TASMANIA
DEVELOPMENT
AND RESOURCES

Mineral Resources Tasmania

REPORT 1994/07

Structure of the GIS databases

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MIRLOCH

INTRODUCTION

MIRLOCH is a computerised database of mineral deposits in Tasmania. Data recorded include the name(s), commodities, location, age, form and strike of mineralisation, the host rock grouping, and references.

The MIRLOCH database is loosely related to the MINLOC database of the Bureau of Mineral Resources. It is designed as a quick reference to particular deposits, particularly for mineral deposit map production, resource assessments, and GIS related applications.

The data are presently available on 3.5 inch DOS-formatted discs in ASCII format with '!' delimiters. There are currently 3205 deposits recorded, and the data take up 440 kB of memory.

The codes are briefly described below for each item. Numbers in parentheses following each item indicate the maximum number of characters available. The corresponding lists of abbreviations are listed on pages 4 to 7 of this report.

Quadrangle (2)

Mandatory number field giving the number of the quadrangle in which the mineral deposit occurs, e.g. 40 for Alberton.

Reference No. (5)

This is unique number for each mine or mineral occurrence. The first two characters indicate the 1:50 000 geological quadrangles, followed by a three-digit serial number. For example 37017 represents deposit 17 on quadrangle 37 (Sheffield). The number for quadrangles 1 to 9 inclusive should be prefixed by 0 (e.g. 09001).

Mine/deposit name (40)

The name(s) of the mine or mineral occurrence where known. Where the name is unknown, the deposit may be given the Mining Lease number, the name of the watercourse (for alluvial workings), named after the relevant prospector, prospecting association, etc. (if known) or simply titled "Unnamed". If a series of significant deposits with the same name exist in a limited area, they may be appended A, B, C, etc., or a centroid of the deposits given as a single deposit. Alluvial goldfields and other mineral fields may be denoted in this manner.

The abbreviations recommended in this item are listed on page 4.

Duplicate names should be separated by semi-colons. Other delimiters used previously, however, include: the backslash (/), a comma and OR, while others are enclosed in parentheses ( ) or quotation marks. These will be amended in due course.

Major Commodity (8)

The main exploitable commodities in order of importance. Chemical symbols are used for metallic resources where possible (note UR is used for uranium, and some similar exceptions). A list of recommended abbreviations is provided on pages 5 to 7. Commas are used to separate commodities, e.g. CU, PB, ZN.

Minor Commodity (11)

The minor exploitable commodities in order of importance. The distinction from the above item is somewhat arbitrary, and usage is similar.

AMG Co-ordinates (6,6)

Full AMG co-ordinates to the nearest metre if possible, excluding the first 5 in the northing (i.e. 6 figures for mE and 6 figures for mN). This item is compulsory.

Co-ordinate error (1)

The accuracy of the given co-ordinate is represented by a number as indicated in the list on page 4.

Map sheet (5)

The 1:50 000 National Map Sheet Index Numbers, e.g. 83124 for Broadmarsh.

Status (1)

Either the present status of a mine (and an indication of whether reserves are known), or whether the deposit is a prospect, mineral occurrence or a mineralised area. A mineralised area may be, for example, an extensive alluvial gold field, an area of erratic or subeconomic mineralisation, etc. See the list on page 4.

Size (1)

The estimated total *in situ* size of the deposit (in tonnes for hard-rock deposits, or in m^3 for placer and alluvial deposits) is represented as indicated on page 4.

Host Rock (2)

The relevant time/stratigraphic units hosting the deposit. Two host rocks may be defined to cater for discordant deposits that traverse these time/stratigraphic boundaries. The units are listed on page 4.

Age of Mineralisation (1)

The age of the mineralisation using the subdivisions indicated on page 4. The age of the primary mineralisation is given if the ore has been later remobilised. The age is usually inferred.

Form of deposit (2)

The overall form of the deposit and/or nature of the mineralisation, using the classifications on page 4.

Strike (3)

The strike of the deposit, where applicable, in the range 0-359 (°T). If unknown or inapplicable, use -1.

Exploration of Deposit (5)

Exploration which has been undertaken on this deposit. Up to five methods may be entered (see page 4). Prospecting signifies pits, trenches or shafts. Geological mapping refers

to detailed surface and/or underground mapping. Geochemical surveys refer to detailed soil sampling as well as systematic chip sampling of mineralisation and host rocks. Geophysical surveys refers to ground-based techniques related to the deposits. Drilling refers to any drill hole intersecting the deposit.

References/Comments (38)

The best and most recent references available should be listed here, plus relevant comments if space permits. Abbreviations for publications are listed on page 7. Examples: GSB50 p123; TCR 90-1234; MRV Min. Map 5.

Key To MIRLOCH Listing Abbreviations

CO-ORDINATE ERROR

1	<50 m
2	<100 m
3	<500 m
4	< 1 km
5	>1 km

STATUS

0	Operating mine
1	Non-operating mine — reserves known
2	Non-operating mine — reserves unknown
3	Abandoned mine — reserves known
4	Abandoned mine — reserves unknown
5	Abandoned — mined out
6	Prospect — explored
7	Prospect — unexplored
8	Mineralised area
9	Mineral occurrence

SIZE OF DEPOSIT

0	Not determined
1	Very small: < 100 tonnes (or cubic metres)
2	Small: 100 t – 10 000 t
3	Medium: 10 000 t – 1 000 000 t
4	Large: 1 000 000 t – 10 000 000 t
5	Very large: > 10 000 000 t

HOST ROCK

0	Precambrian sequences
1	Cambrian sedimentary sequences
2	Cambrian igneous sequences
3	Mount Read Volcanics and correlates
4	Owen Conglomerate/Moina Sandstone and correlates
5	Gordon Limestone/Eldon Group and correlates
6	Mathinna Beds
7	Devonian granitoid
8	Parmeener Supergroup
9	Jurassic–Cenozoic sequences

AGE OF MINERALISATION

0	Not determined
1	Precambrian
2	Eocambrian–Early Cambrian
3	Middle–Late Cambrian
4	Ordovician–Early Devonian
5	Late Devonian (granite associated)
6	Permo-Triassic
7	Jurassic–Cretaceous
8	Tertiary
9	Quaternary

FORM OF DEPOSIT

0	Volcanic massive sulphide
1	Stratiform
2	Vein (single, sheet, saddle)
3	Stockwork
4	Disseminated
5	Replacement
6	Pipe
7	Placer
8	Residual
9	Other (noted in references)

EXPLORATION OF DEPOSIT

0	Nil or no known exploration
1	Prospecting
2	Geological mapping
3	Geochemical surveys
4	Geophysical surveys
5	Drilling

Abbreviations used in deposit names

Abbreviation	*Full term*	*Preferred use*
?	Unnamed	UNNAMED
ALLUV	Alluvial	
BH	Borehole	
C/F, CF	Coal field	CF
CK	Creek	
E	East	
EXTD	Extended	
EXTN	Extension	
G/F, GF	Gold field	GF
ML	Mining Lease	
N	North	
NO NAME	Unnamed	UNNAMED
O/B	Orebody	
PA or P.A.	Prospecting association	PA
PR	Prospect	
PSYN	Prospecting Syndicate	
PT	Point	
Q	Quarry	
R	River	
RVT, RT	Rivulet	RVT
RWD	Reward	
S	South	
SYN	Syndicate	
T/F, TF	Tin field	TF
UNKNOWN	Unnamed	UNNAMED
W	West	
WKGS	Workings	

Abbreviations used for commodities

Mineral thesaurus for MIRLOCH (R. S. Bottrill; Last revised: 23/9/1991)

This listing is provided as a guide for those users inputting or searching data for MIRLOCH.

Note that all minerals should be used as keywords with some discretion, and should represent those minerals discovered in the prospect which are:

1. Of known or potential economic value
2. Of importance in denoting alteration zones or weathering products of ore bodies

This listing suggests relevant commodities, but these may not always be appropriate, and should also be used with discretion. Minerals in all capitals are those recommended for standard use.

Sort by name:

Abbrev.	*Mineral*	*Comment*
SB	ANTIMONY	
AS	ARSENIC	
AS	ARSENOPYRITE	
ASB	ASBESTOS	
?	Asphalt	see also bitumen
BA	Barite	
BA	BARIUM	
BA	Baryte	
PB, ZN, CU	Base Metals	
BX	BAUXITE	
CY	BEIDELLITE	
BE	BERYL	
BE	BERYLLIUM	
BI	BISMUTH	
?	BITUMEN	
COAL	BITUMINOUS COAL	Cb?
COAL	BLACK COAL	Cb?
CU	BORNITE	
COAL-BN	Brown Coal	see also lignite
BS	Building stone	see ornamental stone
CD	Cadmium	
SN	CASSITERITE	
PB	CERUSSITE	
ZEOL	CHABAZITE	
CU	CHALCANTHITE	
SI	CHALCEDONY	
CU	CHALCOPYRITE	
CR	CHROMITE	
CR	CHROMIUM	
ASB	CHRYSOTILE (asbestos)	
HG	CINNABAR	
CY	CLAY	
COAL	COAL	?Cb
CO	COBALT	
CU	COPPER	
CN	CORUNDUM	see sapphire
CU	COVELLITE	
CROC	CROCOITE	?Gem
DMD	DIAMOND	?Gem
DT	Diatomite	
DOL	DOLOMITE	?Do
AU, AG	Electrum	
FL	FLUORITE	
PB	GALENA	
NI	Garnierite	
GEMS	GEMS	
LIM, FE, OC	GOETHITE	
AU	GOLD	
GRANITE, BS?	Granite	
GRAPH, GT	GRAPHITE	?
FE, HEM	Haematite	
CY	HALLOYSITE	?Ck
RUT, ILM, ZR, TI	HEAVY MINERALS	?HM

Sort by abbreviation:

Abbrev.	*Mineral*	*Comment*
?	Asphalt	see also bitumen
?	BITUMEN	
?	Hydrocarbons	
AG	SILVER	
AS	ARSENIC	
AS	ARSENOPYRITE	
ASB	ASBESTOS	
ASB	CHRYSOTILE (asbestos)	
AU	GOLD	
AU, AG	Electrum	
BA	Barite	
BA	BARIUM	
BA	Baryte	
BE	BERYL	
BE	BERYLLIUM	
BI	BISMUTH	
BS	Building stone	see ornamental stone
BS	ORNAMENTAL STONE	
BX	BAUXITE	
CD	Cadmium	
CN	CORUNDUM	see sapphire
CO	COBALT	
COAL	BITUMINOUS COAL	Cb?
COAL	BLACK COAL	Cb?
COAL	COAL	Cb?
COAL	STEAMING COAL	Cb?
COAL	TORBANITE	Cb?
COAL-BN	Brown Coal	see also lignite
COAL-BN	LIGNITE	
	Cr	CHROMITE
CR	CHROMIUM	
CROC	CROCOITE	?Gem
CU	BORNITE	
CU	CHALCANTHITE	
CU	CHALCOPYRITE	
CU	COPPER	
CU	COVELLITE	
CU	MALACHITE	
CY	BEIDELLITE	
CY	CLAY	
CY	HALLOYSITE	?Ck
CY	ILLITE	
CY	Kaolin	?Ck
CY	KAOLINITE	?Ck
CY	MONTMORILLONITE	
DMD	DIAMOND	?Gem
DOL	DOLOMITE	?Do
DT	Diatomite	
FE	IRON	
FE, HEM	HEMATITE	
FE, HEM	Haematite	
FE, MAG	MAGNETITE	
FL	FLUORITE	

Sort by name:

