In the 1970s, the U.S. Government drilled 28 test wells in the National Petroleum Reserve Alaska (NPRA). Initially, the U.S. Navy ran the program, followed by the USGS. Husky Oil NPR Operations, Inc., was the operator. The primary support for all wells was by air, requiring construction and operation of about 50 “expedient” airstrips. Most wells were drilled in the winter, and most airstrips were constructed on lake ice.

Three airstrips were winter constructed for year-round use. Subgrade insulation was used in these airstrips, with the insulation thickness sized to prevent thaw below the insulation. The design improved performance during the initial summer thaw, decreased the requirements for fill materials, and limited the equipment, personnel, and time required for construction. Forty years later, these airstrips remain, and two are in use.

This presentation will be in three sections. The first discusses the ice airstrips, including ice thickness requirements and runway facilities. The second addresses the construction of the first two insulated airstrips in the 1977-1978 winter season, and the third extends the insulation application to a 1978-1979 site with a challenging schedule. The presentation will close with comments about the ongoing use of these airstrips.

Tom Brooks worked for Husky Oil NPR Operations Inc., from 1976 to 1981 as Senior Construction Engineer and Manager, Construction. Tom continued work on North Slope projects until 1986, when he joined the Alaska Railroad until his retirement in 2017. He has a BS and MS in Civil Engineering from Colorado State University, and an MBA from the University of Washington.

Friday, October 11, 2019
11:45 am-12:45 pm
UAA College of Engineering, EIB 211