaminated ground is not held by BGS but by the relevant Local Authority.

Potential drilling hazards considered at your site

This section of the report only describes geological hazards that might be directly encountered by drilling at this site.

Running conditions hazard

Running sand conditions occur when loosely-packed sand moves as a result of water flowing through the spaces between the sand grains. The pressure of the flowing water reduces the contact between the grains and they are carried along by the flow. Excavations or boreholes in water-saturated sand are likely to encounter running conditions: the sand will tend to flow into the void. This can lead to subsidence of the surrounding ground.

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Groundwater Abstraction

This module is designed for users proposing to drill a water borehole for the abstraction of groundwater supplies and/or to inject water into an aquifer.

It contains an evaluation of the geological formations beneath the site in terms of aquifer potential including groundwater yields, water levels and groundwater quality. It also contains recommendations on the design of the proposed water borehole and information on the legal requirements.

Proposed yield: 3 m^3/hr (cubic metres per hour)
Proposed use: Water abstraction for garden irrigation

The client-stated requirement is for a yield of 3 m^3/hr, probably for 2 hours per day. This rate is equivalent to a pumping rate of 0.83 l/s.

Groundwater Potential

Although not mapped at the client-preferred site, there may be a very thin horizon of Kempton Park Gravel Formation present beneath the site. However, even if present, this deposit is likely to be very thin and predominantly unsaturated, thus hydrogeologically insignificant.

The London Clay Formation is essentially impermeable and forms a confining layer above the underlying aquifers. However, small amounts of water can be encountered in the occasional thin silty sand horizons. A borehole (TQ28SE206) at the Serpentine Boat House [527550 180160] was 8.5 m deep, terminating in the London Clay and had a rest water level 3.5 m below the ground surface. No yield is recorded and it is unlikely that this formation would be able to provide a sustainable supply of the yield required. The quality of any water is also likely to be poor, very hard with high sulphate concentrations due to the presence of selenite in the rocks.

The Lambeth Group comprises mainly clay horizons, although the sandier horizons can yield small supplies in some areas. A 198 m deep borehole (TQ27NE567), drilled at 20 Chesham Place, Chelsea [528080 179210], first struck water at a depth of 68.3 m within the Lambeth Group. However, this was cased out and the borehole obtained all of its water from the underlying White Chalk Subgroup. The groundwater from the Lambeth Group is likely to have a high total dissolved solids content and probably high chloride and sodium concentrations, unless hydraulically connected with water in the underlying formations.

Groundwater in the Thanet Formation is usually in hydraulic continuity with the underlying Chalk aquifer. In a 167.6 m deep borehole (TQ27NE510) drilled at Princes Court, Brompton Road [527530 179480] the first water was struck at a depth of 82.9 m at the top of the Thanet Formation, however, this was cased out and the borehole obtained all of its water from the underlying White Chalk Subgroup. Groundwater in the Thanet Formation is usually in hydraulic continuity with the underlying Chalk aquifer and should supply water of a similar quality (see below), but probably with a higher iron concentration.

The sands in the Lambeth Group and the Thanet Formation are often poorly consolidated and are known to run and hence if, in the unlikely event they were to be utilised as aquifers, a carefully designed and emplaced sand screen and filter pack would need to be installed against the contributing horizons to minimise silt and sand ingress during pumping. These horizons are, however commonly cased out because of the difficulty and cost of installing such a construction, with groundwater being obtained from the underlying Chalk aquifer.

The White Chalk Subgroup forms the major aquifer in southern England. It is a microporous limestone, which yields and transmits water mainly by fracture flow. The success of a borehole will therefore depend on the number, size and distribution of fractures it intercepts and boreholes with minimal yields are known. It becomes less transmissive with depth as fractures become smaller and less common. The transmissivity of the White Chalk Subgroup in this area is estimated to be around 150 m^2/d.

The rest water level in a borehole constructed into the Chalk at this site is likely to rise above where struck to lie at about 50 m below ground level (35 m to 40 m below OD). Water levels in the Chalk under the London area declined significantly until the middle of the twentieth century due to abstraction exceeding recharge. After this, abstraction decreased and the water levels started recovering towards their original levels. New abstractions have caused water levels to decline again in some areas. In the earlier part of this century they fell by several metres but rose again during 2010. Seasonal water table fluctuations of two to three metres may be superimposed on the longer-term variations. The direction of groundwater flow is likely to be north-east towards a depression in the groundwater surface.

