Data dictionary

for the

1:2 500 000 State geological map of Western Australia



Data dictionary

In Geographic Information Systems (GIS), data dictionaries are used as a means to record the names of the attributes (items) in each feature class, together with a description of the attribute values. Tables 1 and 2 list the GIS themes or feature classes and lookup tables used in this digital data package, for which this data dictionary has been provided.

Table 3 provides detailed information about the attributes of each feature class included in this digital data package. Each data dictionary table contains the following information: Feature class, File name, Feature category, Spatial type, Description, and details particular to the feature class described. These details are listed under headings: Item name, Alias, Key, Optional, Type, Width and Description. Tabulated information in italics describes the contents of Microsoft Access database lookup tables (LUT).

This digital data package may contain an Explanatory Notes database, which is designed to be used with GeoMap.WA. Data dictionary information for this database is not available.

For Key, a code is used to indicate whether the item or field is a key used to link information:
P = Primary key
F = Foreign key
Null = Not a key

For Optional, a code is used to indicate whether the items or fields may or may not be provided in a data package:
True = Optional
False = Not optional

For item Type, a code is used to describe the field type:
C = Currency values
D = Date field, may include time
F = Decimal number as an internal floating-point number, single or double precision
H = Hyperlink field for storing URL path
I = Integer field, having whole numbers only, short or long format
M = Memo field
T = Text/character field
Y = One bit field that contains only one of two values (e.g. Yes/No, True/False, On/Off)

Table 1: The following is a listing of the feature classes in this digital package

Feature Class	Description
Geology	
1:2.5M State Cenozoic geology polygons, 2021	1:2 500 000 State Cenozoic geology polygons, 2021
1:2.5M State interpreted bedrock geology polygons, 2021	1:2 500 000 State interpreted bedrock geology polygons, 2021
1:2.5M State interpreted bedrock geology structural lines, 2021	1:2 500 000 State interpreted bedrock geology structural lines, 2021
1:2.5M State interpreted dyke suites	1:2 500 000 State interpreted dyke suites

Table 2 : The following is a listing of the lookup tables

Lookup Table Name:	Description
explanatory_notes.mdb	Explanatory Notes database
geol_lut.mdb	Geology and interpreted geology lookup tables database

Table 3: The following is a detailed listing of the feature classes and associated lookup tables.

