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GOLD FIELDS EXPLORATION PTY. LIMITED

DRILL CORE RECORD

418048

HOLE NO: LS12
STATE : TASMANIA

PROJECT	TYNDALL
DESIGNED BY	JGPURVIS/LANEWNHAM
LOGGED BY	A.J. CARTWRIGHT
COMMENCED	16-2-84
COMPLETED	2-3-84

PURPOSE

To test for a possible northern extension to the Western Pyrite Zone.

LOG SUMMARY

0.0 -	4.5	Glacial deposits.
4.5 -	10.0	Jukes Formation? Hematitic breccias.
10.0 -	248.8	Selina Volcanics. Hornfelsed volcaniclastics and sediments.
248.8 -	330.0	Murchison Granite.

GENERAL COMMENTS

ASSAY SUMMARY

INTERVAL From	INTERVAL To													COMMENTS

LOCATION

NORTHING	5363530
EASTING	385421
R.L.	496.0
GRID	A.M.G.
LENGTH	330.0

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	0.0-4.5
NQ	4.5-21.0
BQ	21.0-330.0

SIGNIFICANT CORE LOSS INTERVALS From	To	% Lost

POOR GROUND CONDITION ZONES From	To	Condition
4.5	248.8	A strongly developed blocky fracture occurs.

HOLE CONDITIONS AFTER COMPLETION

Plastic marker left in hole collar.

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
0.0	264	50.0	0.0	24.5	24.5	18.8	477.2	15.7	15.7
49.0	263	47.5	24.5	74.5	50.0	36.9	440.3	33.8	49.5
100.0	252?	41.0	74.5	125.5	51.0	33.5	406.8	38.5	88.0
151.0	247?	40.0	125.5	175.0	49.5	31.8	375.0	37.9	125.9
199.0	267	38.0	175.0	224.5	49.5	30.5	344.5	39.0	164.9
250.0	266	34.5	224.5	274.0	49.5	28.0	316.5	40.8	205.6
298.0	266	30.0	274.0	313.0	39.0	19.5	297.0	33.8	239.5
328.0	266	29.0	313.0	330.0	17.0	8.2	288.8	14.9	254.4

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

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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. %
				SUMMARISED LOG				
0.0	10.0	6.0	60	JUKES FORMATION? HEMATITIC BRECCIA CONTAINING RED CHERTY AND GREEN VOLCANICLASTIC FRAGMENTS, MODERATELY LIMONITIC AND WEATHERED. OVERLAIN BY GLACIAL DEBRIS.				
10.0	100.2	90.2	100	FINE TO COARSE GRAINED VOLCANICLASTICS AND SEDIMENTS. WEAKLY HORNFELSED AND WEAKLY TO MODERATELY ALTERED. MAGNETITE AND HEMATITE ARE COMMON. THE UNIT IS BRECCIATED IN PLACES.				
00.2	248.8	148.6	100	FINE GRAINED VOLCANICLASTICS. STROGLY HORNFELSED AND MODERATELY ALTERED WITH STRONGLY DEVELOPED HEMATITE AND MAGNETITE.				
48.8	330.0	81.2	100	MURCHISON GRANITE. EQUIGRANULAR AND WEAKLY ALTERED WITH A FINE GRAINED, PORPHYRITIC SUB-VOLCANIC PHASE.				
				DETAILED LOG.				
				0.0-10.0 COLLUVIUM AND GLACIAL DEBRIS COVERING A WEATHERED, HEMATITIC BRECCIA CONTAINING A VARIETY OF FRAGMENTS.				
0.0	4.0			No core recovered.				
4.0	4.5	0.5	100	Pale purple andesite lava boulders. Porphyritic with both feldspar and mafic phenocrysts. Weathered.				
4.5	10.0	5.5	100	Pale brown-red-green-blue breccia. Weathered at first, with brown limonite pervasively developed, then unweathered and unaltered. A dark red-purple hematite matrix with a variety of clasts including cherts (red), green sericitic volcaniclastics. This grades into the unit below.				
				10.0-100.2 MODERATELY TO WEAKLY ALTERED VOLCANICLASTICS AND SEDIMENTS, BRECCIATED AND HEMATITIC.				

