

Phelps Dodge Corporation of Canada

DIAMOND DRILL LOG

PROPERTY: Mary March (294)

HOLE No.: MM294-2

Collar Eastings: 538295.00

Collar Northings: 5411302.00

Collar Elevation: 0.00

Grid:

Collar Inclination: -45.00

Grid Bearing: 130.00

Final Depth: 150.30 metres

Logged by: J.G. Thurlow

Date: December, 1998

Down-hole Survey:

FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	ASSAYS	TO	WIDTH
				FROM		
0	14.3	Overburden	106	0.00	0.00	0.00
14.3	142.8	Brittle Fault Zone. Extensive broken core, slickensided. Minor fault gouge. Mainly mafic lithologies.				
	13.3 94.4	Epidotized and hematitized basaltic rocks. Badly broken core with minor fault gouge. Some late calcite veining predates extensive brecciation. Small calcite amygdules, epidotized plagioclase phenocrysts. Hematite coated fractures (will give IP response) and some hematite in veinlets. Epidote is the dominant alteration and is locally pervasive. No mineralization-related alteration. Local trace pyrite or pyritic fracture-fills. Not interesting VMS rocks. Variable magnetic susceptibility from near zero (0.02) to moderately magnetic (k = 1.6). Some plagioclase-phyric sections are probably broken diabasic/gabbroic rock (no change in magnetic susc.). From 92.8m to 94.2m is broken late chilled diabase (k = 0.02), contact 45 degrees to core. From 94.2-94.4 is cemented earlier fault breccia.				
	94.4 103.5	Fine to coarse grained, sorted, resedimented, poly lithic felsic volcaniclastic rock with distinctive epidotic matrix. Grain size varies from sand sized to medium grained breccia. Bedding, where visible, at 40 degrees to core.				

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FROM	TO	LITHOLOGICAL DESCRIPTION	ASSAYS		
			SAMPLE No.	FROM	TO
		Unaltered and unmineralized. Extensive late uncemented fracturing. Common distinctive pinkish-orange-brown siliceous rhyolitic clasts. Plagioclase phenocrysts in some clasts.			
103.5	125.7	Massive, medium-dark green, chloritic diabase gabbro (k = 0.1 to 0.5). Extensive broken core with local minor fault gouge. Rare calcite amygdule. Fairly coarse grained locally. Minor calcite veining, minor hematite on fractures.			
125.7	142.8	Fine grained, well sorted, felsic tuffaceous wacke, related to the unit above the last intrusive. Common distinctive pinkish-brownish rhyolitic lithic grains. Fine to coarse sand sized grains generally. Lithic rich, crystal and glass-poor. Crude stratification locally visible 35 degrees to core. No hydrothermal alteration or mineralization. Cut by diabase 137.8m - 138.8m. Arbitrary basal contact marks beginning of better coring material but effectively no change in lithology.			
142.8	150.26	Sorted, resedimented, dominantly felsic volcanoclastic rocks, identical to unit above but considerably better coring. Some clasts to 2 cm size, generally rhyolitic but rarely basaltic. Relatively little crystal and vitric material. Weak bleaching rims on some fragments, some of these are scoriaceous basalt with disseminated pyrite and traces chalcopyrite. Weak epidote alteration and minor traces disseminated pyrite. Overall,			

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FROM	TO	LITHOLOGICAL DESCRIPTION	SAMPLE No.	ASSAYS FROM	TO	WIDTH
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rather uninteresting VMS rocks; probably hangingwall
lithologies.

End of hole at 150.26m

41 core trays

Hole Started: December 1998

Hole Completed: December 1998

No tropari testing

NQ core, NW casing was pulled

Hole was not lined with plastic pipe.

UTM Coordinates are Zone 21, NAD 27

DOWN-HOLE SURVEY DATA

DEPTH	INCLINATION	BEARING
150.30	-45.00	130.00

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