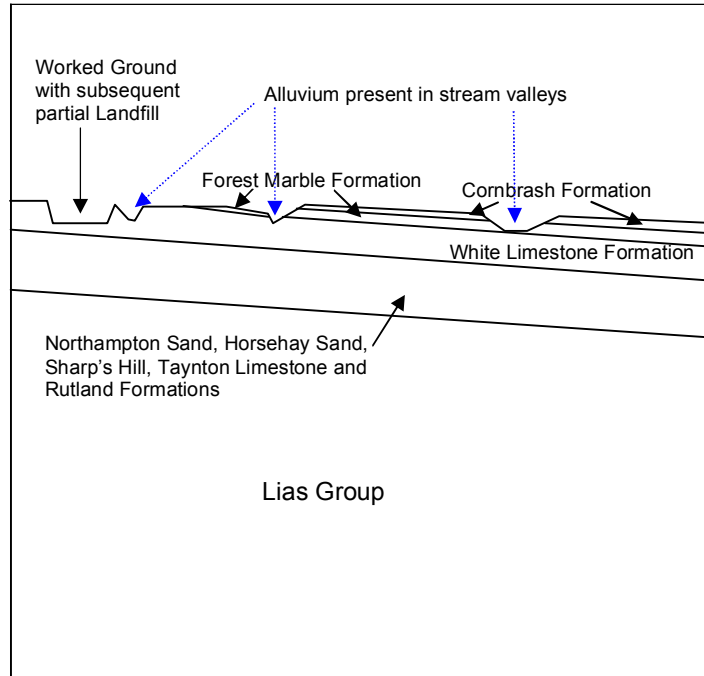


**Section 4: Schematic Geological Cross-Section of the Site**

Not to scale

grid ref of north-west side of site  
45385 22653

grid ref of south-east side of site  
45775 22335



This sketch represents an interpretation of the geometrical relationships of the main rock units described in the text. Not to scale.

## Geological Assessment - Detailed

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### Section 5: Geological maps

Extracts of geology maps around your site are provided in this section, taken from the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). The first four maps show separately the four main layers of geology that may be present in an area – **artificial (man-made) deposits**, **landslip deposits**, **superficial deposits** and **bedrock**. The fifth 'combined geology' map shows all four rock layers superimposed on the same map, to show the rocks that occur at the surface just beneath the soil.

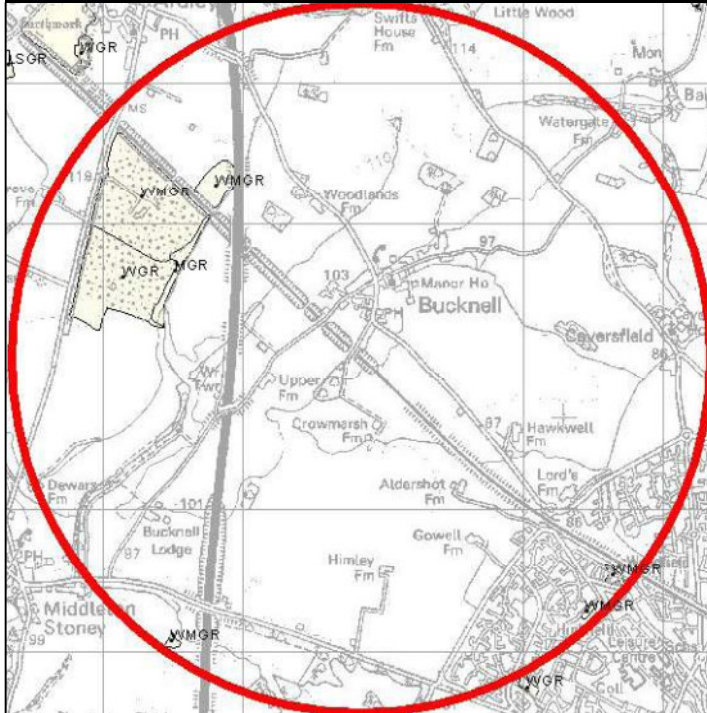
More information on DiGMapGB-50 and how the various rock layers are classified can be found on the BGS website ([www.bgs.ac.uk](http://www.bgs.ac.uk)), under the DiGMap and BGS Rock Classification Scheme areas. Further descriptions of the rocks listed in the map keys can also be obtained by searching against the Computer Code on the *BGS Lexicon of named Rock Units*, which is also on the BGS Website at by following the 'GeoData' link. The computer codes are labelled on the maps to try and help in their interpretation (with a dot at the bottom left hand corner of each label). However, please treat this with caution in areas of complex geology, where some of the labels may overlap several geological formations. If in doubt, please contact BGS enquiries.

The geological formations are listed broadly in order of age in the map keys (youngest first) but only to the formation level (a formation is a package of related rocks). Within formations, please be aware that individual members may not be ordered by age.

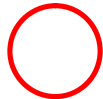
**Geological Assessment - Detailed**

**Artificial deposits**

These include deposits moved and disturbed by man.



Scale: 1:50000 (1cm = 500m)



SITE LOCATION

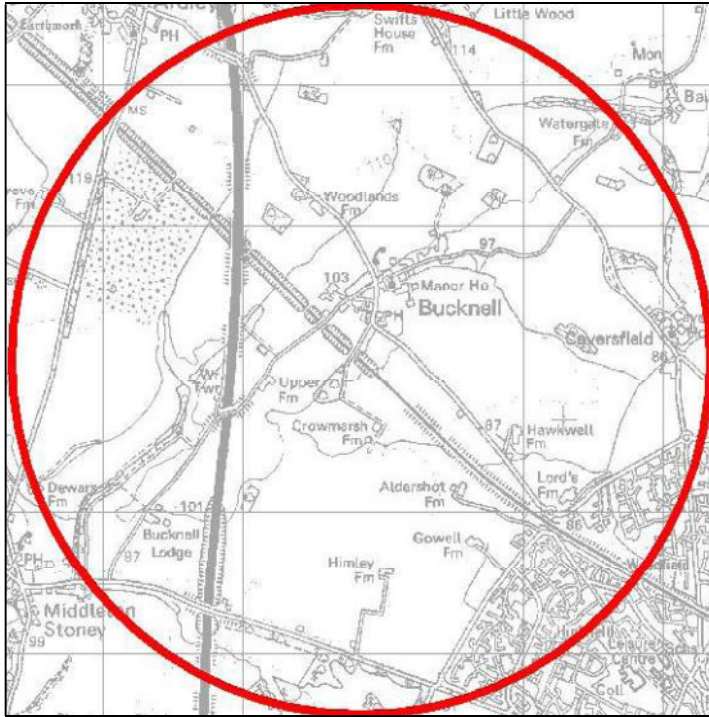
**Key to Artificial deposits:**

Map colour	Computer Code	Rock name	Rock type
	LSGR	LANDSCAPED GROUND (UNDIVIDED)	UNKNOWN/UNCLASSIFIED ENTRY
	MGR	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
	WGR	WORKED GROUND (UNDIVIDED)	VOID
	WMGR	INFILLED GROUND	ARTIFICIAL DEPOSIT

