

## KANSAS GEOLOGICAL SOCIETY

# BULLETIN

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#### **ON THE COVER:**

Some crowd shots taken at the annual Banquet

#### **CALL FOR PAPERS**

The Kansas Geological Society Bulletin, which is published bimonthly both in hard-copy and electronic format, seeks short papers dealing with any aspect of Kansas geology, including petroleum geology, studies of producing oil or gas fields, and outcrop or conceptual studies. Maximum printed length of papers is 5 pages as they appear in the Bulletin, including text, references, figures and/or tables, and figure/table captions. Inquiries regarding manuscripts should be sent to Rebecca Radford, <u>manager@kgslibrary.com</u> or mailed to 212 N. Market, Ste. 100, Wichita, KS 67202. Specific guidelines for manuscript submission appear in each issue of the Bulletin, which can also be accessed on-line at the Kansas Geological Society web site at <u>http://www.kgslibrary.com</u>

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- March 15- "Sequence Stratigraphy" (video) David T. Allison, Ph.D. University of South Alabama.
- March 29— **"Exploring Channels and Valley Fill Systems" (video)** SIPES Foundation (Steve Sonnenberg) The Stewart Field, Finney Co., Kansas is discussed in detail.

April 19 — "The Search for New Exploration Plays... When Only the Best will Do" - Julie Garvin, President of Roxanna Oil

April (TBA) "Fort Hays Student Presentations"

May 30- "WSU Student Presentations" - Larry Richardson Petroleum Class Field Studies

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CONGRATULATIONS!! Frank Mize correctly identified The last one as: *Ceratonurus* Bulletin committee members and PhD's in Paleontology are prohibited from entering.





## **President's Letter**

Dear KGS Members,

The KGS Banquet held on January 29<sup>th</sup> was very well attended and I want to thank all of you who were able to attend. And as usual, Morris Korphage did an excellent job of being our Master of Ceremonies for the evening and giving a great testimony of why Doug Davis was so deserving of the Honorary Membership Award. Doug's relentless help, enthusiasm, and knowledge of the Library and our Society are truly appreciated.

Outgoing President Mr. Frank Mize awarded Mr. Leonard Margheim with a Distinguished Service Award for his many years of service in Kansas helping hundreds of geologists with electric log interpretations. Most, if not all of us, have had Leonard in our offices pouring over the logs, to help us in determin-



ing which formations to perforate or describe in detail, exactly what the log trying to tell us. He was also instrumental in preserving many of the old Lane Wells and Dresser logs over the years and finding a way to donate many of those logs to the KGS Foundation to be incorporated into our Library.

Dave Clothier has also been busy trying to find lecturers to give talks to the KGS, but in these slow times, that has proven somewhat difficult. But he has managed to sort through our video library and find some really incredible one hour geological programs. These programs have included everything from Human Induced Earthquakes, to the formation of what is now North America, to the Earthquake in Sumatra in 2004. I think most of us have really enjoyed these, due to the fact that there seems to be more of us attending these video sessions.

Lastly, as we face an extended downturn of oil and gas prices which has caused more reductions in pay and/or personnel, whether it be a service company, wellsite geologist or an owner/operator of oil and gas leases, we need to be thankful of what we have accomplished in all the facets of our industry. But we can't ignore what has happened and currently continuing. We on the KGS Board are looking at everything that governs our existence to make sure we are able to continue to provide a service to not only our members, but to the industry as a whole.

Respectfully

Tim Hellman President

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## **From The Manager**

Dear Members,

What happened to winter? Too bad hardly anyone is drilling, there wouldn't be much issue with mud or snow this year. I hope that when you receive this Bulletin issue that we are starting to see some upward swing in the price of oil. But if not, your library is continuing to add new data to our files both on-line and processing large quantities of donated well logs into the paper files. All of this makes your library more valuable, especially for those of you who are prospecting and looking to the future. This downturn won't last forever and your library staff is working hard to have data ready for you when you need it.



Of course all of this takes money and while orders aren't flowing in like they

were, we still are open for business and if you need anything copied, such as maps or other items, please remember your KGS library and bring the business to us, rather than Kinkos or some other entity.

We had a wonderful Banquet again this year. Thank you to Bob Bayer for being the Chairman and making sure all went well. Doug Davis received his Honorary Membership plaque and pin and we had a wonderful tribute to him by M.L. Korphage. Entertaining as usual! Photo below.

Happy Spring to all of you and hang in there....times will get better!

Respectfully submitted, *Rebecca Radford* Manager





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## **Profile**—Thomas Hansen



This is a profile of one of the Kansas Geological Society's most prominent and active members who is currently serving on the Board of Directors as an advisor.

Tom was born in March of 1945 in Newton, Kansas. His father was a farmer and his mother a house wife. Tom has a brother, Bernie who resides in Wamego. His early education was at country schools and was completed at Peabody High School. He then attended Kansas State University, receiving a BS degree in 1967 and a MS in 1969. Among his class mates were Woody Leel, Barry Snyder, Steve Evans, and Jim Reeves. While enrolled at K-State he found the influence and instruction of Dr. Henry Beck very beneficial.