A statistical examination of data for boreholes in this part of the London area carried out in 1992 indicates that a borehole drilled at 150 mm diameter penetrating 30 m into the Chalk should, on average, have a yield of the order of 0.8 l/s for a water level drawdown of 12 m. There would be a 25% chance that the yield would be less than 0.3 l/s for the same drawdown.

BGS holds a number of records for boreholes obtaining a water supply from the Chalk in the vicinity of the site. These indicate that yields appear to be very variable in this area with some boreholes being high-yielding. A borehole at Harrods, Brompton Road (TQ27NE26C at [527630 179340]) was 152 m deep and 292 mm in diameter, penetrating 69 m of Chalk. This borehole provided a yield of 11.25 l/s for little water level drawdown. A borehole at Manor Street, Chelsea (TQ27NE122 at [527320 178060]) was 141 m deep and 343 mm in diameter, penetrating 60 m of Chalk. This borehole provided a yield of 15.7 l/s for a water level drawdown of 4.3 m. The Princes Court borehole (see above) was 167 m deep and penetrated 82 m of Chalk and it provided a yield of 7.8 l/s. Two boreholes, 128 m and 130 m deep, at Albert Hall Mansions (TQ27NE508 at [526730 179500] and TQ27NE508 at [526720 179560]) both yielded 6.3 l/s from the Chalk and had rest water levels 41 m and 48 m below OD respectively in 1913. Another borehole in Kensington Grove (TQ27NE565 at [526610 179530]) was 122 m deep and yielded 5.7 l/s with a rest water level of 12.2 m below OD in 1862. The Diana Memorial Fountain borehole (TQ28SE1768 at [526950 180070]) is 99 m deep and yields 5.0 l/s from the Chalk.

However, yields from other local boreholes were significantly lower. The 20 Chesham Place, Chelsea borehole (see above) was 198 m deep, penetrating 100 m of Chalk. This borehole provided a yield of 2.3 l/s but for no observed water level drawdown after 24 hours. There were two boreholes in Cranmer Court (TQ27NE529B at [527400 178580]). One was 183 m deep and 250 mm in diameter, penetrating 100 m of Chalk; it yielded 1.3 l/s for a water level drawdown of 40 m. The other was 186 m deep, penetrating 102 m of Chalk. This borehole provided a yield of 0.7 l/s for a water level drawdown of 49 m.

Water quality in the Chalk is likely to be of the sodium-bicarbonate-chloride type. The total dissolved solids content is anticipated to be in the range 800 to 900 mg/l, with carbonate and non-carbonate hardness both between 50 mg/l and 100 mg/l (as $CaCO_3$), the fluoride concentration is expected to be up to 2.5 mg/l, the chloride ion concentration may exceed 150 mg/l and the sulphate concentration may be between 150 mg/l and 200 mg/l. In 1946, water from the borehole at Princes Court, Brompton Road, had a total dissolved solids content of 836 mg/l, a total hardness of 131 mg/l (as $CaCO_3$), alkalinity of 286 mg/l (as $CaCO_3$) and a chloride ion concentration of 173 mg/l. A later 1951 analysis recorded a total dissolved solids content of 830 mg/l, a total hardness of 298 mg/l (as $CaCO_3$), of which 112 mg/l was temporary (carbonate) hardness and a chloride ion concentration of 157 mg/l.

Groundwater Vulnerability

The presence of thick, low permeability London Clay Formation provides protection from contamination occurring at the ground surface to groundwater in the underlying aquifers.

The predominance of fracture flow in the White Chalk Subgroup can lead to the rapid transport of contaminants once it reaches the saturated aquifer.

Conclusion

In conclusion, a borehole drilled to a completed diameter of 150 mm and penetrating at least 30-40 m of Chalk, that is, to a total depth of 115 to 125 metres, should provide a sustainable supply of the required yield, but this cannot be absolutely guaranteed. The overlying strata should be cased out. It is normal practice to penetrate at least 30 m of saturated Chalk to ensure penetrating adequate fractures. Drilling deeper than about 60 metres into the White Chalk Subgroup will be unlikely to increase yields markedly due to the decrease in fractures with depth. Completed Chalk boreholes are often acidised in order to maximise the potential yield, but the acidisation of boreholes that are initially low yielding generally fails to significantly increase yields. If an inadequate instantaneous yield is obtained, the required daily amount could be pumped over a longer period to storage.