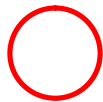
**Geological Assessment - Detailed**

**Landslip deposits**

These include natural deposits formed by sliding and mass-movement of soils and rocks on hill slopes (an alternative term for Landslip deposits is 'Mass Movement Deposits')



Scale: 1:50000 (1cm = 500m)



SITE LOCATION

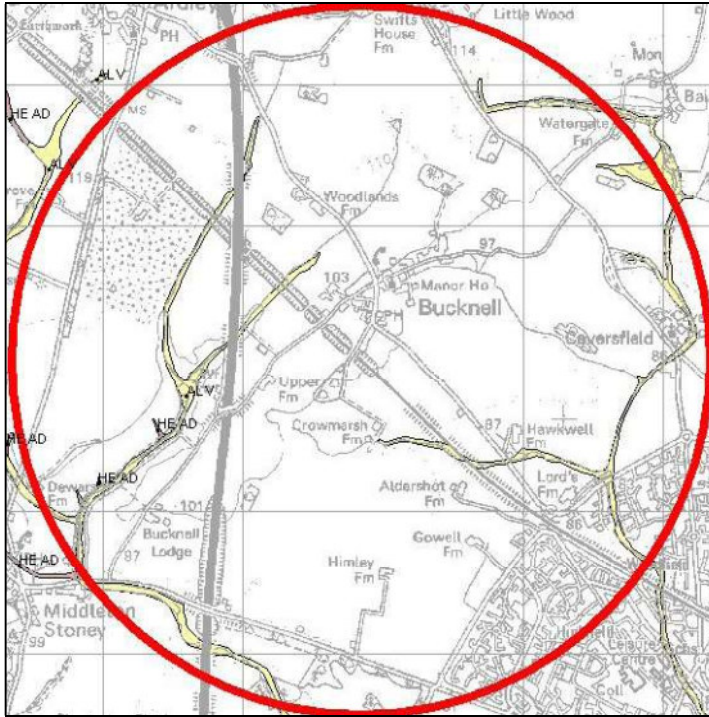
**Key to Landslip deposits:**

No deposits are mapped in the search area

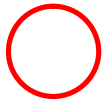
**Geological Assessment - Detailed**

**Superficial deposits**

These include fairly recent geological deposits, such as river sands and gravels, or glacial deposits, which lie on the bedrock in many areas (an alternative term for Superficial deposits is 'Drift Deposits')





Scale: 1:50000 (1cm = 500m)



SITE LOCATION

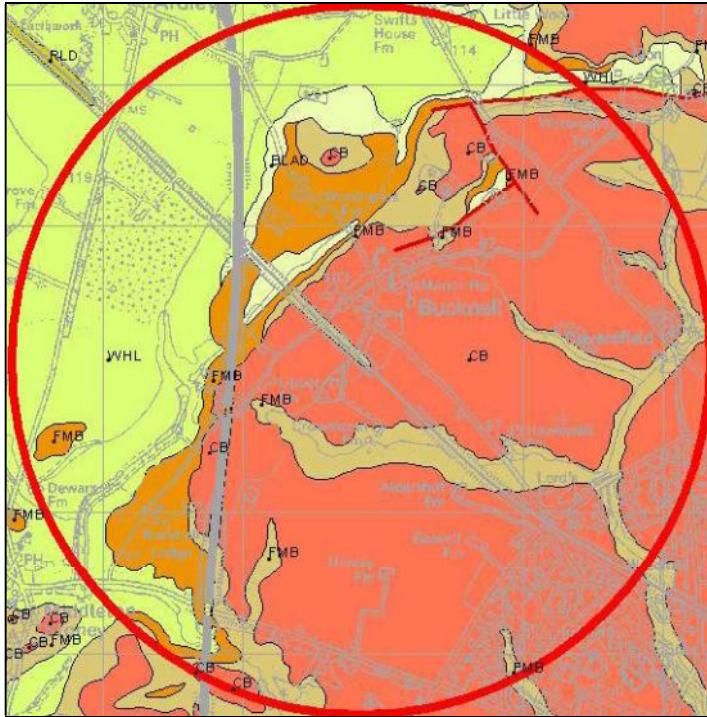
**Key to Superficial deposits:**

Map colour	Computer Code	Rock name	Rock type
	ALV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
	HEAD	HEAD	CLAY, SILT, SAND AND GRAVEL

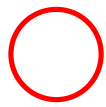
**Geological Assessment - Detailed**

**Bedrock**

Bedrock forms the ground underlying the whole of an area, upon which the other geological layers listed above may lie (an alternative term for Bedrock is 'Solid Geology')



Scale: 1:50000 (1cm = 500m)



SITE LOCATION



Fault



Coal, ironstone or other mineral vein

Note: Faults and Coals, ironstone & mineral veins are shown for illustration and to aid interpretation of the map. Not all such features are shown and their absence on the map face does not necessarily mean that none are present

