

SURFICIAL DEPOSITS and WEATHERED PROFILE

ROCK CODES

SURFICIAL (UNCONSOLIDATED)

TALL	-	Alluvium (undif.)
TELV	-	Eluvium (undif.)
TCOL	-	Colluvium (undif.)
TGRV	-	Gravel
TLAT	-	Transported Laterite Gravel
TSND	-	Running Sand – quartzose
TSL	-	Soil, Residual (undif.)
TSLC	-	Soil, Calcareous
TSLT	-	Silt
TMUD	-	Mud
TCBM	-	Carbonaceous Mud
TCY	-	Clay
TSAL	-	Salina, playa lake gypsum deposits
TLIG	-	Lignite/brown coal
TSPG	-	Spongolite
TIL	-	Tillite
TMOT	-	Mega Mottles – transported material
TCYP	-	Smectitic (plastic) clay with pisoliths

SURFICIAL (INDURATED) - *DURICRUSTS*

DFER	-	Ferricrete
DSIL	-	Silcrete
DSLU	-	Silcrete, Ex Ultramafic
DCAL	-	Calcrete laminated
DCAN	-	Calcrete nodular
DCAM	-	Calcrete massive
DHPN	-	Hardpan
DFST	-	Ironstone/segregations
DMOT	-	Mottled Saprolite
DLAT	-	Lateritised surficial material



IN SITU

XLP	-	Pisolitic Laterite
XLN	-	Nodular Laterite
XLM	-	Massive Laterite
XUS	-	Upper Saprolite
XUSx	-	x=U (ultramafic), M (mafic), F (Felsic), G (Granitic), S (sedimentary), I (Intermediate)
XLS	-	Lower Saprolite
XLSx	-	x=U,M,F,G,S,I
XGOS	-	Gossan
XCY	-	Saprolitic Clay
XCYx	-	x=U,M,F,G,S,I
XRDX	-	Goethetic Redox Zone; palaeowater table



FELSIC and INTERMEDIATE

ROCK CODES

FELSIC VOLCANICS

& INTRUSIVES

Derwent 10

FV	-	Felsic Volcanic (undif.)
FRA	-	Alkali Rhyolite
FR	-	Rhyolite
FD	-	Dacite
FRD	-	Rhyo-dacite
FAP	-	Aplite
FPG	-	Pegmatite (undif.)
FP	-	Felsic Porphyry (undif.)
FQP	-	Quartz Porphyry (undif.)
FSP	-	Feldspar Porphyry (undif.)

INTERMEDIATE VOLCANICS

Derwent 44

IV	-	Intermediate Volcanic (undif.)
IA	-	Andesite
IL	-	Latite
IT	-	Trachyte
ITA	-	Trachy-andesite

GRANITOIDS

Derwent 14

G	-	Granitoid (undif.)
GA	-	Alkali Granite
GQ	-	Quartz Granite
GR	-	Granite (<i>sensu stricto</i>)
GD	-	Granodiorite
GT	-	Tonalite
GP	-	Granitoid, Porphyritic (undif.)

SYENITOIDS

Derwent 14

AS	-	Syenitoid (undif.)
AAS	-	Alkali syenite
ASY	-	Syenite (<i>sensu stricto</i>)
AMO-		Monzonite

DIORITOIDS

Derwent 44

DT	-	Dioritoid (undif.)
DM	-	Monzodiorite
DI	-	Diorite
DMG-		Monzogabbro



MAFIC – ULTRAMAFIC

ROCK CODES

MAFIC INTRUSIVES

Derwent 45

M - Mafic (undif.)
MG - Gabbroid (undif.)
MGB - Gabbro
MGH - Hornblende Gabbro
MGQ - Quartz Gabbro
MGG - Granophyric Gabbro
MGHH- Hornblendite
MGN - Gabbro Norite
MGO - Olivine Gabbro-norite
MGNO- Norite
MGT - Troctolite
MGP - Anorthosite
MD - Dolerite/Diabase

Derwent 32

MAFIC VOLCANICS

Derwent 46

MB - Basalt (undif.)
MBT - Tholeiitic Basalt
MBIA - Andesitic Basalt
MBAK- Alkali Basalt
MBK - Komatiitic Basalt (high Mg basalt)

Derwent 51

Metamorphic Derivatives

MA - Amphibolite (undif.)
MAP - Para-Amphibolite
MAO - Ortho-Amphibolite
MAA - an + hb/cm $\pm$ ga $\pm$ ep Amphibolite
MAB - ab/og + hb + ch + ep Amphibolite
MAC - ab + ac + ch + ep Basalt

ULTRAMAFIC

Derwent 27

U - Ultramafic (undif.)



