137

575140

drill log cover sheet

Project ELLIOTT BAY Prospect WART HILL Hole EBT-89-WH10

Co-ordinates 13050 mN 9900 mE Logged by G Twomey

AMG reference		Drilling company	Diamond Drilling Tasmania P/L
County		Rig type	Longyear 38
Parish		Drilling type	Diamond
Portion		Hole size	
Elevation	152.7m	Core size	HQ:0-54m, NQ:54-244.5m
Declination	-50°	Depth of casing	
Direction	090°G079.5°090°T	Assay sample type	Half core
Commenced	22.1.89	Water table	
Completed	30.1.89	Water yields	
Total depth	244.5m		

Borehole survey

Type: Eastman

Depth	Dip	Brg.	Depth	Dip	Brg.	Depth	Dip	Brg.	Depth	Dip	Brg.
30m	49.0	072.5	190m	35.0	050						
60m	47.8	071	223m	33.5	049.5						
90m	45.0	068									
140m	40.3	060									

Notes

CYPRUS

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geology

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From	To	Code	Description (mineralization in bold type)
0	71.9	5a	**RHYOLITE QUARTZ PORPHYRY** Moderately schistose, moderately weathered to fresh, light grey, very fine grained, non magnetic rhyolite porphyry containing 5% rounded bipyramidal quartz phenocrysts up to 3mm in diameter and 5-10% elongate 'wispy' phenocrysts of chlorite (ex biotite?) up to 5mm in length. A moderately developed schistosity is consistent throughout at 40° to the core axis. The rhyolite is affected by a weak pervasive silica-sericite-chlorite alteration with crosscutting narrow (<1cm) calcite veins common throughout. Rare quartz veins up to 10cm wide are generally associated with the more highly broken core and generally crosscut the schistosity. Trace **PYRITE** (<<0.5%) occurs as fine grained coatings on fracture surfaces and within quartz veins. Trace **GALENA** (<<0.25%) occurs as fine grains within quartz veins. 0-5m: Totally oxidized. 5-20m: Partly oxidized. 20m: Oxidation level. 6.3-7.9m: Highly broken, highly sheared, clay/mica rich fault zone. 16.0-16.5m; 18.5-19.5m: Zones of dense quartz veining. 29.8-32.0m: Highly broken, locally highly sheared fault zone possibly centered on approximately 31.3m. A minor increase in sulfides (0.25-0.5%) occurs in this zone. 37.4-37.6m: Strong calcite alteration. 45.0-45.5m: Quartz rich, fault zone orientated 15° to the core axis. 54.0m: Change from HQ to NQ. 65.0-71.9m: A weak pervasive calcite alteration gives the rock a creamy color. The bottom contact is irregular, occurring over 3cm.

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From	To	Code	Description (mineralization in bold type)
71.9	114.85	5a1	**EPICLASTIC SANDSTONE** and **BRECCIA** Sedimentary unit consisting of interbedded shales (5%), calcic limestone (5%), fine to coarse grained tuffaceous sandstone (80%) and epiclastic breccias (10%). Bedding thickness ranges from 5cm to over 1m and is orientated approximately 45° to the core axis. Clasts within the breccia dominantly consist of silicified rhyolite quartz porphyry but also include chert, marble, fine to coarse sandstone. The rock appears foliated due to a moderately developed schistosity which is orientated approximately 40° to the core axis and approximately 5-10° to bedding. Assuming schistosity is consistent with surface measurements, the bedding/schistosity relationship indicates an antiform to the east. A single graded bed at 75.3m indicates an easterly facing. Sulfide mineralization is variable in content ranging from trace up to 5% in the two more strongly mineralized zones occurring between 72.0-73.5m and 81.3-85.0m. Fine grained **PYRITE** with minor **SPHALERITE** and **GALENA** occurs as irregular stringers orientated parallel to schistosity and appear to have been part of the original matrix. A meter of core was lost between 81.4-82.4m with the next piece of core returned being the richest in sulfides (40-50% over 5cm) indicating the highest grade rock may have been ground away. A weak to moderate silica-sericite-calcite-chlorite alteration is pervasive throughout. Randomly orientated quartz/calcite veins up to 2cm wide are common with a typical density being 1-2 veins/meter. Within localized zones chlorite becomes the dominant alteration mineral. 71.9-73.25m: Moderately schistose, strongly foliated, poorly sorted sandstone containing 5-8% **PYRITE(±SPHALERITE/GALENA)**. 73.25-73.5m: Dense quartz/calcite veining orientated 70° to the core axis. 73.5-74.05m: Amygdaloidal, fine grained dolerite?. 76.25-76.35m: White calcite limestone bed. 76.50-76.55m: Laminated, black shale bed. 78.70-78.75m: Laminated siltstone containing 5-10% fine **PYRITE**. 79.0-79.65m: Clast bearing white calcic limestone bed.