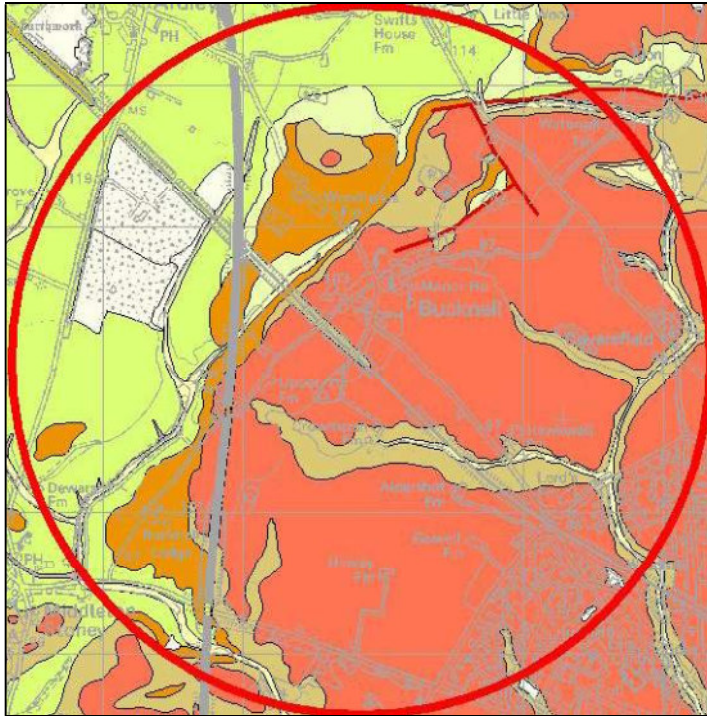
**Key to Bedrock geology:**

Map colour	Computer Code	Rock name	Rock type
	CB	CORNBRASH FORMATION	LIMESTONE
	FMB	FOREST MARBLE FORMATION	LIMESTONE
	FMB	FOREST MARBLE FORMATION	LIMESTONE AND MUDSTONE, INTERBEDDED
	WHL	WHITE LIMESTONE FORMATION	LIMESTONE
	BLAD	BLADON MEMBER	MUDSTONE AND LIMESTONE, INTERBEDDED
	RLD	RUTLAND FORMATION	MUDSTONE

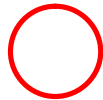
**Geological Assessment - Detailed**

**Combined 'Surface Geology' Map**

This map shows all four rock layers overlaid from the previous maps.



Scale: 1:50000 (1cm = 500m)



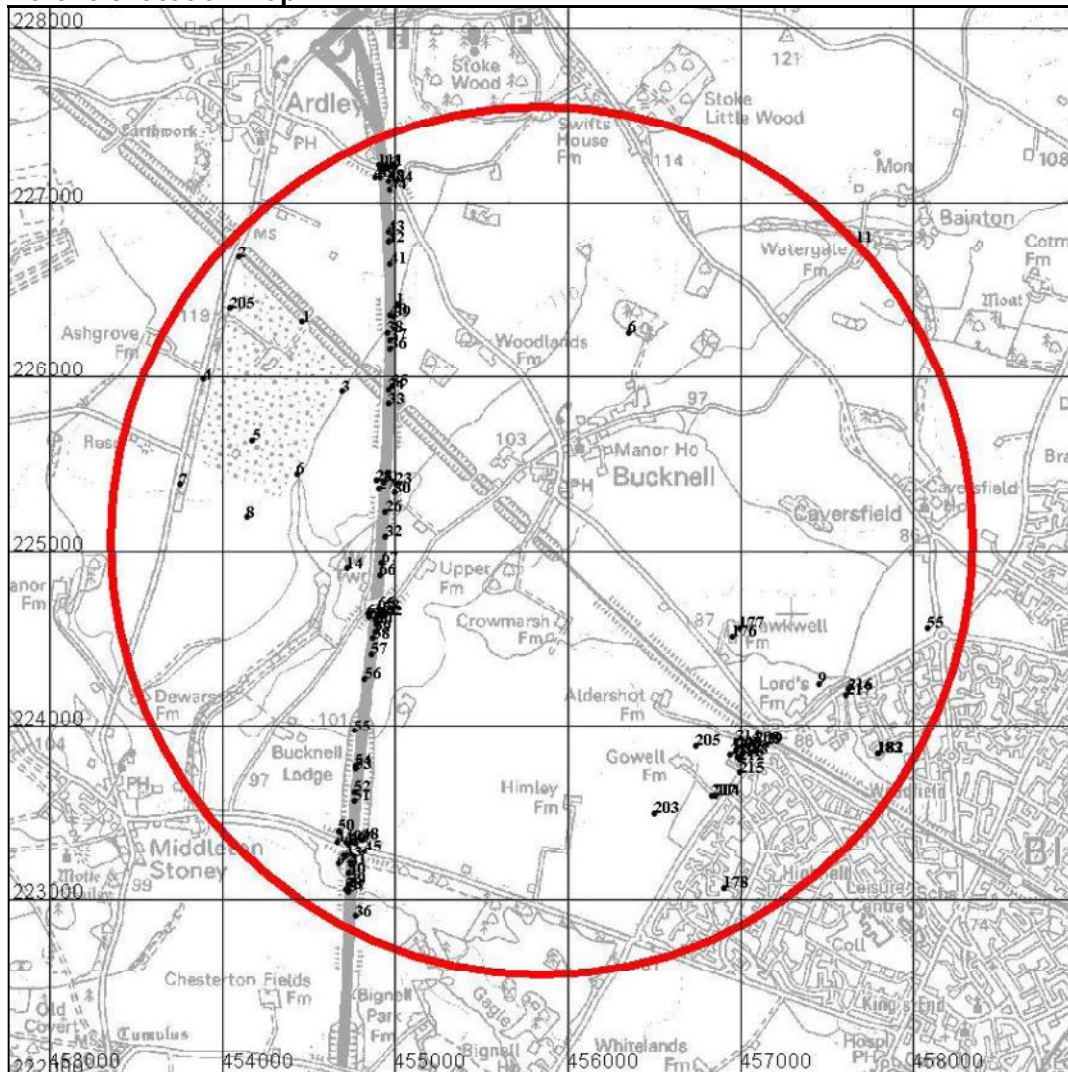
SITE LOCATION

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

**Section 6: List of geological data available around the site**

This section lists the principal data sets held in the National Geoscience Records Centre that are relevant to the site. Descriptions of the data sets and how to obtain copies of records from them are given in Sections 7 and 8. Users with access to computing facilities can make their own index searches using the BGS Internet Geoscience Data Index, accessible through the BGS website at [www.bgs.ac.uk](http://www.bgs.ac.uk)

**Borehole location map**



Scale: 1:40000 (1cm = 400m)



## Geological Assessment - Detailed

### Borehole records

(A blank Length field indicates the borehole is confidential or no depth has been recorded digitally.)

