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Alaska – A 21st Century Petroleum Province ¹

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Alaska, the least explored of all domestic regions, is estimated to contain approximately 40 percent of total U.S. undiscovered, technically recoverable, oil and natural gas resources based on the most recent U.S. Department of the Interior (USGS & MMS) estimates.

Northern Alaska, including the North Slope and adjacent Beaufort and Chukchi continental shelves, holds the lion's share of the total Alaskan endowment of more than 30 billion barrels of oil and natural gas liquids plus nearly 200 trillion cubic feet of natural gas. This geologically complex region includes prospective strata within passive margin, rift, and foreland basin sequences. Multiple source rock horizons have charged several regionally extensive petroleum systems. Both extensional and compressional structures provide ample objectives. And recent emphasis on stratigraphic traps has demonstrated significant resource potential in shelf and turbidite systems in Jurassic to Tertiary strata.

Despite robust potential, northern Alaska remains a risky exploration frontier -- a nexus of geological complexity, harsh economic conditions, and volatile policy issues. Its role as a major petroleum province in the new century will depend on continued technological innovations, not only in exploration and drilling operations, but also in the development of a market for huge, currently unmarketable, natural gas resources. And ultimately, policy decisions will determine whether exploration of the Arctic will proceed.

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