Abbrev.	*Mineral*	*Comment*
NI	HEAZLEWOODITE	
NI	HELLYERITE	
FE, HEM	HEMATITE	
?	Hydrocarbons	
CY	ILLITE	
ILM, TI	ILMENITE	
IR	IRIDIUM	?PGM
IR, OS	IRIDOSMINE	?PGM
FE	IRON	
CY	Kaolin	?Ck
CY	KAOLINITE	?Ck
PB	LEAD	
LX, TI	LEUCOXENE	?Lcxn
COAL-BN,LIGNITE	LIGNITE	
LST	Lime	?lime
LSND	Lime sands	
LST	LIMESTONE	
LIM, FE, OC	LIMONITE	
LI	LITHIUM	
MS	MAGNESITE	
FE, MAG	MAGNETITE	
CU	MALACHITE	
MN	MANGANESE	
MAR	MARBLE	
HG	MERCURY	
MI	Mica	
NI	MILLERITE	
MO	MOLYBDENITE	
MO	MOLYBDENUM	
MON	MONAZITE	?REE, Th
Cy	MONTMORILLONITE	
MI	MUSCOVITE	
ZEOL	NATROLITE	
NI	NICKEL	
OC	OCHRE	
OSH	OIL SHALE	
BS	ORNAMENTAL STONE	
OS, IR, OSIR	OSMIRIDIUM	?PGM
OS	OSMIUM	?PGM
PD	PALLADIUM	?PGM
?	PEAT	
NI	PENTLANDITE	
PH	PHOSPHATE	
PH	Phosphorus	
OC	Pigment	see ochre
UR	Pitchblende	
PGM	PLATINOIDS	undifferentiated
PT	PLATINUM	?PGM
PY, S	PYRITE	
PO	PYRRHOTITE	
SI	QUARTZ	
REE	RARE EARTHS	?PGM
RE	RHENIUM	?PGM
RH	RHODIUM	?PGM
RU	RUTHENIUM	?PGM
RUT, TI	RUTILE	
SSt, BS?	Sandstone	
GEMS, SAPP	SAPPHIRE	
W	SCHEELITE	
SI	SILICA	
SI	Silicon	
AG	SILVER	
SLATE	SLATE	?SL
ZN	SPHALERITE	
SN	STANNITE	
COAL	STEAMING COAL	
SB	STIBNITE	
GEMS, CR	STICHTITE	

Sort by abbreviation:

Abbrev.	*Mineral*	*Comment*
GEMS	GEMS	
GEMS, CR	STICHTITE	
GEMS, CU	TURQUOISE	
GEMS, TOPAZ	TOPAZ	
GEMS, SAPP	SAPPHIRE	
GRANITE	Granite	
GRAPH, GT	GRAPHITE	
HG	CINNABAR	
HG	MERCURY	
ILM, TI	ILMENITE	
IR	IRIDIUM	
IR,OS	IRIDOSMINE	?PGM
LI	LITHIUM	?PGM
LIGNITE	LIGNITE	
LIM	LIMONITE	
LIM	GOETHITE	
LIST	Limestone	
LSND	Lime sands	
LST	Lime	?lime
LST	LIMESTONE	
LX, TI	LEUCOXENE	?LCXN
MAR	MARBLE	
MI	Mica	
MI	MUSCOVITE	
MN	MANGANESE	
MO	MOLYBDENITE	
MO	MOLYBDENUM	
MON	MONAZITE	" ?REE, Th
MS	MAGNESITE	
NI	Garnierite	
	NI	HEAZLEWOODITE
NI	HELLYERITE	
NI	MILLERITE	
NI	NICKEL	
NI	PENTLANDITE	
NI	ZARATITE	
OC	OCHRE	
OC	Pigment	see ochre
OS	OSMIUM	?PGM
OS, IR, OSIR	OSMIRIDIUM	?PGM
OSH	OIL SHALE	
OSH	TASMANITES	
PEAT	PEAT	
PB	CERUSSITE	
PB	GALENA	
PB	LEAD	
PB, ZN, CU	Base Metals	
PD	PALLADIUM	?PGM
PGM	PLATINOIDS	undifferentiated
PH	PHOSPHATE	
PH	Phosphorus	
PO	PYRRHOTITE	
PT	PLATINUM	?PGM
PY, S	PYRITE	
RE	RHENIUM	?PGM
REE	RARE EARTHS	?PGM
RH	RHODIUM	?PGM
RUT, ILM, ZR	HEAVY MINERALS	?HM
RUT, TI	RUTILE	?HM
RU	RUTHENIUM	?PGM
S	SULPHUR	
SB	ANTIMONY	
SB	STIBNITE	
SI	CHALCEDONY	
SI	QUARTZ	
SI	SILICA	
SI	Silicon	
SLATE	SLATE	?Sl

Sort by name:			Sort by abbreviation:		
Abbrev.	Mineral	Comment	Abbrev.	Mineral	Comment
S	SULPHUR		Sn	CASSITERITE	
Tc	TALC		Sn	STANNITE	
Osh	TASMANITES		Sn	TIN	
Th	THORIUM		SSt	Sandstone	
Sn	TIN		Tc	TALC	
Ti	TITANIUM		Th	THORIUM	
Gems, Topaz	TOPAZ		Ti	TITANIUM	
Coal	TORBANITE		UR	Pitchblende	see uraninite
UR	TORBERNITE		UR	TORBERNITE	
W	TUNGSTEN		UR	URANINITE	
Gems, Cu	TURQUOISE		UR	URANIUM	
UR	URANINITE		V	VANADIUM	
UR	URANIUM		W	SCHEELITE	
V	VANADIUM		W	TUNGSTEN	
W	Wolfram		W	Wolfram	
W	WOLFRAMITE		W	WOLFRAMITE	
Ni	ZARATITE		Zeol	CHABAZITE	
Zeol	ZEOLITE		Zeol	NATROLITE	
Zn	ZINC		Zeol	ZEOLITE	
Zr	ZIRCON	?HM	Zn	SPHALERITE	
Zn	ZINC		Zr	ZIRCON	?HM

Abbreviations used in References

Publications by Mineral Resources Tasmania (formerly Department of Mines)

Abbreviation	*Explanation*	*Example of usage*
Admin	See & use ML Plans	Admin
ER...	Explanatory Report: Tasmanian Geological Atlas 1mile and 1:50 000 series	ER 50, (also ER7914S)
Geol. Map. ...	See & use Sheet	Geol. Map. 32
GSB...	Geological Survey Bulletin	GSB 32
GSBull...	See & use GSB	GSBull19
GSER...	See & use ER...	GSER 25
GSMR...	Geological Survey Mineral Resources	GSMR 9
GSR...	Geological Survey Report	GSR 5
Min Res Map B	Map B by Noldart (1967) from GSB 50	Min Res Map B
Min. Chart ...	Old Mineral Resource map series (~1951)	Min. Chart 12
Min. Map. ...	See & use Min. Chart	Min. Map 5
Mine Lease	See & use ML Plans	Mine Lease
Mineral Map...	See & use Min. Chart	Mineral Map 4
ML maps	See & use ML Plans	ML maps
ML Plans	Mining Lease plans	ML Plans
MRV Map ...	Mt. Read Volcanics Project Geological Maps	MRV Map 2
OS ...	Old Series Report	OS 112
Plan...	Plan held by Cartographic Drafting	Plan 1208A
Sheet...	Tasmanian Geological Atlas 1mile and 1: 50 000 series	Sheet 41
TCR...	Unpublished exploration company report	TCR 85-1234
TDM lease plans	TDM lease plans	TDM lease plans
TDM Map...	See & use Sheet	TDM Map 50
TR...	Technical Report	TR 7
UR...	Unpublished Report	UR 90/23 or Blake, UR 1940

References outside of Mineral Resources Tasmania

Abbreviation	*Explanation*	*Example of usage*
AIMM M...	Australasian Institute of Mining & Metallury, Monograph series	AIMM-M5
Collins (Hons)	Unpublished Honours Thesis, P. L. F. Collins, Univ. Tasm.	Collins (Hons)
Econ Geol	Economic Geology (journal)	Ford, Econ Geol (1981)
EZ	EZ (Pasminco) Unpublished Mineral Deposit File	EZ
Pers. Comm.	Personal Communication	T. Ling, Pers. Comm.
PPRST	Papers & Proceedings of the Royal Society of Tasmania	Bacon (1990) PPRST 123
Rio Aust. Expl. P/L	Unpublished plans (1957) in library	Rio Aust. Expl. P/L (1957)
Sharples (1990)	Monograph: Building & ornamental stone resources of Tasmania	Sharples (1990)
Sharples (1990) MSc	Unpublished MSc Thesis, C. Sharples, University of Tasmania	Sharples (1990) MSc

ROCKCHEM

FIELD DESCRIPTION

Introduction

The fields in this database are partly modelled on those of the PETCHEM DATA SET of the BMR produced by Wyborn and Ryburn (BMR Record 1989/19). The database is divided into three main tables which are associated with authority tables. Some of the fields are the same as those used for the GIS geology coverages and use the same authority tables. This will provide useful links to those databases. There are also fields that, when implemented, will allow links to the DORIS and TASROCK databases.

The abbreviate name used for the fields in the database is given in brackets after the full name.

Sample table

Originator (ORIG)

Mandatory name of the person or organisation that collected or submitted the sample for analysis. Input as a two or three letter code which relates to a look up table with items of up to 64 characters.

Chemdata number (CHEMDATNO)

A number unique to each analysis and used to link the various tables, i.e. the sample, majors, traces and REE tables.

Field Number (FIELDNO)

Mandatory field of 16 characters used for the field number used by the collector of the sample.

Region (REGION)

Optional name of the tectono-stratigraphic region from which the sample was collected. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Supergroup (SPGRP)

Optional name of the supergroup or major stratigraphic subdivision from which the sample was collected. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Group or Batholith (GRP)

Optional name of the stratigraphic group or igneous batholith from which the sample was collected. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Subgroup or Suite (SBGRP)

Optional name of the stratigraphic subgroup or igneous suite pertaining to the sample. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Stratigraphic Formation (FRM)

Optional name giving the relevant stratigraphic unit at formation level. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Stratigraphic Member (MBR)

Optional name giving the relevant stratigraphic unit at member level. Input as a 2 character code which relates to a look up table with items of up to 64 characters.

Map Symbol (SYMBOL)

Optional field of 10 characters: the letter symbol used on geological maps for the rock unit from which the sample was collected.

Rock Class (CLASS)

Mandatory one character code which relates to a look up table with the major lithological subdivisions.

Rock Type (TYPE)

Optional one character code which relates to a look up table with the major subdivisions of rock class.

Rock Composition (COMP)

Optional one character code which relates to a look up table with lithological descriptive terms.

Rock Lithology (LITH)

Optional two character code which relates to a look up table with the major lithological types.

Lithological Description (LITHOLOGY)

Optional field of 128 characters for a full lithological description.

Grouping (GROUPING)

Optional field of 22 characters to allow the user to supply other divisions for samples, for example, the alteration zones of an ore body.

Era (ERA)

Optional two character code which relates to a look up table with the eras.

Period (PERIOD)

Optional two character code which relates to a look up table with the periods.

Epoch (EPOCH)

Optional two character code which relates to a look up table with the epochs.

Absolute age, maximum (MAXAGE)

Optional number field of 7 digits used to hold the maximum age of the sample in millions of years based on the errors associated with the determination. If no value is entered the accepted IUGS maximum age for the period is entered automatically by the input program.

Absolute age, minimum (MINAGE)

Optional number field of 7 digits used to hold the minimum age of the sample in millions of years based on the errors associated with the determination. If no value is entered the accepted IUGS minimum age for the period is entered automatically by the input program.

Absolute age, determination method (AGEMETHOD)

Optional 20 character field for description of the dating method.

References (REFNO1 - REFNO5)

Five optional number inputs which relate to a look up table of references.

Country (COUNTRY)

Field of 3 capital letters. The default value is 'AUS' and is put in automatically by the input program.

State (STATE)

Field of 3 capital letters. The default is 'TAS' and is put in automatically by the input program.

Quad (QUAD)

Mandatory number field giving the number of the quadrangle in which the drill hole occurs, e.g. 40 for Alberton.

Geographic Area (GEOGAREA)

Optional 128 character field for the name of the geographic area (e.g. valley, plain, mountain range) from which the sample comes.