Due to the anticipated high sodium to calcium and magnesium ratio of the water, it is possible that the water may not be suitable for long-term irrigation where it is the sole source of water (e.g. for glasshouses where it will not be supplemented by rainfall). The fluoride content is likely to exceed the EC drinking water limit, if it was planned to use the water as a potable supply.

According to the geological maps, the geology, and therefore the borehole potential, does not vary significantly across the site as outlined on the map supplied by the client. The chances of drilling a successful borehole are therefore similar across the site.

Borehole Location, Construction, Testing and Legal Obligations

Location:
It is good practice to site a borehole as far away as possible, and preferably upslope, from any potential sources of pollution, including septic or fuel tanks, soakaways, slurry pits and areas of intensive grazing. A minimum distance of 50 m between a water borehole and any potentially polluting activity is recommended.

Construction:
For boreholes abstracting from the superficial deposits, the top few metres should be cased out (the depth of plain casing depending on the aquifer thickness at the specific site). A borehole abstracting water from a bedrock aquifer should be sealed off through the superficial deposits by installing a length of plain casing to at least 5 m below the upper surface of the bedrock. The casing should be grouted effectively in order to minimise the risk of poor quality surface or shallow groundwater entering the borehole.

Testing:
Any new borehole should be subject to a pumping test to determine the yield and drawdown of the water level. For a borehole designed for a single domestic property, it is recommended that a pumping test of at least 3 hours duration, or at least as long as the anticipated daily pumping period, is carried out, during which both the pumping rate and water level are monitored. For domestic supplies for more than one property, a longer pumping test of at least 6 to 12 hours is more appropriate. For larger supplies the Environment Agency are likely to require a test of several days duration, as well as the monitoring of nearby water sources before, during and after test pumping.

Water quality:
It is recommended that a water sample, taken during the final stages of the pumping test, is sent for full analysis to a reputable laboratory. They, or if a potable private supply is envisaged the Environmental Health Officer of the local council, should be able to advise on the range of analyses to be undertaken, which would normally include pathogenic indicator bacteria, iron, manganese and nitrate. An adequate and well-maintained disinfection treatment would be considered advisable for any supply intended for potable use.

Legal requirements:
While BGS may assess the groundwater potential at this site, the prerogative of granting a licence rests with the Environment Agency, South East Region. Currently all sources abstracting 20 m^3/d or more require an abstraction licence. A 'Consent to Investigate Groundwater' must be obtained prior to a licensable borehole being drilled. This consent permits drilling and pump testing. If a borehole to more than 15 m depth is drilled, there is a statutory requirement (Water Resources Act, 1991) for the driller to supply full information to the Wallingford office of the BGS for inclusion in the National Well Record Archive. A form for supplying the required information is enclosed.

Maximum admissible concentrations and values for parameters in private water supplies for human consumption under the Private Water Supplies Regulations 2009 (for England) and the Private Water Supplies Regulations (Wales) 2010

Parameter	Concentration or value
For small domestic supplies <10 m^3/day or serving <50 persons[(i)]	
pH	≥6.5 and ≤9.5
Electrical conductivity (SEC) @ 20°C (µS/cm)	2500
Turbidity (NTU)	4
Enterococci (number/100 ml)	0
Escherichia coli (E. coli) (number/100 ml)	0
Additional for larger, commercial or public premises supplies	
Odour and taste	Acceptable to consumers and no abnormal change
Colour (mg/l Pt/Co)	20
Aluminium (µg/l)[(ii)]	200
Ammonium (as mg/l NH_4)	0.5
Iron (µg/l)[(ii)]	200
Manganese (µg/l)[(iii)]	50
Nitrate (as mg/l NO_3)[(iv)]	50
Nitrite (as mg/l NO_2)[(iv)]	0.5
Clostridium perfringens (including spores) (number/100 ml)	0
Coliform bacteria (number/100 ml)	0
Colony counts @ 22°C	No abnormal change
Colony counts @ 37°C	No abnormal change
Selected other parameters based on risk assessment	
Arsenic (µg/l)	10
Benzene (µg/l)	1
Bromate (µg/l)	10
Chloride (mg/l)	250
Chromium (µg/l)	50
Copper (mg/l)	2
Fluoride (mg/l)	1.5
Lead (µg/l) **(**10 µg/l after 25/12/2013)	25
Nickel (µg/l)	20
Pesticides-individual (µg/l) [(v)]	0.1
Pesticides-total (µg/l)	0.5
Polycyclic aromatic hydrocarbons (µg/l)	0.1
Sodium (mg/l)	200
Sulphate (mg/l)	250
Tetrachloromethane (carbon tetrachloride) (µg/l)	3
Total trihalomethanes (µg/l)	100
Trichloroethene and tetrachloroethene (perchloroethylene) (µg/l)	10

