

HOLE TYPE		Downhole Camera	M
Fully cored	FC	Dipmeter	I
Open/chip	OC	Full Waveform Sonic	F
Partly cored	PC	Gyroscopic Verticality	Y
Reverse Circulation	RC	Natural Gamma	G
HOLE PURPOSE		Neutron	N
Coal Quality	CQ	Resistivity	R
Environmental	EN	Spontaneous Potential	P
Gas	GS	Sonic	S
Geotech	GT	Temperature	T
Hydrological	HY	Verticality	V
Lox	LX	HOLE STATUS	
Service	SV	Backfilled	B
Structure	ST	Casing removed	X
DATA STATUS		Cemented	M
Raw/Uncorrected	R	Completed	C
Adjusted to geophysics	A	Equipment in Hole	E
Seams adjusted to geophysics	S	Infrastructure	I
Corrected to verticality	V	In Progress	P
Final	F	Mined	M
Unknown	U	Piezometer	Z
GEODETTIC DATUM		Plugged	G
Australian Geodetic Datum	AGD	Rehabilitated	R
Australian Mapping Grid	AMG	Water bore	W
Geocentric Datum Australia	GDA		
Local Datum	LOC		
Map Grid Australia	MGA		
Universal Transverse Mercator	UTM		
HEIGHT DATUM			
Australian Height Datum	AHD		
Approximate Level	APX		
Local Datum	LOC		
ACCURACY			
Approximate	A		
Barometric	B		
GPS (hand held)	G		
Surveyed	S		
LOGS RUN			
Acoustic Scanner	A		
Caliper	C		
Cement Bond Log	B		
Density	D		

SAMPLE TYPE	Fill/Spoil	FI	Kaolinite	KA	Non Coal	NC	undifferentiated	CU
Coal Quality	Fireclay	FC	Laterite	LA	No Recovery	NR	weathered	WE
raw ply (coal, roof, floor or parting)	Loam	LO	Limestone	LS	Not Logged	NL		
bulk sample	Mud	MD	Limonite	LI	Void	VD		
channel sample (underground)	Soil	SO	Silcrete	SC			Conglomerates	
			Tonstein	TN			granular	GG
Loxline	Carbonaceous Sediments		Igneous		LITHOLOGY QUALIFIERS		granular to pebbly	GP
raw ply (coal, roof, floor or parting)	Coal	CO	Igneous Rock, undifferentiated	IG	Unconsolidated Sediments		granular to cobbly	GO
	Lignite	LG			clayey	CL	granular to bouldery	GU
Spontaneous Combustion	Brown Coal	BC	Volcanic Rock, undifferentiated	VR	silty	SI	pebbly	PP
raw ply (coal, roof, floor or parting)	Peat	PE	Intrusive Rock, undifferentiated	IN	sandy	SA	pebbly to cobbly	PO
bulk sample	Oil Shale	OS			gravelly	GV	pebbly to bouldery	PU
channel sample	Tar Sand	TS					cobbly	OO
			Acid Volcanic	AV	Coals		cobbly to bouldery	OU
Geotechnical Sample	Coaly Claystone	ZC	Intermediate Volcanic	IV	bright (>90%)	BR	bouldery	UU
laboratory tested	Coaly Mudstone	ZM	Basic Volcanic	BV	bright with dull bands (60-90%)	BB		
field tested	Coaly Sandstone	ZS	Acid Intrusive	AI	interbanded dull and bright (40-60%)	BD	Sandstones	
	Coaly Shale	ZH	Intermediate Intrusive	II	mainly dull with frequent bright		very fine grained	VV
Water Quality Sample	Coaly Siltstone	ZT	Basic Intrusive	BI	bands (10-40%)	DB	very fine to fine grained	VF
laboratory tested	Carbonaceous Claystone	XC	Andesite	AN	dull with minor bright bands		very fine to medium grained	VM
field tested	Carbonaceous Mudstone	XM	Basalt	BS	(1-10%)	DM	very fine to coarse grained	VC
	Carbonaceous Sandstone	XS	Dolerite	DO	dull (<1%)	DD	very fine to very coarse grained	VX
Gas Sample	Carbonaceous Shale	XH	Granite	GR			fine grained	FF
exploration (virgin)	Carbonaceous Siltstone	XT	Granodiorite	GD	bright (>90% bright coal)	C1	fine to medium grained	FM
compliance (drained)			Gabbro	GB	bright with dull bands		fine to coarse grained	FC
			Rhyolite	RH	(60-90% bright coal)	C2	fine to very coarse grained	FX
Environmental Sample	Clastic Sedimentary Rocks		Tuff	TF	Interbanded dull and bright		medium grained	MM
soil	Conglomerate	CG			(40-60% bright coal)	C3	medium to coarse grained	MC
overburden characterisation	Sandstone	SS	Metamorphic		mainly dull with frequent bright		medium to very coarse grained	MX
(compliance)	Siltstone	ST	Basement Undifferentiated	BU	bands (10-40% bright coal)	C4	coarse grained	CC
reactive ground	Claystone	CS	Gneiss	GN	dull with minor bright bands		coarse to very coarse grained	CX
	Breccia	BR	Metamorphic Rock, undifferentiated	MM	(1-10% bright coal)	C5	very coarse grained	XX
INTERVAL STATUS	Fault Breccia	FB	Phyllite	PH	dull (<1% bright coal)	C6		
raw/uncorrected	Mudstone	MS	Quartzite	QT			very fine grained (VV)	S1
adjusted to geophysics	Sedimentary Rock, undifferentiated	SU	Schist	SZ	mid-lustrous to bright	M1	fine grained (FF)	S2
unknown	Shale	SH	Slate	SL	mid-lustrous	M2	fine to medium grained (FM)	S3
	Tillite	TI			mid-lustrous to dull	M3	medium grained (MM)	S4
LITHOLOGIES			Minerals				coarse to very coarse grained (CX)	S5
Unconsolidated Sediments	Chemical Sedimentary Rocks		Calcite	CA	anthracite	AN	Interbedded, fine and coarse	S6
Clay	Calcrete	CC	Pyrite	PY	cindered	CI	medium to coarse grained (MC)	S7
Silt	Carbonate	CB	Quartz	QZ	coked	KC	coarse grained (CC)	S8
Sand	Chalk	CK	Siderite	SD	canal (torbanite, bog)	CT	very coarse grained (XX)	S9
Gravel	Chert	CH	Talc	TA	dull conchoidal	DC		
Boulders	Cone in Cone Carbonate	KK			extremely weathered	EW	SHADES	
	Dolomite	DM			fusainous	FU	light	L
Alluvium	Ferricrete	FK	Other		heat affected	HA	light to medium	A
Colluvium	Fossil Wood	FW	Core Loss	KL	inferior	IF	light to dark	C
Diatomaceous Earth	Ironstone	IS	Old Workings	OW	sapropelic	SP	medium	E
					stony	SY	medium to dark	B

dark	D	fault gouge	FT	phosphatic	PP	with	WI	firm	C3
banded	N	hard	HR	pyritic	PY			stiff	C4
mottled	M	heat affected	HA	quartzose	QZ	Position		very stiff	C5
speckled	S	interbanded	IB	sandy	SA	alternating	AT	hard	C6
variegated	V	irregular	IR	shaly	SH	near base of unit	BU		
		lustrous	LU	shelly	HY	near middle of unit	MU		
HUES / COLOURS		opaque	OP	sideritic	SD	near top and base of unit	XU	Unconsolidated Cohesionless	
blackish / black	K	resinous	RS	siliceous	SC	near top of unit	TU	very loose	S1
bluish / blue	L	soft	SO	silicified	SF	tends to	TT	loose	S2
brownish / brown	B	translucent	TL	silty	SI	throughout	TO	medium dense	S3
buff	F			smectitic	SM			dense	S4
creamy / cream	C	Lithological		sooty	SX			very dense	S5
greenish / green	E	acidic	AC	stony	SY	LITHOLOGY INTERRELATIONSHIPS			
greyish / grey	G	arenitic	AR	sub arenitic	AM	coarsening up to	CU	Rock	
orangey / orange	O	arkosic	AK	tillitic	TI	disseminated with	DS	extremely low strength rock	R1
