

Glossary of  
**Mining terms —**

**Section 5: Geology**

Confirmed  
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## Co-operating organizations

The Mining and Quarrying Requisites Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

Association of Mining Electrical and Mechanical Engineers\*  
 British Electrical and Allied Manufacturers' Association  
 British Steel Industry  
 Council of Underground Machinery Manufacturers  
 Department of Trade and Industry\*  
 Engineering Equipment Users' Association  
 Federation of Manufacturers of Construction Equipment and Cranes  
 Institute of Quarrying  
 Institution of Mechanical Engineers  
 Institution of Mining Engineers\*  
 Mechanical Handling Engineers' Association  
 National Coal Board\*

The Government department and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

Institution of Mining and Metallurgy  
 University of Birmingham  
 University of London  
 University of Nottingham

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## Foreword

This glossary has been prepared, under the authority of the Mining and Quarrying Requisites Industry Standards Committee, in order to standardize and to co-ordinate the technical terms in current use in mining in the United Kingdom. Although the majority of the terms defined in the original edition of this glossary were primarily concerned with coalmining, account has been taken of terms used in other forms of mining and of quarrying.

The need for this glossary arose from the widely varying interpretation of terms used within the industry, and the prevalent use of more than one synonym, some purely local in origin, to indicate specific meanings.

The glossary has been issued in a number of sections, according to subject matter, as follows:

- *Section 1: Planning and surveying;*
- *Section 2: Ventilation;*
- *Section 3: Boring and exploration;*
- *Section 4: Drainage;*
- *Section 5: Geology;*
- *Section 6: Drilling and blasting;*
- *Section 7: Electrical engineering and lighting;*
- *Section 8: Winning and working;*
- *Section 9: Shafts and associated equipment;*
- *Section 10: Transport;*
- *Section 11: Strata control.*

In the normal process of periodical review of the BS 3618 publications it was seen that a number of modifications and additions were desirable to Section 5, "Geology"; therefore, since the edition was dated 1964, it was decided to publish a revision incorporating these changes.

In compiling the glossary account has been taken of the fact that terms primarily associated with coal are separately defined in BS 3323, "*Glossary of coal terms*", and terms relating to coal preparation are defined in BS 3553, "*Glossary of terms used in coal preparation*". The following factors also have applied in the statement, selection and definition of terms:

- 1) Where two or more terms are grouped together, the term which is favoured is printed first and in heavy type. It is hoped that such preferred terms will gradually displace the non-preferred terms. The non-preferred terms of a group are printed in small capital letters. Where the use of any term is considered to be undesirable it is marked *deprecated*.
- 2) Generally, only terms which have a specific meaning in this field have been included. Where a technical term has an accepted meaning in other fields of engineering it has been omitted; the few exceptions are terms which are of particular importance in mining.
- 3) Purely local terms are not defined, but those of sufficient importance are included as non-preferred terms.
- 4) Obsolete terms are excluded.

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#### **Summary of pages**

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 12 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.



Term	Definition
<b>agglomerate</b>	A naturally cemented unstratified mass of coarse volcanic fragments.
<b>alluvium</b>	Deposits, normally unconsolidated, made by streams in channels and over their flood plains and deltas.
<b>ankerite</b> CLEAT SPAR, <i>deprecated</i>	A white mineral, sometimes discoloured, commonly occurring in the cleat of coal. The main constituents are calcium, magnesium and iron carbonates.
<b>anthracite</b>	Coal of the highest rank having volatile matter in the region of 10 % or less.
<b>anticline</b>	An arch-like fold in stratified rocks.
<b>apparent dip</b>	The dip in any random vertical section, having a value between zero in the section containing the line of strike and full dip in the section at right angles to this line. (See Figure 3.)
<b>aquifer</b>	A permeable water-bearing stratum.
<b>arenaceous</b>	Sandy.
<b>argillaceous</b>	Clayey.
<b>ash</b>	The inorganic residue after the incineration of coal to constant weight under standard conditions. In general it differs in weight and composition from the original mineral matter.
<b>ash (volcanic)</b>	Fine loose debris ejected in volcanic eruptions [it gives rise to tuff (q.v.) when compacted].
<b>backs</b>	1) A system of joints in coal or stratified mineral oblique to the bedding at an angle at 35° to 75°. See also <i>slips</i> . 2) See <i>Winning and working</i> section.
<b>band</b>	1) Any bed or stratum of rock ( <i>deprecated</i> ). 2) See <i>dirt band</i> .
<b>barren ground</b>	Unproductive strata in mines.
<b>basin</b>	A structure in which the strata dip inwards on all sides.
<b>bass, deprecated</b> BAST, <i>deprecated</i>	Carbonaceous shale, or canneloid shale.
<b>basset edge, deprecated</b>	The outcrop of a coal seam.
<b>batt, deprecated</b> BAT, <i>deprecated</i>	A dirt band interstratified with coal or ironstone.
<b>bed</b>	A layer of rock or mineral.
<b>bedding plane</b>	The interface between two adjacent beds of sedimentary rock.
<b>bedrock</b>	The solid rock underlying superficial deposits. See also <i>rockhead</i> .
<b>bind, deprecated</b> BLAES, <i>deprecated</i> BLUE BIND, <i>deprecated</i>	Shale or mudstone occurring in Coal Measures.
<b>bituminous coal</b>	A general term descriptive of coal other than anthracite and low-volatile coal on the one hand and lignite on the other.
<b>blackband ironstone</b>	A bed of ironstone containing sufficient carbonaceous matter to make it self-calcining.
<b>boghead coal</b> TORBANITE	Coal resembling cannel coal in physical appearance and properties, but distinguished microscopically by the presence of the remains of algae.
<b>boulder clay</b>	Glacial clay, generally containing a variety of boulders or pebbles.
<b>brasses</b>	See <i>pyrite</i> .

