GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

418077

HOLE NO.: RH. 17
STATE : TASMANIA

ULV. PRESS

PROJECT	TYNDALL
DESIGNED BY	J.C. PURVIS
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	18-1-84
COMPLETED	30-1-84

PURPOSE

To test the southern extension of the Red Hills Basin.

LOG SUMMARY / GENERAL COMMENTS

0.0 -	49.0	RED HILLS BASIN ROCKS. ALTERED VOLCANICLASTICS.
49.0		MAJOR FAULT STRUCTURE.
49.0 -	82.5	TYNDALL GROUP. UNALTERED SANDSTONES AND CONGLOMERATES.
82.5 -	208.0	OWEN CONGLOMERATE. UNALTERED, WITH A BASIC DYKE AT DEPTH.

ASSAY SUMMARY

INTERVAL From	INTERVAL To													COMMENTS

LOCATION

NORTHING	5363091
EASTING	382508
R.L.	656.0
GRID	AMG
LENGTH	208.0

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	0.0-18.0
NQ	18.0-75.0
BQ	75-208.0

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost
0.0	49.0	37

POOR GROUND CONDITION ZONES From	To	Condition
40.5	49.0	Highly sheared, crumbly rock fragments and clayey soil.

HOLE CONDITIONS AFTER COMPLETION

12m of HQ left in hole. Stem-pipe with cap left as a hole marker.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total	SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0.0	067	55.0	0.0	15.5	15.5	12.7	643.3	8.9	8.9										
31.0	062	51.0	15.5	55.5	40.0	31.1	612.2	25.2	34.1										
80.0	074	49.0	55.5	97.5	42.0	31.7	580.5	27.6	61.7										
115.0	074	48.0	97.5	161.5	64.0	47.6	532.9	42.8	104.5										
208.0	069	48.0	161.5	208.0	46.5	34.6	498.3	31.1	135.6										

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PROJECT: TYNDALL

DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				SUMMARISED LOG				
0.0	49.0	31.1	63	RED HILLS BASIN ROCKS. VOLCANICLASTICS CONSISTING OF MODERATELY ALTERED AGLOMERATES, ARGILLITES AND TUFFACEOUS SEDIMENTS. THE BASAL CONTACT IS FAULTED, EXHIBITING STRONG DEFORMATION AND SHEARING.				
49.0	74.3	25.3	100	TYNDALL GROUP. UNALTERED TO VERY WEAKLY ALTERED GRITTY SANDSTONES AND PEBBLEY CONGLOMERATES OF VOLCANIC DETRITUS. WEAKLY HEMATITIC WITH DEPTH.				
74.3	82.5	8.2	100	TYNDALL GROUP. UNALTERED HEMATITIC BRECCIA AND MINOR CONGLOMERATE WITH VOLCANIC AND QUARTZITE FRAGMENTS.				
82.5	208.0	123.8	99	OWEN CONGLOMERATE. COBBLES AND PEBBLES OF QUARTZITE IN A SILICEOUS, WEAKLY HEMATITIC CEMENT. UNALTERED. MINOR, THIN SANDSTONES BEDS OCCUR AND A BASIC DYKE INTRUDES THE SEQUENCE AT DEPTH.				
				DETAILED LOG				
				0.0-49.0 VOLCANICLASTICS CONSISTING OF AGGLOMERATES, ARGILLITES AND TUFFACEOUS SEDIMENTS. THE BASAL CONTACT IS A WELL DEVELOPED SHEAR ZONE.				
0.0	2.9	0.1	3	Alluvium/colluvium of pale red-pink medium grained, unaltered (hematitic) sandstone and pale green-cream stronlgy sericitised/ weathered/leached?, weakly foliated conglomerate.				
2.9	20.1	14.5	84	Pale green-cream, strongly sericitic aglomerate. Predominantly softweathered/leached with some harder, silicified patches. Moderately to strongly fractured with abundant clay altered, crumbly zones. The matrix of this unit app ears to be a totally sericitised and or chloritised fine grained sediment. The clasts include; flattened purplish, hematitic lava fragments (from coarse grit				

