

15667 PORPHYRITIC VARIOLITIC QUARTZ-NORMATIVE ST. 9A 1.10 g
MARE BASALT

INTRODUCTION: 15667 is a pyroxene-phyric basalt with a variolitic groundmass and which is not vesicular (Fig. 1); it has one vug. It is very similar to 15666. The large (3 to 5 mm) zoned green to brown pyroxenes are conspicuous macroscopically. The texture macroscopically appears (pseudo) ophitic to subophitic and is inequigranular. One surface is a fresh fracture; the others are rounded and pitted. 15667 was collected as part of the rake sample from Station 9A.

PETROLOGY: 15667 consists of pigeonite-augite phenocrysts in a variolitic groundmass (Fig. 2). It is very similar to 15666 although the phenocrysts may be a little smaller on average. The groundmass consists of pyroxene and plagioclase laths, and some glass and opaque minerals. Steele et al. (1972a) reported that 15667 contained no olivine. They showed the zoning trend across pyroxene phenocrysts (Fig. 3) in which pigeonite cores are sharply overgrown with augite rims. They also reported a plagioclase compositional range of An₉₃₋₈₇; plagioclases containing 0.4 to 0.6% Fe. The pyroxene compositions were also diagrammed in Steele et al. (1972b).

PROCESSING AND SUBDIVISIONS: Chipping produced two pieces, one labeled ,1 and the other remaining part of ,0 (total mass now 0.930 g). ,1 was largely consumed producing thin sections ,1 and ,6.



Figure 1. Pre-chip view of 15667. S-71-49747



Figure 2. Photomicrograph of 15667,6. Width about 3 mm. Transmitted light. Most pyroxenes in thin sections seem to have been cut perpendicular to their long axes (indicating a lineation?) and no laths are seen.

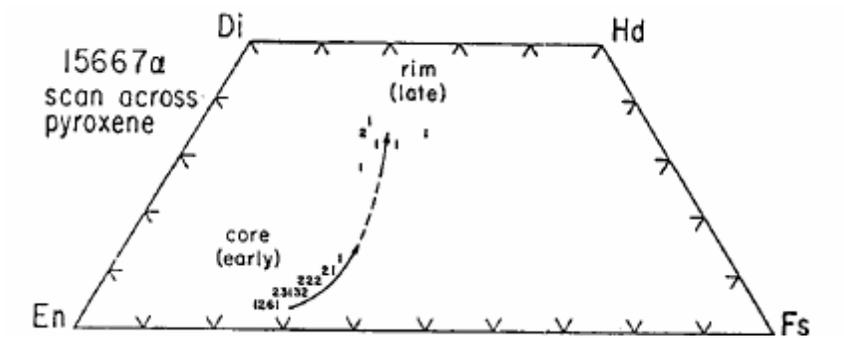


Figure 3. Compositions of pyroxene phenocrysts in 15667 (Steele et al., 1972a).