Feature class:	**1:2.5M State Cenozoic geology polygons, 2021**					
File name:	2_5m_cenozoicp					
Feature category:	Geology					
Spatial type:	Polygon					
Description:	1:2 500 000 State Cenozoic geology polygons, 2021					
Item name	**Item alias**	**Key**	**Optional**	**Type**	**Width**	**Description**
CODE		F	False	T	30	Geological code
UNITNAME			False	T	100	Geological unit name
DESCRIPTN			False	T	254	Long description of the geological code
SYMBOL			False	T	254	Combination of CODE and UNITNAME for plot purposes
Lookup table:	***2_5m_cenozoicp_lut***					
Description:	*GEOL_LUT 1:2 500 000 State Cenozoic geology polygons lookup table: Microsoft Access table*					
Field name	***Field alias***	***Key***	***Optional***	***Type***	***Width***	***Description***
SORT			*False*	*I*		*Sort order for data legend*
LITHSTRTNO			*False*	*I*		*Geological code identifier linking to Explanatory Notes database*
CODE		*P*	*False*	*T*	*30*	*Geological code*
UNITNAME			*False*	*T*	*100*	*Geological unit name*
GSWASTATUS			*False*	*T*	*30*	*Stratigraphic status of geological unit in Explanatory Notes database*
RANK			*False*	*T*	*15*	*Stratigraphic rank of geological unit*
DESCRIPTN			*False*	*T*	*254*	*Long description of the geological code*
PARENTCODE			*False*	*T*	*50*	*Geological code of the parent unit for the unit displayed in the CODE field*
PARENTNAME			*False*	*T*	*100*	*Name of the parent geological unit for the unit displayed in the CODE field*
ROCKTYPE1			*False*	*T*	*80*	*Rock type (e.g. igneous mafic volcanic)*
LITHNAME1			*False*	*T*	*255*	*Lithological name (e.g. basalt)*
QUALIFIER1			*False*	*T*	*100*	*First feature distinguishing the lithology (e.g. pillowed basalt)*
QUALIFIER2			*False*	*T*	*100*	*Second feature distinguishing the lithology (e.g. carbonate-altered pillowed basalt)*
MIXEDROCK			*False*	*T*	*50*	*Mixed rock types or xenolith-bearing unit*
ROCKTYPE2			*False*	*T*	*80*	*Second rock type in a mixed or xenolith-bearing unit*
LITHNAME2			*False*	*T*	*255*	*Second lithology in a mixed or xenolith-bearing unit*
MIXEDQUAL1			*False*	*T*	*100*	*First feature distinguishing the second lithology in a mixed or xenolith-bearing unit*
MIXEDQUAL2			*False*	*T*	*100*	*Second feature distinguishing the second lithology in a mixed or xenolith-bearing unit*
WASTRAUNIT			*False*	*T*	*100*	*State scale stratigraphic unit*
SUPERSUITE			*False*	*T*	*100*	*Assemblage of intrusive rocks and suites formed during the same magmatic event*
SUITE			*False*	*T*	*100*	*Igneous rock bodies formed during the same magmatic event*
SUPERGROUP			*False*	*T*	*100*	*An assemblage of related groups or of formations and groups, having significant lithological features in common*
*GROUP_*			*False*	*T*	*100*	*Lithostratigraphic unit containing two or more formations, all of which share a unifying characteristic*
SUBGROUP			*False*	*T*	*100*	*Subdivision of a group containing two or more formations*
FORMATION			*False*	*T*	*100*	*A distinct mappable geological unit showing unifying geological characteristics*
MEMBER			*False*	*T*	*100*	*A distinct lithostratigraphic subdivision of a formation*
BED			*False*	*T*	*100*	*A single bed or small stratigraphic interval worthy of separate recognition*
STATE			*False*	*T*	*100*	*Western Australia: State level tectonic unit*
WATECTUNIT			*False*	*T*	*100*	*State scale tectonic unit*
SSUITE_TEC			*False*	*T*	*100*	*Supersuite tectonic; all igneous rocks related to a specific tectonic event*
SUITE_TEC			*False*	*T*	*100*	*Suite tectonic; all igneous rocks related to a specific parental magmatic composition generated at a specific time*

CRATON			*False*	*T*	*100*	*Geologically stable part of the Earth's crust, mostly older than 2.4 Ga*
SUPERTERRA			*False*	*T*	*100*	*Superterrane; a group of related terranes*
CRATON_TER			*False*	*T*	*100*	*Craton terrane; a fault-bounded body of rock within a craton, with a distinct geological history*
*DOMAIN_*			*False*	*T*	*100*	*A fault-bounded body of rock within a CRATON_TER*
GREENSTONE			*False*	*T*	*100*	*Greenstone belt or granitic complex*
SUPERBASIN			*False*	*T*	*100*	*A group of related basins of a similar age*
BASIN			*False*	*T*	*100*	*Accumulation of sedimentary rocks in a regional crustal depression*
SUBBASIN			*False*	*T*	*100*	*Structural feature within a BASIN*
SUBBASIN_E			*False*	*T*	*100*	*Sub-basin element; structural feature within a SUBBASIN*
OROGEN			*False*	*T*	*100*	*Tectonic belt characterized by regional deformation, metamorphism, magmatism and related sedimentation*
PROVINCE			*False*	*T*	*100*	*Tectonic unit with a complex deformation, metamorphic and magmatic history*
PROV_TZONE			*False*	*T*	*100*	*Tectonic subdivision of PROVINCE into terranes or zones*
TECT_SUBDI			*False*	*T*	*100*	*Tectonic subdivision of PROV_TZONE*
OROG_FOR			*False*	*T*	*100*	*Orogenic foreland; an area of craton and/or basin reworked by orogenic events*
OROG_FORSU			*False*	*T*	*100*	*Orogenic foreland subunit; structural feature within an OROG_FOR*
IN_OUTLIER			*False*	*T*	*100*	*Inlier outlier; older tectonic unit surrounded by younger unit; younger tectonic unit surrounded by older unit*
EVENTS			*False*	*M*		*Deformation and magmatic events affecting the tectonic units to which the geological unit belongs*
AGEFROM			*False*	*T*	*50*	*Maximum possible age of unit as described by geological timescale*
AGETO			*False*	*T*	*50*	*Minimum possible age of unit as described by geological timescale*
MAX_AGE_MA			*False*	*F*		*Maximum possible age of unit in millions of years*
MAXUNCERTY			*False*	*I*		*Uncertainty of maximum age of lithostratigraphic unit in plus or minus millions of years*
MIN_AGE_MA			*False*	*F*		*Minimum possible age of unit in millions of years*
MINUNCERTY			*False*	*I*		*Uncertainty of minimum age of lithostratigraphic unit in plus or minus millions of years*
MAX_AGE_DA			*False*	*T*	*100*	*Type of constraint on maximum age*
MIN_AGE_DA			*False*	*T*	*100*	*Type of constraint on minimum age*