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA (p.p.m) Sample No.	From	To	Rec. %	Au	Cu	Pb	Zn	Ag
				to pebble sized); flattened, dark green, chloritic fragments of									
				a similar size (strongly oriented and flattened); quartz crystals									
				and fragments (from 0.5cm down to a coarse sand size); white,	128 27	20.0	21.0	100	<0.01	10	50	280	<1
				silicified, fine grained ovoid fragments, up to pebble size,	128 28	21.0	22.0	100	"	80	50	180	1
				and soft, leached, sericitic, pale cream volcanic? fragments-	128 29	22.0	23.0	100	"	45	220	210	1
				ovoid, up to small cobble sized (pumice?) Overall the unit is	128 30	23.0	24.0	100	"	50	140	350	1
				leached and pitted, with a very pale colour.	128 31	24.0	25.0	100	"	55	270	380	1
				At 16.2, brown limonite streaks appear in the rock. Associated	128 32	25.0	26.0	100	"	510	490	870	2
				with this, a dark green chloritic streak also appears.	128 33	26.0	27.0	100	"	30	140	510	1
				The rock could be a bedded deposit of some kind-now obscured	128 34	27.0	28.0	100	"	50	130	500	1
				by the foliation at 65° CA. Possibly an, airfall ash or tuff.	128 35	28.0	29.0	100	"	60	120	500	<1
					128 36	29.0	30.0	100	"	75	60	270	<1
20.1	22.8	1.4	52	Dark grey, fine grained argillite-shale. This is abrupt contact	128 37	30.0	31.0	100	"	15	40	270	<1
				(fractured) with the unit above. A weak foliated, purplish argillite	128 38	31.0	32.0	100	"	10	10	270	<1
				intermixed with paler colour sedimentary fragments, elongated	128 39	32.0	33.0	100	"	10	20	340	<1
				and set in a purple argillite matrix. Green chlorite also occurs	128 40	33.0	34.0	100	"	15	30	430	<1
				with these breccia/conglomerates. The contacts between the two	128 41	34.0	35.0	100	"	15	30	400	<1
				are irrgeular-possibly this rock represents a very shallow water	128 42	35.0	36.0	100	"	25	50	390	<1
				fine-ashy sediment which has very small channel and scour-fill	128 43	36.0	37.0	100	"	25	80	490	<1
				structures (with clasts of pre-consolidated ash and rock). Overall	128 44	37.0	38.0	100	"	65	80	300	<1
				the rocks appear to be very weakly altered and consist of almost	128 45	38.0	39.0	100	"	25	10	100	<1
				100% clays. Moderately-strongly fractured.	128 46	39.0	40.0	100	"	45	60	150	<1
				At 22.0, another abrupt change occurs, the argillite is pale	128 47	40.0	41.0	100	"	10	20	790	<1
				brown (due to limonite) - green (due to chlorite) and homogenous	128 48	41.0	42.0	100	"	20	20	520	<1
					128 49	42.0	43.0	100	"	10	30	390	<1
22.8	40.5	10.6	60	Pale green, sericitic volcaniclastics and sediments. Medium to	128 50	43.0	44.0	100	"	<10	50	420	<1
				fine grained, moderately altered - possibly bedded (sub-aqueous?)	128 51	44.0	45.0	100	"	20	50	360	<1
				deposits. Many fine fragments of brown lithics (or pumice) occur,	128 52	45.0	46.0	100	"	15	320	130	<1
				as do fine chloritic grains. This is all set in structureless	128 53	46.0	47.0	100	"	<10	410	90	<1
				sericitic matrix. The unit is very weakly foliated. The unit	128 54	47.0	48.0	100	"	20	630	90	<1
				is moderately to highly fractured and has numerous clay zones	128 55	48.0	49.0	100	"	15	20	70	<1
				with crumbly clay-rich rock fragments occuring.									
				At 34.7, a 10cm zone of fractured, sub angular quartz-chlorite									
				pebbles occur - a fractured and leached vein.									
				Between 36.5 and 40.5, a mixed sequence of fine sediments in-									