Term	Definition
<b>brat</b> , <i>deprecated</i>	A thin bed of coal mixed with pyrite or with calcium carbonate.
<b>breccia</b>	A rock consisting of broken angular, unworn fragments held together by a natural cement.
<b>buried channel</b>	An old channel filled and concealed by glacial or other superficial deposits.
<b>burnt coal</b>	Coal altered by heat from an igneous intrusion within or near the seam.
<b>cannel coal</b> CANNEL PARROT, <i>deprecated</i>	Strong, non-banded coal with a satin sheen or wax lustre, showing a conchoidal fracture; distinguished microscopically from boghead coal by the presence of the remains of spores. Generally having high volatile matter content and readily ignitable.
<b>cank</b>	A hard, dark-grey massive, rock consisting largely of ankerite, found in some Coal Measures marine beds.
<b>carbonaceous</b>	Consisting of or containing coal or coal-like material. The term is used especially of shale with particles of such material distributed throughout the mass.
<b>cauldron bottom</b> ,	A concretionary mass surrounded by glossy surfaces and usually occurring in the roof of a coal seam.
<b>china clay</b>	See <i>kaolin</i> .
<b>clay</b> CLOD, <i>deprecated</i>	A rock composed of colloiddally fine complex silicates formed by the natural decomposition of pre-existing rocks.
<b>clay-band ironstone</b> CLAY IRONSTONE, <i>deprecated</i>	Impure argillaceous carbonate of iron occurring in sand-stones and shales, either as definite layers or as nodules.
<b>cleat</b>	Joints in coal more or less normal to the bedding planes.
<b>cleat spar</b>	See <i>ankerite</i> .
<b>cleavage</b>	1) In a crystalline mineral, one or more series of parallel planes along which the mineral tends to split. 2) In a rock, definite parallel closely spaced planes along which it may split, and which may be highly inclined to the bedding planes.
<b>clift</b> , <i>deprecated</i>	A strong, usually silty, mudstone.
<b>clod</b>	1) A relatively thin bed of weak rock immediately overlying a coal seam. 2) See <i>clay</i> .
<b>clunch</b> , <i>deprecated</i>	1) A fine-grained, often clayey, rock which breaks readily into irregular lumps. 2) A bluish hard clay. 3) See <i>seatearth</i> .
<b>coal</b>	A combustible sedimentary rock, formed from variously altered plant remains.
<b>coal balls</b>	Calcareous concretions of mineralized plant debris occurring in certain coal seams.
<b>competent beds</b>	Beds which have physical characteristics such that they respond to tectonic forces by folding and faulting, rather than by crushing and flowing. (Competent beds are relatively strong and incompetent beds relatively weak.)
<b>competent rock</b> , <i>deprecated</i>	A strong rock which may not require support in an excavation.
<b>conglomerate</b> PUDDING STONE, <i>deprecated</i>	A rock consisting of rounded pebbles held together by a natural cement.
<b>connate water</b> FOSSIL WATER, <i>deprecated</i>	Inherent water contemporary with the rock containing it, as opposed to water subsequently permeating the rock.



Term	Definition
<b>correlation</b>	1) The determination of the equivalence in stratigraphical position of beds in separated areas. 2) See <i>Planning and surveying</i> section.
<b>country rock</b>	The rock adjacent to a mineral vein or igneous intrusion.
<b>cover</b>	The vertical distance between any position in the strata and the surface or any other position used as reference.
<b>crop</b>	1) See <i>outcrop</i> . 2) See <i>Winning and working</i> section.
<b>crop coal</b>	Oxidized coal found near the surface.
<b>cross bedding</b>	Laminations, in a bed of sedimentary rock, which are inclined to the general stratification.
<b>FALSE BEDDING</b>	
<b>cross course</b>	A vein or lode which intersects the main productive veins or lodes (sometimes known as cross vein or cross lode).
<b>current bedding</b>	A particular form of cross bedding formed by water or wind.
<b>dicey</b>	A term describing a rock which breaks into small pieces resembling dice.
<b>dip</b>	The inclination of strata to the horizontal. (See Figure 1 and Figure 2.)
<b>PITCH, deprecated</b>	See also <i>apparent dip</i> and <i>full dip</i> .
<b>PLUNGE, deprecated</b>	
<b>dirt band</b>	A layer of rock (e.g. shale or mudstone) in a coal seam.
<b>BAND, deprecated</b>	
<b>dolerite</b>	Dark crystalline igneous rock forming intrusions, e.g. dykes and sills.
<b>GREENSTONE, deprecated</b>	
<b>WHIN</b>	
<b>WHINSTONE</b>	
<b>dolomite</b>	A mineral composed of calcium magnesium carbonate or a rock consisting predominantly of that mineral.
<b>dome</b>	A structure in which the strata dip outwards on all sides.
<b>downthrow</b>	The amount, measured vertically, of downward displacement of beds caused by a fault.
<b>downthrow side</b>	The lower side of a fault.
<b>drift</b>	1) Superficial deposits such as boulder clay, glacial gravel, alluvium, peat, etc. 2) See <i>Winning and working</i> section.
<b>dyke</b>	A more or less perpendicular wall-like igneous mass intruded into other rocks.
<b>evaporites</b>	Rocks, such as anhydrite, rock salt, potash salts, etc. formed by evaporation of lakes or seas.
<b>fakes, deprecated</b>	Sandy shale.
<b>false bedding</b>	See <i>cross bedding</i> .
<b>fault</b>	A plane of fracture in a rock body along which there has been displacement. (See <i>lag fault</i> , <i>normal fault</i> , <i>reverse fault</i> , <i>step faulting</i> , <i>thrust fault</i> , <i>transcurrent fault</i> and <i>trough fault</i> .)
<b>fault breccia</b>	The shattered rock material along a fault plane.
<b>fault drag</b>	Distortion of the bedding which may occur in the vicinity of a fault plane.
<b>fault plane</b>	Any surface along which strata movement has taken place. (See Figure 2 and Figure 5.)
<b>fireclay</b>	A seatearth (q.v.) commercially suitable for making refractories.
<b>fold</b>	A bend in bedded rocks.

