WORK HISTORY

2011-Present Vice Chancellor for Research – University of Alaska Fairbanks

- Administer the university's \$123-million-per-year research enterprise.
- Supervise the university's standalone research institutes including the Geophysical Institute, the International Arctic Research Center, and the Institute of Arctic Biology.
- Oversee Statewide National Institute of Health INBRE Research Program.
- Statewide Director and Principle Investigator for EPSCoR Program, directed efforts to successfully renew \$20 million NSF EPSCoR grant.
- Lead efforts to develop new large scale interdisciplinary research proposals focusing on sustainability.
- As Co-Chair of the State of Alaska Committee on Research lead the development of a new Science and Technology Plan for Alaska.
- Realigned research support including the Offices of Research Integrity, Sponsored Programs, Research Administration, and the Animal Resources Center.
- Created the Office of Intellectual Property and Commercialization, resulting in a more than five-fold increase in invention disclosures.
- Provided the senior leadership and support for the creation of an integrated office for coordinating university-wide undergraduate research.
- Built multiple new collaborative research partnerships with universities, agencies and organizations.
- Oversee efforts to ensure research results are extended into the local communities and are available for local and state economic development.
- Provided expert testimony for the Alaska State Legislature and US Congress.

2009-2010 Alaska Natural Gas Inducement Act (AGIA) Coordinator

- Served as the first Alaska Natural Gas Inducement Act Coordinator, a new position created under state statute and appointed by the Governor of Alaska.
- Built a new organization for overseeing and coordinating state agencies engaged in efforts to build a large diameter natural gas pipeline from the North Slope to market.
- Managed state efforts with multinational oil industry consortium designing and permitting the large diameter natural gas pipeline system.

2006-2009 Director of the United States Geologic Survey

- Managed the nation's largest water, earth, and biological science and civilian mapping agency. Responsible for nearly 9000 employees in 400 locations worldwide, with a total annual budget of more than \$1.4 billion.
- Revitalized the USGS climate change and the national civilian mapping programs.
- Implemented a new ten year interdisciplinary science strategy throughout the agency.
- Advanced the development of the Landsat 8 (LDCM)) satellite and the National Land Imaging Program.
- Released the entire 35 year Landsat data library at no charge to the public.
- Implemented a new regional structure for the USGS, building strong partnerships with state and national organizations and agencies.
- Significantly increased the USGS budget in a challenged budget environment.
- Testified before Congress on many issues including water quality, geothermal energy, climate change, satellite operations, and the Department of the Interior budget.
- Served on many national and international science and environmental committees.
- Circum-Arctic oil and gas resource appraisal completed under my leadership.

2001-2005 Director of the State of Alaska Division of Oil and Gas /State Geologist and Director of the State Division of Geological and Geophysical Surveys

- Managed the State of Alaska's oil and gas resources under two Governors.
- Responsible for resource evaluation, leasing, unitization, permitting, royalty accounting, auditing, sale of royalty oil and gas, permitting and inspecting.
- Supervised a professional staff of approximately 90 professionals including geoscientists, engineers, land managers, accountants, commercial analysts and auditors.
- Managed petroleum revenue of approximately \$2 billion per year.
- Restructured the organization and nearly doubled the division's budget and staffing.
- Worked closely with the Alaska Legislature to develop and pass numerous oil and gas statutes.
- Effectively managed relations with the public, industry, environmental organizations, native regional and village corporations, federal and local governments.
- Presented the concept of a North Slope natural gas hydrate evaluation program to the U.S. Senate. Concept was incorporated into law with an authorization for \$70 million.
- In 2005 also appointed as State Geologist and Director of the Division of Geological and Geophysical Survey, managing a staff of 38 performing statewide geological mapping, natural hazards research program, and inventory surveys for mineral and energy resources.

1998-2001ARCO Alaska, Inc./Phillips Alaska Inc.Sr. Staff Geologist - Exploration

- Developed Alaskan oil and gas exploration prospects for ARCO/Phillips, resulting in many lease purchases, wells drilled and three oil discoveries, two of which are producing today.
- Led and participated in North Slope geologic field research programs.
- Created a "Center for Excellence" within Alaska for integrated exploration efforts.

