

Petrological Descriptions1601(T.S. 34966) *in 2 b 51- 102. 116*

This is a thoroughly ferruginised, weakly bedded, slightly gritty sandstone, essentially an orthoquartzite.

The framework is poorly sorted in the fine to coarse sand range and tends to be bimodal, with medium to coarse sand grains disseminated throughout a fine sand base. Grain shapes are similarly variable, with the coarser fractions subangular to rounded and the fine sand generally angular. These features are consistent with fluvial transport and deposition.

The main clastic component is quartz, typically as single grains, but with a subordinate component of composites (variably stressed vein-type, minor ortho- and metaquartzite). Accessories (total < 1 %) comprise sub- to rounded detrital zircons, rare ferruginised quartzose siltstone clasts, and rare degraded/leached ?feldspar grains.

The matrix is thoroughly ferruginised and consists virtually entirely of optically dense limonite. Locally, the Fe-oxide is clearly replacive after argillaceous matter (indeterminate), but typically the limonite is microcolloform to massive and featureless. Sporadic patches of Mn-oxide are present, but are not common.

The bulk of limonite, and possibly all, is of exotic (introduced) origin, rather than indigenous. This suggests that the rock was primarily cemented with a relatively soluble phase, ~~probably carbonate~~. Problematically, there are no relics or diagnostic boxworks to confirm this. Similarly, there are no tangible sulphide boxworks or detectable secondary metal salts.

1602(T.S. 34967) *16Q, 5750 Pb, 1350 Zn, 1 Fe*

This is a thoroughly ferruginised, fine sandy quartzose siltstone, essentially a finer-grained facies variant of 1601.

The rock is faintly bedded on a sub- to millimetric scale and consists almost entirely of weakly marginally corroded clastic quartz grains and limonite in near-equant proportions. Microtextural features indicate the Fe-oxide replaces a primary argillaceous matrix. Sparse microscopic relict flakes of illite suggest this may have been sericitic.