



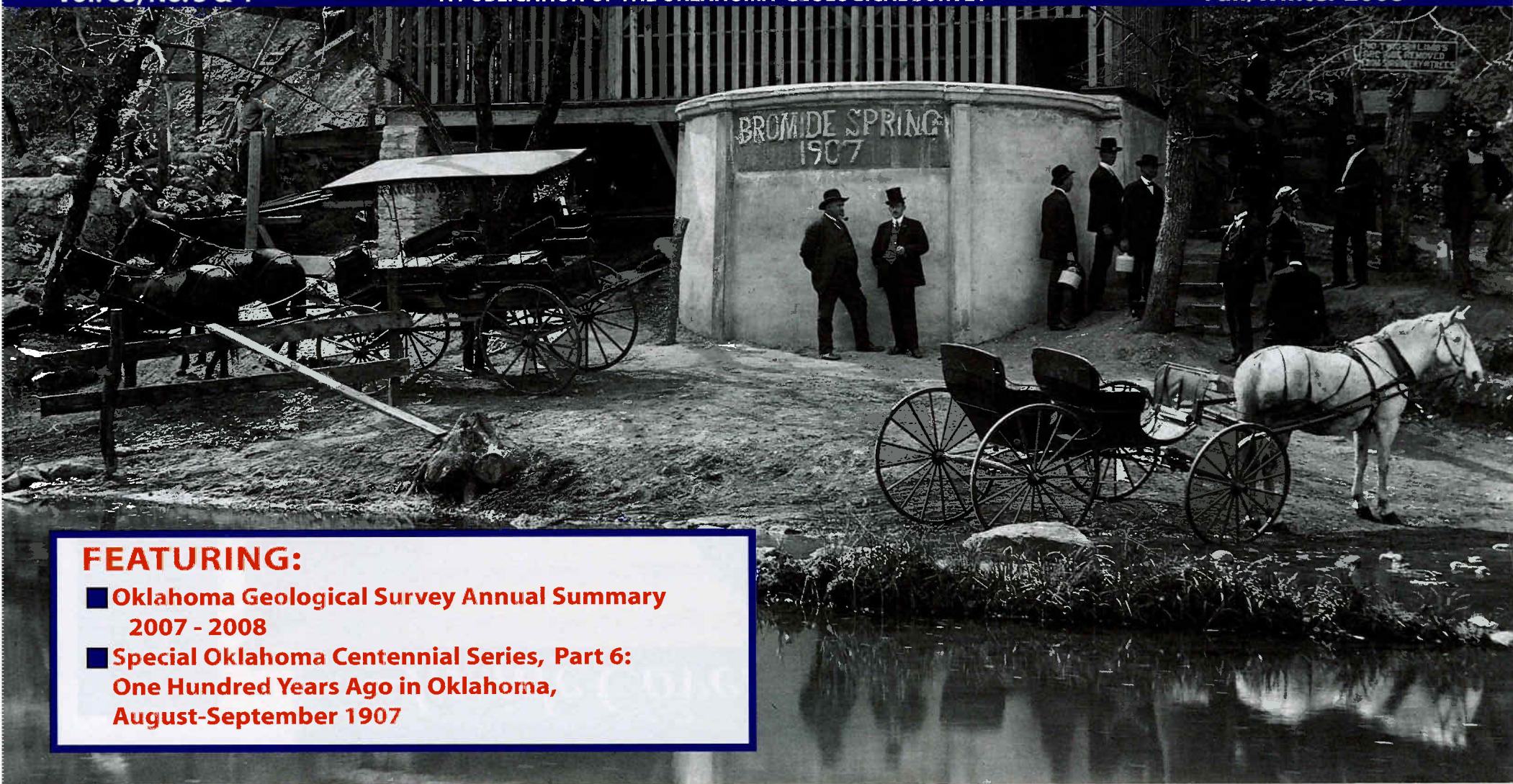
# OKLAHOMA GEOLOGY notes

*The University of Oklahoma*  
MEWBOURNE COLLEGE OF EARTH & ENERGY

Vol. 68, No. 3 & 4

A PUBLICATION OF THE OKLAHOMA GEOLOGICAL SURVEY

Fall/Winter 2008



## FEATURING:

- Oklahoma Geological Survey Annual Summary  
2007 - 2008
- Special Oklahoma Centennial Series, Part 6:  
One Hundred Years Ago in Oklahoma,  
August-September 1907



## —Inside Cover...

*On the Cover:* Mineral-water spring at Platt National Park (now Chickasaw National recreation Area) near Sulphur, Oklahoma. Until fairly recent years people came from all over to drink the sulfurous water and bathe in the springs. *Photo courtesy of Western History Collections, University of Oklahoma.*



The Oklahoma Geological Survey celebrated its Centennial Anniversary with an open house held on November 21, 2008, at the Sarkeys Energy Center. Highlights of our celebration are shown on pages 60-61 of this *Notes* issue. As you can see from the above photo, we took the opportunity to take a picture of the OGS staff for posterity. . . *Photo courtesy of John Williams.*





## Oklahoma Geological Survey

G. RANDY KELLER  
*Director*

### OKLAHOMA GEOLOGY NOTES

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EDITORIAL MATTER: Short articles on aspects of Oklahoma geology are welcome from contributors; please direct questions or requests for general guidelines to the NOTES editor at the address above.

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# Oklahoma Geological Survey

## ANNUAL SUMMARY 2007 — 2008

*(Updated November 2008)*

*Compiled by Connie Smith, OGS Staff*

The Oklahoma Geological Survey celebrated the Centennial of Oklahoma's Statehood and the 100th anniversary of the Survey's inclusion in the Oklahoma Constitution in 2007. Thus, even at Oklahoma's inception, it was evident that natural resources would play an important role in the future of the new state. In 2008, the Survey celebrates its actual 100 years of existence as a working agency.

The Oklahoma Geological Survey is the only such agency mandated in the constitution of a new state. Its mission was, and is, to:

***Investigate the state's land, water, mineral, and energy resources and disseminate the results of those investigations to promote the wise use of Oklahoma's natural resources consistent with sound environmental practices.***



*Dr. G. Randy Keller*

The year 2007 was a landmark for the OGS as Dr. Charles J. Mankin, director since 1967, retired on Oct. 31. During his 40 years at the helm, Dr. Mankin oversaw the growth and expansion of OGS programs, acquired the Oklahoma Geophysical Observatory at Leonard and the Oklahoma Petroleum Information Center in north Norman, and always kept in mind the mission of public service.

The interim director of the Survey is Dr. G. Randy Keller, who holds the Edward Lamb McCollough Chair in Geology and Geophysics in the University of Oklahoma's Conoco Phillips School of Geology and Geophysics. Dr. Keller has taken an active interest in advancing the OGS and ensuring that its core activities continue and expand to reflect current needs and issues.



## Fossil Fuels

OGS oil and gas programs focus on basic studies, public service and outreach, and cooperative efforts with industry and academia. As always, there is great interest in providing key geologic expertise, tracking drilling activity, compiling well data, and providing help to individual property owners.

Survey geologists responded to requests for assistance through e-mail, telephone conversations and sometimes, personal visits. While there were requests for information from business, government or academic sources, many questions came from individuals with mineral rights.

## Petroleum and Natural Gas

**Woodford Shale:** An ongoing and important Woodford Shale study by geologist Richard D. Andrews involves field work, examining Woodford-Sycamore and Woodford-Hunton contacts and relating them to subsurface well logs. Frequently, surface formation boundaries are different than those interpreted in the subsurface using well logs. This work helps validate formation contacts bounding the Woodford Shale.

Detailed gamma-ray and outcrop measurements were

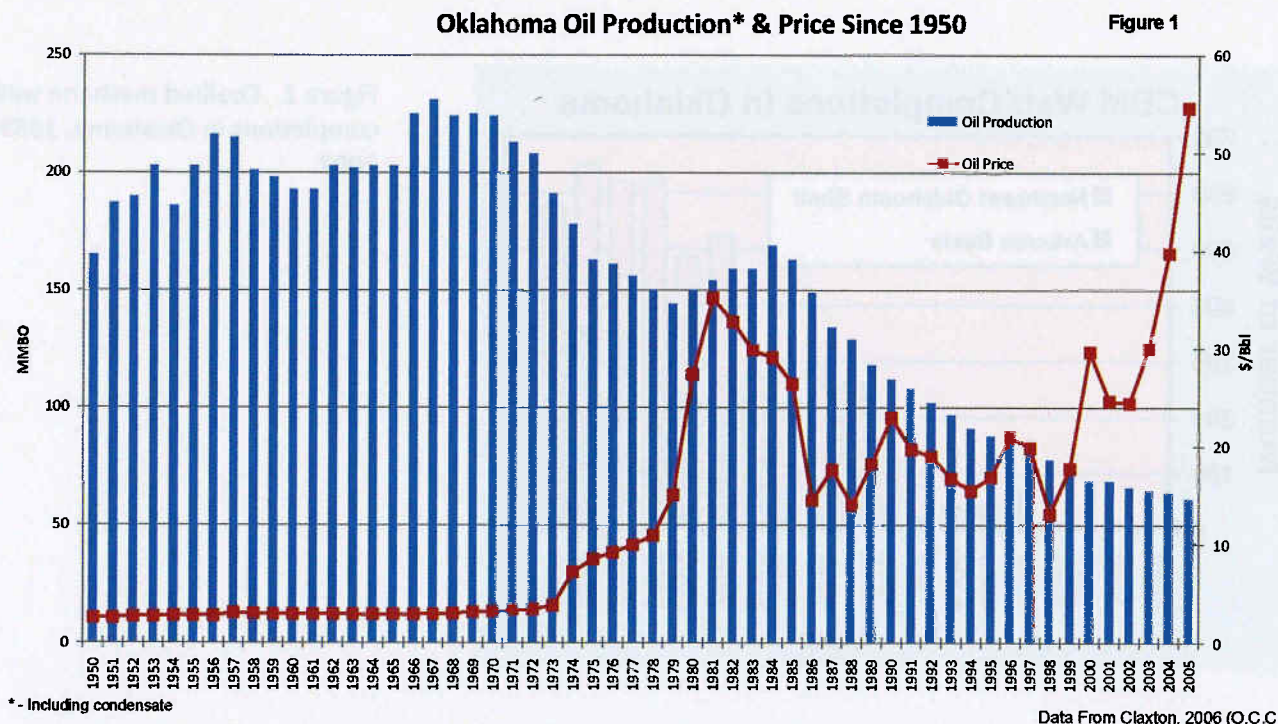
made across 430 ft of Woodford/Sycamore/Hunton strata, including respective formation boundaries. These measurements include all outcrops along the north and south flanks of the Wichita Mountains near I-35. Additionally, production trends and decline curves are being prepared to update information previously reported. This work was presented at the Gas Shale workshop in October.

Andrews presented a number of talks and field trips on this subject during the year. He also helped teach Geology 4233, Subsurface Methods, with OGS geologists Dan T. Boyd and Neil H. Suneson.

**Oklahoma Oil Enhancement Project:** The first part of Boyd's study to determine "ideal" recovery factors for reservoirs by examining class, quality and drive mechanisms is finished and was published in the Oklahoma City Geological Society *Shale Shaker* (Fig. 1), and *Oklahoma Geology Notes*, and is available on the Web.

[www.ogs.ou.edu/pdf/OKultoiloil.pdf](http://www.ogs.ou.edu/pdf/OKultoiloil.pdf)

Boyd concludes that a great opportunity exists in Oklahoma to improve oil recovery from existing fields. His study found that greater access to well and production data could help operators take advantage of a huge, untapped potential in Oklahoma.





His work continues as reservoir classes are being divided into sub-classes, with each assigned target recovery factors. The project's goal is to prompt industry interest in opportunities for more production and induce service companies to make early production data available.

**2007 Oklahoma Drilling Activity:** Boyd gathered data as it arrived through IHS Energy and completed the report as the third in a series. It was published in the *Shale Shaker*, then added to the OGS Web.

## Coal and Gas Shales

Interest in unconventional gas in Oklahoma has increased greatly in recent years. Starting with seven wells to the Hartshorne coal in the Arkoma Basin in 1989, there are now 5,301 records to date in the Oklahoma Coalbed Methane completions database (Fig. 2). The annual peak was 653 wells in 2005. Part of the reduced number for 2007 reflects the lag in reporting completions to the Oklahoma Corporation Commission.

The histogram (Fig. 3) shows an interest in gas shales in Oklahoma that began in 2004, following the success of the Barnett Shale in the Fort Worth Basin in Texas. The application of advanced completion techniques to shales in 2004 resulted in a total of 434 Woodford wells and 58 Caney wells being drilled in 2004–2007. The peak to date occurred in 2007, with 265 Woodford gas shale completions.

Geologist Brian J. Cardott added 187 records to his Gas Shales table that is an important feature of the OGS Web site. The table had 364 records at the end of 2007, and Cardott continues to update the files using 1002A completion reports.

Cardott posted a number of presentations, papers and updated maps on the Web, and organized the Woodford Gas Shale Conference and Field Trip, held in Oklahoma City on May 23, 2008. This workshop had 416 registrants; another 100 people were turned away due to a lack of space.

Cardott and Jane L. Weber, OGS database coordinator, also added coal chemistry data from an in-house open-file database to the analytical tables, and gas field, latitude, and longitude information to the coalbed methane table. See the OGS Web.

[www.ogs.ou.edu/oilgas.php](http://www.ogs.ou.edu/oilgas.php)

Cardott continues to work with vitrinite reflectance analysis of coal samples for subsurface coal rank studies in the Arkoma Basin.

## Geophysical Studies

**Field Study of Micro-Earthquakes During Hydraulic Fracturing:** The OGS is working with Sarkeys Energy Center to monitor hydraulic fracturing. This study involves using

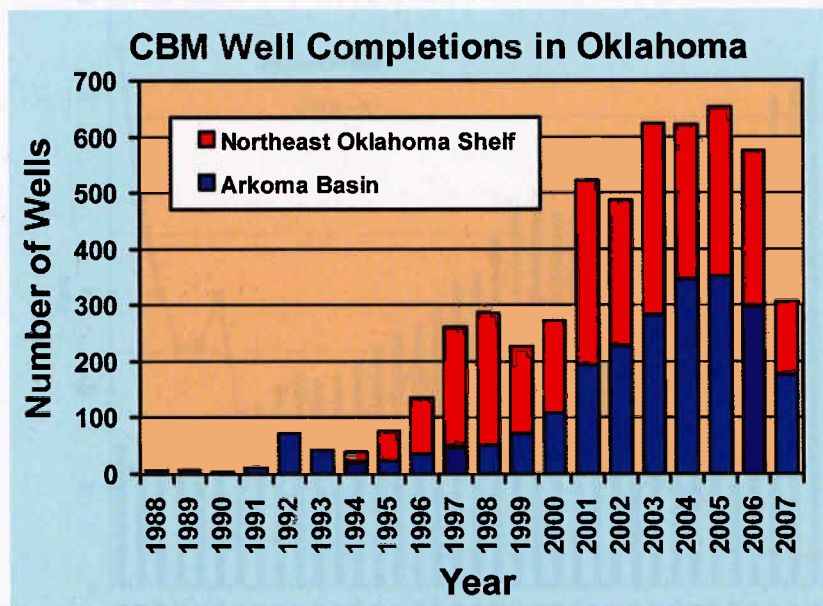
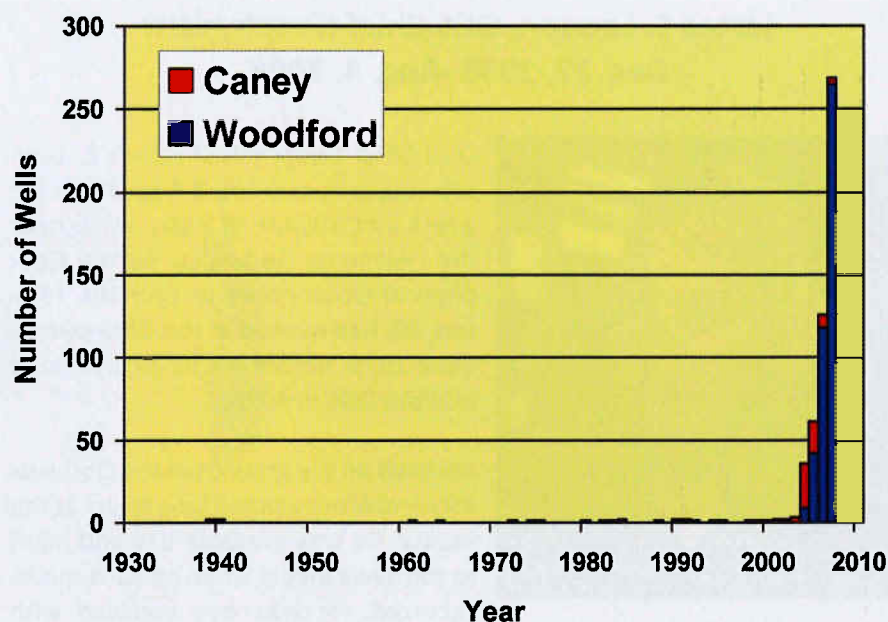


Figure 2. Coalbed methane well completions in Oklahoma, 1988–2007.