Notes

[(i)] supplies to a single dwelling are excluded but may be monitored by the Local Authority at the request of the owner/occupier

[(ii)] when used as a flocculant or where the water is influenced by surface water

[(iii)] where the water is influenced by surface water

[(iv)] where water is disinfected by chloramination

[(v)] except aldrin, dieldrin, heptachlor and heptachlor epoxide where the limit is 0.03 µg/l

Geoscience Data List

List of available geological data

This section lists the principal data sets held in the National Geoscience Records Centre that are relevant to your enquiry and explains how to obtain copies of the records. Users with access to computing facilities can make their own index searches using the BGS Internet (go to 'Online shops' at www.bgs.ac.uk). This will give access to the BGS Bookshop, Publications catalogue, GeoRecords (borehole browser) and GeoReports.

For current pricing see these internet pages or contact us using the list found at the back of this report.

Note that this report contains selective datasets and is not a definitive listing of all data held in BGS.

Borehole location map

Contains Ordnance Survey data © Crown Copyright and database right 2012

Scale: 1:5 000 (1cm = 50 m)

Borehole records

Number of records in map area: 41

In the following table a blank Length field indicates that the borehole is confidential or that no depth has been recorded digitally.
Enquiry staff may be able to provide you with contact details for the originator if you wish to seek release of confidential information.

Borehole registered no	Grid reference	Borehole name	Length (m)
TQ27NE1568	TQ 27550 79570	LANCELOT PL KENSINGTON 1	13.86
TQ27NE1569	TQ 27550 79570	LANCELOT PL KENSINGTON 2	12.03
TQ27NE1570	TQ 27550 79570	LANCELOT PL KENSINGTON 3	12.8
TQ27NE1571	TQ 27570 79520	LANCELOT PL KENSINGTON 4	14.17
TQ27NE1572	TQ 27570 79520	LANCELOT PL KENSINGTON 5	18.44
TQ27NE1573	TQ 27570 79520	LANCELOT PL KENSINGTON 6	9.45
TQ27NE1727	TQ 27400 79500	MONTPELIER SQUARE	-1
TQ27NE1790	TQ 27400 79400	NUMBER NOT USED	9.14
TQ27NE1791	TQ 27400 79400	NUMBER NOT USED	8.22
TQ27NE1792	TQ 27400 79400	NUMBER NOT USED	9.14
TQ27NE19	TQ 27382 79287	BROMPTON ROAD SW J34 KENSINGTON	9.3
TQ27NE20	TQ 27400 79280	CORNER OF BROMPTON ROAD J61	4.47
TQ27NE21	TQ 27450 79350	CORNER OF MONTPELIER ST J35	10.67
TQ27NE2318	TQ 27260 79304	60 CHEVAL PLACE LONDON 1	20

Borehole registered no	Grid reference	Borehole name	Length (m)
TQ27NE2319	TQ 27260 79304	60 CHEVAL PLACE LONDON WS1	1.7
TQ27NE2320	TQ 27260 79304	60 CHEVAL PLACE LONDON WS2	1.5
TQ27NE2321	TQ 27260 79304	60 CHEVAL PLACE LONDON WS3	1.6
TQ27NE2322	TQ 27260 79304	60 CHEVAL PLACE LONDON WS4	1.65
TQ27NE2323	TQ 27260 79304	60 CHEVAL PLACE LONDON WS5	2
TQ27NE283	TQ 27500 79600	RAPHAEL STREET KNIGHTSBRIDGE	15
TQ27NE510	TQ 27530 79480	PRINCES COURT	167.64
TQ27NE572/A	TQ 27480 79420	96-104 BROMPTON ROAD 1	9.14
TQ27NE572/B	TQ 27480 79420	96-104 BROMPTON ROAD 2	9.14
TQ27NE572/C	TQ 27480 79420	96-104 BROMPTON ROAD 3	8.22
TQ27NE572/D	TQ 27480 79420	96-104 BROMPTON ROAD 4	9.14
TQ27NE768	TQ 27400 79290	SMITH STREET SEWER RECONTRUCTION BH15	4.11
TQ27NE769	TQ 27550 79420	SMITH STREET SEWER RECONTRUCTION BH16	1.98
TQ27NE771	TQ 27230 79460	SMITH STREET SEWER RECONTRUCTION BH20	6.71
TQ27NE772	TQ 27230 79620	SMITH STREET SEWER RECONTRUCTION BH21	6.09
TQ27NE773	TQ 27180 79680	SMITH STREET SEWER RECONTRUCTION BH22	3.05
TQ27NE857	TQ 27400 79300	171/175 BROMPTON RD CNR OF BEAUFORD GDNS	15.84
TQ27NE956	TQ 27357 79671	SOUTH LODGE BH1	20
TQ27NE957	TQ 27375 79662	SOUTH LODGE BH2	20
TQ27NE958	TQ 27392 79652	SOUTH LODGE BH3	12
TQ27NE959	TQ 27411 79664	SOUTH LODGE BH4	20
TQ27NE960	TQ 27366 79651	SOUTH LODGE BH5	12
TQ27NE961	TQ 27387 79598	SOUTH LODGE BH6A	12
TQ27NE962	TQ 27387 79630	SOUTH LODGE BH6B	12
TQ27NE963	TQ 27416 79603	SOUTH LODGE BH7	12
TQ27NE964	TQ 27380 79575	SOUTH LODGE BH8	12
TQ27NE965	TQ 27408 79584	SOUTH LODGE BH9D	12

