

77518 – 42.5 grams
77519 – 27.4 grams
Impact Melt Breccia



Figure 1: Photo of 77518. Sample is about 1 inch. S73-31343

Mineralogical Mode for 77518

Matrix	85 %
Pyroxene clasts	5
Plagioclase clasts	7.5
Lithic clast	3

Introduction

77518 and 77519 were collected along with 77515 and 77511 soil – see section on 77531. They are probably impact melt breccias similar to 77515. Together this bunch of impact melts needs more study.

Petrography

According to Warner et al. (1987), 77518 is similar to 77549, but finer grained. The texture is microgranular-micropoikilitic with numerous xenoliths of calcic plagioclase. A portion of the sample has K-rich, silica-rich glass for matrix. One large olivine clast contains symplectite.



Figure 2: Photo of 77519. Scale in cm/mm. S73-31340.

Mineralogy

Olivine: Olivine in 77518 has a rather wide range of composition (figure).

Pyroxene: Warner et al. (1978) determined pyroxene and olivine composition (figure).

Plagioclase: An₈₀₋₉₈

Spinel: Warner et al. (1978) report that pink spinel grains in 77518 are surrounded by “plagioclase reaction coronas”.

Chemistry

None

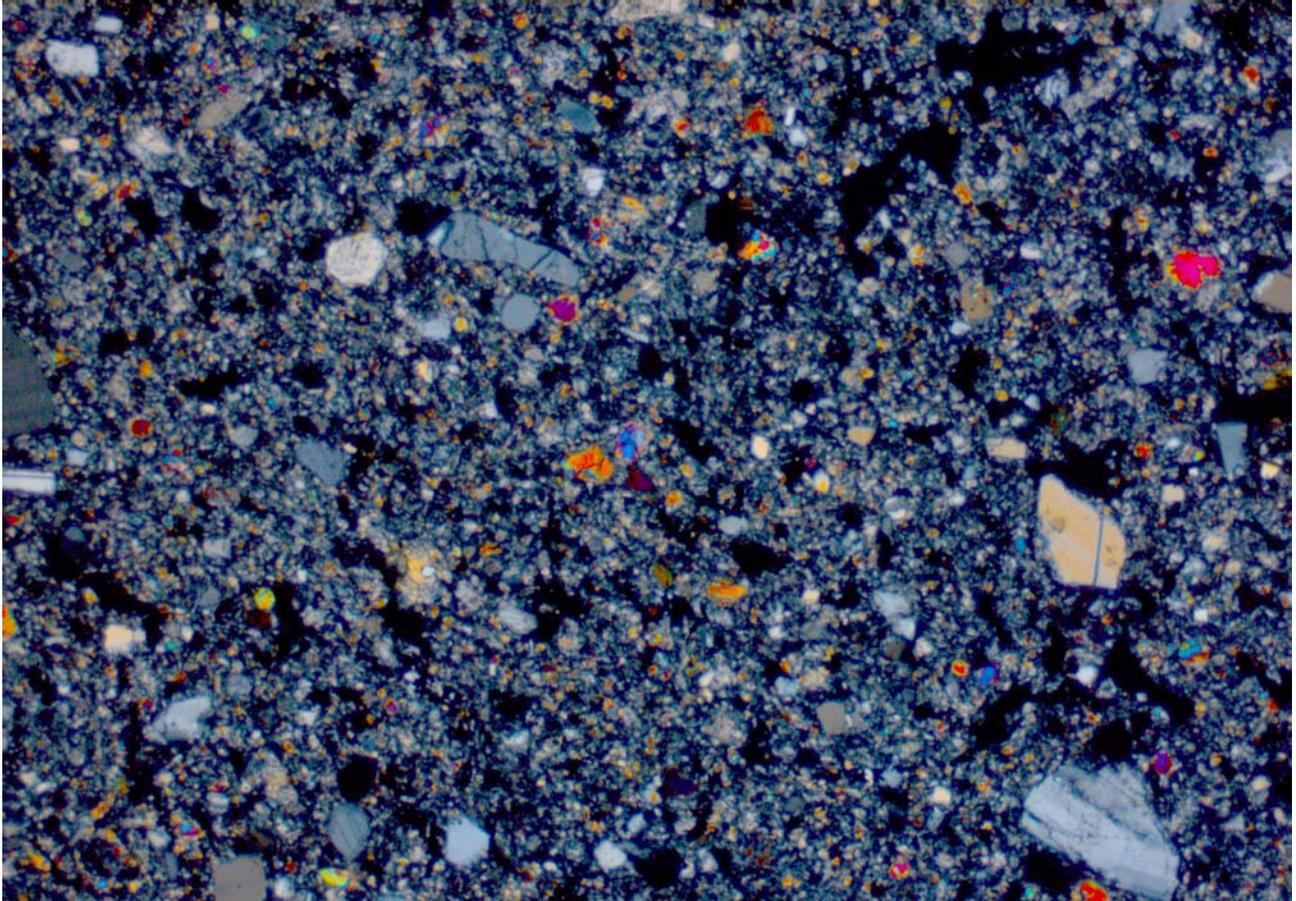
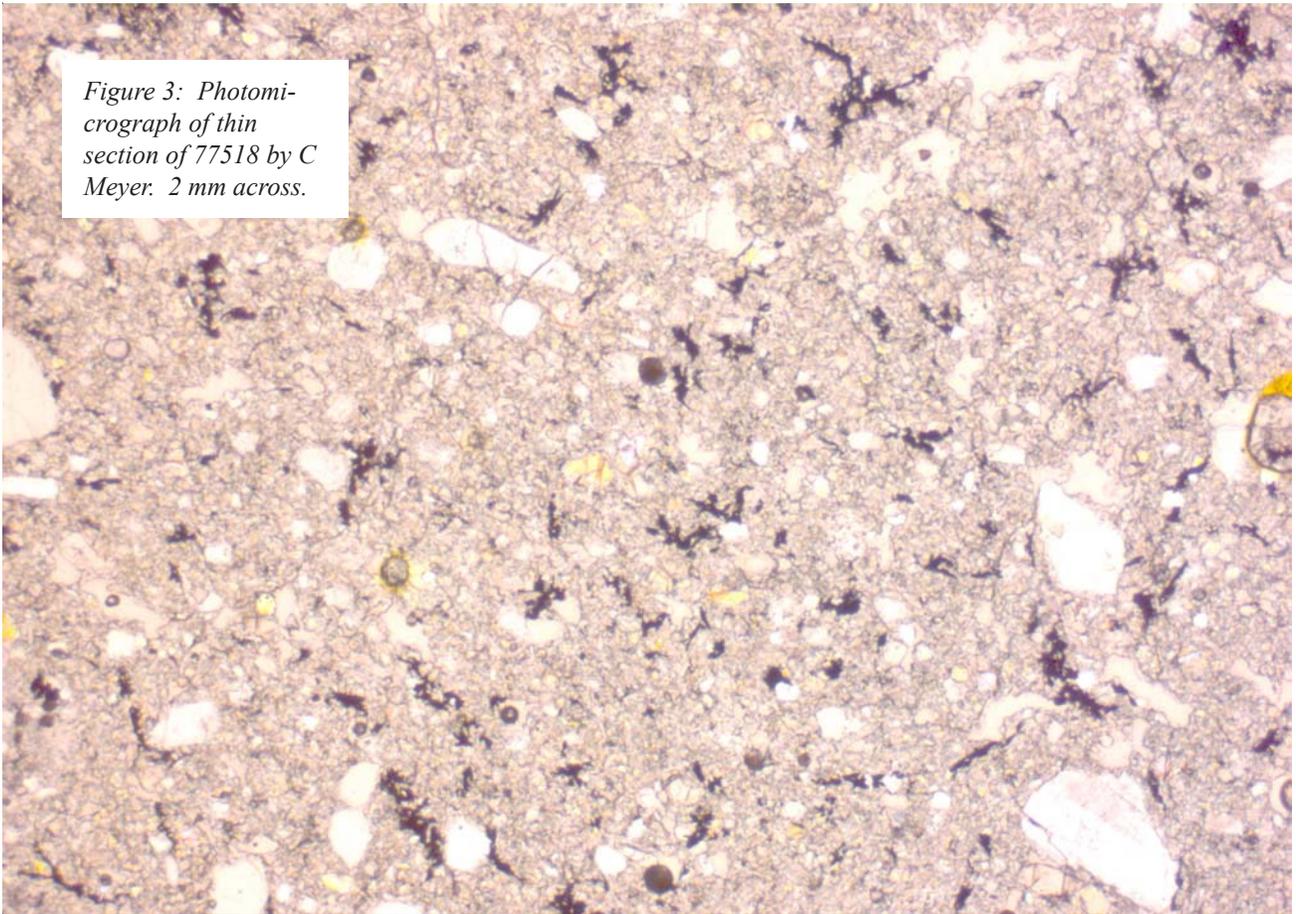
Radiogenic age dating

None

Processing

These samples were returned in the same bag as 77510. There are 2 thin sections of 77518, but none for 77519.

Figure 3: Photomicrograph of thin section of 77518 by C Meyer. 2 mm across.



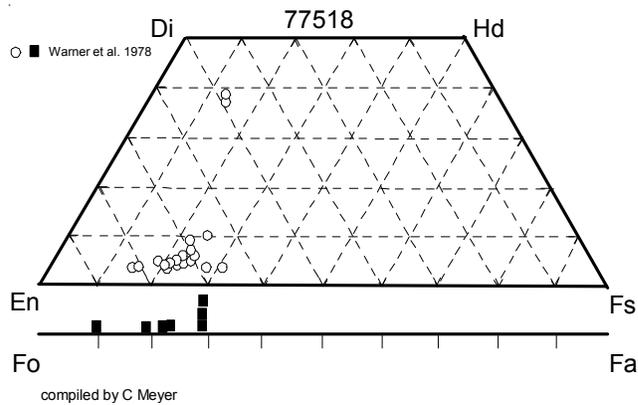


Figure 4: Pyroxene and olivine composition of 77518 (Warner et al. 1979).

References for 77518

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