Figure 3. Number of Caney and Woodford wells in Oklahoma, 1930–2007.



three-component receivers (geophones) down an adjacent borehole to locate the microearthquakes due to hydraulic fracturing in another well. The locations of the events as well as the magnitude and type of events are then used to estimate important reservoir properties (stress, pore pressure and fracture geometry).

**Oklahoma Geophysical Observatory:** Jim Lawson, chief geophysicist at the OGS Geophysical Observatory near Leonard in northeastern Oklahoma, reported that the OGO recorded 29 earthquakes in 2007, with four of these being felt.

The OGO also initiated installation of a new seismic network in the Oklahoma City region.

The Observatory hosted a number of visitors during the year, with seven school groups, four groups from industry, and various civic clubs and media representatives dropping by to tour and film the facility.

Some of the groups also take a side trip to the spectacular Pennsylvanian outcrops at nearby Lake Bixhoma to collect fossils.

The OGO operates its own earthquake Web page off the OGS site and receives about 30,000 hits per month.

Kenneth V. Luza, engineering geologist, continued to make numerous television appearances and take calls to answer

questions about earthquakes. Luza, Lawson, and interim director Randy Keller all helped in the effort to supply answers to the media.

Luza also worked with Lawson to produce the annual earthquake update for *Oklahoma Geology Notes*.

## Geologic Mapping

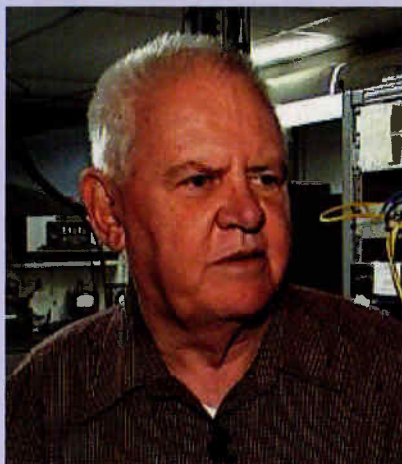
**STATEMAP:** Thomas M. Stanley, OGS geologist, is in charge of the Oklahoma Geological Survey's STATEMAP program, which is a cooperative funding effort between the U.S. Geological Survey and state geological surveys. The primary goal of the program is to develop a geologic framework in areas determined to be of important economic, social or scientific interest to the individual states.

Mapping for 2007 in the STATEMAP program included two 7.5' quads in the Tulsa Metro Area (the Broken Bow and Leonard quads) and one 1° sheet (the Enid quad). The two TMA quads are located southeast of the city of Tulsa and represent the second year of a multiyear project within the ongoing STATEMAP program in the Tulsa area.

In this area, the focus of mapping is to aid urban planners and developers in their decision-making process on balancing land use issues among housing and road development needs, recreational needs and continued availability of unrennewable resources for mining. This primarily is done



**In Memoriam**  
**James E. Lawson, OGS Chief Geophysicist**  
**Dec. 27, 1938–Aug. 4, 2008**



OGS Chief Geophysicist James E. Lawson tragically was killed Aug. 3 in a car wreck just outside of Bixby, Okla. near the Oklahoma Geological Survey Geophysical Observatory at Leonard. Lawson, 69, had worked at the Observatory since 1970, before it was incorporated into the OGS in 1978.

Jim lived on the grounds of the Observatory and often worked long hours at the facility. He was available day and night to the news media when an earthquake occurred. He was very involved with

the Red Cross, and donated much of his spare time to testing and analyzing blood samples.

When a group of Russian scientists came to monitor a Nevada Test Site blast in March of 1992, they were greeted by new road signs made just for their visit. One read "Observatory Lane" and the one leading to their compound was "Glasnost Road." Jim had worked hard to see that he was familiar with all the treaty terms and conditions, and also went to great lengths to make sure his guests were comfortable and properly welcomed.

Jim will be missed as a colleague and friend by the OGS staff.

*The photo above was taken at the Observatory in 2007, and the photo below was from the 1990s when a base marker to study continental drift was installed at the Observatory.*



by first determining the distribution, geologic characteristics and structural tendencies of the local geology as well as that of specific limestone, sandstone, and mineable coal beds, all achieved by detailed mapping.

Besides mapping the important resource rock in an area, detailed mapping allows for increased understanding of the extent of shale formations that contain a large amount of shrink-swell clays, or clays that can adversely affect building foundations.

Reconnaissance mapping of the Enid 1° sheet is completed, and finished field sheets have been digitized and published. The emphasis of the reconnaissance mapping part of STATEMAP is to complete and make available to the public small-scale geologic maps in areas that require modern, digital maps at 1:100,000 scale. These areas currently are covered by good to poor mapping, all of which need to be compiled, field checked, corrected, then digitized onto a single standardized topographic base. These smaller-scale geologic maps will be used in ongoing compilation of the new 1:500,000-scale geologic map of Oklahoma.

In addition to the traditional mapping activities, the quadrangle maps are being added to the OGS Web site as soon as they are ready. Ten maps were added in 2007, and 70 were online by the summer of 2008.

[www.ogs.ou.edu/geolmapping.php](http://www.ogs.ou.edu/geolmapping.php)

**Lake Bixhoma:** Stanley also initiated a study of the geology surrounding Lake Bixhoma south of Tulsa. This project will inform the general public on local geology of interest, and will include descriptions of rocks, fossils and general geologic features exposed along the lake's hiking trails. The study will result in an addition to the Survey's popular Information Series.



## Industrial Minerals

Streambed sediments and soils across Oklahoma were sampled in every quadrant and the panhandle. The 420 samples weighed an estimated 3,450 lbs and were gathered from Feb. 6 through May 2, 2007, by geologist Stanley T. Krukowski, who logged 10,304 miles in that period.

The samples will be shipped in the summer of 2008 after they are properly air-dried. The project is a continuation of the OGS/USGS Geochemical Mapping project that began in 2006.

Krukowski participated in the Oklahoma Regional Economic Development Partnership Conference in 2007, where he joined the panel discussion "Value Added ED—How I Learned to Love Red Cedar" in which red cedar, biofuels, iodine, and geothermal energy resources were discussed.

The OGS also was involved with the Department of Commerce and NRCS Resource Conservation and Development Site Location Assistance program for northwest Oklahoma in December 2007.

## OPIC

The Oklahoma Petroleum Information Center in north Norman contains: 408,402 boxes of well cores and/or cuttings, well logs from some 400,000 wells, and Oklahoma Corporation Commission Completion Reports (1002As) from the 1904 to the 1990s.

OPIC offers core gamma scan, X-ray imaging, core slabbing and cutting, plugging, photography services and layout tables for viewing.

Customers can have material shipped directly to them or view it at OPIC by appointment.

The OPIC conference center will hold groups of up to 60, and has ample free parking available.

## Earth Science Education

The OGS offers teacher workshops, field trips, special learning and lesson-plan sessions, and in-class visits as part of the special programs available to teachers. Geologist James R. Chaplin has an extensive list of programs geared to specific age groups, and a special room at OPIC is set aside for teachers to come for hands-on sessions, then leave with specific lesson plans created by Chaplin. The activities are outlined on the OGS Web.

[www.ogs.ou.edu/chaplinteredred.php](http://www.ogs.ou.edu/chaplinteredred.php)

Geologists Suneson, Boyd and Andrews teamed up for the spring 2008 semester at OU to teach Geology 4233, Subsurface Methods in Petroleum Geology, for the ConocoPhillips School of Geology and Geophysics. Class information was available on the Survey Web site.

OGS hosted a two-day field trip March 8 and 9 for the Petroleum Engineering 3003 class, and Boyd gave guest lectures for Petroleum Engineering 4553 and 5613, discussing petroleum geology and subsurface methods.

## Engineering Geology

Engineering geologist Kenneth V. Luza continues his studies in northeastern Oklahoma in the Tar Creek area of the old Picher Field in the Tri-State Mining District. Luza has studied



The Oklahoma Petroleum Information Center, also known as OPIC.



the problems in this area since the 1980s, and his reports and personal assistance have been invaluable to various state and federal agencies working to solve problems faced by the residents.

The environmental hazards in the area include the lead content of the chat piles, shaft collapse from old mines, and water contamination.

## Cartographic Section

The OGS cartography department provides map production and graphic support for the Survey's research projects, publications, open-file reports, presentations, promotional material and Web pages. Manager James H. Anderson and GIS specialist Russell Standridge work with a variety of graphic and GIS software packages to provide material in a variety of file formats and sizes.

During this fiscal year, work was completed on several guidebooks, including western Arbuckle Mountains, Beavers Bend State Park, Quartz Mountains, southwestern Ozark Uplift, and Booch Sandstones in southeastern Oklahoma.

Cartography also completed work on the major publication Circular 112A, *Stratigraphic and Structural Evolution of the Ouachita Mountains*, that was released in November 2008.

The cartographic section produces three to four geologic maps each year using data collected by the mapping team. The result is 1:24,000 and 1:100,000 U.S. Geological Survey quadrangle sheets for STATEMAP.

Among the maps in production this fiscal year were the Enid 1:00,000 quad sheet and the Broken Bow and Leonard 1:24,000 sheets. The maps as PDF files and data files are available for download on the Web.

[www.ogs.ou.edu/geolmapping.php](http://www.ogs.ou.edu/geolmapping.php)

### In Memoriam: Walter Esry Core Library Manager July 11, 1925–Nov. 3, 2008

Walt Esry died of natural causes Nov. 3, 2008, in Norman.

Walt joined the Survey in 1982 as assistant Core Library manager, then became manager after Eldon Cox retired. Walt retired from the Survey in 2004. Before coming to Norman, he had a successful picture framing business in Dallas that later became a framing and museum-exhibit design company in New York.

Longtime friend and OGS geologist Jock Campbell noted that Walt "ran the facility with *savoir faire*," and even incorporated two cats into the Core Library family. Walt was instrumental in getting the library collection ready for the move to OPIC in 2002.

He will be missed by many.





## From January 2007 through October 2008, the OGS sponsored the following technical events:

- Produced Water Issues and Casing Leak Prevention and Repair Workshop, co-sponsored with Petroleum Technology Transfer Council, Feb. 7, 2007, Smackover, Ark.; 28 attendees
- Woodford Gas Shale Conference, May 23, 2007, Oklahoma City; 426 attendees
- Woodford Gas Shale Field Trips, May 22 and 24, 2007, Ardmore, Okla.; 123 attendees
- Gas Reservoir Evaluation With Limited Data Workshop, Aug. 8, 2007, Norman, Okla.; 76 attendees
- Woodford Gas Shale Field Trip Chesapeake Energy, Oct. 3, 2007, Ardmore, Okla.; 35 attendees
- Woodford Gas Shale Field Trip St. Mary Land and Exploration, Oct. 10, 2007, Ardmore, Okla.; 23 attendees
- Mid Continent Granite Wash Conference, March 6, 2008, Norman, Okla.; 234 attendees
- 44th Forum on the Geology of Industrial Minerals Annual Meeting, May 11–16, 2008, Midwest City, Okla.; 94 attendees
- 44th Forum on the Geology of Industrial Minerals Nine Field Trips, May 11–16, 2008, Midwest City, Okla.; 117 attendees
- Horizontal Drilling Workshop, June 18, 2008, Norman, Okla.; 198 attendees
- Oklahoma Gas Shales Conference, Oct. 22, 2008, Midwest City, Okla.; 327 attendees
- Oklahoma Gas Shales Field Trips, Oct. 21 and 22, 2008, Ardmore, Okla.; 85 attendees
- The Real Deal Mid-Continent Prospect Expo, Oct. 29, 2008, Oklahoma City; 246 attendees

## Outreach Efforts:

- Oklahoma Association for Environmental Education, Feb. 7, 2007, Norman, Okla.; 105 attendees
- Oklahoma Aggregates Association Sixth Annual Meeting & Field Trip, Feb. 20 and 21, 2007, Oklahoma City; 270 attendees
- Mayo Demonstration School for Science & Technology, Tulsa, Okla.; 49 students
- AAPG/OU Student Expo, March 15–17, 2007 Norman, Okla.; 300 attendees
- ScienceFest Okla., April 19, 2007, Oklahoma City; approximately 700 attendees



Participants at the OGS Gas Shales conference (right) at the Reed Center in Midwest City, Okla., and Oklahoma Gas Shales Conference (right) held in October of 2008.







- 2007 Oklahoma Oil and Gas Trade Expo (Commission on Marginally Producing Oil and Gas Wells), Oct. 18, 2007, Oklahoma City; 2,000 attendees
- 2007 Oklahoma Mineral and Gem Society, Nov. 3 and 4, 2007, Oklahoma City; 1,200 attendees
- Oklahoma Association for Environmental Education, February 7, 2008, Broken Arrow, Okla.; 200 attendees
- Oklahoma Aggregates Association Seventh Annual Meeting and Field Trip, Feb. 12 and 13, 2008, Oklahoma City; 290 attendees
- Oklahoma Aggregates Association "Aggregates Day at the Capitol," Feb. 27, 2008; 400 attendees
- GIS Day at the Capitol, March 12, 2008, Oklahoma City; 250 attendees
- ScienceFest Oklahoma, April 17, 2008, Oklahoma City; 400 attendees
- American Association of Petroleum Geologists Annual Meeting, April 20–23, 2008, San Antonio, Texas; 7,530 attendees
- Earth Day at the Oklahoma Capitol—Oklahoma Section AIPG, April 22, 2008, Oklahoma City; 500 attendees
- Water Appreciation Day at the Capitol, May 14, 2008, Oklahoma City; 150 attendees
- Geological Society of America, Oct. 5–9, 2008, Houston; 9,922 attendees
- 2008 Oklahoma Oil and Gas Trade Expo, Oct. 16, 2008, Oklahoma City; 2,500 attendees

Total Number Play Based Workshops:	85
Total Number Field Trips:	38
Total Number Conference & Workshops:	45
Total Number Workshops OGS/MWC/AOGC:	192
Total Number Conference/Workshops/Field Trips:	360

OGS Conference/Workshops 2008 Attendees:	1,333
OGS Field Trips 2008:	11 (Attendees 202)

Outreach Programs:	6 (2007 attendees 4,099)
Outreach Programs:	10 (2008 attendees 22,142)

**Total Number Attendees 1995 through October 2008:** 16,756  
(OGS Conferences, Workshops and Field Trips)



# 2007–2008 OGS PUBLICATIONS

## 2007 Publications

- Oklahoma Geology Notes, Vol. 66, No. 2, Summer 2006. March 8, 2007.
- Oklahoma Geology Notes, Vol. 66, No. 3, Fall 2006. July 27, 2007.
- Oklahoma Geology Notes, Vol. 66, No. 4, Winter 2006. Aug. 31, 2007.
- Bulletin 149. Trilobite Biostratigraphy and Correlation of the Kindblade Formation (Lower Ordovician) of Carter and Kiowa Counties, Oklahoma, by James Douglas Loch. September 26, 2007.

