

## **INVITED PUBLIC LECTURES AND ADDRESSES**

### **2014**

Long term energy trends and future projections and main areas of global exploration: presented to  
China National Offshore Oil Corporation Overseas Managers, Executive Training Program,  
McCombs School of Business, Austin

Long term energy trends and future projections and main areas of global exploration: presented to  
China National Offshore Oil Corporation Planning Group, Executive Training Program,  
McCombs School of Business, Austin

### **2013**

The emerging commonalities of higher education in energy states (Texas and Brazil): Presented to Coloquio o  
future da educacao superior no Brasil e Nos EUA; Comissao de Educacao,Cultura e Esporte do Senadado Federal do  
Brazil, Brasilia

The emerging revolution in American energy: presented to Town & Gown, Austin, Texas

Early history of the Board on Earth Sciences and Resources (BESR) and the U. S. energy revolution,  
Conference noting 25<sup>th</sup> anniversary of the Board, National Research Council/The National Academies,  
Washington, D. C.

Frontiers in sedimentology and petroleum geology, with some reminiscing: presented to Symposium on New  
Frontiers in Sedimentology and Petroleum Geology, on the launching of the Robert J. Weimer Distinguished  
Chair in Sedimentology and Petroleum Geology, Golden, CO

The great American energy revolution and what it means to you: presented to Jackson School of  
Geosciences, Undergraduate Geological Society, Austin, Texas

Long term energy trends and future projections and The American experience in shale oil and gas: presented  
to Sinopec Executive Training Program and CNOOC Executive Training Program McCombs School  
of Business, Austin, Texas

Long term energy trends and future projections and Deep Water Oil and Gas Resources: presented to China Oil Field  
Services, Ltd. Executive Training Program, McCombs School of Business, Austin

Long term global energy trends: presented to Petrobras Executive Training Group, McCombs School of Business,  
Austin

Global oil resources and production capability: presented to Petrobras Executive Training Group, McCombs School of  
Business, Austin, Texas

Global natural gas resources and production capability: presented to Petrobras Executive Training Group, McCombs  
School of Business, Austin, Texas

Nonconventional oil and natural gas: presented to Petrobras Executive Training Group, McCombs School of  
Business, Austin, Texas

Coal, nuclear and renewable energy resources: presented to Petrobras Executive Training Group, McCombs School  
of Business, Austin, Texas

Fossil fuels and global climate change: presented to Petrobras Executive Training Group, McCombs School of  
Business, Austin, Texas

### **2012**

The U. S. experience with nonconventional oil and gas: presented to Coal Seam Gas Conference, Centre for  
Groundwater Research and Training and Australian Water Association: Sidney, Melbourne and Brisbane

Policy technology perspectives, The changing outlook for U. S. energy: Will shale gas transform America's energy  
future: Washington Conference and Technology Workshop, hosted by the Howard Baker Forum and Lawrence  
Livermore National Laboratory, Washington, D. C.

Energy Futures and the coming U. S./North American Energy Revolution: presented to UT SAGE, University of  
Texas at Austin, Austin, Texas

The great American energy revolution: presented to 2012 East Texas Geological Society Tech & Prospect Expo, Tyler, Texas

Long term global energy trends: presented to Petrobras Executive Training Group, Austin

Global oil resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Global natural gas resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Nonconventional oil and natural gas: presented to Petrobras Executive Training Group, Austin, Texas

Other energy resources: presented to Petrobras Executive Training Group, Austin, Texas

Fossil fuels and global climate change: presented to Petrobras Executive Training Group, Austin, Texas

## **2011**

Energy futures: presented to 30<sup>th</sup> Honors Colloquium, University of Texas at Austin

Deep and ultra-deep water oil and gas exploration: role in present and future global energy supply,

Presented to Latin American Forum, Jackson School of Geosciences, Cartagena, Colombia

The future of natural gas: American Association of Petroleum Geologists, Annual meeting, Houston

Historical and projected energy trends: where are we now?: SIPES Austin Chapter, Austin

Commentator: Oil and biofuel development in Brazil, on the occasion of an address by Rubens

Mello to Theresa Lozano Long Institute of Latin American Studies, Energy Security in the

Americas, Rostros de las Americas, University of Texas at Austin

Long term global energy trends: presented to Petrobras Executive Training Group, Austin

Global oil resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Global natural gas resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Nonconventional oil and natural gas: presented to Petrobras Executive Training Group, Austin, Texas

Other energy resources: presented to Petrobras Executive Training Group, Austin, Texas

Fossil fuels and global climate change: presented to Petrobras Executive Training Group, Austin, Texas

## **2010**

Oil: Opening keynote address to symposium on The end of Oil?, Principia College, Elmhurst, Illinois

Overall global energy trends: presented to Petrobras Executive Training Group, Austin

Global oil resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Global natural gas resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Nonconventional oil and natural gas: presented to Petrobras Executive Training Group, Austin, Texas

Other energy resources: presented to Petrobras Executive Training Group, Austin, Texas

Fossil fuels and global climate change: presented to Petrobras Executive Training Group, Austin, Texas

Major trajectories in energy: LBJ School of Public Affairs, Austin, Texas

Energy overview: address to University of Texas School of Law/Univeersitat St. Gallen Executive Training program, Austin

## **2009**

Energy trends in Texas: presented to the 21<sup>st</sup> Annual Energy Symposium, Texas Energy Council, Dallas

The Bureau of Economic Geology of the 20<sup>th</sup> Century (1909-2000): presented to Bureau of Economic Centennial Symposium, Austin

Energy in the 21<sup>st</sup> Century: address to University of Texas School of Law/Universitat St. Gallen

Executive training program, Austin

## **2008**

U. S. dependency on foreign oil: luncheon address to University of Texas School of Law/Universitat St. Gallen executive training program, Austin

Moving down the natural gas pyramid—the changing face of natural gas exploration and

Development in the U. S.: presented to the 2008 Natural Gas Summit, Colorado Oil and Gas

Association/ Rocky Mountain Association of Geologists, Denver

Energy Futures: presented to the J. L. Frank Graduate Seminar, Texas A&M University, College Station, Texas

What's happening in energy in Texas: presented to the 20<sup>th</sup> Anniversary Annual Energy Symposium, Texas Energy Council, Dallas

Future of petroleum exploration and production technology: presented to the Academicians' Forum, celebrating the 50<sup>th</sup> anniversary of the Research Institute of Petroleum Exploration & Development (RIPE), PetroChina, Beijing

World heavy oil basins and resource potential: keynote address to JPMorgan Annual Energy Symposium: Heavy Oil, Houston

Energy and the environment: Can they be reconciled?: presented as the Geology and Society Division Distinguished Lecture, Geological Society of America annual meeting, Houston

## **2007**

Climate change: A complex scientific issue: presented to Texas Water Conservation Association Galveston, Texas

Global Oil: Peaking or plenty: presented to SAGE, Austin, Texas

The Coming Methane Economy: Presented to SAGE, Austin, Texas

Latin America and 21<sup>st</sup> Century energy: presented to Latin America Forum, Hualtuco, Mexico

Energy in the 21<sup>st</sup> Century: presented to QUEST, Austin, Texas

The third trillion: presented to Society of Petroleum Engineers, Research and Development Conference, San Antonio

Overall global energy trends: presented to Petrobras Executive Training Group, Austin, Texas

Global oil resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Global natural gas resources and production capability: presented to Petrobras Executive Training Group, Austin, Texas

Nonconventional oil and natural gas: presented to Petrobras Executive Training Group, Austin, Texas

Other energy resources: presented to Petrobras Executive Training Group, Austin, Texas

Fossil fuels and global climate change: presented to Petrobras Executive Training Group, Austin, Texas

## **2006**

Global energy in the 21<sup>st</sup> Century: presented to Austin Geological Society, Austin

Workforce issues in the global energy challenge: presented to Institute of Americas, annual meeting, La Jolla, California

North American oil and natural gas resources: presented to Colorado Oil and Gas Association, Natural Gas Summit meeting, Denver

Trends in the fossil fuels: LBJ/JSG seminar, Austin

The global energy picture: Presented to SAGE, University of Texas at Austin

Long term energy substitution trends; presented to the UT Forum

Global oil production: early peaking or adequate supply? Presented to the UT Forum

Natural gas and coal in the 21<sup>st</sup> Century energy mix: Presented to the UT Forum

Renewables and climate change; the environmental side: Presented to the UT Forum

## **2005**

Long term energy trends and impact on West Texas: presented to Midland Chamber of Commerce, Midland, Texas

Energy in the 21<sup>st</sup> Century: presented to Texas Western College, Snyder, Texas

Long term energy substitution trends; presented to the UT Forum

Global oil production: early peaking or adequate supply? Presented to the UT Forum

Natural gas and coal in the 21<sup>st</sup> Century energy mix: Presented to the UT Forum

Renewables and climate change; the environmental side: Presented to the UT Forum

## **2004**

Global oil: Relax, the end is not near: American Geophysical Union, Annual Meeting, Symposium on "Running on Empty? Oil: How Much, Where, and at What Cost?" San Francisco, California.

The methane economy and the resource base to fuel it: Rocky Mountain Natural Gas Strategy Conference and Investment Forum, Colorado Oil & Gas Association, Denver, Colorado.

Science for policy and international relation studies: presented to Symposium on "The University and international relations in the 21st century": LBJ School of Public Affairs, Austin, Texas.

Decarbonization: Impact on economy and environment: Special Forum on "The future global energy," American Association of Petroleum Geologists Annual Meeting, Dallas, Texas.

Global oil recovery and production: presented to conference on "Hubbert's peak and global oil production," Offshore Technology Conference, Annual Meeting, Houston, Texas.

Some questions and thoughts on resource assessment: Keynote presentation to Second Symposium on Resource Assessment Methodologies, U.S. Geological Survey and Potential Gas Committee, Denver, Colorado.

Global peak oil production: Fact or fiction: Teleconference, J. P. Morgan energy analysts.

A brief (and somewhat personal) history of the Bureau of Economic Geology: Presented to Summer Seminars, Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas.

Geoscience and public policy in Texas: presented to Decision Makers Field Conference: Bureau of Economic Geology/Jackson School of Geosciences, Austin, Texas.

Energy in the long term: presented to South Texas Geological Society, San Antonio, Texas.

## **2003**

Moving to a methane economy and its implications: SIPES, Austin Chapter, Austin, Texas.

Oil and gas industry: A global perspective: Internal Revenue Service, Petroleum Industry Conference, Houston, Texas.

## **2002**

Energy for the next 100 years: the challenge of ingenuity and technology: John W. Stormart Lectures, Victoria College, Victoria, Texas.

Texas geological surveys and oil exploration in Texas: American Association of Petroleum Geologists Forum on History of Geology, Annual Meeting, Houston, Texas.

Modern-day challenge in teaching petroleum geology: Keynote address, Special Symposium, American Association of Petroleum Geologists, Annual Meeting, Houston, Texas.

The future of natural gas in the Gulf Coast Basin: Keynote address, Society of Independent Professional Earth Scientists, Annual Meeting, Lafayette, Louisiana.

Natural gas in the new world of energy: Offshore/Onshore Technologies Association of Nova Scotia (TANS), Canadian Offshore Resources Conference, Halifax, Nova Scotia.

Summary of national energy policies: American Association of Petroleum Geologists Energy Summit, Washington, D.C.

Transitions in energy use and demand: Desk & Derrick Club, San Antonio, Texas.

The coming methane economy: Landmark Luncheon Seminars, Austin, Texas.

## **2001**

Essentials of a national energy policy: presented to American Association of Petroleum Geologists Energy Summit, Washington, D.C.

The current energy scene and the President's energy plan: luncheon speaker, all-convention luncheon, American Association of Petroleum Geologists, Annual Meeting, Denver, Colorado.

Advance of technologies in fossil energy resources: The Presidents' Circle, The National Academies, Woods Hole, Massachusetts.

U.S. natural gas in the short and long term: North American Natural Gas Forum, Natural Gas Week, Washington, D.C.

The Gulf in the coming methane economy: all-convention luncheon address, Gulf Coast Association of Geological Societies, Annual Meeting, Shreveport, Louisiana.

Principal issues in U.S. and world energy: National Academy of Engineering, Energy Workshop, Washington, D.C.