Locality (LOCALITY)

Optional 128 character field for a description of the sample site to aid in its relocation in the field, e.g. "5.5 km NW of Brown's Bore, on east bank of dry creek".

Zone (ZONE)

Mandatory field of 2 digits — AMG zone. Default for Tasmania is 52 and is put in automatically by the input program.

AMGE (AMGE)

Mandatory field of 6 digits — AMG eastings. Put in automatically by the input program based on the grid reference.

AMGN (AMGN)

Mandatory field of 7 digits — AMG northings. Put in automatically by the input program based on the grid reference.

Accuracy (ACC)

Number field giving the error in metres for the position of the sample.

Decimal Latitude (DECLAT)

Field of 8 digits put in automatically by the input program based on the grid reference.

North or South (NORTHSOUTH)

Single character field, 'S' by default put in automatically by the input program.

Decimal Longitude (DECLONG)

Field of 9 digits put in automatically by the input program based on the grid reference.

East or West (EASTWEST)

Single character field 'E' by default, put in automatically by the input program.

DORIS Number (DORISNO)

Optional 6 digit number — link to the DORIS data base.

Registration Number (REGNO)

Optional field of 16 characters. It provides a connection with the TASROK data base.

Other Data (OTHERDATA)

Optional field of 64 characters. May be used for any data not covered by the above field that the originator feels are relevant.

Entry Date (ENTRYDATE)

Invisible date field. This field automatically assumes the date that the sample data is entered into the database.

Majors table

Originator (ORIG)

Mandatory name of the person or organisation that collected or submitted the sample for analysis. Input as a two or three letter code which relates to a look up table with items of up to 64 characters.

Chemdata number (CHEMDATANO)

A number unique to each analysis and used to link the various tables, i.e. the sample, majors, traces and REE tables.

Field Number (FIELDNO)

Optional field of 16 characters. This field is designed to accommodate any alternative numbering systems that might apply to a sample or group of samples. For example, some samples are given field numbers that differ from the final registered numbers.

Analysis Number (ANALNO)

Optional number used by the laboratory that analysed the sample.

Source Number (SOURCENO)

Mandatory name of the laboratory that performed the analysis or the person or organisation that provided the data (e.g. BMR, BMR restricted, BHP, B. W. Chappell). Input as a number which refers to a look up table with items up to 64 characters. Relates to a field designated as LAB in the authority table.

Major elements

Optional numeric field of up to 5 digits, two after decimal point. Fe_2O_3 TOT calculated by the input program. Detection limit value are entered as negative numbers

SiO_2
TiO_2
Al_2O_3
Fe_2O_3 TOT
FeO TOT
Fe_2O_3
FeO
MnO
MgO
CaO
Na_2O
K_2O
P_2O_5
H_2O Plus
H_2O Min
CO_2
SO_3 TOT
Sulphate as SO_3
Sulphide as SO_3
S

LOI

Loss on ignition, optional numeric field of up to 4 digits.

REST

Sum of trace elements recalculated by the input program to oxides wt%.

TOTAL

Optional numeric field of up to 6 digits.

CALCTOTAL

Numeric field of 6 digits calculated by the input program.

Traces table

Originator (ORIG)

Mandatory name of the person or organisation that collected or submitted the sample for analysis. Input as a two or three letter code which relates to a look up table with items of up to 64 characters.

Chemdata number (CHEMDATANO)

A number unique to each analysis and used to link the various tables, i.e. the sample, majors, traces and REE tables.

Field Number (FIELDNO)

Optional field of 16 characters. This field is designed to accommodate any alternative numbering systems that might apply to a sample or group of samples. For example, some samples are given field numbers that differ from the final registered numbers.

Analysis Number (ANALNO)

Optional number used by the laboratory that analysed the sample.

Source Number (SOURCENO)

Mandatory name of the laboratory that performed the analysis or the person or organisation that provided the data (e.g. BMR, BMR restricted, BHP, B. W. Chappell). Input as a number which refers to a look up table with items up to 64 characters. Relates to a field designated as LAB in the authority table.

Trace elements

Optional numeric field of up to 8 digits, two may be after the decimal point.

Ag
As
Au
Ba
Bi
Cd
Ce
Cl
Co
Cr
Cu
F
Ga
Ir
La
Li
Mo
Nb
Nd
Ni
Os
Pb
Pd
Pt
Rb
Re
Rh
Ru
Sb
Sc
Se
Sn
Sr
Te
Th
U
V
W
Y
Zn
Zr

REE table

Originator (ORIG)

Mandatory name of the person or organisation that collected or submitted the sample for analysis. Input as a two or three letter code which relates to a look up table with items of up to 64 characters.

Chemdata number (CHEMDATANO)

A number unique to each analysis and used to link the various tables, i.e. the sample, majors, traces and REE tables.

Field Number (FIELDNO)

Optional field of 16 characters. This field is designed to accommodate any alternative numbering systems that might apply to a sample or group of samples. For example, some samples are given field numbers that differ from the final registered numbers.

Analysis Number (ANALNO)

Optional number used by the laboratory that analysed the sample.

Source Number (SOURCENO)

Mandatory name of the laboratory that performed the analysis or the person or organisation that provided the data (e.g. BMR, BMR restricted, BHP, B. W. Chappell). Input as

a number which refers to a look up table with items up to 64 characters. Relates to a field designated as LAB in the authority table.

Rare Earth Elements

Optional numeric field of up to 8 digits, two may be after the decimal point

La	Tb
Ce	Dy
Pr	Ho
Nd	Er
Sm	Tm
Eu	Yb
Gd	Lu

FIELD DEFINITIONS

Sample table

Name	*Internal width*	*Output width*	*Type**	*No. Decimals*
ORIG	3	3	C	
CHEMDATNO	4	9	B	
FIELDNO	16	16	C	
GRP	2	2	C	
SBGRP	2	2	C	
FRM	2	2	C	
MBR	2	2	C	
SYMBOL	8	8	C	
TYPE	1	1	C	
LITHOLOGY	128	128	C	
GROUPING	22	22	C	
ERA	2	2	C	
REFNO1	2	5	B	
REFNO2	2	5	B	
REFNO3	2	5	B	
REFNO4	2	5	B	
REFNO5	2	5	B	
COUNTRY	3	3	C	
STATE	3	3	C	
QUAD	2	2	B	
GEOGAREA	128	128	C	
LOCALITY	128	128	C	
ZONE	2	5	B	
AMGE	4	6	B	
AMGN	4	7	B	
ACC	2	4	B	
DECLAT	4	8	F	4
NORTHSOUTH	1	2	C	
DECLONG	4	8	F	4
EASTWEST	1	2	C	
DORISNO	4	6	B	
OTHERDATA	128	128	C	
MAXAGE	4	12	F	3
MINAGE	4	12	F	3
AGEMETHOD	20	20	C	
REGNO	16	16	C	
PERIOD	2	2	C	
SPGRP	2	2	C	
REGION	2	2	C	
CLASS	1	1	C	
COMP	1	1	C	
LITH	2	2	C	
EPOCH	2	2	C	
ENTRYDATE	8	8	D	

Majors table

Name	*Internal width*	*Output width*	*Type**	*No. Decimals*
ORIG	3	3	C	
CHEMDATNO	4	9	B	
FIELDNO	16	16	C	
ANALNO	16	16	C	
SOURCENO	4	5	B	
SIO2	4	5	F	2
TIO2	4	5	F	2
AL2O3	4	5	F	2
FE2O3TOT	4	5	F	2
FEOTOT	4	5	F	2
FE2O3	4	5	F	2
FEO	4	5	F	2
MNO	4	5	F	2
MGO	4	5	F	2
CAO	4	5	F	2
NA2O	4	5	F	2
K20	4	5	F	2
P2O5	4	5	F	2
H2OPLUS	4	5	F	2
H2OMIN	4	5	F	2
CO2	4	5	F	2
SO3TOT	4	5	F	2
SULPHATEASSO3	4	5	F	2
SUPHIDEASSO3	4	5	F	2
S	4	5	F	2
LOI	4	5	F	2
REST	4	5	F	2
TOTAL	4	6	F	2
CALCTOTAL	4	6	F	2

*** Type**

B = Binary, number stored as binary integer

C = Character, character field

F = Floating, number stored in floating point format

Traces table

Name	*Internal width*	*Output width*	*Type**	*No. Decimals*
ORIG	3	3	C	
CHEMDATNO	4	9	B	
FIELDNO	16	16	C	
ANALNO	16	16	C	
SOURCENO	4	5	B	
AG	4	6	F	1
AS	4	6	F	1
AU	4	6	F	1
BA	4	6	F	1
BI	4	6	F	1
CD	4	6	F	1
CE	4	6	F	1
CL	4	6	F	1
CO	4	6	F	1
CR	4	6	F	1
CU	4	6	F	1
F	4	6	F	1
GA	4	6	F	1
IR	4	6	F	1
LA	4	6	F	1
LI	4	6	F	1
MO	4	6	F	1
NB	4	6	F	1
ND	4	6	F	1
NI	4	6	F	1
OS	4	6	F	1
PB	4	6	F	1
PD	4	6	F	1
PT	4	6	F	1
RB	4	6	F	1
RE	4	6	F	1
RH	4	6	F	1
RU	4	6	F	1
SB	4	6	F	1
SC	4	6	F	1
SE	4	6	F	1
SN	4	6	F	1
SR	4	6	F	1
TE	4	6	F	1
TH	4	6	F	1
U	4	6	F	1
V	4	6	F	1
W	4	6	F	1
Y	4	6	F	1
ZN	4	6	F	1
ZR	4	6	F	1

REE table

Name	*Internal width*	*Output width*	*Type**	*No. Decimals*
ORIG	3	3	C	
CHEMDATNO	4	9	B	
FIELDNO	16	16	C	
ANALNO	16	16	C	
SOURCENO	4	5	B	
LA	4	6	F	2
CE	4	6	F	2
PR	4	6	F	2
ND	4	6	F	2
SM	4	6	F	2
EU	4	6	F	2
GD	4	6	F	2
TB	4	6	F	2
DY	4	6	F	2
HO	4	6	F	2
ER	4	6	F	2
TM	4	6	F	2
YB	4	6	F	2
LU	4	6	F	2

*** Type**

B = Binary, number stored as binary integer

C = Character, character field

F = Floating, number stored in floating point format

AUTHORITY TABLES

REFERENCES

The REFNO1 to REFNO5 fields carry number codes for the publications in which the chemical analyses in ROCKCHEM are listed.

Code *Reference*

1 Nul

2 MCCLENAGHAN, M. P.; TURNER, N. J.; BAILLIE, P. W.; BROWN, A. V.; WILLIAMS, P. R.; MOORE, W. R. 1982. Geology of the Ringarooma–Boobyalla area. *Bull. Geol. Surv. Tasm.* 61: 198 pp.

3 MCCLENAGHAN, M. P.; TURNER, N.J.; EVERARD, J. L. 1992. Geological Atlas 1:50 000 Series. Sheet 41 (8515S). St Helens. *Explanatory Report Geological Survey Tasmania.*

4 GROVES, D. I.; COCKER, J. P.; JENNINGS, D. J. 1977. The Blue Tier Batholith. *Bulletin Geological Survey of Tasmania* 55.

5 CHAPPELL, B. W. (unpublished data)

6 TURNER, N. J.; BLACK, L. P.; HIGGINS, N. C. 1986. The St Marys Porphyrite and related dykes — a Devonian ash-flow tuff and its feeder. *Australian Journal of Earth Science* 33:201–208.

7 MCCLENAGHAN, M. P.; WILLIAMS, P. R. 1982. Distribution and characterisation of granitoid intrusions in the Blue Tier area. *Paper Geological Survey Tasmania.* 4, 32 pp.

8 HIGGINS, N. C.; SOLOMON, M.; VARNE, R. 1985. The genesis of the Blue Tier Batholith, N.E. Tasmania. *Lithos* 18:129–149.

