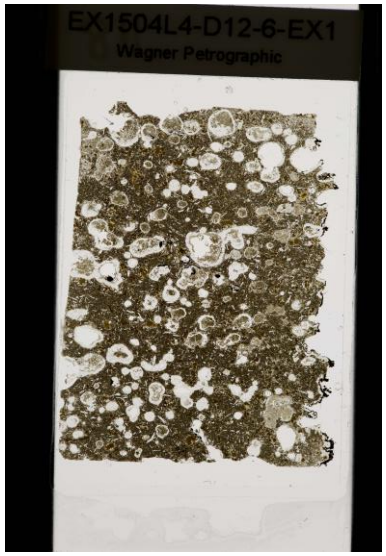
| General Information | | | |
|---|---|---|---|
| Sample Name (IGSN) | EX1504L4-D12-6 | | |
| Describer | Kevin Konrad | | |
| Sample Location | Abyssal Ridge | | |
| Lithology prefix | olivine-plagioclase | | |
| General Lithology | basalt | | |
| Texture 1 | vesicular | | |
| Texture 2 | heavily altered | | |
| Whole Rock Original (%) | 100 | Check [ Ph + Vs + Gm = 100% ] | OK |
| Whole Rock Present (%) | 5 | Check [ Or = Pr + Rf ] | OK |
| Whole Rock Replaced (%) | 95 | Check [ Or = Pr + Rf ] | OK |
| Total Groundmass Original (%) | 100 | Check [ Gp + Gl + Ms = 100% ] | OK |
| Total Groundmass Present (%) | 3 | Check [ Or = Pr + Rf ] | OK |
| Total Groundmass Replaced (%) | 97 | Check [ Or = Pr + Rf ] | OK |
| Whole Rock Summary | A highly altered fine grained basalt with some iddingsite grains throughout. The sample is vesicular with coarser vesicles near the rim. Vesicles range from unfilled to completely filled. | | |
| Thin Section Summary | A heavily altered basalt with a few plagioclase grains still intact. The olivine grains are completely recrystallized to iddingsite. The vesicles are partly to completely infilled with calcite and possible zeolite. The groundmass consists of a greyish-red altered mesostasis with some trace plagioclase grains. | | |

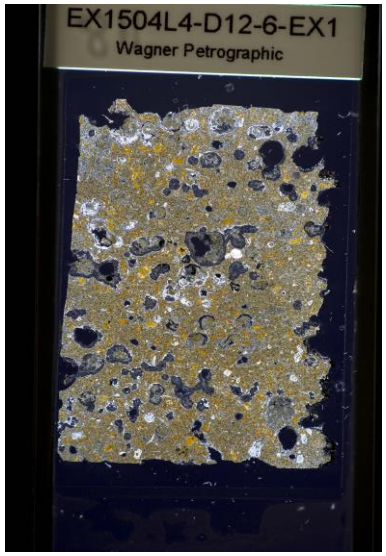
Whole Rock

Transmitted Light




| PHENOCRYSTS [Ph] | OL | PLAG | OPX | CPX | SPINEL | OTHER | VESICLES [Vs] | GRNDM [Gm] |
|---|---|---|---|---|---|---|---|---|
| Original (%) [ Or ] | 5 | | | | | | 20 | 75 |
| Present (%) [ Pr ] | 0 | | | | | | 5 | 2 |
| Replaced / Filled (%) [ Rf ] | 5 | | | | | | 15 | 73 |
| Check [ Or = Pr + Rf ] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | 0.4 | | | | | | 1 | |
| Maximum Size (mm) | 0.8 | | | | | | 5 | |
| Modal Size (mm) | 0.6 | | | | | | 3 | |
| Shape | anhedral | | | | | | rounded | |
| Habit | | | | | | | | |
| Zonation Type | | | | | | | | |
| Zonation Extent | | | | | | | | |
| Exsolution Type | | | | | | | | |
| Special Features | | | | | | | | |
| Comments | Iddingsite | | | | | | Some alteration filled vesicles. Not sure what the alteration is, looks similar to the groundmass | |

Cross Polarized




| GROUNDMASS [Gp] | OL | PLAG | OPX | CPX | SPINEL | OTHER | GLASS [Gl] | MSTASIS [Ms] |
|---|---|---|---|---|---|---|---|---|
| Original (%) [ Or ] | 25 | 10 | | | | | | 75 |
| Present (%) [ Pr ] | 0 | 5 | | | | | | 0 |
| Replaced / Filled (%) [ Rf ] | 25 | 5 | | | | | | 75 |
| Check [ Or = Pr + Rf ] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | 0.1 | 0.1 | | | | | | |
| Maximum Size (mm) | 0.4 | 0.4 | | | | | | |
| Modal Size (mm) | 0.1 | 0.1 | | | | | | |
| Shape | anhedral | subhedral | | | | | | |
| Habit | | | | | | | | |
| Comments | | | | | | | | Very altered |