The professionalism of Don R. Boyd: posthumous award of Boyd Medal to Don R. Boyd, Corpus Christi Geological Society, Corpus Christi, Texas

Response, William H. Twenhofel Medalist: SEPM (Society for Sedimentary Geology), Awards Banquet, Denver, Colorado.

Energy and environment—a global challenge: Outreach Lecture Series, Department of Geological Sciences, The University of Texas at Austin, Austin, Texas.

## **2000**

Energy resources for the 21st century: presented at DPA/EMD/AAPG Symposium, A World of Resources throughout the 21st Century, American Association of Petroleum Geologists, Annual Meeting, New Orleans, Louisiana.

Energy for this century: presented to Texas Community College Teachers Association, Annual Meeting, Austin, Texas.

Global energy resources: Division of Professional Affairs Panel, American Association of Petroleum Geologists, Annual Meeting, New Orleans, Louisiana.

Frailties of natural gas supply and demand projections: presented at Natural Gas Conference, Minerals Management Service, U.S. Department of the Interior, Houston, Texas.

The end of resource scarcity: presented at SIPES Board of Directors Annual Meeting, Austin, Texas.

Near- and long-term perspective on U.S. natural gas supply: presented to Board on Energy and Environmental Systems, National Research Council, Washington, D.C.

## **1999**

Global oil supply: technology versus depletion: presented to U.S. National Labs Energy R&D Working Group, Washington, D.C.

U.S. natural gas: making the 30 tcf future: presented to North American Gas Strategies Conference, Houston, Texas.

Future of the geosciences: change like we have never seen: Banquet address, Corporate-Academic Affiliates Conference, American Geological Institute, Houston, Texas.

Systems, sequences, and regimes: Keynote address, Symposium on Depositional Systems, American Association of Petroleum Geologists, Annual Meeting, San Antonio, Texas.

Future direction of global oil supply and price: Luncheon address presented to Central Texas Section, Society of Independent Earth Scientists, Austin, Texas.

Energy resources into the 21st century: U.S. Geological Survey and National Research Council Symposium on Natural Resources and Hazards: Challenges for the 21st Century; in honor of Michel T. Halbouty; The National Academies, Washington, D.C.

Our changed perception of energy resources in the past 20 years: The Haney Symposium on Two Decades of Geology in the Public Interest: Kentucky Society of Professional Geologists, University of Kentucky, Lexington, Kentucky.

Systems, sequences, and regimes: Society of Exploration Geophysicists, Annual Meeting, by special invitation, Houston, Texas.

Characterizing the reservoir and growing the reserve: Keynote address, Gulf Coast Section Society of Economic Paleontologists and Mineralogists, Bob F. Perkins Research Conference on "Advanced Reservoir Characterization for the 21st Century," Houston, Texas.

Citation for Charles J. Mankin, Ben H. Parker Medalist, American Institute of Professional Geologists, Annual Meeting, Anchorage, Alaska.

Citation for Don R. Boyd, Special Commendation Award, Gulf Coast Association of Geological Societies, Annual Meeting, Lafayette, Louisiana.

Future gas supply workshop, FETC, U.S. Department of Energy, Morgantown, West Virginia.

Energy—the next 100 years: Bureau of Economic Geology, The University of Texas at Austin, Research Seminar.

Technology in oil field revitalization: workshop on old field revitalization, sponsored by Brazilian Ministry of Mines and Energy, Salvador, Brazil.

Revitalizing old fields: the U.S. and global experience: presented to Workshop on Revitalização de Campos e Re-exploração em Bacias Maduras, Instituto Brasileiro de Petróleo, Salvador, Brazil.

Historical U.S. policies regarding marginal oil and gas development: presented to Workshop on Revitalização de Campos e Re-exploração em Bacias Maduras, Instituto Brasileiro de Petróleo, Salvador, Brazil.

## **1998**

Natural gas supply: A resource and technology outlook: presented to Executive Conference, Natural Gas Supply Association, Houston, Texas.

Fossil fuels and global warming: How big a threat?: Independent Petroleum Association of America, Houston, Texas.

Technology, geologic ingenuity, and the great turn-around in natural gas: keynote presentation to the Symposium on Macroeconomics of Oil and Gas. Houston Geological Society 75th Anniversary Celebration, Houston, Texas.

Global oil and domestic gas: State of the industry: Leadoff address, 35th Annual Meeting, Society of Professional Earth Scientists, Durango, Colorado.

Fossil fuels—from running out to fouling up: Keynote address, American Institute of Professional Geologists, Annual Meeting, Baton Rouge, Louisiana.

Meeting global resources needs: Keynote address, Conference on Meeting Societal Resource and Environmental Requirements for the 21st Century, Division of Environmental Geosciences, American Association of Petroleum Geologists, Taos, New Mexico.

Energy and the environment: The technological solution: presented to The University of Texas Learning Advancement for Mature People (LAMP), Austin, Texas.

Prices and technology in the oil patch: Keynote presentation to Texas Independent Producers and Royalty Owners, San Antonio, Texas.

Technology and changing perceptions in oil and natural gas: Luncheon address, Texas Railroad Commission Technology Transfer Symposium, Houston, Texas.

Energy availability: presented to Symposium on "The Lessons Learned: Preparedness 1941-1998," sponsored by Admiral Nimmitz Museum, U.S. Naval Academy, and Texas Parks and Wildlife Department, Fredericksburg, Texas.

Fossil fuels: are we running out or fouling up? Technical Session, Department of Geological Sciences, The University of Texas at Austin.

Citation for Peter R. Rose, Ben H. Parker Medalist, American Institute of Professional Geologists, Baton Rouge, Louisiana.

Citation for Charles G. Groat, Ian Campbell Medalist, American Geological Institute, Toronto, Canada.

Citation for Don R. Boyd, Hall of Honor Inductee, College of Natural Sciences, The University of Texas at Austin, Austin, Texas.

Coming to closure: After-dinner remarks at American Geological Institute 50th Anniversary Symposium, Washington, D.C.

## **1997**

Briefing Energy R&D Panel of President's Committee of Advisors for Science and Technology, Report to Board on Energy and Environmental Systems and Board on Earth Sciences & Resources, National Research Council, Washington, D.C.

It could be different this time: Luncheon address, South Texas Geological Society, San Antonio, Texas.

Citation for Marcus E. Milling, Ben H. Parker Medalist, American Institute of Professional Geologists, Houston, Texas.

Technology and the revitalization of the natural gas industry: Energy Forum, City College of New York Graduate School, New York City, N.Y.

Technology in the restructured oil and gas industry: Energy Daily, First Annual Utility R&D Conference, Washington, D.C.

Oil and gas plays of the Gulf of Mexico: U.S. Department of Energy, Annual Gas Conference, Houston, Texas.

Oil and gas exploration and production technologies: Resources for the Future, Workshop on Technology Impacts, Washington, D.C.

The energy situation in Texas and the nation: Austin Geological Society, Austin, Texas.

A current look at energy: University of Texas at Austin Ex-Students Association, Alumni Update 1997, Austin, Texas.

Changing perceptions of the U.S. and global oil and natural gas resource base: American Association of Petroleum Geologists, Division of Professional Affairs, Annual Meeting, Dallas, Texas.

Energy in transition: Noël Lecture, University of Texas, Permian Basin, Midland-Odessa, Texas.

Energy use, population, and the environment: University of Texas, Permian Basin, Midland-Odessa, Texas.

Concentrating the mind: the turnaround in domestic oil and gas: Keynote address, American Association of Petroleum Geologists, Southwest Section, San Angelo, Texas.

Update on oil and gas in the U.S.: Society of Independent Professional Earth Scientists, Austin, Texas.

Will technology save us? Society of Petroleum Engineers, Dallas, Texas.

## **1996**

Technology and the modern oil and natural gas industry: Energy Policy Forum, Aspen Institute, Aspen, Colorado.

Gas finding rates, supply, and prices: U.S. Department of Energy, EIA, Fourth National Energy Modeling System/Annual Energy Outlook Conference, Arlington, Virginia.

Fundamentals of U.S. natural gas supply: New Mexico Department of Energy, Minerals and Natural Resources, 9th Annual Natural Gas Marketing Conference, Santa Fe, New Mexico.

The geosciences: adapting to a world of change: Sociedade Brasileira de Geologia, XXXIX Congresso Brasileira de Geologia, Salvador, Brazil.

Petroleum geologists in a changing world: Inaugural address, Associação Brasileira de Geólogos de Petróleo, Rio de Janeiro, Brazil.

Natural gas supplies: Lakeway Men's Club, Lakeway, Texas.

Natural gas in Texas: Outlook for supply over next decade: Texas Railroad Commission Gas Gathering Conference (luncheon address), Austin, Texas.

Oil and gas outlook: Abilene Geological Society, Abilene, Texas.

Citation for Robert R. Jordan, AGI Campbell Medalist, Geological Society of America, Denver, Colorado.

Citation for Charles J. Mankin, Honorary Membership, American Institute of Professional Geologists, Columbus, Ohio.

Citation for William E. Gipson, Hall of Honor Inductee, The University of Texas at Austin, College of Natural Sciences, Austin, Texas.

Citation for Bernold M. Hanson, Environment Achievement, Midland College, Midland, Texas.

Geoscience directions and breakthroughs: Energy Technology Conference: Exxon Co., U.S.A., Houston, Texas

Resource policy issues: AAPG Division of Professional Affairs Panel: GCAGS annual meeting, San Antonio, Texas.

#### **1995**

Factors in determining gas prices; analysis of finding rates: presented to U.S. Department of Energy, Energy Information Administration Workshop on Gas Prices, Washington, D.C.

Future of natural gas: resources and prices: presented to East Texas Natural Gas Association, luncheon meeting, Tyler, Texas.

The earth science enterprise: coping in a changing world: presented to American Association of Petroleum Geologists, Pacific Section, all-convention luncheon, San Francisco, California.

Natural gas plays: presented to Gas Daily Seminar on Where the Best Gas Plays Are: Houston, Texas.

Outlook in natural gas: presented to Dutch-treat Wildcatter's luncheon, Dallas, Texas.

State geological surveys and the future of geology: presented to Geological Society of America Symposium on the Future of Geology, New Orleans, Louisiana.

Citation, Joseph C. Walter, Jr., Hall of Honor Inductee, The University of Texas at Austin, College of Natural Sciences.

#### **1994**

U.S. oil and gas resources: their critical dependence on technology: presented at IGT Seventh International Symposium on Energy Modeling, Atlanta, Georgia.

Oil policy trends: presented at Meet Alaska Conference, Anchorage, Alaska.

Global oil markets: presented to Alaskan World Affairs Council, Anchorage, Alaska (luncheon address)

Technology and concepts in the changed perception of oil and gas resources: presented at Gas Daily Symposium on Technology, Houston, Texas (luncheon address).

Response, Sidney Powers Medalist: presented at American Association of Petroleum Geologists, Annual Meeting, Denver, Colorado.

Global gas resources: presented at International Symposium on Gas Resources and Markets, American Association of Petroleum Geologists, Annual Meeting, Denver, Colorado.

Resource assessment and recovery: impact of technology: presented to China National Petroleum Corporation, Dalian, People's Republic of China.

Concepts in oil recovery: presented to Petroleum University of China, Chanping, People's Republic of China.

Exploration and development technology: presented to Research Institute for Petroleum Exploration and Development, China National Petroleum Corporation, Beijing, People's Republic of China.



The nonrenewable resources of the coast: presented to the Bay Summit, Corpus Christi Bay National Estuary Program, Corpus Christi, Texas.

Moderator, Environmental and Conservation Issues of the 90's: Welder Wildlife Foundation, Corpus Christi, Texas.

The dramatic turnaround in resource perception: presented to South Texas Geological Society, San Antonio, Texas.

The revolution in natural gas: presented to SIPES, Austin, Texas.

Citation, Don R. Boyd, *Transactions* dedicatee, presented to Gulf Coast Association of Geological Societies, Annual Meeting, Austin, Texas.

Citation, Frank W. Harrison, Ben H. Parker Medalist, presented to American Institute of Professional Geologists, Annual Meeting, Flagstaff, Arizona.

The North American natural gas experience: revitalization of a resource base thought exhausted: presented to the Global Gas Resources Workshop on Impacts of Technology on the Global Gas Resource Base, Vail, Colorado.