Water Well location map

Contains Ordnance Survey data © Crown Copyright and database right 2012

Scale: 1:5 000 (1cm = 50 m)

Water Well records

Number of records in search area: 6

All of these records are registered in the main Borehole Records collections (see Borehole Records Table and map above), but please note that some may be duplicate or part duplicate copies. This map shows records of water wells and boreholes in the National Well Record Archive held at Wallingford (WL) or Murchison House (MH). Each record has a Well Registration number which should be quoted when applying for copies.

Additional index information may be held for the Water Well Records as shown below, indicating the information that can be found on the well record itself. If fields are blank, then the well record has not been examined and its contents are unknown. A ‘Yes’ or a ‘No’ indicates that the well record has been examined and the information indicated is, or is not, present. This information should help you when requesting copies of records.

Water Well records

Well Reg No.	BH Reg No.	Name	Easting	Northing	Depth (m)	Date	Aquifer	G	C	W	Ch
TQ27/330	TQ27NE1727/BJ	MONTPELIER SQUARE	527400	179500	0		UNKNOWN	No	Yes	Yes	No
TQ27/65B	TQ27NE1790/BJ	96-104 BROMPTON ROAD, KENSINGTON	527400	179400	9.1	1958	NO AQUIFER	Yes	Yes	No	No
TQ27/65C	TQ27NE1791/BJ	96-104 BROMPTON ROAD, KENSINGTON	527400	179400	8.2	1958	RIVER TERRACE DEPOSITS	Yes	Yes	Yes	No
TQ27/65D	TQ27NE1792/BJ	96-104 BROMPTON ROAD, KENSINGTON	527400	179400	9.1	1958	NO AQUIFER	Yes	Yes	No	No
TQ27/64	TQ27NE510/BJ	PRINCES COURT, BROMPTON ROAD	527530	179480	167.6	1935	CHALK GROUP	Yes	Yes	Yes	Yes
TQ27/65A	TQ27NE572/BJ	96-104 BROMPTON ROAD, KENSINGTON	527400	179400	9.1	1958	NO AQUIFER	Yes	Yes	No	No

KEY:
Aquifer = The principal aquifer recorded in the borehole
G = Geological Information present on the log
C = Borehole construction information present on the log
W = Water level or yield information present on the log
Ch = Water chemistry information present on the log

Boreholes with water level readings

Number of records in search area: 1

Reference	Easting	Northing	Location	Start_date	End_date	Readings
TQ27/64	527530	179480	PRINCES COURT, BROMPTON ROAD	1935	1951	4

Locations with aquifer properties

Number of records in search area: 0

BGS holds no locations with aquifer properties for the selected area

Site investigation reports
Number of records in search area: 180

Additional laboratory and test data may be available in these reports, subject to any copyright and confidentiality conditions. The grid references used are based on an un-refined rectangle and therefore may not be applicable to a specific site. Borehole records in these reports will be individually referenced within the borehole records collection, described above.