Total number of records: 98

The 'Office' column shows the office at which the records are held and from where copies can be obtained (see contact details later in the report). KW=Keyworth, MH & MW=Murchison House, WL=Wallingford, EX=Exeter

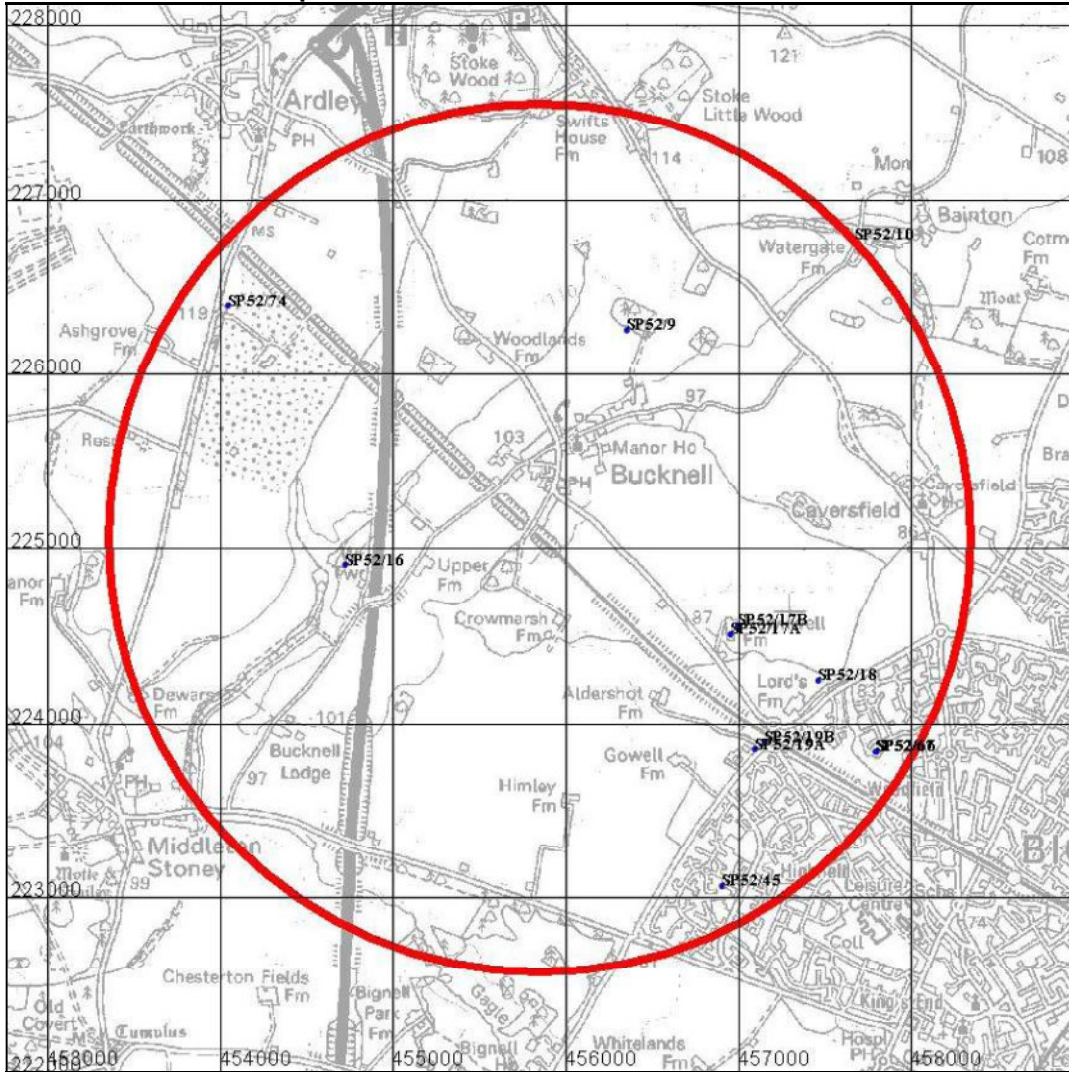
Regno	Grid reference	Name	Length	Office	SIR
SP52NE1	SP 55010 26410	ARDLEY FIELDS NO.10		KW	
SP52NE6	SP 56350 26250	MANOR FARM BUCKNELL	76.50	WLKW	
SP52NE11	SP 57670 26770	LODGE FARM BAINTON	40.84	WLKW	
SP52NE23	SP 55000 25381	OXFORD-BANBURY SECTION 529	1.00	KW	
SP52NE24	SP 55004 27117	OXFORD-BANBURY SECTION 547	1.00	KW	
SP52NW1	SP 54460 26310	ARDLEY FIELDS NO.1		KW	
SP52NW2	SP 54090 26680	ARDLEY FIELDS NO.2		KW	
SP52NW3	SP 54690 25910	ARDLEY FIELDS NO.3		KW	
SP52NW4	SP 53890 25980	ARDLEY FIELDS NO.4		KW	
SP52NW5	SP 54170 25630	ARDLEY FIELDS NO.5		KW	
SP52NW6	SP 54430 25440	ARDLEY FIELDS NO.6		KW	
SP52NW7	SP 53750 25380	ARDLEY FIELDS NO.7		KW	
SP52NW8	SP 54140 25190	ARDLEY FIELDS NO.8		KW	
SP52NW12	SP 54930 27200	M40 ARDLEY 274P	4.00	KW	
SP52NW26	SP 54940 25220	BUCKNELL EMBKMENT E11 24000-24570 TP527	2.30	KW	313
SP52NW27	SP 54900 25350	BUCKNELL EMBKMENT E11 24000-24570 TP525	2.90	KW	313
SP52NW28	SP 54890 25400	BUCKNELL EMBKMENT E11 24000-24570 TP528	3.40	KW	313
SP52NW30	SP 54996 25329	BUCKNELL EMBKMENT E11 24000-24570 TP526	1.00	KW	313
SP52NW31	SP 54930 25390	BUCKNELL EMBKMENT E11 24000-24570 BHY2	20.00	KW	313
SP52NW32	SP 54940 25080	BUCKNELL EMBKMENT E11 24000-24570 TP524	1.00	KW	313
SP52NW33	SP 54960 25840	BUCKNELL EMBKMENT E11 24000-24570 TP531	4.00	KW	313
SP52NW34	SP 54960 25920	BUCKNELL EMBKMENT E11 24000-24570 BHY3	19.00	KW	313
SP52NW35	SP 54980 25940	BUCKNELL EMBKMENT E11 24000-24570 TP534	1.00	KW	313
SP52NW36	SP 54970 26160	BUCKNELL EMBKMENT E11 24000-24570 BH069	20.00	KW	313
SP52NW37	SP 54970 26210	BUCKNELL EMBKMENT E11 24000-24570 TP537	1.00	KW	313
SP52NW38	SP 54950 26250	BUCKNELL EMBKMENT E11 24000-24570 TP536	1.00	KW	313
SP52NW39	SP 54990 26340	BUCKNELL EMBKMENT E11 24000-24570 TP540	1.00	KW	313
SP52NW40	SP 54970 26350	BUCKNELL EMBKMENT E11 24000-24570 TP538	1.00	KW	313
SP52NW41	SP 54970 26640	BUCKNELL EMBKMENT E11 24000-24570 TP541	1.00	KW	313
SP52NW42	SP 54960 26770	ARDLEY CUTTING C10 25780-27040 TP542	1.00	KW	313
SP52NW43	SP 54960 26830	ARDLEY CUTTING C10 25780-27040 TP543	1.00	KW	313
SP52NW44	SP 54970 27070	ARDLEY CUTTING C10 25780-27040 TP545	2.00	KW	313
SP52NW45	SP 54880 27140	ARDLEY CUTTING C10 25780-27040 TP544	1.00	KW	313
SP52NW46	SP 54920 27180	ARDLEY CUTTING C10 25780-27040 TP546	1.00	KW	313
SP52NW48	SP 54960 27120	ARDLEY CUTTING C10 25780-27040 BH070	25.00	KW	313
SP52NW49	SP 54910 27140	ARDLEY CUTTING C10 25780-27040 BH070A	15.00	KW	313
SP52NW111	SP 54903 27210	M40 OXFORD-BIRMINGHAM M/W BH075	12.00	KW	3322
SP52NW205	SP 54040 26390	ARDLEY FIELDS	10.20	WLKW	
SP52SE5	SP 57090 23840	GOWELL FARM BICESTER	43.28	WLKW	
SP52SE9	SP 57450 24230	BICESTER	79.85	WLKW	
SP52SE29	SP 57150 23880	GOWELL FARM 2	43.00	WLKW	
SP52SE55	SP 58080 24550	CAVERSFIELD SEWER BICESTER BH370/5	6.00	KW	
SP52SE176	SP 56950 24500	LORDS FARM		WL	
SP52SE177	SP 56990 24550	LORDS FARM		WL	
SP52SE178	SP 56900 23060	KINGS END FARM BICESTER		WL	
SP52SE182	SP 57800 23830	SLADE FARM CAVERSFIELD	28.96	WL	
SP52SE183	SP 57790 23830	WRETCHWICK FARM BICESTER		WL	
SP52SE203	SP 56500 23490	GOWELL FARM BICESTER 1	2.25	KW	37679
SP52SE204	SP 56850 23590	GOWELL FARM BICESTER 2	1.75	KW	37679
SP52SE205	SP 56740 23870	GOWELL FARM BICESTER 3	1.37	KW	37679
SP52SE206	SP 56970 23850	GOWELL FARM BICESTER 4	1.75	KW	37679
SP52SE207	SP 56830 23590	GOWELL FARM BICESTER TP 2	1.65	KW	37679
SP52SE208	SP 57080 23890	GOWELL FARM BICESTER TP 4	1.61	KW	37679
SP52SE209	SP 56980 23860	GOWELL FARM BICESTER 2	4.22	KW	37680
SP52SE210	SP 56940 23820	GOWELL FARM BICESTER 3	4.06	KW	37680
SP52SE211	SP 56980 23810	GOWELL FARM BICESTER 4	3.49	KW	37680
SP52SE212	SP 56990 23790	GOWELL FARM BICESTER 5	4.10	KW	37680
SP52SE213	SP 57010 23820	GOWELL FARM BICESTER 6	3.66	KW	37680
SP52SE214	SP 56970 23900	GOWELL FARM BICESTER 7	3.56	KW	37680