pinkish / pink	P	basaltic	BS	tonsteinous	TN	fining up to	FU	very low strength rock	R2
purplish / purple	U	basic	BC	tuffaceous	TF	interbedded with	IB	low strength rock	R3
reddish / red	R	bentonitic	BE	vitrainous	VI	intercalated with	IC	medium strength rock	R4
whitish / white	W	calcareous	CA	volcanic	VO	interlaminated with	IL	high strength rock	R5
yellowish / yellow	Y	carbonaceous	XX	Inclusions		intermixed with	IM	very high strength rock	R6
		carbonate	CB	bands	BN	irregularly interbedded with	IR	extremely high strength rock	R7
ADJECTIVES		chloritic	CR	blebs	BL	with bands of	BN		
Quantity		clayey	CL	clasts	CT	with boulders of	BO	BED SPACINGS	
abundant	AB	coaly	CO	cobbles	OO	with cement of	CM	massive/absent bedding	MA
decreasing in abundance	DA	conglomeritic	CG	concretions	CI	with clasts of	CT	very thickly bedded (> 2 m)	VB
highly	HI	detrital	DE	disseminated	DS	with cobbles of	OO	thickly bedded (600-2000 mm)	CB
in part	IP	dolomitic	DM	fragments	FR	with fragments of	FR	medium bedded (200-600 mm)	MB
increasing in abundance	IA	feldspathic	FS	grains	GN	with granules of	GR	thinly bedded (60-200 mm)	TB
large	LR	ferruginous	FE	granules	GR	with lenses of	LN	very thinly bedded (20-60 mm)	UB
minor	MN	fossiliferous	FO	laminae	LM	with matrix of	MX	thickly laminated (6-20 mm)	LM
moderately	MO	glaucinitic	GC	layers	LY	with nodules of	ND	thinly laminated (< 6 mm)	LL
occasional	OC	graphitic	GP	lenses	LN	with pebbles of	PB	irregular spaced bedding	IR
rare	RA	illitic	IL	matrix	MX	with pods of	PO		
slightly	TY	intermediate	IM	nodules	ND	with wisps of	WP	DEFECT TYPES	
sparse	SE	intrusive	IN	partings	PA			Natural	
sporadic	SP	iron stained	ID	pebbles	PB	WEATHERING		bedding plane	BP
strongly	TG	kaolinitic	KA	pellets	PT	residual soil	R	broken zone	BZ
thick	TK	lateritic	LA	phases	PH	extremely weathered	E	clay band	CL
thin	TH	limonitic	LI	Pods	PO	highly weathered	H	coal cleat	CE
very	VE	lithic	LT	stringers	SG	distinctly weathered	D	contraction fracture	CF
		loamy	LO	wisps	WP	moderately weathered	M	cross bedding	XB
Appearance		manganiferous	MG			slightly weathered	S	dyke	DY
altered	AL	marly	MR	Preposition		weathered	W	fault	FT
bright	BR	metamorphosed	MM	and	ET	fresh	F	foliation	FO
clear	LC	micaceous	MI	as	AS			fracture (undifferentiated)	FR
coarser	XC	muddy	MD	of	OF	ESTIMATED STRENGTHS		joint	JN
conchoidal	CC	oxidised	OX	on	ON	Unconsolidated Cohesive		shear zone	SH
dull	DD	peaty	PE			very soft	C1	sill	SI
						soft	C2	softened zone (non-tectonic)	SO

vein	VN	flaky	FL	sharp and irregular basal contact	I	well rounded grains	WG	colloidal iron deposit	CI
		fractured	FR	jointed at basal contact	J	bladed grains	DG	compaction feature	CF
Induced and Non-Intact		friable	FB	sharp and oblique basal contact	O	prolate grains	LG	flame structures	FS
discing	DS	indurated	IN	sharp and planar basal contact	P	tabular grains	TG	imbricate clasts	IM
drilling induced break	DB	micro faulted	MF	fractured at basal contact	R	very angular fragments	VF	load cast	LC
