|                                      |                 | General Information   |   |  |  |
|--------------------------------------|-----------------|---|---|--|--|
| Sample Name (IGSN)                   | EX1708-D15-3a   |   |   |  |  |
| Describer                            | Kevin Konrad    |   |   |  |  |
| Sample Location                      | Mozart Seamount |   |   |  |  |
| Lithology prefix                     | Plagioclase     |   |   |  |  |
| General Lithology                    | Basalt          |   |   |  |  |
| Texture 1                            | Altered         |   |   |  |  |
| Texture 2                            |                 |   |   |  |  |
| Whole Rock Original (%)              | 100             | Check [ Ph + Vs + Gm = 100% ]   | ОК                                      |  |  |
| Whole Rock Present (%)               | 45              | Check [ Or = Pr + Rf ]  | OK                                      |  |  |
| Whole Rock Replaced (%)              | 55              | Check [ Or = Pr + Rf ]  | ОК                                      |  |  |
| <b>Total Groundmass Original (%)</b> | 100             | Check [ Gp + Gl + Ms = 100% ]   | ОК                                      |  |  |
| Total Groundmass Present (%)         | 55              | Check [ Or = Pr + Rf ]  | OK                                      |  |  |
| Total Groundmass Replaced (%)        | 45              | Check [ Or = Pr + Rf ]  | OK                                      |  |  |
| Whole Rock Summary                   | _               | cm diameter) FeMn nodule with a fresh plagioclase unfilled vescles and is cryptocrystalline. The FeMn cr regions with phosphorite | ust is 2 - 3 cm thick and contains some |  |  |

A plagioclase rich basalt with phenocrysts up to 6 mm in length. The groundmass consists of plagioclase laths, partially altered clinopyroxene and glass. Small palagonite filled vesicles are common.

**Thin Section Summary** 



| OSU-EX1708-E     | )15-3a   |
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**Transmitted Light** 

| PHENOCRYSTS [Ph]             | OL | PLAG                                       | ОРХ | CPX | SPINEL | OTHER | VESICLES [Vs]                  | GRNDM [Gm] |
|------------------------------|----|--|-----|-----|--------|-------|--------------------------------|------------|
| Original (%) [ Or ]          |    | 5  |     |     |        |       | 5                              |            |
| Present (%) [ Pr ]           |    | 5  |     |     |        |       | 4                              |            |
| Replaced / Filled (%) [ Rf ] |    | 0  |     |     |        |       | 1                              |            |
| Check [ Or = Pr + Rf ]       | ОК | OK   | OK  | OK  | ОК     | OK    | OK                             | ОК         |
| Minimum Size (mm)            |    | 0.3  |     |     |        |       | 0.1                            |            |
| Maximum Size (mm)            |    | 6  |     |     |        |       | 0.35                           |            |
| Modal Size (mm)              |    | 6  |     |     |        |       | 0.2                            |            |
| Shape                        |    | Subhedral                                  |     |     |        |       | Rounded                        |            |
| Habit                        |    |  |     |     |        |       |                                |            |
| Zonation Type                |    | Albite Twinning                            |     |     |        |       |                                |            |
| Zonation Extent              |    | Common                                     |     |     |        |       |                                |            |
| <b>Exsolution Type</b>       |    |  |     |     |        |       |                                |            |
| Special Features             |    |  |     |     |        |       |                                |            |
| Comments                     |    | Two ~0.3 mm<br>phenocrysts and<br>one 6 mm |     |     |        |       | Palagonite rims/full infilling |            |

| GROUNDMASS [Gp]              | OL | PLAG      | OPX | CPX | SPINEL | OTHER | GLASS [GI] | MSTASIS [Ms]  |
|------------------------------|----|-----------|-----|-----|--------|-------|------------|---|
| Original (%) [ Or ]          |    | 40        |     |     |        |       |            | 60  |
| Present (%) [ Pr ]           |    | 35        |     |     |        |       |            | 10  |
| Replaced / Filled (%) [ Rf ] |    | 5         |     |     |        |       |            | 50  |
| Check [ Or = Pr + Rf ]       | ОК | ОК        | ОК  | OK  | OK     | OK    | OK         | OK  |
| Minimum Size (mm)            |    | 0.1       |     |     |        |       |            |   |
| Maximum Size (mm)            |    | 0.3       |     |     |        |       |            |   |
| Modal Size (mm)              |    | 0.25      |     |     |        |       |            |   |
| Shape                        |    | subhedral |     |     |        |       |            |   |
| Habit                        |    | laths     |     |     |        |       |            |   |
| Comments                     |    |           |     |     |        |       |            | Moslty altered glass,<br>some alteration<br>product (talc?) and an<br>uncertain amount of<br>spinel |