Feature class:	**1:2.5M State interpreted bedrock geology polygons, 2021**					
File name:	2_5m_interpgeop					
Feature category:	Geology					
Spatial type:	Polygon					
Description:	1:2 500 000 State interpreted bedrock geology polygons, 2021					
Item name	**Item alias**	**Key**	**Optional**	**Type**	**Width**	**Description**
CODE		F	False	T	30	Geological code
UNITNAME			False	T	100	Geological unit name
DESCRIPTN			False	T	254	Long description of the geological code
SYMBOL			False	T	254	Combination of CODE and UNITNAME for plot purposes
Lookup table:	***2_5m_interpgeop_lut***					
Description:	*GEOL_LUT 1:2 500 000 State interpreted bedrock geology polygons lookup table: Microsoft Access table*					
Field name	***Field alias***	***Key***	***Optional***	***Type***	***Width***	***Description***
SORT			*False*	*I*		*Sort order for data legend*
LITHSTRTNO			*False*	*I*		*Geological code identifier linking to Explanatory Notes database*
CODE		*P*	*False*	*T*	*30*	*Geological code*
UNITNAME			*False*	*T*	*100*	*Geological unit name*
GSWASTATUS			*False*	*T*	*30*	*Stratigraphic status of geological unit in Explanatory Notes database*
RANK			*False*	*T*	*15*	*Stratigraphic rank of geological unit*
DESCRIPTN			*False*	*T*	*254*	*Long description of the geological code*