1990-1998State of Alaska Division of Oil and Gas
Senior Petroleum Geologist

- Evaluated the oil and gas potential of federal onshore and offshore acreage for State of Alaska.
- Performed geological field research.
- Managed statewide oil and gas evaluation of federal lands available for final state selection. My recommendations resulted in the state selecting over 3 million acres of additional land from the federal government.
- Provided expert testimony to U.S. Senate.
- Wrote regulations for and provided significant input on many State oil and gas statutes.
- Completed geological evaluations for State of Alaska in support of unitization, plan of development approval, and/or tract allocation factors for most North Slope oil fields.
- Authored numerous DNR Commissioner and Director decisions.

1987-1990University of Alaska FairbanksPh.D. Student and Intern with Alaska Division of Oil and Gas

1985-1987 ARCO Alaska, Inc. Development Geologist

- Development geologist responsible for two of the three production segments of the Kuparuk River oil field during the early stages of production.
- Created subsurface maps, developed drilling targets and extension exploration oil prospects, evaluated well results and seismic information.

1983-1985 ARCO Alaska, Inc. Exploration Geologist

• Developed exploration prospects in the Beaufort Sea.

• Well site geologist for wells on the North Slope, Beaufort Sea, Navarin Basin and Norton Sound. Led and participated in geologic field programs.

1981-1983ARCO Oil and Gas, Lafayette, LA
Extension Exploration Geologist

- Developed and evaluated extension exploration prospects and infield development wells in offshore and onshore Louisiana.
- Evaluated oil field properties for acquisition.
- 1978

Chevron USA, New Orleans, LA Exploration Geologist

• Performed regional subsurface geologic assessment of a large portion of the Louisiana Gulf of Mexico shelf.

1977-2003 Lt. - Lt. Colonel, USAFR

• Pilot and Senior Intelligence Officer in the Air National Guard and Air Force Reserve.

EDUCATION

<u>Ph.D. Geology</u>, University of Alaska Fairbanks, 1994. <u>Fields of Specialization</u>: sedimentology, clastic depositional environments, surface and subsurface sequence analysis and sandstone petrography. <u>Dissertation</u>: *Evolution of Late Cretaceous - Early Tertiary Depositional Sequences in the Beaufort-Mackenzie Basin, Canada.*

<u>M.S. Geology</u>, University of Wisconsin-Madison, 1981. <u>Fields of Specialization</u>: stratigraphy, paleoecology, sedimentology. <u>Thesis</u>: *The Stratigraphy and Sedimentology of the Upper Wonewoc Formation*. <u>Honors</u>: Vilas Fellowship, Twenhofel Scholarship.

<u>B.S. Geology and Geophysics</u>, University of Wisconsin-Madison, 1977. <u>Honors</u>: Sophomore Honors, Senior Honors Thesis, Graduation with Honors.

Military: Squadron Officers School Air Command and Staff Air War College Air Force Pilot Training Air Force Air Intelligence School

SELECTED CURRENT AND PAST LEADERSHIP POSITIONS

Member of the National Petroleum Council – Advisory Committee to the Secretary of Energy
Member of the Methane Hydrate Advisory Committee – Department of Energy
US Delegate to the Arctic Council Scientific Cooperation Task Force
Member of National Academy of Sciences Report Committee on Responding to Oil Spills in Arctic
Marine Environments
Co-Chair and Member of the Alaska State Committee on Research
Member of the Alaska Geospatial Council
Member of the Science Advisory Board for the Global Adaptation Institute
Co-Chair of the Plenary Session and Head of United States Delegation for Group on Earth Observation (GEO-V), Bucharest, Romania, November 19-20, 2008
Member of the Interagency Coordinating Committee of the National Earthquake Hazard Reduction Program (NEHRP)
Ex-officio Member of the Roundtable on Environmental Health Sciences, Research, and Medicine, Institute of Medicine of the National Academies
Member of the National Science and Technology Council (NSTC)