drilling induced broken zone	DZ	non-cleated	NC	sheared at basal contact	S	angular fragments	AF	pebble lag	PG
		powdery	PO	sharp and undulose basal contact	U	subangular fragments	GF	reworked	RW
DEFECT INTACT		puggy	PU			subrounded fragments	BF	ripple marks	RM
intact	I	sheared	SH	SEDIMENTARY FEATURES		rounded fragments	RF	rip-up clasts	RU
		slickensided	SK	Bedding		well rounded fragments	WF	rootlet beds	RB
DEFECT SPACING		sticky	ST	contorted bedding	CT	very angular pebbles	VP	scour and fill	SF
extremely wide (>2m)	EW	subfissile	SF	convoluted bedding	CV	angular pebbles	AP	sedimentary dyke	DY
very wide (600-2000mm)	VW			current bedding	CB	subangular pebbles	GP	slumping	SP
wide (200-600mm)	WI	TEXTURES		diffuse bedding	DF	subrounded pebbles	BP	soft sediment deformation	DE
moderately wide (60-200mm)	MW	amorphous	AM	disturbed bedding	DB	rounded pebbles	RP	stylolites	ST
moderately narrow (20-60mm)	MN	amygdaloidal	AG	flasar bedding	FL	well rounded pebbles	WP	varving	VV
narrow (6-20mm)	NA	aphanitic	AP	graded bedding	GB			water escape structures	WE
very narrow (<6mm)	VN	chalky	CK	lenticular bedding	LB	Sorting			
		cherty	CH	penny bands	PB	well sorted	WS	Position	
CORE STATES		concretionary	CI	planar bedding	PL	moderately sorted	MS	in part	IP
overdrilled core	O	crystalline	XL	poorly developed bedding	PD	poorly sorted	PS	near base of unit	BU
solid core	S	earthy	EA	ripple bedding	RI	bimodal sorting	BS	near middle of unit	MU
fragmented core	F	equigranular	EQ	wavy bedding	WB	polymodal sorting	YS	near top and base of unit	XU
broken core	B	fibrous	FB	well developed bedding	WD	coarsening upwards	CU	near top of unit	TU
very broken core	V	flaggy	FG			fining upwards	FU	throughout	TO
crushed core	C	flow banded	FL	Cross Bedding				ABUNDANCES	
		glassy	GS	high angle cross bedding (>30°)	HX	Permeability/Porosity		abundant	A
MECHANICAL STATES		granular	GR	medium angle cross bedding (10°-30°)	MX	impermeable (<0.1mD)	IR	secondary	D
Slaking		gritty	GT	low angle cross bedding (<10°)	LX	low permeability (0.1-10mD)	LP	accessory	E
non slaking	NS	nodular	ND	cross bedding	XB	medium permeability (10-10000mD)	MP	minor	M
low slaking	LS	oolitic	OO	fine cross bedding	FX	high permeability (>10000mD)	HP	sporadic	P
medium slaking	MS	pelletal	PT	tabular cross bedding	TX	permeable	PE	rare	R
high slaking	HS	pisolitic	PS	trough cross bedding	RX	porous	PO		
		platy	PL					MINERALS / FOSSILS	
Plasticity		porphyritic	PR	Laminations		Cracks		Minerals	
non plastic	NP	schistose	SZ	large scale cross laminations (>1m)	LL	dessication cracks	DC	ankerite	AN
low plasticity	LP	soapy	SO	medium scale cross laminations (100 – 1000mm)	ML	intraformational cracks	IC	apatite	AP
intermediate plasticity	IP	vesicular	VS	small scale cross laminations (<100mm)	SL	mud casts/cracks	MC	bauxite	BA
high plasticity	HP	vitreous	VT	wavy laminations	WL	shrinkage cracks	SC	biotite	BT
		vuggy	VU			syneresis cracks	YC	calcite	CA
Other		waxy	WX	Shape		Structures		carbonate	CB
