



Government of **Western Australia**  
Department of **Mines and Petroleum**

# Spelling and other useful stuff 2015–16



**Geological Survey of  
Western Australia**



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# Spelling and other useful stuff

This guide contains an alphabetical list of selected style points and the spelling, punctuation and abbreviation styles preferred by the Geological Survey of Western Australia (GSWA). The purpose of this guide is to promote consistency in GSWA publications and to avoid repetitious decision making. Use the Glossary of geology (5th edition) 2011, for spelling of geological terms not listed in this guide.

## A

### **AAPG**

American Association of Petroleum Geologists

### **a/an**

Use ‘a’ before words that start with a consonant sound and ‘an’ before words that start with a vowel sound, e.g. a horizon, an hour, a hotel

### **abbreviation of elements**

Use only in compound words or as adverbs where they are commonly accepted, e.g. ‘Ca-metasomatism’, ‘K-feldspar’

### **Aboriginal people**

Do not use ‘Aborigines’

### **about, approximately, in the order of**

‘About’ is nearly always better, but use ‘approximately’ if fairly accurate figures are being given or when in brackets, e.g. (~15%). ‘In the order of’ should be used only with an established order of intensity, magnitude, or velocity — it should not be substituted for ‘about’

### **acid/acidic**

Adjective used in igneous petrology for a rock with >63 wt% SiO<sub>2</sub> (cf. ‘basic’, ‘intermediate’, ‘ultrabasic’); synonymous with ‘silicic’; not synonymous with ‘felsic’, ‘sialic’. Do not use it together with ‘mafic’ or ‘ultramafic’ when making petrologic comparisons

### **acknowledgements**

Mostly confined to external people or companies who have significantly contributed to the manuscript. If an author feels a GSWA colleague’s contribution was significant, co-authorship, or at least ‘With a contribution from ...’ should be considered

### **across-strike**

<b>Act</b>	Use italics for acts, e.g. The <i>Mining Act 1978</i>
<b>affiliations</b>	For example, format as: ‘Geological Survey of South Australia, PO Box 1264, Adelaide SA 5001’. When listing international affiliations add the country at the end
<b>AFTA</b>	Apatite fission track analysis
<b>AFTD</b>	Apatite fission track data
<b>age</b>	Time at which event occurred, interpreted using geological information and dates. Do not use when reporting an analytically determined value. See <b>date</b>
<b>age dating</b>	Do not use. Use ‘isotopic dating’ or ‘geochronology’
<b>age reference</b>	Use: ‘of Ordovician age’ not ‘Ordovician age’
<b>AGSO</b>	Australian Geological Survey Organisation (former term; now Geoscience Australia, GA)
<b>alternate/alternative</b>	To ‘alternate’ is to take turns; an ‘alternative’ is an option, e.g. Google+ is an alternative to Facebook; heavy showers alternated with brief intervals of sun
<b>approximately</b>	See <b>about</b> . Do not use ‘circa’ for anything other than dates
<b>aeolian</b>	Archaic; use ‘eolian’
<b>affect</b>	A verb; do not confuse with the noun ‘effect’
<b>AHD</b>	Australian Height Datum
<b>aircore</b>	
<b>airphoto</b>	Alternative to ‘aerial photograph’
<b>algal</b>	Do not use when meaning is ‘cyanobacterial’, ‘microbial’, or ‘stromatolitic’, e.g. ‘microbial limestone’, ‘cyanobacterial mat’. See also <b>blue-green algae</b>
<b>Albany–Fraser Orogen</b>	With en dash
<b>alkalis</b>	
<b>along-strike</b>	As an adjective but ‘along strike’ when not attributive
<b>although</b>	Use instead of ‘but’

<b>AMD</b>	Acid mine drainage
<b>among, amongst</b>	Use ‘among’
<b>AMSL</b>	Above mean sea level
<b>amygdales</b>	Preferable to ‘amygdules’
<b>a number of</b>	Avoid. Use ‘rare’, ‘a few’, ‘several’, ‘common’, ‘many’ or ‘abundant’
<b>analyse</b>	
<b>and/or</b>	Avoid. ‘Or’ or ‘and’ alone may suffice to make the meaning clear; ‘or both’ may be added
<b>and others</b>	For references, use ‘et al.’
<b>ANSIR</b>	Australian National Seismic Imaging Resource
<b>aphyric</b>	Refers to a rock that contains no visible phenocrysts
<b>API</b>	American Petroleum Institute (gravity measurement of oil)
<b>appear to be</b>	Avoid; use ‘appear’
<b>appendices</b>	
<b>ARC Linkage project</b>	
<b>Archean</b>	Preferred usage following the ICS-IUGS (International Commission on Stratigraphy and International Union of Geosciences) international stratigraphic chart 2014. Older than 2500 Ma. Neoproterozoic (2800–2500 Ma), Mesoproterozoic (3200–2800 Ma), Paleoproterozoic (3600–3200 Ma), Eoproterozoic (4000–3600 Ma), Hadaean (4540–4000 Ma) replace informal use of ‘early’ and ‘late’
<b>are indications of</b>	Avoid; use ‘indicate’
<b>arenite</b>	Use only for sandstone unit with <10% matrix. Not synonymous with ‘sandstone’
<b>argillite</b>	Avoid; use ‘siltstone’ or ‘mudstone’
<b>artefact</b>	Preferable to ‘artifact’
<b>as a result of</b>	Avoid; use ‘because’
<b>ASCII</b>	American Standard Code for Information Interchange



## B

**back-arc**

**backreef**

**backshore**

**back-to-back (attrib.)**

**ball-and-pillow structure(s)**

**banded iron-formation** 'Iron formation' on its own is not hyphenated

**barite**

**base metals,  
base metal deposit** Institutionalized phrase so no need to add hyphens in compound modifier

**basic** Adjective used in igneous petrology for a rock with  $45 < \text{SiO}_2 < 52$  wt% (cf. 'acidic', 'intermediate', 'ultrabasic'; not synonymous with 'mafic' or 'femic')

**Basin** Capitalized when a named basin or basins, i.e. Perth Basin, Edmund and Collier Basins

**batholith** Use lower case in a unit name; 'batholith' is a structural, not a stratigraphic, term

**beach ridge**

**beachrock**

**bedding plane** But 'bedding-plane view'

**bedform**

**bedrock**

**beds** Not acceptable in a formal name as 'beds' or 'Beds'. If necessary, upgrade the unit to a formal name (with definition, type section). For regolith maps where mapping isn't done, use the lower case 'beds' instead, with quotation marks

**below-ground (adj.)**

**belt** All belts are in lower case, e.g. Yandal greenstone belt, Whim Creek greenstone belt. See **fold belt**

**benefitting**

<b>BGS</b>	British Geological Survey
<b>BIF</b>	Preferred to ‘banded iron-formation’ where its use is repeated in a text, unless it is used in a less scientific article
<b>billion years</b>	Use for expressing interval of time. For dates, use ‘Ga’ in preference to 10 <sup>9</sup> years
<b>black-and-white banded chert</b>	
<b>blowout</b>	
<b>blue-green algae</b>	Do not use when ‘cyanobacteria’ is meant (previously ‘blue-green algae’). Unless the meaning is specific, use ‘microbial’
<b>bluish-green</b>	But not hyphenated when modified by an adverb, e.g. ‘pale bluish green’, ‘dark blue green colour’
<b>BMR</b>	Bureau of Mineral Resources (subsequently Australian Geological Survey Organisation, AGSO, now Geoscience Australia, GA)
<b>bore</b>	May be used as a synonym for ‘borehole’, or to refer to borehole and surface pumping equipment
<b>boresite</b>	
<b>borehole</b>	
<b>borehole line</b>	Do not use ‘boreline’
<b>bottomhole</b>	
<b>BP</b>	Before present
<b>braided deltas</b>	
<b>breakup</b>	
<b>brownfields</b>	
<b>bureaus</b>	
<b>but</b>	Avoid; use ‘although’
<b>byproduct</b>	