## Geological Assessment - Detailed

Regno	Grid reference	Name	Length	Office	SIR
SP52SE215	SP 56990 23720	GOWELL FARM BICESTER TP 1	0.88	KW	37680
SP52SE216	SP 57620 24200	LORDS LANE BICESTER OXFORDSHIRE 1	2.95	KW	37773
SP52SE217	SP 57610 24170	LORDS LANE BICESTER OXFORDSHIRE 2	2.80	KW	37773
SP52SW1	SP 54880 24600	M40 CARDINGTON 248P	6.00	KW	
SP52SW5	SP 54730 23310	M40 BUCKNELL LODGE 235P	8.00	KW	
SP52SW14	SP 54720 24900	TROWPOOL WELL BICESTER	7.62	WLKW	
SP52SW36	SP 54770 22900	MIDDLETON STONEY SOUTH CUTTING C8 TP495	1.00	KW	313
SP52SW37	SP 54730 23040	EAGLE BROOK EMBANKMENT E10 TP496	3.00	KW	313
SP52SW38	SP 54710 23050	EAGLE BROOK EMBANKMENT E10 BHY5	10.20	KW	313
SP52SW39	SP 54730 23080	EAGLE BROOK EMBANKMENT E10 TP498	2.00	KW	313
SP52SW40	SP 54730 23140	EAGLE BROOK EMBANKMENT E10 TP499	1.00	KW	313
SP52SW41	SP 54740 23190	EAGLE BROOK EMBANKMENT E10 TP500	2.00	KW	313
SP52SW42	SP 54670 23200	EAGLE BROOK EMBANKMENT E10 TP501	2.00	KW	313
SP52SW43	SP 54710 23240	MIDDLETON STONEY NORTH CUTTING C9 TP502	2.00	KW	313
SP52SW44	SP 54660 23330	MIDDLETON STONEY NORTH CUTTING C9 TP503	1.00	KW	313
SP52SW45	SP 54820 23270	MIDDLETON STONEY NORTH CUTTING C9 TP504	0.00	KW	313
SP52SW46	SP 54740 23330	MIDDLETON STONEY NORTH CUTTING C9 TP505	3.00	KW	313
SP52SW47	SP 54770 23320	MIDDLETON STONEY NORTH CUTTING C9 BH066	19.00	KW	313
SP52SW48	SP 54810 23340	MIDDLETON STONEY NORTH CUTTING C9 TP507	1.00	KW	313
SP52SW49	SP 54710 23330	MIDDLETON STONEY NORTH CUTTING C9 BH065	14.00	KW	313
SP52SW50	SP 54670 23390	MIDDLETON STONEY NORTH CUTTING C9 TP506	2.00	KW	313
SP52SW51	SP 54760 23560	MIDDLETON STONEY NORTH CUTTING C9 TP508	2.00	KW	313
SP52SW52	SP 54760 23610	MIDDLETON STONEY NORTH CUTTING C9 TP509	3.00	KW	313
SP52SW53	SP 54770 23740	MIDDLETON STONEY NORTH CUTTING C9 TP510	2.00	KW	313
SP52SW54	SP 54770 23760	MIDDLETON STONEY NORTH CUTTING C9 BHY1	2.00	KW	313
SP52SW55	SP 54760 23960	MIDDLETON STONEY NORTH CUTTING C9 TP511	3.00	KW	313
SP52SW56	SP 54820 24260	BUCKNELL EMBANKMENT E11 TP513	3.00	KW	313
SP52SW57	SP 54860 24400	BUCKNELL EMBANKMENT E11 TP514	3.00	KW	313
SP52SW58	SP 54870 24490	BUCKNELL EMBANKMENT E11 TP515	3.00	KW	313
SP52SW59	SP 54880 24530	BUCKNELL EMBANKMENT E11 TP516	3.00	KW	313
SP52SW60	SP 54890 24570	BUCKNELL EMBANKMENT E11 TP517	2.00	KW	313
SP52SW61	SP 54840 24630	BUCKNELL EMBANKMENT E11 TP518	3.00	KW	313
SP52SW62	SP 54940 24620	BUCKNELL EMBANKMENT E11 TP519	2.00	KW	313
SP52SW63	SP 54850 24610	BUCKNELL EMBANKMENT E11 BH067	10.00	KW	313
SP52SW64	SP 54910 24620	BUCKNELL EMBANKMENT E11 BH068	20.00	KW	313
SP52SW65	SP 54900 24670	BUCKNELL EMBANKMENT E11 TP520	1.00	KW	313
SP52SW66	SP 54910 24860	BUCKNELL EMBANKMENT E11 TP522	0.00	KW	313
SP52SW67	SP 54920 24930	BUCKNELL EMBANKMENT E11 TP523	0.00	KW	313
SP52SW68	SP 54928 24655	M40 OXFORD-BRMHAM OXFORD-BANBURY BH0685	10.00	KW	3322

