

Table 8.5 General features of deltaic facies

Deposition: complex, there are several types of delta (lobate and birdfoot especially), and many deltaic subenvironments (distributary channels and levees, swamps and lakes, mouth and distal bars, interdistributary bays and prodelta slope). Many deltas are river-dominated but reworking and redistribution by marine processes can be important.

Lithologies: mainly sandstones (often lithic) through muddy sandstones, sandy mudrocks to mudrocks; also coal seams and ironstones.

Textures: not diagnostic, typically average sorting and rounding of sand grains.

Structures: cross-bedding of various types in the sandstones, flat bedding and channels common. Finer sediments show flaser and wavy bedding. Some mudrocks contain rootlets; nodules of siderite common.

Fossils: marine fossils in some mudrocks and sandstones, others with non-marine fossils, especially bivalves. Plants common.

Palaeocurrents: mainly directed offshore but may be shore-parallel or onshore if much marine reworking.

Geometry: sand bodies vary from ribbons to sheets depending on delta type.

Facies sequence: these typically consist of coarsening upward units (mudrock to sandstone), through delta progradation, capped by a seatearth and coal; there are many variations however, particularly at the top of such units.