Number	Site investigation title
368	WEST CROSS ROUTE
416	PROPOSED BATTERSEA NORTHERN BRIDGEHEAD IMPROVEMENT
436	NEW KINGS ROAD/BAGLEYS LANE
1492	BATTERSEA RISE LONDON SW 11 BRANCH POST OFFICE
1493	BATTERSEA RISE LONDON SW 11 BRANCH POST OFFICE
1494	BUCKINGHAM PALACE POLICE ACCOMMODATION AT ELECTRICIANS GATE
1495	BROMPTON CEMETERY RUBBISH DISPOSAL TIP
2066	LONDON VICTORIA AND ALBERT MUSEUM NORTH COURT DEVELOPMENT
3850	PROPOSED VICTORIA LINE UNDERGROUND RAILWAY
5873	JUBILEE LINE EXTENSION PACKAGES 1 AND 2 GREEN PARK TO EWER STREET
7112	DIVERSION OF GAS MAINS WANDSWORTH OLD GASWORKS
7905	EX-ROVER WORKS SEAGRAVE ROAD
8928	WRAY HOUSE CHELSEA LONDON
8967	ARTILLERY ROAD VICTORIA WEST MINSTER LONDON
8973	14-44 GLOUCESTER STREET LONDON
9060	211-215 VAUXHALL BRIDGE ROAD LONDON
9085	104-112 BUCKINGHAM PALACE ROAD LONDON
9086	PRINCES WHARF ANHAULT ROAD LONDON
9338	NATIONAL GRID DIVISION 400KV CABLE TUNNEL ST JOHNS WOOD TO CLAPHAM
9641	BARKERS DEPOSITORY SITE PEMBROKE ROAD LONDON
9642	2 HOLLYWOOD ROAD LONDON
11010	BUCKINGHAM PALACE ROAD
11011	HIGH STREET BATTERSEA
11012	BELGRAVE ROAD LONDON
11013	SEMLEY PLACE
11014	LANCELOT PLACE BROMPTON ROAD KENSINGTON
11016	WILTON PLACE KNIGHTSBRIDGE
12844	PROPOSED RETAINING WALL AT PARSONS GREEN STATION
13823	PROPOSED 400KV CABLE TUNNEL BETWEEN ST JOHNS WOOD AND WIMBLETON
13940	CLYSTON STREET
15162	BATTERSEA POWER STATION
16015	KENSINGTON HIGH STREET, KENSINGTON
16688	WAYFORD STREET, LONDON, SW 11
17318	KNIGHTSBRIDGE
17346	THE CAUSEWAY, WANDSWORTH, SW18
17392	ST GEORGES SQUARE, PIMLICO
17401	TOWNMEAD ROAD, FULHAM
17405	NINE ELMS, LONDON SW8
17571	KENSINGTON
19035	GILLINGHAM STREET SW1
19116	KENSINGTON BRANCH POST OFFICE
19289	GARRATT LANE, WANDSWORTH

Number	Site investigation title
19337	YORK PLACE,BATTERSEA
19383	THE ARDALE CENTRE, PHASE 2, WANDSWORTH
19413	4-12, QUEEN ANNES GATE
19437	WARWICK CRESCENT W.2.
19438	NEW CROSS-SITE F AND WANDSWORTH-SITE M
19687	NINE ELMS
19698	WANDSWORTH
19894	WRIGHTS LANE IVERNA COURT, KENSINGTON, LONDON
20239	19/20 GROSVENOR PLACE, SW1.
20242	26-30 OLD CHURCH STREET, CHELSEA
20619	IMPERIAL CHEMICAL HOUSE, MILLBANK, LONDON SW1
20680	37/37A TITE STREET, CHELSEA, LONDON
21002	1-9 CULFORD GARDENS, SLOANE SQUARE, LONDON
21013	HARCOURT HOUSE, REGENCY STREET, LONDON
21030	CADBY HALL, BLYTHE ROAD, HAMMERSMITH
21160	KNIGHTSBRIDGE
21161	RUTHERFORD STREET
21193	12-18 RUTHERFORD STREET, LONDON
21293	RANSOMES DOCK, PARKGATE ROAD, BATTERSEA
21593	7 HOLLAND STREET LONDON W8
21599	VICTORIA STATION DEVELOPMENT
21658	58-59 HYDE PARK GATE LONDON SW7
21720	KINGS ROAD, CHELSEA
21943	FULHAM
21977	GORRINGES LTD. BUCKINGHAM PALACE ROAD, LONDON SW1
22151	SOUTH KENSINGTON UNDERGROUND STATION
22904	HAVELOCK TERRACE LONDON SW8
22919	WEIR ROAD LONDON
22945	CAMPDEN HILL ROAD LONDON
23027	THE CAUSEWAY WANDSWORTH SW18
24000	WANDSWORTH GAS WORKS
24001	THE STAG BREWERY SITE AT PALACE STREET WESTMINSTER LONDON SW1
24004	31-59 VICTORIA STREET LONDON SW1
24005	3 KAMBALA ROAD WANDSWORTH
24006	31-59 VICTORIA STREET LONDON SW1
24025	IMPERIAL COLLEGE BIOCHEMICAL BUILDING
24026	HYDE PARK CORNER LONDON SW1
24027	S.E.G.B. WANDSWORTH
24028	HOUSING HIBBERT STREET AREA BATTERSEA
24030	WANDSWORTH BRIDGE SOUTHERN APPROACH
25685	YORK PLACE BATTERSEA LONDON
25726	ALLINGTON STREET LONDON
25908	PONT STREET LONDON SW1
25909	MANOR COURT HOTEL COURTFIELD GARDENS LONDON SW5
26122	OLD CHURCH STREET CHELSEA
26155	BATTERSEA WHARF
26302	HIGH STREET KENSINGTON EARLS COURT ROAD LONDON W8
26303	LISSON GROVE LONDON NW8
26340	OLD SWAN BATTERSEA
26446	NINE ELMS LANE LONDON SW8
26463	VICTORIA STATION CONGESTION RELIEF
26466	THE ADMIRAL KEPPEL BROMTON ROAD KENSINGTON
26493	WANDSWORTH

