SUBMARINES, BLIMPS, TRAINS, AND SHIPS: TRANSPORTATION PROPOSALS FOR PRUDHOE BAY CRUDE OIL, 1968-77

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ABSTRACT: Upon discovery in 1967-68 of the Prudhoe Bay (Alaska) oil field, North America’s largest at 22 billion barrels, the immediate challenge facing the oil industry was devising a transportation method to bring the vast reserves from the notoriously unforgiving environment of Alaska’s North Slope. Within months of the strike, the industry began aerial and ground surveys of a pipeline route from the North Slope southward toward Fairbanks. Many other transportation ideas also received consideration, including a fleet of nuclear submarines crossing under the polar ice cap, jumbo jet tankers and dirigibles, rail cars and tanker trucks, and even an aerial tramway. One proposal, the use of ice-breaking tankers to ship the crude oil through the Northwest Passage to the U.S. east coast, merited enough serious consideration that the oil industry spent $40 million testing its feasibility. Commissioned by Humble Oil (now Exxon) in 1969-70, the S.S. Manhattan was reconfigured with ice-breaking capabilities and became the first commercial vessel to complete the Northwest Passage. These transportation ideas – whether meritorious or outlandish – fell squarely within Alaska’s frontier myth and pioneer spirit where daring and ingenuity in the face of the natural environment are both encouraged and rewarded.

INTRODUCTION

The discovery of oil at Prudhoe Bay in 1967-68 proved a bonanza to the oil industry and the state of Alaska, not yet a decade old. The first well to tap into the reservoir was drilled by Atlantic Richfield (ARCO) in late 1967. Two days after Christmas that year, an immense blow of gas to the surface – described by one geologist as “the roar of a nearby jet plane” – hinted at massive oil reserves deep below the ground.1 Subsequent confirmation wells proved the Prudhoe Bay field was North America’s largest at an astounding 22 billion barrels of crude oil and 30 trillion cubic feet of natural gas.2

The immediate challenge facing ARCO and its industry competitors, principally BP and Humble Oil (now Exxon), was devising a transportation method to bring these immense oil and gas reserves from the notoriously unforgiving environment of Alaska’s North Slope. The companies immediately began aerial and ground surveys for a pipeline route south from Prudhoe Bay through Fairbanks to Valdez, an ice free port located on Prince William Sound, even going so far as to buy 800 miles of 48”-diameter, ½”-thick steel pipe before any permits had been secured.3 In those heady days following the strike, however, many other transportation options materialized from all quarters. One proposal merited enough attention that the oil industry spent millions testing its viability; some received serious consideration by government officials and environmental groups; and still others appeared so outlandish they disappeared soon after being proposed.

The intent of this paper is to provide a brief history of the alternate plans, designs, and schemes for bringing Prudhoe Bay crude oil to market. These transportation ideas fall squarely within Alaska’s frontier myth and pioneer spirit where daring and ingenuity in the face of the natural environment are both encouraged and rewarded. Historian Peter Coates defines “booster” as: