



**GEOLOGY
LOGGING
CODES
May 2006**

Weathering and Other Events

Base of transported	BOA
Base of complete oxidation	BOCO
Top of palaeochannel	TOP
Top of saprolite	TOSA
Top of saprock	TOSR
Top of fresh rock	TOFR
Top of basement	TOB
Water table	WT

Colour

Black	bk
Blue	bl
Blue-green	bg
Brown	br
Cream	cw
Green	gr
Green-grey	gg
Grey	gy
Grey-brown	gb
Olive green	og
Orange	or
Orange-brown	ob
Pink	pk
Purple	pu
Red	rd
Red-brown	rb
Translucent	tt
White	wh
Yellow	ye
Yellow-brown	yb
Yellow-green	yg

* Light (l) and dark (d) prefix optional

Regolith Group

Aeolian	EO
Alluvium	AL
Calcrete	CT
Clay Zone	CY
Colluvium	CV
Ferricrete	FK
Gossan	GS
Lacustrine	LA
Lacustrine Evaporites	LE
Lag	LG
Lateritic Residuum	LT
Mottled Zone	MZ
Saprock	SR
Saprolite	SA
Silcrete	SC
Soil	SL
Transported	TR

Sample Condition

Dry – no water	D
Moist – can be moulded by hand but not wet to the touch	M
Wet – a slurry that is wet to the touch, but no free water	W
Saturated – sample suspended in free running water, note that water may contain suspended clay particles and therefore be discoloured	S

Regolith Variant

Bleached	bl
Breccia	bx
Calcareous	ca
Carbonaceous	cs
Chert	ch
Clay	cy
Duricrust	du
Ferruginous	fe
Goethite	go
Gravel	gv
Gypsum	gm
Haematite	hm
Halides	ha
Hardpanised/Indurated	hp
Iron Segregation	is
Kaolinite	kn
Lateritic	lt
Lignite/Plant material	lg
Limonitic	li
Lithic Fragments	lk
Loess	lo
Mega-Mottled	mb
Mn-Co-Fe	mf
Mottled	mu
Mud	md
Nodules	nd
Nontronitic	no
Pisoliths	ps
Quartz	qt
Sand	sd
Siliceous	si
Silt	st
Silty clay	ys
Smectite	sg
Oxidised sulphides	os
Talc	tc
White mica	wm

Weathering

Fresh rock	No visible signs of rock weathering	FR
Slightly weathered	Stained along discontinuity surfaces, original colour and texture recognisable	SW
Moderately weathered	Stained throughout, original texture recognisable throughout	MW
Highly weathered	Original colour and hardness severely altered, some texture visible	HW
Completely weathered	Rock exhibits soil-like properties (ie can be remoulded), some rock fragments may remain	CW

Hardness

Unconsolidated	UC
Very weak - may be broken by hand	VW
Weak - Crumbles under firm blow with sharp end of geological hammer	W
Moderately weak - Cannot be cut by hand into triaxial specimen	MW
Moderately strong - 5mm indentation with sharp end of geological hammer	MS
Strong - Hand held specimen can be broken with single blow of geological hammer	S
Very strong - More than one blow of geological hammer required to break specimen	VS
Extremely strong - More than one blow of geological hammer required to break specimen	ES

Rock Group	Rock Type
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Ultramafic Extrusive	U Komatiite	K
	Undifferentiated Ultramafic	U
	Basaltic Komatiite	B
Ultramafic Intrusive	U Undifferentiated	U
	Pyroxenite	X
	Peridotite	P
	Dunite	D
	Hornblendeite	H

Mafic Extrusive	B Undifferentiated	V
	Tholeiitic Basalt	T
	High-mag Basalt	M
	Picritic Basalt	P
	Spilitic Basalt	S
Mafic Intrusive	O Undifferentiated	U
	Gabbro	G
	Troctolite	T
	Norite	N
	Anorthosite	A
	Dolerite	D
	Gabbronorite	B
	Magnetite	M

Intermediate Extrusive	I Undifferentiated	U
	Andesite	V
	Trachyte	T
	Trachy-andesite	Y
Intermediate Intrusive	I Undifferentiated	I
	Diorite	D
	Monzonite	M
	Syenite	S
	Porphyry	P

Acid Extrusive	F Undifferentiated	U
	Rhyolite	R
	Dacite	C
	Rhyodacite	O
Acid Intrusive	G Undifferentiated	U
	Granite	G
	Monzogranite	M
	Syenogranite	S
	Alkali feldspar granite	A
	Granodiorite	D
	Tonalite	T
	Porphyry	P
	Pegmatite	Z
	Aplite	L