Rethinking resources: presented to Gulf Coast Association of Geological Societies Symposium on Limitations of the Earth Revisited, Annual Meeting, Austin, Texas.

Geoscience policy: adapting to world of change: National Research Council, Board on Earth Sciences and Resources, Distinguished Lecture in Geoscience Policy: National Academy of Science, Washington, D.C.

Energy issues in the 1990's: The University of Texas at Austin, School of Business seminar series.

### **1993**

Basic trends in the domestic oil and gas industry: presented to Shell Oil Company Planning Program, Houston, Texas.

Natural gas in the U.S.: Will supplies be there when needed?: presented at the Canadian Energy Research Institute North American Natural Gas Conference, Calgary, Alberta, Canada.

Reserve growth and increasing production in mature fields: The U.S. experience: presented to Lagoven, S.A., Board of Directors, Caracas, Venezuela.

The newly emerging domestic oil and gas industry: presented to Ohio Oil and Gas Association, Winter Meeting, Columbus, Ohio.

U.S. oil, gas, and geologists: looking forward: Banquet Address, presented to Society of Independent Earth Scientists, Annual Meeting, San Antonio, Texas.

Geologists and the environment: the academic view: presented to American Association of Petroleum Geologists Annual Meeting, New Orleans, Louisiana.

Future of the U.S. energy and mineral resource industry: Futures Conference, presented to Society of Independent Earth Scientists, Houston, Texas.

U.S. natural gas: reserves and supplies: presented to Aspen Institute Policy Issue Forum on Energy, Environment, and the Economy, Aspen, Colorado.

Geology and resources: future directions: presented to Nebraska Geological Survey Centennial Celebration, Lincoln, Nebraska.

What's left of traditional energy resources in Texas, gas supplies and resources: presented at Symposium, Toward a Texas Energy Policy, Partners in Policy Forum IV, Austin, Texas.

Opportunities in domestic oil and gas: presented to Shreveport Geological Society, Shreveport, Louisiana.

Directions in geoscience policy: presented to Board on Earth Sciences and Resources, National Academy of Science, Washington, D.C.

### **1992**

The coming crises in preserving petroleum and geologic data: presented to Association of Records Managers and Administrators, Petroleum Industry Action Committee, Austin, Texas.

Exploration and exploitation affairs in domestic oil and gas: presented to Corpus Christi Geological Society, luncheon address, Corpus Christi, Texas.

Role of technologies in oil and gas development; with emphasis on trends in natural gas: presented to International Association for Energy Economics, Houston Chapter, Houston, Texas.

Future geologic issues in Texas—energy, environment, and water: presented to Society of Independent Professional Earth Scientists, Austin Chapter, Austin, Texas.

Introduction to the McKelvey Forum: presented to U.S. Geological Survey Conference, Houston, Texas.

Oil and gas in the nineties—a look at the fundamentals: presented to American Association of Petroleum Geologists, Division of Professional Affairs, Southwest Section Meeting, luncheon address, Midland, Texas.

Projection and outlook for oil, natural gas, and geothermal resources in Texas: presented to State of Texas Energy Policy Partnership, Austin, Texas.

Emerging technologies in oil and gas exploration and recovery: presented to National Technology Initiative Conference, DOE, DOT, DOC/The University of Texas at Austin, Austin, Texas.

Production economics of oil and gas in marginal fields: presented to OCS Policy Committee, U.S. Department of the Interior, Houston, Texas.

Issues in U.S. gas supply: presented to First Chicago Bank's Spring Energy Panel, Chicago, Illinois.

Surviving the meltdown: presented to East Texas Geological Society, Tyler, Texas.

Changing dynamics in U.S. oil and gas: presented to Society of Professional Independent Earth Scientists, Houston Chapter, Houston, Texas.

U.S. energy policy: Do we care anymore? presented to The University of Texas at Arlington, Arlington, Texas.

Roles of technologies and efficiencies in U.S. oil and gas: presented to South Texas Oil Show, Corpus Christi, Texas.

Reservoir characterization technologies and reserve growth: presented to Reservoir Characterization Forum, convened by Schlumberger-Doll Research, Ridgefield, Connecticut.

U.S. oil and gas recovery and advancing technology: presented to Society of Exploration Geophysicists, annual meeting, technology luncheon, New Orleans, Louisiana.

Trends in the U.S. oil and gas industry: briefing to Canadian National Energy Board and staff, Calgary, Alberta, Canada.

Analysis of oil and natural gas policies in the national energy strategy, The University of Texas at Austin Committee: presented to State of Texas Energy Policy Partnership, Austin, Texas.

Oil, gas, and the birds: the dodo or the phoenix?: presented to Texas Tech University, Lubbock, Texas.

Geology and the domestic petroleum industry: presented to Department of Geology, University of Kentucky Centennial Celebration symposium on "The next ten years: The geological sciences in 2002," Lexington, Kentucky.

Natural gas supply and demand: reaching equilibrium at last: presented to the Third Conference on Moving Gas on Texas Intrastates, Houston, Texas.

Technologic trends in oil and gas discovery and recovery: presented to Sociedad Internacional de Ingenieros Petroleos, Santa Cruz, Bolivia.

## **1991**

Technology and price: basic elements of U.S. oil and gas outlook: Phoebe Apperson Hearst Distinguished Lecture Series, University of California, Berkeley, California.

Toward a rational energy policy: will we ever get there?: presented as part of University Lecture Series, California State University, Fresno, California.

U.S. potential for oil and gas production: presented to the Aspen Institute Energy Policy Forum, Aspen, Colorado.

Changing dimensions of natural gas supplies: special briefing for Secretary of Energy Harrington, Washington, D.C., with Ken Lay

Natural gas supplies from the Midcontinent and Gulf Coast, U.S.A.: presented to Industrial Gas Users Association/l'Association des Consommateurs Industriels de Gaz, Toronto, Canada.

From gushers to reserve growth: a brief history of Texas oil and gas: presented to Symposium on History of AAPG and the Petroleum Industry, American Association of Petroleum Geologists, annual meeting, Dallas, Texas.

The U.S. potential in oil and gas: presented to the First Annual Meeting of Trustee Associates, Society of Exploration Geophysicists, Point Clear, Alabama.

Natural gas markets: ample supply in the 1990's and beyond: presented to DRI Energy/Chemical Conference, New Orleans, Louisiana.

Changing perspectives in natural gas: presented to Central Texas R&D Society, Radian Corporation, Austin, Texas.

Technology and geologic know how: keynote address to Austin Chalk Symposium, South Texas Geological Society, San Antonio, Texas.

Research and development directions in oil and gas recovery: presented to Texas Independent Producers and Royalty Owners, midyear meeting, Austin, Texas.

Surprising events in natural gas reserve additions: presented to Gas Research Institute, Advisory Council, Washington, D.C.

Energy concerns in America: presented to Austin Kiwanis Club, Austin, Texas.

Geology and the new energy frontiers: Geology Building dedication, The University of Texas at El Paso, El Paso, Texas.

Energy and the environment: conflicts in the making?: presented to Permian Basin Oil Association/University of Texas System, seminar on environment, Midland, Texas.

The natural gas supply outlook for Texas: presented to 2nd annual conference on moving gas on Texas intrastates, Houston, Texas.

## **1990**

Fossil fuels: beyond a century of use: presented as first Hollis D. Hedberg Distinguished Lecture, The University of Kansas, Lawrence, Kansas.

Oil and gas resource recovery: presented to Geological Society of America Symposium on "Future energy needs and utilization of fossil fuels," annual meeting, Dallas, Texas.

The new look at natural gas: presented to American Institute of Chemical Engineering session on "Energy policy: Natural gas," annual meeting, Chicago, Illinois.

How long will fossil fuels last?: presented to LAMP, Current Science Topics; The University of Texas at Austin, Austin, Texas.

Domestic natural gas: case for an optimistic future: presented to Oil Daily annual gas conference, Houston, Texas.

The potential of oil and gas recovery through horizontal drilling: presented to Executive Enterprises conference on horizontal drilling, Houston, Texas.

Briefing on National Research Council report on production of liquid fuels to U.S. Department of Energy and U.S. Congressional staff, Washington, D.C.

Natural gas: reaching stability: presented to fourth annual winter natural gas symposium, Gas Daily, Newport Beach, California.

Oil reserve growth: understanding complex reservoirs: presented to AAAS symposium on "Improved recovery of oil and gas from existing fields," New Orleans, Louisiana.

The global dimension of oil: role of the three critical players: presented to the Texas International Law Journal symposium on international energy trade and regulation, Austin, Texas.

Cautious optimism for the new decade: presented to East Texas Geological Society, Tyler, Texas.

The 1990's: looking good or at least better: presented to Permian Basin Section, Society of Economic Paleontologists and Mineralogists, Midland, Texas.

U.S. oil and gas: outlook for the 1990's: presented to North Texas Association of Petroleum Landmen, Wichita Falls, Texas.

Research in secondary gas recovery: presented to U.S. Department of Energy briefing on oil and gas research directions, Washington, D.C.

Petroleum geology: where are we heading?: keynote presentation, Symposium on the future of geology, the University of New Mexico, Albuquerque, New Mexico.

Opportunities for horizontal drilling in Texas oil and gas plays: presented to Gas Daily symposium on horizontal drilling, Houston, Texas.

Reserve growth and the Permian Basin: New Frontiers: keynote presentation to Permian Basin Section, Society of Exploration Geophysicists, Midland, Texas.

Price and technological sensitivities in U.S. oil and gas development: presented to Johns Hopkins Foreign Policy Institute conference on "Energy and environmental agenda for the 1990's and role of energy technologies," Washington, D.C.

New frontiers in natural resource research: presentation of solid earth sciences study, National Academy of Sciences to American Geophysical Union, annual meeting, Baltimore, Maryland.

Rethinking the U.S. oil and gas resource base: Society of Petroleum Engineers–University of Houston conference on emerging technologies, Houston, Texas.

Separation of exploration and production leasing: U.S. Department of Interior, OCS Advisory Board panel, Anchorage, Alaska.

Briefing to State Land Board on Oil and Gas Recovery Research on State-Owned Lands, Austin, Texas.

Briefing to College of Natural Sciences Advisory Council, Government Affairs Committee on Strategies in Research Funding.

Geologic opportunities for horizontal drilling: presented to Second International Conference on Horizontal Drilling, World Oil, Houston, Texas.

Permian Basin and the global oil situation: presented to Permian Basin Center for Energy and Economic Diversification, Midland, Texas.

## **1989**

Geological research: unique role of the state geological surveys: presented to Geological Society of America Symposium on Geologic Research and Public Policy, St. Louis, Missouri.

Natural gas: reaching stability: presented to Gas Daily Conference on Outlook for Gas Prices, Houston, Texas.

Natural gas, more plus than minus: presented to Texas Independent Producers and Royalty Owners Association, mid-year meeting, Austin, Texas.

The Permian Basin in 1992: presented to Permian Basin Landmen's Association, Midland, Texas.

Oil and gas resources: future options from a historical perspective: presented to U.S.-Canada Legislative Symposium, National Conference of State Legislators, San Antonio, Texas.

Outlook for oil and gas: presented to Austin Geological Society, Austin, Texas.

International oil markets: presented to Center for Energy Policy Research, Massachusetts Institute of Technology, Cambridge, Massachusetts.

A new look at oil and gas potential: presented to Abilene Geological Society, Abilene, Texas.

Assessment of U.S. natural gas resource base: keynote address to Unconventional Gas Research and Development Conference, Morgantown Energy Technology Center, U.S. Department of Energy, Morgantown, West Virginia.

Changing perspectives of the U.S. oil and gas resource base: Implications for the Future: presented to annual meeting of American Association of Petroleum Landmen, Anaheim, California.

New oil from old fields—an exciting new frontier: presented to Annual National Conference on Undergraduate Research, Trinity University, San Antonio, Texas.

Natural gas resources: presented to American Gas Association, Supply Task Force Meeting, Naples, Florida.

New approaches to gas resource evaluation: presented to American Gas Association, annual meeting, Hilton Head, South Carolina.

The independent oil and gas operators: Future Challenges and Opportunities: keynote address to Oil Recovery Conference, University of Kansas, Wichita, Kansas.

The new promise of natural gas: presented to Division of Professional Affairs, American Association of Petroleum Geologists, annual meeting, San Antonio, Texas.

