Г	90		200000	10	20
		sh Iogical Survey Il environment research council	Office of the Deputy Prime Minister Creating sustainable communities	BUILDING STONE Currently there are ten quarries producing building stone in Devon; four in Devonian quarry in granite. Historically, Devon has produced a very wide range of stones for building purposes. schists, slates, limestones, and sandstones of the Devonian. The schists of the Start Co	The oldest rocks of the area are metamorphic
60 —	DEVON (North)			 Salcombe. The slaty rocks of the succession were worked in the past, both for roofing slattheir outcrop. The limestones of the Devonian (such as the Chercombe Bridge Limestone Format (polished limestone) industry, around Plymouth, Ashburton and Torquay. These rocks v Thin sandstones occur throughout the Devonian and Carboniferous successions in the building purposes in the past and are rarely used beyond their local outcrop area. The (such as the Heavitree Breccia Formation) also provided local building stone. 	tion) formerly supported an extensive 'marble' vere also used in these areas as building stone. county. These have only been worked for local e hard, coarse-grained breccias of the Permian
	(comprising Devon, Plymouth, Torbay, Dartmoor National Park and part of Exmoor National Park) Mineral Resource Information in Support of National,			In the east of the county, the glauconitic sandstones of the Lower Cretaceous (Upper G stone in the past, most notably for Exeter Cathedral. Around Blackborough, in east Dev which have been used locally for building purposes, as well as supporting a large whetst The Upper Cretaceous (Turonian) hard, chalky, shelly limestones from Beer on the east D medieval times for building stone (known locally as 'Beer Stone'). This stone was used Beer Stone was also exported beyond the county boundary. A wide variety of fine-grained, basaltic rocks from the Permian succession around Exete	on the same succession contains chert nodules one (batts) industry in the past.
	Regional and Local Planning Mineral Resources Scale 1:100 000			are locally known as 'trap'. The best-known quarries were at Pocombe and Posbury. St around Exeter. Locally, intrusive dykes were also quarried for building stone. Slate Slates from many localities across Devon have been used in the past for building, esp were largely worked from Upper Devonian sequences such as the Gurrington Slate For the Kate Brook Slate Formation) in south Devon and the Ilfracombe Slate, Combe Ma	one from these quarries was widely used in and becially as walling and flooring materials. These mation and Tavy Formation (formerly known as
50 —	Compiled by A.J. Bloodworth, G.E. Norton, C.J. Mitchell, R.C. Scrivener, D.G. Cameron, S.F.Hobbs, D.J. Evans, G.K. Lott and D.E. Highley. Project Leader: D.E. Highley. Digital cartography by N.A. Spencer, British Geological Survey. Published 2006.			Devon. The only remaining active slate workings are in the Tavy Formation. This consists of sandstones. The quarries include Mill Hill, Longford and Yennadon (the latter two in Dar area, west of Dartmoor. The Gurrington Slate Formation produced purple, green and gre restricted to use in the Newton Abbot/Ashburton area. The Morte Slate Formation co greenish grey slates, locally silty with some siltstone and sandstone. Granite	tmoor National Park) which are in the Tavistock ey roofing slates, but is relatively weak and was
	This map comprises part of a summary of the 'Mineral Resources of the South West of England Region'. For further imformation see www.mineralsUK.com BIBLIOGRAPHIC REFERENCE Bloodworth, A.J, and 8 others. 2006. Mineral Resource Information in Support of National, Regional and Local Planning: Devon			Dartmoor granite is Devon's principal building stone resource, widely used in Devon granitic elvan vein at Roborough was important locally as a building stone. The Lundy granite was emplaced as an extensive igneous rock intrusion during the Permiar Dartmoor National Park in south Devon. Mostly the granite is coarsely crystallin potassium-feldspar, quartz and biotite mica, together with accessory minerals such as twithin the Dartmoor outcrop, but they have a relatively restricted occurrence.	n and forms the upland moors and tors of the ne, with large phenocrysts or megacrysts of
	(comprising Devon, Plymouth, Torbay, Dartmoor National Park and part of Exmoor National Park). British Geological Survey Commissioned Report CR/05/096N Production of this map was commissioned and funded by the Office of the Deputy Prime Minister (Contract MP0677).			The suitability of granite for construction varies; much of the granite formerly worked (in Scotland Yard) was coarse-grained with large whitish feldspar crystals. Fresh, unaltere hard and expensive to quarry. Partial alteration of granite by weathering and/or hydrott formation of kaolin) makes the granite easier to quarry for standard building stone. Cu Dartmoor National Park: Blackingstone Quarry, near Moretonhampstead, on the north-e operation since at least 1912. A number of smaller intrusions are associated with the Dartmoor Granite. These include	ed granite is ideal for engineering uses, but it is hermal processes (which ultimately leads to the urrently, there is only one working quarry in the east side of Dartmoor. This quarry have been in