## C

<b>c.</b>	Abbreviation of ‘circa’ (not ca); applicable only to dates that are not precise (e.g. c. 2680 Ma; use 2.7 Ga if still less precise). Not to be used for other units of measurement and not a synonym for ‘approximately’. Always has a space after, not italicized
<b>Ca-metasomatism</b>	
<b>Cainozoic</b>	Archaic; use ‘Cenozoic’
<b>calc-alkaline</b>	An adjective, not a noun, e.g. ‘calc-alkaline rock’
<b>calc-silicate</b>	An adjective, not a noun, e.g. ‘calc-silicate rock’
<b>cannot</b>	Do not use ‘can not’
<b>caprock</b>	
<b>carbon-14</b>	
<b>CBL</b>	Cement-bond log
<b>CD-ROM</b>	
<b>central Australia</b>	
<b>Cenozoic</b>	Comprises Paleogene+Neogene+Quaternary; does not replace Tertiary. Quaternary will continue to be used by GSWA, to encompass the Holocene and Pleistocene until international usage is clarified
<b>centre line</b>	
<b>CET</b>	Centre for Exploration Targeting
<b>cf.</b>	Means ‘compare’
<b>channel-fill deposit(s)</b>	
<b>chemical symbols</b>	Spell out chemical name in text, e.g. ‘the rock is calcium rich’, but use symbols with chemical assays, e.g. ‘65 ppm Sr’
<b>chondrite-normalized</b>	
<b>CID</b>	Channel iron deposits (institutionalized phrase)
<b>clast-supported (adj.)</b>	
<b>claypan</b>	

**cliff-foot slope**

**coalfield**

**coarse clastic conglomerate**

**coarsening-upward**

An adjective, not a noun, e.g. ‘coarsening-upward unit’, but ‘a unit coarsens upward’

**coastline**

Avoid; use ‘coast’. Exception is for phrases that describe the line on a map ‘the coastline on ROEBOURNE...’

**co-fund**

**co-mingle**

**columnar-jointed lava flow**

**comagmatic**

**commonly**

Refers to something that is common in a spatial sense, e.g. ‘elongate and locally flat pebbles are commonly aligned’. Do not use ‘frequently’ (see **time words**)

**company names**

Can omit Pty Ltd or NL in text after first mention if it does not create confusion, but in references need to cite correct name

**compare**

Use ‘compare to’ when suggesting similarity of one thing to an unlike other, e.g. comparing a basalt to a sandstone. Use ‘compare with’ when estimating degrees of similarity between entities of the same kind, e.g. this granite with that granite. The book ‘Right Words’ by Stephen Murray-Smith puts it nicely ‘...in other words, use “compare with” if an argument is involved, “compare to” if no argument is intended.’

**compass directions**

North-northeast, not north-north-east or NNE; also 285°, not N75°W (see also ‘dip and strike’). Do not use superfluous directions in terms such as ‘east–west dykes’, ‘northeast–southwest faults’, etc. The preference is ‘easterly trending dykes’ or ‘northeast-trending faults’. An exception is north–south compression, or tension. Avoid **hanging hyphens** if possible, e.g. ‘east-northeast- and northeast-dipping strata’ can be written ‘east-northeasterly and

northeasterly dipping strata’, but ... ‘fine- to coarse-grained sandstone’. ‘North-northeasterly trending’ to avoid two or three hyphens. Use ‘east-southeast to west-northwesterly trending’

**comprise**

This verb is never followed by the preposition ‘of’; it is synonymous with ‘consists of’ and is not synonymous with ‘contain’ or ‘include’. Correct usage of ‘comprise’ is in the sense that the whole comprises the parts not the other way round, e.g. ‘The pegmatite comprises quartz, feldspar, mica, and tourmaline’

**concave-up**

**conglomeratic**

Do not use ‘conglomeritic’

**conodont colour-alteration index**

**conventional**

Allowed, although avoid in the context of conventional hydrocarbons (do not use **unconventional**)

**convex-up**

**cooperation**

**coordinates**

See **Latitude and longitude** and **MGA coordinates**

**coordination**

**coprecipitate**

**core (or drillcore)**

Always use in the singular sense, not as a plural, e.g. ‘The core contains free gold’

**core library**

The formal name of the Kalgoorlie core library is the ‘JH (Joe) Lord Core Library’. Can use ‘Joe Lord Core Library’ in promotional and advertising material. The formal name for the Carlisle facility is the Perth Core Library

**core-stone**

**country rock**

**CRC LEME**

Cooperative Research Centre for Landscape Environments and Mineral Exploration

**crop out**

Avoid; use ‘outcrop’, or ‘are exposed’

<b>cross-beds, cross-bedding, cross-bedded</b>	
<b>crosscut</b>	
<b>cross-folds</b>	
<b>crossplot</b>	
<b>cross-section</b>	
<b>cross-lamination, cross-stratification</b>	
<b>crossed nicols/polars</b>	But cross-polarized light; see <b>plane-polarized light</b>
<b>crude oil sample</b>	
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation
<b>CSV file</b>	Comma separated values file
<b>currency</b>	Use ‘A\$’ as recommended by the Reserve Bank of Australia; US\$
<b>Curtin University</b>	Replaces ‘Curtin University of Technology’
<b>cutoff</b>	
<b>cyanobacteria</b>	Prefer ‘microbial organisms’ — less specific term

## D

**dam site**

**data** Plural (i.e. ‘data are’, ‘These data show’)

**databank**

**database**

**data points**

**dataset**

**date** Isotopically determined dates may include an uncertainty and be written thus,  $2683 \pm 7$  Ma. An analytically determined estimate of age (applies to one analysis ‘point’ or sample, e.g. ‘The sample yielded a U–Pb date of 2870 Ma’). See **age**. Most dates are determined using isotopic systems, and the specific decay system involved should be written with an en dash (U–Pb date,  $^{40}\text{Ar}$ – $^{39}\text{Ar}$  date). A forward slash is used to refer to specific isotope ratios ( $^{238}\text{U}/^{206}\text{Pb}$ ,  $^{207}\text{Pb}/^{206}\text{Pb}$ )

**dated** Use ‘dated at ...’ not ‘dated to ...’

**DEC** Department of Environment and Conservation, now Department of Parks and Wildlife (DPaW)

**decision maker**

**department, the** When referring to DMP

**depth to basement**

**diamond drillcore** For core material obtained through a diamond drillbit; not ‘diamond core’

**different** Use ‘different from’; do not use ‘different to’ or ‘different than’

**dip and strike** Use  $35^\circ$  for dip (and specify the dip direction —  $35^\circ\text{N}$ ); use  $045^\circ$  instead of  $45^\circ\text{NE}$  for strike

**disk**

**distinguish between** Avoid; use ‘distinguish’

**DMP** Do not use ‘the DMP’

**domal** Avoid; use ‘domed’ or ‘domical’

**dome-and-basin**

**domical–columnar**

**double letters**

Use ‘focusing’, ‘faceted’, ‘targeted’ but ‘benefitting’, ‘formatting’

**downdip**

**down-faulted (adj.)**

**downhole**

**download**

**down-plunge**

**downsection**

**downthrown**

**downwarp**

**DPaW**

Department of Parks and Wildlife

**drillbit**

Can use ‘diamond bit’

**drill chips**

**drillcore**

**drillhole**

**drillstring**

**drillsite**

**dry-gas generating**

**dumbbell**

**dunefield**

**dyke**

# E

e.g.

