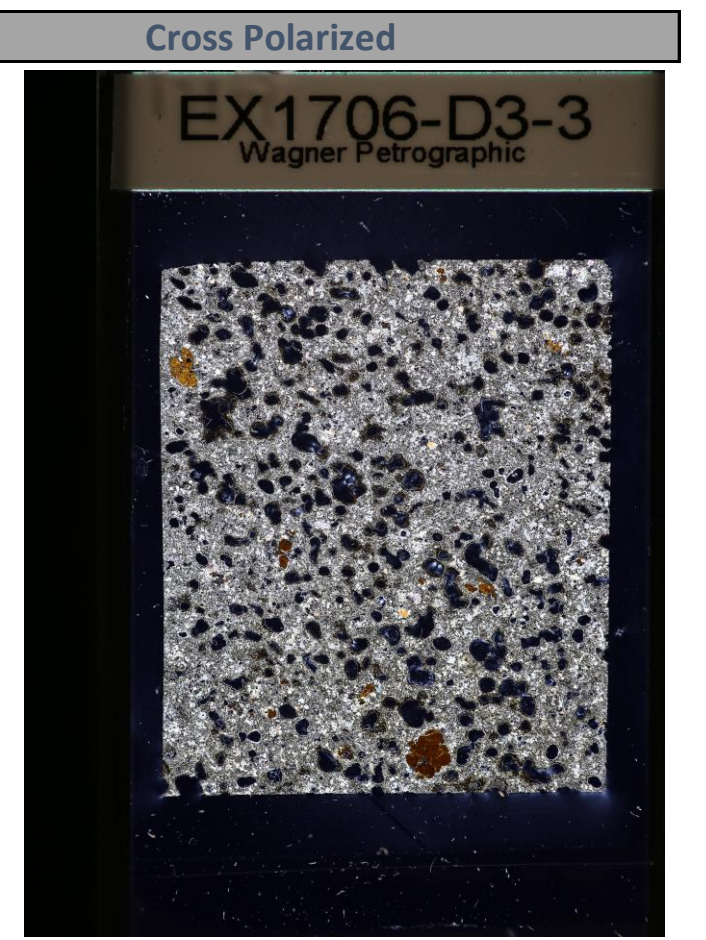


| General Information | | | |
|-------------------------------|---|-------------------------------|----|
| Sample Name (IGSN) | EX1706-D3-3 | | |
| Describer | Kevin Konrad | | |
| Sample Location | Unnamed Seamount N. of Johnston Atoll | | |
| Lithology prefix | Three-phase | | |
| General Lithology | Basalt | | |
| Texture 1 | Highly Altered | | |
| Texture 2 | Vesicular | | |
| Whole Rock Original (%) | 100 | Check [Ph + Vs + Gm = 100%] | OK |
| Whole Rock Present (%) | 15 | Check [Or = Pr + Rf] | OK |
| Whole Rock Replaced (%) | 85 | Check [Or = Pr + Rf] | OK |
| Total Groundmass Original (%) | 100 | Check [Gp + Gl + Ms = 100%] | OK |
| Total Groundmass Present (%) | 10 | Check [Or = Pr + Rf] | OK |
| Total Groundmass Replaced (%) | 90 | Check [Or = Pr + Rf] | OK |
| Whole Rock Summary | A vesicular basalt with coarse olivine (100% recrystallized to iddingsite) grains. Possible clinopyroxene and/or plagioclase phenocrysts. No obvious glass rinds are visible. Sample contains fractures that are infilled with phosphorite. | | |
| Thin Section Summary | A highly altered alkaline basalt with olivine phenocrysts recrystallized to iddingsite, clinopyroxene partial recrystallized (fine grained talc) and plagioclase mostly altered to sericite. The alteration products infer the sample experience hydrothermal alteration as well as low temperature seawater alteration. Groundmass is mostly recrystallized and composed of plagioclase laths, spinels and secondary alteration products. The sample contained irregular-subrounded unfilled vesicles. | | |



| PHENOCRYSTS [Ph] | OL | PLAG | OPX | CPX | SPINEL | OTHER | VESICLES [Vs] | GRNDM [Gm] |
|------------------------------|------------------------------|--|-----|----------------------------|--------|-------|--|--|
| Original (%) [Or] | 5 | 10 | | 5 | | | 20 | |
| Present (%) [Pr] | 0 | 5 | | 3 | | | 19 | |
| Replaced / Filled (%) [Rf] | 5 | 5 | | 2 | | | 1 | |
| Check [Or = Pr + Rf] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | 0.5 | 0.1 | | 0.1 | | | 0.5 | |
| Maximum Size (mm) | 2.5 | 2 | | 0.3 | | | 3 | |
| Modal Size (mm) | 1 | 1.25 | | 0.15 | | | 1.25 | |
| Shape | sub-anhedral | subhedral | | anhedral | | | subrounded | |
| Habit | | spongy | | | | | | |
| Zonation Type | | None | | | | | | |
| Zonation Extent | | | | | | | | |
| Exsolution Type | | | | | | | | |
| Special Features | Recrystallized to iddingsite | Very thin laths (width = 0.1 mm max) | | Partially altered to talc | | | | |
| Comments | | Vary from completely to partial recrystallized to sericite | | Typically have fresh cores | | | Contain either halos or rims of alteration. No significant infill. | A mottled mix of alteration products, spinels and plagioclase laths. |



| GROUNDMASS [Gp] | OL | PLAG | OPX | CPX | SPINEL | OTHER | GLASS [Gl] | MSTASIS [Ms] |
|------------------------------|----|------|-----|-----|--------|-------|------------|--|
| Original (%) [Or] | | | | | | | | 100 |
| Present (%) [Pr] | | | | | | | | 10 |
| Replaced / Filled (%) [Rf] | | | | | | | | 90 |
| Check [Or = Pr + Rf] | OK | OK | OK | OK | OK | OK | OK | OK |
| Minimum Size (mm) | | | | | | | | |
| Maximum Size (mm) | | | | | | | | |
| Modal Size (mm) | | | | | | | | |
| Shape | | | | | | | | |
| Habit | | | | | | | | |
| Comments | | | | | | | | A mottled mix of alteration products, spinels and plagioclase laths. |