## 2008 Publications

- Oklahoma Geology Notes, Vol. 67, No. 1, Spring 2007. Jan. 9, 2008.
- Oklahoma Geology Notes, Vol. 67, Nos. 2–4, Summer, Fall, Winter 2007. July 23, 2008.
- Educational Publication 9. Earth Sciences and Mineral Resources of Oklahoma. July 3, 2008.
- Information Series 12. Oklahoma Mineral Locality Index, by Arthur E. Smith, Jr., Robert O. Fay, and Joe Lobell. A reprint from *Rocks and Minerals*, Vol. 72, No. 4, July/August 1997. July 31, 2008.
- Oklahoma Geology Notes, Vol. 67, No. 2–4 (combined). July 23, 2008
- Circular 112A. Stratigraphic and Structural Evolution of the Ouachita Mountains and Arkoma Basin, Southeastern Oklahoma and West-Central Arkansas: Applications to Petroleum Exploration. 2004 Field Symposium. The Arbenz-Misch/Oles Volume, Neil H. Suneson, editor. November 2008.
- Guidebook 35. Guidebook to the Booch Sandstones: Surface to Subsurface Correlations, by Neil H. Suneson and Dan T. Boyd. November 2008.

For more information, call 405/325-1299 or visit [www.ogs.ou.edu/pubs.php](http://www.ogs.ou.edu/pubs.php)

For more publications information:

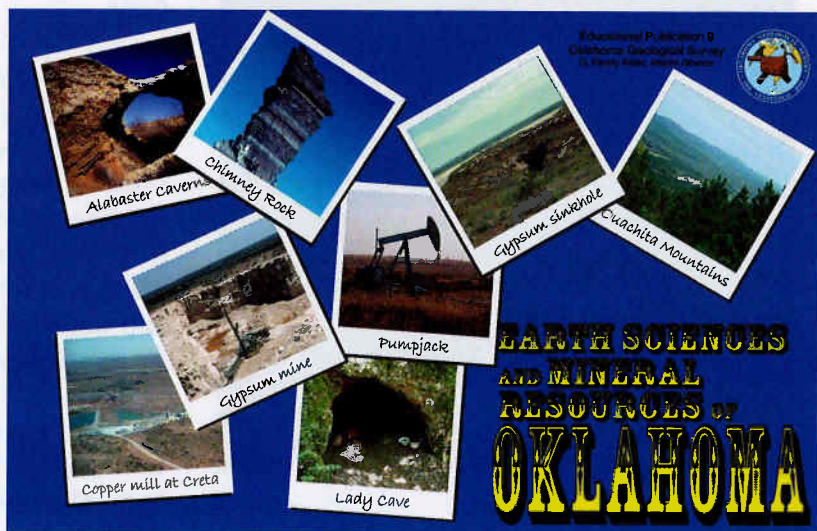
[www.ogs.ou.edu/pubs.php](http://www.ogs.ou.edu/pubs.php) or call 405/325-1299

*Earth Sciences and Mineral Resources for Oklahoma* offers readers a generalized overview of the state and its natural resources. It is edited by Kenneth S. Johnson and Kenneth V. Luza. Copies are available from OGS publication sales and the contents can be viewed on the OGS Web site.

The oversized, 21-page publication contains text, maps, cross sections and illustrations that cover topography, geologic history, and the geomorphic provinces of Oklahoma as well as a general introduction, references and a glossary.

EP-9 provides a broad look at minerals and oil and gas resources, all of economic value. Other sections cover climate, vegetation, soils, lakes, rivers, streams, groundwater and earthquakes.

## Educational Publication 9: A Comprehensive Look at Oklahoma





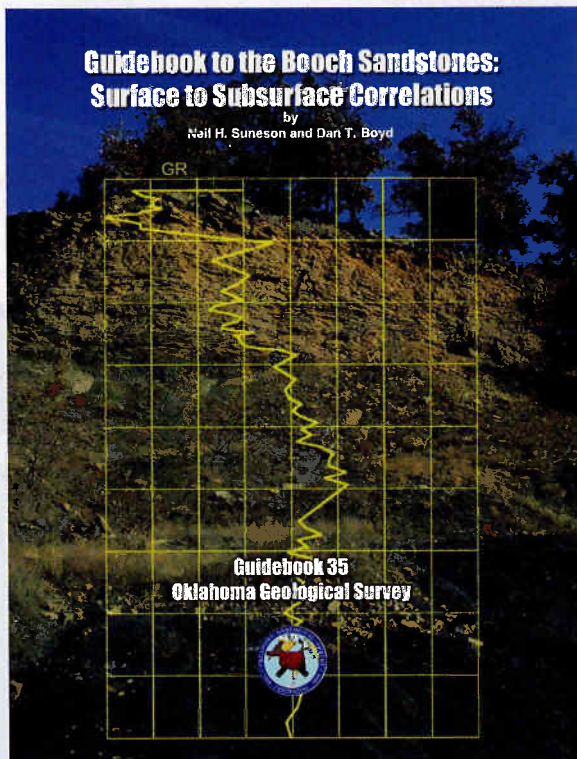
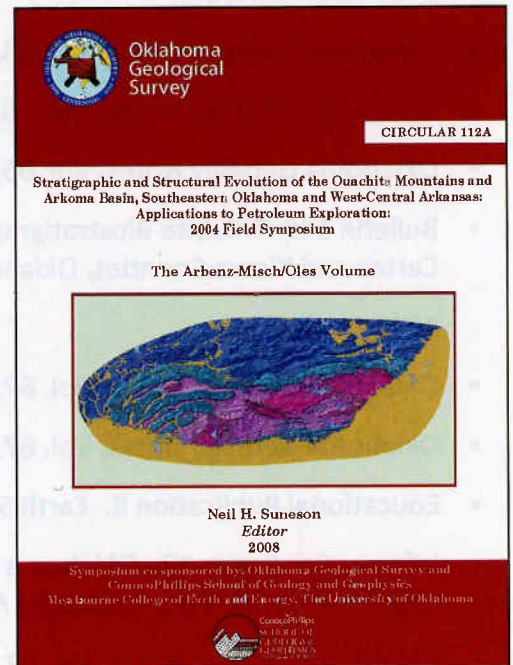
## Landmark Ouachita Mountains Study Published in OGS Circular 112A

It is fitting that in its Centennial year the Oklahoma Geological Survey issued Circular 112A, *Stratigraphic and Structural Evolution of the Ouachita Mountains and Arkoma Basin, Southeastern Oklahoma and West-Central Arkansas: Applications to Petroleum Exploration: 2004 Field Symposium*, which contains J. Kaspar Arbenz's landmark study of the complex Ouachita Mountains of Oklahoma and Arkansas. Circular 112A combines older work by Peter Misch and Keith F. Oles with Arbenz's extensive field studies and new data to present an innovative and more complete look at the Ouachitas.

Along with the 86 pages of text and illustrations, Circular 112A includes nine oversized maps and cross sections that are provided on paper and on CD ROM.

Arbenz concludes in this study that large-scale horizontal displacement and local rotation of thrust sheets explain the surface and subsurface features observed on geologic maps and seismic data.

In addition to Arbenz's work, the paper by Misch and Oles is based on field work done in the 1950s for Union Oil Co. of California. This paper was the focal point for much controversy about the Ouachitas over the years, but its importance here lies in the historical perspective, insightful field observations, and detailed maps and cross sections.



## New Guidebook 35 Details 19 Stops For Booch Gas Play Field Trips

The Survey's latest guidebook is a companion to OGS Guidebook 35: *Guidebook to the Booch Sandstones: Surface to Subsurface Correlations*. The book's purpose is to locate, identify and describe the best Booch sandstone outcrops in the Oklahoma part of the Arkoma Basin.

Authors Neil H. Suneson and Dan T. Boyd interpret the depositional environments of the strata and examine the outcrops based on lithologies, sedimentary structures, stratal disconformities and textural changes. They include gamma-ray profiles that approximate wireline gamma-ray logs in the subsurface. Parts of wireline logs from nearby wells show that, in some cases, the logs closely match, while at other times they differ greatly from the outcrop. The logs and outcrops are placed in the sequence-stratigraphic framework established for the entire Booch interval.

The Booch (pronounced *Boke*, like "coke") is the informal subsurface term used by the oil and gas industry to identify certain sandstones in the Desmoinesian (Middle Pennsylvanian) McAlester Formation.



# Happy 100th Birthday!

## Oklahoma Geological Survey Celebrates Its Centennial Anniversary

The Oklahoma Geological Survey held an open house on November 21, 2008 to commemorate its Centennial Anniversary. University of Oklahoma Provost Nancy Mergler, College of Earth and Energy Dean Larry Grillott, and Interim OGS Director Randy Keller spoke before a crowd of over 125 individuals, followed by an open house featuring today's OGS and its programs (*see the OGS Annual Report on pages 56 to 66 of this issue*). Photos from the celebration on featured on pages 68 - 69.

The Oklahoma Geological Survey has the distinction of being the only geological agency mandated in a new state's constitution. In 1906, Congress passed the Enabling Act permitting the citizens of the Oklahoma and Indian Territories to call for a constitutional convention and to prepare a constitution for the new state of Oklahoma. The convention met in Guthrie, Oklahoma, the capitol of Oklahoma Territory in 1906 and the state constitution was written. The Geological Survey committee proposed a provision for the establishment of a Geological Survey and in Section 37 of Article 5 of the new constitution it reads: "The legislature shall provide for the establishment of a State Geological and Economic Survey." The founders believed that natural resources were so vital to Oklahoma's future that they needed a Constitutional provision for an agency to *investigate the state's land, water, mineral, and energy resources and disseminate the results of those investigations to promote wise use consistent with sound environmental practices*. The Survey was established in the 1907 Oklahoma Constitution and the enabling act was signed into law on May 29, 1908.



First topographic party in the Arbuckle Mountains, 1905. E. DeGolyer at the plane table, Key Wolfe holding the rod. *Western History Collections, University of Oklahoma*.



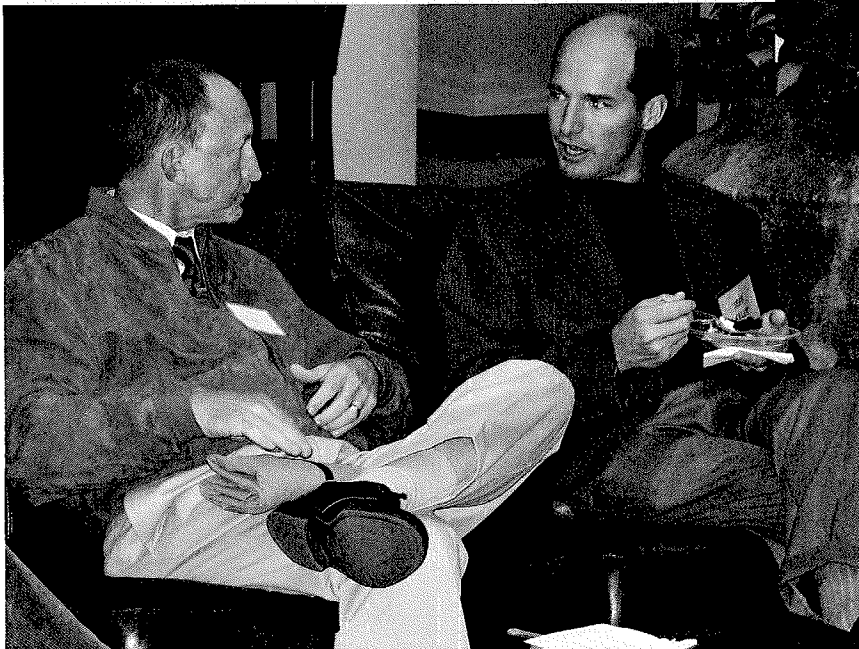
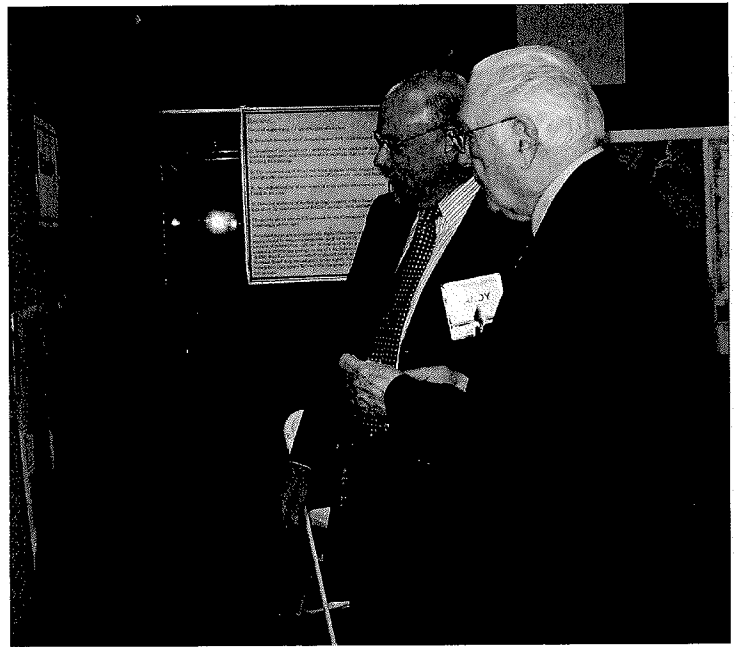
# *Celebrating 100 Years of Service to the People of Oklahoma...*



*Photo courtesy of OGS Staff Members Sue Britton Crites and Laurie Lollis.*







*(With a Little  
Help From Our  
Friends!)*



# First Annual "Real Deal" Mid-Continent Prospect Expo A Success!

by Suzanne Rogers

Oklahoma City Geological Society;  
Sandstone Energy Acquisitions Corp.;  
Sentinel Petroleum, Inc.;  
Buffalo Creek Minerals, L.L.C

The **Real Deal Mid-Continent Prospect Expo** for geologists, geophysicists, landmen and engineers (those in the trenches) held on October 29<sup>th</sup> was a huge success! Co-hosted by the Oklahoma City Geological Society (OCGS) and the Oklahoma Geological Survey (OGS), this event had over 230 attendees who viewed prospects in 24 prospect booths and the services and goods of 15 vendors.

Attendees came from Oklahoma, Texas, Kansas and Colorado. Prospect exhibitors reported meeting with decision makers and many prospects were sold. Vendors commented that attendees were the very people they wished to target.

We would like to thank our sponsors for their generous contributions that helped us keep the cost of this Expo very low for participants. We could not have done it without them.

In addition we had 3 great speakers – Brian Cardott from the Oklahoma Geological Survey, Dr. Jim Puckette from Oklahoma State University and Bobby Cox from

MKB, LLC. Our thanks go to these gentlemen for their time and effort in preparing interesting and informative talks.

The Expo Committee was chaired by Michelle Summers of the OGS and included Sue Crites of the Survey and Jeff Kelley, James McCall, Jason Wallgren and Suzanne Rogers of the OCGS. Jane Weber, Tammy Creel and Joyce Striehler, all of the OGS, were invaluable on Expo day. They did a great job putting this event together.

The Expo, as a joint venture between the OGS and OCGS, was designed to be a service to our members and the geologic com-

munity in the Mid-Continent. Any excess funds will be used as scholarship money for students at OU and OSU.

Once again we thank our sponsors, vendors, exhibitors and attendees for making this event a success. We hope to see you all at the next Real Deal Mid-Continent Prospect Expo on **September 30, 2009**. The OCGS will be chairing the Expo Committee. Put it on your calendar now and plan to participate!