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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. %
10.0	100.2	90.2	100	Fine to coarse grained, green volcaniclastic with appreciable hematitic alteration. The grainsize varies from very fine grained to a fine grit size and is predominantly sericite-chlorite. Purple hematite clasts occur in the coarser grained fraction. Hematite also commonly forms veins, breccia zone cements, and infills fractures. Brown limonite coats many of the open fractures. The rock is only weakly altered overall, but is strongly indurated and a distinct blocky fracture is present, producing regular core lengths of 5-10cm. A segregation of darker chloritic sediment occurs at 55°CA (2cm thick) at 28.5. The unit appears to be hornfelsed. Quartz-albite metamorphic veins are developed. Below 40.0, the hematitic nature of the rock becomes less apparent and the unit is dark green in colour-more chloritic. Also the hornfelsing-fracturing is absent. Between 68.4 and 72.2 a zone of mixed sediment occurs. Small scale breccias, pale green fine grained clayey sediments, purple hematitic lenses and coarsegrained, gritty hematitic sandstones occur. Bedding attitudes are irregular. The unit then becomes medium grained, chlorite-sericite altered volcaniclastic sediments. Crudely bedded at 62°CA. Small lenses of the above 'confused' style of sedimentation are common. Magnetite veins become more abundant below this zone also. Patches of magnetite-hematite-chlorite alteration (5-10cm wide) are developed. Overall the magnetite-hematite content is approx. 5%. This unit grades into the one below. 100.2-248.8 HORNFELSED, MODERATELY ALTERED VOLCANICLASTICS. HEMATITIC AND SILICIC WITH STRONGLY DEVELOPED MAGNETITE VEINING.				
100.2	214.4	114.2	100	Pale purple grey, strongly hornfelsed fine grained volcaniclastics. Very hard, brittle rock, moderately to blockily fractured. Older fractures have been filled with hematite-chlorite-magnetite. The rock is weakly, but pervasively hematitic and only incipiently altered (chlorite-sericite). Limonite				

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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. %
				forms a thin coating on many fractures. Specular hematite is common; overall the hematite-magnetite content is 5-10% vol. Coarser grained sediments occur; these are usually green, chloritic rocks with red hematitic clasts. Many of the hematite-magnetite fracture infillings appear to be small (5-10cm wide) breccia zones, cemented by the hematite-magnetite-chlorite.				
				Between 122.6 and 127.3, a zone of intense hematisation occurs with the rock being replaced by hematite approx 50% by vol. Both ends of the zone are strongly silicified with 0.5m silica-hematite patches.				
				Below this zone, patches of similar material are common; silica-hematite-magnetite intergrown pervasively and in vein form. Fracturing and brecciation structures are abundant. With depth, coarse sand sized, white sericitic grains occur, making the overall grainsize medium grained. Below 140.0 the rock does not appear to be as strongly hornfelsed. A weak foliation is developed at 50° CA at 165.0, and below this, very rare sulphides occur in the secondary metamorphic veins. Also, the blocky fracture and strong hornfelsing are prevailent below this depth. Some of the fragments in the coarser grained material are quartzose.				
				Between 186.0 and 200.0, the core is strongly hornfelsed and fractured into small blocks, over both the chloritic sediments and siliceous hematite-alteration zones. The latter is also characterised by quartz phenocrysts - possibly they represent high level intrusive bodies. Carbonate as wispy veinlets occurs in both the hematitic rock and the chloritic fine grained sediments below 200.0. Magnetite is absent in this zone. Sericitic fractures occur at 207.0, and the core remains strongly fractured below this to 212.4.				
14.4	248.8	34.4	100	Pink, silicified, hematitic volcaniclastics. Strongly replaced, obscuring most of the primary lithological features, apart from the quartz clasts and the chloritic clasts. The unit				

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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. %
				is moderately foliated at 60°CA. Basically it is the same rock type as above, but the hematite-silica alteration style is dominant with only very minor patches of chloritic-sericitic alteration. Magnetite is absent from this unit which is hard and brittle fractured into pebbly blocks in places. Thin veinlets and fractures appear to contain dark green chlorite.				
				Between 247.0 and 248.8, the rock is extremely hornfelsed with large rounded recrystallised quartzes and a silceous, cryptocrystalline quartz-hematite-chlorite-albite? groundmass. The contact at 248.8 is sharp, at approx. 18°CA.				
				248.8-300.0 MODERATELY ALTERED, FINE TO MEDIUM GRAINED, PORPHYRITIC SUBVOLCANIC INTRUSIVES AND GRANITE. QUARTZ PORPHYRITIC AND HEMATITIC.				
48.8	279.0	30.2	100	Pink-green fine-medium grained porphyritic granite. Phenocrysts of quartz are contained in a green (sericite-chlorite)-red (hematite-albite-quartz) weakly foliated groundmass. Also in places, darker green sericitised feldspar phenocrysts are observable. Cream coloured sericite wisps occur over the initial 7.0m. Overall the granite is weakly altered with hematite strongly developed in places. The rock is unfractured. Magnetite veins and intergrowths are fairly common; 2-5% by vol. Small zones of medium grained equigranular granite also occur.				
				At 277.0, a 2.0m sheared zone occurs, with strongly fractured core at approx. 40°CA.				
279.0	330.0	51.0	100	Pink-green, equigranular granite. Green chloritic-sericitic feldspars with a pink hematitic groundmass. Also colourless quartzes occur in this equigranular rock. Carbonate veins are common in an otherwise unveined, unfractured rock. Hematite-sericite fractures also occur.				
				Below 290.0, dark green sericitic biotite pseudomorphs are				

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	ASSAY DATA Sample No.	From	To	Rec. %
				apparent. Also a few pale green clayey, strongly sericitic greisen-like zones (approx 10cm wide) occur. Hematite in the groundmass is rare below this depth.				
				At 302.3, an 0.8m zone of strongly developed purple hematite and silica occurs.				
				END OF HOLE 330.0				