40 —	SAND & GR Superficial			A humber of smaller infusions are associated with the Darthoor Granite. These includ these including the 'Roborough Stone' were worked around Dartmoor for building st intrusion near Okehampton is a rare example of a lithium-bearing aplite. This is a pale g feldspar with minor amounts of topaz and tourmaline. BRICK CLAY	one and for roadstone aggregate. The Meldon
		alluvial: Inferred resources r terrace deposits posits		The term 'brick clay' is used to describe clay and shale used predominantly in the manuf and clay pipes. These clays may sometimes be used in cement manufacture, as a sour landfill sites. The suitability of a clay for the manufacture of bricks depends principally of This will dictate the properties of the fired brick such as strength and frost resistance and Most facing bricks, engineering bricks and related clay-based building products are ma represent a high capital investment and are increasingly dependent therefore on raw characteristics in order to achieve high yields of saleable products. Blending different cla	ce of construction fill, and for lining and sealing n its behaviour during shaping, drying and firing. d, importantly, its architectural appearance. anufactured in large automated factories. These materials with predictable and consistent firing
	Bed	eigh Salterton Pebble Sherwood Formation Group	∃ Sandstone } Triassic } Permian	 a range of fired colours and textures is an increasingly common feature of the brick i materials is of paramount importance. Bricks are produced at two locations in Devon. Shales from the Crackington Formation (Upper Carboniferous age) are currently worked works produces facing bricks, predominantly for the market in South West England. Th shales with a small proportion (10 per cent) of fine-grained sandstone. To improve its pla shale (known locally as 'yellow dob') and allowed to weather for three months before be 	ndustry. Continuity of supply of consistent raw at Pinhoe Quarry in Exeter. The associated brick e sequence consists of pale brown to pale grey asticity the shale is mixed with highly weathered
		tleigh Limestone Formation	Cretaceous	 in the Crackington Formation in the Exeter area are shown on the map. Middle Devonian slates are currently worked at Steer Point Brickworks (to the south ea pale coloured facing bricks. The sequence in the brick pit consists of variably weathere blue and white). Ball clay is used to improve the plasticity of the clay blends used to proform Middle Devonian slates in the Steer Point area are shown on the map. Ball clays from both the Bovey and Petrockstowe basins have been used locally for the steer basins have been used locally for the basins have basins have been used locally for the basins have basins have been used locally for the basins have basins h	st of Plymouth). This site manufactures red and ed shale referred to by their colour (red, brown, oduce pale coloured bricks. Brick clay resources prickmaking in the past. Although this has now
30 —	IGNEOUS &	pton Limestone Formation METAMORPHIC ROCKS c igneous rocks	∫ Carboniferous	ceased, small amounts of ball clay are still sold for brickmaking elsewhere in South Wo locally-won clays (see above). Although excellent brickmaking raw materials, ball clays for other, higher value, applications (see Ball Clay box). Demand from brickmakers els likely to increase in the future as supplies of fireclay, traditionally used to make high spec	used for this purpose will tend to be unsuitable sewhere in England for these buff-firing clays is
	Gran Gran Ther BALL CLAY	mal metamorphic aureole (Dartmoo	only)		HARTLAND POINT
	BRICK CLA	ey Formation Y skington Formation (Carboniferous):	Palaeogene Exeter area only		
20 —	MINERAL P	roximate 10 km limit of resource LANNING PERMISSION (as Planning Authorities	s at 31.11.05)		Marced Street
	Surface planning permission (valid and expired) Underground planning permission (valid and expired) MINERAL WORKINGS				Ciri Ciri Ciri Ciri Ciri Ciri Ciri Ciri
	Black	worked-out and/o			
10 —	Bal Ball Cla Ba Barytes Ch Chalk Cht Chert Cl Clay an CR Crushe	MiB MSg Peat d Shale San	Limestone Mineral Black Marine sand and gravel Peat Sand Sand and gravel		
			Slate Sandstone Active marine aggregate wharf	PLANNING PERMISSIONS FOR MINERAL EXTRACTION The extent of all known extant and former planning permissions for mineral working is planning or operational status. The polygons were supplied as digital files by Devon C	shown on the map, irrespective of their current