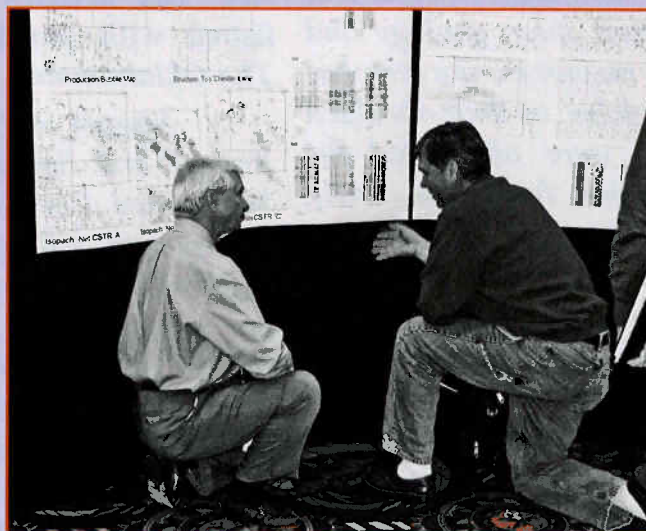
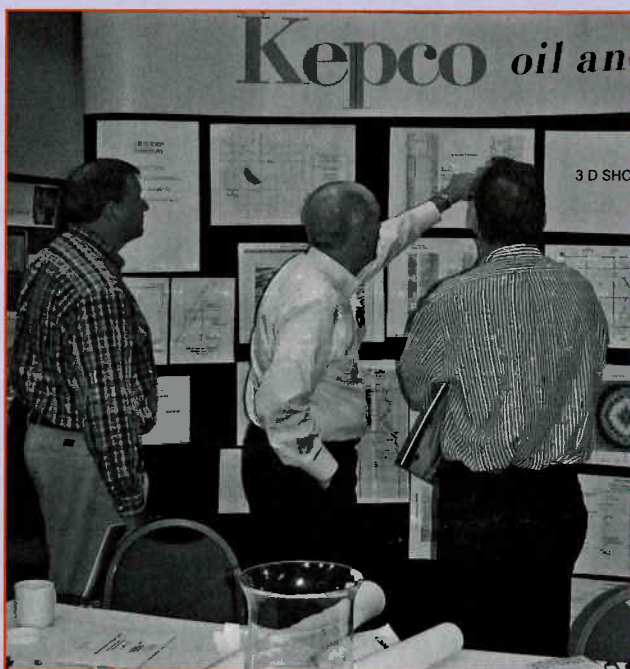


**Got Prospects to Sell?**

**WE WANT YOU**

**FOR THE *REAL DEAL*  
MID-CONTINENT  
PROSPECT EXPO**





Photos courtesy of Sue Britton Crites.



# A HUNDRED YEARS AGO IN OKLAHOMA AUGUST — SEPTEMBER 1907

Compiled by  
Kenneth V. Luza  
Oklahoma Geological Survey, 2008

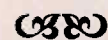
**O**klahoma began a year-long centennial celebration in January 2007. A monthly summary of the following articles and/or wire-service stories provides some insight into what took place locally, nationally, and worldwide in 1907. Some period photographs are included to show what Oklahoma looked like 100 years ago. Articles and information about geology and mineral resources are emphasized. Articles, or their abridged versions, were abstracted for republication from **The Daily Oklahoman** (now **The Oklahoman**), an Oklahoma City newspaper, unless otherwise specified. Every effort was made to preserve the original tone and expression of each feature. In some cases type-setting errors may have been overlooked and

may have led to misinterpreting the reporter's meaning or intent.

**The Daily Oklahoman** had a daily average circulation of 20,217 in August 1907. The newspaper was published daily except for Monday; and cost 5¢ at the news stand or 45¢ per month when delivered by carrier. **The articles are republished with permission from The Oklahoman.**

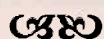
**August —** On August 2, French and Spanish warships bombarded Casablanca in response to the killing of European workers employed to make harbor improvements. Thousands of lives were lost. In Oklahoma, more than 6,000 families have moved into the state in the past year. On August 6, a prominent grain dealer predicted that Okla-

homa's wheat crop will exceed 11,000,000 bushels. On August 15, the tippie and engine house of McAlester-Edwards Coal Mine, located near McAlester, burned. The loss was estimated to be \$12,000. On August 20, Syracuse Oil and Gas Company brought in a big well south of Muskogee. Thousands gathered in Oklahoma City to hear Secretary of War, William H. Taft, speak on August 24. On August 29, a section of a new bridge across the St. Lawrence River, about five miles below the City of Quebec, collapsed carrying scores of bridge workmen and mechanics into the water.



## **421 KILLED IN THREE MONTHS**

Washington, July 31.—According to accident bulletin No. 23 issued today by the Interstate Commerce Commission, the total number of casualties to passengers and to employees in 3,991 wrecks, in the three months ended March 31, was 20,563 compared with 20,944 the preceding three months—a decrease of 381. The total number of passengers and employees killed in train accidents was 421 and the number of injured 4,920, fifty-three less in the number killed and 20 less in the number injured.

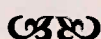


August 1, 1907, p. 1

## **COAL COMPANY SAID TO HAVE BROKEN AGREEMENT**

**PRESIDENT OF MINERS GIVES ONLY FEW HOURS FOR AGREEMENT**

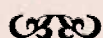
Pittsburg, July 31.—The executive board of District No. 5, United Mine Workers of America, which embraces the Pittsburg District, today authorized Patrick Feehan to call a strike of the miners in this district immediately, alleging that the Pittsburg Coal Company has violated the wage agreement. More than 14,000 miners will be affected in the event of a strike.



## **CITY POPULATION CLOSE TO 50,000**

**TWENTY PERCENT INCREASE WITHIN LAST ELEVEN MONTHS SHOWN**

Twenty percent increase in the population in eleven months is the record of Oklahoma City, according to the new city directory, soon to be issued. Last year's city directory, it was estimated, indicated a population of 40,000, and figuring 20 percent increase, the population is now between 48,000 and 50,000. The new directory will contain at least 100 more pages of street addresses than the old one, and will show a big increase in the number of business houses and the different institutions of the city.

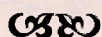


August 1, 1907, p. 13

## **TO ATTEND DEEP WATERWAYS MEET**

**FOUR DELEGATES WILL BE APPOINTED FROM OKLAHOMA CITY**

Four delegates will be appointed from Oklahoma City to attend the Lakes-to-the-Gulf-Deep-Waterway Convention which convenes in Memphis, Tenn., October 4 and 5. The convention will be opened with an address by President Roosevelt. Twelve governors and several congressmen are on the list of speakers.



## **"WITNESSES IN OIL TRUST PROBE SPIRITED AWAY," DECLARES WEST**

"Two important witnesses I desired to examine in relation to the price discriminations in the sale of oil in Oklahoma have been spirited out of town," was the statement made last evening by Special Prosecutor Charles J. West of Enid.

"At least that is the information that reached me today and I know that the men have disappeared. I was told that one witness had gone away for his summer vacation and will not return until November. The other is in Capitol Hill."



August 2, 1907, p. 3

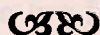
## **EUROPEANS SLAUGHTERED AS RESULT OF ARABS' HOLY WAR**

Tangier, Aug. 1.—Doctor Merie, who arrived here last night on the German ship which brought a number of Jews and other refugees from Casablanca, is the bearer of a report to the French charge d'affair here showing that the slaughter of Europeans in Casablanca was an outcome of a holy war preached by the Arabs for the extermination of Europeans.

On Monday a number of Arab chiefs entered Casablanca and demanded that the harbor



improvements work cease. The Pasha of Casablanca pointed out that this work was being done with the sanction of the sultan, whereupon the chiefs replied that the sultan was no longer their ruler as he obeyed the Christians. They then began to invite the natives to exterminate all Jews and Europeans in the town.



August 2, 1907, p. 3

## **TORNADO SWEEPS TOWN**

Wichita, Kan., Aug 1.—The office of the Missouri Pacific has been notified from Geneseo that a tornado wrecked Marquette, a station east of Geneseo in McPherson County. All wires are down.



August 2, p. 6

## **100 HUNDRED KILLED WHEN TROOPS DISBAND IN KOREA**

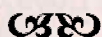
Seoul, August 1. (Evening)—Unverified official returns from this morning's conflict between Japanese troops and the first battalion of the first Shiwa regiment give the number killed and wounded as to 60 Koreans and 40 Japanese. About three thousand men willingly disbanded, marching without arms through



Cutting oats in Avard, Woods County. *Western History Collections, University of Oklahoma.*



the parade ground, where according to rank they received gratuities ranging from 25 to 80 yen.



*Saturday, August 3, 1907, p. 3*

## **COAL FAMINE IS CERTAIN TO COME**

### **LAKE CARRIERS BUSY WITH ORE AND NORTHWEST WILL BE SUFFERER**

Cleveland, August 2.—The northwest will suffer a more severe coal famine the coming winter than the record-breaking one last year, according to coal shippers here.

Discussing the situation today, a prominent mine owner said: "There are now 100 big ore carriers up the lakes awaiting cargoes. They cannot get away till the ore reaches the docks, which means a delay of perhaps ten days. [When] these huge vessels reach Ohio ports with ore [they] are not going to take back coal. The cry is: 'ore, ore, more ore'."



*August 3, 1907, p. 6*

## **GAS BY OCTOBER, LATEST PROMISE**

### **THIRTY MILES OF PIPELINE CONSTRUCTED—WORK GREATLY DELAYED**

The Oklahoma Natural Gas Company has secured from

the commissioners of Oklahoma and Lincoln Counties the right to construct its pipelines through the two counties, and is now laying the pipe in the latter county having completed 30 miles of line northeast from Britton.

R. B. Hastings, the local manager of the company, says that the work has been delayed so much that natural gas will not be ready for service in Oklahoma the first of September as was contemplated, but will likely be ready by October 1. A pipeline will be constructed out of the city to the northwest, through the rapidly settling district extending from the University to Britton to connect with the main pipeline and bring gas into the city.



*August 3, 1907, p. 8*

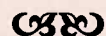
## **IMMIGRATION IS NOW AT HEIGHT**

### **MORE THAN 6,000 FAMILIES HAVE COME TO OKLAHOMA WITHIN A YEAR**

More than 6,000 families have entered Oklahoma from all sections of the world during the last year, according to T. J. Clark, southwestern immigration agent for the Rock Island system. Nearly 50 percent of this number, Mr. Clark says, have passed through Oklahoma City.

"Oklahoma is now in the midst of the greatest immigration movement ever known,"

said Mr. Clark. "Thousands visit this state monthly and are shown our wonderful resources. Owing to this unusual amount of home-seeking traffic, the regular home seekers' excursions, which have been run the first and third Tuesday of each month during the spring and summer months, will be continued this year until the middle of December and longer if traffic will justify."

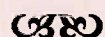


*Sunday, August 4, 1907, p. 1*

## **OIL OCTOPUS FINED \$29,400,000 FOR TAK- ING ILLEGAL REBATES**

### **ASSESSES LARGEST FINE IN HISTORY OF AMERICAN CRIMINAL JURISPRUDENCE**

Chicago, August 3.—Judge Kenesaw M. Landis today in the United States District Court fined the Standard Oil Company of Indiana \$29,400,000 for violation of the law against accepting rebates from railroads. The fine is the largest ever assessed against any individual or any corporation in the history of American criminal jurisprudence and slightly more than 131 times as great as the amount received by the company through its rebating operations. The case will be carried to the higher courts by the defendant company.

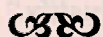




August 4 1907, p. 1

## **MINE EXPLOSION CAUSES 18 DEATHS**

Hamburg, Prussia, August 3.—An explosion of fire damp in a coal mine near here resulted today in the killing of 18 men and wounding of 11 others.



August 4, 1907, p. 14

## **CANADIANS SEIZE AMERICAN GROUND?**

### **OFFICER PLANS EXPEDI- TION HOPING TO SECURE SETTLEMENT OF DISPUTED POINT**

Duluth, Minn., August 3.—A special to the *News Tribune* from Port Arthur, Canada, tonight says: Isle Royale is to be invaded tonight by Canadians, led by Captain S. C. Young of the Sixth Regiment.

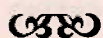
The British flag will be hoisted on the island and the territory formally declared a part of the British Empire and portion of Canada. The expedition under Captain Young left here this evening in a launch. As soon as landing has been effected the union jack will be raised.



August 4, 1907, p. 19

## **STATE FAIR ASSOCIATION NOW BOOKING ATTRAC- TIONS FOR BIG FALL EXHIBITION**

Efforts are being made by the management of the Oklahoma State Fair Association to have the midway and concession department, one of the most complete attractions of this kind ever held in the southwest. Large numbers of exhibitions, curio sellers, and shows have application for permission to occupy a space in this department and Advertising Manager Sturgis has been busy for several weeks deciding which applications shall be accepted.



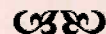
Tuesday, August 6, 1907, p. 1

## **CROP OF WHEAT HERE 11 MILLION BUSHELS**

"While the outcome of the cotton crop is still undetermined, and will depend on favorable weather conditions for the next six weeks, the yield of wheat being threshed, and the condition of the corn in different sections of Oklahoma and Indian Territory make it certain that the farmers of the new state will not suffer any hardships from crop shortage this year," said a prominent grain dealer who has recently completed a tour of the two territories last night. The

wheat crop of Oklahoma alone will approximate 8,000,000 bushels for Oklahoma alone and the Indian Territory will bring this up at least 11,000,000 bushels. The quality of all this wheat is good, and the weather has been such that it could be harvested, threshed, and put on the market without being injured by rain.

Practically all the wheat in the two territories is free from rust and smut, and test from 56 to 59 pounds to the bushel. It is all good milling wheat, and grades No. 2 and No. 3. Because of the exceptional quality of the grain, the farmers are receiving a good price for all their grain.