Strategies for energy exploration and development: presented to Energy Minerals Division, American Association of Petroleum Geologists, annual meeting, San Antonio, Texas.

Search for the subtle trap: keynote address to West Texas Geological Society Symposium on Search for the Subtle Trap, Midland, Texas.

Oil and gas potential of the U.S. lower 48 states: presented to Symposium on Exploration Economics, Society of Exploration Geophysicists, annual meeting, Dallas, Texas.

Independents; implication of the remaining oil and gas resource base: presented to Independent Petroleum Association of America, annual meeting, San Francisco, California.

Changing perceptions of U.S. resource base: keynote address to IBM Exploration and Production Software Symposium, Houston, Texas.

Extended reserve growth for natural gas: presented to Colorado Natural Gas Conference; Denver - Julesburg Petroleum Association, Denver, Colorado.

## **1988**

Reassessing the U.S. oil and gas resource base: presented to National Wildlife Federation, Synergy 88, Washington, D.C.

Oil and gas research—some challenges for the public sector: presented to University of Kentucky, Kentucky Geological Survey Sesquicentennial Lecture Series, Lexington, Kentucky.

Beyond the symmetrical life cycle: Berg Distinguished Lecture, Wichita State University and Kansas Geological Society, Wichita, Kansas.

Outlook for oil and gas: presented to the Corpus Christi Chamber of Commerce, Energy Impact Conference, Corpus Christi, Texas.

The U.S. oil and gas resource base: policies to realize or to forfeit?: presented to DRI Spring Energy Conference, Houston, Texas.

Manpower in the geological sciences—some ominous trends: presented to annual meeting of the American Association of Petroleum Geologists, Houston, Texas.

Natural gas as a long-term energy resource: presented to National Clean Air Symposium, Washington, D.C.

Critical geoscience strategies in oil and gas recovery: presented to Geoscience Institute Regional Forum, St. Louis, Missouri.

Secondary gas recovery research: special guest lecture to Morgantown Energy Technology Center, Morgantown, West Virginia.

Cycles in oil prices and concerns: presented to West Austin Rotary Club, Austin, Texas.

Availability of North American natural gas—resources and deliverability: presented to the Energy Forum, City College of New York, New York.

Oil and gas research initiatives: Interstate Oil Compact Commission briefing to U.S. Senate, Washington, D.C.

Scientific drilling and hydrocarbon resources: National Academy of Sciences briefing for federal agencies, Washington, D.C.

Prospects for oil and gas development: presented to 15th annual Japan-Texas conference, Austin, Texas.

Oil production in Texas—future potential: presented to the Travis County Bar Association, Austin, Texas.

An assessment of the natural gas resource base of the U.S.: press briefing with Secretary of Energy, U.S. Department of Energy, Washington, D.C.

The technological dependency of the U.S. oil and gas resource base: presented to Society of Petroleum Engineers, Economic Symposium, Washington, D.C.

Natural gas supplies—resources to deliverability: presented to annual meeting, American Cogeneration Association, Chicago, Illinois.

Natural gas potential supplies and future demand: presented to Society of Independent Professional Earth Scientists, Dallas, Texas.

Rethinking the oil potential of the Permian Basin: presented to the Permian Basin Petroleum Association, annual meeting, Midland, Texas.

Analysis of U.S. domestic natural gas resources and supplies: presented to public affairs luncheon, TIPRO, Dallas, Texas.

Research, technology, and the changing oil and gas resource base: presented to Interstate Oil Compact Commission meeting, Colorado Springs, Colorado.

Future of the petroleum geosciences: presented to Colorado School of Mines, Golden, Colorado.

The coming U.S. energy predicament: presented to the Offshore Oil Scout Association, New Orleans, Louisiana.

Natural gas reserves and public policy: presented to Texas Society of Certified Public Accountants, Oil and Gas Conference, Houston, Texas.

Opportunities in the geological sciences...where next?: presented to Opening Session, Gulf Coast Association of Geological Societies, annual meeting, New Orleans, Louisiana.

Potential for additional oil and gas recovery in the Gulf Coast Basin: presented to Houston Geological Society, Houston, Texas.

Natural gas resources, supplies, and deliverability: presented to Natural Gas Conference, University of Houston, Houston, Texas.

The oil and gas resource base: impact on the future role of independents: presented to 21st Century Committee of Independent Petroleum Association of America, Dallas, Texas.

## **1987**

The price of oil: Mayfield Distinguished Lecture, Bowling Green State University, Bowling Green, Ohio.

Marginal oil and gas resources and geological futures: Mayfield Distinguished Lecture, Bowling Green University, Bowling Green, Ohio.

The price of oil: presented to Town and Gown, Austin, Texas.

The future of exploration—getting efficient with small fields: keynote address to American Association of Petroleum Geologists, Southwest Section, Dallas, Texas.

Marginal resources and industrial capacity: presented to University of Delaware, Newark, Delaware.

Reserve growth and the emergence of moderate-cost oil: presented to The University of Texas System conference with operators, University Lands, Midland, Texas.

Averting future energy crises: presented to Outer Continental Shelf Policy Advisory Board, San Francisco, California.

Eighteen months after the crash: presented to Independent Petroleum Association of America, Dallas, Texas.

Capability of the U.S. oil and natural gas resource base: presented to City College of New York, Energy Forum, New York, New York.

Oil and gas research directions: banquet address, U.S. Department of Energy/Basic Energy Sciences Workshop on Not Yet Visible or Recoverable Hydrocarbons, The Woodlands, Texas.

The necessity of oil price stabilization: presented to Petroleum Industry Research Foundation, National Press Club, Washington, D.C.

New frontiers in old areas: Rediscovering the resource base: presented to American Association of Petroleum Geologists, Mid-Continent Section Meeting, Tulsa, Oklahoma.

The U.S. oil and natural gas resource base: capacity for stable production: presented to International Association of Energy Economists, Washington, D.C.

Natural gas as a long-term stable resource: keynote address, Fourth Annual Natural Gas Symposium, Oil Daily and Natural Gas Weekly, Houston, Texas.

Fossil fuel availability: presented to National Governors Association, Washington, D.C.

Oil prices: Who is calling the shots?: presented to Desk and Derrick Club, San Antonio, Texas.

Oil and gas supply outlook, perspective from the resource base: Independent Petroleum Association of America, Supply and Demand Committee, Austin, Texas.

An adequate energy resource base: Jefferson Energy Foundation, Town Hall Meeting, Pittsburgh, Pennsylvania.

Perspective of the Gulf States: Outer Continental Shelf Advisory Board, Corpus Christi, Texas.

Changing concepts of the U. S. oil and gas resource base: Bureau of Economic Geology seminar, Austin, Texas.

What we have learned or should have: keynote address: Gulf Coast Association of Geological Societies annual meeting, San Antonio, Texas.

Potential oil and gas supplies: Congressional Symposium, Victoria, Texas.

## **1986**

Small field exploration and large field re-exploration: the future of petroleum geology in the U.S.: presented to Abilene Geological Society, Abilene; Corpus Christi Geological Society, Corpus Christi; Lafayette Geological Society, Lafayette; Tulsa Geological Society, Bartlesville; New Orleans Geological Society, New Orleans; West Texas Geological Society, Midland; Pacific Section of American Association of Petroleum Geologists, Bakersfield; Lamar University, Beaumont; Baton Rouge Geological Society, Baton Rouge; Institute for Geophysics and Department of Geological Sciences, University of Texas at Austin.

Small field exploration and large field re-exploration: the unconventional conventional gas resource: Gas Research Institute, annual meeting, Chicago, Illinois.

U.S. oil production capability in jeopardy: presented to National Academy of Sciences, Board on Minerals and Energy, Washington, D.C.

What is happening with oil prices: presented to the John Gray Institute, Beaumont, Texas.

Future of Texas oil and gas: an update: presented to Texas Ex-Students' Association, Alumni College 1986, Austin, Texas.

Petroleum prices and their impacts: presented to IBM Latin American Advisory Board, Austin, Texas.

Substituting knowledge: Commencement Address, College of Science, Southern Illinois University, Carbondale, Illinois.

The aggressive pursuit of marginal resources: Presidential Address to American Association of Petroleum Geologists, annual meeting, Atlanta, Georgia.

A producer state view: presented to Gas Research Institute Energy Seminar on "Impact of lower world oil prices on U.S. natural gas supply and prices," Napa, California.

Reserve growth of reservoirs: the magnitude of the geologic opportunity; Facies architecture and depositional modeling in predicting reservoir heterogeneity; and Oil recovery mindsets and institutional barriers: presented to 1986 National Conference on Earth Science, Geology and Reservoir Management, University of Alberta and Canadian Society of Petroleum Geologists, Banff, Alberta, Canada.

Efficiencies in pursuing marginal resources: presented to Houston Geotech 86, Houston, Texas.

Oil prices and the future of the domestic industry: Pioneer Oil Prospector Society, Houston, Texas.

Some possible paths for oil prices: Lakeway Men's Club, Lakeway, Texas.

Petroleum geology: Is there a future? The University of Texas at Arlington, Texas.

Future opportunities in academic and public service: Texas Section, American Institute of Petroleum Geologists, Dallas, Texas.

Impact of oil prices on Outer Continental Shelf development: Department of the Interior OCS Policy Advisory Board, Norfolk, Virginia.

U.S. oil and gas supplies, session chair: Electric Power Research Institute, Fuel Supply Seminar, San Diego, California.

Petroleum economics and the decline in exploration, session chair: Conference on impacts of price declines on oil exploration, development and financing; Southern Methodist University, Dallas, Texas.

Trends in oil and gas exploration and exploitation: American Association of Petroleum Geologists Day, Tulsa, Oklahoma.

Outlook for oil prices: Texas Business Editors, General Land Office, Austin, Texas.

### **1985**

Is oil and gas a sunset industry?: Interstate Oil Compact Commission, annual meeting, New Orleans, Louisiana.

Texas crude oil production: a positive outlook after a decade of decline: presented to Austin Geological Society, Austin, Texas.

Domestic crude oil: reserve addition and production capabilities to year 2000: presented to Committee on the Strategic Petroleum Reserve, National Research Council, National Academy of Sciences, Washington, D. C.

Texas crude oil: some positive trends: presented to Interstate Oil Compact Commission, annual meeting, Austin, Texas.

Oil exploration and exploitation in the new energy era: Special Conference presentation to II Simposio Boliviano, Bogota, Colombia.

Outlook for oil in the Texas economy: presented to Second Texas Energy Symposium, The University of Texas at Dallas, Dallas, Texas.

Trends in petroleum geology: presented to American Institute of Professional Geologists, annual meeting, St. Paul, Minnesota.

Small field exploration and large field re-exploration—the future of petroleum geology: presented to American Association of Petroleum Geologists, Midcontinent Section, all-conference luncheon, Amarillo, Texas; Society of Exploration Geophysicists, annual meeting, Washington, D. C.; Houston Geological Society, Houston; South Texas Geological Society, San Antonio, Texas.

Reserve growth exploitation strategies: Executive Conference on New Directions for Exploration Strategy: NRG Associates, Colorado Springs, Colorado.

Geological projection of reserves and production in the Southwest States: presented to Conference on Energy and the Southwest Economy, Federal Reserve Bank of Dallas, Dallas, Texas.

### **1984**

Oil exploration and exploitation: new trends and new geologic challenges: keynote address presented to Seventh Australian Geological Congress, Sydney, Australia.

Intrastate perspective on natural gas supply: the Texas situation: presented to Gas Research Institute annual meeting, Sun Valley, Idaho.

Reserve growth and oil exploitation strategies: new trends and challenges: presented to Society of Exploration Geophysicists annual meeting, Atlanta, Georgia.

Recent trends and outlook for natural gas in Texas: presented to Texas Petroleum Research Committee Conference on Natural Gas in Texas, Austin, Texas.

Future oil and gas exploration potential in Texas: presented to Corpus Christi Chamber of Commerce, Energy Impact Conference, Corpus Christi, Texas.

Area-wide resource evaluation—mature areas: presented to Outer Continental Shelf Policy Advisory Committee, Washington, D.C.

### **1983**



Outlook for the energy minerals: luncheon address presented to American Association of Petroleum Geologists, Energy Minerals Division, annual meeting, Dallas, Texas.

