The Cretaceous Jackass Mountain Group (JMG) near Chilko Lake in south central British Columbia is an approximately 2 km-thick, shallow-marine succession composed of immature, volcanic-rich sandstone, with subordinate mudstone and conglomerate. Deposition of the JMG occurred within the Methow Basin along the western margin of North America, over the accreted Cadwallader, Bridge River and Methow Terranes. Four facies associations represent sedimentation during Albian to Cenomanian time, and are characterized by nearshore and deltaic deposits that accumulated in close proximity to an active volcanic arc system and older uplifted volcanoplutonic arc rocks. Correlation between disparate Cretaceous sedimentary packages was tested by petrographic, geochemical, and detrital zircon analyses. These analyses indicate that the Chilko Lake and the Camelsfoot Range JMG, now offset across the Yalakom Fault, are correlative; however, a direct correlation to the Taylor Creek Group of the Tyauhton Basin remains tenuous.