ALASKA DIVISION OF GEOLOGICAL
& GEOPHYSICAL SURVEYS

Core Description, Interpretation, and Seismic Stratigraphy of the Nanushuk and Torok Formations in the J.W. Dalton Well, North Slope, Alaska

PRELIMINARY INTERPRETIVE REPORT 2025-7
Long, 2025
SHEET 1 OF 1
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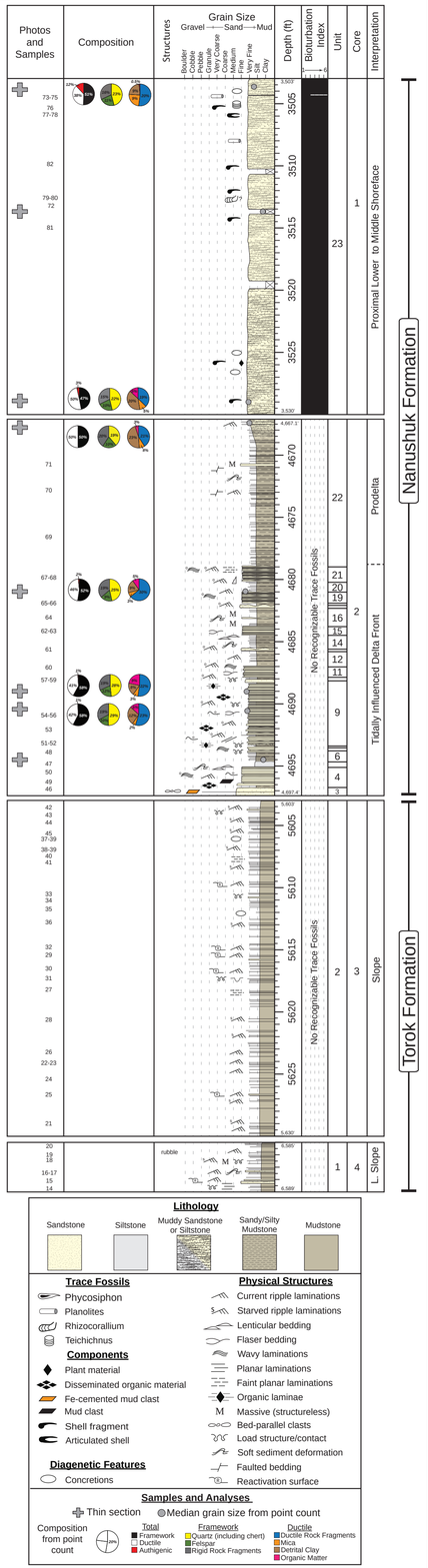
A



Lithology

Sandstone | Siltstone | Muddy Sandstone or Siltstone | Sandy/Silty Mudstone | Mudstone

Trace Fossils
- Phycosiphon
- Planolites
- Rhizocorallium
- Teichichnus

Components
- Plant material
- Disseminated organic material
- Fe-cemented mud clast
- Mud clast
- Shell fragment
- Articulated shell

Diagenetic Features
- Concretions

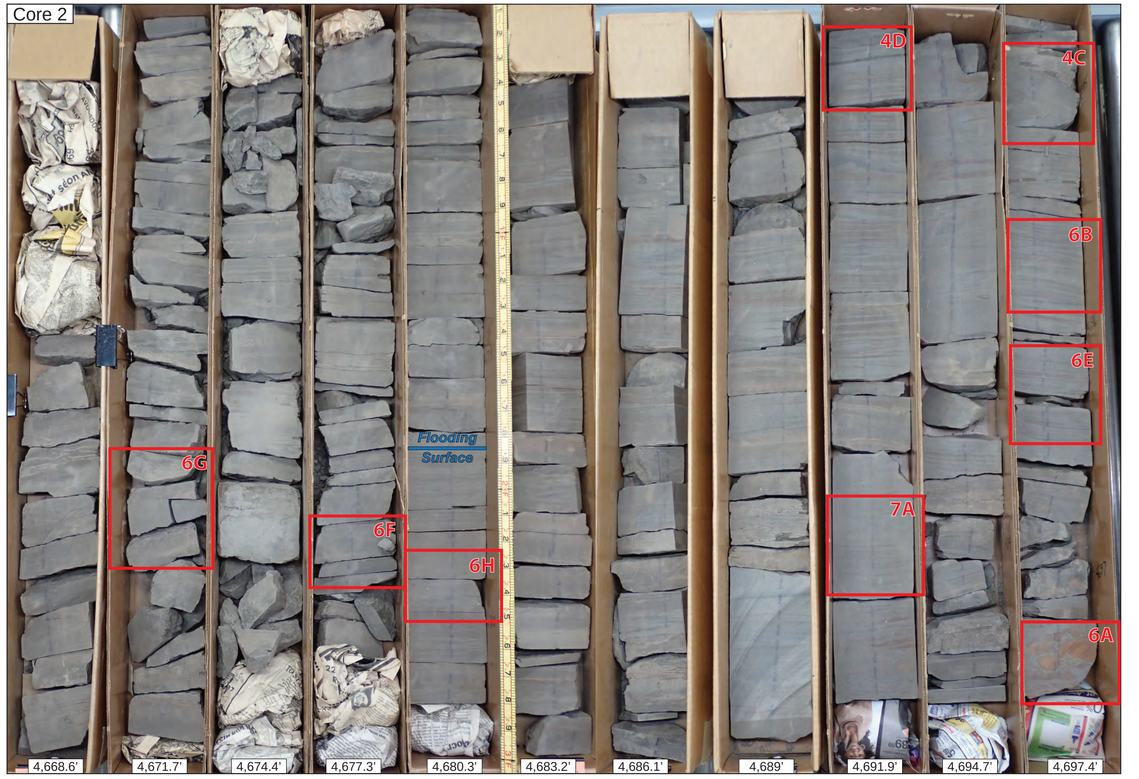
Physical Structures
- Current ripple laminations
- Starved ripple laminations
- Lenticular bedding
- Flaser bedding
- Wavy laminations
- Planar laminations
- Faint planar laminations
- Organic laminae
- M — Massive (structureless)
- Bed-parallel clasts
- Load structure/contact
- Soft sediment deformation
- Faulted bedding
- Reactivation surface

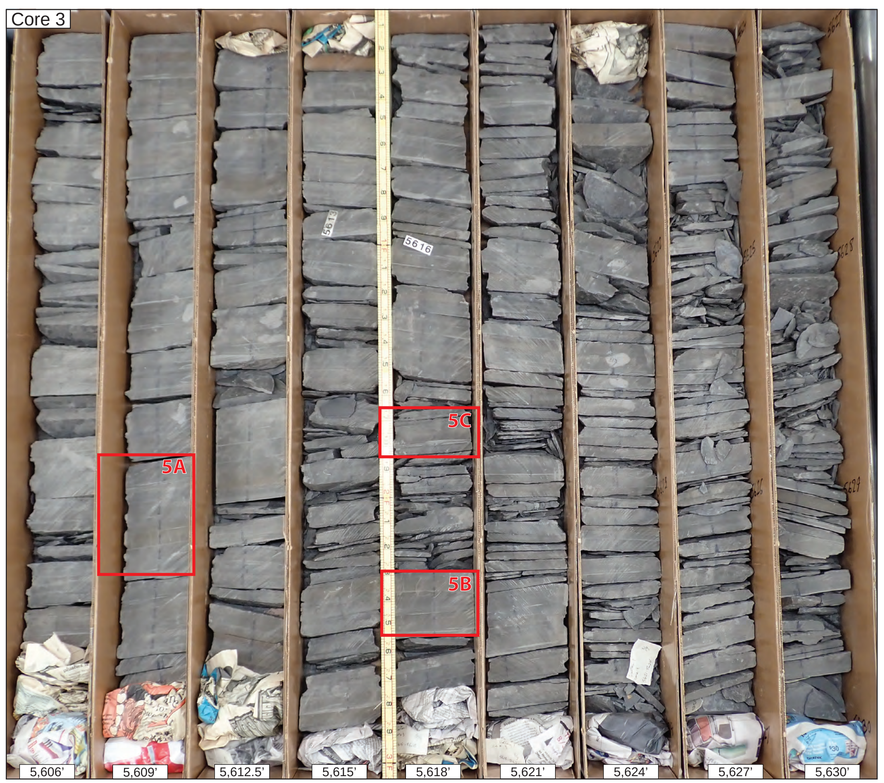
Samples and Analyses

Thin section ◍ Median grain size from point count

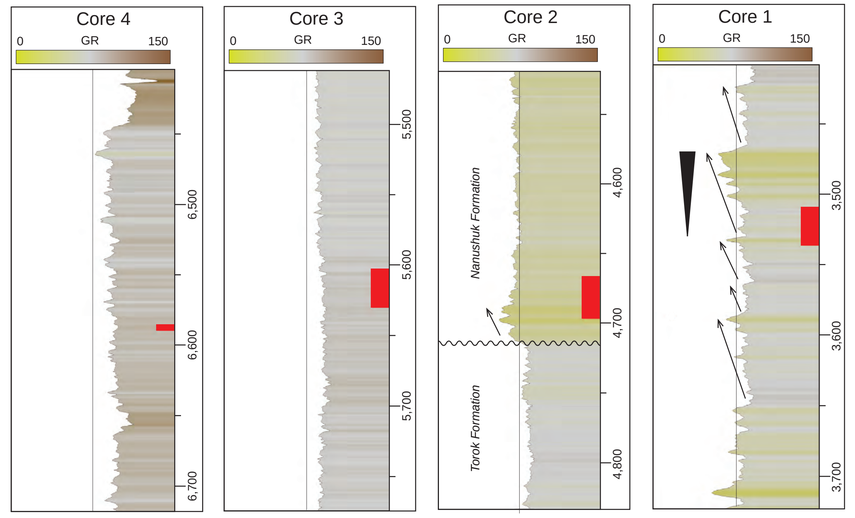
Composition from point count (Total: Framework, Ductile, Authigenic; Framework: Quartz (including chert), Feldspar, Rigid Rock Fragments; Ductile: Ductile Rock Fragments, Mica, Detrital Clay, Organic Matter)

B





C



Sheet 1. **A**) Graphic log of core descriptions for the Nanushuk and Torok Formations in the JW Dalton well. Depth for log is measured depth. Composition and mean grain size are from point count data by Pore Scale Solutions Ltd. and Santos Ltd. (2025). **B**) Core photographs of the Nanushuk and Torok intervals. Red boxes and alphanumeric labels refer to close-up photographs from figures included in this report. **C**) Gamma ray profiles of intervals adjacent to cores discussed in this report. Red boxes indicate core locations. Thin vertical line denotes a gamma ray value of 75 API. Arrows along side of the gamma ray profile from core one delineate the generally cleaning or coarsening upwards packages discussed in the text. Inverted black triangle defines the marine parasequence to which core one belongs.

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