Oil and gas exploitation geostrategies in Texas: presented to Society of Independent Professional Earth Scientists annual meeting, San Antonio, Texas.

The U.S. minerals position: presented to Interstate Mining Compact Commission annual meeting, Little Rock, Arkansas.

Oil exploration and production plays in the Texas Gulf Coast Basin: presented to Fourth Annual Research Conference, Society of Economic Paleontologists and Mineralogists, Houston, Texas.

Current energy issues: presented to South Texas Geological Society, San Antonio, Texas.

Current issues in oil and gas: Texas Close-Up interview, KTBC-TV, Austin, Texas.

Issues in high-level waste disposal: interview, KLRU, Austin, Texas.

Oil and gas: What does the future hold?: presented to Texas Railroad Commission Oil and Gas Seminar, Austin, Texas.

National issues in energy: presented to Texas Education Agency, Midland, Texas.

Current activities and issues in radioactive waste disposal: presented to American Institute of Mining, Metallurgical, and Petroleum Engineers, Corpus Christi, Texas.

Regulatory aspects in the mineral industry: presented to Society of Mining Engineers, Dallas, Texas.

Some observations on oil prices and future levels of production in Texas: presented to Texas Energy and Natural Resources Advisory Council, LBJ School of Public Affairs, and Petroleum Resources, Inc. conference on international oil pricing, Austin, Texas.

Exploitation strategies and outlook for oil and gas in West Texas: presented to Texas Technology Venturing, The University of Texas at Permian Basin, Odessa, Texas.

Facies analysis in reservoir geology: presented to Federal Universidade de Ouro Preto, Brazil.

Historical and current issues in public land policy: presented to LBJ School of Public Affairs, The University of Texas at Austin, Austin, Texas.

## **1982**

Texas and coal: a look into the future: presented to Texas Energy Forum, State of Texas Office of State-Federal Relations, Washington, D.C.

Oil in Texas: a perspective on the past and future: presented to 1982 Krost Symposium on Texas Oil Frontiers: Past, Present, and Future, Texas Lutheran College, Seguin, Texas.

Natural gas in Texas: trends of the 1970's and future outlook: presented to TIPRO mid-winter meeting, Austin, Texas.

Tars and heavy crude in Texas: presented to National Tar Sands (Heavy Oil) Symposium, Lexington, Kentucky.

Activities in Texas lignite: presented to Beaumont Rotary Club, Beaumont, Texas.

Panel member, Seminar on oil and gas exploration: Library of Congress, Congressional Research Service, Washington, D.C.

Governmental role, free enterprise, and public values: presented to Symposium on mineral resources and economic security of the United States, American Society of Real Estate Counselors, Phoenix, Arizona.

Potential for additional oil recovery in Texas: presented at Texas Petroleum Research Committee Conference on Enhanced Oil Recovery, Austin, Texas.

The U.S. position in mineral resources: banquet address presented at Arkansas Mining and Minerals Study Week Celebration, Russellville, Arkansas.

Depositional systems in oil and gas exploration: presented to Calgary Society of Petroleum Geologists, Calgary, Canada.

Role of Facies Analysis in Seismic Stratigraphy: presented to Oklahoma City Geological Society, Oklahoma City, Oklahoma.

Role of Outer Continental Shelf oil and gas resources in national security: from Santa Barbara to Watt: presented at American Institute of Professional Geologists annual meeting, Pasadena, California.

Mining in the Texas Economy: presented to Texas Mining and Reclamation Association, Kerrville, Texas.

### **1981**

Outlook for domestic energy supplies: options and uncertainties: presented at World Oil and Gas Show, Dallas, Texas.

Perspectives on energy and the economy: presented at Western Michigan University, Kalamazoo, Michigan.

Elements of oil and natural gas policy: presented at Symposium on energy policy in perspective, sponsored by LBJ School of Public Affairs, LBJ Library, and Brookings Institution, Austin, Texas.

Seismic stratigraphy and basin analysis: presented at American Association of Petroleum Geologists Seismic Stratigraphy Short Course, London, England.

Trends in geologic employment: banquet address at Geological Society of America, South-Central Section, annual meeting, San Antonio, Texas.

U.S. energy: are we heading toward solution?: banquet address presented to Society of Sigma Xi, Texas Chapter, Austin, Texas; and North Austin Rotary Club, Austin, Texas.

Issues of the U.S. federal offshore: press conference: presented at American Association of Petroleum Geologists, annual meeting, San Francisco, California.

On oil and gas in the Gulf Coast Basin: a look at the recent past with some observations on the future: keynote address presented at Gulf Coast Association of Geological Societies, annual meeting, Corpus Christi, Texas.

Mining in the Texas economy: presented to Texas Mining and Reclamation Association, South Padre Island, Texas.

Geological parameters in enhanced oil recovery: presented during workshop sponsored by Bartlesville Energy Technology Center and U.S. Department of Energy, Bartlesville, Oklahoma.

### **1980**

Background and national energy issues: presented at John A. Logan College, Carterville, Illinois.

Conflicts in energy exploration and federal land policies: an agenda for the 80's: presented at LASER, Salt Lake City, Utah.

Current perspectives on national energy issues: presented at Update-80, The University of Texas Ex-Students Association, Austin, Texas.

Current research at the Bureau of Economic Geology: presented at American Institute of Professional Geologists, Texas Section, annual meeting, Houston, Texas.

Elements of the continuing energy debate: presented to Retired Officers Association, Austin, Texas.

Energy and regulation: conflicts in the making: presented to Mississippi Geophysical Society, Jackson, Mississippi.

Energy perspectives: presented at Texas Winners Conference, Houston, Texas.

Energy problems facing the U.S.: presented at Kansas Regents Telenetwork Honors Colloquium in the Sciences, Kansas State University, Manhattan, Kansas.

Energy resources and public policy: presented at American Institute of Professional Geologists congressional briefings, Washington, D.C.

Federal land policies: constraints on energy and mineral exploration: presented at American Institute of Mining Engineers annual meeting, Las Vegas, Nevada.

Mineral resources and government: the role of the federal estate: presented to Southwestern Legal Foundation, Dallas, Texas.

Oil and gas findings rates in projection of future production: presented at U.S. Department of Energy/National Bureau of Standards Oil and Gas Modeling Symposium, Washington, D.C.

Oil and gas outlook: Western Hemisphere through the 20th century: presented at Second Western Hemisphere Energy Symposium, Rio de Janeiro, Brazil.

Overview of surface mining in Texas: presented at Surface Mine Reclamation Workshop, Texas A&M University, College Station, Texas.

Tertiary and Mesozoic delta systems in oil and gas exploration: presented at The University of Texas, Permian Basin Graduate Center, Midland, Texas.

Trends in Texas energy production: presented to Interstate Oil Compact Commission, Dallas, Texas.

U.S. energy outlook this decade: presented to National Governors' Association, Committee on Energy and Natural Resources, Winrock, Arkansas.

U.S. energy projections for the 1980's: presented to Texas Mid-Continent Oil and Gas Association, Houston and Corpus Christi, Texas.

## **1979**

Exploration and public lands policy: growing conflicts: presented to American Association of Petroleum Geologists, Pacific Section, annual meeting, Anaheim, California.

Domestic energy sources: outlook for next decade: presented to Gas Processors Association annual meeting, Denver, Colorado.

Mexican oil and gas: presented to Austin Rotary Club; Austin Kiwanis; and Lakeway Club, Austin, Texas.

Uranium and the U.S. energy future: banquet address presented to American Institute of Metallurgical Engineers, South Texas Section, Corpus Christi, Texas.

Role of federal estate in energy and mineral production: banquet address presented to Sigma Xi, Stephen F. Austin State University, Nacogdoches, Texas.

Is registration necessary or desirable?: presented to American Association of Petroleum Geologists, Division of Professional Affairs, annual meeting, Houston, Texas.

Perspectives on energy: the world dilemma: presented to American College of Dentists, Texas Section, annual meeting, Austin, Texas.

Science and energy: getting from here to there: commencement address presented to College of Science, The University of Texas at Arlington, Arlington, Texas.

Coal and lignite in America's energy future: luncheon address presented to Tenth Biennial Lignite Symposium, sponsored by U.S. Department of Energy and University of North Dakota, Grand Forks, North Dakota.

Energy futures: presented to Texas Association of Life Insurance Officials annual meeting, San Antonio, Texas.

National energy policy issues: luncheon address presented at International Association of Drilling Contractors and Petroleum Equipment Suppliers Association Drilling/Production Conference, Dallas, Texas.

Energy and government: in conflict: luncheon address presented to Houston Geophysical Society, Houston, Texas.

The role and future of alternate energy resources: presented at Symposium on alternate energy resources, Gulf Coast Association of Geological Societies annual meeting, San Antonio, Texas.

Geology, geologists, and energy: Geology Building dedication presented to Southern Illinois University, Carbondale, Illinois.

Geothermal energy and geopressured methane: moving from resource to supply: keynote address presented at Fourth U.S. Gulf Coast Geopressured Geothermal Energy Conference, The University of Texas at Austin, Austin, Texas.

National energy policy issues: luncheon address presented to South Texas Geological Society, San Antonio, Texas.

Energy development and government regulations: presented at Society of Independent Professional Earth Scientists Meeting, Dallas, Texas; South Texas Geological Society, San Antonio, Texas; and Southeastern Geophysical Society, New Orleans, Louisiana.

Energy in Texas—future of a petro-state: presented at Dallas Chamber of Commerce Leadership Seminar, Dallas, Texas.

Energy sources—conventional and alternate: presented at Symposium on alternate energy resources, Gulf Coast Association of Geological Societies, San Antonio, Texas.

Exploration, science, and public policy—conflicts in the making: presented as American Association of Petroleum Geologists Distinguished Lecture before Dallas Geological Society, Dallas, Texas; Lafayette Geological Society, Lafayette, Louisiana; New Orleans Geological Society, New Orleans, Louisiana; Rocky Mountain Association of Geologists, Denver, Colorado; Roswell Geological Society, Roswell, New Mexico; South Texas Geological Society, San Antonio, Texas; and Tulsa Geological Society, Tulsa, Oklahoma.

Oil as a continuing energy resource: presented at Symposium on energy and the environment, Southwest Texas State University, San Marcos, Texas.

### **1978**

Seismic stratigraphy and facies analysis in exploration: presented to West Texas Geological Society; South Texas Geological Society; The University of Texas at El Paso; and Abilene Geological Society, Abilene, Texas.

Geologic exploration and energy development: keynote address presented at Rocky Mountain Association of Geologists 1978 field conference and symposium on energy resources, Colorado Springs, Colorado.

Geothermal resources: the great methane debacle: presented at Symposium on the impact of the geosciences on critical energy, American Association for the Advancement of Science, Washington, D.C.

National oil strategy: presented at Utility Regulatory Conference, Washington, D.C.

Aspects of national energy policy: banquet address presented to Society of Exploration Geophysicists, Academic Liaison Seminar, Houston, Texas.

Energy and mineral resources: national capability in production: presented to El Paso Geological Society, El Paso, Texas.

Lignite and the national coal option: luncheon address presented at Conference on lignite, Ozarks Regional Commission, Little Rock, Arkansas.

National issues in energy: presented at 12th Annual Texas Legislative Conference, New Braunfels, Texas.

Perspectives on current energy policy and legislation: presented at American Petroleum Institute production meeting, Denver, Colorado.

Status of oil and gas in the continuing energy dilemma: presented at Fifth International Trade Conference, Houston, Texas.

Geologists and domestic energy development: banquet address presented at Geological Society of America, Rocky Mountain Section, Provo, Utah.

The dilemma of natural gas: presented to Texas Independent Producers and Royalty Owners, Lakeway, Texas.

Oil, gas, and land: presented to Houston Association of Petroleum Landmen, Houston, Texas.

Energy: is our government policy adequate?: presented to Texas Union Ideas and Issues Committee, The University of Texas at Austin, Texas.

Natural gas issues: presented at American Gas Association Communication Workshop, Houston, Texas.

Geology and resources of Texas: basis of varied development: presented to Institute of Texas Studies, Austin, Texas.

Factors in natural resource reorganization in the federal government: presented to Office of Management and Budget, Office of the President, Task Force, Austin, Texas.

