

Bibliography of Oklahoma Coalbed Methane

Brian J. Cardott
Oklahoma Geological Survey

- Andrews, R.D., B.J. Cardott, and T. Storm, 1998, The Hartshorne play in southeastern Oklahoma: regional and detailed sandstone reservoir analysis and coalbed-methane resources: OGS Special Publication 98-7, 90 p.
- Biddick, M.A., 1999, An economic evaluation of the Hartshorne coalbed methane play in Oklahoma (abstract): AAPG Bulletin, v. 83, p. 1193.
- Biddick, M.A., 1999, Hartshorne CBM play in Oklahoma: selected production and economic viability, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 6-99, p. 88-114.
- Biddick, M.A., 2000, Hartshorne CBM play in Oklahoma: selected production and economic viability, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 2-2000, p. 52-81.
- Bruce, P., and J.F. Sinclair, 2005, Coalbed methane horizontal drilling case study—Weir-Pittsburg coal seam, Osage County, Oklahoma (abstract): 2005 AAPG Mid-Continent Section Meeting, Final Announcement and Meeting Program, p. 27.
- Cardott, B.J., 1999, Oklahoma coalbed methane — from mine explosion to gas resource, *in* D.F. Merriam, ed., Geoscience for the 21st century: Transactions of the AAPG Midcontinent Section Meeting, p. 108-113.
- Cardott, B.J., 1999, Coalbed methane activity in Oklahoma, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 6-99, p. 47-66.
- Cardott, B.J., 2000, Coalbed methane activity in Oklahoma, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 2-2000, p. 13-35.
- Cardott, B.J., 2001, Oklahoma coalbed-methane completions, 1988 to 1996, *in* K.S. Johnson, ed., Pennsylvanian and Permian geology and petroleum in the southern Midcontinent, 1998 symposium: OGS Circular 104, p. 81-85.
- Cardott, B.J., 2001, An update of Oklahoma coalbed-methane activity (abstract): AAPG Bulletin, v. 85, p. 1691.
- Cardott, B.J., 2001, Introduction to coal as gas source rock and reservoir, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 1-27.
- Cardott, B.J., 2001, Coalbed-methane activity in Oklahoma, 2001, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 93-118.
- Cardott, B.J., 2002, Coalbed methane development in Oklahoma, *in* S.D. Schwochow and V.F. Nuccio, eds., Coalbed methane of North America, II: Rocky Mountain Association of Geologists, p. 83-98.
- Cardott, B.J., 2002, Introduction to coal geology of Oklahoma, *in* B.J. Cardott, compiler, Fourth annual Oklahoma coalbed-methane workshop: OGS Open-File Report 9-2002, p. 34-55.
- Cardott, B.J., 2002, Coalbed-methane activity in Oklahoma, 2002 update, *in* B.J. Cardott, compiler, Fourth annual Oklahoma coalbed-methane workshop: OGS Open-File Report 9-2002, p. 56-82.
- Cardott, B.J., and M.A. Biddick, 2003, Coalbed methane: economic success in the Arkoma Basin, Oklahoma (abstract): AAPG Mid-Continent Section

- Meeting, Official Program Book, p. 26. (Oklahoma Geology Notes, v. 63, p. 122)
- Cardott, B.J., 2005, Coalbed-methane activity in Oklahoma, 2004 update, *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 69-81.
