



# Shale Shaker

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**Geological Characterization Of The  
Woodford Shale, McAlester Cemetery Quarry,  
Oklahoma;**

**Outcrop to Subsurface: A Look At A  
Giant Oil Accumulation;**

**2012 Update Of Southern Mid-Continent  
Theses And Dissertations;**

**And Much More.**



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**About the Cover**

Michael Root creates the covers of the Shale Shaker. His cover for this Issue utilizes an image provided from [www.fossilpictures.wordpress.com](http://www.fossilpictures.wordpress.com). The web site presents pictures of fossils from around the world that can be searched by formation, age, and locality.



## 2012 Update Of Southern Mid-Continent Theses And Dissertations



This brief paper is the third in a series listing all of the geology and geophysics theses and dissertations released by Oklahoma's three major universities in the last year through September 1, 2012. This paper also includes the titles of theses and dissertations from major area universities of interest to southern mid-continent petroleum geologists. I also describe how individuals can search university library websites for unpublished student work at these universities. Many universities now make students theses available online and others allow individuals to borrow theses through interlibrary loan. Student theses may be a valuable source of new data on

a variety of topics of interest to petroleum geologists, but they are often overlooked.

The following universities are included in this list:

University of Tulsa  
 Oklahoma State University  
 University of Oklahoma  
 University of Arkansas, Fayetteville  
 University of Kansas  
 Kansas State University  
 Texas Christian University  
 University of Texas at Dallas

Note: 1) The bold letters shown in the list

are mine. 2) Thesis searches at university library websites can typically be limited to certain dates using sort boxes or drop-down menus.

**University of Tulsa**



<http://www.utulsa.edu/mcfarlin/>  
 Click on "Classic Catalog" towards the center.  
 Under "Keyword" (top left), click on "Subject."  
 Type in "geosciences," click on "Submit."  
 For Ph.D. dissertations, click on "Geosciences Dissertation."

Under “System Sorted” at top, click on “Newest First,” then click on “Sort.”  
For MS theses, click on “Geosciences Thesis.”

Under “System Sorted” at top, click on “Newest First,” then click on “Sort.”

Althagafy, Marwan M., 2012, Predicting subsurface fracture system using surface fracture data in **Osage County**, Oklahoma. MS.

Rush, Natalie K., 2012, Upper Albian sequence stratigraphy and geochemical events in the Chihuahua Trough, south-central New Mexico. MS.

Elsteil, Mohamed O., 2011, Determination of in-situ minimum horizontal stress in **Woodford Shale** Formation from non-sonic logs in the **Arkoma Basin**, Oklahoma. MS.

Johnson, Ashley D., 2011, Differentiation of magmas within the southern Valu Fa Ridge segment, Lau Basin, Kingdom of Tonga. MS.

## Oklahoma State University



<http://www.library.okstate.edu/>

Under “Find Books” towards the middle, click on “Catalog (Advanced).”

In the Search three boxes, type in “geology,” “thesis,” and “Oklahoma State University.”

Next to the third (lowest) box, click on “all of these” in the dropdown box.

Click “Search.”

Theses, with most recent at the top, come up.

Barnes, Stuart L., 2011, Evaluation of x-ray diffraction of bit cuttings as proxy for core data in determining bulk mineralogy and clay species, **Bakken Formation**, Williston Basin. MS.

Jackson, Kathryn G., 2011, A modern depositional model of the Great Salt Plains and its potential as a climate archive. MS.

Magers, Jessica Shirley, 2011, Occurrence of arsenic in the **Rush Springs Sandstone** and its implications on groundwater chemistry, Caddo County, Oklahoma. MS.

Roden, Jeffrey D., 2011, Structural influence on the evolution of a Pre-Eonile drainage system of southern Egypt: insights from magnetotellurics and gravity data. MS.

Woldearegay, Ammanuel F., 2011, Near-surface seismic imaging using first arrival time inversion with pre-stack depth migration. MS.

Adisa, Olaniyi, 2010, The subsurface distribution and reservoir properties of wireline-log defined depositional cycles in the Atokan **Bend Group**, Denton County, **Fort Worth Basin**, Texas. MS.

Bamijoko, Ayodeji O., 2010, Spectrometry and geochemical investigation of selected outcrops of the **Chattanooga Shale** in the Ozark region of North America. MS.