Term	Definition
<b>formation</b>	A set of lithologically distinctive beds selected as a convenient unit for mapping and description.
<b>fossil water</b>	See <i>connate water</i> .
<b>freestone</b>	A uniform, fine-grained sandstone or limestone that can be readily sawn and shaped.
<b>full dip</b> <b>TRUE DIP</b>	The maximum angle, measured in a vertical plane, between the plane of a stratum and the horizontal. The vertical section containing the full dip is at right angles to the line of strike. (See Figure 2 and Figure 3.)
<b>gangue</b>	The material of no apparent value associated with valuable minerals in lodes and veins.
<b>ganister</b>	A compact, highly siliceous, sedimentary rock, often containing plant remains.
<b>geohydrology</b>	The study of hydraulics pertinent to the flow of water and similar liquids through soils and rocks.
<b>gossan</b>	The weathered upper part of an ore body in which intensive leaching, oxidation and hydration have occurred.
<b>gouge</b>	Finely abraded material, usually clay, associated with a fault.
<b>graben</b>	See <i>trough fault</i> .
<b>greenstone</b>	See <i>dolerite</i> .
<b>ground water</b>	Water which has penetrated from the surface and filled the pores and fissures of the strata up to the water table.
<b>ground water hydrology</b>	That aspect of hydrology which is concerned with the physical and chemical characters of water and similar liquids found in the ground.
<b>hade</b>	The angle of inclination of the plane of a fault to the vertical. (See Figure 2.)
<b>heave</b>	1) Horizontal displacement of strata measured at right angles to the strike of a fault. (See Figure 2 and Figure 6.) 2) See <i>Winning and working</i> section.
<b>horse (1)</b>	A mass of barren rock within an ore body.
<b>horse (2)</b> <b>HORSEBACK</b>	See <i>roll</i> .
<b>horst</b>	A block of strata that has been displaced upwards between two fault planes. (See Figure 8.)
<b>hydrogeology</b>	Essentially the study of geology pertinent to the character of ground water.
<b>hydrology</b>	The study of the movement of water on and within the earth's crust (cf. <i>hydrogeology</i> ).
<b>igneous rock</b>	A rock formed by solidification from a molten state.
<b>incompetent bed</b>	A bed that is relatively weak in comparison with adjacent beds and which may crush or flow plastically under structural distortion. (See <i>competent bed</i> .)
<b>incrop</b>	A former outcrop concealed by younger unconformable deposits.
<b>inlier</b>	An area of older rocks surrounded by younger rocks (cf. <i>outlier</i> ).
<b>intrusion (1)</b>	A mass of igneous rock which, while molten, was forced into or between other rocks.
<b>intrusion (2), deprecated</b>	A mass of sedimentary rock occurring in a coal seam.
<b>ironstone</b>	A rock containing a substantial proportion of an iron compound.
<b>isopachyte</b> <b>ISOPACH</b>	A line drawn on a map connecting all points at which a selected stratum, or a series of strata, has the same thickness.