PARENTCODE			*False*	*T*	*50*	*Geological code of the parent unit for the unit displayed in the CODE field*
PARENTNAME			*False*	*T*	*100*	*Name of the parent geological unit for the unit displayed in the CODE field*
ROCKTYPE1			*False*	*T*	*80*	*Rock type (e.g. igneous mafic volcanic)*
LITHNAME1			*False*	*T*	*255*	*Lithological name (e.g. basalt)*
QUALIFIER1			*False*	*T*	*100*	*First feature distinguishing the lithology (e.g. pillowed basalt)*
QUALIFIER2			*False*	*T*	*100*	*Second feature distinguishing the lithology (e.g. carbonate-altered pillowed basalt)*
MIXEDROCK			*False*	*T*	*50*	*Mixed rock types or xenolith-bearing unit*
ROCKTYPE2			*False*	*T*	*80*	*Second rock type in a mixed or xenolith-bearing unit*
LITHNAME2			*False*	*T*	*255*	*Second lithology in a mixed or xenolith-bearing unit*
MIXEDQUAL1			*False*	*T*	*100*	*First feature distinguishing the second lithology in a mixed or xenolith-bearing unit*
MIXEDQUAL2			*False*	*T*	*100*	*Second feature distinguishing the second lithology in a mixed or xenolith-bearing unit*
WASTRAUNIT			*False*	*T*	*100*	*State scale stratigraphic unit*
SUPERSUITE			*False*	*T*	*100*	*Assemblage of intrusive rocks and suites formed during the same magmatic event*
SUITE			*False*	*T*	*100*	*Igneous rock bodies formed during the same magmatic event*
SUPERGROUP			*False*	*T*	*100*	*An assemblage of related groups or of formations and groups, having significant lithological features in common*
*GROUP_*			*False*	*T*	*100*	*Lithostratigraphic unit containing two or more formations, all of which share a unifying characteristic*
SUBGROUP			*False*	*T*	*100*	*Subdivision of a group containing two or more formations*
FORMATION			*False*	*T*	*100*	*A distinct mappable geological unit showing unifying geological characteristics*
MEMBER			*False*	*T*	*100*	*A distinct lithostratigraphic subdivision of a formation*
BED			*False*	*T*	*100*	*A single bed or small stratigraphic interval worthy of separate recognition*
STATE			*False*	*T*	*100*	*Western Australia: State level tectonic unit*
WATECTUNIT			*False*	*T*	*100*	*State scale tectonic unit*
SSUITE_TEC			*False*	*T*	*100*	*Supersuite tectonic; all igneous rocks related to a specific tectonic event*
SUITE_TEC			*False*	*T*	*100*	*Suite tectonic; all igneous rocks related to a specific parental magmatic composition generated at a specific time*
CRATON			*False*	*T*	*100*	*Geologically stable part of the Earth's crust, mostly older than 2.4 Ga*
SUPERTERRA			*False*	*T*	*100*	*Superterrane; a group of related terranes*
CRATON_TER			*False*	*T*	*100*	*Craton terrane; a fault-bounded body of rock within a craton, with a distinct geological history*
*DOMAIN_*			*False*	*T*	*100*	*A fault-bounded body of rock within a CRATON_TER*
GREENSTONE			*False*	*T*	*100*	*Greenstone belt or granitic complex*
SUPERBASIN			*False*	*T*	*100*	*A group of related basins of a similar age*
BASIN			*False*	*T*	*100*	*Accumulation of sedimentary rocks in a regional crustal depression*
SUBBASIN			*False*	*T*	*100*	*Structural feature within a BASIN*
SUBBASIN_E			*False*	*T*	*100*	*Sub-basin element; structural feature within a SUBBASIN*
OROGEN			*False*	*T*	*100*	*Tectonic belt characterized by regional deformation, metamorphism, magmatism and related sedimentation*
PROVINCE			*False*	*T*	*100*	*Tectonic unit with a complex deformation, metamorphic and magmatic history*
PROV_TZONE			*False*	*T*	*100*	*Tectonic subdivision of PROVINCE into terranes or zones*
TECT_SUBDI			*False*	*T*	*100*	*Tectonic subdivision of PROV_TZONE*
OROG_FOR			*False*	*T*	*100*	*Orogenic foreland; an area of craton and/or basin reworked by orogenic events*
OROG_FORSU			*False*	*T*	*100*	*Orogenic foreland subunit; structural feature within an OROG_FOR*
IN_OUTLIER			*False*	*T*	*100*	*Inlier outlier; older tectonic unit surrounded by younger unit; younger tectonic unit surrounded by older unit*
EVENTS			*False*	*M*		*Deformation and magmatic events affecting the tectonic units to which the geological unit belongs*
AGEFROM			*False*	*T*	*50*	*Maximum possible age of unit as described by geological timescale*
AGETO			*False*	*T*	*50*	*Minimum possible age of unit as described by geological timescale*
MAX_AGE_MA			*False*	*F*		*Maximum possible age of unit in millions of years*