9 MACKENZIE, D. E.; BLACK, L. P.; SUN, S-s. 1988. Origin of alkali feldspar granites: an example from Poimena Granite, northeastern Tasmania, Australia. *Geochim. Cosmochim. Acta* 52:2507–2524.

10 MCCLENAGHAN, M. P. 1984. The petrology, mineralogy and geochemistry of the Pyengana and Gardens granodiorites, the Hogans Road diorite and the dolerite dykes of the Blue Tier Batholith. *Unpublished Report Department of Mines Tasmania.* 1984/04.

11 MCCLENAGHAN, M. P. (unpublished data)

12 MCCLENAGHAN, J. (unpublished data)

13 WILLIAMS, P. R. (unpublished data)

14 BAILLIE, P. W. 1986. Geological atlas 1:50 000 Series. Sheet 25 (8516S). Eddystone. *Explanatory Report Geological Survey Tasmania.*

15 CAPP, C. E. 1991. *The Geology of the Evercreech area, northeastern Tasmania.* B.Sc. (Hons) thesis, University of Tasmania.

16 COCKER, J. D.1977. *Petrogenesis of the Tasmanian granitoids.* Ph.D. thesis, University of Tasmania.

17 KITTO, P. A. 1982. *The geology and geochemistry of the Ansons Bay Batholith, N.E. Tasmania.* B.Sc. (Hons) thesis, University of Tasmania.

18 ROBINSON, K. P. 1982. *The geology and geochemistry of the Mt Stronach Region, Scottsdale.* B.Sc. (Hons) thesis, University of Tasmania.

19 CLAYTON, W. F. 1981. *The petrology and geochemistry of the Ben Lomond granite and associated tin-tungsten mineralisation.* B.Sc. (Hons) thesis, University of Tasmania.

20 SKRZECZYNSKI, R. H. 1971. *The Bridport Granodiorite and its contact aureole.* B.Sc. (Hons) thesis, University of Tasmania.

21 ROACH, M. J. (unpublished data)

22 FINDLAY, R. H. (unpublished data)

23 EVERARD, J. E. (unpublished data)

24 SUTHERLAND, F. L. 1969. Mineralogy, petrochemistry and magmatic history of Tamar lavas, N. Tasmania. *Papers and Proceedings Royal Society of Tasmania.* 103:17–34.

25 SUTHERLAND, F. L.; KERSHAW, R. C. 1971. The Cainozoic geology of Flinders Island, Bass Strait. *Papers and Proceedings Royal Society of Tasmania* 105: 151–176.

26 TURNER, N. J.; CALVER, C. R. 1987. Geological Atlas 1:50 000 Series. Sheet 44 (8514N). St Marys. *Explanatory Report Geological Survey Tasmania.*

27 JENNINGS, D. J.; SUTHERLAND, F. L. 1969. Geology of the Cape Portland area with special reference to the Mesozoic(?) appinitic rocks. *Technical Report Department of Mines Tasmania.* 13:45–82.

28 COLLINS, P. L. F. (unpublished data)

29 VICARY, M. (unpublished data)

30 REID, E. J. 1987. *Phase relationships in peraluminous granites: a field, experimental and theoretical study.* Ph.D. thesis, University of Tasmania.

31 SUTHERLAND, F. L. 1989. Tertiary basaltic magmas and the Tasmanian lithosphere, *in* BURRETT, C. F.; MARTIN, E. L. (ed.). Geology and Mineral Resources of Tasmania. *Special Publication Geological Society of Australia.* 15

32 CALCRAFT, H. J. 1980. *Fe and Ti oxide minerals in some Tasmanian granitoids.* B.Sc. (Hons) thesis, University of Tasmania.

33 CLARKE, M. J.; BAILLIE, P. W. 1984. Geological Atlas 1:50 000 Series. Sheet 77 (8512N). Maria. *Explanatory Report Geological Survey Tasmania.*

34 HUNNS, S. R. 1982. *Geology and Geochemistry of the Bicheno Garnet Cordierite-Biotite Granite.* B.Sc. (Hons) thesis, University of Tasmania.

ORIGINATORS

The ORIG field carries a letter code for the geologist or organisation that collected or submitted the sample for analysis.

Code	*Originator*
PWB	Baillie, P. W. B.
RSB	Bottrill, R. S.
AVB	Brown, A. V.
HJC	Calcraft, H. J.
CAP	Capp, C. E.
BWC	Chappell, B. W.
WFC	Clayton, W. F.
JDC	Cocker, J. D.
PLC	Collins, P. L. F.
SFC	Cox, S. F.
ABE	Edwards, A. B.
JLE	Everard, J. L.
RHF	Findlay, R. H.
DIG	Groves, D. I.
NCH	Higgins, N. C.
SRH	Hunns, S. R.
DJJ	Jennings, D. J.
PAK	Kitto, P. A.
DEM	MacKenzie, D. E.
JM2	McClenaghan, J.
MPM	McClenaghan, M. P.
IM	McDougall, I.
RDM	McNeill, R. D.
EJR	Reid, E. J.
MJR	Roach, M. J.
KPR	Robinson, K. P.
RSK	Skrzeczynski, R. H.
FLS	Sutherland, F. L.
NJT	Turner, N. J.
RV	Varne, R.
MJV	Vicary, M. J.
PRW	Williams, P. R.

PERIOD

The PERIOD field describes the geological period to which the polygon belongs and gives its accepted IUGS age limits.

Code	*Period*	*Start (Ma)*	*Finish (Ma)*
QU	Quaternary	1.6	0
TE	Tertiary	65	1.6
CR	Cretaceous	135	65
JU	Jurassic	205	135
TR	Triassic	250	205
PE	Permian	286	250
CB	Carboniferous	355	290
DE	Devonian	410	355
SI	Silurian	438	410
OR	Ordovician	490	438
CM	Cambrian	540	490
NP	Neoproterozoic	1000	540
MP	Mesoproterozoic	1800	1000
PP	Palaeoproterozoic	2500	1800
PT	Permo-Triassic	286	205
SD	Siluro-Devonian	438	355
CO	Cambro-Ordovician	540	438
EC	Eocambrian	800	540
OD	Ordovician-Devonian	490	355
CE	Cambrian-Eocambrian	800	490
PC	Permo-Carboniferous	355	250

DORIS

FIELD DESCRIPTION

DORIS number (DORIS194-ID)

A number unique to each drill hole and used to link to other databases.

Drill hole identification (NAME)

Mandatory field of 32 characters designed to accommodate the drill hole number and location.

Quadrangle (QUAD)

Mandatory number field giving the number of the quadrangle in which the drill hole occurs e.g. 40 for Alberton.

1:50 000 Map (MAPREF)

Mandatory number field giving the number of the 1:50 000 map in which the drill hole occurs e.g. 84152 for Mathinna.

Eastings (EASTING)

Mandatory field of 6 digits — AMG eastings for the drill hole location.

Northings (NORTHING)

Mandatory field of 7 digits — AMG northings for the drill hole location.

Accuracy (ACC)

Mandatory one digit code indicating the accuracy of the drill hole position; 0 – nearest metre, 1 – nearest 5 metres, 2 – nearest 50 metres, 3 – nearest 500 metres, 4 – nearest 5 km.

Purpose of the drill hole (PURPOSE)

Optional one digit code for the purpose of the drill hole; 0 – engineering geology, 1 – metallic minerals, 2 – non-metallic minerals, 3 – fuels, 4 – stratigraphic.

Plan number (PLAN_NO)

Optional 6 digit number of the plan held by the Mines Department that shows the drill hole.

Report reference (REP_REF)

Mandatory 12 character field giving the reference to the report containing the log of the drill hole.

Log location (LOG_LOC)

Optional three digit number of the file in Mines Department closed file room containing the log of the drill hole.

Core held (CORE_HELD)

Optional one digit code indicating if the core is held by the Mines Department; 0 – not held, 1 – held..

Exploration or mining lease (EL_ML)

Optional 7 character field giving the exploration or mining lease number of the area in which the hole was drilled.

Organisation (ORG)

Optional 20 character field giving the name of the organisation that had the hole drilled.

Driller (DRILLER)

Optional one digit code for the organisation that did the drilling; 0 – Department of Mines, 1 – Hydro Electric Commission, 2 – Commonwealth, 3 – Private contractor.

Month drilling started (MONTH)

Optional 2 digit number for the month drilling started.

Year drilling started (DATE)

Optional 4 digit number giving the year that drilling started.

Depth (DEPTH)

Optional 4 digit number giving the final depth of the drill hole in metres.

Type of drill used (DRILLTYPE1)

Optional one digit code for type of drill used; 0 – diamond, 1 – cable tool, 2 – rotary, 3 – percussion, 4 – auger.

Type of drill used (DRILLTYPE2)

Second optional one digit code for type of drill used, required when more than one drill type is involved. Codes as for previous field.

Geophysical logging (LOGGED)

Optional one digit code to indicate whether the hole was geophysically logged; 0 – not logged, 1 – logged.

FIELD DEFINITIONS

DORIS table

Name	*Internal width*	*Output width*	*Type*	*No. Decimals*
DORIS194-ID	4	12	B	
NAME	32	32	C	
QUAD	4	5	B	
MAPREF	4	5	B	
NORTHING	4	8	B	
EASTING	4	7	B	
ACC	4	5	B	
PURPOSE	4	5	B	
PLAN_NO	6	6	C	
REP_REF	12	12	C	
LOG_LOC	4	5	B	
CORE_HELD	4	5	B	
EL_ML	7	7	C	
ORG	20	20	C	
DRILLER	4	5	B	
MONTH	4	5	B	
DATE	20	20	C	
DEPTH	4	5	B	
DRILLTYPE1	4	5	B	
DRILLTYPE2	4	5	B	
LOGGED	4	5	B	

STRUCTURAL GEOLOGY DATABASE

INTRODUCTION

Structural geological data is stored in an Arc/Info coverage called TASSTR. The structural data is stored in a single table in Arc/Info (TASSTR.PAT). There is one location stored in Arc/Info for each measurement. Thus if measurements of bedding and cleavage have been made at the same location then there will be two label points in the coverage with the same co-ordinates. The fields in the .PAT file are detailed below.

TASSTR .PAT

The TASSTR.PAT table is created in Arc/Info after the structural data have been digitised or entered from the keyboard.

Name	*Type*	*Width*	*Info.def*	*Description*
TYPE	C	2	2,2,C	The type of structural measurement
SYMBOL	N	4	4,5,B	The symbol number from the Arc/Info markerset
ANGLE	N	4	4,5,B	The angle of the structural symbol
DIP		4	4,5,B	The dip of the feature
DD	N	4	4,5,B	The dip direction of the feature
GEOLOGIST	C	4	4,4,C	The geologist who made the measurement
RELIAB	N	4	4,5,B	A code for the reliability of the measurement
M_SCALE	N	4	4,12,F,3	The scale at which the mapping was carried out
O_SCALE	N	4	4,12,F,3	The maximum intended output scale
LOC_ACC	N	4	4,5,B	The locational accuracy of the measurement
FIELD_NO	C	8	8,8,C	The field number used by the geologist
FIELD_BOOK	N	4	4,5,B	The number of the field book which contains the data
SAMPLE_NO	C	8	8,8,C	The sample number of a sample from this location
TASROK_NO	C	8	8,8,C	The TASROK number of a sample from this location
COMMENTS	C	20	20,20,C	Comments
XOFF	N	4	4,5,B	The X offset of the structural symbol
YOFF	N	4	4,5,B	The Y offset of the structural symbol

N = Numeric, C = Character, D = Date

AUTHORITY TABLES

TYPE

The TYPE field stores a 2 character code which identifies the type of structural measurement. The first character of the code is in upper case and indicates the class of structural measurement, e.g. B – Bedding, L – Lineation. The second character is lower case. This type of code enables efficient query operations such as selecting all cleavage measurements by selecting samples which have a 'C' in the TYPE field. The codes for TYPE are listed below.