Ultramafic Cumulates

Derwent 27

- UPX - Pyroxenite (undif.)
- UPO - Orthopyroxenite
- UPC - Clinopyroxenite
- UPW - Websterite (2 pyroxene)
- UPL - Lherzolite (ol + 2 pyroxenes)

- UOA - Olivine Adcumulate (>95% cumulate ol) (undif.)
- UOAO- Olivine Adcumulate – Igneous ol, minor chromite (stichtite)
- UOAS - Olivine Adcumulate – serp dominant (serp-chl-mag-ol-chr-st)
- UOAC- Olivine Adcumulate – carbonate alt (qz-ms-tlc-mag-ol)
- UOAM- Olivine Adcumulate – high mm grade (ol, antig, px)

- UOM - Olivine Mesocumulate (75-95% cumulate ol) (undif.)
- UOMO- Olivine Mesocumulate – Igneous ol, minor chromite (stichtite)
- UOMS- Olivine Mesocumulate – serp dominant (serp-chl-mag-ol-chr-st)
- UOMC- Olivine Mesocumulate – carbonate alt (tlc-chl-ms-dol-mag-ol)
- UOMM- Olivine Mesocumulate – high mm grade (ol, antig, px)

- UOO - Olivine Orthocumulate (50-75% cumulate ol) (undif.)
- UOOO- Olivine Orthocumulate – Igneous ol, minor chromite (stichtite)
- UOOS - Olivine Orthocumulate – Serp dominant (serp-chl-amp-mag-ol)
- UOOC- Olivine Orthocumulate – carbonate alt (tlc-chl-dol-ms-ol)
- UOOM- Olivine Orthocumulate – high mm grade (ol, antig, px)

Ultramafic Non-Cumulates

Derwent 27

- UK - Komatiite (undif.)
- UKOX- Komatiite - Olivine Spinifex Texture
- UKPX - Komatiite - Pyroxene Spinifex Textured
- UKPS - Komatiite - Pyroxenitic (act-chl)
- UKOO- Komatiite – Ol Phyric – remnant Ol common
- UKOS - Komatiite – Ol phyric – Serp dominant (trem-chl-serp-mag)
- UKOC - Komatiite – Ol phyric - carbonated (tlc-chl-dol-amp-mag)
- UKOM- Komatiite – Ol Phyric - hg metamorphic (ol-antig-trem-px)



Alkaline Ultramafic Rocks

Derwent 27

UA - Alkaline ultramafic (undif.)

UAK - Kimberlite

UALP - Lamprophyre

UALT - Lamproite

Magmatic Sulphides

\$MS - Massive Sulphides (>75%)

\$MX - Matrix Sulphides (40-75%)

\$SS - Stringer Sulphides (10-75%)

\$SX - Breccia Sulphides (Sulphide matrix)

\$SD - Heavily Disseminated Sulphides (10-40% Sulphides)



SEDIMENTARY

ROCK CODES

EPICLASTIC

Rudites (*Conglomerates*)

Derwent 57

SR - Rudite (undif.)
SRP - Polymictic Rudite
SRM - Monomictic Rudite

Sandstones

Derwent 6

SST - Sandstone (undif.)
SAN - Arenite
SQZ - Quartzite
SW - Wacke
SGW - Greywacke
STB - Turbidite

Argillites

Derwent 64

SAG - Argillite (undif.)
SSL - Siltstone
SMD - Mudstone
SSH - Shale
SBS - Carbonaceous Shale

PYROCLASTIC-EPICLASTIC MIXES

Derwent colours as above

VSST - Tuff Sandstone
VSSL - Tuff Siltstone
VSSH - Tuff Shale
VSC - Tuff Conglomerate

PYROCLASTIC

Derwent 10 for felsic

Derwent 44 for Intermediate

VAT - Ash Tuff (undif.)
VAXT - Crystal Tuff
VALT - Lithic Tuff
VLPT - Lapilli Tuff
VAGG - Agglomerate
VPM - Pumice
VOB - Obsidian



CHEMOGENIC

Derwent 22

SCT - Chert
SIF - Iron Formation (undif.)
SIFM - Oxide Facies – Magnetite
SIFH - Oxide Facies – Hematite (Jaspilite)
SIFC - Carbonate Facies (Siderite)
SIFS - Silicate Facies (Grunerite/Hedenbergite)
SIFF - Sulphide Facies (Pyrite)
SRD - Radiolarite

CARBONATES

Derwent 40

SCB - Carbonate (undif.)
SD - Dolomite/Dolostone
SDL - Dolomite Limestone
SLM - Limestone
SML - Marl
SCSL - Calcareous Siltstone
SCSD - Calcareous Sandstone
SCSH - Calcareous Shale



METAMORPHIC

ROCK CODES

GNEISSES

Derwent 18

- GN - Gneiss (undif.)
- GNF - Felsic Gneiss (undif.)
- GNM - Mafic Gneiss (undif.)
- GNG - Granitic Gneiss
- GNGD - Granodioritic Gneiss
- GNT - Tonalitic Gneiss
- GND - Dioritic Gneiss
- GNxx - xx = Diagnostic Mineral Code (ie GNcd – Cordierite Gneiss)

SCHISTS

Derwent 70

- SH - Schist (undif.)
- SHF - Felsic Schist (undif.)
- SHI - Intermediate Schist (undif.)
- SHM - Mafic Schist (undif.)
- SHC - Calc Schist
- SHxx - xx = Diagnostic Mineral Code (ie SHct – Chloritoid Schist)

PELITES

Derwent 64

- SHP - Pelite (undif.)
- SHL - Phyllite
- SHS - Slate
- SHI - Mica Schist

CALCAREOUS

Derwent 40

- CCM - Marble
- CCC - Calciphyre (Calc-silicate)
- CCH - Hornfels
- CCS - Skarn

GRANULITES

Derwent 69

- GRN - Granulite (indif.)
- GRM - Mafic Granulite
- GRF - Felsic Granulite
- GRxx - xx = Diagnostic Mineral Code (ie. GRfs - Feldspar Granulite)

OTHER

- MIG - Migmatite (undif.)
- SQZ - Quartzite
- MYL - Mylonite
- ECL - Eclogite