MAXUNCERTY			*False*	*I*		*Uncertainty of maximum age of lithostratigraphic unit in plus or minus millions of years*
MIN_AGE_MA			*False*	*F*		*Minimum possible age of unit in millions of years*
MINUNCERTY			*False*	*I*		*Uncertainty of minimum age of lithostratigraphic unit in plus or minus millions of years*
MAX_AGE_DA			*False*	*T*	*100*	*Type of constraint on maximum age*
MIN_AGE_DA			*False*	*T*	*100*	*Type of constraint on minimum age*

Feature class:	**1:2.5M State interpreted bedrock geology structural lines, 2021**					
File name:	2_5m_interpstrucl					
Feature category:	Geology					
Spatial type:	Polyline					
Description:	1:2 500 000 State interpreted bedrock geology structural lines, 2021					
Item name	**Item alias**	**Key**	**Optional**	**Type**	**Width**	**Description**
FEATURE			False	T	150	Describes the feature
TYPE			False	T	150	Type of feature
NAME			False	T	50	Name of feature
SYMBOL			False	T	254	Combination of FEATURE and TYPE for plot purposes

Feature class:	**1:2.5M State interpreted dyke suites**					
File name:	2_5m_interpdykel					
Feature category:	Geology					
Spatial type:	Polyline					
Description:	1:2 500 000 State interpreted dyke suites					
Item name	**Item alias**	**Key**	**Optional**	**Type**	**Width**	**Description**
SORT	Sort		False	I		Sort order for data legend
LITHSTRTNO	Lithstrat No.		False	I		Geological code identifier linking to Explanatory Notes database
CODE	Geological Code	F	False	T	30	Geological code
TYPE	Type		False	T	150	Type of feature
UNITNAME	Unit name		False	T	100	Geological unit name
UNITREPORT	Unit report		False	T	254	URL linking to the Explanatory Notes report for the geological unit
OVERVIEWRE	Overview report		False	T	254	URL linking to the Explanatory Notes overview report for the geological unit that includes a stratigraphically sorted list for all associated child units
GSWASTATUS	GSWA status		False	T	30	Stratigraphic status of geological unit in Explanatory Notes database
RANK	Rank		False	T	15	Stratigraphic rank of geological unit
DESCRIPTN	Description		False	T	254	Long description of the geological code
PARENTCODE	Parent code		False	T	50	Geological code of the parent unit for the unit displayed in the CODE field
PARENTNAME	Parent name		False	T	100	Name of the parent geological unit for the unit displayed in the CODE field
ROCKTYPE1	Rock type 1		False	T	80	Rock type (e.g. igneous mafic volcanic)
LITHNAME1	Lithological name 1		False	T	254	Lithological name (e.g. basalt)
QUALIFIER1	Qualifier 1		False	T	100	First feature distinguishing the lithology (e.g. pillowed basalt)
QUALIFIER2	Qualifier 2		False	T	100	Second feature distinguishing the lithology (e.g. carbonate-altered pillowed basalt)
MIXEDROCK	Mixed rock		False	T	50	Mixed rock types or xenolith-bearing unit
ROCKTYPE2	Rock type 2		False	T	80	Second rock type in a mixed or xenolith-bearing unit
LITHNAME2	Lithological name 2		False	T	254	Second lithology in a mixed or xenolith-bearing unit
MIXEDQUAL1	Mixed qualifier 1		False	T	100	First feature distinguishing the second lithology in a mixed or xenolith-bearing unit
MIXEDQUAL2	Mixed qualifier 2		False	T	100	Second feature distinguishing the second lithology in a mixed or xenolith-bearing unit
WASTRAUNIT	WA stratigraphic unit		False	T	100	State-scale stratigraphic unit