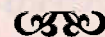


August 6, 1907, p. 6

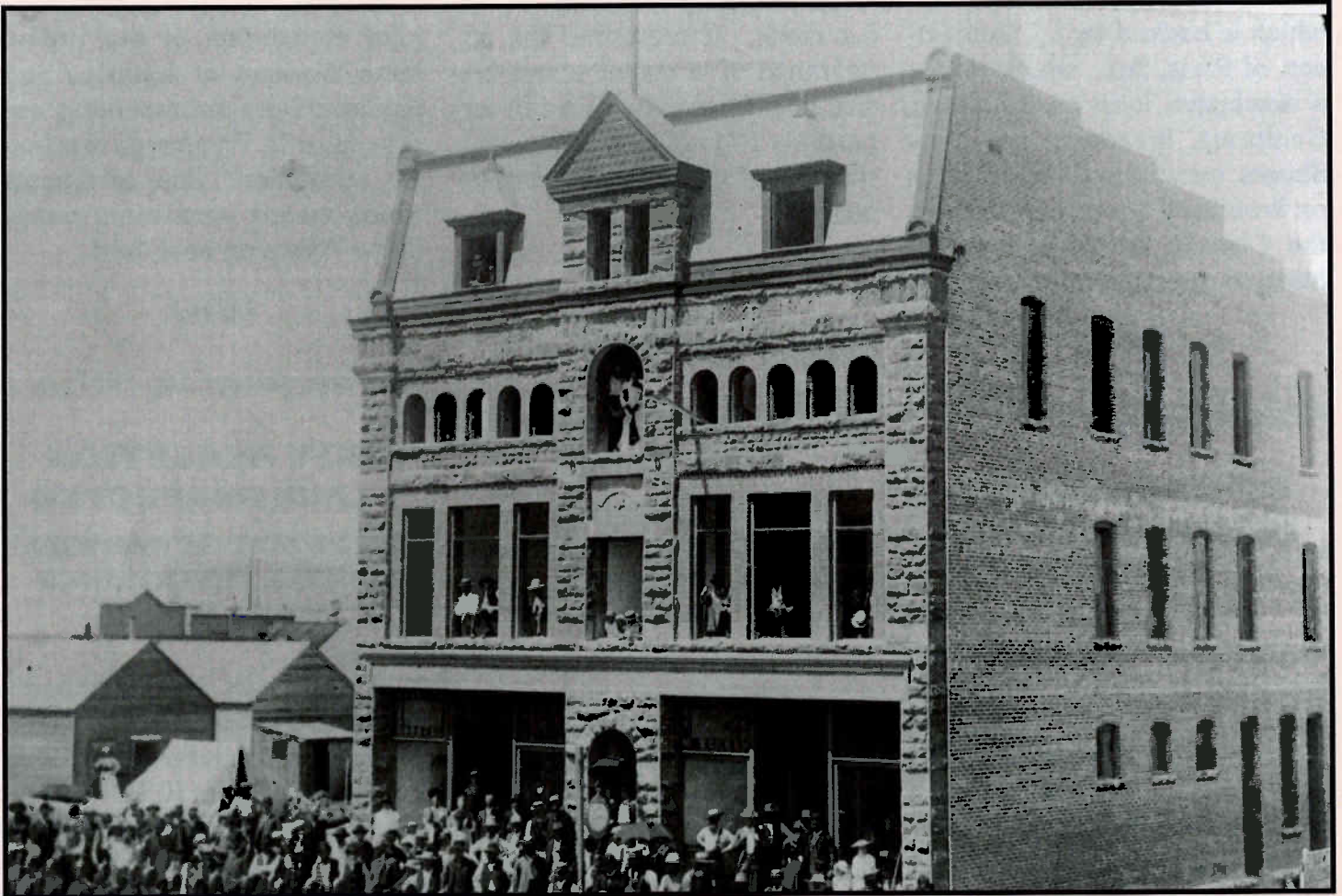
## **QUAKE IS SHOWN ON SEISMOGRAPH**

### **INSTRUMENT NOT PROPER- LY MARKED TO SHOW LOCA- TION OF THE DISTURBANCE**

Albany, N. Y., August 5.—The seismograph here registered earthquake shocks beginning at 1:59 o'clock this morning and continuing ten minutes. The record was not sufficiently well marked to make any determination as to the center of the disturbance though the vibrations were east and west.







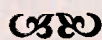
Oklahoma City Post Office in 1890. *Oklahoma Historical Society.*

*August 7, 1907, p. 2*

**MINE OWNERS TO  
BREAK UP UNION  
RETURN OF HAYWOOD TO  
COLORADO SIGNAL FOR  
DISCHARGING  
SYMPATHIZERS**

Colorado Springs, Colo., August 5.—A special from Cripple Creek says: Following the decision of the Mine Owners' Association, which met in conference at Colorado Springs yesterday, to enforce the "card permit" system in the Cripple

Creek District, several of the mining companies today discharged miners supposed or known to be union men. Other mining companies it is said will immediately weed out all union men. This action is taken in anticipation of an attempt by the Western Federation of Miners to reorganize in the district. The return of William D. Haywood to Colorado had much to do with the decision of the mine owners.



*Thursday, August 8, 1907, p. 1*

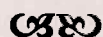
**THREATENED CAR  
WAR WILL BE AVERT-  
ED; ARRANGEMENTS  
MADE BETWEEN  
COMPANIES?  
GULBERTSON LINES WANT  
CONCESSION**

Threatened war between the Citizens' Street Railway Company and the Oklahoma City Street Railway Company is believed to have been barely averted.

The Citizens' Company,



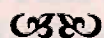
which is backed by J. J. Gulbertson of Paris, Tex., wants to run a downtown loop on Robinson, California, Broadway, and First Streets using the Classen lines on Broadway Street, but, thus far, the Classen interests have refused to grant the concession.



*August 8, 1907, p. 5*

### **BOHEMIAN NEWS-PAPER GRANTED A CHARTER**

A charter has been issued in the office of the Territorial Secretary at Guthrie to the Bohemian Publishing Company of Oklahoma City. Under the terms of the charter, the company can publish a daily, weekly, semi-weekly, and monthly paper and do a general printing business. The company has been operating in Oklahoma City for several years, engaged in the publication of a Bohemian journal, but has never before been chartered. [*My grandfather worked for a Bohemian Newspaper in Oklahoma City in 1909, Kenneth V. Luza*].

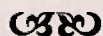


*August 8, 1907, p. 10*

### **METEOR IS SEEN BY EL PASO FOLK**

El Paso, Texas, August 7.—A remarkable meteor was seen here this morning slowly moving across the heavens from the southwest, disappearing in the northeast at

5 o'clock. It presented the appearance of a comet about the size of a football with a tail apparently 50 feet long from which showers of meteors fell continuously.

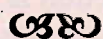


*Friday, August 9, 1907, p. 1*

### **HOME BUILDING IS IN FULL BLAST**

**RESIDENCES AND SMALL BUSINESS STRUCTURES NOW BEING ERECTED WILL COST \$300,000**

Residences and small business buildings, with a total valuation of more than \$300,000, are under course of construction in Oklahoma City at the present time, according to estimates furnished from the building commissioner's office. In addition to this unprecedented activity in home building, several times that amount is represented by larger business and office buildings which are either in course of construction or are just nearing completion.



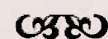
*August 9, 1907, p. 8*

### **PERMANENT PEACE COMES TO MINES**

**OPERATORS SIGN AGREEMENT SETTLING TROUBLE IN WYOMING FIELDS**

Denver, August 8.—The

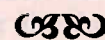
joint convention of the United Mine Workers of America and the operators representing every mine in Wyoming, reached an agreement this afternoon, which means permanent peace in the Wyoming coal field.



*Saturday, August 10, 1907, p. 1*

### **TAFT RECEPTION PLANS PERFECTED SECRETARY OF WAR WILL BE WELL ENTERTAINED WHILE IN CITY**

Arriving in Oklahoma City at 8 o'clock in the morning on August 24, over the Frisco, Secretary William H. Taft will be greeted by a reception committee consisting of the full membership of the Republican State Committee, members of the republican press of the territories, and a special committee of 50 republicans of prominence from different parts of the state. The visitor will be escorted to the Threadgill Hotel in an automobile, where he will remain in his room until 11 o'clock, at which time he will be taken for an automobile drive over the city. At noon he will return to the Threadgill, where he will be the guest of honor at a luncheon to be given by the Republican state candidates.



*Tuesday, August 13, 1907, p. 1*

## **BELLE ISLE GETS PLANT**

**STREET RAILWAY COMPANY  
WILL BUILD \$180,000 STRUC-  
TURE AT ONCE**

Presenting a petition from the Oklahoma City Street Railway asking permission of the City Council to construct its power plant outside the city limits, John W. Shartel, counsel for

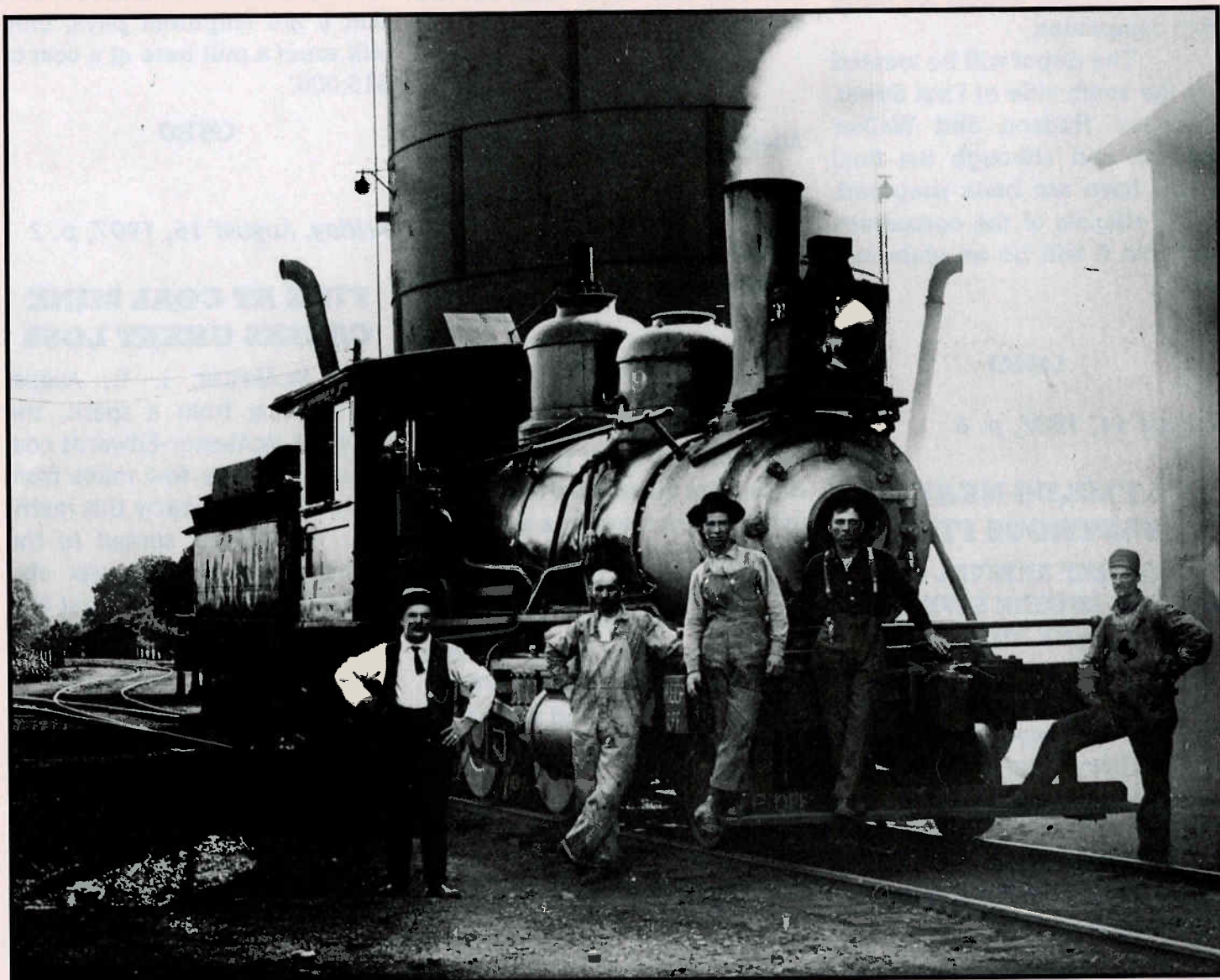
the company, declared last night that it is prepared to begin work today on the erection of the most complete power plant in the southwest, at an estimated cost of \$180,000, on property owned by the company in the Belle Isle addition.

❧

*August 13, 1907, p. 6*

## **TROOPS FIRE INTO RIOTOUS CROWD IN BELFAST**

Belfast, August 12.—Serious and fatal disorders occurred here again tonight. The troops fired into a large crowd that had assembled on the streets, and which refused to disperse, instantly killing a man and a



Switch engine in Guthrie, ca. 1908. *Western History Collections, University of Oklahoma.*



woman, and seriously wounding a number of others.

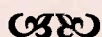


*Wednesday, August 14, 1907, p. 1*

### **RAILROADS PLAN TO ERECT BIG DEPOT ON FIRST STREET**

The Rock Island and the Frisco Railway Companies have taken the preliminary steps looking to the erection in Oklahoma City of union and freight and passenger depots for these two companies.

The depot will be located on the south side of First Street, between Hudson and Walker Streets, and although the final plans have not been prepared, local officials of the companies say that it will be an elaborate affair.

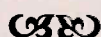


*August 14, 1907, p. 6*

### **OIL FIELDS NEAR DI- SASTROUS FIRE TIMELY ARRIVAL OF SWITCH ENGINE SAVES LOSS OF MANY MILLIONS**

Muskogee, I. T., August 13.—An oil inspector for Indian Territory, who arrived here today from a trip through the Glenn Pool, says that a great conflagration was averted there by the timely arrival of a switch engine with a tank full of water.

The weather has been so dry that vegetation through the oil field burns like tinder. Overflow oil from wells, loading racks, storage tanks, and other sources has run in creeks, over grass and logs, and the entire Glenn Field is a regular tinder box. A passing engine set fire to grass along the right-of-way and the fire was burning rapidly toward an oil-soaked creek that led directly to some big wells and large tanks of oil. A switch engine backed quickly down and with a long hose succeeded in checking the fire just before it reached the oil.



*August 14, 1907, p. 6*

### **THOUSANDS OF LIVES LOST WHEN WAR- SHIPS SHELL TOWN**

Washington, August 13.—Wrecked and torn by the storm of leaden ball that has been rained upon the town for days, from the guns of the French and Spanish warships anchored in the harbor, the city of Casablanca is a smoking mass of ruins, the naturalized Americans who have made it their home have lost practically everything that they possess, and the inhabitants are fleeing to places of safety.



*Thursday, August 15, 1907, p. 10*

### **SILICA MILL IS PROM- ISED CUSTER**

#### **FAIRBANKS COMPANY EX- PERIMENTS AND MINERAL BANKS MAY BE PRODUC- TIVE**

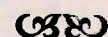
Custer, Okla., August 14.—Numerous silica mills will be established here, if an experiment on the part of the Fairbanks Soap Company proves successful. The company has just dried and shipped a carload of silica, and the announcement is made that if the shipment pays, they will erect a mill here at a cost of \$15,000.



*Friday, August 16, 1907, p. 2*

### **FIRE AT COAL MINE CAUSES GREAT LOSS**

McAlester, I. T., August 15.—Igniting from a spark, the tippie of McAlester-Edwards coal mine, located a few miles from this city, burned early this morning. The flames spread to the engine house, which was also consumed, entailing a total loss of probably \$12,000.



*Sunday, August 18, 1907, p. 3*

## **SEEK REMOVAL OF IMMORAL RESORTS**

### **PROPERTY OWNERS FINAL- LY INDUCE COUNTY ATTOR- NEYS TO TAKE ACTION**

Consenting at last to pay some attention to complaints filed before him three weeks ago, and which he has ignored ever since that time, County Attorney Hays promised last evening that he would, tomorrow morning, file applications in the District Court for injunctions against the immoral houses on Grand Avenue and put them out of business.



*August 18, 1907, p. 15*

## **MARVEL OF WORLD IS ILLUMINATION OF NIAGARA FALLS**

### **WONDERFUL ELECTRIC SCINTILLATORS PRODUCE ENTRANCING COLOR EF- FECTS**

Niagara Falls, N. Y., August 17.—The night illumination of the mighty torrent at Niagara Falls is now a fact and the plan for lighting the mist and water is unquestionably the greatest feat ever conceived in electrical illumination. The great falls, bathed in dazzling light, surpasses in grandeur and spectacular effect anything of its kind ever seen before.



*Tuesday, August 20, 1907, p. 3*

## **PAY GOLD FOUND NEAR M'ALESTER**

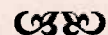
### **DIRT THAT CARRIED \$3,000 A TON IS NOW BEING MINED**

Muskogee, I. T., August 19.—Gold that assays nearly \$3,000 a ton is being mined within 25 miles of McAlester, and the facts have leaked out despite the efforts to keep it a complete secret. The mine is located on the bank of Elm Creek, section 19, Township 3 north, Range 18 east.

O. J. Bicking and P. F. Sutton, both of McAlester, contractors, are backing the gold mine and have developed the zone which bears paying ore. At 60 feet they are in gold-bearing quartz. The owners of the mine have kept their findings secret, but have bought and leased all the land they can get in that immediate section. There have been many assays made. The lowest showed \$6 per ton when the ore zone was first discovered, and the highest shows nearly \$3,000 per ton taken on the 60-foot level.