Mosley, Kelsey S., 2010, Geophysical characterization of faults of the Okavango Rift Zone, northwest Botswana, Africa. MS.

Rahi, Khayyun A., 2010, Estimating the hydraulic parameters of the **Arbuckle – Simpson aquifer** by analysis of naturally-induced stress. Ph.D.

Troiani, Benjamin T., 2010, An investigation of changing wind energy on the evolution of Copanobay, Texas. MS.

## University of Oklahoma



<http://libraries.ou.edu/>

Scroll over “Resources” on left, click on “Catalog.”

Click on “Switch to Advanced Search.”

Type “geology {690} and Oklahoma {502} in first (upper) entry box.

Click on “Search.”

All theses and dissertation with most recent at top.

Boneh, Yuval, 2012, Wear and gouge along faults: experimental and mechanical analysis. MS.

Cadena Mendoza, Andrea F., 2012, Middle Miocene – Holocene stratigraphic evolution of the Magdalena submarine fan: implications for deepwater architectural elements distribution in a tectonically active basin, offshore Colombia. MS.

Guo, Shiguang, 2012, Noise suppression using preconditioned least-square prestack time migration and imaging of Mississippian limestone. MS.

Gupta, Nabanita, 2012, Multi-scale characterization of the **Woodford Shale** in west-central Oklahoma: from scanning electron microscope to 3D seismic. Ph.D.

Guttery, Brandon M., 2012, The stability field and conditions of formation of el-baite. MS.

Jordan, Ryan C., 2012, Characterizing molluscan shell accumulations: depositional and taphonomic variations on the northern Luiche River platform. MS.

Kilian, Brian J., 2012, Sequence stratigraphy of the **Woodford Shale, Anadarko Basin**, Oklahoma: implications on regional Woodford target correlation. MS.

- Liao, Zonghu, 2012, Dynamic strengthening at high-velocity shear experiments. MS.
- Moss, David K., 2012, Trilobite faunas and facies of the Upper Ordovician (Sandbian) Lebanon Limestone, Nashville Dome, Tennessee. MS.
- Newman, Justin K., 2012, Origin and significance of conglomerates in the southwest corner of the **Arkoma Basin**, Oklahoma. MS.
- Pritchett, Brittany N., 2012, Effects of activity of water on the dissolution of jarosite. MS.
- Rodriguez Maiz, Norelis del V., 2012, Source rock facies characterization from organic geochemistry in the Central Sumatra Basin, Indonesia. Ph.D.
- Shiguang, Guo, 2012, Noise suppression using preconditioned least-squares prestack time migration and imaging of **Mississippian Limestone**. MS.
- Yalcin, Bora, 2012, Tectonic evolution and basin analysis of the Hanover Block in western Jamaica. MS.
- Amoyelo, Sunday O., 2011, Production-induced changes in reservoir geomechanics. Ph.D.
- Badra, Henry, 2011, Field characterization and analog modeling of natural fractures in the **Woodford Shale**, southeast Oklahoma. MS.
- Cabrales-Vargas, Alejandro, 2011, Suppression of aliasing artifacts on 3D land data via constrained least-squares migration. MS.
- Cataldo, Ernesto D., 2011, Removing footprint from legacy seismic data volumes. MS.
- Cleveland, Matthew V., 2011, Synthesis and geochemistry of tourmaline crystals with high concentrations of Ti, V, Cr, Mn, Cu, and Zn. MS.
- Cox, Catherine, 2011, A controlled-source seismic and gravity study of the High Lava Plains (HLP). MS.
- Davison, Ryan C., 2011, The origin and significance of sandstone injectites within the Pennsylvanian **Jackfork Group** deep-water depositional system. MS.
- Deliktas, Aslihan, 2011, Seismic sequence stratigraphy of Møre Basin, Norwegian sector of the North Sea. MS.
- Deng, John C., 2011, An integrated paleomagnetic, geochemical, and diagenetic study of the Mississippian **Barnett Shale**, **Fort Worth Basin**, Texas. MS.
- Evans, Stacey C., 2011, Remagnetization of the Alamo Breccia, Nevada. MS.
- Gainey, Seth R., 2011, Kinetics of methane hydrate formation and dissociation under Mars-relevant conditions. MS.
- Hamilton, Evan M., 2011, Paleomagnetic and petrological investigation of Long Mountain Granite, **Wichita Mountains**, Oklahoma. MS.
- Liu, Shanshan, 2011, Geochemical characterization and comparison of condensates from the **Barnett Shale**, **Fort Worth Basin**, Texas and the **Woodford Shale**, **Arkoma Basin**, Oklahoma. MS.
- Mace, Christopher G., 2011, Two phase regional deformation within the Puget Lowland. MS.
- Magoon, Andrea M., 2011, Sequence stratigraphic framework of the **Caney Shale**, **Arkoma Basin**, southeastern Oklahoma. MS.
- Manning, Earl B., 2011, An integrated paleomagnetic, rock magnetic, and diagenetic study of the **Marcellus Shale** within the Valley and Ridge Province of Pennsylvania and West Virginia. MS.
- Pack, Levi B.M., 2011, Facies control on production in the **Jackfork Group**, Latimer and Pushmataha Counties, Oklahoma. MS.
- Patterson, Elisheva M., 2011, Fluctuating dust in the late Paleozoic ice house: records from an oceanic atoll, Akiyoshi, Japan. MS.
- Paul, Kerry A., 2011, Mineralogy, internal zonation, and thermal history of the Little Three Pegmatite, Ramona, California. MS.
- Root, Margaret J., 2011, The effect of obliquity change on gas hydrate stability zones on Mars. MS.
- Sarkar, Supratik, 2011, Depositional history and reservoir characteristics of structurally confined foredeep turbidites, northern Chicotepec Basin, Mexico. Ph.D.
- Sierra Perez, Rafael, 2011, Integrated geomechanics and geological characterization of the Devonian – Mississippian **Woodford Shale**. MS.
- Stumpf, Allison R., 2011, Chemical weathering in glacial meltwater streams, Wright and Taylor Valleys, Antarctica. MS.
- Templet, Alisan C., 2011, Sedimentologic, geochemical, and detrital zircon data from the Middle Permian **El Reno Group** of northwest Oklahoma: implications for paleogeography and wind patterns of western Pangaea. MS.