SUPERSUITE	Supersuite		False	T	100	Assemblage of intrusive rocks and suites formed during the same magmatic event
SUITE	Suite		False	T	100	Igneous rock bodies formed during the same magmatic event
SUPERGROUP	Supergroup		False	T	100	An assemblage of related groups, or of formations and groups, having significant lithological features in common
GROUP_	Group		False	T	100	Lithostratigraphic unit containing two or more formations, all of which share a unifying characteristic
SUBGROUP	Subgroup		False	T	100	Subdivision of a group containing two or more formations
FORMATION	Formation		False	T	100	A distinct mappable geological unit showing unifying geological characteristics
MEMBER	Member		False	T	100	A distinct lithostratigraphic subdivision of a formation
BED	Bed		False	T	100	A single bed or small stratigraphic interval worthy of separate recognition
STATE	State		False	T	100	Western Australia: State-level tectonic unit
WATECTUNIT	WA tectonic unit		False	T	100	State-scale tectonic unit
SSUITE_TEC	Supersuite tectonic		False	T	100	Supersuite tectonic; all igneous rocks related to a specific tectonic event
SUITE_TEC	Suite tectonic		False	T	100	Suite tectonic; all igneous rocks related to a specific parental magmatic composition generated at a specific time
CRATON	Craton		False	T	100	Geologically stable part of the Earth’s crust, mostly older than 2.4 Ga
SUPERTERRA	Superterrane		False	T	100	Superterrane; a group of related terranes
CRATON_TER	Craton terrane		False	T	100	Craton terrane; a fault-bounded body of rock within a craton, with a distinct geological history
DOMAIN_	Domain		False	T	100	A fault-bounded body of rock within a CRATON_TER
GREENSTONE	Greenstone/granite complex		False	T	100	Greenstone belt or granitic complex
SUPERBASIN	Superbasin		False	T	100	A group of related basins of a similar age
BASIN	Basin		False	T	100	Accumulation of sedimentary rocks in a regional crustal depression
SUBBASIN	Sub-basin		False	T	100	Structural feature within a BASIN
SUBBASIN_E	Sub-basin element		False	T	100	Sub-basin element; structural feature within a SUBBASIN
OROGEN	Orogen		False	T	100	Tectonic belt characterized by regional deformation, metamorphism, magmatism and related sedimentation
PROVINCE	Province		False	T	100	Tectonic unit with a complex deformation, metamorphic and magmatic history
PROV_TZONE	Province terrane/zone		False	T	100	Tectonic subdivision of PROVINCE into terranes or zones
TECT_SUBDI	Tectonic subdivision		False	T	100	Tectonic subdivision of PROV_TZONE
OROG_FOR	Orogenic foreland		False	T	100	Orogenic foreland; an area of craton and/or basin reworked by orogenic events
OROG_FORSU	Orogenic foreland subunit		False	T	100	Orogenic foreland sub-unit; structural feature within an OROG_FOR
IN_OUTLIER	Inlier/outlier		False	T	100	Inlier outlier; older tectonic unit surrounded by younger unit; younger tectonic unit surrounded by older unit
EVENTS	Events		False	T	254	Deformation and magmatic events affecting the tectonic units to which the geological unit belongs
AGEFROM	Age from		False	T	50	Maximum possible age of unit as described by geological timescale
AGETO	Age to		False	T	50	Minimum possible age of unit as described by geological timescale
MAX_AGE_MA	Max age (Ma)		False	F		Maximum possible age of unit in millions of years
MAXUNCERTY	Max age uncertainty		False	F		Uncertainty of maximum age of lithostratigraphic unit in plus or minus millions of years
MIN_AGE_MA	Min age (Ma)		False	F		Minimum possible age of unit in millions of years
MINUNCERTY	Min age uncertainty		False	F		Uncertainty of minimum age of lithostratigraphic unit in plus or minus millions of years
MAX_AGE_DA	Max age data type		False	T	100	Type of constraint on maximum age
MIN_AGE_DA	Min age data type		False	T	100	Type of constraint on minimum age
CUSTODIAN	Custodian		False	T	10	Organization holding source data
PUBLISH_DA	Published date		False	D		Date the layer was published
EXTRACT_DA	Extract date		False	D		Date the layer was extracted from source
SYMBOL	Symbol		False	T	254	Combination of CODE and UNITNAME for plot purposes