76135

Vesicular Poikilitic Breccia

133.5 grams

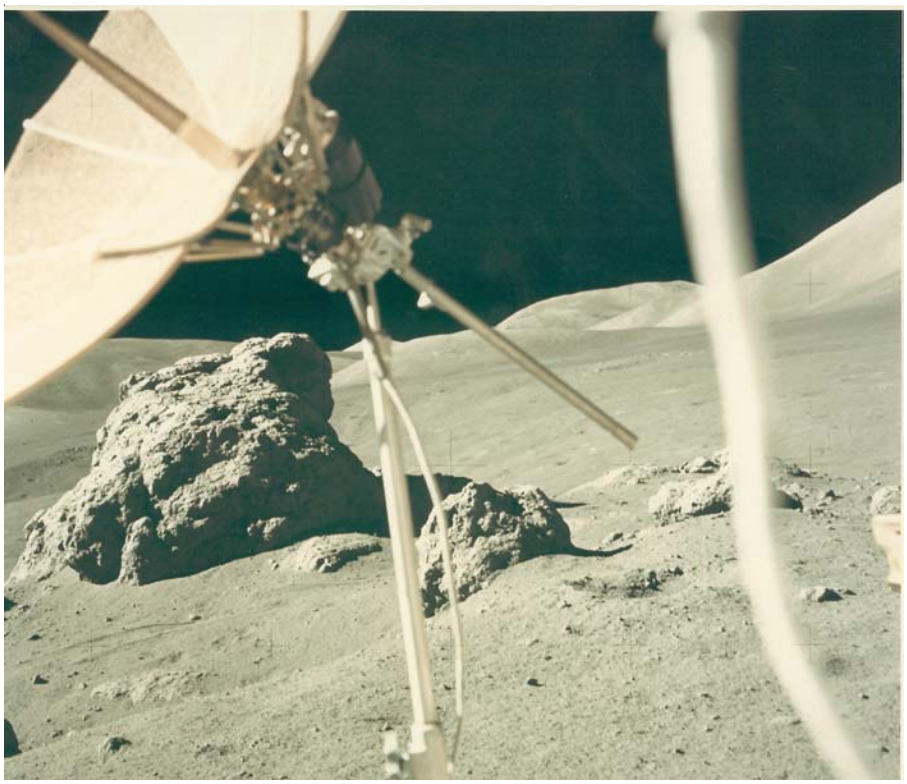

Figure 1: Turning Point Rock on slopes of North Massif. 76135 was picked up from a spot between these boulders (see transcript) and is probably from one of them. AS17-140-21396.

CDR We're at Turning Point Rock. I don't know if it's mantled on top, but it's certainly filleted. There's lots of the dark mantle up and on the slope of the shallower slopes of the boulder. And it's on little mound itself, as if much of it might be covered up.

LMP Yes. It looks like a breccia from here.

CDR Can you get a sample of it right here? You see these little chips?

LMP Yes, I probably can.

CDR It's 3 meters from turning point rock on the east side - -

LMP Can you drive up to the – right there, let's see – no, I can get them. The thing is I don't know what it is.

CDR Well, but - -It's part of these fragments around here. I guess Turning Point Rock is 1, 2, 3, 4, 5, 6 meters high anyway. I'd say it's a very rough subrounded typoe of rock – by the face – let me get this Jack. Okay. There are two fragments in that sample.

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LMP Bob, it looks – it's very coarsely vesicular; but, at first glance, it did not look like the pyroxene gabbro – althouh the rock – that rock does. It looks like it migh be fragmental, althoug I'm suspicious that I'm looking at zap pits.

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LMP Bob, my guess, right now, is that Turning Point Rock is a big piece of subfloor gabbro.

CC OK. I gather you changed your opinion.

Introduction

Breccia sample 76135 and basalt sample 76136 were collected near Turning Point Rock at station LRV-10 (figure 1). This boulder is different from the main station 6 boulder. It may have also rolled down from an outcrop high up on the Massif, or, as the LMP concludes, it may just be a piece of valley basalt. LRV-10 was at the break in slope of the North Massif and the Valley floor.

To dated, 76135 has not been carefully studied, nor dated.

Figure 2: Exposed surface of 76135. Sample is 6 cm across. S73-23972.

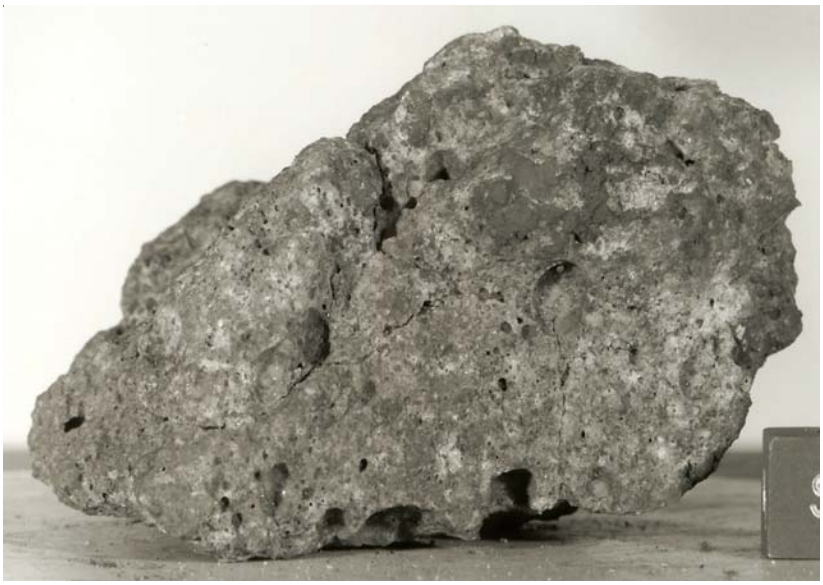


Figure 3: Broken surface of 76315 showing some vesicles. Cube is 1 cm. S73-15401.

Figure 4: Copy of thin section photo from Meyer 1994. Scale is 4 x 5 mm.

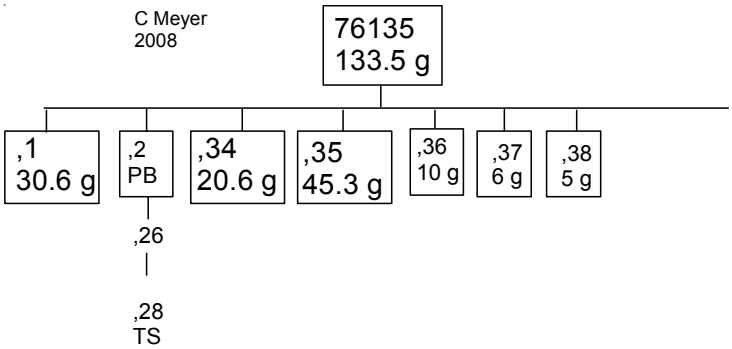
Petrography

Agrell and Reid (in Butler 1973) described 76135 as a "vesicular micronorite." They noted that it was hollocrystalline and that it apparently had two generations of vesicles (figures 3, 4 and 5).

Meyer (1994) described 76135 as a "vesicular, clast-bearing, poikilitic impact melt breccia."

Chao et al. (1975) state that "76135 may be similar to 76055". However, it is lighter in color and more vesicular.

Figure 5: Processing of 76315. Cube is 1 cm. S74-25041.



Chemistry
None available.

Radiogenic age dating
None available.

Processing
There are three thin sections of 76135.

References for 76135

Butler P. (1973) **Lunar Sample Information Catalog Apollo 17.** Lunar Receiving Laboratory. MSC 03211 Curator's Catalog. pp. 447.

Chao E.C.T., Minkin J.A., Thompson C.L. and Heubner J.S. (1975) The petrogenesis of 77115 and its xenocrysts: Description and preliminary interpretation. Proc. 6th Lunar Sci. Conf. 493-515.

Meyer C. (1994) Catalog of Apollo 17 rocks. Vol. 4 North Massif Curator's Office

Muehlberger et al. (1973) Documentation and environment of the Apollo 17 samples: A preliminary report. Astrogeology 71 322 pp superceeded by Astrogeolgy 73 (1975) and by Wolfe et al. (1981)

Muehlberger W.R. and many others (1973) Preliminary Geological Investigation of the Apollo 17 Landing Site. *In* **Apollo 17 Preliminary Science Report.** NASA SP-330.

Wolfe E.W., Bailey N.G., Lucchitta B.K., Muehlberger W.R., Scott D.H., Sutton R.L and Wilshire H.G. (1981) The geologic investigation of the Taurus-Littrow Valley: Apollo 17 Landing Site. US Geol. Survey Prof. Paper, 1080, pp. 280.