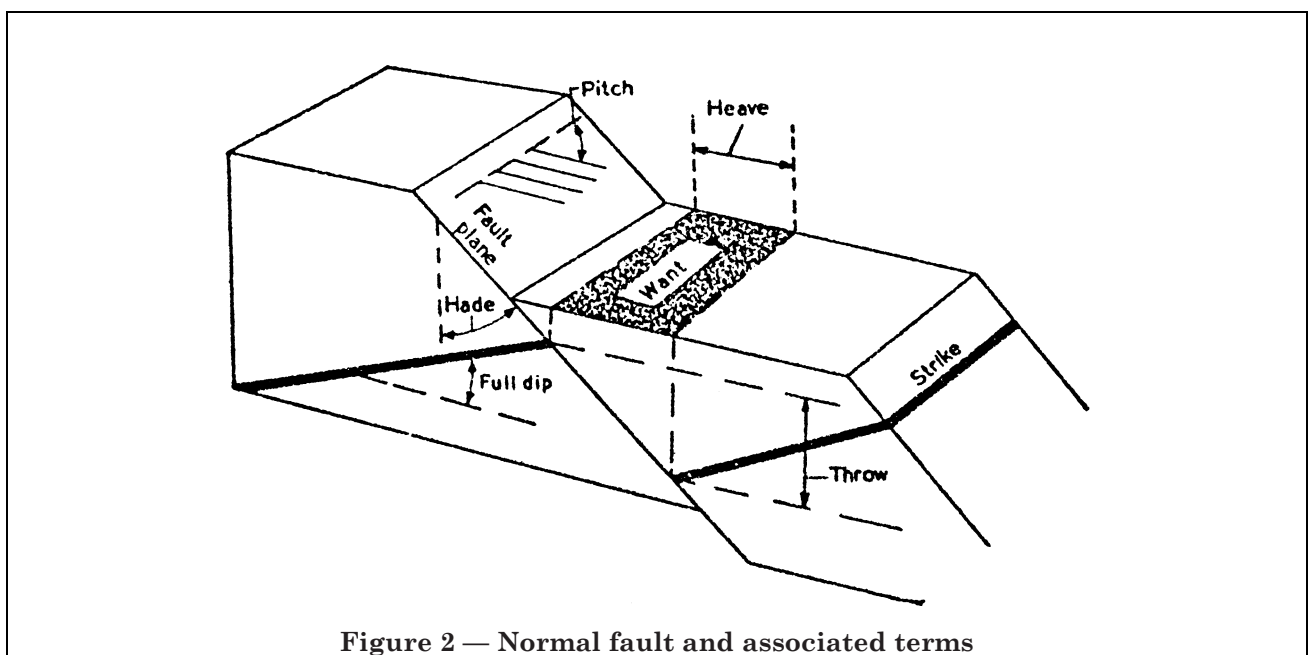
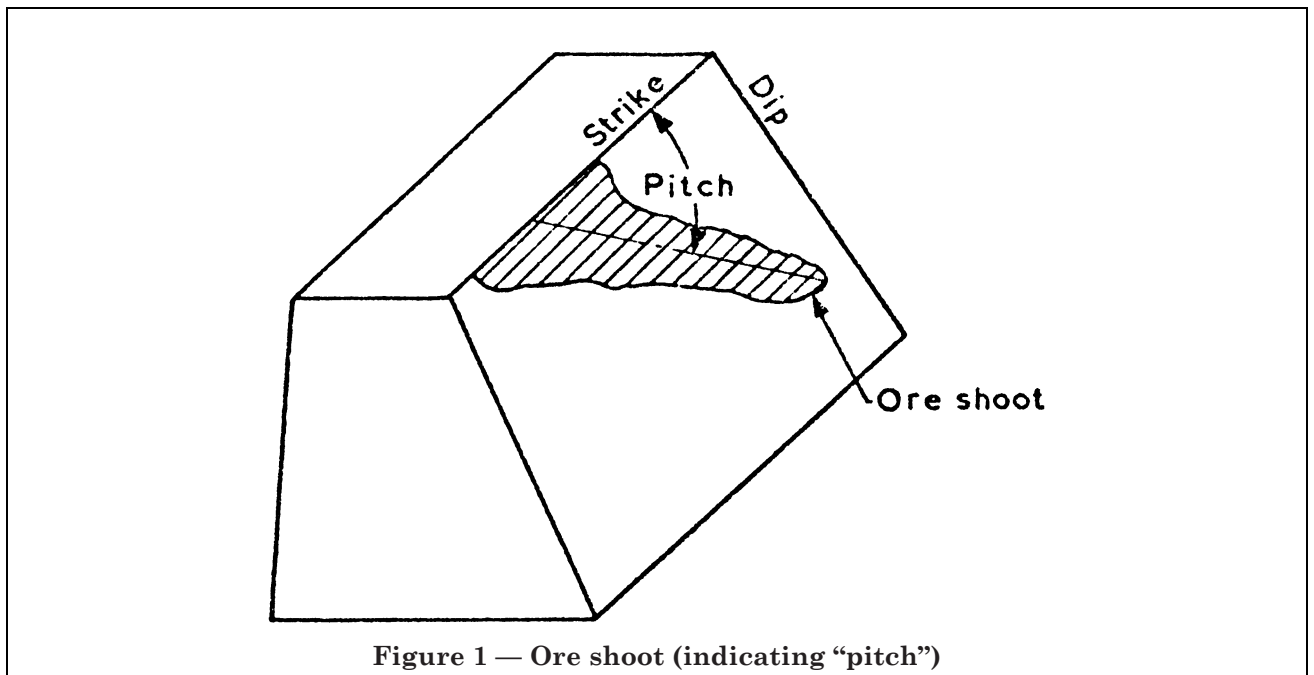
Term	Definition
<b>joints</b>	Cracks or fissures intersecting a mass of rock, often occurring in two sets of parallel planes. Joints are usually more or less at right angles to the bedding planes.
<b>kaolin</b> CHINA CLAY	White, or nearly white, clay of various origins including the decomposition of felspar.
<b>lag fault</b>	A normal fault having a high angle of hade. (See Figure 5.)
<b>lignite</b>	Coal of low rank with a high inherent moisture and volatile matter; in this general sense, lignite may be sub-divided into black lignite, brown lignite and brown coal.
<b>limestone</b>	Rock consisting predominantly of calcium carbonate.
<b>listric</b>	1) Descriptive of rock surfaces that are polished, but not striated as in slickensides. 2) A particular form of thrust plane.
<b>lithology</b>	The character of a rock expressed in terms of its mineral composition, structure, grain size and arrangement of its component parts.
<b>lode</b>	See <i>vein</i> .
<b>marine band</b> MARINE BED	A bed which contains marine fossils.
<b>marl</b>	A calcareous clay or mudstone.
<b>matrix</b>	The finer grained material between the larger particles of a rock or the material surrounding a fossil or mineral.
<b>measures</b>	A series of beds or strata; a term now generally limited to rocks within the Coal Measures.
<b>metal, deprecated</b> ( <i>obsolescent</i> )	Any hard rock.
<b>metamorphic rock</b>	Rock which has been altered by the action of heat, pressure, or migrating fluids, acting separately or together.
<b>mine</b>	1) See <i>Winning and working</i> section. 2) In certain coalfields, a coal seam ( <i>deprecated</i> ). 3) Any mineral or ore, especially ironstone or coal ( <i>deprecated</i> ).
<b>mineral</b>	1) A naturally occurring inorganic substance having definite chemical and physical properties. 2) A substance of economic value obtained by mining.
<b>monocline</b>	A fold formation in which the strata, after local steepening, resume their original inclination. (See Figure 7.)
<b>mudstone</b>	An indurated sedimentary rock consisting largely of clay minerals, with little or no fissility.
<b>mussels</b>	Loose term for fossil non-marine shells (such as <i>Carbonicola</i> , <i>Naiadites</i> ).
<b>nip out</b> PITCH OUT, <i>deprecated</i>	Local thinning or disappearance of a coal seam due to tectonic movement.
<b>normal fault</b>	A fault which hades towards the downthrow side. (See Figure 2.)
<b>ore</b>	A solid, naturally occurring mineral aggregate of economic interest from which one or more valuable constituents may be recovered by treatment.
<b>ore shoot</b>	A concentration of primary ore forming a significant and fairly discrete ore body, frequently elongated in form, or an enriched aggregation of mineral in a vein. (See Figure 1.)
<b>outcrop</b> CROP, <i>deprecated</i>	The area where a bed emerges at the surface, any cover of soil being ignored.