- Coates, J., 2003, A review of coalbed methane operational issues in the Cherokee Basin, Kansas and Oklahoma: a case study (abstract): AAPG Mid-Continent Section Meeting, Official Program Book, p. 28. (Oklahoma Geology Notes, v. 63, p. 97)
- Diamond, W.P., 1979, Evaluation of the methane gas content of coalbeds: part of a complete coal exploration program for health and safety and resource evaluation, *in* G.O. Argall, Jr., ed., Coal exploration, v. 2: Denver, Proceedings of the second International Coal Exploration Symposium, p. 211-227. (Hartshorne coal, Howe mine)
- Diamond, W.P., 1982, Site-specific and regional geologic considerations for coalbed gas drainage: U.S. Bureau of Mines Information Circular 8898, 24 p. (Hartshorne coal)
- Diamond, W.P., J.C. LaScola, and D.M. Hyman, 1986, Results of direct-method determination of the gas content of U.S. coalbeds: U.S. Bureau of Mines Information Circular 9067, 95 p. (Lower Hartshorne coal)
- Diamond, W.P., A.T. Iannacchione, D.G. Puglio, and P.F. Steidl, 1988, Geologic studies of gassy coalbeds, *in* M. Deul and A.G. Kim, Methane control research: summary of results, 1964-80: U.S. Bureau of Mines Bulletin 687, p. 41-78. (Hartshorne coal, p. 65-72)
- Eakin, J.L., III, 2002, What your momma never told you about coal seams, *in* B.J. Cardott, compiler, Fourth annual Oklahoma coalbed-methane workshop: OGS Open-File Report 9-2002, p. 129-133.
- Forgotson, J.M., and S.A. Friedman, 1993, Arkoma basin (Oklahoma) coal-bed methane resource base and development (abstract): AAPG Annual Convention Official Program, p. 103.
- Friedman, S.A., 1982, Determination of reserves of methane from coal beds for use in rural communities in eastern Oklahoma: OGS Special Publication 82-3, 32 p.
- Friedman, S.A., 1989, Coal-bed methane resources in Arkoma basin, southeastern Oklahoma (abstract): AAPG Bulletin, v. 73, p. 1046.
- Friedman, S.A., 1991, Fracture and structure of principal coal beds related to coal mining and coalbed methane, Arkoma basin, eastern Oklahoma: AAPG EMD trip 2, AAPG Annual Convention, Dallas, Texas.
- Friedman, S.A., 1997, Coal-bed methane resources and reserves of Osage County, Oklahoma (abstract): AAPG Bulletin, v. 81, p. 1350.
- Friedman, S.A., 1999, Coal geology and underground-mine degasification applied to horizontal drilling for coal-bed methane (abstract): AAPG Bulletin, v. 83, p. 1196-1197.
- Friedman, S.A., 1999, Cleat in Oklahoma coals, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 6-99, 4 p.
- Friedman, S.A., 2001, Cleats in coals of eastern Oklahoma (abstract): AAPG Bulletin, v. 85, p. 1692-1693.
- Godwin, C.J., 2004, Electrofacies, depositional environments, and petroleum geology of the Hartshorne Formation, part of Hughes and Pittsburg Counties, Oklahoma: Stillwater, Oklahoma State University, unpublished M.S. thesis, 209 p.

- Gossling, J.M., 1994, Coalbed methane potential of the Hartshorne coals in parts of Haskell, Latimer, LeFlore, McIntosh, and Pittsburg Counties, Oklahoma: Norman, University of Oklahoma, unpublished M.S. thesis, 155 p.
- GRI, 1991, Cherokee basin, Kansas and Oklahoma: Quarterly Review of Methane from Coal Seams Technology, v. 8, no. 2, p. 2.
- GRI, 1992, Arkoma basin, Oklahoma and Arkansas: Quarterly Review of Methane from Coal Seams Technology, v. 9, nos. 3-4, p. 2.
- GRI, 1992, Cherokee basin, Kansas and Oklahoma: Quarterly Review of Methane from Coal Seams Technology, v. 9, nos. 3-4, p. 5.
- Hall, R.V., and J.G. Cole, 2005, Problems in coal nomenclature used by the CBM industry in the northeast Oklahoma shelf: part 1 – the lower part of the Krebs Group (abstract): 2005 AAPG Mid-Continent Section Meeting, Final Announcement and Meeting Program, p. 26.
- Hatch, J.R., 1992, Hydrocarbon source-rock evaluation of Desmoinesian (Middle Pennsylvanian) coals from part of the Western Region of the Interior Coal Province, U.S.A. (abstract): AAPG 1992 Annual Convention Official Program, p. 53.