Number	Site investigation title
26494	TOWER BLOCK HENLEY STREET BATTERSEA
26537	NINE ELMS BATTERSEA LONDON
26565	47-48 CLAPHAM COMMON SOUTH SIDE LONDON SW4
26573	ROYAL HOSPITAL CHELSEA
26647	SEMLEY PLACE LONDON SW1
26661	BAILEYS HOTEL
26679	ALBERT EMBANKMENT RIVER STATION
26711	WANDSWORTH TERMINAL DEVELOPMENT
26715	HYATT CARLTON TOWER HOTEL SLOAN STREET CHELSEA LONDON SW1
26831	7-9 REGENCY STREET LONDON SW1
26844	PROPOSED JETTY NINE ELMS LONDON SW8
26847	YORK ROAD STAGE 1 (INGRAVE STREET AND VERONA STREET LONDON SW11)
26856	GRAFTON SQUARE CLAPHAM LONDON SW4
29792	ST STEPHANS HOSPITAL FULHAM ROAD LONDON SW10
30471	22 CARLISLE PLACE VICTORIA LONDON SW1
31828	36A HALSEY STREET, LONDON
33212	JOSEPH TRITTON PRIMARY SCHOOL BATTERSEA
33511	25 CLABON MEWS LONDON SW1
33543	IRANIAN EMBASSY PRICESS GATE LONDON
33595	DRAYCOTT AVENUE CHELSEA
33604	BATTERSEA PARK ROAD
33650	THACKERAY ROAD-LONDON SW8
33685	CRINGLE WHARF
33851	CHAPTER HOUSE 26 CHAPTER STREET LONDON SW1
33877	VICTORIA STREET
33878	REGENCY STREET
33972	VINCENT SQUARE LONDON SW1
34689	VAUXHALL BRIDGE ROAD, LONDON
34917	LUL POWER LOTS ROAD POWER STATION FOR PROPOSED NEW WORKS
37039	EAST HILL ESTATE WANDSWORTH
38159	EBURY BRIDGE ESTATE
38249	FERRIER STREET WANDSWORTH
38287	HORSEFERRY ROAD SW1
38292	BUCKINGHAM GATE SW1
38332	LILLIE BRIDGE DEPOT
38339	19- 27 RANELAGH ROAD
38344	13-15 CARTERET STREET LONDON
38454	A217 YORK ROAD DIVERSION WANDSWORTH
38486	1-19 VICTORIA STREET SW1
38718	GOVERNMENT OFFICES GREAT GEORGE STREET
38750	PROPOSED COMPUTER BUILDING FULHAM LONDON
38974	QUEEN ANNES MANSIONS LONDON
40231	LOTS ROAD CHELSEA
42432	FULHAM POWER STATION
42812	ROYAL COLLEGE OF MUSIC OPERA HOUSE
42920	ST GEORGES WHARF
43016	102 SYDNEY STREET LONDON SW3
43255	GROSVENOR GARDENS VICTORIA
43372	INGRAVE STREET LONDON SW11
43648	LURLINE GARDENS BATTERSEA
43683	NATURAL HISTORY MUSEUM
43688	ALBERT HALL MANSIONS
43702	BATTERSEA BRIDGE ROAD