After graduation he was first employed by Sinclair Oil & Gas in Midland, Texas. After one year employment with Sinclair (ARCO), he joined Mobil Oil Corp. He then was employed by Marshall and Winston, Inc. as Exploration Manager for 4.5 years in Midland, followed by Texas West Oil and Gas for 1 year as Mid-Continent

Exploration manager. In 1980, Tom moved to Wichita where he was employed as District Geologist at American Energies Corp. Tom was then employed by Gear Petroleum for five years (2 years without pay). In 1988 he formed his own company, Bittersweet Energy Inc.

Some KGS members that Tom worked with at various companies are Alan DeGood, Brian Fisher, Ken Leblanc, Kent Crisler, Jim Hall, Dan Bowles, and Glenn Thrasher.

Tom has been a member West Texas Geological Society (President & Honorary Member), Rocky Mountain Association of Geologists, AAPG, and AIPG for over 40 years. In 2004, he was President of the Kansas Geological Society. He has been very prominent in Earth Day activities.

In August of 1965 he married Pat Burke of Council Grove and they have two daughters, Heather and Meggan and grandchildren who reside in Wichita. Outside of geological activities, Tom has enjoyed his participation as a Master Gardner. He is now an Emeritus member. His career has been influenced by local Wichita hydrogeologist, Bob Vincent. Also, Dr. Bob Walters was responsible for Tom's first client (Vulcan Chemical Corporation) as a consultant in 1989.

One activity in which Tom participates and which it is very apparent that he enjoys is Tuesday morning coffee with Fred Stump, Bill Shepherd, Jay McNeil, Jim Hall, Doug Davis, Alan DeGood, Kent Crisler and others.

Tom has found his career as Petroleum Geologist very rewarding and hasn't any plans to retire in the near future.



#### Geology of the Lansing-Kansas City Group in the O'Connor Field, Stafford County, Kansas

Loveness Mpanje, Petroleum Geologist at F.G. Holl Company, LLC

#### Introduction

The O'Connor Field is located on the southwest flank of the Central Kansas Uplift in Stafford County, Kansas (Figure 1). The field was discovered by Cities Service Oil Co. in July 1948 with their drilling of the O'Connor B-



Figure 1. Tectonic Elements of the Mid-continent, and location of Stafford County, Kansas

terpret the sedimentology and diagenesis of the cyclic reservoirs in the Lansing-Kansas City section in O'Connor Field, and to relate these attributes to oil and gas reservoirs in the field. To accomplish this goal, a nearly continuous core taken in the field through the Lansing-Kansas City section was examined. This core was taken in January 1937 by Empire Oil & Refining Co. in their O'Connor #1 well, which is located in C NE NE NE of Section 17-T24S-R15W (Figure 2). The gamma ray-neutron/density log of offsetting well, #7-3 O'Connor GU-Keith by Hellar Drilling Company, Inc. and the cored section, are shown in Figure 3 (no log is available for the cored well). The core recovered 281 ft of Lansing-Kansas City section from 3644-3925 ft, which includes letter-designated zones "A" to "L".

#### Nature of Lansing-Kansas City Reservoirs

In the Mid-continent region, the Lansing-Kansas City Group comprises stacked cyclothems of relatively thin transgressive shales and limestones (deepening-upward), and thicker regressive (shallowing-upward) limestones (Watney,

#1 well, located C SE SE of Section 8 T24S-R 15W. Up to 2005, the field has produced —357,276 BO and —1.4 billion cubic feet (BCF) of gas (Kansas Geological Survey website). The field produces from the Arbuckle Group, and more importantly, the letter designated ("A" through "L") cyclothems in the Lansing-Kansas City Group (upper Pennsylvanian). Several workers, including Prather (1984, 1985), Watney (1980, 1995), and Heckel (1980, 1984) have described the cyclothems of the upper Pennsylvanian (Missourian Series) in Kansas and the factors that influenced their deposition. Despite years of production and the economic impact of the field, however, little is known about the specific sedimentological and diagenetic aspects of the cyclic reservoirs in O'Connor Field.

#### **Purpose of the Study**

The objective of this study was to describe and

in-



*Figure 2. O' Connor Field and location of the cored well – Empire's O' Connor #1* 

1995). Dominantly non-marine shales and paleo sol mud rocks separate the marine phases of individual cyclothems in the section. According to Watney (1995), these cyclothems developed in response to sea-level fluctuations that likely reflected glaciations and deglaciations. In central and western Kansas and Oklahoma. these cyclothems have produced huge volumes of oil and gas. Rascoe and Adler (1983), for example, estimated cumulative oil production of 9 billion barrels, and Watney (1995) estimated over 29.6 trillion cubic feet (TCF) of natural gas production from these rocks. Watney's (1995) suggested that Lansing-Kansas City carbonate facies within individual cyclothems in some western Kansas oil fields inherently have discontinuous porosity and permeability development such that productive wells commonly adjoin non-productive wells within the same section. Part of this complexity may result from diagenesis, although there also may be depositonal facies control on diagenesis. However, little is known about regional facies patterns in the section in Kansas, and specifically, nothing is known of facies and diagenesis in O'Connor Field. Newell (1987) urged that better understanding of regional deposition and diagenesis of these carbonate reservoirs might reduce the risk in the search for stratigraphic plays in these rocks.