**Geological Assessment - Detailed**

**Water Well location map**



Scale: 1:40000 (1cm = 400m)

## Geological Assessment - Detailed

### Water Well Records

Total number of records: 12

All these records are registered in the main Borehole Records collections (see Borehole Records Table and map above), and duplicate, or partial duplicate copies may be held at other sites (at Keyworth KW, Exeter EX or Murchison House MH). These represent records that are held in the National Well Record Archive of water wells and boreholes held at Wallingford (WF) or Murchison House (MW). The Well Registration number is used to index records in the National Well Record Archive please quote this if applying for copies of water wells (see contact details later in the report).

Additional index information may be held for the Water Well Records as indicated 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 as indicated is, or is not, present. This information should help you when requesting copies of Records.

#### 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

Well Reg No.	BH Reg No.	Name	Grid Easting	Grid Northing	Depth (m)	Date	Aquifer	G	C	W	Ch
SP52/74	SP52NW205/BJ	ARDLEY FIELDS (LAND FILL SITE)	454040	226390	10.20		GREAT OOLITE GROUP	Yes	Yes	Yes	No
SP52/9	SP52NE6/BJ	MANOR FARM BUCKNELL	456350	226250	76.50	1924	UNKNOWN	Yes	Yes	Yes	No
SP52/10	SP52NE11/BJ	LODGE FARM BAINTON	457670	226770	41.00	1949	UNKNOWN	Yes	Yes	Yes	No
SP52/16	SP52SW14/BJ	BUCKNELL P.S.	454720	224900	7.60		GREAT OOLITE GROUP	Yes	Yes	Yes	Yes
SP52/19A	SP52SE5/BJ	BICESTER P.S.	457090	223840	34.20	1905	GREAT OOLITE GROUP	Yes	Yes	Yes	Yes
SP52/17A	SP52SE176/BJ	LORDS FARM, BICESTER	456950	224500	3.70		GREAT OOLITE GROUP	No	Yes	No	No
SP52/67	SP52SE183/BJ	WRETCHWICK FARM BICESTER	457790	223830			UNKNOWN	No	Yes	No	No
SP52/17B	SP52SE177/BJ	LORDS FARM, BICESTER	456990	224550	3.70		GREAT OOLITE GROUP	No	Yes	No	No
SP52/45	SP52SE178/BJ	KINGS END FARM BICESTER	456900	223060			UNKNOWN	No	Yes	No	No
SP52/66	SP52SE182/BJ	SLADE FARM CAVERSFIELD	457800	223830	29.00	1909	GREAT OOLITE GROUP	Yes	Yes	Yes	No
SP52/18	SP52SE9/BJ	LORDS FARM BICESTER	457460	224240	79.90		UNKNOWN	Yes	Yes	Yes	No
SP52/19B	SP52SE29/BJ	BICESTER P.S.	457150	223880	42.80	1936	UNKNOWN	Yes	Yes	Yes	Yes

## Geological Assessment - Detailed

### Boreholes with water level readings

Total number of records: 1

Reference	Easting	Northing	Location	Start_date	End_date	Readings
SP52/19	457130	223870	EX BICESTER P.S.			

**There are no records for Locations with aquifer properties in the selected area**

### Site investigation reports

Total number of records: 26

Number	Office	Title
313	KW	OXFORD TO BIRMINGHAM NEW ROUTE WENDLEBURY TO SOULDERN SECTION
1440	KW	BICESTER RAF PROJECT NRS 84-0177 AND 87-0234 REPLACEMENT OF WATER MAINS
2438	KW	UPPER HEYFORD RAF CONSOLIDATED SUPPORT CENTRE
3310	KW	M40 OXFORD TO BIRMINGHAM MOTORWAY BANBURY BY PASS
3322	KW	M40 OXFORD TO BIRMINGHAM MOTORWAY OXFORD TO BANBURY SECTION
6285	KW	OXFORD TO BIRMINGHAM M40 MOTORWAY
6292	KW	BICESTER SOUTHERN BYPASS INTERPRETATIVE REPORT EMBANKMENT DESIGN SUPPLEMENT LONDON-BIRMINGHAM-BIRKEHEAD TRUNK ROAD A41
6293	KW	BICESTER SOUTHERN BYPASS INTERPRETATIVE REPORT EMBANKMENT DESIGN SUPPLEMENT LONDON-BIRMINGHAM-BIRKEHEAD TRUNK ROAD A41
6812	KW	A43: M40 TO B4031 IMPROVEMENT
7811	KW	RAF UPPER HEYFORD BASE THEATR
17835	KW	A43:M40 TP B4031 IMPROVEMENT
17836	KW	A43:M40 TO B4031 IMPROVEMENT
17838	KW	A43:M40 TO B4031 IMPROVEMENT SUPPLEMENTARY GROUND INVESTIGATION
19905	KW	BICESTER SOUTHERN BY-PASS
27597	KW	LANGFORD VILLAGE BICESTER
35484	KW	FEWCOTT ROAD FRITWELL
37469	KW	LAUNTON ROAD BICESTER OXFORD
37552	KW	TELFORD ROAD BICESTER
37595	KW	RAF UPPER HEYFORD OXFORDSHIRE
37679	KW	GOWELL FARM BICESTER OXFORDSHIRE
37680	KW	GOWELL FARM BICESTER OXFORDSHIRE
37773	KW	LORDS LANE BICESTER OXFORDSHIRE
37835	KW	MAIN STREET STOKE LYNE
37884	KW	EURO 5 DISTRIBUTION CENTRE ARDLEY OXFORDSHIRE
37988	KW	ROYAL ORDNANCE BICESTER OXFORDSHIRE
43801	KW	RAF BASE UPPER HEYFORD