**Early/Late v. Lower/Upper** Early/Late are time terms, e.g. ‘...fossils of Early Jurassic age’ and are therefore associated with eras, periods and epochs. Lower/Upper are time-rock (chronostratigraphic) adjectives and used with systems, series and stages to indicate their place in the geological column. As the Glossary of Geology puts it, ‘Lower Jurassic rocks are of Early Jurassic age’. Upper Devonian (rocks or strata thereof) may well be missing in a succession, but the Late Devonian is never absent. That period must, of course, have existed, and in this example is represented by the hiatus. Use capitals only if the periods are formally divided (e.g. there is no Late Proterozoic and no Middle Cretaceous)

**Earth**

**earthfill**

**Eastern Goldfields**

But ‘northern Eastern Goldfields’ or ‘NE Goldfields’

**Ediacaran Period**

635–541 Ma, part of the Neoproterozoic

**effect**

A noun; do not confuse with the verb ‘affect’

**EIS**

Exploration Incentive Scheme

**elements**

Can use symbols (Au) as nouns but not as adjectives

**email**

**en echelon**

Do not italicize

**end-member**

**end-product**

**enquire**

Avoid; use ‘inquire’

**ENS**

Explanatory Notes System

**Eoarchean**

See **Archean**

**aeolian**

Not ‘aeolian’

**epidotitic**

Preferable to ‘epidotic’

**EPIRB**

Emergency Position Indicating Radio Beacon



# F

<b>FAD</b>	First appearance datum
<b>farm out</b>	
<b>farm in</b>	But ‘farm-in’ partner
<b>farther</b>	Refers to length or distance as the comparative of ‘far’. Use when describing physical distance, e.g. How much farther? See also <b>further</b>
<b>feldspar</b>	
<b>feldspar-phyric</b>	See also <b>K-feldspar-phyric</b>
<b>feldspar porphyritic rhyolite</b>	
<b>felsic</b>	A mnemonic adjective for feldspar + feldspathoid + quartz; applied to igneous rocks. Refers to the modal mineralogy only (cf. ‘mafic’, ‘ultramafic’; not a synonym for ‘acidic’ or ‘salic’)
<b>ferromagnesian</b>	Should apply only to minerals, not rocks (use ‘mafic’). Not synonymous with ‘mafic’
<b>few</b>	For countable entities, use ‘fewer’ not ‘less’
<b>field guide</b>	
<b>field map</b>	
<b>fieldwork</b>	
<b>(Fig. 1)</b>	Abbreviated as shown when in parentheses. Note ‘Figs’ has no full stop in text or in parentheses, e.g. ‘Figs 1, 2’
<b>Figure 1</b>	In full in body text and in figure captions (where it is followed by a full stop). When referring to a figure or table in another publication, this distinction is conveyed by using a lower case ‘f’ or ‘t’
<b>fine-grained sandstone</b>	But ‘The sandstone is fine grained’. See also <b>very fine grained sandstone</b>
<b>fining-downward</b>	Prefer ‘coarsening-upward’

<b>fining-upward fining-upward sequence</b>	But the succession fines upward (sedimentary successions more commonly fine upward than downward; prefer ‘fining upward’)
<b>first vertical derivative</b>	1VD
<b>fission-track (adj.)</b>	
<b>flat-lying</b>	
<b>flood-out</b>	
<b>floodplain</b>	
<b>floodwater</b>	
<b>flow banding</b>	But ‘flow-banded lava’
<b>flow breccia</b>	
<b>flow-foliated lava</b>	
<b>fluvio-deltaic (adj.)</b>	
<b>fluvioglacial</b>	
<b>fluviolacustrine</b>	
<b>focused, focusing</b>	
<b>fold belt</b>	Lower case except where formalized, e.g. Edmund Fold Belt
<b>follow-up (adj.)</b>	‘Follow-up sampling’
<b>follow up (noun)</b>	‘Follow up was recommended’
<b>footslope</b>	
<b>footwall</b>	
<b>for a period of</b>	Avoid; use ‘for’
<b>fore-arc</b>	
<b>foredune</b>	
<b>foreset</b>	
<b>foreshore</b>	
<b>formatting</b>	
<b>found</b>	Avoid ‘The rocks are found at...’. Rephrase as ‘The rocks are exposed at...’. Or, for example, use ‘defined’, ‘recorded’, ‘are’, ‘are developed’



## G

**gamma-ray log**

**GA**

Geoscience Australia

**Ga**

Abbreviation for years  $\times 10^9$  (giga annus or billion years). Can also be used to refer to an interval of time

**gas chromatography**

But ‘gas-chromatography parameters’

**gasfield**

**gas-prone rock**

**gave rise to**

Avoid; use ‘led to’ or ‘caused’

**GDP**

Gross domestic product

**generally**

Refers to something that is extensive but not universal, e.g. ‘The area is generally covered by colluvium’. In scientific writing, the term is superfluous or can be replaced with a more specific term, e.g. ‘commonly’ or ‘typically’

**geoelectric**

**geographic names**

For those ending in a possessive ‘s’, the apostrophe is usually not used. The ‘s’ may, or may not, be dropped depending on local usage. For topographic and general geographic names, the plurals are upper case, e.g. the Robe and Ashburton Rivers, Byro and Landor Homesteads

**geological**

Not ‘geologic’ (in most cases)

**geological names**

Where two or more formal geological names with the same generic element are combined in the same expression, the pluralized element remains upper case, e.g. the Parmelia and Yarragadee Formations, the Darling and Urella Faults. When Volcanics is used as a formation name, although it is singular in sense, it causes less confusion and reads better if used as a plural, e.g. ‘The Table Hill Volcanics are...’ or rephrase as ‘The rocks of the Table Hill Volcanics are...’