Totten, Matthew W., 2011, Electron probe micro-analysis of the **Woodford Shale**, south-central Oklahoma. MS.

Zheng, Majia, 2011, Rock-based characterization of the Lower Silurian Longmaxi gas-shale in the southwest Sichuan Basin, China. MS.

#### University of Arkansas, Fayetteville

Go to <http://libinfo.uark.edu/>

Click on the gray tab labeled “Books.”

Click on the red letters “Library Catalog.”

Click on “Advanced Keyword.”

On the first line, enter “geosciences,” enter “Or” in the dropdown box.

On the second line, enter “geology.” Leave dropdown box as “And.”

On the third line, enter “University of Arkansas.”

Click “Submit.”

Most recent appear at top of list.

Note – this procedure also brings up a couple of non-thesis references.

Cherry, Scott A., 2012, Sequence stratigraphy and depositional systems of the **Mansfield sand**, upper Atoka Formation, **Arkoma Basin**, Arkansas. MS.

Daniels, Terryl G., Jr., 2012, Outcrop investigation of the **Reeds Spring** (Boone, Mississippian) of the Hindsville quarry using terrestrial LiDAR. MS.

Hamlin, Steven, 2012, The paleoecology of a **Morrowan fossil bed**, Washington Mountains, Fayetteville, Arkansas. Honors thesis.

Knight, Lacie, 2012, Stratigraphy and provenance of shallow sandstones encountered in wells in Townships 9 & 10 North, Ranges 6 & 7 West, White County, Arkansas. MS.

O’Keefe, Caroline V., 2012, Data integration and reservoir characterization of the Pennsylvanian **Bartlesville sandstone**. MS.

Keng, Rachel V., 2011, Field-based constraints on the origin of the Benton Uplift, **Ouachita Mountains**. MS.

#### University of Kansas

Go to <http://www.lib.ku.edu/>

Click on “Catalog: books & more” on the left.

Click “Advanced Search.”

In the boxes, enter “geology,” “University of Kansas,” and “thesis.”

Click on “Search.”

To sort by date, use “Sort results by:” dropdown menu.

Nowaczewski, Vincent, 2011, Biomarker and paleontological investigations of the Late Devonian extinctions, **Woodford Shale**, southern Oklahoma. MS.