Term	Definition
<b>outlier</b>	An area of younger rocks surrounded by older rocks (cf. <i>inlier</i> ).
<b>overburden</b>	Material, whether consolidated or not, which has to be removed before a mineral can be worked.
<b>overlap (1)</b>	The extension of a bed beyond underlying conformable beds.
<b>overlap (2), deprecated</b>	1) A reverse fault or thrust. 2) The heave of a reverse fault.
<b>overthrust</b>	See <i>thrust fault</i> .
<b>palaeontology</b>	The study of fossils.
<b>parrot</b>	See <i>cannel coal</i> .
<b>parting</b>	1) A plane, usually parallel to the bedding, at which a bed readily separates. 2) A very thin bed of rock in a coal seam.
<b>peldon, deprecated</b>	Local name for a very hard sandstone in the Coal Measures.
<b>Pennant sandstone</b>	A type of sandstone common in the upper Coal Measures of South Wales and Bristol.
<b>perched water</b>	Water lodged over an impervious stratum of restricted dimensions at a higher level than the water table.
<b>petrology</b>	The study of the origin, chemical and mineral composition, structure, and alteration of rocks.
<b>pinch out</b>	See <i>nip out</i> .
<b>pitch</b>	1) The angular inclination, measured in relation to the direction of the strike, of the axis of any feature in a known plane. (See Figure 1 and Figure 2.)
<b>PLUNGE, deprecated</b>	2) See <i>dip</i> .
<b>placer</b>	A mineral deposit of economic interest which has been physically concentrated in a sediment through transportation or sorting by natural surface water movement.
<b>plunge</b>	1) The inclination of the crest of an anticline or the trough of a syncline.
<b>PITCH, deprecated</b>	2) See <i>dip</i> .
<b>post, deprecated</b>	A local name for a thick bed of sandstone or limestone.
<b>pudding stone</b>	See <i>conglomerate</i> .
<b>pyrite</b>	Iron sulphide; a hard yellow mineral found in some coal seams, mudstones, etc.
<b>PYRITES, deprecated</b>	
<b>BRASSES, deprecated</b>	
<b>rake, deprecated</b>	1) Shale containing ironstone nodules. 2) A series of beds of clay-band ironstone lying in proximity to one another, making a workable ironstone.
<b>rake vein</b>	A steeply inclined metalliferous lode or vein.
<b>rank</b>	The position of a coal relative to other coals in the coalification series from brown coal (low rank) to anthracite (high rank), indicating its maturity in terms of its general chemical and physical properties.
<b>rashings</b>	1) Carbonaceous shale with coal streaks.
<b>RASHES, deprecated</b>	2) Soft shale, normally carbonaceous; often associated with coal seams and containing sheared coal fragments.
<b>reverse fault</b>	A fault which hases towards the upthrow side. (See Figure 9.)
<b>rider</b>	A thin seam overlying a thicker seam.
<b>rock (1)</b>	A mass of mineral material, including organic material, either consolidated or not, but excluding soil.

