



John A. Apps, Ph.D., P.E.

*Geological Engineering
Geochemistry
Petroleum Reservoir Engineering*

Dr. John Apps has over 40 years of experience as a research hydrogeologist. Dr. Apps was a former Professor at Texas A&M specializing in hydrogeology, thermal dynamics, and petroleum reservoir engineer. He is considered an expert in using the TOUGH2 model code. The TOUGH2 modeling code is one of the most complex modeling codes, requiring highly specialized knowledge of reservoir engineering and how models work. Dr. Apps is a Group Leader, Staff Scientist II at the Lawrence Berkeley Laboratory, and an approved Associate of The Hydrodynamics Group, LLC. He is currently conducting research on multi-phase fluid flow in a porous media using the TOUGH2 modeling code. He is a noted author on the use of the TOUGH 2 model.

EDUCATION

Ph.D., 1970 (Geology) Harvard University, Cambridge, Massachusetts.

A.M., 1965 (Geology) Harvard University, Cambridge, Massachusetts.

B.Sc. (First Class Honours) 1961 (Mining Geology), A.R.S.M., Imperial College of Science and Technology, London, United Kingdom.

CURRENT POSITION

Associate with The Hydrodynamics Group, LLC

Senior Science Emeritus, Lawrence Berkeley National Laboratory, Geochemistry Dept.

EXPERIENCE

1982- Present

Senior Science Emeritus

Environmental Remediation Technology Department, 02/94 – 06/98. Earth Science Division, Lawrence Berkeley National Laboratory, University of California, Berkeley, California.

Investigator to evaluate the geochemistry of the unsaturated zone at the planned DOE high level nuclear waste repository at Yucca Mountain, Nevada. Investigator to model the geochemistry of the Drift Scale Test at Yucca Mountain (DOE-YMP)

Investigator with K. Pruess and Xianfu Xu to evaluate CO₂ sequestration in deep saline aquifers (DOE-OBES)

Co-principal investigator (with George Moridis), Containment of Contaminants Through Physical Barriers from Viscous Liquids Emplaced Under Controlled Viscosity Conditions (DOE-EM-50);

Co-principal investigator (with Chin-Fu Tsang), Investigation of the Geochemistry of Hazardous Waste Disposal by Deep Underground Injection, (EPA-ODW); and the Calico Hills Project (DOE-YMP).

HONORS

Outstanding Performance Award, Lawrence Berkeley National Laboratory, 1996

PUBLICATIONS

Dr. Apps has authored and co-authored 50 peer-reviewed publications, and over 100 reports and book chapters.

SELECTED RESEARCH AND POSITIONS

National Research Council, Board of Mineral Resources. Member, Committee on Accessory Elements. Chairman, Panel on Non Bauxitic Aluminum Ores, 1978-1979.

National Research Council, Committee on Radioactive Waste Management. Member, Panel on Savannah River Plant Wastes, 1979-1982.

American Chemical Society, Petroleum Research Fund Advisory Board, 1978-1981. Chairman, Geosciences Committee, 1980-1981. Member, Policy Committee, 1980-1981.

Department of Energy. Member, OBES Earth Science Advisory Committee, (Sewing Circle), 1979-1982.

Department of Energy, Office of Nuclear Waste Isolation. Member, Engineering Review Group, 1983-1986.

Department of Energy, Office of Technology Development, Facilitator, Soil Washing Workshop, Las Vegas, NV, August 28-29, 1990.

Nuclear Regulatory Commission, Advisory Committee on Nuclear Waste Isolation, 1989-1993
Department of Energy, Fernald Environmental Management Project. Uranium Soils Integrated Demonstration Advisory Group: Waste Treatment and Disposal, 1991-1994.

American Institute of Hydrology, Organizing Committee for the 4th Joint USA/CIS Conference on Hydrology, San Francisco, Nov 8-11, 1999.

Member, Working Group to evaluate the state of the art in subsurface reactive transport modeling and identify future directions, Federal Interagency Steering Committee on Multimedia Environmental Models, 2003-2005.

Member, Working Group to conduct an external review of limits on dissolved neptunium concentrations, U. S. Department of Energy. 2004-2005.

Consulted for Rockwell-Hanford Operations (BWIP), the Office of Nuclear Waste Isolation, (US DOE), US Nuclear Regulatory Commission, US Environmental Protection Agency, US Department of Justice, E.I. Du Pont de Nemours Inc., ALCOA, URS Corp., Dames and Moore, Woodward-Clyde and others.