Ba Strike and dip of beds, right way up.

Bb Strike and dip of beds, overturned.

Bc Vertical bedding, facing unknown

Bd Vertical bedding, facing known

Be Horizontal bedding, right way up

Bf Strike and dip of beds, facing unknown

Ca Strike and dip of cleavage, relative age S1

Cb Strike of cleavage, relative local age S1, vertical

Cc Strike and dip of cleavage, relative local age S2

Cd Strike of cleavage, relative local age S2, vertical

Fa Strike and dip of foliation due to alignment of K-feldspar phenocrysts in granitic rock

Fb Strike and dip of foliation due to alignment of K-feldspar phenocrysts in granitic rock, vertical

Fc Trend of apparent lineation of K-feldspar phenocrysts on horizontal surface of granitic rock

Fd Strike and dip of foliation due to alignment of hornblende and or biotite in granitic rock

Fe Foliation due to alignment of hornblende and/or biotite in granitic rock vertical

Ff Trend of apparent lineation of hornblende and/or biotite on horizontal surface of granitic rock

Fg Strike and dip of metamorphic foliation

Fh Strike of vertical metamorphic foliation

Fi Strike or dip of igneous banding or platy alignment

Fj Strike of vertical igneous banding or platy alignment

Ja Strike and dip of dominant joint set

Jb Strike of dominant joint set, vertical

La Direction and plunge of bedding / primary cleavage intersection lineation

Lb Horizontal bedding / primary cleavage intersection lineation

Lc Direction and plunge of minor fold hinge line, unspecified relative age

Ld Direction and plunge of minor fold hinge line, unspecified relative age (with dip of axial surface)

Le Direction and plunge of minor early or first fold hinge line (with dip of axial surface)

Lf Direction and plunge of kink-fold hinge line, sense of displacement viewed down plunge, dextral (with dip of axial surface)

Lg Direction and plunge of kink-fold hinge line, sense of displacement viewed down plunge, sinistral (with direction and dip of axial surface)

Lh Direction and plunge of columnar jointing

Li Vertical columnar jointing

Lj Direction and plunge of minor fold hinge line, unspecified relative age, vergence dextral. (with direction and dip of axial surface)

Lk Direction and plunge of minor fold hinge line, unspecified relative age, no vergence (with direction and dip of axial surface)

Ll Direction and plunge of minor fold hinge line, unspecified relative age, vergence sinistral. (with direction and dip of axial surface)

Lm Horizontal lineation

Ln Direction and plunge of chevron fold hinge, unspecified age

Lo Chevron fold hinge line, vertically plunging

Lp Direction and plunge of chevron fold hinge line, unspecified age (with direction and dip of axial surface)

Lq Generalised palaeocurrent direction

Lr Direction and plunge of chevron fold hinge line, unspecified age, vertical axial surface

Ls Direction and plunge of minor fold with vertical axial surface

Lt Direction and plunge of minor early or first fold hinge, vergence sinistral

Lu Direction and plunge of minor early or first fold hinge, no vergence

Lv Direction and plunge of minor early or first fold hinge, vergence dextral

Lw Direction and plunge of minor fold hinge, unspecified age, vergence dextral

Lx Direction and plunge of minor fold hinge, unspecified age, no vergence

Ly Direction and plunge of minor fold hinge, unspecified age, vergence sinistral

Pa Vertical kink band, sinistral

Pb Vertical kink band, dextral

Pc Direction and dip of fold axial surface (used with Ld, Le, Lj, Lk, Ll, Lp)

Pd Strike and dip of kink band with sense of displacement viewed down plunge, sinistral

Pe Strike and dip of kink band with sense of displacement viewed down plunge, dextral

Va Strike and dip of dyke or vein

Vb Strike and dip of dyke or vein, vertical

SYMBOL

The SYMBOL field carries the number of the symbol in the Arc/Info markerset file. The correspondence between TYPE codes and marker symbol numbers is shown in Figure 1.

ANGLE

The ANGLE field stores the rotation angle for the marker symbol in Arc/Info. Angles are specified counterclockwise from the positive X axis.

DIP

The DIP field stores the dip of the structural feature, measured in degrees. Structural measurements with no dip are encoded as -1.

DD

The DD field stores the dip direction (dip azimuth) of the structural feature. The DD value is used to calculate ANGLE.

GEOLOGIST

The GEOLOGIST field stores a character code which identifies the geologist who made the measurement. Codes are typically the initials of the geologist. If the geologist is unknown the field is left blank

RELIAB

The RELIAB field stores the reliability of a measurement. If multiple readings of the same type are made at a single location this field enables a priority to be assigned to the readings.

1 First priority

2 Second priority

3 Third priority

M_SCALE

The M_SCALE field indicates the scale of the original mapping at which the data was a acquired. The code is the scale divided by 1000, e.g. 1:50 000 would be coded as 50.

O_SCALE

The O_SCALE field stores a code for the maximum intended output scale. This code is used for automatic selection of features for different output map scales. The code is the scale divided by 1000, e.g. 1:50 000 would be coded as 50.

LOC_ACC

The LOC_ACC field stores the estimated locational accuracy of the measurement in metres.

FIELD_NO

The FIELD_NO field stores the field station code used by the geologist if it is available. If it is not known the field is left blank.

FIELD_BOOK

The FIELD_BOOK field stores the reference number for the field book which stores the original data if available. If it is not known the field is left blank.

SAMPLE_NO

The sample number used by the geologist for any rock samples acquired from this location. If unknown the field is left blank.

TASROK_NO

The TASROK catalogue number for any sample collected from this location. If unknown the field is left blank.

COMMENTS

This field contains abbreviated comments about the measurement.

XOFF and YOFF

The XOFF and YOFF fields store the X and Y offsets for the structural symbol, measured in metres. These offsets are used to shift structural symbols at the time of plotting to avoid conflicts with multiple symbols plotting at the same location.

STRUCTURAL SYMBOLS

MARKERSET: STRUCT.MRK

BEDDING

Ba 621
Bb 626
Bc 624
Bd 601
Be 625
Bf 602

CLEAVAGE

Ca 926
Cb 930
Cc 927
Cd 931

FOLIATIONS

Fa 115
Fb 116
Fc 117
Fd 111
Fe 112
Ff 114
Fg 650
Fh 651
Fi 653
Fj 654

LINEATIONS

La 101
Lb 103
Lv 123
Lw 119
Lc 501
Ld 501
Le 504
Lf 511
Lg 512
Lh 513
Li 514
Lj 515
Lk 516
Ll 517
Lm 652
Ln 18
Lo 19
Lp 20
Lq 509
Lr 21
Ls 22
Lt 118
Lu 122
Lx 120
Ly 121

JOINTS

Ja 721
Jb 723

PLANES

Pa 16
Pb 17
Pc 502
Pd 11
Pe 12

VEINS

Va 401
Vb 402

Figure 1

Structural symbols

STREAM SEDIMENT DATABASE

INTRODUCTION

The structure of the Tasmanian stream sediment database TASSED is detailed below. The database is stored in a series of tables in Arc/Info. The database tables and the relationships between tables are illustrated in Figure 2. The database employs a one to many relational format, enabling flexibility in data storage.

TASSED .PAT

The TASSED.PAT table is created in Arc/Info after the stream sediment sample locations have been digitised from 1:25 000 scale topographic maps. A unique numerical code (TASSED-ID) is given to each sample. This code is used to relate the sample location to the table which stores the geochemical analyses (TASSED.ANL). The SURVEY field is used to link each sample to information about the survey (TASSED.SRV).

Name	*Type*	*Width*	*Info.def*	*Description*
TASSED-ID	N	4	4,5,B	Unique sample identification code
SURVEY	N	4	4,5,B	A numeric code for the survey number
SAMPLE	C	10	10,10,C	The original sample number
DATE	D		8,8,D	Date the sample was taken
STYPE	C	2	2,2,C	The sample type
LOC	N	4	4,5,B	The locational uncertainty (m)
COMMENTS	C	150	150,150,C	Comments
COMPBY	C	3	3,3,C	The person who compiled the data

N = Numeric, C = Character, D = Date

TASSED.ANL

The TASSED.ANL table stores the analytical results for each sample. A single sample in TASSED.PAT may have multiple entries in this table. The analytical and treatment methods are recorded for each analysis. The TASSED-ID code is the field which links this table to the TASSED.PAT table.

Name	*Type*	*Width*	*Info.def*	*Description*
TASSED-ID	N	4	4,5,B	Unique sample identification code
ELEMENT	C	2	2,2,C	The element analysed
TREAT	C	10	10,10,C	Treatment applied to the sample prior to analysis
ANAL	C	2	2,2,C	The analytical technique
LAB	N	4	4,5,B	The laboratory which did the analysis
VALUE	N	4	4,12,F,4	The measured concentration (ppm)
MDL	N	4	4,12,F,4	The minimum detection limit

N = Numeric, C = Character

TASSED.SRV

The TASSED.SRV table stores information about each geochemical survey. Many records in the TASSED.PAT table will relate to a single entry in this table. The fields in the TASSED.SRV table are:

Name	*Type*	*Width*	*Info.def*	*Description*
SURVEY	N	4	4,5,B	A numeric code for the survey number
TITLE	C	50	50,50,C	The title of the report
COMP	C	20	20,20,C	The company which acquired the sample
EL	C	8	8,8,C	Exploration Licence number
AUTHOR	C	20	20,20,C	The author of the report
YEAR	C	4	4,4,C	The year the report was produced
TCR	C	8	8,8,C	The Tasmanian Company Report number
DOMINFO	C	8	8,8,C	The DOMINFO record number

N = Numeric, C = Character

AUTHORITY TABLES

DATE

The DATE field can be used to store the full or abbreviated date. If only the year is known then the date is entered as 01/01/YY. If only the year and month are known the sample date is recorded as the first day of the month, e.g. 01/MM/YY. A full date is encoded as DD/MM/YY.

STYPE

The STYPE field carries a code which describes the sample type. the database has been structured to enable the future incorporation of data such as water chemistry, rock chip and soil samples.

SS	Stream sediment
WS	Water sample
SO	Soil sample
RC	Rock chip sample

LOC

The LOC field stores the estimated accuracy of the sample location. All samples have been transferred onto current 1:25 000 scale topographic maps prior to digitising.

1	± 20m
2	± 50m
3	± 100m
4	± 200m
5	± 500m

ELEMENT

The element field carries the chemical symbol for the element analysed. All entries are in upper case.

TREAT

The TREAT field carries a character code which describes the treatment applied to the sample prior to analysis.

U	Unknown
-10	-10#
-20	-20#
-40	-40#
-80	-80#
-20+40	-20+40#
-40+80	-40+80#
PC	Panned Concentrate
BL	Bulk leach extractable gold
BL1	-0.25" followed by BLEG
BL2	-6 mm, followed by BLEG

ANAL

The ANAL field stores a code for the analytical method used to measure the elemental concentration.

U	Unknown
XR	X-Ray fluorescence (XRF)
AA	Atomic Absorbtion Spectroscopy (AAS)
ICP	Inductively Coupled Plasma Mass Spectroscopy (ICPMS)
CM	colorimetry
NA	Neutron Activation
FA	Fire Assay
ES	Emission Spectroscopy
OT	Other

LAB

The LAB field carries a code for the laboratory which performed the analysis. Laboratory codes are common to the TASSED and ROCKCHEM databases.

-1	Unknown
1	Analabs
2	Classic Laboratories / Comlabs / Classic Comlabs
3	Geophoto Resources
4	Minex Analytical Services
5	Amdel Analytical Services
6	Assay Research Australia
7	Seltrust Mining
8	ACS Laboratories
9	CSR Laboratories
10	Tasmanian Mines Department
11	University of Western Australia
12	University of Tasmania
13	Australian National University
14	Bureau of Mineral Resources (AGSO)
15	Becquerel Laboratories

VALUE

The VALUE field stores the measured concentration of the element in ppm. For values less than the minimum detection limit the entry is the minimum detection limit × -1; e.g. a value of <0.1 would be encoded as -0.1.

