

As indicated, the sandstones show a range in type from quartzose to sublithic to lithic; individual quartzose units range 0.1 to 1.5m in thickness, while probably thin units of lithic sandstone are stacked in sets  $\leq$  8m thick.

The quartz arenites are variably feldspathic, micaceous and silty, and are usually interbedded with micaceous siltstone and mudstone/shale. Both the lithic sandstones (similar to Sequence 1) and sub lithic (quartz rich lithic) sandstones are in approximately equal proportion with the quartz sandstones.

Mudstones range in colour from predominately grey to brown and cream, with very minor carbonaceous units, individual beds range from 0.5 to 5m in thickness.

Coal seams for 5.1% of the non arenite fraction, and seam widths range  $<$  0.1m to 1.7m, with a median width of 0.18m. (See Figures 26 and 27). Much of the coal appears inferior and to be of the heavy dull (HDC) type.

The sequence ranges in thickness from  $>$  60m at York Plains,  $>$  50m at Colebrook and Melton Mowbray, to  $>$  20m at Anstey.

In the York Plains area, the sequence appears to lens out southward between drill holes PT-02 and PT-01, suggesting a diachronous boundary with Sequence 4. Details are shown on section EF (Figure 23).

Forsyth considered the Rsq<sup>1</sup> sequence to be Ladinian in age.

#### 4.1.2.4. SEQUENCE 4

This sequence averages 70% sandstone, 24% mudstone, 4% siltstone,  $\leq$  1% coal and  $\geq$  1% tuffs. It is a sand dominated sequence as shown by the sandstone/mudstone ratio of  $\approx$  8.

Sandstones consist of silty lithic and sub lithic (quartz rich lithic) arenites in equal proportion, with minor quartz arenite (variably feldspathic and micaceous). Individual beds of lithic and sub lithic units range 2 to 18m in width, while the quartzose units range 1 to 5m; the latter are only seen in the basal sections of drill holes PT-03, KP-11 and 0-07 and may indicate a transition to the underlying Sequence 5.