- Hemish, L.A., 2000, Coal stratigraphy of the northeast Oklahoma shelf area, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 2-2000, p. 1-12.
- Hemish, L.A., 2001, Coal stratigraphy of the northeast Oklahoma shelf area, with an overview of Arkoma basin coal geology, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 72-92.
- Hemish, L.A., 2002, Surface to subsurface correlation of methane-producing coal beds, northeast Oklahoma shelf: OGS Special Publication 2002-2, 22 p.
- Hill, D.G., C.R. Nelson, and C.F. Brandenburg, 1999, Changing perceptions regarding the size and production potential of coalbed methane resources, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 6-99, p. 1-11.
- Hinshaw, G.C., 2002, Bluejacket to Bartlesville, Oklahoma: surface to subsurface, *in* D.T. Boyd, ed., Finding and producing Cherokee reservoirs in the southern Midcontinent, 2002 symposium: OGS Circular 108, p. 213-225.
- Iannacchione, A.T., and D.G. Puglio, 1979, Methane content and geology of the Hartshorne coalbed in Haskell and Le Flore Counties, Oklahoma: U.S. Bureau of Mines Report of Investigations 8407, 14 p.
- Iannacchione, A.T., and D.G. Puglio, 1979, Geological association of coalbed gas and natural gas from the Hartshorne Formation in Haskell and Le Flore Counties, Oklahoma, *in* A.T. Cross, ed., Compte Rendu, v. 4, Economic geology: coal, oil, and gas: IXICC, Carbondale, Southern Illinois University Press, p. 739-752.
- Iannacchione, A.T., C.A. Kertis, D.W. Houseknecht, and J.H. Perry, 1983, Problems facing coal mining and gas production in the Hartshorne coalbeds of the western Arkoma basin, Oklahoma: U.S. Bureau of Mines Report of Investigations 8795, 25 p.
- Iannacchione, A.T., and D.W. Houseknecht, 1984, Methane production potential from the Hartshorne coalbeds in the deep portions of Pittsburg, Coal, and Hughes Counties, Oklahoma (abstract), *in* J.G. Borger, II, ed., Technical Proceedings of the 1981 AAPG Mid-Continent Regional Meeting: Oklahoma City Geological Society, p. 172.

- ICF Resources, Inc., 1990, The United States coalbed methane resource: Quarterly Review of Methane from Coal Seams Technology, v. 7, no. 3, p. 10-28. (Arkoma basin, 4 tcf, p. 12)
- Irani, M.C., E.D. Thimons, T.G. Bobick, M. Deul, and M.G. Zabetakis, 1972, Methane emission from U.S. coal mines, a survey: U.S. Bureau of Mines Information Circular 8558, 58 p. (Howe mine emissions)
- Irani, M.C., P.W. Jeran, and M. Deul, 1974, Methane emission from U.S. coal mines in 1973, a survey. A supplement to IC 8558: U.S. Bureau of Mines Information Circular 8659, 47 p. (Choctaw mine emissions)
- Jacobs, L., and K. Peterson, 1996, Coalbed methane study — Osage Mineral Estate, Osage County, Oklahoma: Pawhuska, Oklahoma, Osage Indian Agency report.
- Kemp, R.G., D.B. Nixon, N.A. Newman, and J.P. Seidle, 1993, Geologic controls on the occurrence of methane in coal beds of the Pennsylvanian Hartshorne Formation, Arkoma basin, Oklahoma (abstract): AAPG Mid-Continent Section meeting, AAPG Bulletin, v. 77, p. 1574.
- Kim, A.G., 1973, The composition of coalbed gas: U.S. Bureau of Mines Report of Investigations 7762, 9 p. (Lower Hartshorne coal, Heavener)
- Kissell, F.N., 1972, The methane migration and storage characteristics of the Pittsburgh, Pocahontas no. 3, and Oklahoma Hartshorne coalbeds: U.S. Bureau of Mines Report of Investigations 7667, 22 p.