MDL

The MDL field stores the minimum detection limit. A value of -1 is used where the detection limit is unknown.

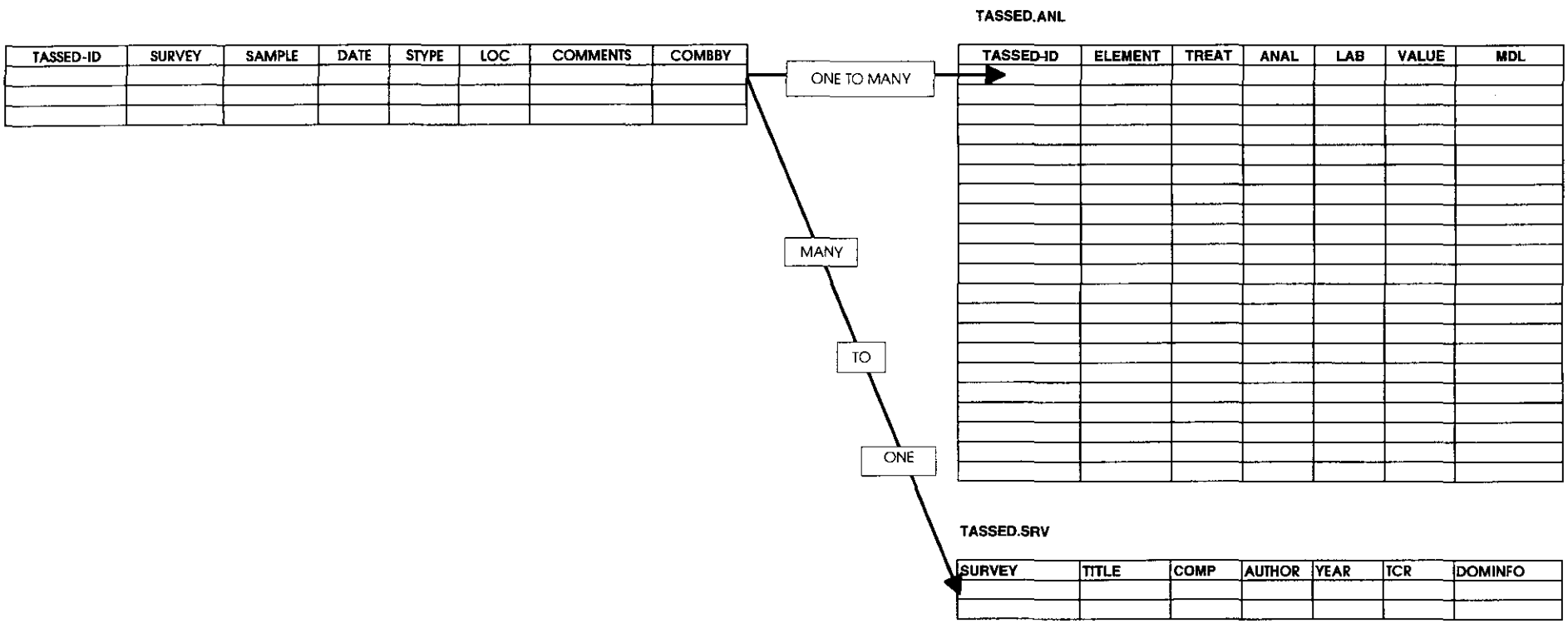

Figure 2. Structure of stream sediment database

ATTRIBUTES FOR DIGITAL GEOLOGICAL MAPS

INTRODUCTION

The attribute scheme for Tasmanian digital geological maps is detailed below. The database tables and the relationships between tables are illustrated in Figure 3. The structure of each table and the codes for each field are defined below.

GEOLOGY.PAT

The GEOLOGY.PAT table is created automatically during the process of building the geological map in ArcInfo. There is one entry in this table for each polygon on the map. An additional field called *RCODE* is added to the table to carry the code given to each polygon. This code is used to link a polygon to the textural information for each rock type stored in the related data tables.

Name	*Type*	*Width*	*Info.def*	*Description*
RCODE	N	4 byte	4,5,B	Mapped rock unit code

C = Character

GEOLOGY.LUT

The GEOLOGY.LUT table is a look-up table which carries attributes for each geological polygon. There is a many to one correspondence between the GEOLOGY.PAT table and this table. The fields in the GEOLOGY.LUT table are:

Name	*Type*	*Width*	*Info.def*	*Description*
RCODE	N	4 byte	4,5,B	Mapped rock unit code
SYMBOL	C	8	8,8,C	Symbol which appeared on the published map
REGION	C	2	2,2,C	Tectono-stratigraphic region
SPGRP	C	2	2,2,C	Supergroup or major stratigraphic subdivision
GRP	C	2	2,2,C	Group or equivalent
SBGRP	C	2	2,2,C	Subgroup or equivalent
FRMt	C	2	2,2,C	Formation or equivalent
MBR	C	2	2,2,C	Member or equivalent
ERA	C	2	2,2,C	Geological Era
PERIOD	C	2	2,2,C	Geological Period
EPOCH	C	2	2,2,C	Geological Epoch
DIV	C	2	2,2,C	Subdivision of Epoch
MINAGE	N	4 byte	4,12,F,3	Minimum age for the unit in million years BP.
MAXAGE	N	4 byte	4,12,F,3	Maximum age for the unit in million years BP.
DESC	C	200	200,200,C	Free text description of the unit

N = Numeric, C = Character

GEOLOGY.REL

The GEOLOGY.REL table carries additional attributes for each geological polygon, including attributes which describe the rock classification, mineralogy and lithology. There is a many to many correspondence between the GEOLOGY.PAT table and this table and hence a single geological polygon can contain multiple lithologies. The fields in the GEOLOGY.REL table are:

Name	*Type*	*Width*	*Info.def*	*Description*
RCODE	N	4 byte	4,5,B	Mapped rock unit code
CLASS	C	1	1,1,C	Major genetic classification subdivision
TYPE	C	1	1,1,C	Minor genetic classification subdivision
COMP	C	1	1,1,C	Compositional subdivision
GENESIS	C	1	1,1,C	Depositional environment or formation mechanism.
LITH	C	2	2,2,C	Lithology
PROP	N	4 byte	4,5,B	Proportion for this lithology
TEXT	C	19	19,19,C	Texture qualifiers, up to 3, 4 character codes
MIN	C	15	15,15,C	Mineralogical qualifiers, up to 3, 3 character codes

N = Numeric, C = Character

GEOLOGY.REF

The GEOLOGY.REF table is intended to provide a link between the GEOLOGY.PAT file and the databases which contain information on references such as TASXPLOR and DOMINFO. A new database called TASREF will be created to contain references which do not fit in either TASXPLOR or DOMINFO. At this stage the final structure of the GEOLOGY.REF table has not been decided. There will be a many to many relationship between the GEOLOGY.PAT table and the GEOLOGY.REF table, enabling multiple references to be associated with each geological polygon.

AUTHORITY TABLES

REGION

The region codes describe tectono-stratigraphic regions.

AT	Adamsfield Trough
AL	Arthur Lineament
BB	Bass Basin
BH	Bathurst Harbour Area
BE	Beaconsfield Area
DG	Derwent Graben
DR	Dial Range
DT	Dundas Trough
ET	Eastern Tasmania
FO	Forth Region
KI	King Island
OS	O'Connors Station Inlier
OB	Otway Basin

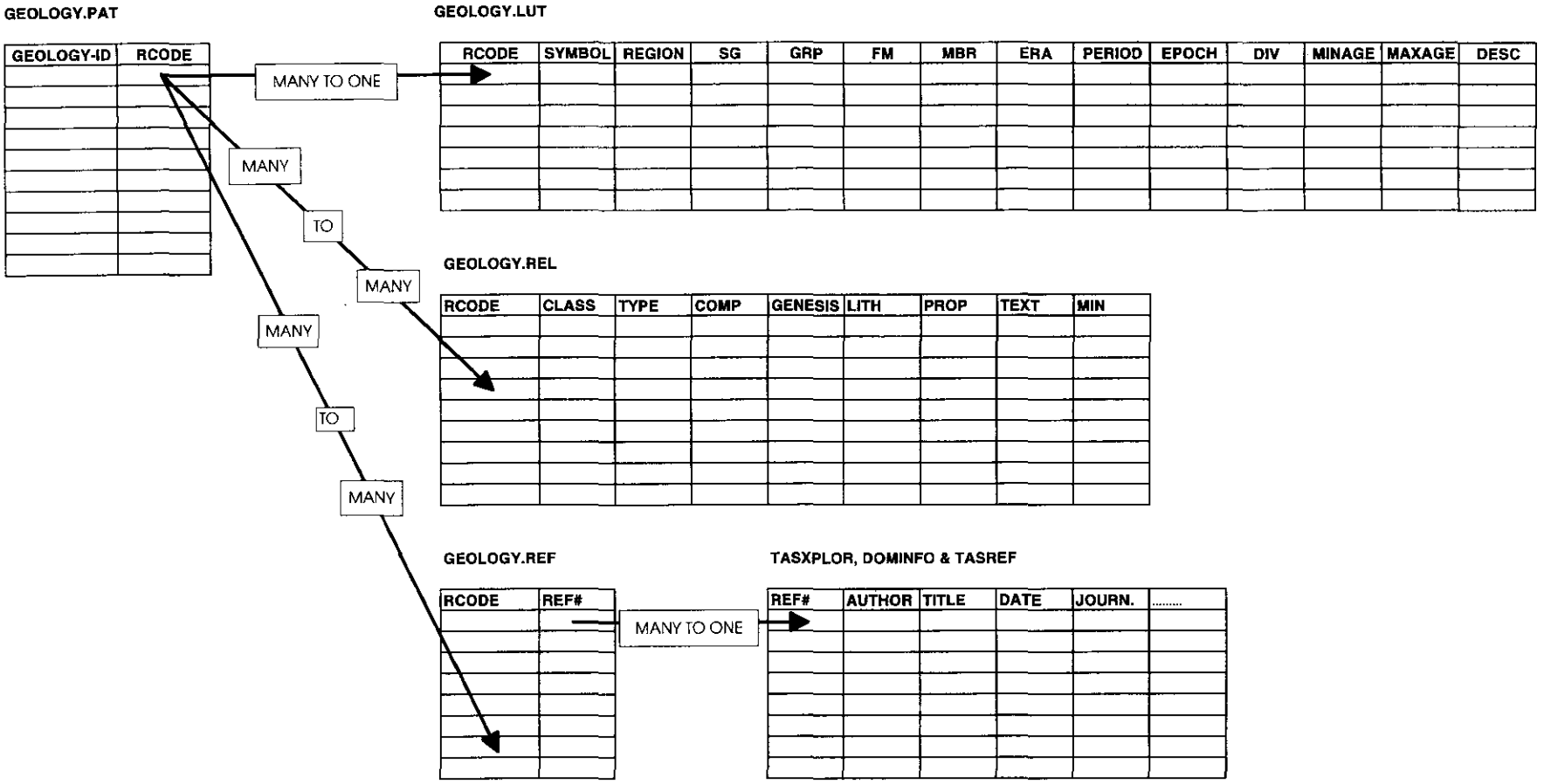

Figure 3. Geological map attribute scheme

OG	Oyster Bay Graben
PC	Post Carboniferous cover sequences
RC	Rocky Cape Region
SB	Smithton Basin
SB	Sorell Basin
SC	South Coast Region
TG	Tamar Graben
TY	Tyennan Region
WT	Western Tasmania

SPGRP

The SPGRP field describes the Supergroup or major stratigraphic subdivision

CG	Cambrian Granitoids
DG	Devonian–Carboniferous granitoids and related rocks
PL	Lower Parmeener Supergroup
MR	Mount Read Volcanics
PG	Precambrian Granitoids
PU	Upper Parmeener Supergroup
WR	Wurawina Supergroup

GRP

The GRP field describes the group or equivalent to which the polygon belongs.