Lamprophyre/ Kimberlites	L Undifferentiated	U
	Phyric lamprophyre	P
	Lamproite	L
	Kimberlite	K
	Carbonatite	C

Vein material	VN
Massive sulphide	AM
Contamination	XX

Rock Group	Rock Type
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Sediment	S Undifferentiated	U
	Mudstone	M
	Siltstone	T
	Sandstone	S
	Interbedded - mud & silt	F
	Interbedded - sand & silt	N
	Conglomerate	C
	Breccia	B
	Limestone	L
	Dolomite	D
	Coal	K

Chemical Sediments	C Undifferentiated	U
	BIF	I
	Chert	H
	Evaporites	E
	Massive Ironstone	F
	Phosphorites	Z

Metamorphic Unknown protolith	M Slate	L
	Schist	S
	Gneiss	G
	Granulite	N
	Marble	B
	Amphibolite	A
	Hornfels	H

Metamorphic Sedimentary protolith	P Quartzite	Q
	Psammite	M
	Semipelite	E
	Pelite	P
	Slate	L
	Metacarbonate/marble	B
	Calcsilicate	X
	Schist	S
	Gneiss	G
	Granulite	N
Amphibolite	A	
	Hornfels	H

Metamorphic Igneous protolith	R Metafelsic	F
	Metamafic	M
	Meta-ultramafic	U
	Schist	S
	Gneiss	G
	Granulite	N
	Amphibolite	A

Metamorphic Intensely deformed	Y Mylonite	M
	Cataclasite	C

Hydrothermal	H Undifferentiated	U
	Mylonite	Y
	Skarn	S

Mining Codes	W Mullock/Waste	W
	Tailings	T
	cavity	C
	Stope	S
	Backfill	B
	Stockpile	P
	Lost Core	L

Variants - Minerals	
Albite	ab
Actinolite	ac
Andalusite	ad
Anhydrite	ai
Ankerite	ak
Amphibole	am
Asbestos	ao
Apatite	ap
Barite	ba
Biotite	bi
Calcite	ca
Carbonate	cb
Chloritoid	cd
Chlorite	cl
Cordierite	co
Carbonaceous	cs
Clay	cy
Clinopyroxene	cx
Dolomite(ic)	do
Diopside	dp
Epidote	ep
Feldspar	fd
Ferruginous	fe
Fluorite	fi
Fuchsite	fu
Garnet	ga
Graphite	gf
Gypsum	gm
Goethite	go
Gossan	gs
Grunerite	gu
Halite	ha
Hornblende	hb
Haematite	hm
Ilmenite	im
Kaolinite	kn
K-feldspar	ks
Kyanite	ky
Limonite	li
Leucite	lu
Leucoxene	lx
Magnesite	me
Manganese-Co-Fe	mf
Mica	mi
Manganese	mn
Montmorillonite	mr
Muscovite	ms
Magnetite	mt
Monazite	mz
Nontronite	no
Nepheline	np
Oxide	od
Olivine	ol
Opalised	op

Variants - Minerals	
Oxidised sulphide	os
Orthopyroxene	ox
Phlogopite	pg
Phosphate(ic)	ph
Plagioclase	pl
Pyroxene	px
Quartz	qt
Rutile	ru
Sanidine	se
Sphene	sf
Smectite	sg
Siderite	sj
Sillimanite	sm
Cassiterite	sn
Staurolite	so
Sphalerite	sp
Serpentine	sr
Sulphur	sv
Sylvite	sy
Talc	tc
Tremolite	tm
Tourmaline	to
Wolframite	wf
White Mica	wm
Zircon	zr
Zeolite	zt

Variants - Sulphides / Ore Minerals	
Arsenopyrite	as
Azurite	az
Bornite	bn
Chalcocite	cc
Chalcopyrite	cp
Chromite	cr
Copper, native	cu
Covellite	cv
Cuprite	ct
Electrum	el
Enargite	en
Galena	gl
Gold, native	au
Malachite	ml
Molybdenite	mo
Nickeliferous	nk
Pentlandite	pn
Pyrite	py
Pyrrhotite	po
Scheelite	sc
Silver	ag
Stibnite	sb
Sulphide	su
Tellurides	te