- Kissell, F.N., C.M. McCulloch, and C.H. Elder, 1973, The direct method of determining methane content of coalbeds for ventilation design: U.S. Bureau of Mines Report of Investigations 7767, 17p. (Hartshorne coal, p. 7-9, 12, 15)
- Knollenberg, P.S., 1999, TEC pioneers Oklahoma coal gas play: American Oil & Gas Journal, v. 42, no. 12, p. 81-82.
- Marshall, R., 2001, Midcontinent evolving coalbed methane completion techniques and practices, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 140-150.
- Matthews, C.B., 2005, Horizontal drilling the Lower Hartshorne coal, Arkoma Basin, Oklahoma: techniques and results, *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 117-122.
- McCulloch, C.M., J.R. Levine, F.N. Kissell, and M. Deul, 1975, Measuring the methane content of bituminous coalbeds: U.S. Bureau of Mines Report of Investigations 8043, 22 p. (Hartshorne coal lost gas curve p. 19)
- Murrie, G.W., 1977, Coal and gas resources of the Lower Hartshorne coalbed in Le Flore and Haskell Counties, Oklahoma (abstract): GSA Abstracts with Programs, v. 9, no. 1, p. 65-66.
- Nelson, C.R., and T.J. Pratt, 2001, In coalbed gas plays, reservoir variables key to success: American Oil & Gas Reporter, v. 44, no. 3, p. 78-87. (compares Arkoma basin with four CBM basins)
- O'Connor, D., 2001, Arkoma basin coalbed methane: overview and discussion of successes and failures, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 151.
- Peterson, K., and L.M. Jacobs, 1997, Coalbed methane, a viable resource — Osage Mineral Estate: OCGS Shale Shaker, v. 48, p. 67-78.
- Pratt, T., T. Lombardi, W. Drexler, L. Baez, and M. Mavor, 2004, Geologic assessment of natural gas from coal seams in the Western Interior Coal Region, USA: Des Plaines, Illinois, Gas Technology Institute, GRI-04-0054, 146 p.
- Pratt, T., and M. Mavor, 2005, An overview of coal gas reservoir properties: core holes from Western Interior Coal Region, *in* B.J. Cardott, ed.,

- Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 83-103.
- Rice, D.D., 1996, Geologic framework and description of coalbed gas plays, *in* D.L. Gautier and others, eds., 1995 National assessment of United States oil and gas resources -- results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30, release 2, CD-ROM.
- Rice, D.D., G.B.C. Young, and G.W. Paul, 1996, Methodology for assessment of technically recoverable resources of coalbed gas, *in* D.L. Gautier and others, eds., 1995 National assessment of United States oil and gas resources -- results, methodology, and supporting data: U.S. Geological Survey Digital Data Series DDS-30, release 2, CD-ROM.
- Rieke, H.H., 1980, Geologic overview of coal and coalbed methane resources of the Arkoma basin, Arkansas and Oklahoma: Arkoma basin report by TRW, GRI contract no. 5011-321-0101, variously paginated.
- Rieke, H.H., and J.N. Kirr, 1984, Geologic overview, coal, and coalbed methane resources of the Arkoma basin - Arkansas and Oklahoma, *in* C.T. Rightmire, G.E. Eddy, and J.N. Kirr, eds., Coalbed methane resources of the United States: AAPG Studies in Geology 17, p. 135-161.
- Ringhisen, J.A., 2002, Eastern Arkoma Basin coalbed-methane completions – a different perspective, *in* B.J. Cardott, compiler, Fourth annual Oklahoma coalbed-methane workshop: OGS Open-File Report 9-2002, p. 111-116.
- Schwochow, S.D., and S.H. Stevens, eds., 1993, Coalbed methane – state of the industry: Quarterly Review of Methane from Coal Seams Technology, v. 11, no. 1, 52 p. (Western Interior coal region (Arkoma, Cherokee, and Forest City basins, p. 43-48).