AD	Adamsfield Ultramafic Complex
AC	Andersons Creek Ultramafic Complex
AM	Arthur Metamorphic Complex
BE	Beulah Granite
BI	Bicheno Granite
BT	Blue Tier Batholith
BO	Bogan Gap Group
BR	Boyles River Ultramafic Complex
CP	Cape Portland Complex
CS	Cape Sorell Ultramafic Complex
CD	Cascades Group
CT	Cateena Group
CM	City of Melbourne Bay Group
CG	Clark Group
CC	Clytie Cove Group
CB	Coles Bay Granite
CX	Cox Bight Granite
CY	Cygnet Alkaline Complex
DC	Dalcoath Granite
DW	Darwin Granite
DP	Deep Glen Bay Granite
DN	Denison Group
DV	Dove Granite
DM	Dove Metamorphic Complex
DG	Dundas Group
DU	Dundas Ultramafic Complex
ED	Eddystone Batholith
EG	Eldon Group
EB	Elliott Bay Granite
FL	Faulkner Group
FH	Fincham Metamorphic Complex
FI	Fisher Metamorphic Complex
FM	Forth Metamorphic Complex
FU	Forth Ultramafic Complex
FR	Franklin Metamorphic Complex
GV	Golden Valley Group
GG	Gordon Group
GF	Grandfathers Granite
GT	Granite Tor Granite
HR	Heazlewood River Ultramafic Complex
HK	Heemskirk Granite
HT	Housetop Granite
HM	Howell Metamorphic Complex
HG	Huskisson Group
HU	Huskisson River Ultramafic Complex
IG	Interview Granite
JY	Joyce Metamorphic Complex
LB	Launceston beds
LF	Liffey Group
LG	Lisle Granitoid
MW	Mainwaring Group
MI	Maria Island Granite
MM	Mary Metamorphic Complex
MC	Massey Creek Group
MG	Mathinna Group
MB	Meredith Batholith
MD	Middle Arm Group
MS	Mount Stewart Ultramafic Complex
MA	Mt Anne Group
MU	Murchison Granite
PN	Pandani Group
PG	Pieman Granite
PH	Pine Hill granite
PO	Poatina Group
RD	Radford Creek Group
RA	Ragged Basin Group
RB	Rocky Boat Harbour Ultramafic Complex
RC	Rocky Cape Group
RG	Rosebery Group
RY	Royal George Granite
SM	Scotchfire Metamorphic Complex
SB	Scottsdale Batholith
SH	Serpentine Hill Ultramafic Complex
SW	South West Cape Granite
SP	Spero Bay Ultramafic Complex
SG	Strathgordon Metamorphic Complex
SC	Success Creek Group
TC	Table Cape group

TR	Tiger Range Group
TT	Timbertops Granite
TH	Trial Harbour Ultramafic Complex
TY	Tyndal Group
UM	Ulverstone Metamorphic Complex
WA	Wallis River Group
WC	Waterloo Creek Group
WL	Weld River Group
WA	West Arm Group
KG	West Coast Granite (King Island)
WI	Wilson River Ultramafic Complex

SBGRP

The SBGRP field describes the subgroup or equivalent to which the polygon belongs. At this stage there are no units in Tasmania which are distinguished at this stratigraphic level.

FRM

The FRM field describes the formation or equivalent to which the polygon belongs.

AB	Abels Bay Formation
AF	Aberfoyle Formation
AM	Amber Slate
AI	Andersons Island Pluton
AN	Ansons Bay Pluton
AS	Ardell Sandstone
AC	Austral Creek Siltstone
BI	Babel Island Pluton
BA	Back Peak Beds
BF	Balfour Slate and Siltstone
BB	Barn Bluff Conglomerate
BC	Barrington Chert
BM	Beecraft Megabreccia
BS	Bell Shale
BM	Ben Lomond Pluton
BE	Benjamin Limestone
BE	Benson Peak Sandstone
BV	Bernafai Volcanics
BE	Berriedale Formation
BF	Beulah Formation
BD	Black River Dolomite
BW	Blackwood Formation
BL	Bluff River Pebbly Siltstone
BH	Bold Head Granodiorite
BP	Boobyalla Pluton
BT	Bott Conglomerate
BO	Boullanger Formation
BR	Boyd River Formation
BR	Brady Formation
BJ	Brewery Junction Formation
BL	Bull Creek formation
BU	Bundella Formation
BG	Burnt Gully Limestone
CE	Cabbage Tree Formation
CB	Cape Barren Pluton
CF	Cape Frankland Pluton
CJ	Cape Sir John Pluton
CL	Cashions Creek Limestone
CA	Castle Carey Formation
CC	Catos Creek Granodiorite
CI	Chappell Island Pluton
CL	Climie Formation
CG	Clog Tom Sandstone
CU	Cluan Formation
CO	Comet Formation
CT	Comstock Tuff
CC	Constable Creek Sheet
CR	Corner Pluton
CN	Counsel Creek Formation
CS	Cowrie Siltstone
CB	Cox Bight Granite
CQ	Cradle Cirque Siltstone
CQ	Crotty Quartzite
CW	Currawong Quartzite
DM	Dalmayne Conglomerate
DL	Darlington Limestone
DB	Deep Bay Formation
DD	Devonian Dolerite
DP	Diddleum Pluton
DC	Dora Conglomerate
DN	Duncan Conglomerate
EU	Eugenana Beds
FS	Farrell Slates
FT	Fern Tree Formation
FD	Fernfields Formation
FF	Fernflow Formation
FQ	Florence Quartzite
FV	Florentine Valley Mudstone
FL	Flowerdale Formation
FG	Flowery Gully Limestone
FH	Fonthill Sandstone
FC	Forest Conglomerate
GP	Gardens Pluton
GQ	Gell Quartzite
GR	Georges River Pluton
GM	Gnoman Mudstone
GI	Goat Island Conglomerate
GG	Gog Range Formation
GC	Gould Conglomerate
GD	Grassy Granodiorite
GT	Great Dome Sandstone
HA	Haleys New Country Pluton
HH	Harts Hill Formation

HF	Hickman Formation
HS	Hodge Slate
HO	Hogans Hill Pluton
HD	Hogans Road Diorite
HR	Hogarth Road Pluton
IF	Inglis Formation
IS	Interview Siltstone
IR	Irby Siltstone
IH	Island Head Formation
JK	Jackey Formation
JQ	Jacob Quartzite
JP	Joan Point Sandstone
JU	Judith Formation
JF	Jukes Formation
KC	Kansas Creek Beds
KL	Karmberg Limestone
KQ	Keel Quartzite
KM	Keith Metamorphics
KT	Kelcey Tier Beds
KB	Key Bay Pluton
KP	Killiecrankie Pluton
KF	Knocklofty Formation
LD	Lady Barren Pluton
LH	Lake Holmes Coal Measures
LW	Lake Will Pebbly Siltstone
LR	Lawson River Siltstone
LV	Lobster Creek Volcanics
LB	Long Bay Shale
LP	Long Point Pluton
LO	Lorinna Formation
LA	Lottah Pluton
LU	Lughralta Pluton
JB	Lune River Basalt
LC	Lynch Creek Basalt
MN	Malbina Formation
MF	Marra Formation
MV	Marrawah Volcanics
MZ	Martins Rise Pluton
MA	Mary Ann Bay Sandstone
ML	McLeod Formation
ME	Mersey Coal Measures
MR	Miners Ridge Sandstone
MX	Minnie Point Formation
MK	Minnow Keratophyre
MY	Misery Conglomerate
MT	Mistletoe Sandstone
MD	Modder River Pluton
MO	Motton Spillite
MB	Mount Bischoff Porphyry
MC	Mount Cameron Sheets
MH	Mount Horror Pluton
MI	Mount Ingliss Sandstone
KE	Mount Kerford Pluton
MM	Mount McKenzie Formation
MS	Mount Paris Pluton
MP	Mount Pearson Pluton
MG	Mount Rugby Formation
MW	Mount William Pluton
MH	Murchison Volcanics
MU	Musselroe Pluton
NR	Narrows Formation
NF	Nassau Formation
NQ	Neasey Quartzite
NC	Noddy Creek Volcanics
OF	Ossa Formation
OC	Owen Conglomerate
PA	Palana Pluton
PF	Palmer Formation
PI	Pats River Pluton
PG	Piccaninny Pluton
PL	Pleasant Creek Formation
PO	Poimena Pluton
PV	Point Vivian Formation
PP	Porcupine Creek Pluton
PR	Preolenna Coal Measures
PB	Prion Beach Beds
PC	Prospect creek Mudstone
PL	Pulbeena Limestone
PI	Punchion Point Pluton
PY	Pyengana Pluton
QF	Quamby Formation
QR	Que River Shale
QH	Que-Hellyer Volcanics
RZ	Razorback Conglomerate
RL	Red Lead Conglomerate
RE	Reeds Conglomerate
RB	Renison Bell Formation
RS	Richea Siltstone
RF	Risdon Formation
RC	Roland Conglomerate
RO	Ross Formation
RI	Rum Island Pluton
RU	Rupert Beds
RR	Russel Road Pluton
SA	Sassy Creek Argillites
SA	Savage Dolomite
ST	Scamander Tier Granodiorite
SE	Sea Elephant Adamellite
SI	Singing Creek Formation
SP	Skipping Ridge Formation
SB	Smithton Basalt
SD	Smithton Dolomite

SW	South West Cape Granite
SF	Sprent Formation
SP	Spreyton Beds
SS	Springs Sandstone
SC	Squirrel Creek Formation
SM	St Marys Porphyrite
ST	Sticht Range beds
SK	Stockers Formation
SG	Strickland Gorge Formation
SR	Strzelecki Pluton
SU	Studland Bay Basalts
SH	Survey Hill Pluton
JD	Tasmanian Dolerite
JD	Tasmanian Jurassic Dolerite
TH	Three Hummock Island Adamellite
TF	Tiers Formation
TS	Tim Shea Sandstone
TO	Toarra Formation
TC	Toombstone Creek Pluton
TR	Truro Formation
TP	Tulendeena Pluton
UB	Upper Blessington Pluton
WH	Wart Hill Pyroclastics
WV	Waterfall Valley Siltstone
WE	Wesley Vale Sand
WT	White Spur Formation
WS	Whyte Schist
WR	Wierah Formation
WL	Winkleah Sandstone
WI	Woody Island Formation
WY	Wybalena Pluton
WF	Wynyard Formation
ZE	Zeehan Formation

MBR

The MBR field describes the member or equivalent to which the polygon belongs.

BG	Burnt Gully Limestone
FH	Fonthill Sandstone
NC	Newton Creek Sandstone Member
PB	Pioneer Beds
PR	Poets Road Member

ERA

The ERA field describes the geological era to which the polygon belongs.

CZ	Cainozoic
MZ	Mesozoic
PZ	Palaeozoic
PR	Proterozoic
AR	Archean

EPOCH

The EPOCH field describes the geological epoch to which the polygon belongs.

HO	Holocene
PT	Pleistocene
PL	Pliocene
MI	Miocene
OL	Oligocene
EO	Eocene
PA	Palaeocene
UP	Upper
LO	Lower
LA	Late
MI	Middle
EA	Early

DIV

The DIV field provides a further subdivision of the EPOCH, it is used mainly for units within the Tertiary

LA	Late
MI	Middle
EA	Early

MINAGE

The minimum age of the unit in million years BP. Where an accurate age is not available, the accepted IUGS minimum age for the period is used.

MAXAGE

The maximum age of the unit in million years BP. Where an accurate age is not available, the accepted IUGS maximum age for the period is used.

CLASS

The CLASS field describes the major lithological subdivision.

I	Igneous
M	Metamorphic
S	Sedimentary
U	Unconsolidated

TYPE

TYPE is the major subdivision of CLASS.