<b>GeoMap.WA</b> (legal trade name)	A GSWA-built desktop GIS application to visualize, interrogate and print geoscience and resource information. Spell in full for legal trade name
<b>Geoscience Australia</b>	GA (formerly Australian Geological Survey Organisation, AGSO; and Bureau of Mineral Resources, BMR)
<b>GeoVIEW.WA</b> (legal trade name)	Online GIS mapping tool to visualize, interrogate, search and print geoscience and resource information. Spell in full for legal trade name
<b>giga cubic metres</b>	Not cubic gigametres – Gm <sup>3</sup>
<b>GIS</b>	Geographic information system
<b>glacial rocks</b>	Not ‘glacials’
<b>glacigene</b>	Not ‘glaciogene’
<b>glacigenic</b>	Not ‘glaciogenic’
<b>glaciodeltaic</b>	
<b>glaciofluvial</b>	Avoid; use ‘fluvioglacial’
<b>glaciomarine</b>	
<b>gnamma hole</b>	Aboriginal term for ‘rockhole’
<b>GOGI</b>	gas–oil generation index
<b>gold mine</b>	
<b>GPS</b>	Global Positioning System
<b>grabens</b>	Plural of ‘graben’
<b>graded bedding</b>	
<b>grain size</b>	But ‘grain-size interval’
<b>granite</b>	A plutonic rock consisting essentially of quartz (between 20 and 60%), alkali feldspar, and sodic plagioclase in variable amounts with mica and hornblende or both. Use ‘monzogranite’ or ‘syenogranite’ for specific QAPF compositions
<b>granite–greenstone terrane</b>	With en dash

<b>granitic rock</b>	Used for rock of general granitic composition and texture; not synonymous with ‘granite’
<b>granitoid</b>	Do not use. The term is ambiguous because in the IUGS scheme it can be used as a synonym for ‘granite’, or in a more restricted sense to rocks ranging from alkali granite to tonalite
<b>greater than</b>	>100 (no space)
<b>greenfields</b>	
<b>greenstone belt</b>	
<b>greenschist</b>	
<b>greenschist facies conditions</b>	
<b>grey-scale</b>	
<b>greywacke</b>	Avoid; use ‘wacke’ or more specific terms, e.g. ‘lithic wacke’, ‘feldspathic wacke’, ‘quartz wacke’
<b>groundwater</b>	
<b>growth fault</b>	
<b>GSA</b>	Geological Society of Australia
<b>GSWA</b>	In references, use ‘Geological Survey of Western Australia’ (not ‘Western Australia Geological Survey’). Not ‘the GSWA’
<b>gypseous</b>	Resembling gypsum
<b>gypsiferous</b>	Containing gypsum

# H

**halfway**

**hand-sorted**

**hand specimen**

**hangingwall**

**hardcopy**

**hardpan**

**hard-rock aggregate**

**has proved to be** Avoid; use 'is'

**have been found to be** Avoid; use 'can be'

**headwaters**

**heat-flow data**

**heavy mineral sands**

**heavy mineral sands mine** Institutionalized phrase, no hyphenation

**hematite**

**herringbone**

**high-grade (adj.)** 'High-grade ore'

**high field strength elements** Referred to as HFSE

**high heat flow**

**high-Mg basalt** Only use if chemistry is known, otherwise use 'komatiitic basalt'

**high tide**

**high-tide mark**

**high-water mark**

**hillcrest**

**hole-deviation data**

**Holocene** Replaces the term 'Recent'

**Homestead** Capitalize for proper noun, e.g. 'Byro Homestead' and 'Byro and Landor Homesteads'



# I

**ice sheet**

**i.e.**

**ill-defined (adj.)**

**immediately**

Use carefully as can have a time connotation. When in doubt, use alternatives such as ‘just’ or ‘directly’ ‘...just north of Sandstone’ or ‘...directly overlying the Cooya Pooya Dolerite’

**imply/infer**

To imply is to signify or to suggest; to infer is to draw a conclusion from

**in agreement with**

Avoid; use ‘agree’

**in contrast**

Avoid; use ‘by contrast’

**in-depth (adj.)**

**inequigranular**

**infill**

**information**

Singular, e.g. ‘The information is ...’

**infracrustal**

**infrared**

**in-house (adj.)**

**inquire**

Not ‘enquire’

**in situ**

**institutionalized phrase**

A set phrase commonly used in the mining industry, e.g. heavy mineral sands, heavy mineral sands mine

**in the vicinity of**

Avoid; use ‘near’, ‘about’ or ‘proximal to’

**interchannel**

**interdune**

**interfinger**

**intermediate**

Adjective used in igneous petrology for a rock with  $52 < \text{SiO}_2 < 63$  wt% (cf. ‘acidic’, ‘basic’, ‘ultrabasic’). Do not pair with ‘felsic’ or ‘mafic’

**internet**

**interpretive**

**intertidal**

**in-text (adj.)**

**into and in to**

Slightly different meanings, e.g. ‘We turned into the carpark’ and ‘We went in to the exhibition’. See **on to** and **onto**

**intracratonic**

**intraformational**

**intragrain**

**intra-oceanic arc**

**IOCG**

Stands for ‘iron oxide–copper–gold’. Write in full in the first instance; subsequent instances, use ‘IOCG’

**iron formation**

Not hyphenated, except when preceded by ‘banded’, ‘granular’ or ‘siliceous’

**iron ore, iron ore deposit**

Institutionalized phrase, no hyphenation

**iron ore mining**

**iron ore railways**

**iron oxide minerals**

**is (are) characterized by**

Avoid; use ‘has’ or ‘resembles’

**island arc**

**-ize/-ise**

Use ‘z’. Some exceptions to this are advertise, advise, apprise, analyse, comprise, compromise, demise, despise, devise, enterprise, excise, exercise, improvise, incise, premise, revise, realise, supervise, surmise, surprise, televise, verbalise, otherwise, precise

# J

**jigsaw-fit texture(s)**

**JORC Code**

The Joint Ore Reserves Committee (JORC) sets out minimum standards, recommendations, and guidelines for public reporting of Exploration Results, Mineral Resources, and Ore Reserves. The first edition was published in 1989 and the JORC Code is revised and updated periodically. See **mineral resources** and **ore reserves**

**JORC-compliant**

Said of mineral resources or reserves; do not use even if original references used this term

**judgement**

**Jurassic–Cretaceous extension**

With en dash

# K

**K-feldspar,**

**K-feldspar-phyric**

**ka**

Thousand years abbreviation in 'date' form. See also **Ga, Ma**

**kankar**

**kaolinized/kaolinitized**

Use 'kaolinized' when rock is strongly altered to clay broadly referred to as kaolin (may be mixture of related clay types); use 'kaolinitized' to mean alteration (e.g. of alkali feldspar) to specific clay mineral (kaolinite); map legend narratives typically use 'kaolinized'

**keywords**

The author and project manager must ensure that correct and appropriate keywords are included in a manuscript. Editing and Publishing ensures adherence to the Australian Geoscience, Minerals and Petroleum Thesaurus (GeMPeT). Find online at <[www.dmp.wa.gov.au/gempet](http://www.dmp.wa.gov.au/gempet)>. Broadterms (general rather than narrower concepts) are added in Pubstats after publication to enable internet users to search the online catalogue

**Kimberley region**

**km<sup>2</sup>**

**km-thick unit**

Hyphen should appear between the unit and the adjective, e.g. '10 km-thick unit', not '10-km thick unit'

## L

<b>LAD</b>	Last appearance datum
<b>lakebed</b>	
<b>lake floor</b>	
<b>Landgate</b>	The Western Australian land information authority (formerly Department of Land Information)
<b>landmass</b>	
<b>Landsat TM</b>	Landsat Thematic Mapper
<b>landslide</b>	
<b>land use</b>	Also 'land use planning', except where the sense is affected by the lack of a hyphen
<b>lapilli tuff</b>	
<b>large-scale (adj.)</b>	
<b>lateritization</b>	
<b>latitude and longitude</b>	Of a point: latitude 22°S, longitude 117°E; of an area: latitudes 22°S and 23°S, and longitudes 117°E and 118°E. Do not use decimals when referring to latitudes and longitudes, e.g. use 22°30'S, not 22.5°S'; 22°47'30"S, 116°21'40"E. However, when extracting from WAROX the decimal form is used (93.27365°E)
<b>layered mafic intrusions</b>	
<b>layout</b>	
<b>lens cap</b>	
<b>lens-shaped, lenticular</b>	Avoid; use 'lensoid' or 'lensic'
<b>lesser</b>	Use 'lesser amounts of' plagioclase, rather than 'lesser plagioclase' (which suggests it is inferior in some way)
<b>lie/lay</b>	'Lay' something down, people and rocks lie down by themselves; for rocks use 'lie' (present), 'lay' (past), 'lain' (past participle)
<b>limesand</b>	