Term	Definition
<b>rock (2)</b> , <i>deprecated</i>	In mining the term is restricted to consolidated deposits, especially when hard, e.g. sandstone.
<b>rockhead</b>	The boundary between superficial deposits (or drift) and the underlying solid rock.
<b>roll</b>	A local thickening of roof or floor strata, accompanied by thinning of a coal seam.
<b>HORSE</b>	
<b>HORSEBACK</b>	
<b>rootlet bed</b>	See <i>seatearth</i> .
<b>sandstone</b>	A bedded rock composed of grains of sand, principally of quartz, cemented naturally together.
<b>seam</b>	A layer or bed of mineral; generally applied to coal.
<b>seatclay</b>	See <i>seatearth</i> .
<b>seatearth</b>	A bed representing old soil, usually containing abundant rootlets, underlying a coal seam. (See also <i>fireclay</i> .)
<b>CLUNCH</b> , <i>deprecated</i>	
<b>FIRECLAY</b> , <i>deprecated</i>	
<b>ROOTLET BED</b> , <i>deprecated</i>	
<b>SEATCLAY</b> , <i>deprecated</i>	
<b>SEGGAR</b> , <i>deprecated</i>	
<b>WARRANT</b> , <i>deprecated</i>	
<b>sedimentary rock</b>	A rock formed from materials derived from the weathering of previously existing rock masses.
<b>seggar</b> , <i>deprecated</i>	See <i>seatearth</i> .
<b>shale</b>	A fissile indurated sedimentary rock consisting largely of clay minerals.
<b>shell bed</b>	A bed containing abundant fossil shells.
<b>sill</b>	1) An intrusive sheet of igneous rock parallel or nearly parallel to the general stratification. 2) See <i>Strata control</i> section.
<b>silt</b>	A fine-grained sediment having a particle size intermediate between that of fine sand and clay.
<b>siltstone</b>	A consolidated silt.
<b>slickenside</b>	A polished and striated surface on a fault plane.
<b>slide</b>	A fault intersecting beds at an acute angle, with the same direction of dip and hade.
<b>slips</b>	1) Small faults. 2) Pronounced backs (q.v.), commonly found in the South Wales coalfield.
<b>slump bedding</b>	Disturbed strata interbedded between undisturbed strata, caused by flow of newly deposited sediment.
<b>SLURRY BEDDING</b>	
<b>smut</b>	A thin band of soft, inferior coal.
<b>solid deposits</b>	Rocks other than drift deposits. [See <i>drift</i> 1).]
<b>splint or spleat coal</b>	Hard coal with a dull lustre and uneven fracture.
<b>step faulting</b>	The progressive displacement of the strata between faults which hade and throw in the same direction.
<b>stockwork</b>	A network of numerous interlacing small veins of ore, or a solid mass of ore, distinguished from tabular deposits by being irregular in shape and of considerable thickness in relation to plan dimensions.
<b>stratum (pl. strata)</b>	A single bed or layer of rock.
<b>strike</b>	The direction of a horizontal line in the plane of an inclined stratum, joint, or other structural plane. (See Figure 2 and Figure 3.)

Term	Definition
<b>stringer</b>	1) A narrow mineralized veinlet, often of simpler mineralogy than the major veins. 2) A thin layer of coal at the top or bottom of a seam but separated from it by material similar to that comprising the main roof or floor.
<b>structure contours</b> STRATUM CONTOURS	Contours of a selected bed, which indicate the physical form of that bed.
<b>superficial deposits</b> SURFACE DEPOSITS	The most recent deposits, generally unconsolidated (e.g. moss, peat, sand, gravel, silt, mud, etc.) lying above the rockhead.
<b>syncline</b>	A trough-like fold in stratified rocks.
<b>tear fault</b>	See <i>transcurrent fault</i> .
<b>tectonics</b>	The study of the structures resulting from deformation of the earth's crust.
<b>throw</b>	The amount of vertical displacement caused by a fault. (See Figure 2.)
<b>thrust fault</b> OVERTHRUST	A reverse fault having at a high angle. (See Figure 6.)
<b>tonstein</b>	A thin bed similar in composition to china clay, characteristically developed in certain coal seams and seathearts and which may be used for correlation.
<b>torbanite</b>	See <i>boghead coal</i> .
<b>transcurrent fault</b> TEAR FAULT TRANSVERSE FAULT WRENCH FAULT	A fault resulting from movement that is essentially horizontal along the face of the fault, the plane of fracture being vertical or approximately so.
<b>trough fault</b> GRABEN	A block of strata that has been displaced downwards between two fault planes. (See Figure 4.)
<b>true dip</b>	See <i>full dip</i> .
<b>tuff</b>	Compacted fine volcanic ash and dust.
<b>unconformity</b>	A substantial break in the continuity of deposition, where one rock formation is overlain by another that is not the next in geological succession.
<b>unconsolidated strata</b>	Rocks consisting of loosely coherent or uncemented particles, whether occurring at the surface or at depth.
<b>upthrow</b>	The amount, measured vertically, of upward displacement of beds caused by a fault.
<b>upthrow side</b>	The higher side of a fault.
<b>vein (1)</b> LODE	A mineral body, thin in relation to its other dimensions, which cuts across the bedding and in which the minerals are later than the country rock.
<b>vein (2)</b>	A term sometimes used for a bed; e.g. a coal seam or a bed of slate.
<b>want</b>	1) An area in which a bed, usually a coal seam, is missing due to the presence of a normal or a lag fault. 2) A localized disappearance of a coal seam, for reasons other than faulting; e.g. washouts, squeeze and rolls.
<b>warrant, deprecated</b>	See <i>seatearth</i> .
<b>washout (1)</b>	Local thinning or disappearance of a coal seam due to erosion during or shortly after its formation.
<b>washout (2), deprecated</b>	Local thinning or disappearance of a coal seam due to tectonic movement. (See <i>nip out</i> .)