B	Biological
M	Chemical
C	Contact Metamorphic
E	Epiclastic
H	Hypabyssal
P	Plutonic
R	Regional Metamorphic
V	Volcanic
L	Volcaniclastic

COMP

The COMP field describes the composition of the lithology

A	Acid
B	Basic
C	Carbonate
F	Feldspathic
I	Intermediate
L	Lithic
T	Quartzlithic
D	Quartzofeldspathic
Q	Quartzose
U	Ultrabasic

GENESIS

The GENESIS field describes the genesis for the lithology.

E	Aeolian
I	Air Fall
A	Alluvial
H	Ash Flow
V	Cavern Fill
C	Cumulate
P	Deep Marine
D	Deltaic
X	Differentiate
F	Fluviatile
U	Fluvioglacial
E	Fresh water
G	Glacial
O	Glaciomarine
Y	Human
L	Lacustrine
M	Marine
W	Mass Flow
N	Non Marine
R	Reefal
S	Shallow Marine
J	Talus
T	Turbidite

LITH

The LITH field carries a code for lithology.

AD	Adamellite
AG	Agglomerate
KG	Alkali-feldspar Granite
KS	Alkali-feldspar Syenite
AL	Alluvium
AM	Amphibolite
AN	Andesite
AT	Anorthosite
AP	Aplite
AT	Appinite
BA	Basalt
BN	Basaltic Andesite
BO	Boulders
BR	Breccia
CH	Chert
CR	Chromatite
CL	Clay
CY	Claystone
CO	Coal
CV	Colluvium
CN	Conglomerate
DA	Dacite
DM	Diamictite
DI	Diorite
DD	Dioritoid
DL	Dolerite
DO	Dolomite
DN	Dunite
FE	Ferricrete
GB	Gabbro
GA	Gabbroid
GN	Gneiss
GR	Granite
GT	Granitoid
GD	Granodiorite
GV	Gravel
GW	Greywacke
HZ	Harzbergite
LG	Lag Deposit
LM	Lamprophyre
LV	Lava
LI	Lignite
LS	Limestone
LW	Lithic Wacke
MA	Marble
MI	Mine Tailings
MD	Monzodiorite
MG	Monzogabbro
MO	Monzonite
MN	Moraine
MU	Mud
MS	Mudstone
OR	Organic Matter
PT	Peat
PG	Pegmatite
PL	Pelite
PD	Peridotite
PO	Porphyry
PS	Psammite
PX	Pyroxenite
DQ	Quartz Diorite

GQ	Quartz Gabbro
QM	Quartz Monzodiorite
QG	Quartz Monzogabbro
MQ	Quartz Monzonite
SQ	Quartz Syenite
QZ	Quartzite
QW	Quartzwacke
RD	Rhyodacite
RY	Rhyolite
SA	Sand
SS	Sandstone
SC	Schist
SR	Scree
SP	Serpentinite
SH	Shale
SE	Shells
SL	Silcrete
SI	Silt
ST	Siltstone
SK	Skarn
SL	Slate
SW	Swamp Deposit
SY	Syenite
SD	Syenitoid
TA	Talus
TS	Tasmanite
TI	Tillite
TN	Tonalite
TU	Tuff
UM	Ultramafic
WA	Wacke

PROP

The PROP field encodes the relative proportion within the unit. The proportion is expressed as a percentage.

TEXT

The TEXT field carries textural qualifiers which apply to the lithology. Up to four qualifiers are allowed for each lithology separated by spaces. Codes have been adapted from the TASROK database.

ACIC	acicular
ALGA	algal
ALKA	alkaline
ALTD	altered
AMYG	amygdaloidal
ANDE	andesitic
AREN	arenaceous
ARGI	argillaceous
ARKO	arkosic
AUGE	augen
ABRC	autobrecciated
BAKE	baked
BAND	banded
BASA	basaltic
BEDD	bedded
BIOC	Bioclastic
BIOT	bioturbated
BLAC	black
BLEA	bleached
BLUE	blue
BREC	brecciated
BROW	brown
BRYO	bryozoan
BUFF	buff
CALC	calcareous
CARB	carbonaceous
CHCD	chalcedonic
CHER	cherty
CLAY	clayey
CGND	coarse grained
COLL	colliform
COLM	columnar
CONG	conglomeratic
CMET	Contact Metamorphosed
XENO	Containing xenoliths
CREM	cream
CREN	crenulated
CRIN	crinoidal
XBED	crossbedded
CRYP	cryptocrystalline
DEND	dendritic
DEVI	devitrified
EQGR	equigranular
FELD	Feldspathic
FELS	felsic
FENE	fenestral
FIBR	fibrous
FGND	fine grained
FBND	flow banded
FOLD	folded
FOLI	foliated
FORA	foraminiferal
FOSS	Fossiliferous
FOSS	fossiliferous
FRIA	friable
GLAS	glassy
GLOM	glomeroporphyritic
GRAD	graded
GPHY	granophyric
GRNL	granular
GRAN	Granule
GREE	green
GREI	greisenised

GREY	grey
GRIT	gritty
HIGD	high grade
HFLS	hornfelsed
HYCL	hyaloclastic
IGNI	ignimbritic
INDU	indurated
INFM	intraformational
LAMI	laminated
LAPI	lapilli
LEUC	leucocratic
LITH	lithic
LTHD	lithified
LOGD	low grade
MAFI	mafic
MARO	maroon
MFLO	mass flow
MASS	massive
MGND	medium grained
MELA	melanocratic
MIAR	miarolitic
MICA	Micaceous
MSRT	moderately sorted
MOTT	mottled
NODU	nodular
OOLI	oolitic
OPAQ	opaque
ORAN	orange
PEBB	pebbly
PEGM	pegmatitic
PELI	pelitic
PERL	perlitic
PHOS	phosphatic
PHYR	phyric
PICR	picritic
PILL	pillow
PINK	pink
PSRT	poorly sorted
PORP	porphyritic
POTA	potassic
PSAM	psammitic
PSPE	psammopelitic
PUMI	pumiceous
PURP	purple
QTZT	quartzitic
QTZO	quartzose
RECR	recrystallised
REDD	red
RHYO	rhyolitic
SAND	sandy
SAUS	saussuritised
SCHI	schistose
SCOR	scoriaceous
SHAL	shaly
SHEA	sheared
SILI	siliceous
SIFD	silicified
SILT	silty
SLAT	slaty
SPHE	spherulitic
SPOT	spotted
STAN	stanniferous
STRO	stromatolitic
SLTH	sublithic
SULP	sulphidic
THIC	Thickly bedded
THIN	Thinly Bedded
THOL	tholeiitic
TRAC	trachyitic
TUFF	tuffaceous
VARV	varved
VCGD	very coarse grained
VFGD	very fine grained
VESI	vesicular
VITR	vitric
VUGG	vuggy
WEAT	weathered
WELD	welded
WSRT	well sorted
WHIT	white
YELL	yellow

MIN

The MIN field carries mineralogical qualifiers for the lithology. The codes have been adapted from the TASROK database which was based on a standard set of mineral codes defined in the *American Mineralogist*. The full list of TASROK codes is reproduced below despite the fact that many of these minerals are unlikely to occur on geological maps. Codes less than three characters have been padded to three characters with periods '.' . Up to four mineralogical qualifiers are allowed for each lithology. Multiple codes are separated by spaces

ACT	actinolite
AGT	agerine–augite
AB.	albite
ALM	almandine
AM.	amphibole
ANL	analcite
ANT	anatase
AND	andalusite
ADR	andradite
ANH	anhydrite
ANK	ankerite

AN.	anorthite
ATH	anthophyllite
ATG	antigorite
AP.	apatite
APO	apophyllite
ARG	aragonite
ARF	arfvedsonite
APY	arsenopyrite
AUG	augite
AX.	axinite
BRT	barite
BRL	beryl
BT.	biotite
BHM	boehmite
BN.	bornite
BRK	brookite
BRC	brucite
BST	bustamite
CAL	calcite
CCN	cancrinite
CRN	carnegieite
CST	cassiterite
CLS	celestite
CBZ	chabazite
CC.	chalcocite
CCP	chalcopyrite
CHL	chlorite
CLD	chloritoid
CHN	chondrodite
CRS	christobalite
CHR	chromite
CCL	chrysocolla
CTL	chrysotile
CAM	clinoamphibole
CEN	clinoenstatite
CFS	clinoferrosilite
CHU	clinohumite
CPX	clinopyroxene
CZO	clinozoisite
CRD	cordierite
CRN	corundum
CV.	covellite
CUM	cummingtonite
CUP	cuprite
DSP	diaspore
DG.	diginite
DI.	diopside
DOL	dolomite
DRV	dravite
ECK	eckermanite
ED.	edenite
ELB	elbatite
EN.	enstatite
EP.	epidote
FST	fassite
FA.	fayalite
FSP	feldspar
FSD	feldspathoid
FTS	ferro tschermakite
FAC	ferroactinolite
FED	ferroedenite
FS.	ferrosilite
FL.	fluorite
FO	forsterite
GN.	galena
GRT	garnet
GED	gedrite
GH.	gehlenite
GBS	gibbsite
GLT	glauconite
GLN	glaucophane
GT.	goethite
GR.	graphite
GRS	grossularite
GRU	grunerite
GP.	gypsum
HL.	halite
HS	hastingsite
HYN	hauyne
HZ.	heazlewoodite
DD.	hedenbergite
HEM	hematite
HC.	hercynite
HUL	heulandite
HBL	hornblende
HU.	humite
HYP	Hypersthene
ILL	illite
ILM	ilmenite
JD.	jadeite
JH.	johannsenite
KFS	K feldspar
KRS	kaersutite
KLS	kalsilite
KLN	kaolinite
KTP	kataphorite
KRN	kornerupine
KY.	kyanite
LMT	laumontite
LWS	lawsonite
LPD	lepidolite
LCT	leucite

LX.	leucoxene
LM.	limonite
LZ.	lizardite
LO.	loellingite
MGH	maghemite
MKT	magnesiokatophorite
MRB	magnesioriebeckite
MGS	magnesite
MAG	magnetite
MC.	marcasite
MRG	margarite
MEL	melilite
MI.	mica
MC.	microcline
MO.	molybdenite
MNZ	monazite
MTC	monticellite
MNT	montmorillonite
MUL	mullite
MS.	muscovite
NTR	natrolite
NE.	nepheline
NRB	norberite
NSN	nosean
OL.	olivine
OMP	omphacite
OPA	opal
OAM	orthoamphibole
OR.	orthoclase
OPX	orthopyroxene
PG.	paragonite
PRG	pargasite
PCT	pectolite
PN	pentlandite
PER	periclase
PRV	perovskite
PHL	phlogopite
PGT	pigeonite
PL.	plagioclase
PRH	prehnite
PEN	protoenstatite
PMP	pumpellyite
PY.	pyrite
PYL	pyrolusite
PRP	pyrope
PRL	pyrophyllite
PX.	pyroxene
PO.	pyrrhotite
QTZ	quartz
RDS	rhodochrosite
RDN	rhodonite
RBK	riebeckite
RT.	rutile
SA.	sanidine
SPR	sapphirine
SCP	scapolite
SCH	scheelite
SRL	schorl
SER	sericite
SRP	serpentine
SD.	siderite
SIL	sillimanite
SDL	sodalite
SPS	spessartine
SP.	sphalerite
SPN	sphene
SPL	spinel
SPD	spodumene
ST.	staurolite
STB	stibnite
STP	stilpnomelane
STR	strontianite
TLC	talc
TMP	thompsonite
TTN	titanite
TOZ	topaz
TUR	tourmaline
TR.	tremolite
TRD	tridymite
TRO	troilite
TS.	tschermakite
USO	ulvospinel
VRM	vermiculite
VES	vesuvianite
VIO	violarite
WTH	witherite
WF.	wolframite
WO.	wollastinite
WUS	wustite
ZE.	zeolite
ZRN	zircon
ZO.	zoisite