The discovery of this gold mine is a romantic one. An old prospect hole near Limestone Gap, abandoned for years, has held faithfully a secret that the Choctaws hoped it would, and the daring prospector who invaded the Indian Country and commenced to use his pick before the Civil War, never lived to reap the

benefits of his discovery.



*Wednesday, August 21, 1907, p. 10*

## **OIL WELL FOUND NEAR MUSKOGEE**

### **SYRACUSE OIL COMPANY'S STRIKE RENEWS ACTIVITY IN PROMISING FIELD**

Muskogee, I. T., August 20.—Syracuse Oil and Gas Company brought in a big well just south of Muskogee. This company has been six weeks fishing out lost tools and this afternoon succeeded in breaking into the oil sand. The flow of the well cannot be determined now on account of holes in the casing, but it looks like about 600 barrels a day.



*Thursday August 22, 1907, p. 7*

## **INDIAN TERRITORY TO HAVE FIRST GAME LAW THIS FALL**

Muskogee, I. T., August 21.—This fall sportsmen in Indian Territory, for the first time, will have to submit to a game law. That law will be the one now in force in Oklahoma and it has proven a very good statute. Under the terms of the enabling act, the laws of Oklahoma become effective in Indian Territory as soon as the constitution is adopted, and will remain in force until changed by the first legislature.

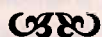




*Saturday, August 24, 1907, p. 1*

**BIG SECRETARY WILL  
PARADE PUBLIC  
STREETS IN AUTO  
THOUSANDS WILL  
GATHER HERE TODAY  
TO HERE TAFT  
BANDS WILL PLAY  
WHEN HE ARRIVES**

Thousands of persons will gather in Oklahoma City today to see and hear William H. Taft, Secretary of War, who will spend the day here. He will speak in Convention Hall tonight. The Taft meeting has been thoroughly advertised throughout the two territories and the Republicans have exerted every energy in an effort to secure an enormous attendance from the rank and file of the party. Democrats, who want to hear the other side, will be here too. Hundreds are arriving on every train.



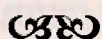
*August 24, 1907, p. 10*

**NATURAL GAS BY NO-  
VEMBER FIRST**

**WORK ON PIPELINE IS BE-  
ING PUSHED RAPIDLY BY  
PROMOTERS**

Guthrie, Okla., August 23.—The people of Guthrie are now promised natural gas for use in their homes by November 1, at the latest. The work on the construction of the pipeline from the Red Fork, I. T., District

to Oklahoma City, Guthrie, and Shawnee via Bristow and Stroud, is being pushed rapidly by the promoters.



*Sunday, August 25, 1907, p. 6*

**COAL SHORTAGE TO  
BE SERIOUS  
INADEQUATE RAILROAD FA-  
CILITIES RESPONSIBLE FOR  
SITUATION, SAY DEALERS**

The coal dealers of Oklahoma City have reported that there will be a shortage in the supply of coal this winter. The large operators of the city do not expect the shortage to be evident until the latter part of October, or the first of November. They state that the entire output of the mines is practically sold, up to the first of September, and have been notified to store all they can possibly handle, as they look for the shortage to be the worst that they have experienced at any time during the last few years.



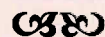
*Tuesday, August 27, 1907, p. 10*

**SYNDICATE WILL  
FIGHT OIL TRUST  
AMERICAN COMPANY PLANS  
TO WORK MEXICAN FIELD**

Washington, August 26.—Arrangements have been completed for the organization of a \$50,000,000 American syndicate, according to an announcement published today, which

plans to develop several million acres of oil fields in Mexico. It is proposed not only to supply the Mexican market, but to ship the product to Central and South America and to Europe and South Africa in competition with the Standard Oil Company. sale of oil in Oklahoma have been spirited out of town," was the statement made last evening by Special Prosecutor Charles J. West of Enid.

"At least that is the information that reached me today and I know that the men have disappeared. I was told that one witness had gone away for his summer vacation and will not return until November. The other is in Capitol Hill."



*August 30, 1907, p. 6*

**FIRE THREATENS THE  
OKLAHOMA  
UNIVERSITY**

Norman, Okla., August 29.—Fire broke out in a box of chemicals in the basement of Science Hall about 9 o'clock this morning and caused slight damage to the woodwork. W. G. Lawrence, a medical student, was working on the second floor of the building and gave the alarm. Before the fire department arrived the fire was under control.



*September—The Daily Oklahoman had a daily average circulation of 21,729 in September,*



1907. On Thursday, September 5, 500 firemen held a nationwide convention in Oklahoma City. William Jennings Bryan concluded the first day of his second triumphant tour of the future state in the interest of the adoption of the constitution on September 5. On Monday, September 9, public schools of Oklahoma City opened with an estimated attendance of 5,500. On September 1 and 2, a volcano in the Aleutian Islands erupted sending tons of ash and cinders over a score or

more native villages. On September 12, the *Lusitania* arrived in New York City after a 5-day, record-setting crossing of the Atlantic. On September 17, voters in the Twin Territories ratified the new constitution, elected officials to the new State Legislature, and voted for statewide prohibition.

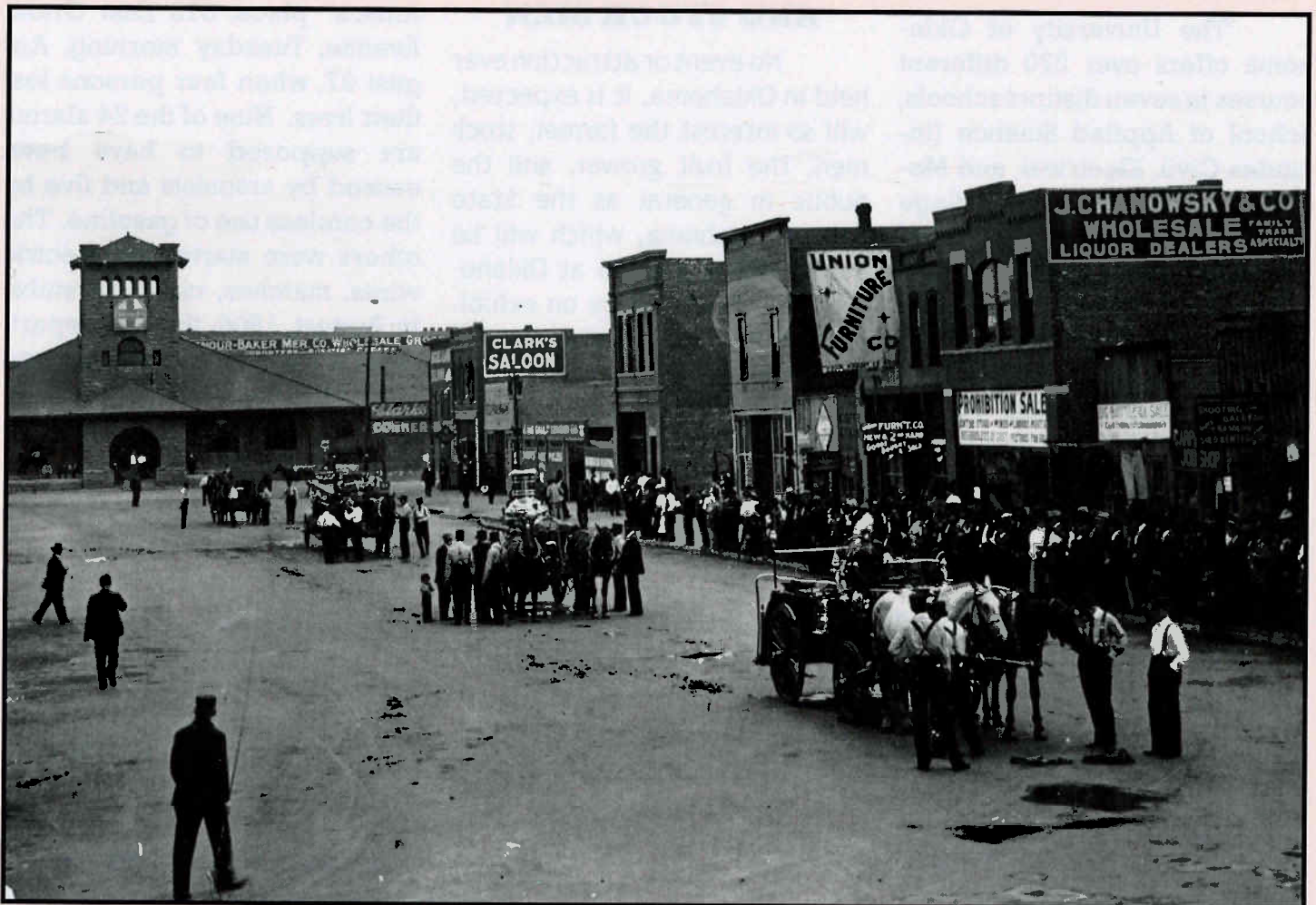


Sunday, September 1, 1907, p. 7

## **GOLDFIELD UNCLE SAM MINING COMPANY**

**CAPITAL 1,000,000 SHARES  
PAR VALUE \$1.00  
500,000 SHARES IN THE  
TREASURY**

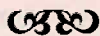
This company is now operating a lease comprising nearly six acres in the heart of the Goldfield District. It has a shaft 200 feet deep and is equipped with



Oklahoma City Fire Department exhibiting equipment, ca. 1907, Santa Fe depot in background. *Oklahoma Historical Society.*



a new modern hoisting plant, tools, machinery, and buildings, etc. The shaft is now in the true formation in which all of the rich values have been found, and we consider it but a matter of a few weeks until we shall be shipping ore. [This was part of an advertisement by this company to raise capital for its mining operation in Goldfield, Nevada].

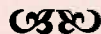


*Sunday, September 1, 1907, p. 8*

### **THE STATE UNIVERSITY OF OKLAHOMA OVER 270 DIFFERENT COURSESY**

The University of Oklahoma offers over 270 different courses in seven distinct schools, School of Applied Science (includes Civil, Electrical, and Mechanical Engineering), College of Arts and Sciences, School of Fine Arts, School of Mines, School of Medicine, School of Pharmacy, and Preparatory School for those who have not had the advantage of a good high school. Tuition is free which means that a four year scholarship, without cost, is offered to every young person in the new state. In selecting a school, both parents and students would do well to choose one that is not conducted for profit. There are 42 faculty, 700 acres in grounds, 8 buildings, plant and equipment valued at \$500,000. Everything is new and of the very latest design. The fall term will begin September 10th. [This is one of many

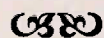
advertisements on this page by colleges and universities. Other schools included University of Notre Dame; Columbia Institute, Columbia, Tennessee; Oklahoma College for Young Ladies, Putnam Heights, Oklahoma City; Epworth University, Oklahoma City; North Texas Female College, Sherman, Texas; St Louis School and Museum of Fine Arts; and Blee's Military Academy, Macon, Missouri].



*September 3, 1907, p. 5*

### **STATE FAIR WILL INTEREST FARMERS AND STOCK MEN**

No event or attraction ever held in Oklahoma, it is expected, will so interest the farmer, stock men, the fruit grower, and the public in general as the State Fair of Oklahoma, which will be held October 5 to 16 at Oklahoma City. Here will be on exhibition all the products of Oklahoma soil, proving by illustration what can be done with the Oklahoma farm, together with the ways and means of realizing the possibilities of profitable agriculture and stock raising.



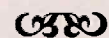
*September 3, 1907, p. 6*

### **FEWER FIRES BUT GREATER DAMAGE**

#### **DEPARTMENT MADE 24 RUNS LAST MONTH AS AGAINST 30 IN AUGUST LAST YEAR**

During the month of August, 1907, the Oklahoma City fire department responded to 24 alarms. Out of this number one was a false alarm and the other 23 were actual fires. Fourteen calls were turned in during the night and ten during the day.

The most disastrous fire during the month was that of "Big Anne's" place, 312 East Grand Avenue, Tuesday morning, August 27, when four persons lost their lives. Nine of the 24 alarms are supposed to have been caused by arsonists and five by the careless use of gasoline. The others were started by electric wires, matches, cigarette stubs. In August, 1906, the fire department answered 30 calls and no lives were lost.



*Wednesday, September 4,  
1907, p. 1*

### **PORTER FALLS PARALYTIC VICTIM**

#### **MASONS AND ELKS ARE TO OFFICIATE AT FUNERAL**

Vinita, I. T., September 3. —General Pleasant Porter, the noted Chief of the Creek Indian





City Hall where the Oklahoma Constitutional Convention was held. *Oklahoma Historical Society.*

Nation, died here this morning, following a stroke of paralysis, aged 67 years. He was stricken on the train and taken off at Vinita. The body was brought to Muskogee. Tomorrow afternoon a special train will be run from Muskogee to Wealaka, the country home of the dead chief, where the chief will be interred beside members of his family, who have gone before. The funeral will be under the direction

of the Masons and Elks, Chief Porter being a member of both orders. Second Chief Moty Tiger will succeed General Porter as Chief of the Nation.



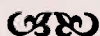
*September 4, 1907, p. 1*

### **CLEVELAND COUNTY'S FIRST FAIR OPENED**

Norman, Okla., September 3.—The first annual Cleveland County Fair opened here this morning under auspicious conditions. A crowd of several thousand people from all parts of southern Oklahoma are in attendance. However, today the



exhibits were not all in place and the crowd will be doubled tomorrow, when a three-day race meet commences.



*September 5, 1907, p. 5*

## **108 YEARS OLD NEGRO REGISTERS**

**ANDREW MCCALEDP SAYS  
THAT HE WAS BORN IN THE  
YEAR 1799**

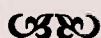
Andrew McCaledp, 302 East First Street, a Negro, who says that he was born in Hickman County, Tennessee, in the year 1799, making him 108 years old, has placed his name on the registration rolls. He has the unique distinction of having seen three centuries, the eighteenth, nineteenth, and twentieth. He got his name from the McCaledp family of Virginia, who sold his parents to William Nunnley of Hickman County, Tennessee, during the latter part of the eighteenth century, and upon whose plantation he was born a few years later.

William Nunnley sold McCaledp, when he was a small boy, to his brother, Alexander Nunnley, whose chattel he continued until the proclamation issued by President Lincoln in 1863.

He disclaims ever having seen any president, except General Grant, and then at a period before that distinguished warrior became chief magistrate of the Nation. The only other renowned man whose hand McCa-

ledp grasped was General William Tecumseh Sherman. This incident was also during the war time and happened, according to McCaledp in Arkansas

"No," the old Negro replied in answer to an inquiry of particular memories. "I have not had any miraculous or blood curdling experiences. The nearest I ever came to death was five years ago, when I was attacked with an abscess. I have never seen any great men aside from Generals Sherman and Grant, but I did once see a drummer, who was with General Washington during the Revolution."



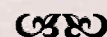
*Friday, September 6, 1907, p. 1*

## **BRYAN SPEAKS TO FULLY 10,000 PER- SONS HERE DEFENDS CONSTITU- TION WHILE HEARS CHEERS**

**GREAT AMERICAN COM-  
MONER ANSWERS EVERY  
ARGUMENT ADVANCED BY  
SECRETARY TAFT AGAINST  
BELOVED DOCUMENT OF  
PEOPLE—AUDIENCE EN-  
THUSED BY ADDRESS**

With a speech at Convention Hall last night, William Jennings Bryan, the leader and idol of the Democratic Party concluded the first day of his second triumphant tour of the future state in the interest of the adoption of

the constitution. Including last night's audience, he addressed fully 25,000 persons during the day and evening. Mr. Bryan gave his unqualified endorsement to C. N. Haskell, the democratic candidate for governor, declaring that from a personal acquaintance of eleven years he knew him to be a strong, able, and faithful democrat, who had always been one of his most ardent friends and supporters back in the days when the money question had estranged many former democrats from his cause. The democratic leader, in every speech he made, completely annihilated the feeble effort of Secretary Taft's criticisms to the constitution.