### **1977**

Texas lignite—projections and uncertainties: presented to Pioneer Oil Producers Society, Houston, Texas.

Energy—the role of Texas in the national program: presented at Third Annual West Texas Conference on State Affairs, San Angelo, Texas.

Energy and mineral supplies: is the United States' ability to produce declining?: keynote address presented to Asilomar Conference on contingency planning for material resources, Pacific Grove, California.

Energy from the Rockies: presented to American Association for the Advancement of Science Energy Symposium, Denver, Colorado.

Our challenge in resources: presented to Main Plenary Session on Food, Resources, Energy, and Environment, American Society for Engineering Education, annual meeting, Grand Forks, North Dakota.

Converting to coal: expectations and problems: presented to Americans for Energy Independence, Houston, Texas.

Our continuing crisis in energy: presented to Alumni 77, The University of Texas at Austin, Austin, Texas.

Alternatives in national energy policy: the challenge of sufficiency: annual banquet address presented to Texas Academy of Science, Waco, Texas.

A look at the National Energy Plan: presented to International Association of Geophysical Contractors annual meeting, Houston, Texas.

The energy agenda for Texas: presented to Second Annual Conference on Texas Energy Policies, Austin, Texas.

Energy: position of the South in the national picture: presented to Southern Legislative Conference of the Council of State Governments, Charleston, South Carolina.

Our unprecedented task in energy: avoiding a decade of decline: presented to Interstate Oil Compact Commission, Nashville, Tennessee.

Midway in the National Energy Plan: presented to Texas Independent Producers and Royalty Owners Association, El Paso, Texas.

Energy and growth: presented to Symposium on alternatives to confrontation, sponsored by LBJ Library and LBJ School of Public Affairs, Austin, Texas.

Energy in Texas: what lies ahead?: presented to Town and Gown, Austin, Texas.

Mining and national minerals policy: presented to National Western Mining Conference, Denver, Colorado.

Natural hazards in coastal regions: presented at Cousteau Involvement Day, Houston, Texas.

Texas and energy—a concern of the public sector: keynote address presented at geology building dedication, West Texas State University, Canyon, Texas.

## **1976**

Energy sources: distribution and availability: presented to International Ex-Students' Conference on Energy, The University of Texas at Austin, Austin, Texas.

The coming crises in energy: keynote address presented to National Energy Forum, University of Akron, Akron, Ohio.

Energy options and exploration challenges: keynote address presented at Wyoming Geological Society annual meeting, Casper, Wyoming.

Oil and gas: The explorationist and institutional challenges: luncheon address presented at Independent Petroleum Association of Mountain States annual meeting, Denver, Colorado.

Energy—technology, science, and policy: presented at Society of Exploration Geophysicists annual meeting, Houston, Texas.

Energy research and development by the federal government: presented at Interstate Oil Compact Commission annual meeting, San Antonio, Texas.

Some factors in the future of copper: presented to American Institute of Mining Engineers, Tucson, Arizona.

Mining and minerals policy: banquet address presented to Colorado School of Mines 50th Anniversary Celebration, Golden, Colorado.

Today's energy picture: banquet address presented to National Association of Accountants, Washington, D.C.

Conflicts of national coal policy: presented at Coal Policy Symposium, Geological Society of America annual meeting, Denver, Colorado.

Energy policy and exploration challenges: keynote address presented at Gulf Coast Association of Geological Societies annual meeting, Shreveport, Louisiana.

Development of the Outer Continental Shelf: banquet address presented at Association of Engineering Geologists annual meeting, Cherry Hill, New Jersey.

Energy and minerals—role of the federal estate: presented at Federal Executives Institute, Charlottesville, Virginia.

Alternatives in energy policy: presented to New Mexico Oil and Gas Association annual meeting, Santa Fe, New Mexico.

Energy development in the West: the national perspective: Western Regional Press Seminar, Denver, Colorado.

Ocean mining and mineral resources: presented to American Mining Congress, Denver, Colorado.

Energy for electricity: today and tomorrow: presented at Pennsylvania Electric Association annual meeting, Philadelphia, Pennsylvania.

The future of domestic mining: presented to Northwest Mining Association, Coeur d'Alene, Idaho.

U.S. coal supplies: the outlook: presented at Southwest Regional Energy Conference, Dallas, Texas.

National coal policy: presented to Rocky Mountain Coal Association, Vail, Colorado.

Public power: policies and issues: presented at American Public Power Association annual meeting, Anaheim, California.

Ocean resources and the law of the sea: banquet address presented at Conference on commercial development of the ocean, Airlie House, Warrenton, Virginia.

Issues in national energy policy: keynote address presented at Texas Lignite Conference, The University of Texas at Austin, Austin, Texas.

Oil transportation and strategic storage: presented to International Petroleum Exposition, Tulsa, Oklahoma.

Exploration and the new Energy Policy and Conservation Act: Independent Petroleum Producers of America, Phoenix, Arizona.

Some policy issues with western coal: luncheon address presented at Symposium on Rocky Mountain coal, Colorado School of Mines, Golden, Colorado.

Mining law and federal land availability: presented to Arizona Geological Society, Tucson, Arizona.

#### **1974**

A look into the future: presented at Approaches to Environmental Geology, Workshop and Colloquium, sponsored by Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas.

Approaches to environmental geology: presented at Approaches to Environmental Geology, Workshop and Colloquium, sponsored by Bureau of Economic Geology, The University of Texas at Austin, Austin, Texas.

Delta systems—genetic analysis in exploration: presented at American Association of Petroleum Geologists, annual meeting, San Antonio, Texas.

Facies analysis in stratigraphic exploration: presented at American Association of Petroleum Geologists, annual meeting, San Antonio, Texas.

Land use in the Texas Coastal Zone: presented at Texas A&M University, College Station, Texas.

Natural hazards in the Texas Coastal Zone: presented to the Water Resources Committee, East Texas Council, Orange, Texas.

Potential for geothermal resources, Texas: presented to Division of Planning Coordination, Office of the Governor and General Land Office, Austin, Texas.

Programs and activities of the Bureau of Economic Geology: presented at U.S. Geological Survey and Association of American State Geologists, Central United States, Joint Meeting, Estes Park, Colorado.

Terrigenous depositional systems—a genetic approach to facies analysis: presented as a lecture of the American Association of Petroleum Geologists Continuing Education Lectures, Dallas, Texas, and Houston, Texas.

The land in land-use management: presented at Association of Western States Land Commissioners, annual meeting, Lakeway, Texas.

#### **1973**

Analysis of land and water carrying capacity: presented to the Water Resources Committee, Gulf Coast Council, Corpus Christi, Texas.

An inventory for land-use planning: presented to League of Women Voters of Houston, Houston, Texas.

Clastic depositional systems—a genetic approach to facies analysis: presented to Permian Basin Graduate Center Symposium, Midland, Texas; and Rocky Mountain Association of Geologists, Denver, Colorado [as a lecture of the American Association of Petroleum Geologists Continuing Education Lecture Series]; and to the Wyoming Geological Association, Casper, Wyoming.

Deltaic and related depositional systems of the Texas Gulf Coast Basin: presented to Tulsa Geological Society, Bartlesville, Oklahoma.

Depositional systems—a genetic approach to facies analysis in mineral exploration: presented as a lecture of the Southern Illinois University Visiting Lecture Series, at Southern Illinois University, Carbondale, Illinois.

Environmental carrying capacity—a geologic basis for management in the Texas Coastal Zone: presented to symposium on Geology and Management in the Coastal Zone, Geological Society of America, annual meeting, Dallas, Texas.

Environmental geology of the Texas Coastal Zone: presented as a lecture of the Southern Illinois University Visiting Lecture Series, at Southern Illinois University, Carbondale, Illinois.

Geologic projection in the management of lands and environmental resources: presented as a lecture of the Southern Illinois University Visiting Lecture Series, at Southern Illinois University, Carbondale, Illinois.

Geology in environmental decision making: presented to Geological Society of America, Penrose Conference on Earth Sciences and Environmental Decision Making, Vail, Colorado.

Land inventory and management in Texas: presented to the Eighth Annual Governor's Conference on Intergovernmental Relations and Regional Planning, Houston, Texas.

Land resources inventory in Texas: presented to the Land Resource Management Advisory Committee, Interagency Council on Natural Resources and the Environment, Austin, Texas.

Lignite resource and utilization: presented to City of Austin, Energy Study Committee, Austin, Texas.

Models of deposition—principal clastic systems: presented as a lecture of the Southern Illinois University Visiting Lecture Series, at Southern Illinois University, Carbondale, Illinois.

Public geological research in Texas: presented to Department of Geology, The University of Texas at Arlington, Arlington, Texas.

Resource use and environmental quality—toward a rational policy: presented to the Environmental Education Workshop, Education Service Center, Region XIII, Austin, Texas.

Role of earth scientists in environmental protection: presented to Society of Independent Professional Earth Scientists, annual meeting, New Orleans, Louisiana.

Scientific training in marine resources: presented to Student Conference on Marine Affairs, Texas A&M University, Galveston, Texas.

The coast of Texas: presented to Management of Natural Resources, Texas Federation of Women's Clubs, Austin, Texas.

The relation of land and water resources in the Texas Gulf Coast area: presented to the Water Resources Committee, Gulf Coast Council, Houston, Texas.

The role of public geological research in Texas: presented to the West Texas Geological Society, Midland, Texas.

The structure of research in the university and state government: presented to The National Council of University Research Administrators, Region V, Austin, Texas.

## **1972**

Ancient and modern delta systems in the Gulf Coast Basin: University of Arizona, Tucson, Arizona.

Approaches to land resource inventory and management: Conference on Land Resource Management, Division of Planning Coordination, Office of the Governor, San Antonio, Texas.

Delta systems in the exploration for oil and gas: Bureau of Economic Geology Continuing Education Short Course, Corpus Christi Geological Society, Corpus Christi, Texas; Houston Geological Society, Houston, Texas; and South Texas Geological Society, San Antonio, Texas.

Deltaic sedimentation: Sociedade Brasileira de Geologia, Salvador, Bahia, Brazil.

Depositional systems in the Carrizo-Upper Wilcox of Texas and their relation to occurrence of oil and gas: South Texas Geological Society, San Antonio, Texas; and Corpus Christi Geological Society, Corpus Christi, Texas.

Environmental geology of the Texas Coastal Zone: Conference on the Texas Coastal Zone, Division of Natural Resources and Environment, The University of Texas at Austin, Austin, Texas.

Environmental mapping and analysis: Texas Water Development Board, Austin, Texas.

Environmental mapping and resource management, Texas Coastal Zone: Pipeliners Club, Houston, Texas.

Fluvial and deltaic depositional systems: Seminar, The University of Texas at Dallas, Dallas, Texas.

Genetic approaches to facies analyses—establishing new frontiers in mature oil and gas basins: Interstate Oil Compact Commission, annual meeting, Houston, Texas.

Geologic research in Texas: The University of Texas at El Paso, El Paso, Texas.

Resource use and environmental quality—toward a rational policy: Environmental Education Workshop, sponsored by Dallas Metropolitan Schools and Texas Mid-Continent Oil and Gas Association, Dallas, Texas.

Terrigenous clastic depositional systems—genetic approach to facies analysis in mineral exploration: American Association of Petroleum Geologists, Continuing Education Short Course, Los Angeles Basin Geological Society, Los Angeles, California; and The University of Texas at Austin Extension Course, Permian Basin Graduate Center, Midland, Texas.

The environmental trail—a geologic imperative: Geological Society of America, Southeast Section, annual meeting, banquet address, Tuscaloosa, Alabama.

The technical base to land-use planning: American Association of Civil Engineers, Fort Worth, Texas.

Traditions and departures in geologic and related mapping: Texas Surveyors Association, Annual Meeting and Short Course, Houston, Texas.

Uranium production, development, and potential in Texas: Southern Interstate Nuclear Board, annual meeting, Austin, Texas.

## **1971**

Activities of the Bureau of Economic Geology: The University of Texas at El Paso, Geology Technical Session, El Paso, Texas.

