

GEOLOGIC LOG  
CAPE ROSIER MINE  
D. D. Hole 16

Collar: N 4800, E 4815  
Elevation: 8

Course: N 54 W Mag.  
Average Angle: 85°  
Depth: 343 feet

<u>From</u>	<u>To</u>	
0'-0"	4'-0"	Overburden
4	21-6	Agglomerate (Dyer's Pt.) Coarse (2"-4") Black fragments of sphanitic texture with 1 mm white phenocrysts in a light grey sphanitic matrix; in lower portion the groundmass is greenish (chloritic) and fragments are bleached. Solution cavities at diorite contact.
21.5	52	Diorite; coarse central portion, both borders chilled. 37-42 Altered (weathered); caving badly.
52	117	Agglomerate 52-54 Silicified and bleached (contact Metamorphism?) 54-57 Dark green and gray streaked (sheared); with 1-2 mm white feldspar metacrysts in the green streaks. (Angles 30°) 57-63 Like 52-54 with matrix light green. Hardness exceeds 6. 63-67 Streaked dark green and grey; 20° angles. Chlorite present; also creamy carbonate. Seamed and solution-pitted. 67-70 Mottled green and gray; carbonate and chlorite-talc. 70-111 More normal sheared agglomerate; fragments 3-25 mm; matrix gray-green, somewhat chloritized and carbonatized. Shear angles 30-45°; fragments distinctly of several kinds; at 106.5 a 5 mm grain sphalerite partly replaces fragment, partly matrix, but is itself undeformed. 111-117 Like above but more carbonate and chlorite. Also silicified for 1 foot at diorite contact.
117	158	Diorite--chilled sphanitic at contacts; coarse (20 3 mm feldspar) in the central portion. 151-152 a texture not seen before. Only about 1 foot of core recovered 152-158.

Cape Rosier Mine, D. D. Hole 16 (Cont'd)

<u>From</u>	<u>To</u>	
158'-0"	170'-0 1/2	Agglomerate probably, chloritized slightly, and silicified, with scattered pyrite, some crystals up to 3 mm.
170-0	186-6	Identification uncertain; resembles fine-grained diorite in part, but is wholly grey, has no greenish cast. Scattered pyrite both very fine crystals up to 4 mm. Some pyrite in 3 mm wide streaks at angles 5° to 10° suggest hole may be nearly parallel to structure here.
186-6	259	Altered agglomerate, including ore in talc-chlorite schist.
	186-6 - 196	Very chloritic; angles 25°-40°; scattered fine chalcopyrite and minor sphalerite; some talc rims; the chalcopyrite streaks are conformable.
	196-200	Chiefly very pale green to cream talc; scattered chalcopyrite and very fine sphalerite; some chlorite.
	200-228	Chiefly white carbonate plus pale green talc. Carbonate appears to be post-talc; minor chalcopyrite. Locally chlorite predominates and larger blebs of chalcopyrite occur.
	228-242	Dark green to light green talc and chlorite schist with ore; core recovery poor here; length uncertain. Spots of sphalerite and chalcopyrite with talc rims.
	SAMPLE 17:	22906 to 232 13.8% Zn 2.5% Cu 0.1% Pb.
	SAMPLE 18:	232 to 232-8 15.8% Zn 0.4% Cu 0.0% Pb.
	242-259	Pale green talc and creamy carbonate; no sulfides; and patchy dark green chlorite; angles uncertain.
259	280	Ore - sphalerite and chalcopyrite in talc chiefly; also chlorite.
	259-262	Ore: spots of sphalerite talc-rimmed, and very minor specks and patches chalcopyrite; in chlorite-talc.
	SAMPLE 19:	258-11 to 262 9.6% Zn 1.0% Cu 0.1% Pb.
	262-267	Ore: 1-3 mm sphalerite spots and 1 cm streaks of sphalerite at 20°-25° all talc rimmed; minor chalcopyrite; in chlorite talc.

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From

To

SAMPLE 20: 262 to 267 17.5% Zn 1.5% Cu 0.0% Pb.  
 267-272 Ore: Very fine grained sphalerite, and  
 irregular patchy chalcopryrite in chlorite-  
 talc; also some 1 mm pyrite crystals.  
 SAMPLe 21: 267 to 272 1.8% Zn 2.8% Cu 0.0% Pb.  
 272-274-6 Ore: chiefly massive chalcopryrite and  
 minor massive sphalerite in chlorite talc;  
 pieces of core 1" long are almost gangue  
 free;  
 SAMPLe 22: 272 to 274-6 3.3% Zn 15.4% Cu 0.0% Pb.  
 274-6-280 Ore: Chalcopryrite in patches, fine-grained  
 and massive; sphalerite in minor fine-  
 grained, and some 3 mm talc-rimmed spots  
 (only in last 6")  
 SAMPLe 23: 274-6 to 280 1.3% Zn 7.5% Cu 0.0% Pb.

280

327

Altered agglomerate  
 280-282 Black chlorite; some talc; spots of 203 mm  
 sphalerite and chalcopryrite talc-rimmed;  
 possibly 1% Zn.  
 282-290 Light grey, uniformly sphanitic, more  
 siliceous, barren.  
 290-293 Dark green chlorite; schist angles 40-45°;  
 several talc-rimmed spots of sphalerite  
 2-12 mm, and some very fine grained chal-  
 copyrite and sphalerite (and pyrite)  
 (Est. 1-1-0)  
 293-323 Green-black chlorite with local clusters  
 of 2 mm talc-rimmed sphalerite spots, some  
 talc and some carbonate seams; local rimmed  
 chalcopryrite; this 30' zone may make into  
 ore down pitch or along strike.  
 323-325 Grey, sphanitic, siliceous altered agglom-  
 erate.  
 325-325.8 Chalcopryrite in chlorite (Est. 0-4-0)  
 325.8-327 Mostly chlorite with sphalerite spots;  
 possibly 2% Zn.

327

343

Agglomerate; greenish chloritic, with fragments 1 mm-  
 3 cm; various types.

Collar Angle 85°  
 Surveys 300' 85°