*September 6, 1907, p. 7*

## **4,000 SEE RACES AT THE FAIR IN NORMAN**

Norman, Okla., September 5.—Four thousand people saw the second day of racing at the Cleveland County Fair.



*Saturday, September 7, 1907, p. 10*

## **GALVESTON, TEX. \$9.00 ROUND TRIP**

Sunday, September 8th.—The MKT train leaves Oklahoma City at 7:40 a.m. to arrive in Galveston 9:00 a.m. Monday. This train will have day coaches and tourist sleepers. Berth rate in sleeper \$1.50.



The Grand Opera House in Tulsa, I. T. *Oklahoma Historical Society.*

Call at our city ticket office now and secure your berth in sleeper before they are gone. Don't wait until it is too late. This will be the only opportunity this season to spend ten days at the seaside at such a low rate. [An advertisement by the MKT railroad.]

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*Sunday, September 8, 1907, p. 1*

## **SCHOOLS OPEN TOMORROW**

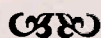
**ENROLLMENT OF FIRST  
DAY WILL BE 5,500  
BUILDINGS CROWDED;  
ADDITIONAL ROOMS ARE  
ENLARGED**

With an estimated attendance of 5,500, the public schools of Oklahoma City will

be opened tomorrow morning. By the end of the first week these figures will have been increased to at least 6,000, in the opinion of Superintendent J. B. Taylor; and by the end of the first school month he believes that there will be in the neighborhood of 7,000 pupils enrolled in the grade and high schools. Every available school building in the city will be crowded from the opening. Additional rooms have



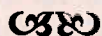
been erected at the Garfield, Emerson, Lincoln, and Jefferson schools, and will be ready for occupancy Monday.



*September 8, 1907, p. 1*

**OKLAHOMA CITY'S  
POPULATION IS  
ANNOUNCED AS  
ONLY 32,452;  
BUSINESS MEN WILL  
PROTEST**

"According to the city directory, Oklahoma City should have a population of 46,000 to 47,000. That, of course, includes Capitol Hill, which has a population of 1,361 inhabitants. As president of the 150,000 Club, I will make an investigation and if the returns do not appear to be just, we will confer with the Chamber of Commerce and take such action as seems necessary," said Mr. Classen. J. G. Leeper, vice president of the Chamber of Commerce, said: "I endorse the move suggested by Mr. Classen, to call a meeting of the Chamber of Commerce and 150,000 Club at once. We should investigate the matter promptly. It looks to me like we are being swindled out of credit for 12,000 inhabitants."



*Wednesday, September 11, 1907, p. 1*

**ISLAND VOLCANO ON  
BIG RAMPAGE**

**SENDS TONS OF ASH AND  
CINDERS OVER SCORE OF  
NATIVE VILLAGES**

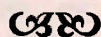
Seattle, Wash., Sept. 10.—Advices received here from an officer of the revenue cutter, Rush, lying at Dutch Harbor, September 4, says that on September 1 and 2, a volcano in the Aleutian Islands broke forth sending tons of ash and cinders over a score or more native villages, frightening the native Alaskans as well as the whites out of their wits and covering the decks of the cutter Rush, with debris from the volcano. No lives were reported lost.



*Thursday, September 12, 1907, p. 1*

**TULSA'S REFINERY  
MAY REMAIN IDLE**

Tulsa, I. T., September 11.—J. C. O. Morse, receiver for the properties of the defunct Uncle Sam Oil Company, while here today inspecting Uncle Sam refinery No. 3, of which the Commercial Club of Tulsa seeks to gain possession, stated that the plant may remain idle indefinitely, as it is impossible to get an order of court to put the plant in readiness for operation.



*September 12, 1907, p. 9*

**HALF OF ROYALTIES  
WILL BE PAID OVER**

Muskogee, I. T., September 11.—The Secretary of Interior has ordered the Indian agent to pay over to the allottees their half of the royalties arising from oil and gas leases in the Seminole Nation. This money has been held up ever since the leases were made here on account of peculiar lease laws.



*Saturday, September 14, 1907, p. 6*

**WAR DEPARTMENT  
PREPARING TO ABAN-  
DON FT. RENO SOON**

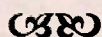
Washington, September 12.—According to orders issued today by Acting Secretary of War Oliver, the following military dispositions will be made within the next four months:

The Fourth, Fourteenth, and Twenty-third infantry regiments and the First Cavalry will return from the Philippines and their places will be filled by the Second, Eighth, and Twenty-Fourth Infantry and the Third Cavalry.

Another paragraph of the order relieves the Twenty-Second Infantry from duty at Fort McDowell and the Presidio, at Monterey, Cal., July 1, when they are ordered to Alaska. They will be relieved there by the Tenth Infantry which is ordered to take

station at Fort Benjamin Harrison.

The Ninth Infantry at Fort Reno, Okla., is ordered to Fort Mckenzie, Wyo., March 1 to relieve the battalion of the Fourth Infantry, which is ordered to the Philippines. Fort Reno will then be placed in charge of caretakers and ultimately will be abandoned.



*September 14, 1907, p. 6*

## **TRANS-ATLANTIC RECORD TO BE BROKEN BY LUSITANIA**

New York, September 12.—The important ocean race in Trans-Atlantic steaming is nearing a spectacular finish. The turbine driven *Lusitania*, in which is incarnated the British resolve to

win back from Germany the blue ribbon of the seas, will be near Nantucket tonight according to a wireless message to the Associated Press from the *Lusitania*.



African American school teachers in Guthrie, O. T. *Western History Collections, University of Oklahoma.*



Sunday, September 15, 1907, p. 4

## **TERRITORY SCHOOLS HAVE 66,000 PUPILS**

Muskogee, I. T., September 14.—The annual report of John D. Benedict, Superintendent of Schools for Indian Territory for the year ending June 30, shows that there were 66,278 pupils enrolled in the government and tribal schools and that the schools cost \$539,923, or an average of \$8.60 per head for each child. These figures do not include the private schools in the Territory nor the public schools maintained in the incorporated towns which are maintained independently of the government or the Indian Tribes.

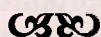


September 15, 1907, p. 9

## **BIG CROWDS ARE ATTRACTED TO OKLAHOMA DISPLAY AT THE JAMESTOWN EXPOSITION**

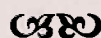
Oklahoma is one of three states west of the Mississippi River having exhibits at the Jamestown Exposition. The space occupied by the Oklahoma booth is 43x65 feet. It is located between the low main aisles in the states exhibits palace and directly in front of the only large cross aisle in the building. A collection of Oklahoma photographic scenes numbering more than 700 are

thrown on a canvas with the latest model stereopticon presenting an interesting and novel entertainment combined with a lecture. The pictures represent resources of the new state and are divided into special groups and subjects.



Tuesday, September 17, 1907

*On September 17, an election was held in the Twin Territories to ratify the new constitution, elect officials to the new State Legislature, and vote on statewide prohibition. It would take several days before the election results became official. The Oklahoma Constitution was approved by more than 70 per cent of the vote along with statewide prohibition. The voters elected mostly Democrats to fill positions set forth in the new constitution. Pete Hanraty was elected as the first Chief Mine Inspector. Andrew P. Watson, J.J. McAlester, and J. E. Love were elected to terms on the first Corporation Commission.*



Saturday, September 21, 1907, p. 1

## **CHIEF GERONIMO GUEST OF HONOR**

### **GREAT INDIAN WARRIOR TO BE ATTRACTION AT COL- LINSVILLE POWWOW**

Collinsville, I. T., September 19.—Chief Spybuck, of the Shawnee Indians, is preparing for a great powwow to be held at Collinsville, October 14-19, at which Chief Geronimo, of the Apaches, prisoner of war at Fort Sill, will be the guest of honor. The department of war has granted the old warrior permission to leave the reservation, and, accompanied by his eighth wife and daughter, Eva, and guarded by a detachment of soldiers from Fort Sill, he will come prepared for a good time.

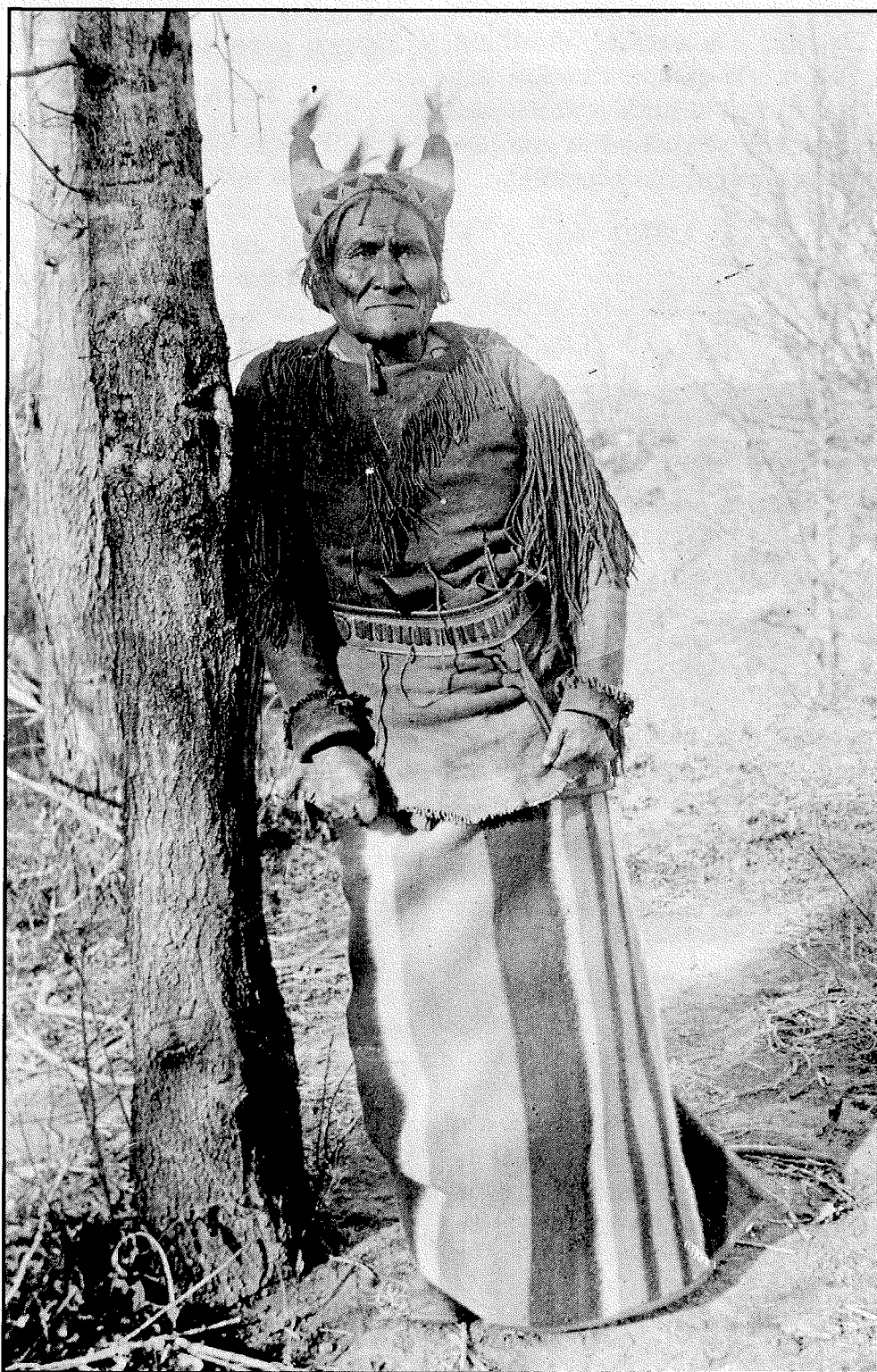
Quanah Parker, chief of the Comanches, and other chiefs of tribes in the state, will come and take part in the festivities as Spybuck has extended a general invitation to all the Indians in the state.



Sunday, September 22, 1907, p. 9

## **DEEP WATERWAYS CONVENTION OF IMPORTANCE TO OKLAHOMA**

Muskogee, I. T., September 21.—A delegation of 30 businessmen, headed by Governor Charles N. Haskell, will go from Muskogee to Memphis



Geronimo standing beside a tree dressed in two horned hat. *Western History Collections, University of Oklahoma.*

as representatives of the Commercial Club to attend the deep waterways convention which meets in the Tennessee city, October 4.

This is significant to the new state. The first internal improvement proposition now before Oklahoma is the improvement of the Arkansas River so as to establish permanent navigation as far up stream as Muskogee. The new state wants the deep waterways convention to go on record favoring the improvement of the river from Van Buren, Ark., to Muskogee, which is considered the head of navigation on the river; and so chartered by the war department.



*September 24, 1907, p. 12*

## **EXPLORERS VISIT THE MYSTIC CAVE**

**MEMBERS OF PARTY TELL  
STORY OF THEIR THRILL-  
ING EXPERIENCES**

Sulphur, I. T., September 23.—The crowd that went out today to further explore the Mystic Cave returned late tonight with accounts of thrilling adventures and new discoveries. The crowd consisted of Miss Allie Johnston and Miss Janette Johnston of Texarkana, Ark., Miss Ragsdale of Bonham, Texas, E. M. Johnson of Clarksdale, Miss.,



and O. G. McAdams, a real estate man of this city, who acted as guide for the party.

They were equipped with electric search lights, a collapsible boat, plenty of rope, and bathing suits. They found two new openings into larger caverns heretofore undiscovered and unexplored. They rowed down the Mystic River about 300 yards beyond the natural bridge to a point where their progress was topped by a great waterfall of more than 200 feet. Beyond this fall as far as their search lights would penetrate the darkness, the cave became larger and the river wider, and the volume of water seemed to be increased many times. Just before leaving the cave the explorers donned their bathing togs and took a swim in the big lake in the "Council Chamber."



Wednesday, September 25, 1907, p. 1

### **N. Y. COMPANY TO BUILD GAS PLANT HERE**

A deal has been completed whereby the Pintsch Compressing Company of New York, will erect a plant in this city for the manufacture of illuminating gas, and will run pipelines from the plant to all portions of the two territories.

The deal was consummated yesterday by the Cannon Realty Company, when the New York concern purchased

for \$6,000, from Levy Brothers & Gerson, a tract of land lying east of the Frisco tracks in the Second Riverside Addition. The work of construction will be started at once and the factory will be rushed to completion as rapidly as possible.



September 25, 1907, p. 4

### **UNCLE SAM OPENS LARGE COAL BIDS DIFFICULTY WILL BE EXPERIENCED IN SE- CURING FUEL FOR LONG VOYAGE**

Washington, September 24.—Bids were opened today at the Bureau of Equipment for the navy department for the transportation and supply of coal for the use of the Atlantic battleship fleet during its coming voyage to the Pacific coast in December.

The proposals contemplated the shipment of supply of this coal to be delivered at various points in the West Indies, on the South American coast, and at Magdalene Bay, and Mare Island and San Francisco on the Pacific Coast of North America.



September 25, 1907, p. 10

### **\$43,000 IS SUM PAID FOR BIG HERD OF SHEEP**

Ponca City, Okla., September 24.—What is said to be the biggest deal ever consummated in Oklahoma was made at Bliss yesterday, when George Brett and G. W. and Joseph Carson bought 8,500 head from McKenzie & Ferguson for \$43,000.



Thursday, September 26, 1907, p. 3

### **MOUNTAINS RISING THROUGH THE OCEAN**

Seattle, Wash., September 25.—Captain A. J. Henderson of the Revenue cutter *The-tis*, on his arrival from an Arctic expedition, confirmed official reports of a violent eruption by Mount Makushin on September 1 and the existence of a new peak rising from the sea, forming part of the Bogoslov Formation. The latest addition is the fourth and with its appearance, the bottom of the ocean has raised until channels formerly sufficiently large for the passage of ships are now dry lands. The mountain is 25 miles from Unalaska. Reports made to Captain Henderson in the north note three other similar volcanic disturbances during the present summer.