- Scott, A.R., 2001, Coalbed methane potential and exploration strategies for the Mid-Continent region (abstract): AAPG Bulletin, v. 85, p. 1695.
- Scott, A.R., 2001, A coalbed methane exploration model: application to the Cherokee, Forest City, and Arkoma basins, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 28-43.
- Shirley, K., 2000, Independents big on coalbed methane: The American Oil & Gas Reporter, v. 43, no. 3, p. 74-81. (Arkoma basin, Hartshorne, p. 79-81)
- Sinclair, J.F., 2005, Coalbed-methane potential in Osage County, Oklahoma (abstract), *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 105.
- Sisson, S.N., 2001, Hartshorne coalbed-methane economics in Oklahoma, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, appendix.
- Stevens, S.H., and L.D. Sheehy, 1993, Western Interior coal region (Arkoma, Cherokee, and Forest City basins): Gas Research Institute, Quarterly Review of Methane from Coal Seams Technology, v. 11, no. 1, p. 43-48.
- Stoekinger, W.T., 2000, Coalbed methane completion practices on the Cherokee Platform, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 2-2000, p. 36-51.
- Tedesco, S.A., 2003, Coalbed methane in the Western Interior Basin, *in* Emerging coalbed methane plays of North America, part 2: Petroleum Frontiers, v. 18, no. 4, p. 11-25.
- Tedesco, S.A., 2003, Exploration strategies for coal bed methane in the Western Region of the Interior Coal Province (abstract): AAPG Mid-Continent Section Meeting, Official Program Book, p.44. (Oklahoma Geology Notes, v. 63, p. 122)

- Tedesco, S.A., 2004, Coalbed methane potential and activity of the Western Interior Basin: AAPG Search and Discovery article #10059 (<http://www.searchanddiscovery.net/>).
- Tedesco, S.A., 2005, Reservoir characterization of coals and carbonaceous shales in the western region of the Pennsylvanian-age Interior Coal Province (abstract), *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 133.
- Weatherl, B.D., 2005, Using traditional completion practices to optimize horizontal CBM wells in the Hartshorne coal, Arkoma Basin, Oklahoma (abstract), *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 115.
- Wendell, J.H., Jr., 2001, Arkoma basin coalbed-methane potential and practices, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop 2001: OGS Open-File Report 2-2001, p. 119-139.
- Wendell, J.H., Jr., 2002, Arkoma Basin coalbed methane—potential and practices, *in* B.J. Cardott, ed., Revisiting old and assessing new petroleum plays in the southern Midcontinent, 2001 symposium: OGS Circular 107, p. 87-100.
- Wendell, J.H., Jr., 2003, Coalbed methane: smaller operations and economic analysis can improve potential profit (abstract): AAPG Mid-Continent Section Meeting, Official Program Book, p. 45.
- Wendell, J.H., Jr., 2005, Coalbed methane: what makes for economic success in the Arkoma Basin—methods and economics, *in* B.J. Cardott, ed., Unconventional energy resources in the southern Midcontinent, 2004 symposium: Oklahoma Geological Survey Circular 110, p. 107-114.
- Wight, D.R., 2003, Unconventional drilling methods for unconventional reservoirs (abstract): AAPG Mid-Continent Section Meeting, Official Program Book, p. 45.
- Wilkins, B., 1999, Coalbed methane completion practices in Oklahoma, *in* B.J. Cardott, compiler, Oklahoma coalbed-methane workshop: OGS Open-File Report 6-99, p. 71-87.
- Williams, P., 2002, Coalbed methane in the Cherokee basin: Oil and Gas Investor, v. 22, no. 2, p. 49-51.
- Williams, P., 2005, Hartshorne horizontals: Oil and Gas Investor, v. 25, no. 5, p. 51-53.
- Young, D.P., and T.J. Pratt, 2005, Coal gas reservoir assessment—WIC Region: GasTIPS, v. 11, no. 1, p. 9-13.