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From	To	Code	Description (mineralization in bold type)
			81.5-81.9m: Poorly sorted coarse grained sandstone to fine conglomerate containing approximately 5% **PYRITE** (+minor **SPHALERITE/GALENA**). Sulfides appear to be part of the original matrix. Locally (81.5-81.55m) the sulfide content ranges up to 40%.
			86.2-92.7m: Highly broken core with numerous clay/mica rich shear zones and chloritic slickensides on fracture surfaces.
			93.6-98.4m: The rock appears bleached due to a pervasive moderately strong sericite/silica alteration.
			99.5-110.3m: A moderately pervasive chlorite-silica-sericite alteration causes the rock to appear dark green.
			110.3-111.9m: Amygdoidal, dark green, weakly schistose, massive, fine grained, non magnetic, chlorite/calcite altered dolerite dike containing 5% ovate calcite/quartz amygdules up to 4mm long. Both contacts of the dike are irregular.
			The bottom contact is sharp and parallel to schistosity at 45° to the core axis.
114.85	121.05	5h	**METADOLERITE DIKE**
			Dark greeny grey, fine grained, massive, weakly magnetic, very poorly schistose, dolerite dike which contains minor interbeds of silicified epiclastics. A moderately strong, pervasive, calcite-chlorite alteration has affected the dolerite.
			The dolerite shows very little deformation or veining. No obvious sulfide mineralization occurs within the dolerite.
			The bottom contact is sharp, orientated at 65° to the core axis.
121.05	185.6 (EOH)	5a1	**EPICLASTIC SANDSTONES** and **BRECCIA**
			(As in 71.9-114.85m) Sedimentary sequence consisting of interbedded fine to coarse grained tuffaceous sandstone (55%), epiclastic breccias (35%), chert, limestone and massive sulfide (**SPHALERITE/GALENA**) lenses. Bedding is generally 10cm to 1m thick.

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From	To	Code	Description (mineralization in bold type)

The sequence is dominantly derived from variably reworked rhyolitic porphyry. Other clasts within the breccia include limestone, chert. Zones of chlorite dominated alteration alternates with sericite altered zones giving two dominant rock colors of dark green and light greenish grey.

The rock appears foliated due to a moderately developed schistosity which subparallels bedding. Schistosity at the top of the interval is orientated 55° to the core axis but changes due to a curving hole to 80° to the core axis at the hole end.

Trace (<0.5%) sulfide mineralization occurs throughout the interval as disseminated grains and irregular veins. A significant zone of sulfide enrichment occur between 163.2-174.1m which contains 2-4% **PYRITE** dominated sulfides.

124.5-124.8m: Dolerite dike.

131.0-131.4m: Approximately 5% **PYRITE** with trace (<0.5%) **SPHALERITE** and **GALENA** as irregular veins.

163.2-174.1m: Approximately 2-4% sulfides (**PYRITE>SPHALERITE>GALENA**) occur as irregular veins within a moderate to local highly silicified epiclastic unit. Less prominent calcite is associated with the silica alteration. This unit may be the stringer feeder zone beneath the massive sulfide sequence. This would indicate an easterly facing which agrees with graded bedding evidence.

175.9-176.3m: Coarsely crystalline calcite-quartz vein.

Alteration:
121.05-128.5m: Chlorite>sericite
128.5-163.2m: Sericite>chlorite
163.2-174.1m: Silica>calcite>chlorite=sericite
174.1-175.6m: Chlorite=calcite>sericite
175.6-189.65m: Sericite>calcite>silica>chlorite

The **BARITE** beds contain up to 40% very fine grained **SPHALERITE/GALENA** and the chert/ breccia beds contain up to 5% combined sulfides. The **MASSIVE SULFIDE** beds contain **SPHALERITE>GALENA>>PYRITE= CHALCOPYRITE.** The least deformed bedding is orientated 70- 80° to the core axis.

Bedding is typically 10-20cm thick. The **MASSIVE SULFIDE** beds are poorly laminated indicating little deformation and recrystallization.

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From	To	Code	Description (mineralization in bold type)
			The interval is divided into beds as below: 185.6-185.64m: **MASSIVE SULFIDE** 185.64-185.88m: Chert 185.88-186.64m: Poorly sorted fine grained sandstone through to epiclastic breccia. 186.64-186.71m: **BARITE** 186.71-186.83m: Chert 186.83-187.53m: **BARITE** 187.53-188.23m: **MASSIVE SULFIDE** with minor **BARITE** beds. 188.23-188.82m: Epiclastic breccia 188.82-189.00m: **MASSIVE SULFIDE** with minor quartz veins. 189.00-189.58m: Epiclastic breccia. 189.58-189.65m: Very fine grained **PYRITIC** calcite/quartz bed. Alteration: 185.6-189.65m: Interbedded **MASSIVE SULFIDE** (25%), **BARITE**, chert and epiclastic breccia.
189.65	244.5		**EPICLASTIC SANDSTONE & BRECCIA** 121.05-128.5m: Chlorite>sericite 128.5-163.2m: Sericite>chlorite 163.2-174.1m: Silica>calcite>chlorite=sericite 174.1-175.6m: Chlorite=calcite>sericite 175.6-185.6m: Coarsely crystalline calcite-quartz vein. 194.0-244.5m(EOH): Tuffaceous rhyolite quartz porphyry which displays minor reworking therefore grouped into epiclastic sequence. The spaced quartz phenocrysts texture typical of the rhyolite porphyry is still clearly evident throughout. A dolerite dike (or massive sandstone) occurs between 240.7-241.2m. Alteration: 189.65-190.5m: Sericite>calcite≥silica>chlorite 190.5-194.0m: Silica>chlorite>calcite>sericite 194.0-244.5m: Silica>sericite