### Geology 1:50,000 Maps Legends

#### Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	PEAT	Peat	Peat	Quaternary - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	COG	Corbar Grit	Sandstone	Marsdenian - Marsdenian
	ROG	Roaches Grit	Sandstone	Marsdenian - Marsdenian
	CHG	Chatsworth Grit	Sandstone	Marsdenian - Marsdenian
	KG	Kinderscout Grit	Sandstone	Kinderscoutian - Kinderscoutian
	MG	Millstone Grit Group [See also Migr]	Mudstone, Siltstone and Sandstone	Namurian - Namurian
	MODK	Monsal Dale Limestone Formation (Dark Lithofacies)	Limestone	Brigantian - Brigantian
	EYL	Eyam Limestone Formation	Limestone	Brigantian - Brigantian
	MO	Monsal Dale Limestone Formation	Limestone	Brigantian - Brigantian
	EYLK	Eyam Limestones Formation (Knoll-Reef)	Limestone	Brigantian - Brigantian
	BSG	Bowland Shale Formation	Mudstone, Siltstone and Sandstone	Yeadonian - Asbian
	BLL	Bee Low Limestone Formation	Limestone	Asbian - Asbian
	LMB	Lower Miller's Dale Lava Member	Lava	Asbian - Asbian
	WDL	Woo Dale Limestone Formation	Limestone	Asbian - Courceyan
	UICL	Unnamed Igneous Intrusion, Dinantian	Microgabbro	Dinantian - Dinantian
		Faults		

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#### Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### Geology 1:50,000 Maps Coverage Map ID: 2 Map ID: Map Sheet No: 099 Map Sheet No: 111 Buxton 1978 Map Name: Chapel en le Frit Map Name: 1975 Map Date: Map Date: Bedrock Geology: Available Bedrock Geology: Available Superficial Geology Available Superficial Geology: Available Artificial Geology: Not Available Artificial Geology: Not Available Faults: Available Faults: Available Landslip: Available Landslip: Available Rock Segments: Available Available Rock Segments

#### Geology 1:50,000 Maps - Slice A



Buxton Mineral Water Co Ltd, Station Road, BUXTON, Derbyshire, SK17  $6 \mathrm{AQ}$ 





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#### Artificial Ground and Landslip

Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

#### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface. - Worked ground - areas where the ground has been cut away such as
- quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.

 Landscaped ground - areas where the surface has been reshaped.
Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### Artificial Ground and Landslip Map - Slice A



**Order Details:** 48984679\_2\_1 GCU0124021 Order Number: Customer Reference: National Grid Reference: Slice: Site Area (Ha): Search Buffer (m):

406080, 373820 A 0.01 1000

#### Site Details:

Buxton Mineral Water Co Ltd, Station Road, BUXTON, Derbyshire, SK17 6AQ

**Landmark** Tel: Fax: 0844 844 9952 0844 844 9951 www.envirocheck.co.uk v15.0 06-Sep-2013



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#### **Superficial Geology**

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.





Order Details:

Order Number: 4 Customer Reference: 6 National Grid Reference: 7 Slice: 7 Site Area (Ha): 6 Search Buffer (m): 6

48984679\_2\_1 GCU0124021 406080, 373820 A 0.01 1000

#### Site Details:

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#### **Bedrock and Faults**

Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.





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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

#### Additional Information

More information on 1:50,000 Geological mapping and explanations of rock dassifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### Combined Geology Map - Slice A



Order Number: Customer Reference: 48984679\_2\_1 GCU0124021 National Grid Reference: 406080, 373820 Slice: A 0.01 Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

Buxton Mineral Water Co Ltd, Station Road, BUXTON, Derbyshire, SK17 6AQ

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