
Nannofossil biostratigraphy of Sauk A-57 and Shubenacadie H-100, offshore Nova Scotia

SARA MASON, VICTORIA ARBOUR, DAVID SCOTT,
GRANT WACH, AND CHLOE YOUNGER
*Department of Earth Sciences, Dalhousie University,
Halifax, NS, B3H 3J5*

Drill cuttings were obtained for several wells drilled offshore Nova Scotia, including Sauk A-57 and Shubenacadie H-100. Results from Sauk A-57 show moderate conditions for nannofossil deposition and/or preservation in Pliocene and younger sections, where species diversity and abundances are low. This is attributed to high clastic input and near-shore conditions during deposition. Higher abundances and more diverse assemblages of nannofossils are found in Miocene and older strata, especially during the Eocene, which indicates increasing oceanic influences. Deeper Paleocene sediments show another poorly preserved section. Shubenacadie H-100 showed similar results: the top of the well representing Pliocene and younger intervals have poor to moderately preserved nannofossils with very low diversity. Diversity and abundances increase in Miocene and older intervals. Like Sauk A-57, the Oligocene does not appear to be represented in Shubenacadie H-100.

The rich nannofossil occurrences in the Miocene and older sections show that excellent and dependable stratigraphic subdivision can be achieved. This research will contribute to the development of a more detailed stratigraphic framework for the Tertiary and Upper Cretaceous offshore Nova Scotia.