<b>limited</b>	Avoid; use ‘confined’ or ‘restricted’
<b>lithology</b>	To quote from Glover (1992), AIG Handbook 1 ‘Lithology, like petrography, means the description or study of rocks, on the basis of their minerals, mineral interrelationships and other features. Lithology is used at the scale of outcrop or hand specimen, whereas petrography is generally applied to discussion involving thin sections.’ Alternatives are ‘rock type’, and ‘sample’, depending on the context, not ‘rocks’
<b>located</b>	Avoid (superfluous), e.g. The homestead is on the cliff
<b>low-energy environment</b>	
<b>lower greenschist facies metamorphism</b>	
<b>low field strength elements</b>	
<b>low-grade (adj.)</b>	
<b>lower level platform</b>	
<b>low-water spring tide</b>	
<b>Luna rille</b>	
<b>lutetium–hafnium</b>	With en dash

# M

<b>Ma</b>	Abbreviation for million years (mega annus) when referring to a date. Also used to refer to an interval of time
<b>mafic</b>	A mnemonic adjective for dark-coloured igneous rocks composed of minerals rich in iron and magnesium. ‘Mafic’ refers to the modal mineralogy (cf. ‘felsic’, ‘ultramafic’; not a synonym for ‘femic’ or ‘basic’). Do not use for minerals (use ‘ferromagnesian’); only for rocks. Not synonymous with ‘ferromagnesian’
<b>mafic–ultramafic</b>	With en dash
<b>major element analysis</b>	
<b>man-made</b>	
<b>mantle source component</b>	
<b>mantle source region</b>	Add hyphen if there is an extra modifier, e.g. ‘depleted-mantle source region’
<b>map sheet</b>	
<b>mean sea level</b>	
<b>medium-bedded (adj.)</b>	
<b>megacrystic</b>	Hyphenate with phenocryst mineralogy, e.g. ‘feldspar-megacrystic granodiorite’
<b>MERIWA</b>	Minerals and Energy Research Institute of Western Australia (now Minerals Research Institute of Western Australia)
<b>Mesoarchean</b>	See <b>Archean</b>
<b>Mesoproterozoic</b>	Instead of Middle Proterozoic; see <b>Proterozoic subdivisions</b>
<b>meta</b>	Prefix — forms one word for all metamorphosed lithologies (e.g. ‘metarhyolite’, ‘metagabbro’) except when prefix is followed by a vowel (e.g. ‘meta-arkose’). ‘Metapsammite’ and ‘metapelite’ are not acceptable (see <b>psammite</b> and <b>pelite</b> ) or where there is an additional qualifier, so ‘metamorphosed quartz gabbro’ not ‘metaquartz gabbro’, ‘meta-igneous’

<b>metasediment</b>	Use ‘metasedimentary rock’
<b>metre/meter</b>	Use ‘metre’ for unit of distance; use ‘meter’ to refer to any device that measures something (also ‘diameter’ and ‘perimeter’)
<b>MGA coordinates</b>	Convert all local or old AMG grids into GDA94 (MGA) coordinates, using easting and northing coordinates. There are no spaces or commas in the coordinates. MGA coordinates should always be used in brackets, not as a locality name in a sentence, e.g. ‘The unit outcrops 2 km northeast of White Springs Well (MGA 720720E 7704155N)’ not ‘The unit outcrops at MGA 720720E 7704155N’
<b>mg/L</b>	Not mgL <sup>-1</sup> (milligrams per litre)
<b>mid-</b>	Always hyphenated with years, e.g. ‘mid-2001’; also when modifying other terms, such as ‘mid-amphibolite facies’
<b>mid-amphibolite facies conditions</b>	
<b>Mid West region</b>	
<b>migmatize</b>	
<b>million years</b>	Preferable to 10 <sup>6</sup> years, in ‘date’ form is Ma (mega annus; see also Ga, ka). See <b>billion years</b>
<b>mine</b>	Do not use upper case M for named mine, e.g. Mount Belches mine, New Celebration mine (or just ‘New Celebration’) unless formalized by mine owner
<b>mineable, mineability</b>	
<b>MINEDEX</b>	DMP’s mines and mineral deposits information database. When quoting estimates of Mineral Resources and Ore Reserves from MINEDEX, please ensure that the original source of the estimate(s) is included. Remember that MINEDEX is a database that is a compilation of estimates prepared by industry, and resource or reserve estimates should not be attributed in such a way that infers the primary compilation was done by MINEDEX, GSWA, or the department. See <b>JORC Code, mineral resources and ore reserves</b>

<b>mineral assemblages</b>	Use an en dash between mineral names and in brackets for minerals that are only present in some samples, e.g. quartz–plagioclase–mica(–tourmaline)
<b>mineral/petroleum exploration well</b>	
<b>mineral resources</b>	Under the JORC Code, Mineral Resources are subdivided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories, and any reporting of Mineral Resources must specify one or more of these categories, as estimations. The words ‘ore’ and ‘reserves’ must not be used in stating mineral resource estimates as they imply technical feasibility and economic viability. See <b>JORC Code</b> and <b>ore reserves</b>
<b>mineralization, mineralized</b>	Use ‘occurrence’ or ‘deposit’ for new mines
<b>mine site</b>	
<b><i>Mining Act 1978, the</i></b>	
<b>mis-ties</b>	
<b>Moho</b>	Short form of ‘Mohorovičić discontinuity’
<b>monomictic</b>	Does not mean the same as ‘oligomictic’; both terms are needed, also ‘polymictic’
<b>most</b>	Avoid; use ‘the majority of’
<b>MoU</b>	Do not use ‘MOU’
<b>Mount/Mt</b>	Use ‘Mount’ in text where this is meant, to avoid confusion with the abbreviation for ‘megatonnes’ (Mt). Acceptable to use ‘Mt’ in tables. Leave as ‘Mt’ if official term
<b>MORB</b>	Mid-ocean ridge basalt
<b>MORB-normalized</b>	
<b>movement (structural)</b>	Used for an event recognized locally, whereas transpressional or extensional events are usually recognized regionally; terms have changed over time as more data is collected
<b>MRIWA</b>	Minerals Research Institute of Western Australia (formerly MERIWA)

<b>MSA</b>	Mineral systems approach
<b>MSL</b>	Mean sea level
<b>MSWD</b>	Mean square of weighted deviates
<b>MT</b>	Abbreviation for ‘magnetotelluric’
<b>mud clasts</b>	
<b>mudcrack</b>	
<b>mudflats</b>	
<b>mud logging</b>	
<b>multi-channelled (adj.)</b>	
<b>multi-disciplinary</b>	
<b>multi-element</b>	
<b>multilevel</b>	
<b>multiscale</b>	
<b>MVT deposit</b>	Mississippi Valley-type deposit
<b>m.y.</b>	Do not use. Million years as a time span. Use ‘Ma’ for both dates and time intervals
<b>myriad</b>	Do not use ‘myriad of’