Ancient delta systems of the Gulf of Mexico Basin and their relation to mineral exploration [American Association of Petroleum Geologists Distinguished Lecture]: Alberta Society of Petroleum Geologists, Calgary, Alberta, Canada; and Alaska Geological Society, Anchorage, Alaska; and Arizona State University, Tempe, Arizona; and Corpus Christi Geological Society, Corpus Christi, Texas; and Dallas Geological Society, Dallas, Texas; and The Edmonton Geological Society, Edmonton, Alberta, Canada; and Four Corners Geological Society, Durango, Colorado; and The Liberal Geological Society, Inc., Liberal, Kansas; and Nebraska Geological Society—University of Nebraska, Lincoln, Nebraska; and Oklahoma City Geological Society, Oklahoma City, Oklahoma; and Panhandle Geological Society, Amarillo, Texas; and Rocky Mountain Association of Geologists, Denver, Colorado; and South Texas Geological Society, San Antonio, Texas; and Sul Ross State University, Alpine, Texas; and University of Alaska, Fairbanks, Alaska; and University of Oregon, Eugene, Oregon; and University of South Dakota, Vermillion, South Dakota; and West Texas Geological Society, Midland, Texas; and Wyoming Geological Association, Casper, Wyoming.

Environmental geologic mapping, Texas Coastal Zone: Texas Mapping Advisory Committee, Austin, Texas; and Texas Water Development Board, Austin, Texas; and Interagency Council on Natural Resources and Environment, Austin, Texas; and Alamo Area Council of Governments, San Antonio, Texas; and Texas Water Development Board Environmental Advisory Panel, Austin, Texas.

Environmental geology and coastal zone management: Coastal & Shallow Water Research Conference, Louisiana State University, Baton Rouge, Louisiana.

Geology and the environment: Texas Outdoor Writers Association Seminar, “Environment and the Press,” Austin, Texas.

Some aspects of environmental education: Texas Advisory Council on Environmental Education, Winedale Inn, Roundtop, Texas.



Terrigenous depositional systems—a genetic approach to facies analysis and mineral exploration: American Association of Petroleum Geologists Continuing Education Program, Rio de Janeiro, Brazil.

Tertiary depositional systems of the Gulf of Mexico Basin: American Association of Petroleum Geologists, Southwest Section, annual meeting, Abilene, Texas.

#### **1970**

Ancient delta systems of the Gulf of Mexico Basin [American Association of Petroleum Geologists Distinguished Lecture]: Alabama Geological Society, Tuscaloosa, Alabama; and Geological Society of Kentucky, Louisville, Kentucky; and Lafayette Geological Society, Lafayette, Louisiana; and Logan Club, Ottawa, Ontario, Canada; and Louisiana State University, Baton Rouge, Louisiana; and Memphis State University, Memphis, Tennessee; and Northern Illinois University, DeKalb, Illinois; and Ohio State University, Columbus, Ohio; and Pittsburgh Geological Society, Pittsburgh, Pennsylvania; and Syracuse University, Syracuse, New York.

Delta systems in exploration for oil, gas, and other minerals: Permian Basin Graduate Center, Midland, Texas; and Shreveport Geological Society, Shreveport, Louisiana.

Depositional systems of the Texas Gulf Coast Basin: Shreveport Geological Society, Shreveport, Louisiana.

Texas natural resources—undeveloped potential for rural areas: Texas Industrial Commission, Houston, Texas.

Environmental Geology of the Texas Coastal Zone: American Geological Institute Short Course, Milwaukee, Wisconsin.

#### **1969**

Eocene depositional systems of the Gulf Coast Basin: their relation to oil and gas: Houston Geological Society, Houston, Texas.

Mineral exploration in South Texas: American Institute of Mining, Metallurgical, and Petroleum Engineers, Society of Petroleum Engineers, Balcones Section, Austin, Texas.

Mineral industries of South Texas—status and outlook: American Institute of Mining, Metallurgical, and Petroleum Engineers, Society of Petroleum Engineers, Southwest Texas Section, Spring Symposium, Corpus Christi, Texas.

Infilling of the Gulf Coast Basin: Department of Geological Sciences Technical Sessions, The University of Texas at Austin, Austin, Texas.

Tertiary delta systems of the Gulf Coast Basin and their relation to oil and gas occurrence: Society of Economic Paleontologists and Mineralogists, Permian Basin Section, Midland, Texas.

#### **1968**

Depositional history of the Wilcox Group in Texas: Sigma Gamma Epsilon Chapter at The University of Texas at Arlington, Arlington, Texas.

Depositional systems in the Wilcox Group of Texas: Austin Geological Society, Austin, Texas.

Essential features of nonmetallic industrial minerals: A.I.M.E., Texas Gulf Coast Section, Houston, Texas.

Basic delta systems in the Eocene of the Gulf Coast Basin: Gulf Coast Association of Geological Societies, annual meeting, Jackson, Mississippi.

Nonmetallic industrial minerals—examples of diversity and quantity: American Mining Congress, annual meeting, Las Vegas, Nevada.

Variation of lignites of fluvial, deltaic, and lagoonal systems, Wilcox Group (Eocene), Texas: Geological Society of America, annual meeting, Mexico City, Mexico.

Mineral industry potential of Fort Stockton area, Texas: Texas Industrial Commission, Industrial Planning Seminar, Austin, Texas.

Depositional systems of the Wilcox Group of Texas and their relationship to the occurrence of oil and gas: Corpus Christi Geological Society, Corpus Christi, Texas; and East Texas Geological Society, Tyler, Texas; and International Geological Society, Rio Grande Valley, McAllen, Texas; and South Texas Geological Society, San Antonio, Texas; and Houston Geological Society, Houston, Texas.

#### **1967**

The minerals of Texas—a nonrenewable resource: Resource-Use Education Workshop, Fort Worth, Texas.

Stratigraphy and genesis of Edwards Dolomite of Texas: Forum on Geology of Industrial Minerals, 3d Annual, The University of Kansas, Lawrence, Kansas.

Mineral resources of Texas: Texas Small Schools Project, 8th Summer Workshop, Austin, Texas.

Depositional systems in lower part of Wilcox Group, Eocene, Texas: The University of Texas at Austin, Department of Geology, Technical Session, Austin, Texas.

Depositional systems in the Wilcox Group of Texas and their relationship to occurrence of oil and gas: Gulf Coast Association of Geological Societies, annual meeting, San Antonio, Texas.

Depositional history and oil and gas trends in the Lower Wilcox Group: Lafayette Geological Society, Lafayette, Louisiana.

Lower Eocene lagoonal systems in the Texas Gulf Coast Basin: UNESCO Symposium on Coastal Lagoons, Mexico, D. F.

Depositional systems in the Wilcox Group and their relationship to oil and gas occurrence: Mississippi Geological Society, Jackson, Mississippi.

#### **1965**

Geology of the Texas Gulf Coast province: Interstate Oil Compact Commission, annual meeting, Corpus Christi, Texas.

Mineral resources and mineral industries of Eastland County: Eastland County Pilot Industrial Development Program, Eastland, Texas.

Potential development of natural resources of south Texas: South Texas Electric Cooperative, Texas Industrial Planning Seminar, Austin, Texas.

The search for nonfuel minerals: South Texas Geological Society, San Antonio, Texas.

#### **1964**

Mineral resources in community industrial development: General Telephone Company Economic Development Conference, San Angelo, Texas.

Conservation and mineral resources: Summer Conservation Workshop, Sul Ross State College, Alpine, Texas.

The search for nonfuel minerals: Corpus Christi Geological Society, Corpus Christi, Texas.

#### **1962**

Formational boundaries in the western Grand Canyon, Arizona: Geological Society of America, annual meeting, Houston, Texas.

#### **1961**

Evolution of Athleta Petrosa Stock: Geological Society of America, annual meeting, Cincinnati, Ohio.

### CONGRESSIONAL, LEGISLATIVE, AND SPECIAL TESTIMONY

#### 2008

World oil supply and impact on transportation: presented to Joint Texas House-Senate Legislative Study Committee on Private Participation in Toll Projects, San Antonio, Texas

#### 2006

Proposal for an Earth and Space Science course as fourth year high school option: presented to State Board of Education, Austin, Texas

#### 2004

Importance of the earth sciences in Texas school curricula: presented to Texas State Board of Education, Austin, Texas

2000 The future of the Texas oil and gas industry: presented to Texas Energy Coordination Council on behalf of Texas Senate Natural Resources Committee, Austin, Texas. (with Scott W. Tinker)

1996

Status of domestic oil and gas: U.S. House of Representatives, Committee on Resources, Houston, Texas.

1995

Oil and gas resources of the Alaska National Wildlife Refuge (ANWR): presented to U.S. Senate Committee on Energy and Natural Resources, Washington, D.C.

1994

Statement on Outer Continental Shelf activity and current state of domestic gas and oil industry: presented to U.S. House of Representatives Committee on Natural Resources, George Miller, Chairman.

Statement on Outer Continental Shelf activity and current state of domestic gas and oil industry: presented to U.S. House of Representatives Committee on Natural Resources, Washington, D.C.

Statement on national energy policy issues: presented to Department of Energy Hearings on National Energy Plan, Austin, Texas.

1993

Statement on current state of the oil and gas industry: presented to U.S. Senate Committee on Energy and Natural Resources, J. Bennett Johnson, Chairman, Houston, Texas.

Statement on HB1221, Texas Geologists and Geophysicists Registration Act: presented to State Affairs Committee, Texas House of Representatives, Austin, Texas.

1992

Statement on President's economic plan and tax proposals: presented to Finance Committee, Lloyd Bentsen, Chairman, U.S. Senate, Washington, D.C.

1991

The improved oil recovery programs of the National Energy Strategy: presented to the U.S. House of Representatives, Committee on Interior and Insular Affairs, Subcommittee on Energy and the Environment.

1990

Technical issues in management and use of Edwards aquifer: report of Technical Advisory Panel to Special Committee on Edwards Aquifer, Texas Senate and House of Representatives, Austin, Texas.

1989

Testimony on enhanced oil recovery, S.828: presented to U.S. Senate, Committee on Finance, Subcommittee on Energy and Agricultural Taxation.

U.S. Resource Base and production capabilities for oil and natural gas: U.S. Department of Energy, Energy Strategy Hearings, Houston, Texas.

1988

Testimony on FY 1989 Budget authorizations: presented to U.S. House of Representatives, Committee on Science, Space, and Technology, Subcommittee on Energy Research and Development, Washington, D.C.

Testimony on FY 1989 Budget appropriations: presented to U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Washington, D.C.

Testimony to Field hearings on status of energy production in U.S.: presented to U.S. House of Representatives, Committee on Science, Space and Technology, Subcommittee on Energy Research and Development, Marshall, Texas.

## 1987

Geoscience research for the sustained stable production of oil and gas in the U.S.: presented to U.S. House of Representatives, Committee on Science, Space and Technology, Subcommittee on Energy—Research and Development, Washington, D.C.

Production impacts of low oil prices: presented to U.S. Senate, Committee on Finance, Subcommittee on Energy and Agricultural Taxation.

Tax incentives and floor prices in oil stabilization: presented to U.S. Senate, Committee on Finance, Subcommittee on Energy and Agricultural Taxation, Washington. (with C. J. Mankin)

Energy research and development funding: presented to U.S. House of Representatives, Committee on Science, Space, and Technology, Subcommittee on Energy Research and Development, Washington. (with C. J. Mankin)

Energy research and development funding: presented to U.S. House of Representatives, Committee on Appropriations, Washington. (with C. J. Mankin)

Energy research and development funding: presented to U.S. Senate, Committee on Energy and Natural Resources, Subcommittee on Energy Research and Development, Washington. (with C. J. Mankin)

Energy research and development funding: presented to U.S. Senate, Committee on Appropriations, Subcommittee on Energy and Water Development, Washington. (with C. J. Mankin)

Energy research and development funding: presented to U.S. Senate, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Washington.

Testimony on committee substitute, S.B. 328 relating to promoting economic development in the state: presented to Texas Senate, Committee on Natural Resources, Austin.

Rigs to reefs: presented to Texas Senate, Committee on Natural Resources, Corpus Christi.

Testimony on S.B. 33 (oil overcharge): Texas Senate, Committee on Finance.

## 1986

Testimony on the Continental Scientific Deep-Drilling Program, S.1026: presented to U.S. Senate, Committee on Energy and Natural Resources, Subcommittee on Energy Development and Production. (with R. J. Finley)

Oil and gas production capability in Texas: presented to Texas House of Representatives, Energy Committee, Austin. (with Commissioner Mack Wallace)

Production impacts and national security: presented to U.S. House of Representatives Budget Committee, Dallas.