Member of the International Polar Year, U.S. Government Leadership Panel

Principal of the United States Climate Change Science Program. Member of the Interagency Arctic Research Policy Committee (IARPC) Chairman of the Civil Applications Committee (CAC) Past President/Board Member – Alaska Geological Society Member of the House of Delegates of the American Association of Petroleum Geologists

PROFESSIONAL LICENSES

Certified Professional Geologist – American Institute of Professional Geologists Certified Petroleum Geologist – American Association of Petroleum Geologists Licensed Geologist – State of Alaska Commercial Pilot, land and sea, single and multiengine instrument airplane

SELECTED INVITED TALKS IN THE PAST FIVE YEARS

Research Needs for Arctic Energy Exploration, Production and Transportation, Energy Council 2013 Energy and Environmental Matters Conference, Washington DC, March 8, 2013.

The Future of Energy Development in Arctic Alaska: Energy, Development, and Protecting the Environment, Carnegie Institute for Peace Arctic Conference, Washington DC, Feb 12, 2013.

Emerging Research Areas at the University of Alaska Fairbanks, Civil Applications Committee of the US Government, Reston, VA, Jan 23, 2013.

What is at Risk? – Building Bilateral Collaboration in Geohazards of the Russian Far East – Alaska Region, American Geophysical Union, San Francisco, CA, Dec 5, 2012.

Mineral and Mining Research at UAF, Alaska Strategic and Critical Minerals Summit, Fairbanks AK, Nov 30, 2012.

Challenges and Limitations in Scenario Planning and Forecasting For Future Development, US-Canada Northern Oil and Gas Research Forum, Anchorage, AK, Nov 15, 2012.

Development of an Integrated Oil Spill Research Center at UAF – Innovative Interdisciplinary Research that Matters to Alaskans, Alaska Geological Society, Anchorage, AK, Nov 15, 2012.

Alaska's Natural Gas Potential, Alaska LNG Summit, Valdez, AK, Sept 13, 2012.

Opportunities for Greater US-Canada Arctic Research Collaboration, PNWER Arctic Caucus Conference, Whitehorse, Yukon, May 18, 2012.

Energy Research and Education and its Role in Alaska's Economy, Fairbanks Alliance, Fairbanks AK, April 4, 2012.

The Future: Circum-Arctic Energy Resources: Opportunities and Challenges in a Changing Environment, Oil Spills in Sea Ice Meeting, Fermo, Italy, September 21, 2011.

Arctic Resources, North American Marine Environment Protect Association Resources and Readiness in Alaska Seminar, Anchorage, Alaska, August 18, 2011.

Research Needs and Priorities, Opening remarks for the United States, Canada - United States Northern Oil and Gas Research Forum, Calgary, Alberta, November 30, 2010.

Natural Gas Hydrates in Arctic Alaska: From Geological Hazard to Energy Supply, Alaska Oil and Gas Congress, September 29, 2010.

The North Slope of Alaska 43 Years after Prudhoe Bay State No. 1: Opportunities and Challenges, American Association of Petroleum Geologists Division of Professional Affairs, Anchorage, AK, May 10, 2011.

Geoscience, Ideology and the Politics of Energy: What is the Role of Geoscience in the Development and Implementation of a Rational and Sustainable Energy Policy? Alaska Geological Society, Anchorage, AK. February 18, 2010.

Alaska's Natural Gas Pipeline - Moving Forward-Securing North America's Energy Future, Canadian Institute's Alaska Oil and Gas Conference, Anchorage, AK. September 15, 2009.

Ecosystem Change: Managing Resources in an Uncertain Future, Interstate Oil and Gas Compact Commission 2009 Midyear Issues Summit, Anchorage, AK. May 12, 2009.

Domestic Natural Gas and Its Role Building the Nation's Energy Future, Pipeline Opportunities Conference, Houston, TX. March 11, 2009.