

THIN SECTION LABEL ID: 367-U1500B-70R-2-W 120/124-TSB-TS\_30

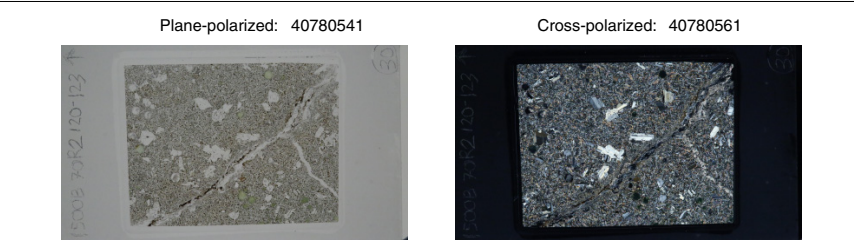
Observer: A. Luna

Thin section summary: Highly plagioclase phyric basalt with remnant olivine that has been mostly destroyed. Plagioclase and CPX are in near pristine condition. Vescicles are filled with calcite, and a green amorphous mineral that is being replaced by a zeolite. A vein bisects the slide from corner to corner and is filled with mostly calcite although there are two types of clay, one a sediment, the other is insitu weathering.

Thin section no.: 30

Piece no.:

Unit/subunit: 1b



Igneous Petrology

Lithology: highly plagioclase phyric basalt

Groundmass grain size (avg.): microcrystalline

Texture: porphyritic

Grain size distribution: bimodal

Phenocrysts	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	20	18	2	0.5	3.25	euhedral	elongate	
Olivine	2	1	1	0.25	0.25	euhedral	euhedral	

Groundmass	Original (%)	Present (%)	Replaced (%)	Size min. (mm)	Size max. (mm)	Shape	Habit	Comments
Plagioclase	34	29	5	0.01	0.5	euhedral	elongate	
Clinopyroxene	30	25	5	0.01	0.1	anhedral	elongate	
Fe-Ti oxide	1	1	0	0.01	0.01	interstitial	subequant	
Glass	0	0	0	N/A	N/A	N/A	N/A	

Alteration

Alteration intensity: slight

Total alteration (%):

Recrystallization extent: weak

Alteration mineral	Percent	Comments
Calcium carbonate	1	
Chlorite	2	chlorite appears to be infilling areas that are not vesicles but are voids possibly due to dissolution
Clay, other	5	clay mineral located within the vein crossing the slide
Zeolite	15	zeolites appear to be replacing green chlorite within the vesicles and forming acicular radiating laths
Other		olivine crystals have been replaced by iddingsite

Vesicle abundance (%): 10

Vesicle shape: rounded

Vesicle distribution: moderate

Vesicle min. size (mm): 0.1

Vesicle max. size (mm): 1.2

Vesicle mode size (mm): 0.75

Vesicle fill composition	Percent
Total vesicle fill	95
Calcium carbonate	25
Zeolite	75

Veins and Halos

Vein type: composite vein

Vein boundary: diffuse boundary or contact

Avg. thickness (cm): 2

Vein texture: polycrystalline

Vein fill composition	Percentage
Calcium carbonate	50
Fe oxide	15

Vein comments: filled with clays from sediment as well as a diagenic clay, calcite and iron oxide