(with Commissioner Mack Wallace)

The variable import tariff: presented to U.S. Senate, Energy and Natural Resources Committee, Washington.

The impact of today's low oil prices on tomorrow's: presented to U.S. House of Representatives, Fossil and Synthetic Fuel Subcommittee on Energy and Commerce Committee, Washington.

Production impacts on the independent operator: presented to U.S. House of Representatives, Small Business Committee, Abilene.

The high cost of low oil prices: presented to Governors' Summit Conference on Energy, Las Colinas, Texas.

## 1985

Texas House of Representatives, Energy Committee: hearings on unitization of Texas oil reservoirs.

## 1984

U.S. House of Representatives, Subcommittee on Panama Canal/Outer Continental Shelf, Carol Hubbard, Chairman: statement on onshore impacts from OCS development (on behalf of Governor Mark White).

## 1983

U.S. Senate, Committee on Energy and Natural Resources, James McClure, Chairman: testimony on S.615, natural gas legislation.

Texas Senate, Committee on Nominations: confirmation hearings on appointment to Texas Low-Level Radioactive Waste Disposal Authority.

#### 1982

U.S. Federal Energy Regulatory Commission: "High-cost natural gas produced from intermediate deep drilling," Washington, D.C. (on behalf of Governor William P. Clements).

(with Commissioner Mack Wallace, Texas Railroad Commission, and Walt Rostow, The University of Texas at Austin)

U.S. House of Representatives, Subcommittee on Fossil and Synthetic Fuels: Hearings on Natural Gas Policy Act, Phillip Sharp, Chairman, Washington, D.C. (on behalf of Governor William P. Clements and Lieutenant Governor William P. Hobby).

U.S. House of Representatives, Committee on the Outer Continental Shelf and Panama Canal: Oversight Hearings on the Outer Continental Shelf, Carroll Hubbard, Chairman, Houston, Texas (on behalf of Governor of William P. Clements).

Texas Senate Committee on Natural Resources, "Bureau of Economic Geology: role in DOE nuclear waste disposal site activities in the Palo Duro Area, Texas," Amarillo, Texas.

Texas Energy and Natural Resources Advisory Council: "Status of high-level waste studies in Texas," Austin, Texas.

Texas Energy and Natural Resources Advisory Council: "Lignite production to year 2000," Austin, Texas.

#### 1981

U.S. Senate, Joint Committee on Energy & Natural Resources and Environment and Public Works: "High-level nuclear waste disposal," Washington, D.C. (on behalf of Governor William P. Clements).

Federal Energy Regulatory Commission hearings: "Geologic and engineering considerations in definition of tight gas reservoirs," Santa Fe, New Mexico.

Texas Energy and Natural Resources Advisory Council: "Status of high-level waste feasibility studies in Texas," Austin, Texas.

#### 1980

Interstate Oil Compact Commission, Committee on Production Policy: "Recovering unrecovered oil," Dallas, Texas.

Texas Coastal and Marine Council: "Status of mapping and inventory, Texas Coastal Zone," Galveston, Texas.

Texas Department of Health hearings: "Geologic factors in solid waste disposal," Rosenberg, Texas.

#### 1979

(with Commissioner Mack Wallace)

U.S. Senate, Committee on Governmental Affairs: "Natural Gas Policy Act."

(with Lieutenant Governor William P. Hobby, Commissioner Mack Wallace, and W. W. Rostow)

U.S. Senate, Committee on Energy and Natural Resources, Henry M. Jackson, Chairman: "National energy policy."

(with Lieutenant Governor William P. Hobby, Commissioner Mack Wallace, and W. W. Rostow)

U.S. House of Representatives, Subcommittee on Energy and Power, Committee on Interstate and Foreign Commerce, John Dingell, Chairman: "Oil decontrol."

U.S. Department of Transportation: "Projected terminal volumes," Texas Deep Water Port Authority.

Texas Energy Advisory Council: "Lignite development in Texas."

(with W. W. Rostow)

Texas Energy Advisory Council: "The energy situation in light of the Iranian crisis."

Texas House of Representatives, Committee on Energy Resources, Joe Hanna, Chairman: "Texas oil and gas reserves and resources."

Texas House of Representatives, Committee on Ways and Means: "Uranium Reserves in Texas."

#### 1978

Texas House of Representatives, Interim Committee on Energy, James Nowlin, Chairman: "Energy reserves and resources in Texas."

Texas House of Representatives, Interim Committee on Energy, James Nowlin, Chairman: "Energy research activities at The University of Texas at Austin."

#### 1977

Texas House of Representatives, Committee on State Affairs: "Texas coastal hazards and public disclosure."

Texas Senate, Committee on Economic Development: "Texas coastal natural hazards."

(with Governor Dolph Briscoe)

U.S. Senate, Committee on Energy and Natural Resources, Henry M. Jackson, Chairman: "National energy issues."

(with Commissioner Mack Wallace)

U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Subcommittee on Energy and Power, John Dingell, Chairman: "Texas and national energy issues."

(with Governor Dolph Briscoe)

U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Subcommittee on Energy and Power, John Dingell, Chairman: "National energy policy and issues."

U.S. House of Representatives, Committee on Merchant Marine and Fisheries, Subcommittee on Oceanography, John Breau, Chairman: "National ocean mining policy."

#### 1976

U.S. House of Representatives, Committee on Government Operations, Subcommittee on Conservation, Energy, and Natural Resources, William S. Mooreland, Chairman: "Energy information and analysis."

National Commission on Supplies and Shortages, Donald Rice, Chairman: "Minerals data and policy analysis."

U.S. Senate, Joint Committee, Commerce and Interior and Insular Affairs, Warren Magnuson and Henry M. Jackson, Chairmen: "Transportation and distribution of Alaskan crude oil."

(with Secretary Thomas S. Kleppe)

U.S. House of Representatives, Ad Hoc Committee on the Outer Continental Shelf, John Murphy, Chairman: "Amendments to the OCS Lands Acts of 1954."

U.S. House of Representatives, Committee on Interior and Insular Affairs, Subcommittee on Public Lands, John Melcher, Chairman: "Transportation and distribution of Alaskan oil."

U.S. Congress, Technology Assessment Board: "Technological assessment activities in the Department of the Interior."

U.S. House of Representatives, Committee on Interstate and Foreign Commerce, Subcommittee on Energy and Power, John Dingell, Chairman: "Alaskan natural gas transportation system."

U.S. House of Representatives, Committee on Education and Labor, Subcommittee on Manpower, Compensation, Health, and Safety, Dominick Daniels, Chairman: "Coal Mine Health and Safety Act Amendments."

U.S. Senate, Committee on Labor and Public Welfare, Subcommittee on Labor, Harrison Williams, Chairman: "Coal Mine Health and Safety Act Amendments."

U.S. Senate, Committee on Labor and Public Welfare, Subcommittee on Labor, Harrison Williams, Chairman: "Scotia mine disaster."

U.S. House of Representatives, Committee on Science and Technology, Subcommittee on Energy Research, Development, and Demonstration, Ken Hechler, Chairman: "Synthetic fuel subsidies."

(with Secretary Thomas S. Kleppe)

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Public Works, Joe L. Evins, Chairman: "Public power agencies budget hearings."

U.S. House of Representatives, Committee on Merchant Marine and Fisheries, Subcommittee on Oceanography, John Murphy, Chairman: "National oceans policies."

(with Secretary Thomas S. Kleppe)

U.S. Senate, Committee on Appropriations, Interior Subcommittee, Robert C. Byrd, Chairman: "Department of the Interior budget hearings."

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Sidney R. Yates, Chairman: "U.S. Bureau of Mines budget hearings."

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Sidney R. Yates, Chairman: "U.S. Geological Survey budget hearings."

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Sidney R. Yates, Chairman: "Mining Enforcement and Safety Administration budget hearings."

U.S. House of Representatives, Committee on Appropriations, Subcommittee on Interior and Related Agencies, Sidney R. Yates, Chairman: "Energy and minerals appropriation."

U.S. Senate, Committee on Interior and Insular Affairs, Henry M. Jackson, Chairman: "Energy Information Act, S.1865."

U.S. Senate, Joint Interior and Insular Affairs/Commerce Committee, Henry Jackson and Warren Magnuson, Chairmen: "Alaska natural gas transportation system."

U.S. Senate, Committee on Energy and Natural Resources, W. L. Fisher confirmation hearings.

#### 1975

U.S. House of Representatives, Energy and Power Subcommittee, Committee on Interstate and Foreign Commerce, John Dingell, Chairman: "Natural gas reserves and production."

#### 1974

Land Use Study Subcommittee, Intergovernmental Affairs Committee, Texas House of Representatives, Lyndon Olson, Jr., Chairman: "Land use management criteria."

#### 1973

Intergovernmental Affairs Committee, Local Government and Urban Affairs Subcommittee, Texas House of Representatives, Lyndon Olson, Jr., and Ray Hutchison, Co-Chairmen: "Land resources of Texas."

Committee on Natural Resources, Texas House of Representatives, Gibson D. Lewis, Chairman: "Texas land resources."

Committee on Natural Resources, Texas Senate, Max Sherman, Chairman: "Water resources and land carrying capacity."

Water Resources Committee, Gulf Coast Subcommittee, Texas Senate and Office of the Lieutenant Governor, W. N. Patman, Chairman: "Water resources of Texas Gulf Coast."

Council on Marine Related Affairs, Texas Senate, A. R. Schwartz, Chairman: "Coastal Zone resources."

Water Resources Committee, Gulf Coast Council, Senator William N. Patman, Chairman: "The relation of land and water resources in the Texas Gulf Coast area" and "Analysis of land and water carrying capacity."

Committee on Natural Resources, Texas House of Representatives: “Land surface subsidence in the Texas Coastal Zone.”

Local Government and Urban Affairs Subcommittee of Intergovernmental Affairs Committee, Texas House of Representatives, James Kaster, Chairman: “Land use problems and status of land inventory program in Texas.”

Public Hearing, 1973 Outer Continental Shelf, East Texas General Oil and Gas Lease Sale: statement to the Bureau of Land Management, U.S. Department of the Interior.

Interim Committee on Solid Waste Study of the Texas House of Representatives, Vernon Stewart, Chairman: “Factors in the landfill disposal of solid wastes.”

Council on Marine Related Affairs, Texas Legislature, A. R. Schwartz, Chairman: “Land surface subsidence in the Texas Coastal Zone.”

Committee on Natural Resources, Texas Senate, Max Sherman, Chairman: “The Texas barrier island dunes: role in coastal protection.”

## 1972

Statement to the Secretary of State’s Advisory Subcommittee on the 1972 United Nations Conference on the Human Environment: “Resource capability and environmental quality—the role of geologic monitoring.”

Interim Committee on Solid Waste Study of the Texas House of Representatives, Vernon Stewart, Chairman: “Geologic and engineering criteria in solid waste disposal.”

Interim Committee on Land Use Management of the Texas House of Representatives, Bill Clayton, Chairman: “Resource capability—the technical base for land management.”

Interim Committee on Environmental Matters of the Texas Senate, Murray Watson, Chairman: “Programs in environmental science.”

Interim Committee on Coastal and Marine Resources, Ray Lemmon, Chairman: “Organization and Coastal Zone programs.”

Interim Coastal Zone Study Committee of the Texas Senate, A. R. Schwartz, Chairman: “Beach and shoreline processes in the Texas Coastal Zone: their relationship to land use and park planning.”

## **NATIONAL MEDIA APPEARANCES**

Jefferson Energy Foundation, “Oil: Recurring Problem or New Potential?” PBS, Washington, D.C., 1990.

NOVA, “World Full of Oil,” PBS, Boston, 1987.

Lone Star, “Oil History in Texas,” PBS, Austin, 1985.

MacNeil-Lehrer News Hour, “Outer Continental Shelf Issues,” PBS, Washington, D.C., 1976.

National Public Radio, “Technology in the Oil Patch,” 1998.

News Hour with Jim Lehrer, “The President’s Energy Plan,” PBS, Washington, D.C., 2001

National Public Radio “Chevron Discovery, Gulf of Mexico,” 2006

British Broadcasting Corporation Radio, “Peak Oil and other Energy Issues,” 2006