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

Total number of records: 4

Map	Type	Survey	Published	Revision
SP52NE	C	2000	2000	
SP52NW	C	2000	2000	2000
SP52SE	C	1999	2000	
SP52SW	C	1999	2000	

**There are no records for County Series geological maps (1:10,560 scale) in the selected area**

### New Series medium scale geological maps (1:50,000 and 1:63360 scale)

Total number of records: 1

Sheet	Title	Type	Survey	Published	Revision
219	Buckingham	C	2000	2002	

## Geological Assessment - Detailed

### Old Series one inch geological maps (1:63360 scale)

Total number of records: 3

Sheet	Title	Type	Survey	Published	Revision
45NE	Buckingham	D		1873	
45NE	Buckingham	S		1871	
45SE	Bicester	S		1863	

**There are no records for Hydrogeological maps (various scales) in the selected area**

### Geological Memoirs

Total number of records: 1

Title	Date
Buckingham	2002

**There are no records for Technical reports in the selected area**

**There are no records for Waste sites in the selected area**

### Mining plans

Total number of records: 3

Record Type	Plan No.	Title
KP	12374	OXFORDSHIRE/BANBURY PROSPECT 1984-1985 VIBROSEIS PLANING MAP
KP	12375	OXFORDSHIRE/BANBURY PROSPECT NCB & OIL COMPANY DATA TRADED & UNTRADED 1984
KP	18191	WESTPHALIAN A & B OF THE COALFIELDS OF ENGLAND & WALES ( INCLUDING CANONBIE )

### Section 7: Descriptions of BGS databases

*Note that this report is not a definitive listing of all data held in BGS.*

#### **Borehole Records and Water Wells**

Records of boreholes, shafts and wells from all forms of drilling and site investigation work. Some 900,000 records dating back over 200 years and ranging from one to several thousand metres deep. Currently some 50,000 new records are being added to the collection each year.

A small percentage of the borehole records are held commercial-in-confidence for various reasons and cannot be released without the written permission of the originator. If any of the records you need are listed as confidential apply in the normal way. BGS Enquiry Service staff will release the data where this is possible or provide you with the information needed to contact the originator.

Where records are held in more than one office, the contents may differ. Enquiries principally requiring water related information should contact the Wallingford or Edinburgh office.

#### **Water levels**

These represent a subset of records within the National Well Record Archive of water wells and boreholes where there are either digital or analogue time series of water levels, or where available water level data span multiple years. Time series data are held for approximately 1500 boreholes distributed nationally. Other water level data is available where records have been inspected and digitised. Record's, are identified by the Well Registration number used for water wells (see above). Please contact our Wallingford office to discuss your specific requirements and to obtain costs.

#### **Aquifer properties**

These are locations where data on aquifer physical properties (transmissivity, specific yield, storage, porosity or hydraulic conductivity) are held. The data include raw data from field and laboratory investigations, and site-specific summaries of the data. Coverage is limited to aquifers in England and Wales. Records are identified by an aquifer property identifier, which should be quoted when ordering data. This data should be ordered separately, but will normally be provided and charged for as part of the relevant borehole records.

#### **Site investigation reports**

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.

#### **Geological maps**

- **National Grid maps (1:10,000 and 1:10560 scale)** - Since the 1960s the standard large-scale map for recording geological information has been the Ordnance Survey (OS) quarter sheet covering a 5km square area. The maps are supplied in different formats depending on their age and the method of reproduction used. Only the latest most up-to-date version is listed.
- **County Series map sheets (1:10,560 scale)** - Maps produced on OS County Series sheets between approximately 1860 and 1960. The list indicates distinct examples of maps from separate surveys or revisions. It is advisable to discuss your requirements before ordering or travelling to view these maps.
- **New Series medium scale maps (1:50,000 and 1:63360 scale)** - Maps at either scale covering the OS New Series one-inch map sheet areas used by BGS. Please note that the sheet numbering is not the same as used for current OS 1:50,000 topographic maps.
- **Old Series medium scale one-inch maps (1:63,360 scale)** - Early geological mapping covering the OS Old Series one-inch map sheet areas. Applies to England and Wales only.

While there may be information relevant to your enquiry on older maps, you will generally want the latest

## **Geological Assessment - Detailed**

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edition, and National Grid maps will be preferred to County Series maps, and New Series to Old Series.

### **Memoirs**

Explanatory sheet memoirs describing the geology of the areas covered by either the medium scale (1:50,000 and 1:63,360) map series.

### **Technical reports**

The open file reports listed are mainly from the Onshore Geology Series. These include descriptions of the geology for the National Grid series geological sheets. Please note that the location details in the database are not yet complete so it is possible that not all the relevant reports available will be listed.

### **Waste sites**

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 is available from the Environment Agency.

### **Mine Plans**

Plans of various types, principally relating to mining activity and including abandonment plans. For mine plans, the coverage is not comprehensive, but that for Scotland is the most complete. The search includes the collection of Plans of Abandoned Mines (Other than Coal & Oil Shale) for Scotland and the non-coal plans in the BGS Land Survey Plans collection, (mainly Scotland). Microfilm copies of the Plans of Abandoned Mines (Coal & Oil Shale) for Scotland and the Coal Authority's catalogues are available for consultation by prior appointment.

The mine plans listed for the rest of England and Wales (excluding SW England, which is not covered) include working copies, compilations and interpretations, which may be copyright or confidential and therefore not be available for purchase. The general nature of some of the plans means that they may not be applicable to a specific site. However, the presence of mining data could indicate that further specialist advice or interpretation is required. Large-scale plans produced for site investigations or other purposes are also included for completeness.

## **Section 8: How to access or inspect data**

### **Borehole Records – contact BGS Enquiry Service (see end of section)**

Copies of borehole records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet. Records with additional detailed geological information derived from BGS examination of borehole material may be charged at the current 'value-added' rate. If you have a need for data with particular geological characteristics, then please contact the enquiries office to discuss your requirements (additional charges may apply).