# N

NASA	National Aeronautics and Space Administration
<b>native title</b>	
<b>nationwide</b>	
<b>nearshore</b>	
<b>Neoproterozoic</b>	See also <b>Archean</b>
<b>Neoproterozoic</b>	Instead of ‘Late (or Upper) Proterozoic’; see <b>Proterozoic subdivisions</b>
<b>no.</b>	Abbreviation for ‘number’
<b>nonbreaking</b>	
<b>nondefining</b>	
<b>nondeposition</b>	
<b>non-GSWA</b>	
<b>non-source-rock sample</b>	
<b>non-vegetated</b>	
<b>normalized trace element pattern</b>	
<b>northwest</b>	
<b>north-northwest</b>	
<b>North Pole dome</b>	
<b>North West region</b>	
<b>North West Shelf</b>	
<b>number</b>	Abbreviation is no. (see <b>no.</b> above) except when part of a formal name, e.g. ‘Bore No. 2’. When using numbers such as ‘2nd edition’ or ‘8th Geological Convention’, do not use superscripts; write 1st, 2nd, 3rd, or 4th. Default settings in MS Word automatically superscript these, so you will have to undo this or change your settings



## O

<b>observed</b>	Redundant in most cases; rephrase
<b>occasionally</b>	Usually means ‘locally’; can use ‘in places’ (see <b>time words</b> ). Can use ‘commonly’
<b>occurs</b>	This term is overused. Use a more appropriate verb: is, is exposed, is present, outcrops, be, exist, appear(s), pervade, happen, adjacent, forms, consists of, lie(s), overlies, intergrown with, is identified, is encountered, occupies, extends and constitutes
<b>often</b>	Use only for expressions relating to time, e.g. ‘Phenocrysts are often corroded’ should be changed to ‘Many phenocrysts are corroded’ (see <b>time words</b> )
<b>oil-generating potential</b>	See <b>petroleum-generating potential</b>
<b>oil-generative window</b>	
<b>oilfield</b>	
<b>oil-to-oil correlation</b>	
<b>oligomictic</b>	Does not mean the same as ‘monomictic’; both terms are needed, also ‘polymictic’
<b>ongoing</b>	
<b>online</b>	
<b>onlaps</b>	
<b>onshore, offshore</b>	
<b>on-site</b>	
<b>on to and onto</b>	Slightly different meanings, e.g. ‘We drove on to the beach’ (i.e. in that direction) and ‘We drove onto the beach’ (i.e. into contact with it; see <b>into</b> and <b>in to</b> )
<b>opaline</b>	Use with silica (opaline silica) and chalcedony (opaline chalcedony); avoid ‘real opal’
<b>opalized</b>	Avoid ‘opalized’; refers to alteration of rock or mineral to, or replacement by, cryptocrystalline silica
<b>opencut</b>	

**open-file (adj.)**

**openhole**

**openpit**

**orebody**

**ore reserves**

Under the JORC Code, an Ore Reserve is the economically mineable part of a Measured or Indicated Mineral Resource, including dilution and losses that may occur during mining. Any reporting of Ore Reserves must specify one or both of the ore reserve categories of ‘Probable’ or ‘Proved’, as estimations. See **JORC Code** and **mineral resources**

**organic-rich shale**

**organization**

Referred to in the singular (‘it’, ‘its’, not ‘they’, ‘their’)

**orient, oriented**

Avoid; use ‘orientate’, ‘orientated’

**orogeny**

Plural is ‘orogenies’

**outcrop**

May be used as a noun (The outcrop...) or verb (...outcrops at...). Can also use ‘exposure’ (see **crop out**)

**overestimate**

**overlie, overlying**

Superposition of units; not ‘overlay’, ‘overlying’

## P

<b>paleo</b>	Prefix; no hyphenation
<b>paleo heat flow</b>	
<b>Paleoarchean</b>	See <b>Archean</b>
<b>Paleocene</b>	
<b>paleochannel</b>	
<b>Paleogene</b>	
<b>Paleoproterozoic</b>	
<b>paleovalley</b>	
<b>Paleozoic</b>	
<b>parallel to</b>	e.g. ‘The gneiss unit is parallel to the overlying foliated eclogite’
<b>parallel with</b>	e.g. ‘We can draw a close parallel with another example.’ Avoid ‘paralleling’, ‘paralleled’
<b>part-way</b>	
<b>PDF</b>	Portable document format
<b>pelite, pelitic</b>	Metamorphic rock term referring to siltstone/ mudstone protolith. The prefix ‘meta’ is not necessary and pelite is not acceptable as a sedimentary term. Do not use as a noun (pelite). See also <b>psammite, psammitic</b>
<b>percent</b>	Use the symbol % if attached to a number, e.g. 50%, not 50 percent, <5%
<b>Permo-Carboniferous/ Permo-Triassic</b>	Avoid; use ‘Permian–Carboniferous’ or ‘Permian–Triassic’ or the specific Series or Stage names
<b>personal communication</b>	Abbreviated to ‘written comm.’ including initials and date in parenthesis, e.g. (AF Trendall, 1989, written comm., 24 April)
<b>pertaining to</b>	Avoid; use ‘about’
<b>Perth Metropolitan region</b>	
<b>PESA</b>	Petroleum Exploration Society of Australia

<b>petroleum-generating potential</b>	See <b>oil-generating potential</b>
<b>petroleum supersystem</b>	For ‘Larapintine Petroleum Supersystem’
<b>PGC</b>	Pyrolysis-gas chromatography
<b>PGE</b>	Platinum group elements (not PGEs)
<b>PGM</b>	Sometimes used as the abbreviation for platinum group metals. Use ‘platinum group elements’ (PGE)
<b>PhD</b>	Also MSc, BSc, DipEd
<b>phosphorus</b>	
<b>photo-interpretation</b>	
<b>photo-lineament</b>	
<b>photomosaic</b>	
<b>photo-pattern</b>	
<b>Pilbara region</b>	
<b>pinch-out(s)</b>	
<b>pipeline</b>	
<b>plagioclase-phyric</b>	
<b>plagioclase-porphyritic andesite</b>	
<b>planar-laminated (adj.)</b>	
<b>plane-polarized light</b>	
<b>plateaus</b>	
<b>platy</b>	
<b>pmd*CRC</b>	Predictive mineral discovery Cooperative Research Centre
<b>podsolized</b>	
<b>policy maker</b>	
<b>porcelanous</b>	
<b>porphyritic</b>	Hyphenated with phenocryst mineralogy, e.g. ‘feldspar-porphyritic monzogranite’

<b>possessive ‘s’</b>	‘Jones’s’ (singular), ‘All the Joneses’ houses’ (plural), ‘geologists’ work’ (plural)
<b>post-date</b>	
<b>post-depositional</b>	
<b>postgraduate</b>	
<b>post-wellhead</b>	
<b>pothole</b>	
<b>ppb</b>	
<b>ppm</b>	
<b>Precambrian</b>	
<b>pre-competitive</b>	
<b>pre-date</b>	Not ‘predate’ which means ‘to hunt and feed on prey’
<b>predominant</b>	Avoid; use ‘chief’, ‘main’, ‘major’, ‘prime’ or ‘principal’
<b>pre-mining</b>	
<b>pre-1914</b>	But ‘pre-World War I’, ‘pre-Mount Roe Basalt’ (preferably rephrase)
<b>prerequisite</b>	
<b>primitive mantle source</b>	
<b>primitive mantle values</b>	
<b>primitive mantle-normalized trace element plot</b>	
<b>primordial mantle-normalized PGE plot</b>	
<b>program</b>	
<b>Proterozoic subdivisions</b>	Use ‘Paleoproterozoic’ instead of ‘Early’ (or Lower Proterozoic’, ‘Mesoproterozoic’ instead of ‘Middle Proterozoic’, ‘Neoproterozoic’ instead of ‘Late (or Upper) Proterozoic’. But these are not synonymous.