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				cluding a zone of pale cream chert. This rock is hard compared with the previous sericitic rock. Other argillaceous sediments also occur.				
40.5	49.0	4.5	53	Shear zone. Highly fractured and sheared volcaniclastics, rich in sericite and clays. Overall the core is reduced to small angular pebble sized fragments, but in places is little more than a clayey soil. Abundant chloritic fracture surfaces occur, the rock types present are difficult to distinguish due to the degree of disruption, however they are predominantly made up of the fine grained volcaniclastics and sediments that occur above. Towards the bottom of the zone, coarser grained, hard quartz-rich volcaniclastics more representative of the unit below occur.				
				49.0-74.3 UNALTERED TO WEAKLY ALTERED SANDSTONES AND CONGLOMERATES RICH IN VOLCANIC DETRITUS. VERY WEAKLY HEMATITIC AT DEPTH.				
49.0	54.5	5.5	100	Pale green-brownish coarse grained volcaniclastics. A gritty rock with abundant quartz fragments in a chloritic-siliceous? matrix. The quartz fragments/crystals range from a grit to a fine sand. A few flattened chloritic fragments also occur. Limonitic streaks give the rock its brown tinge. Overall the rock is weakly altered and moderately fractured. It is also weakly foliated.				
54.5	61.1	6.6	100	Pale green-grey conglomerate with coarse grained gritty quartz, strongly sheared out chloritic fragments and pebbles, some weakly elongate with the prevailing foliation, of pink quartz rich sediment (quartzite?). Rare pyrite blebs occur. The rock is clast-rich and the matrix consists of quartz and pale green sericite. The largest fragments are only 2-3 cm across. The unit is very weakly fractured with poorly developed brown limonite on fracture surfaces. At 59.0, the limonite becomes rare, giving way to clay-sericite as the main fracture filling. This unit has gradual contacts above and below.				

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HOLE NUMBER: RH. 17 Page: 4.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
61.1	74.3	13.2	100	Pale green coarse grained volaniclastics. A gritty rock with abundant quartz fragments/crystals in a sericite-quartz-chlorite matrix. This is a repeat of the unit before last. Wispy veinlets of red hematite occur. The quartz fragments range from 0.5cm to sand sized. Below 66.5, the unit becomes more like that above, i.e. becomes a conglomerate, identical to the one described in the previous unit. Limonite coats the few rare fractures. Fine grained hematite also occurs. This unit appears to unconformably? overlie the one below at approx. 50° CA.				
				74.3-82.5 UNALTERED, HEMATITIC BRECCIA WITH VOLCANIC AND QUARTZITE FRAGMENTS.				
74.3	75.0	0.7	100	A purple conglomerate consisting of several very large (up to head sized) pale coloured quartzite (sub rounded) cobbles in a purple hematitic, gritty matrix. Other constituents consist of quartz and hematitic lava fragments-grit sized. A foliation is developed around the larger components. Quartz veins (metamorphic) cut the unit which is very weakly altered. This unit is gradational to the one below.				
75.0	82.5	7.5	100	Purple breccia, rich in clasts. This rock contains all the fragment types recorded above i.e. quartites or quartz grains, hematitic lava and volcaniclastic fragments and chlooritic and sericitic volcaniclastics. These have a variety of colours; pink, purple green and brown. The matrix is hematitic. The unit is weakly foliated. The clasts are all under 1.5cm across. The foliation has elongated and preferentially oriented many of the clasts. This unit is crudely bedded at 35° CA, with finer grained, matrix dominated lenses occurring. Below 78.8, the unit looses the volcaniclastic fragments and the quartzite fragments increase in size to pebble an occasionally rock sized. Also, the clast density increases in patches.				

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				The lava fragments also decrease. This unit is gradational to the one below.
				82.5-208.0 PINK CONGLOMERATE CONTAINING COBBLES AND PEBBLES OF QUARTZITE IN A SILICEOUS CEMENT. UNALTERED AND WEAKLY HEMATITIC.
82.5	208.0	123.8	99	Coarse grained multicolour conglomerate. Large fragments of variably coloured quartzite occur in a siliceous matrix. The rock is very hard. Minor hematitite (purple) and rare chlorite (green) occur in the matrix. The clasts are grit sized to cobble sized, with most in the 2-5 cm sized fraction. White quartz has recrystallised through many of the fragments. Some fragments of the hematitic sandstone-gritty beds above have been incorporated into this rock. Overall the rock is weakly fractured and unaltered. In places, the fracturing does increase to produce a blocky zone (usually over 20-30cm).
				At 131.1, a 0.5m thick, medium-coarse grained, pink, hematite sandstone bed occurs.
157.6-166.2,80% recovered)				Between 157.6 and 166.2, a highly fractured zone occurs, producing a blocky, pebbly rock. The hematitic matrix appears to have gone in places.
				At 196.1, a 4.7m thick, green, sericitised basic dyke intruded the conglomerate. The rock is fine grained apart from a few coarse feldspar phenocrysts now replaced by white sericite. The dykes contacts are fractured.
				END OF HOLE 208.0

ASSAY DATA Sample No.	From	To	Rec. %