Number	Site investigation title
45709	SIR JOHN ATKINS BUILDING CAMPDEN HILL
51015	HOLCLAS 2 MARSHAM STREET LONDON
51513	CHELSEA BARRACKS LONDON
51535	ROYAL PARKS ROADS HYDE PARK & CONSTITUTION HILL
51868	WANDSWORTH BRIDGE ROAD LONDON
52556	BUCKINGHAM PALACE ROAD
52618	KIRTLING STREET BATTERSEA LONDON SW8
52620	70 VAUXHALL BRIDGE ROAD LONDON SW1
52876	NANTES CLOSE BATTERSEA
53401	TOWNMEAD ROAD FULHAM
53666	BRABAZON HOUSE MORETON STREET LONDON SW1
53667	BRABAZON HOUSE MORETON ROAD PIMLICO
53669	BRIDGES WHARF BATTERSEA LONDON SW11
53670	BRIDGES WHARF BATTERSEA
53882	102-104 STEWARTS ROAD BATTERSEA
53883	102-104 STEWARTS ROAD BATTERSEA
53892	30 THE LITTLE BOLTONS LONDON SW10
54376	GRAFTON SQUARE CLAPHAM SW4
56214	ODEON CINEMA KENSINGTON HIGH STREET
56221	BATTERSEA POWER STATION
56319	OFFICE BLOCK DAVIES TURNER SITE BATTERSEA
56326	TOWER BLOCK AND CAR PARK RGS GARDENS KENSINGTON LONDON
56550	PROPOSED DEVELOPMENT AT 130-132GROSVENOR ROAD LONDON
56614	IMPERIAL COLLEGE SHERFIELD BUILDING
56645	ROYAL BROMPTON HOSPITAL PHASE 2 SYDNEY STREET CHELSEA
56657	PROPOSED NATIONAL FARMERS UNION HOUSE KENSINGTON
56674	4-10 REGENCY STREET LONDON SW1
56779	ADDITIONAL SITE INVESTIGATION AT THE FORMER ROYAL BROMPTON HOSPITAL NORTH BLOCK FULHAM ROAD CHELSEA LONDON
56860	CHESTER HOUSE UPPER BELGRAVE STREET LONDON SW1
57253	PROPOSED DEVELOPMENT AT 60 CHEVAL PLACE LONDON SW1
57285	22-24 BROMELLS ROAD LONDON
57808	WELLCOME WING SCIENCE MUSEUM KENSINGTON

National Grid geological maps (1:10 000 and 1:10 560 scale)

Number of records in search area: 1

Map	Type	Survey
TQ27NE	C	1913

County Series geological maps (1:10 560 scale)

Number of records in search area: 7

Map	Type	Published
London4FS		1919
London4SE	C	1935
London4SE	D	1935
London4SE	C	0
London4SE		1935
London6SE		0
London6SE	C	0

New Series medium scale geological maps (1:50 000 and 1:63 360 scale)

Number of records in search area: 2

Sheet number	Sheet name	Type	Published
270	South London	C	1921
270	South London	C	1998

Old Series one inch geological maps (1:63 360 scale)

Number of records in search area: 2

Sheet number	Sheet name	Type	Published
7	St. Albans	D	1871
7	St. Albans	S	1861

Hydrogeological maps (various scales)

Number of records in search area: 0

BGS holds no hydrogeological maps for the selected area

Geological Memoirs

Number of records in search area: 2

Geological memoir	Date
Geology of London Sheets 256,257,270,271	2004
South London	1921

Technical reports

Technical reports may be available for this area. Please email sales@bgs.ac.uk for further information.

Waste sites

Number of records in search area: 0

Listing of some 3500 waste sites for England and Wales identified by BGS as part of a survey carried out on behalf of the Department of the Environment in 1973. Later information may be available from the Local authority.

BGS holds no records of waste sites for the selected area

Mining plans
Number of records in search area: 0

This listing includes plans of various types, principally relating to mining activity including abandonment plans. The coverage is not comprehensive; however that for Scotland is most complete.
BGS holds no records of mining plans for the selected area

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- Note that for some sites, the latest available records may be quite historical in nature, and while every effort is made to place the analysis in a modern geological context, it is possible in some cases that the detailed geology at a site may differ from that described.

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