Term	Definition
<b>washout (2)</b> , <i>deprecated</i>	Local thinning or disappearance of a coal seam due to tectonic movement. (See <i>nip out</i> .)
<b>whin</b>	See <i>dolerite</i> .
<b>WHINSTONE</b>	
<b>wrench fault</b>	See <i>transcurrent fault</i> .
<b>zone</b>	A group of beds characterized by the presence of one or more specific fossils, i.e. the zonal fossil or fossils.



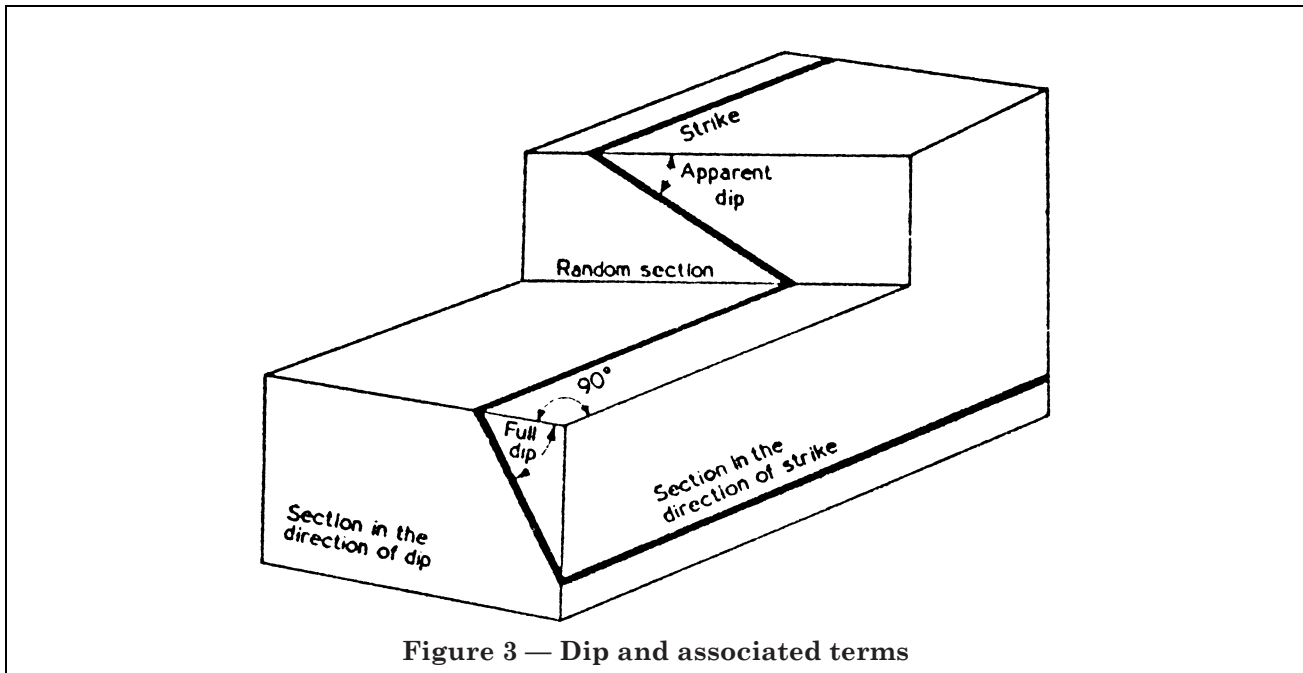


Figure 3 — Dip and associated terms

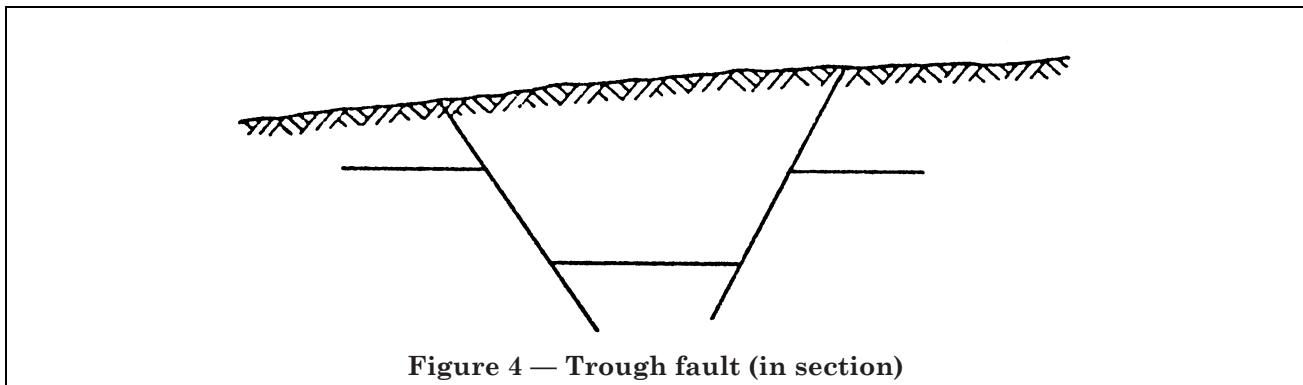


Figure 4 — Trough fault (in section)