## Q

<b>quantity of</b>	Avoid
<b>quartz arenite</b>	
<b>quartzite</b>	Metamorphic term (orthoquartzite); not to be used for strongly cemented, metamorphosed quartz sandstone
<b>quartzofeldspathic</b>	
<b>quartz-phyric</b>	
<b>Quaternary</b>	Use this term to encompass the Holocene and Pleistocene; younger than, but not part of, the Neogene
<b>query (?)</b>	Should precede doubtful entity, e.g. ‘?Permian’, ‘?garnet’
<b>quotation marks</b>	Use single quotation marks, e.g. ‘quote’. Double quotation marks should be used for quotes within quotes

# R

**rainwater**

**range**

When 'range' is used, the prepositions 'from' and 'to' must also be used. The use of 'range' requires two limits so don't write 'ranges up to...'. If only the upper limit is stated then use 'reaches a maximum of..' or 'is as much as...'

**rapakivi feldspars**

Or 'rapakivi granite' (no need for 'rapakivi-textured')

**ratios**

In the text, ratios should be expressed with a colon (4:1), not spelt out (4 to 1; four to one). Also, be aware that a ratio is not synonymous with a fraction. The following usage should be avoided 'Mg/(Mg+Fe) ratios range from 0.51 to 0.58' (here the term 'values' would be better)

**re**

Prefix generally not hyphenated (but see **re-sorted**)

**Recent**

Avoid; use 'Holocene'

**redbeds**

**REE**

Rare earth elements (singular and plural); avoid 'REEs'

**referred to as**

Avoid; use 'called' or 'known as'

**relic/relict**

These terms are not synonymous. Refer to the AGI Glossary of Geology for correct usage

**represent**

Avoid if possible. Commonly used in the sense of 'Something represents an extension of ...' or 'This facies represents deposition in a fluvial setting'. Most geological usage is simply 'is' or 'is interpreted as'

**re-sort**

When the meaning is 'to sort again'

**resources and reserves**

See **JORC Code**, **mineral resources**, and **ore reserves**

**retro-arc**

**reworking**

**ripple marks**



## S

**safe haven**

**salic/sialic**

Former refers in a general way to Si–Al-rich minerals; latter refers to parts of the Earth comprising dominantly felsic minerals, such as continental crust

**salt lake**

**salt pan**

**saltwater**

**sand dune**

**sandplain**

**S–C fabrics**

Use en dash for S–C (with upper case);  
S = schistosity; C= cisaillement (Fr. for ‘shear’)

**scales (comparison of)**

Smaller scale maps show more area of ground on the same amount of paper. Thus, 1:250 000 is a smaller scale than 1:100 000 (the scale is actually a fraction and 1/250 000 is less than 1/100 000)

**seabed**

**sea floor**

**sea-floor spreading**

**sea level**

**sea-level changes (attrib.)**

**sea stacks**

**seawater**

**sections**

Cross-sections should be presented as viewed from the south, except where they trend between 357° and 0°, when they should be presented as viewed from the east. East or north will therefore be at the right-hand end of a section

**sedex-type deposit**

Sedimentary exhalative mineral deposit

**sediments**

Use only if unconsolidated; otherwise use ‘sedimentary rocks’

<b>sedimentary succession</b>	Not ‘sedimentary sequence’, as ‘sequence’ is commonly understood to be used in a sequence stratigraphic context
<b>self-contained petroleum system</b>	
<b>semi</b>	Prefix most often used without hyphen
<b>semipelitic</b>	
<b>semiprecious</b>	
<b>sequence</b>	Avoid; use ‘succession’
<b>shale gas</b>	
<b>shallow-marine (attrib.)</b>	
<b>shallow-water (attrib.)</b>	
<b>shelf deposit</b>	See also <b>shelves</b>
<b>shaly</b>	
<b>sheet flood</b>	
<b>sheetflow</b>	
<b>sheetwash</b>	
<b>shelves</b>	
<b>shoreface</b>	
<b>shoreline</b>	
<b>shotpoint</b>	
<b>SHRIMP</b>	Sensitive high-resolution ion microprobe
<b>SI units</b>	Separated by a space from the numerical value (with no full stops), except for symbols for degree, degree Celsius, minute, and second, e.g. 20 l, 12 km, 22 m, but 112°, 35°C, 22°30’S
<b>silicic</b>	Avoid; use ‘acidic’
<b>siliciclastic</b>	
<b>situated</b>	Avoid (superfluous), e.g. The homestead is on the cliff
<b>slaty</b>	

**small-scale (adj.)**

**soft-sediment deformation**

**source-rock facies  
classification**

**source-rock potential**

**source-rock sample**

**southwest**

**Southeast Asia**

**South West Division/  
region/Terrane**

**South West Highway**

**South West Mineral Field**

**spillway**

**spinifex-textured  
komatiites**

‘Spinifex-textured komatiites’ but ‘coarse olivine (sheath)-spinifex textures’; ‘pyroxene-spinifex textures’; ‘olivine spinifex-textured komatiite’

**standalone**

**State**

Use when referring to a State, e.g. Western Australia, New South Wales

**statewide**

**Station**

Capitalize for pastoral stations and railway stations

**straight-crested (adj.)**

**strandline**

**stratabound**

**stratigraphic names usage**

Superseded names should be defined as such in their first usage in a document, and then placed in inverted commas thereafter wherever it may be ambiguous as to whether they are currently accepted or not (see the Chief Geoscientist and Terrane Custodians Intranet page for the latest rock codes list and the Geoscience Australia stratigraphic units database at <[www.ga.gov.au/oracle/stratnames\\_info.jsp](http://www.ga.gov.au/oracle/stratnames_info.jsp)>)

<b>stratotype</b>	
<b>structural and tectonic events</b>	All terms of structural and tectonic events with specific names should be capitalized, e.g. ‘Prices Creek Movement’, ‘Fitzroy Movement’, ‘Meda Transpression’, ‘Capricorn Orogeny’, ‘Musgrave Orogeny’, exception is ‘Gondwana break up’
<b>stubby</b>	Do not use. When referring to crystal shape, use ‘equant’
<b>sub</b>	Prefix generally not hyphenated, e.g. ‘subaerial’, ‘subangular’, ‘subaqueous’, ‘subcontinental lithosphere mantle (SCLM)’, ‘subdivide’, ‘subglacial’, ‘subgroup’, ‘submillimetre-scale’, ‘subtidal’, ‘subrounded’, ‘subduction’ (but ‘sub-basin’)
<b>subcrop</b>	The area within which a formation is directly beneath an unconformity; a ‘subsurface outcrop’. Does not mean ‘to exist in the subsurface’, nor a ‘poor surface exposure’
<b>subparallel</b>	
<b>sulfate</b>	
<b>sulfide</b>	
<b>sulfur</b>	
<b>sulphur</b>	Avoid; use ‘sulfur’
<b>supergroup</b>	
<b>supercontinent</b>	
<b>superficial</b>	
<b>supersede</b>	
<b>supracrustal</b>	
<b>surficial</b>	
<b>syn</b>	Prefix generally not hyphenated, e.g. ‘syntectonic’, ‘synmetamorphic’, ‘syndepositional’

