

**MARK W. LONGMAN**  
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**RÉSUMÉ**

Mark W. Longman is an exploration geologist who specializes in the study of carbonate and sandstone reservoirs around the world. He has worked extensively with Paleozoic reservoirs in North America as well as Mesozoic reservoirs in the Rocky Mountain and Gulf Coast regions and Tertiary reservoirs in Southeast Asia, the Mediterranean region, and the Uinta Basin of Utah. His emphasis is on defining the nature of oil and gas reservoirs from depositional and diagenetic textures as determined from cores, cuttings, thinsections, and wireline logs. He has special skills relating hydrocarbon production to features such as facies types, porosity development and distribution, and diagenetic fabrics. He has worked as an exploration geologist and a research geologist for major oil companies, and ran his own consulting business from 1984 to 2006 before joining Questar Market Resources.

**EDUCATION**

- Ph.D. University of Texas at Austin, August 1976  
Dissertation: Depositional History, Paleocology and Diagenesis of the Bromide Formation (Ordovician), Arbuckle Mountains, Oklahoma.
- B.A. Albion College, Michigan, June 1972; Majors: Geology, Biology

**CAREER EXPERIENCE**

- 2006 to Present Staff Geologist, Questar Market Resources, Denver, CO  
Responsibilities: Core studies and petrographic expertise to aid in reservoir development and exploration plays in all of Questar's Rocky Mountain exploration ventures. Evaluation of prospects and plays, mentoring of younger geologists, and interpretation of reservoir rocks in Questar's Legacy, Pinedale, and Uinta divisions.
- 1984 to July 2006 Independent Consulting Geologist, Lakewood, CO  
Responsibilities: Consulting services included field analyses and petrographic studies as an aid to interpreting reservoir characteristics, in addition to defining exploration fairways, and understanding the origin and nature of carbonate reservoirs. Major projects included studies of Ordovician Red River reservoirs in the Williston Basin and Cretaceous reservoirs in Mexico.

- 1982 - 1984: Exploration Manager, Buttercup Energy, Golden, CO  
Responsibilities: Generation and evaluation of oil and gas reservoirs in the Illinois Basin, Kansas, Utah, and Michigan with particular emphasis on Ordovician carbonate reservoirs. Supervision of drilling operations on prospects, particularly along Terre Haute Reef Bank (Southwestern Indiana). Analysis of wireline logs, cores, and thinsections to aid in prospect evaluation and generation.
- 1981 - 1982: Exploration Geologist, Coastal Oil and Gas, Denver, CO  
Responsibilities: Generation and evaluation of prospects in the Williston Basin with emphasis in Ordovician Red River reservoirs. Regional work led to development of a new exploration model for these dolomitized carbonate reservoirs. Results were eventually published (Longman, Glennie, and Fertal, 1983).
- 1976 - 1981: Research Geologist, Cities Service Company, Tulsa, OK  
Responsibilities: Design and complete research and technical service projects on carbonate and sandstone reservoirs around the world. Emphasis on carbonate diagenesis led to a model for nearsurface diagenetic processes (Longman, 1980). Exploration models for modern and ancient reefs were used to explore for and develop Miocene reef reservoirs in the Philippines and Indonesia.

### **PROFESSIONAL SOCIETIES**

American Association of Petroleum Geologists (AAPG Associate Editor since 1981 and Certified Petroleum Geologist #3085); Society for Sedimentary Geology (SEPM); Rocky Mountain Association of Geologists (RMAG as Editor of the *Mountain Geologist*, 1996-2000 and 2004 to 2006; First Vice-President, 1994; RMAG's "Outstanding Scientist" in 1995); International Association of Sedimentologists (IAS); and Geological Society of America (GSA).

### **PARTIAL LIST OF PUBLICATIONS**

Longman, M.W., and C.D. Morgan, eds., 2008, Hydrocarbon Systems and Production in the Uinta Basin, Utah: Joint Publication of the Rocky Mountain Association of Geologists and the Utah Geological Association, Publication 37, 465 p.