brecciated	BR			very angular grains	VG	bioturbated	BT	chalcedony	CD
brittle	BL	BASAL CONTACTS		angular grains	AG	boudinage	BD	chert	CH
cleated	CE	basal contact open or readily parts	B	subangular grains	GG	bounce marks/prod casts	PC	chlorite	CR
disintegrates on wetting	DW	basal contact deformed	D	subrounded grains	BG	burrowing	BW	clay	CL
expanding clay	EX	erosional basal contact	E	rounded grains	RG	climbing ripples	CR	common opal	OP
fissile	FS	faulted at basal contact	F						
fissured	FI	gradational basal contact	G						

dickite	DI	fossil wood	FW	nodules	ND
dolomite	DM	fossils	FO	on bedding planes	BP
epidote	EP	gastropods	GT	on fracture planes	FP
feldspar	FS	marine fossils	MF	on joints	JN
galena	GA	pelycepods	PE	oolites	OO
garnet	GR	plant fragments	PF	pebbles	PB
glauconite	GC	plant impressions	PI	pellets	PT
goethite	GO	resin	RS	phenocrysts	PH
graphite	GP	resin aggregates	RA	radial filaments	FL
gypsum	GY	root traces	RT	replacement	RE
haematite	HE	rootlets	RO	replacing fossils	RF
heavy minerals	HM	sediment filled root traces	SR	resinous	RS
illite	IL	shells	HY	rhombs	RH
ilmenite	IM	woody fragments	WF	staining	SN
iron oxide	IO			traces	TR
ironstone	IS			wisps	WP
kaolinite	KA				
limonite	LI	MINERAL ASSOCIATION		GAS	
magnetite	MT	amorphous	AM	trace (<10m ³ /m ²)	T
manganese	MG	bands	BN	low gas present (10-25m ³ /m ²)	L
marcasite	MC	cement	CM	moderate gas present (25-70m ³ /m ²)	M
mica	MI	clasts	CT	abundant gas present (>70m ³ /m ²)	A
montmorillinite	ML	coarse grains	CC	H ₂ S not detected	N
muscovite	MV	coating	OU	H ₂ S present	P
olivine	OL	concentrated at base	CB		
opaque minerals	OM	concentrated at top	CN		
orthoclase	OR	concretions	CI		
phosphates	PP	cone in cone structure	KK		
plagioclase	PG	crystals	XL		
pyrite	PY	detrital	DE		
quartz	QZ	disseminated	DS		
siderite	SD	fibrous	FB		
silica	SC	fine grains	FF		
sulphides	SU	fragments	FR		
talc	TA	grains	GN		
vivianite	VV	in blebs	BL		
zeolite	ZE	in cavities	CV		
		in cleat	CE		
		in pods	PO		
		in veins	VN		
Fossils		in vesicles	VS		
bivalves	BI	in vughs	VU		
brachiopods	BR	infilling fault discontinuities	FD		
bryozoans	BZ	infilling of burrows	IB		
carbonaceous remains	XR	infilling vesicles	IV		
carbonaceous root traces	RC	intercalations	IC		
charcoal	FB	laminae	LM		
coprolites	CP	lenses	LN		
faecal remains	FR	matrix	MX		
foraminifera	FM				

<p>RMU TYPES</p> <p>broken zone B</p> <p>core loss L</p> <p>core with defects D</p> <p>not recorded N</p> <p>open O</p> <p>soil properties S</p> <p>unbroken core U</p>	<p>Rock</p> <p>extremely low strength rock R1</p> <p>very low strength rock R2</p> <p>low strength rock R3</p> <p>medium strength rock R4</p> <p>high strength rock R5</p> <p>very high strength rock R6</p> <p>extremely high strength rock R7</p>	<p>foliation FO</p> <p>fracture (undifferentiated) FR</p> <p>joint JN</p> <p>shear zone SH</p> <p>sill SI</p> <p>softened zone (non-tectonic) SO</p> <p>vein VN</p>	<p>carbonaceous remains XR</p> <p>carbonate CB</p> <p>chlorite