	National Nat	ENTAL DESIGNATIONS (as onal nature conservation designation SIs and NNRs) national nature conservation design Cs, SPAs and Ramsar sites)	IS	 Plotting Sheets and other documents supplied by Plymouth City Council, Torbay Coplanning permission information was digitally acquired from Ministry of Housing ar incorporated in the data. This data has been checked and amended by the local Auth sites shown should be directed to these authorities at the addresses shown below. T mineral workings and, occasionally, unworked deposits. Planning Permissions represent areas where a commercial decision to work mineral has dealt with through the provisions of the Town and Country Planning legislation and the greater or lesser extent. Current planning status is not qualified on the map but is availab 	nd Local Government maps for the area and orities shown below. Any queries regarding the The polygons cover active, former and restored is been made, a successful application has been permitted reserve will have been depleted to a
	Natio	age Coast onal Park: Dartmoor (part), Exmoor (of Outstanding Natural Beauty (AO s of East Devon and Blackdown Hills	NB): North Devon and	Contact addresses: Devon County Council, Environment Directorate, Lucombe House, County Hall, Topsha Fax: 01392 382135, web address: www.devon.gov.uk Plymouth City Council, Planning Services Department, Civic Centre, Royal Parade, Plyn 304931, web address: www.plymouth.gov.uk	
1 00 000 —	+ Sche ADMINISTR	eduled Monument ATIVE AREAS eral Planning Authority (National Parl		Torbay Council, Environment Services Department, Roebuck House, Abbey Road, Tor 208858, web address: www.torbay.gov.uk Dartmoor National Park, Planning and Community Department, "Parke", Haytor Road, 01626 832093, Fax: 01626 834684, web address: www.dartmoor-npa.gov.uk Exmoor National Park, Planning and Community Department, Exmoor House, Dulvert 323150, web address: www.exmoor-nationalpark.gov.uk	, Bovey Tracey, Newton Abbot TQ13 9JQ, Tel:
90	Aims and Limitatio	ict		Topography reproduced from the OS map by British Geological Survey with the per Controller of Her Majesty's Stationery Office, © Crown copyright. All rights reserved. Unauthorised reproduction infringes Crown copyright and may lea number: 100037272 2006. Digital SSSI, NNR, SAC, SPA and RAMSAR boundaries © English Nature 2006.	
	The purpose of the maps in the conomic interest and to relate consideration and preparation resources against sterilisation convenient form. The maps have been product	his series is to show the broad distribution of those m the these to selected nationally-recognised planning n of development plan policies in respect of minera . They bring together a wide range of information, mu ed by the collation and interpretation of mineral res	ineral resources which may be of current or potential designations. The maps are intended to assist in the l extraction and the protection of important mineral ch of which is scattered and not always available in a purce data principally held by the British Geological	Contact address: English Nature, Northminster House, Northminster, Peterborough, PE1 1UA, Tel: 01 www.english-nature.org.uk Positions of Scheduled Monuments at 25th September 2003 as supplied by English Herit The majority of monuments are plotted using a centred NGR symbol. Consequently protected by the legal constraints of scheduling cannot be represented here. Monumen for. © Copyright English Heritage.	tage. the actual area and/or length of a monument
	Some of these permissions n Location information on natic English Nature and English He The mineral resource data pre The inferred boundaries sho potentially workable minerals may limit their working. The	may occur. These areas are not of uniform potential economic potential of specific sites can only be pr	areas can be ascertained from the appropriate MPA. he appropriate statutory body (Countryside Agency, Id be contacted. ut are not comprehensive and their quality is variable. defined on the map delineate areas within which and also take no account of planning constraints that by a detailed evaluation programme. Such an	Contact address: English Heritage, 23 Savile Row, London, WS1 2ET, Tel: 020 7973 3132, Web page: www Digital AONB boundaries © Countryside Commission 1986 (now Countryside Agency). Contact address: Countryside Agency, John Dower House, Crescent Place, Cheltenham, Gloucestershi 584270, Web page: www.countryside.gov.uk Published for the Office of the Deputy Prime Minister © Queen's Printer and Controller of	re, GL50 3RA, Tel: 01242 521381, Fax: 01242
	investigation is an essential p mineral resource potential, bu reflect very local or specific si The maps are intended for g maps should not be used to	recursor to submitting a planning application for mine ut some isolated mineral workings may occur in thes tuations. eneral consideration of mineral issues and not as a	ral working. Extensive areas are shown as having no e areas. The presence of these operations generally source of detailed information on specific sites. The king other decisions on the acquisition or use of a	This publication (excluding logos) may be reproduced free of charge in any format or n within an organisation. This is subject to it being reproduced accurately and not used acknowledged as Crown Copyright and the title of the publication specified. Applications for reproduction should be made in writing to: The Copyright Unit, Her M 1-16 Colgate, Norwich NR3 1BQ. Fax 01603 723000 or e-mail: copyright@hmso.gov.uk	in a misleading context. The material must be
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