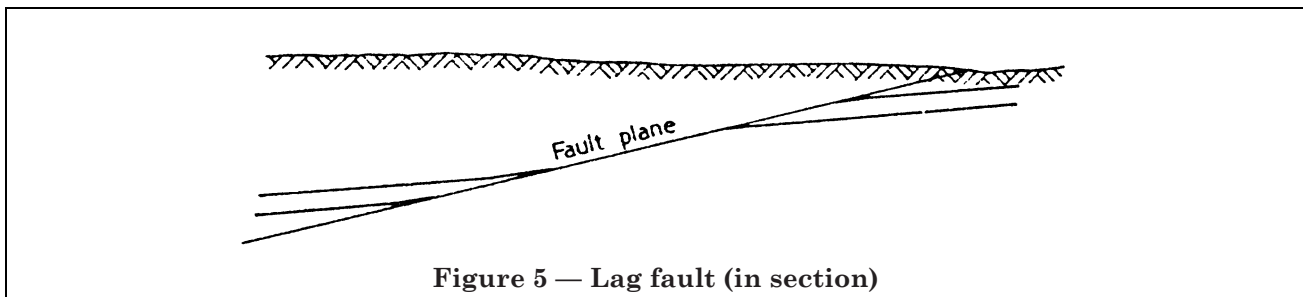


Figure 5 — Lag fault (in section)



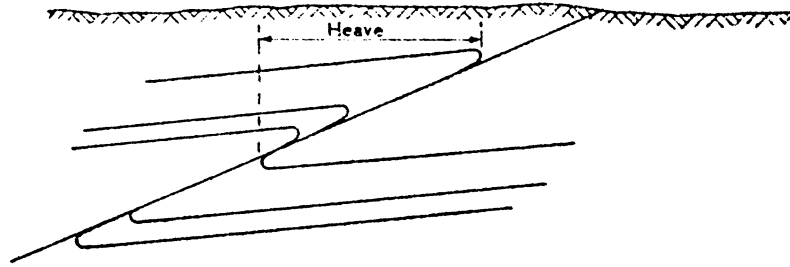


Figure 6 — Thrust fault or overthrust (in section)

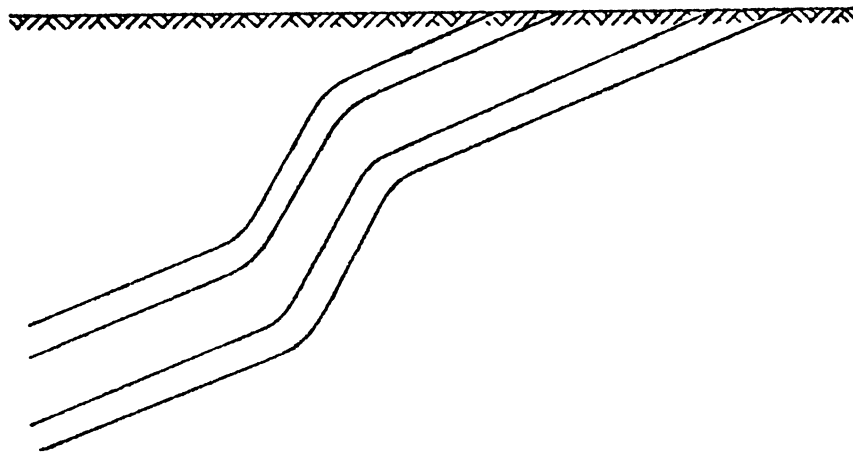


Figure 7 — Monocline (in section)

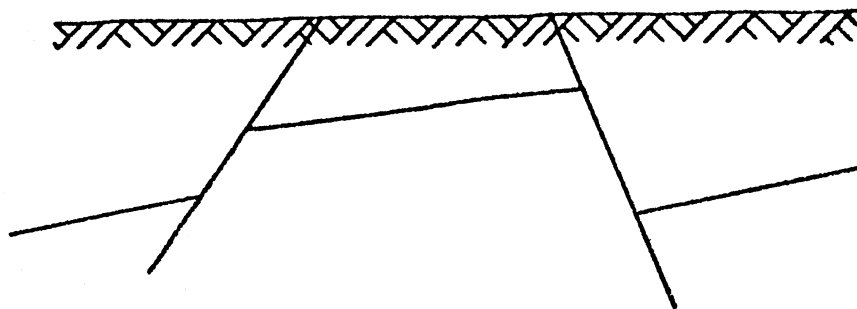


Figure 8 — Horst (in section)

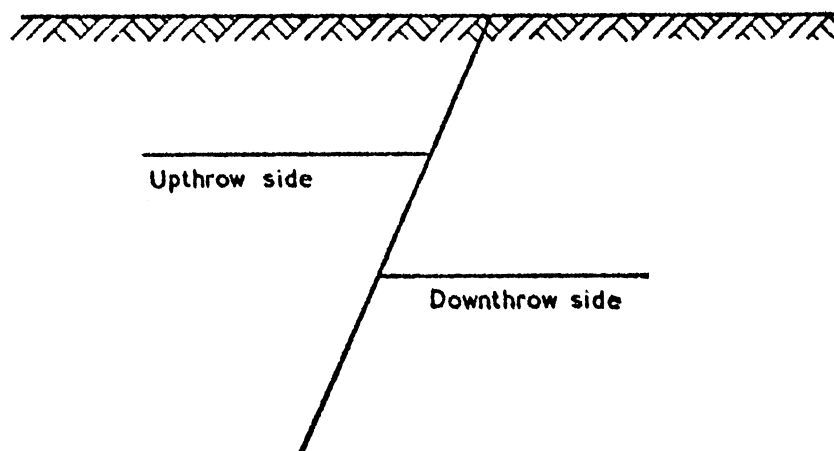


Figure 9 — Reverse fault (in section)



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