Alternatively you can make an appointment to visit the relevant enquiry office and examine the records yourself. The Commercial User Ticket (see below) covers inspection of the borehole logs and includes access to a set of relevant documents for one unit area (typically a 5 km x 5 km area). A further charge of £19 (+VAT) is due for each additional set examined. Data can be freely extracted from the records but any copies requested will be charged as above.

### **Water wells – contact BGS Enquiry Service**

Copies of records can be supplied (order form enclosed) at the flat rate of £13 (+VAT) per log with a minimum charge £26 (+VAT). Normal first class postage within the UK is included. Next day recorded delivery or express parcel dispatch is available on request and charged at cost. Copies of documents can be forwarded by facsimile transmission at an additional charge of £0.50 (+VAT) per A4 sheet. If you have a need for data with particular hydrogeological characteristics, then please contact the relevant enquiries office (England and Wales =Wallingford, Scotland=Edinburgh) to discuss your



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requirements (additional charges may apply).

Alternatively you can make an appointment to visit the relevant enquiry office and examine the records yourself.

Records for England and Wales are held at Wallingford where the visitor charge is £9.50/hour (+VAT, with a minimum charge of £19 (+VAT).

Records for Scotland are held with the borehole records at our Edinburgh office the above Borehole Record charges cover them and apply.

### **BGS Memoirs, maps and open file reports – contact BGS Sales (details below)**

BGS Memoirs, maps and open file reports relevant to your area can be examined in the appropriate BGS Library. Copies can be ordered from our main Sales Desk: Sales Desk, British Geological Survey, Keyworth, Nottingham NG12 5GG Tel: 0115 936 3241, Fax: 0115 936 3488, E-mail: sales@bgs.ac.uk.

Sales Desks are also located in Edinburgh; Tel: 0131 650 0358, Fax: 0131 667 2785, E-mail: scotsales@bgs.ac.uk, and London; Tel: 020 7589 4090, Fax: 020 7584 8270, E-mail: bgs\_london@bgs.ac.uk. BGS London also maintains a reference collection of all BGS publications.

Please check price and P&P before ordering.

### **Waste Sites – contact BGS Enquiry Service**

Copies of register entries, containing a variety of levels of data recording, can be obtained from the BGS Enquiry Service (price on application). The registers can also be inspected by visit (see above)

### **Mine Plans – contact BGS Enquiry Service**

Mine Plans are available for consultation by prior appointment. Copies can also be obtained - price on application.

### **Commercial User Ticket – contact BGS Enquiry Service**

A combined day ticket for commercial visitors to the National Geological Data Centre and the Library is £55 (+VAT) and there is a £33 (+VAT) day ticket for visitors who only wish to use the Library. Frequent visitors can purchase an annual subscription at £275 (+VAT) for access to the NGDC and the Library or £155 (+VAT) for use of the Library only. Further details can be provided on request.

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### BGS ENQUIRY SERVICE Contact Details:

#### **Keyworth (KW) Office**

*For Borehole and other records (excluding water well records & hydrogeological data) in England & Wales (excluding Northern England, and Devon & Cornwall):*

Records & Data Enquiries  
Kingsley Dunham Centre  
Keyworth  
Nottingham  
NG12 5GG  
Tel: 0115 9363143  
Fax: 01159 363276

#### **Exeter (EX) Office**

*For Borehole and other records (excluding water well records & hydrogeological data) in Devon & Cornwall:*

Records & Data Enquiries  
BGS Exeter Business Centre  
Forde House  
Park Five Business Centre  
Harrier Way  
Sowton  
Exeter  
Devon  
EX2 7HU  
Tel: 01392 445271  
Fax: 01392 445371

#### **Wallingford (WL) Office**

*For water well records and hydrogeological data (water levels, water chemistry and aquifer properties) in England & Wales:*

Records & Data Enquiries  
British Geological Survey,  
Maclean Building,  
Wallingford,  
Oxford  
OX10 8BB.  
United Kingdom  
Tel: 01491 838800  
Fax: 01491 692345  
Email: hydroenq@bgs.ac.uk

#### **Murchison House (MH or MW) Office:**

*For water well records and hydrogeological data for Scotland, and all other records in Scotland & Northern England:*

Records & Data Enquiries  
Murchison House  
West Mains Road  
Edinburgh  
EH9 3LA  
Tel: 0131 650 0282  
Fax: 0131 650 0252  
Email: boreholesnorth@bgs.ac.uk

### Section 9: More detailed geological reports available from BGS

This report forms part of the GeoReports range offered by the BGS Enquiry Service, including reports describing site geology, hydrogeology and geological hazards. For details on these please contact:

BGS Central Enquiries Desk  
British Geological Survey  
Kingsley Dunham Centre  
Keyworth  
Nottingham  
NG12 5GG  
Tel: 0115 936 3143  
Fax: 0115 936 3276  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)

Or visit the GeoReports online shop at [www.bgs.ac.uk/georeports](http://www.bgs.ac.uk/georeports)

### Section 10: Supporting Information

- The geological map extracts in Section 5 of this report are extracted from the BGS 1:50,000 scale Digital Geological Map of Great Britain (DiGMapGB-50). More information on DiGMapGB-50 can be found on the BGS website at [http://www.bgs.ac.uk/products/digitalmaps/digmapgb\\_50.html](http://www.bgs.ac.uk/products/digitalmaps/digmapgb_50.html)
- Further descriptions of the rocks listed in the map keys in Section 4 can be obtained by searching against the Computer Code (in the map Key) on the *BGS Lexicon of named Rock Units*, which can be found on the BGS Website at [www.bgs.ac.uk](http://www.bgs.ac.uk) by following the 'GeoData' link
- Descriptions of how the various rock layers identified on the maps are classified can be found in the [BGS Rock Classification Scheme](#).

### Section 11: Terms and Conditions

#### General Terms & Conditions

This report is supplied in accordance with the GeoReports Terms & Conditions available on the BGS website at [www.bgs.ac.uk/georeports](http://www.bgs.ac.uk/georeports) and also available from the BGS Central Enquiries Desk at the above address.

#### Important notes about this report

- The data, information and related records supplied in this report by BGS can only be indicative and should not be taken as a substitute for specialist interpretations, professional advice and/or detailed site investigations. You must seek professional advice before making technical interpretations on the basis of the materials provided.
- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
- If a report or other output is produced for you on the basis of data you have provided to BGS, or your own data input into a BGS system, please do not rely on it as a source of information about other areas or geological features, as the report may omit important details.
- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.

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