CR</p> <p>clay CL</p> <p>coal CO</p> <p>crushed rock CU</p> <p>dickite DI</p> <p>fossils FO</p> <p>glauconite GC</p> <p>gypsum GY</p> <p>haematite HE</p> <p>illite IL</p> <p>iron oxide IO</p> <p>kaolinite KA</p> <p>limonite LI</p> <p>magnetite MT</p> <p>manganese MG</p> <p>marcasite MC</p> <p>mica MI</p> <p>montmorillonite ML</p> <p>other OT</p> <p>plant fragments PF</p> <p>pyrite PY</p> <p>quartz QZ</p> <p>sand SA</p> <p>siderite SD</p> <p>silt SI</p> <p>talc TA</p> <p>zeolite ZE</p>
<p>WEATHERING</p> <p>residual soil R</p> <p>extremely weathered E</p> <p>highly weathered H</p> <p>distinctly weathered D</p> <p>moderately weathered M</p> <p>slightly weathered S</p> <p>weathered W</p> <p>fresh F</p>	<p>BED SPACING</p> <p>massive MA</p> <p>very thickly bedded (> 2m) VB</p> <p>thickly bedded (600-2000mm) CB</p> <p>medium bedded (200-600mm) MB</p> <p>thinly bedded (60-200 mm) TB</p> <p>very thinly bedded (20-60mm) UB</p> <p>thickly laminated (6-20mm) LM</p> <p>thinly laminated (< 6mm) LL</p> <p>irregular spaced bedding IR</p>	<p>Induced and Non-Intact</p> <p>discing DS</p> <p>drilling induced break DB</p> <p>drilling induced broken zone DZ</p>	
<p>ALTERATION</p> <p>extremely altered E</p> <p>distinctly altered D</p> <p>slightly altered S</p> <p>altered A</p> <p>fresh F</p>	<p>MOISTURE SENSITIVITY</p> <p>non sensitive N</p> <p>low sensitivity L</p> <p>medium sensitivity M</p> <p>high sensitivity H</p>	<p>DEFECT INTACT</p> <p>intact I</p>	
<p>ESTIMATED STRENGTH</p> <p>Unconsolidated Cohesive</p> <p>very soft C1</p> <p>soft C2</p> <p>firm C3</p> <p>stiff C4</p> <p>very stiff C5</p> <p>hard C6</p>	<p>PLASTICITY</p> <p>non plastic N</p> <p>brittle B</p> <p>low plasticity L</p> <p>intermediate plasticity I</p> <p>high plasticity H</p>	<p>DEFECT CONTINUITY</p> <p>continuous across core width C</p> <p>discontinuous across core width D</p> <p>divaricates (splits) V</p> <p>truncated within core width T</p>	
<p>Unconsolidated Cohesionless</p> <p>very loose S1</p> <p>loose S2</p> <p>medium dense S3</p> <p>dense S4</p> <p>very dense S5</p>	<p>DEFECT TYPES</p> <p>Natural</p> <p>bedding plane BP</p> <p>broken zone BZ</p> <p>clay band CL</p> <p>coal cleat CE</p> <p>contraction fracture CF</p> <p>cross bedding XB</p> <p>dyke DY</p> <p>fault FT</p>	<p>DIP ORIENTATION METHOD</p> <p>directly measured from reference line D</p> <p>estimated E</p> <p>indirectly measured I</p> <p>measured from televiewer A</p>	
		<p>SURFACE SHAPE</p> <p>planar P</p> <p>undulose U</p> <p>concave/convex C</p> <p>irregular I</p> <p>stepped S</p>	<p>INFILL MODE</p> <p>absent A</p> <p>blebs L</p> <p>breccia B</p> <p>gouge G</p> <p>healed (cemented) H</p> <p>open O</p> <p>rubble R</p> <p>surface completely coated C</p> <p>surface partly coated P</p> <p>surface staining S</p> <p>trace T</p>
		<p>SURFACE ROUGHNESS</p> <p>polished P</p> <p>slickensided K</p> <p>smooth S</p> <p>rough R</p>	
		<p>INFILL TYPE</p> <p>apatite AP</p> <p>calcite CA</p>	

