

**PETROGRAPHIC AND MINERAGRAPHIC DESCRIPTIONS**  
**BALMAIN - 1 - BRIEF PETROGRAPHIC DESCRIPTIONS**

**SAMPLE NO:** Balmain – 1 800.8 m

**TYPE:** Core

**LOCATION:** Balmain - 1

**FIELD IDENTIFICATION:** Fine grained argillite - claystone.

**SECTION TYPE:** Unconsolidated Thin Section

**DESCRIPTION:**

Detrital quartz	2%
Jarosite	5%

Occasional, fine grained (~20 µm), subangular detrital quartz grains occur in a very fine grained clayey matrix. The clayey matrix is consistent with claystone that lacks bedding textures. Very fine grained, scaly jarosite is distributed through the matrix and has probably replaced original sulphides. Fine opaques, distributed through the matrix, represent limonite/goethite pseudomorphs after original sulphides. The lithology lacks a penetrative schistosity.

**PIMA Analysis:** Illite, jarosite

**Petrogenesis:** The argillite – claystone lithology has preserved detrital quartz. Finely dispersed scaly jarosite may represents early - diagenetic alteration of sulphides.

**CLASSIFICATION:** *Very fine grained argillite or claystone.*