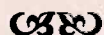
*September 26, 1907, p. 5*

**LEASE APPROVED  
AFTER HOT FIGHT  
FAMOUS SAM BOBB CASE  
IS SETTLED AFTER UNIQUE  
LEGAL ENTANGLEMENTS**

Muskogee, I. T., September 24.—The Secretary of Interior has approved the lease of the Delakee Oil & Gas Company on the Sam Bobb land at Bartlesville. This is one of the most noted cases that has ever been contested in the history of Indian Territory oil fields. It has taken three years to fight it out.

The Delakee Company and another oil company secured leases on the same land, it being claimed for the allotment of another Indian. During the various trials over the contested land and leases, the different oil companies kept Bobb living in ease and luxury, at their expense, and he traveled all over the United States. This was done in turn by the different oil companies. When one company got the advantage and wanted to keep Bobb out of the way of the courts and the other oil companies, they would send a man with him and keep him traveling, living at the best hotels and buying everything he wanted. Finally the government, to ascertain just what Bobb wanted to do, sent an officer to Arkansas City where an oil company was hiding Bobb, had him arrested on a pretext, then got him out of jail and brought him to Muskogee

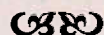
in a baggage car, and a midnight conference was held here and Bobb gotten out of town before the oil men located him. The lease adjoins the town of Bartlesville and is valuable.



*Friday, September 27, 1907, p. 11*

**FIRE STILL BURNING  
IN GREAT GAS WELL**

Tulsa, I. T., September 26.—Fired by lightning during a recent severe electrical storm, the great gas well in the Hogshooter District of the Cherokee Nation, owned by J. C. Noble, has been burning several days. The firing of the well also caused the destruction of the rig and machinery to the value of \$2,500. The Noble well is said to be the largest gasser in the world, the owner having once posted a wager to this effect.

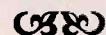


*Sunday, September 29, 1907, p. 1*

**INTERURBAN WILL BE  
BUILT  
WILL CROSS THE CITY  
CITY COUNCIL TO BE  
ASKED FOR RIGHT-OF-  
WAY**

The people of Oklahoma City will have the accommodation of an additional electric line, costing \$5,000,000, and which will cross the city di-

agonally from a southeast and northeast point. This is the plan of the incorporators of the Oklahoma City Electric Terminal Company with a capital stock of \$2,500,000, which was granted a charter in Guthrie yesterday.







# Oklahoma Gas Shales Conference and Field Trips: October 21 — 23, 2008



Conference Coordinator and Field Trip Co-Leader Brian Cardott, OGS geologist, shown inset and at left lecturing to field trip attendees. *Photos courtesy of Sue Britton Crites.*

The Oklahoma Geological Survey (OGS) held the "Oklahoma Gas Shales" conference on October 22, 2008, at the Reed Conference Center in Midwest City.

Recent advances in completion technologies and significantly higher gas prices have elevated the industry's activity in shale gas plays to a high level. Success in the Barnett Shale in the Fort Worth Basin has resulted in development of the largest gas field in North America. This excitement has spread northward across the Red River into the Ardmore Basin in Oklahoma, where the Woodford Shale is in the early

production stage.

***"The action on the domestic drilling scene says it all. Shale plays are hot."*** According to David Reimers, senior data adviser at HIS Energy in Houston, there's no sign of a slowdown. In the July American Association of Petroleum Geologists (AAPG) Explorer, he explains, ***"in 2007, there were 4,185 shale completions in the United States, and that number just keeps rising."*** Shale completions are up more than 10% since 2006 and a huge 75-plus % since 2000.





The Oklahoma Gas Shales Conference, held on October 22nd, had over 330 attendees. This event featured 12 presentations, 7 technical poster talks, and over 10 vendor/exhibitors. Photos courtesy of Sue Britton Crites.





According to the AAPG, in the central United States, the Devonian-Mississippian Woodford/Caney shale is the main scene of the action in Oklahoma, where the Woodford had 266 completions in 2007 compared to 129 in 2006. More than \$2 billion will be spent this year in exploring, developing and producing in this formation. Today, heavily fractured Woodford wells in the core play area can produce over 10 million cubic feet of gas per day for the first week, with average initial production in the five-to-six million range.

Many questions remain about how to turn Woodford and other Oklahoma Shale gas-resource potential into production. As in the Barnett, will thermal maturity combined with stimulation technology be the keys to economic production? Or will it be natural fracturing? Or will it be something else entirely? The prime area for this Upper Devonian/Lower Mississippian shale's gas potential lies just a couple hundred miles north of the Barnett Shale, but it is considered to be where the Barnett Shale was 15 to 20 years ago

and gas wells have not yet proliferated.

Successful Woodford gas-shale wells require an understanding of source-rock characteristics and reservoir properties, as well as the application of specialized completion techniques. The purpose of this conference was to present the following information on the Woodford Shale in Oklahoma and the status of the play: Woodford and Caney Shale geology, stratigraphy, electric-log response, source-rock characteristics, reservoir properties, drilling and completion practices, hydrocarbon production, and regional gas-shale projects.

Presentations at the conference included:

**Woodford Shale—Transitioning to Development**, by Samuel E. Langford, Newfield Exploration Mid-Continent, Inc.;

**Microseismic Fracture Mapping Results in the Woodford Shale**, by Mike Mayerhofer, Pinnacle Technologies;

**Shallow Woodford Shale Gas Play in Northeast Oklahoma**, by John Coates, Coronado Resources;

**Spectral Gamma-Ray Profiles from Outcrop for Discriminating Depositional and Stratigraphic Successions in Oklahoma Gas Shales**, by Stanley T. Paxton, U.S. Geological Survey Oklahoma Water Science Center;

**Woodford Shale, Ardmore Basin, Oklahoma: A Developing Shale Play**, by J. Michael Party, Wagner & Brown Ltd.;

**Woodford Shale Oil and Gas Resource Potential**, by Daniel M. Jarvie, Worldwide Geochemistry;

**Caney Shale, Oklahoma's Shale Challenge**, by Bill Grieser, Halliburton Energy Services;

**Horizontal Well Planning Within the Woodford and Other Gas Shales Within the Mid-Continent, USA**, by Camron Miller, Schlumberger;

**Using Elemental Chemostratigraphy for High-Resolution Correlation and Improved Geosteering in Mid-Continent Gas Shales**, Michael C. Dix, Halli-



burton;

**Overview of Woodford Gas-Shale Play in Oklahoma, 2008 Update**, by Brian J. Cardott, OGS;

**Current Production Trends of the Woodford Shale and Surface to Subsurface Correlations of Overlying and Underlying Formation Boundaries**, by Richard D. Andrews, OGS;

Seven posters also were presented:

**Shelf to Basin Transect of Middle Paleozoic Organic-Rich Shales of North America Midcontinent (Chattanooga, Woodford, Arkansas Novaculite)**, by J. Puckette, Oklahoma State University;

**Geomechanics of Woodford Shale Anisotropy: Mineralogy Upscaling Within QGGMS to Mechanical Properties and Innovative Field and Acoustic IDSTD Tools**, by Hinh Tran, University of Oklahoma;

**Preliminary High-Resolution Stratigraphic Analysis of the Caney and Woodford Shales in a Continuous Shallow Corehole from the Lawrence Uplift in Pontotoc County, Oklahoma**, by W. Lynn Watney, Kansas Geological Survey;

**High Resolution Stratigraphy of the Upper Mississippian Caney Shale and Biostratigraphic Correlation with the Barnett Shale of the Fort Worth Basin and Fayetteville Shale of Arkansas**, by D.R. Boardman, Oklahoma State University;

**Comprehensive Characterization of a Core from Over-Mature Woodford Shale in Le Flore County, Oklahoma**, by Alicia Branch, BP America;

**Thermal Maturity of the Woodford Shale in Oklahoma Applied to the Gas-Shale Play**, by Brian J. Cardott, OGS;

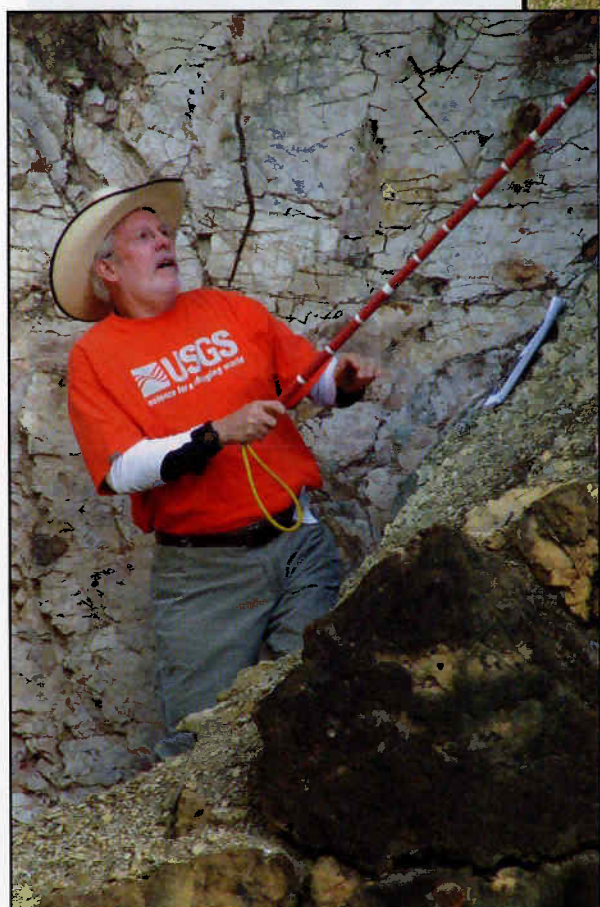
**Magnetic Susceptibility and Late Paleozoic Secondary Magnetizations in the Woodford Shale, Oklahoma: Role of Diagenesis**, by S.J. Pannalal, University of Oklahoma.

The one-day field trip, offered on both Tuesday, October 21, and Thursday, October 23, was sold out

soon after registration was opened. Field trip participants visited extended stops in the western Arbuckle Mountains and eastern Criner Hills in southern Oklahoma. Exposures of the Woodford Shale were viewed to compare and contrast source-rock and reservoir quality for gas shales, correlate lithologies in outcrop to electric logs in the subsurface, and examine the occurrence, extent, and orientation of fractures in outcrop that are the source of permeability in the subsurface.









# —Upcoming Meetings

## 2009

### JUNE

7-10 American Association of Petroleum Geologists (AAPG) Annual Meeting, Denver, Colorado. Contact: 800/364-2274; website: <http://www.aapg.org>.

21-24 American Association of State Geologists (AASG) Meeting, Park City, Utah. Website: <http://www.stategeologists.org>.

23-24 33<sup>rd</sup> Forum of Coal Geologists of the Western Interior Coal Region Meeting, Poteau, Okla. Sponsored by Oklahoma Geological Survey; contact: Brian Cardott at 405/325-3031 or 800/330-3996; e-mail: [bcardott@ou.edu](mailto:bcardott@ou.edu). Additional contact: Michelle Summers at 405/325-3031 or 800/330-3996; e-mail: [mjsummers@ou.edu](mailto:mjsummers@ou.edu). Website: <http://www.ogs.ou.edu>.

### AUGUST

20 Unconventional Reservoirs Workshop, Moore Norman Technology Center, Norman, Okla.

This workshop, sponsored by the Oklahoma Geological Survey, will focus on exploitation of tight gas and shale gas reservoirs. Oklahoma possesses both in the Arkoma Basin and Woodford, Caney and Fayetteville shales. Geologic risk is of minimal concern in these plays. The challenges are to high grade the economically more attractive zones and to efficiently stimulate the productive intervals. Presentations will address these topics and cover local and Mid-Continent resource plays.

Of special interest are the quantitative characterization of petrophysical variability in these unconventional reservoirs and their relation to seismic attribute analysis to define sweet

spots and the role of modern logging suites in helping to exploit these resources.

Technical Questions: Carl Sondergeld, Mewbourne College of Earth & Energy, 405/325-3180, [csondergeld@ou.edu](mailto:csondergeld@ou.edu). Registration and other information: Oklahoma Geological Survey 405/325-3031 or 800/330-3996; Michelle Summers 405/325-7313, [mjsummers@ou.edu](mailto:mjsummers@ou.edu); Tammie Creel 405/325-3034, [tcreel@ou.edu](mailto:tcreel@ou.edu). Website: <http://www.ogs.ou.edu>.

23-24 Summer North American Prospect Expo (NAPE), Houston, Texas. Contact: <http://www.napeonline.com>.

### SEPTEMBER

19-26 The Society for Organic Petrology, Gramado, Brazil. Website: <http://www.aipg.org>.

30 2<sup>nd</sup> Annual Real Deal Mid-Continent Prospect Expo, Clarion Meridian Hotel & Convention Center, Oklahoma City, Okla. Sponsored by Oklahoma Geological Survey (OGS) & Oklahoma City Geological Society (OCGS). Contact: Michelle Hone (OCGS) at 405/235-3648; e-mail: [ocgs.mhone@logixonline.com](mailto:ocgs.mhone@logixonline.com). Website: <http://www.ocgs.org>.

*See pages 70 - 71 of this issue for information regarding the 1<sup>st</sup> annual Expo!*

This event is designed to address the needs of the mid-continent geological community, including geologists, consultants, engineers, geophysicists and landmen. Plan to come and network at a reasonable cost!

Host a booth to sell prospects, a vendor/exhibit booth to network, or plan to sign up as an

attendee to network, shop for prospects, and listen to presentations given by Dan Boyd, (Oklahoma Geological Survey) and Jim Puckette, (Oklahoma State University).

### OCTOBER

3-7 American Institute of Professional Geologists (AIPG) Annual Meeting, Grand Junction, Colorado. Website: <http://www.aipg.org>.

4-6 Interstate Oil and Gas Compact Commission (IOGCC) 2009 Annual Meeting, Biloxi, Mississippi. Contact: 405/525-3556; website: <http://www.iogcc.state.ok.us>.

4-7 Society of Petroleum Engineers (SPE), New Orleans, Louisiana. Website: <http://www.spe.org>.

8 2009 Oklahoma Oil & Gas Trade Expo, Oklahoma City, Oklahoma. Contact: Oklahoma Commission on Marginally Producing Oil and Gas Wells (MWC); 405/604-0460 or 800/390-0460. Website: [www.marginalwells.com](http://www.marginalwells.com).

11-13 AAPG Mid-Continent Section Meeting, Tulsa, Oklahoma. Website: <http://www.aapg.org>.

18-21 Geological Society of America (GSA) Annual Meeting, Portland, Oregon. Contact: 800/472-1099; website: [www.geosociety.org](http://www.geosociety.org).

25-30 Society of Exploration Geophysicists (SEG) Annual Meeting, Houston, Texas. Website: <http://www.seg.org>.





Quarrying foundation stone for Oklahoma State Capitol. *Western History Collections, University of Oklahoma.*

*Created by the Oklahoma Territorial Legislature in 1890, the University of Oklahoma is a doctoral degree-granting research university serving the educational, cultural, economic and health-care needs of the state, region and nation. The Norman campus serves as home to all of the university's academic programs except health-related fields. Both the Norman and Health Sciences Center colleges offer programs at the Schusterman Center, the site of OU-Tulsa. The OU Health Sciences Center, which is located in Oklahoma City, is one of only four comprehensive academic health centers in the nation with seven professional colleges. OU enrolls more than 30,000 students, has more than 2,300 full-time faculty members, and has 20 colleges offering 158 majors at the baccalaureate level, 166 majors at the master's level, 81 majors at the doctoral level, 26 majors at the first professional level, and 24 graduate certificates. The university's annual operating budget is \$1.46 billion. The University of Oklahoma is an equal opportunity institution.*