- Longman, M.W., 2007, Lithology and characteristics of the Upper Cretaceous Baxter Shale gas reservoir, Vermillion Basin, Northwest Colorado and adjacent Wyoming (abstract): *The Outcrop*, RMAG, v. 56, n. 10, p. 21 (won RMAG's best Luncheon Speaker Award for 2007).
- Longman, M.W., and R. J. Koepsell, 2005, Defining and Characterizing Mesaverde and Mancos Sandstone Reservoirs Based on Interpretation of Image Logs, Eastern Uinta Basin, Utah: Research Study for the Utah Geological Survey, 39 p. plus 78 Figures.
- Longman, M., R. Basse, and J. Pope, 2003, Characteristics of the Glen Bench sandstone reservoir, Eocene Green River Formation, Glen Bench Field, Uintah County, Utah: *The Mountain Geologist*, v. 40, no. 4, p. 129-141.
- Rogers, J.P., and M.W. Longman (eds.), 2001, Chert reservoirs of North America: *AAPG Bulletin*, v. 89, no. 1, 199 p. (including J.P. Rogers and M.W. Longman, 2001, An introduction to chert reservoirs of North America, v. 89, no. 1, p. 1-7).
- Landon, S.M., M.W. Longman, and B.A. Luneau, 2001, Hydrocarbon source rock potential of the Upper Cretaceous Niobrara Formation, Western Interior Seaway of the Rocky Mountain Region: *The Mountain Geologist*, v. 38, no. 1, p. 1-18.
- Longman, M.W., R. Bogle, and E. L. Single, 1998, Lantry Field, South Dakota: An Odd Red River Reservoir on the Southeast Flank of the Williston Basin: Eighth International Williston Basin Symposium, Saskatchewan Geological Society, Special Publication No. 13, p. 14-23.
- Longman, M.W., B.A. Luneau, and S.M. Landon, 1998, Nature and Distribution of Niobrara Lithologies in the Cretaceous Western Interior Seaway of the Rocky Mountain Region: *The Mountain Geologist* (Rocky Mountain Association of Geologists, Denver; received "Best Paper Award" from RMAG in 1998), v. 35, no. 4, p. 137-170.
- Longman, M.W., and M.D. Sonnenfeld (eds), 1996, Paleozoic Systems of the Rocky Mountain Region: *Rocky Mountain Section, SEPM*, 444 p.
- Longman, M.W., and F.M. Haidl, 1996, Cyclic deposition and development of porous dolomites in the Ordovician Red River Formation, Williston Basin: in *Paleozoic Systems of the Rocky Mountain Region: Rocky Mountain Section, SEPM*, p. 29-46.
- Dykstra, J.C.F., and M.W. Longman, 1995, Gas reservoir potential of the Lower Ordovician Beekmantown Group, Quebec Lowlands, Canada: *AAPG Bulletin*, v. 79, no. 4, p. 513-530.

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PARTIAL LIST OF PUBLICATIONS (continued)

- Rogers, J. P., M. W. Longman, and R. M. Lloyd, 1995, Spiculitic chert reservoir in Glick Field, South-Central Kansas: The Mountain Geologist, Rocky Mountain Association of Geologists, v. 32, no. 1, p. 1-22 (received "Best Paper Award " in 1995).
- Longman, M.W., 1993, Southeast Asian Tertiary Carbonate Reservoirs: Multi-client Report for Petroconsultants, 2 Volumes, 410 pages.
- Longman, M. W., T. G. Fertal, and J. Stell, 1992, Reservoir performance in Ordovician Red River Formation, Horse Creek and South Horse Creek Fields, Bowman County, North Dakota: AAPG Bulletin, v. 76, no. 4, p. 449-467.
- Garfield, T.R., and M.W. Longman, 1989, Depositional variations in the Fusselman Formation, central Midland Basin, West Texas: in B. K. Cunningham and D. W. Cromwell, eds., The lower Paleozoic of West Texas and southern New Mexico - Modern Exploration Concepts: SEPM, Permian Basin Section, Publication #89-31, p. 187-202.
- Goolsby, S.M., and M.W. Longman, (eds.), 1988, Occurrence and Petrophysical Properties of Carbonate Reservoirs in the Rocky Mountain Region: Rocky Mountain Association of Geologists 1988 Symposium, Denver, 462 p.
- Longman, M. W., R. J. Maxwell, A. D. M. Mason, and L. R. Beddoes, 1987, Characteristics of a Miocene intrabank channel in Batu Raja Limestone, Ramba Field, South Sumatra, Indonesia: AAPG Bulletin, v. 71, no. 10, p. 1261-1273.
- Longman, M. W., and S. E. Palmer, 1987, Organic geochemistry of Mid-Continent Middle and Late Ordovician oils: AAPG Bulletin, v. 71, no. 8, p. 938-950.
- Longman, M. W. (ed.), 1987, Williston Basin: Anatomy of a Cratonic Oil Province: Rocky Mountain Association of Geologists 1987 Symposium, Denver, 440 p.
- Longman, M.W., K.W. Shanley, R.F. Lindsay, and D.E. Eby (eds.), 1985, Rocky Mountain Carbonate Reservoirs: A Core Workshop, SEPM Core Workshop No. 7 (Golden, Colorado, Aug. 10-11, 1985), 482 p.
- Longman, M.W., and K.H. Schmidtman, 1985, Deposition and diagenesis of the Mississippian Charles "C" (Ratcliffe) reservoir in Lustre Field, Valley County, Montana: In M.W. Longman, K.W. Shanley, R.F. Lindsay, and D.E. Eby (eds.), Rocky Mountain Carbonate Reservoirs: A Core Workshop, SEPM Core Workshop No. 7, p. 130-145.

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Longman, M. W., 1981, A process approach to recognizing facies of reef complexes: in D. F. Toomey (ed.), European Fossil Reef Models, SEPM Special Pub. 30, p. 9-40.

Longman, M. W., 1980, Carbonate diagenetic textures from nearsurface diagenetic environments: AAPG Bulletin, v. 64, no. 4, p. 461-487.