Variants - Texture	
Adcumulate	at
Agglomerate	al
Amygdaloidal	ay
Banded	bd
Breccia	bx
Cherty	ch
Chill margin	cz
Coarse-grained	cg
Crystal Tuff	tx
Cumulus	cm
Downhole fining	df
Fine-grained	fg
Flaser bedding	fz
Flow top breccia	fx
Gradational	gt
Granophyric	gp
Groundmass	gd
Lamination	lm
Lapilli Tuff	tl
Lenticular bedding	lc
Lithic	lk
Massive	ma
Matrix	mx
Medium-grained	mg
Mesocumulate	mc
Migmatitic	mm
Muddy	md
Oolitic	oo
Orthocumulate	oc
Phyllitic	pi
Pillowed	pw
Poorly sorted	ps
Porphyritic	pp
Porphyroblastic	pb
Porphyroclastic	pc
Sandy	sd
Shaley	sh
Silicification	si
Silty	st
Spinifex	sx
Tuff	tf
Uphole fining	uf
Volcanic breccia	vb
Volcaniclastic	vc
Wallrock	wr
Welded Tuff	tw

Grainsize		Sed	Ig/Meta
Clay	cy	<1/256 mm	NA
Silt	st	1/256 - 1/32 mm	NA
Very Fine	vf	1/32 - 1/8 mm	<0.1 mm
Fine	fg	1/8 - 1/4 mm	0.1 - 1mm
Medium	mg	1/4 - 1/2 mm	1 - 3 mm
Coarse	cg	1/2 - 1mm	3 - 10 mm
Very coarse	vg	1 - 2 mm	>10mm
Granule	gn	2 - 4mm	NA
Pebble	pb	4 - 64 mm	NA
Cobble	cb	64 - 256 mm	NA
Boulder	bu	>256	NA
Pegmatitic	pa	NA	>30mm

Facing
Up
Down
Both

Contact	
Sharp	S
Undulose	U
Gradational	G
Vein	V
Faulted/sheared	F

Stratigraphy/Beds					
Formal		Informal		Regolith	
Gardiner Sandstone	GS	Phat Sandstone	PS	Regolith Layer A	LA
Antrim Plateau Basalt	AP	Marker Siltstone	MS	Regolith Layer B	LB
Killi Killi Fm	KK	Marker Siltstone, inferred	iMS	Regolith Layer C	LC
Bald Hill Sequence	BH	Irvine Conglomerate	IG	Regolith Layer D	LD
		Black Shale Bed	BS	Upper Mobile Zone	UM
		Coyote No.1 Fault	CF	Lower Mobile Zone	LM
		Coyote fold hinge	FA		

Deformation Type		
Boudinaged	BD	
Brecciated	BX	
Crenulated	CR	
Folded	FD	
Fractured weakly	CW	more than 10cm fracture spacing
Fractured moderately	CM	2-10cm fracture spacing
Fractured strongly	CS	less than 2cm fracture spacing
Foliation weak	FW	most grains undeformed, deformation restricted to discrete planes
Foliation moderate	FM	more than half grains broken, flattened or elongated
Foliation strong	FS	primary textures completely destroyed
Lineated	LN	

Alteration Style	
Fracture Controlled	FC
Foot wall (VMS)	FW
Hanging wall (VMS)	HW
Patchy	PT
Pervasive	PV
Selective Replacement	SR
Vein Selvedge	SV

Alteration Intensity	
Weak: partial replacement of primary minerals	WA
Moderate: alteration approx. equal proportion to primary minerals	MA
Strong: alteration dominant, some primary minerals remain	SA
Intense: total replacement of primary minerals	IA

Vein Style	
Anastomosing	AN
Boudinage	BO
En echelon	EE
Folded	FD
Planar	PL
Ptygmatic	PT
Sigmoidal	SG
Stockwork	SW

Vein texture	
Buck	BK
Breccia	BX
Comb-cockade	CB
Colloform	CF
Chalcedonic	CH
Fibrous	FB
Infill	IN
Laminated	LM
Recrystallised	RX
Replacement	RP
Saccaroidal	SC
Vuggy	VG
Tension gashes	VT

Structure / Lithology Events	
Bedding	BED
Cleavage	CLV
Contact	CNT
Crenulation	CRN
Fault	FLT
Fold axis (plane)	FLD
Fold hinge (lineation)	HNG
Foliation	FOL
Fracture	FRK
Joint	JNT
Lineation	LIN
Layering	LYR
Schistosity (s-fabric)	SCH
Shear zone/plane (c-fabric)	SHZ
Slickenside	SLK
Vein	VEIN

Mineralisation Style	
Blebs	BB
Disseminated	DS
Interstitial Network	NW
Massive	MA
Stockwork	MW
Stringers/Veinlets	SE
Vein halo	VH