# T

<b>Table</b>	Capitalized when referring to, or captioning, tabulation (except in reference to ‘other works’). See also <b>Figure</b>
<b>targeted, targeting</b>	
<b>taxonomic nomenclature</b>	
<b>TD</b>	Total depth
<b>TDS</b>	Total dissolved solids
<b>tectonic units</b>	Only the tectonic units shown on the most recent Tectonic units of Western Australia map should be used as the GSWA standard for tectonic units. Only valid units in ENS should be used
<b>tectono-magmatic</b>	
<b>tectono-metamorphic</b>	
<b>tectono-stratigraphic</b>	
<b>tectono-thermal</b>	
<b>tenses</b>	‘Authors concluded’; ‘the figures show’, i.e. past tense for authors; present tense for book, map, figure
<b>terrain</b>	A tract or region of the Earth’s surface considered as a physical feature, an ecological environment, or a site of some planned human activity
<b>terrane</b>	A fault-bounded body of rock of regional extent, characterized by a geological history different from that of contiguous bodies of rock
<b>Tertiary</b>	Not currently recommended by IUGS. Use Cenozoic, Paleogene or Neogene, or more specific subdivisions of these depending on age control, unless use of ‘Tertiary’ is warranted by context
<b>the department</b>	When referring to DMP
<b>the effect of</b>	Avoid
<b>thin-bedded</b>	But ‘thinly bedded’
<b>thin section</b>	But ‘thin-section view’
<b>three dimensional</b>	Use ‘3D’

<b>time frame</b>	
<b>time span</b>	Within a single stratigraphic division write ‘Middle–Late Devonian’ (not Mid–Late or Middle to Late)
<b>time scale</b>	
<b>time window</b>	
<b>time words</b>	Words such as ‘usually’, ‘frequently’, ‘often’, ‘while’, ‘since’, ‘occasionally’ denote time and can be confusing if used to denote place or state. Rephrase the sentence to avoid use. Examples such as always (everywhere), frequently, often (commonly, many of), now and then (here and there), occasionally (locally), since (inasmuch as), sometimes (in places, some of), usually (commonly, most of), when (where), while (although, whereas). Use ‘typically’ instead of ‘generally’
<b>TM</b>	Transverse magnetic
<b>TMI</b>	Total magnetic intensity
<b>to be/to do</b>	Can be omitted
<b>tonnage</b>	
<b>topographic names</b>	See <b>geological names</b>
<b>topset</b>	
<b>total of</b>	Can be omitted
<b>towards</b>	Avoid; use ‘toward’
<b>townsite</b>	
<b>township</b>	
<b>trace element analysis</b>	
<b>trace element-enriched</b>	
<b>trackways</b>	As in ‘arthropod trackways’
<b>trademarks</b>	The use of registered trademarks is not encouraged. Crown Law has advised that there is no need to include symbols such as ©, ®, or <sup>TM</sup> after company or product names
<b>traditional owner</b>	



# U

<b>ultrabasic</b>	Adjective used in igneous petrology for rocks with <45 wt% SiO <sub>2</sub> (cf. 'acidic', 'basic', 'intermediate'). Not a synonym for 'ultramafic'
<b>ultra-high-grade metamorphism</b>	
<b>ultra-high temperature</b>	
<b>ultramafic</b>	Said of an igneous rock when mafic minerals total >90% of the modal mineralogy; not a synonym for 'ultrabasic'
<b>un</b>	Prefix generally not hyphenated
<b>underexplored</b>	
<b>units of measurement</b>	Space between numbers and their units, e.g. 15 km, not 15km (but...15% and 15°C). For GSWA petroleum reports, original units will be metric; retain all significant figures in oil and gas estimates, '9.6982 billion litres'
<b>unconventional* gas</b>	<b>*Do not use.</b> Where a collective term is to be used, refer to 'shale and tight gas'. Where it is more appropriate to be specific, refer to shale oil, onshore activities. When discussing hydraulic fracture stimulation, the term 'fracking' can be included, for example: 'For shale and tight gas, the rock formations need to undergo hydraulic fracture stimulation (also known as fracking) to release the gas and enable recovery.' However, try to avoid using the term 'fracking'
<b>underestimate</b>	
<b>unnamed</b>	
<b>U–Pb dating</b>	
<b>updip</b>	
<b>upfaulted</b>	
<b>upthrown</b>	
<b>upper-level platform</b>	





# W

<b>wacke</b>	A clastic sedimentary rock with >10% matrix. Use instead of 'greywacke'
<b>WACHEM</b>	DMP's geochemistry database
<b>WA:ERA</b>	Western Australian Energy Research Alliance
<b>wallrock</b>	
<b>WAMEX</b>	DMP's Western Australian mineral exploration index
<b>WAPIMS</b>	DMP's Western Australian petroleum and geothermal information management system
<b>WARIS</b>	Western Australia Regional Initiatives Scheme
<b>WAROX</b>	DMP's Western Australian field observation database
<b>washout</b>	
<b>WASM</b>	Western Australian School of Mines
<b>water bore</b>	
<b>watercourse</b>	
<b>water-cut</b>	
<b>water depth</b>	
<b>waterhole</b>	
<b>waterlevel</b>	
<b>watermark</b>	
<b>watertable</b>	
<b>water well</b>	
<b>wave-cut platform</b>	
<b>web</b>	
<b>web-based (adj.)</b>	
<b>web browser</b>	
<b>website</b>	
<b>well</b>	Common petroleum industry nomenclature (see AGI Glossary of Geology); drillhole also acceptable for petroleum manuscripts and maps

**wellbeing**

**well-defined (adj.)**

**wellhead**

**well-rounded (adj.)**

**west Pilbara**

**Western Australia**

Not 'West Australia' or 'West Australian'.  
Write in full

**whether or not**

Usually can be shortened to 'whether'

**while/whilst**

Avoid 'whilst'. For clarity use 'while' to mean 'at the time that', but not to mean 'although', 'whereas', 'and' or 'but'

**whole-rock geochemistry**

**whose**

Formerly considered to be necessarily personal; permissible in phrases such as '. . . those basalts whose MgO contents are 10%'

**wind-blown sand**

**wireline**

**with the result that**

Avoid; use 'so that'

**worldwide**

**written communication**

To be obtained and used instead of personal communication. In text mention as (FH Clark, 2002, written comm., 24 April)

**wt% (no space)**

For 'weight percent', e.g. 48 wt% (space between value and unit)

## **X**

**X-ray**

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# More spelling and other useful stuff

A series of horizontal lines for writing, consisting of a solid top line, a dashed midline, and a solid bottom line, repeated down the page.

Further details of geological publications and maps produced by the Geological Survey of Western Australia can be obtained by contacting:  
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