#### Kansas State University

Go to <http://www.lib.k-state.edu/>

Under the black tab labeled “Research,” click on “Catalog.”

Click on “Guided Keyword.”

In the next three boxes, enter “geology,” “thesis,” and “Kansas State University.”

Click on “Search.”

Can sort by date using “Sort by:” dropdown menu on left.

Alsalam, Mohammed S., 2012, Low frequency seismic signals lead to hydrocarbon indication and monitoring tool. MS.

Cashman, Amanda L., 2011, Depositional environment analysis of the Pennsylvanian mid-continent **Tonkawa sandstone**. MS.

Isham, Randi J.L., 2012, Integration of in situ and laboratory velocity measurements: analysis and calibration for rock formation characterization. MS.

Ohl, Derek R., 2012, Rock formation characterization for carbon dioxide geo-sequestration: 3D seismic amplitude and coherency anomalies, and seismic petrophysical facies classification, Wellington and Anson-Bates fields, Sumner County, Kansas, USA. MS.

#### Texas Christian University

Go to <http://library.tcu.edu/>

Under “Research and Tools,” click on “More.”

Under “Find it,” click on “Advanced library catalog search.”

Under “Format” towards the middle of the purple box, use the dropdown menu and click on “TCU Theses and Dissertations.”

On the top line “Words anywhere,” enter “geology.”

Click on “Search.”

Can sort by date using dropdown menu labeled “Rank.”

Hair, Tyler J., 2012, Constructing a geo-mechanical model of the **Woodford Shale, Cherokee Platform**, Oklahoma, USA. MS.

Kuhn, Joshua K., 2011, Constructing a stratigraphic framework for the Mississippian **Barnett Shale**: northern and central **Fort Worth Basin**, Texas. MS.

Melchior, Maartje L.K., 2012, Assessing sediment dynamics and channel bar response in the Brazos River near Glen Rose, Texas. MS.

Osterlund, Clark H., 2012, The **Barnett Shale** (Mississippian) in the central Midland Basin (Andrews, Ector, Martin, and Midland Counties). MS.

Roberts, Jonathan M., 2012, Petrology, geochemistry and geochronology of volcanic clasts contained in Ordovician strata in the Marathon fold-thrust belt, west Texas. MS.

2012 Update of Southern Mid-Continent Theses and Dissertations, cont.

**University of Texas at Dallas, Richardson**

Go to <http://www.utdallas.edu/library/>

Click the large green button on the right labeled "Find Books, Journals, Videos/DVDs, etc."

Click the green tab labeled "Advanced." In the three boxes, enter "geology," "thesis," "University of Texas Dallas." Click on "Search." Can sort by date using "Sort By:" dropdown menu on right.

Harbi, Hussein, 2011, 3D Reservoir analog characterization using GPR. Ph.D.

Orlob, Martin, 2011, Spectral analysis of synthetically affected FR5 absolute gravimeter residuals. Ph.D.

**Biographical Sketch**

Neil Suneson has worked for the Oklahoma Geological Survey since 1986, when he and some colleagues started mapping the frontal belt of the Ouachita Mountains and the southern part of the Arkoma Basin as part of the USGS-sponsored COGEMAP and later STATEMAP programs. After working in the Ouachitas, he did some reconnaissance mapping in northwestern Oklahoma and more detailed mapping in the Oklahoma City metro area.



**Neil Suneson**  
Oklahoma Geological Survey

When the Survey became part of the Mewbourne College of Earth and Energy at OU, more of Neil's time was devoted to teaching (including the School of Geology's summer field camp outside of Cañon City, Colorado) and advising students on their theses. His interests range from the Late Tertiary geology of the Oklahoma Panhandle to the Early Paleozoic geology of the Broken Bow uplift in southeastern Oklahoma and everything in between. He even likes (some) igneous rocks.

Prior to working for the Survey, Neil was a petroleum development geologist with Chevron USA where he worked on the Lost Hills Oilfield. He also worked with Chevron Resources Company in geothermal exploration throughout the western U.S. All his college degrees are in geology. He received a B.A. from Amherst College in 1972, an M.S. from Arizona State University in 1976, and a Ph.D. from the University of California – Santa Barbara in 1980. His dissertation, largely funded by the U.S. Geological Survey, was based on mapping in the highly extended terrane of west-central Arizona.

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