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Facies identification and depositional environment interpretation, North Blowhorn Creek Field, Alabama

North Blowhorn Creek Oil Field is located in northeastern Lamar County, Alabama. The field was discovered in 1979. Production is from the Upper Mississippian Carter sandstone, is a member of the Lower Parkwood Formation. The Carter sandstone lies within the Carter interval which is underlain by the Bangor Limestone and is overlain by the Millerella limestone. The depositional model proposed interprets the Carter sandstone, at North Blowhorn Creek Field, as a delta-destructive barrier island spit complex characterized by spit accretion and later drowned and covered by open shelf deposits. Eight facies were identified within the Carter interval from describing 20 well cores. They include: 1) a dark grey to black, ripple-laminated, interbedded shale and sandstone unit (restricted bay facies), 2) a light grey to light tan, fine grain to very fine grain, massive to cross-bedded, sandstone unit with clay streaks, (subtidal / lower shoreface facies), 3) a tan to light grey, fine grain, sandstone containing clay streaks, (delta front), 4) a massive to cross-bedded, fine grain, tan sandstone (foreshore/upper shoreface facies), 5) a tan to light grey, fine grain, sandstone containing shell fragments (intertidal/subtidal facies), 6) a tan to grey, mixed sand and clay unit exhibiting soft sediment deformation and flaser bedding (intertidal facies), 7) a tan to orange to black, mixed sand and clay unit, containing abundant rip-up clasts (tidal channel facies), and 8) a series of grey, green and red shale (open shelf facies).