#### **Methods of Study**

The study examined the 281 ft of core of the Lansing-Kansas City section in the Empire O'Connor #1 well. Core samples were described as to their lithology (e.g., limestone, dolomite, sand, shale), specific carbonate rock texture (e.g., grainstone, mudstone), presence or absence of porosity (and types of porosity), and other diagenetic features (e.g., chert). Specific lithologies (i.e., limestone versus dolomite and chert) were determined by staining with Alizarine red-S. Carbonate rock texture was described using the Dunham (1962) classification. Pore types present were described following the classification of Choquette and Pray (1970). These attributes (lithology, texture, diagenesis) provided a basic description of the fundamental differences between reservoir and non-reservoir rocks in the core. Then, selected samples from both porous and non-



Figure 3. Gamma ray-neutron/density log of off setting well, the letter designated units, the Cored interval and relative eustacy

porous units were petrographically examined to describe specific particle types present and diagenesis, including porosity development over time.

Last, these sedimentological and diagenetic attributes of the cyclothems in the core were represented on a westeast cross-section of nearby offsetting wells and on structure and isopach (thickness) maps of the Lansing-Kansas City section respectively (Maps 1 & 3). By using the gamma ray-neuton/density logs from offsetting wells and the core descriptions, the cyclothems in the Empire O'Connor #1 well were related to offsetting well logs. In this manner thickness of units in the field were related directly to depositional facies, diagenesis, and oil/gas production.





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Cont. from pg. 12



facies as the HST phylloid algal reefs and/or the high energy oolite shoals wherein porosity was created by dissolution during post-depositional subaerial exposure (Figure 5). In the O'Connor Field the Lansing-Kansas City section predominantly produces from the section's letter designated zones of "H, J & K". Other reservoirs in the field were identified as Red Eagle and Howard producing gas, Simpson sand producing oil and Arbuckle producing oil and gas.

#### **Research findings**

Reservoirs in the LKC section are not laterally extensive. They occur as isolated to locally amalgamated lenses of relatively small size, generally less than a <sup>1</sup>/4 section. The Lansing-Kansas City section comprises stacked transgressive (TST) regressive (HST) cycles that deepen upward, within a cycle, from transitional terrestrial-marine facies or paleosol to dark, deep-water shales (Figure 4). The study revealed main reservoir



Figure 5-Representative Core Lithologies



#### Conclusions

The Lansing-Kansas City section is one of the major oil and gas reservoirs in the O'Connor Field and the immediate area. Production is obviously enhanced in areas where effective porosity exist. Geologists undertaking exploration work within the area of study and nearby acreages should closely study the depositional and diagenetic attributes of the identified productive zones of the Lansing-Kansas City Section in addition to the other reservoirs so as to increase exploration success rate. The study provides an insight to better understanding of the depositional environments and diagenetic processes that influenced reservoir development in the cyclic Lansing-Kansas City section in O'Connor Field. Other Lansing-Kansas City fields can be better evaluated by other geologists based on comparison to the depositional and diagenetic models generated in this study.

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The KGF has an extensive collection of videos available for check-out at no charge. Only pay for shipping back.

These are ideal for classroom or general public viewing.

See the web for titles & descriptions www.kgfoundation.org

Call 316-265-8676 Ask for Janice to check out videos

#### AAPG Needs You! Professional geoscientists, share your world!

The Mid Continent Section has **17 AAPG Student Chapters**, but only **3 Visiting Geoscientists**...which makes it almost impossible to have a professional geoscientist visit to each school at least once a year or even once every two years. The aim of AAPG's program is to give students a flavor of a professional life in energy resources. It also hopes to encourage dialog between industry and academia.

To be a Visiting Geoscientist bearing the AAPG flag, you are asked to have at least 5 years of experience and make at least one visit per year to a university. It can be a school with an AAPG Student Chapter, or a college/university without one. Your choice.

The Mid Continent schools with Student Chapters are: Missouri University, Fort Hays State University, Iowa State University, Kansas State University, Missouri State University, University of Nebraska, Northwest Missouri State University, Oklahoma State University, University of Oklahoma, University of Arkansas, University of Iowa, University of Kansas, University of Missouri, Columbia University of Tulsa and Wichita State University.

Contact Robbie Gries, co-Chair VGP committee, Denver, if you are interested in learning more.

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## Kansas Geological Foundation

Web Site: www.kgfoundation.org

#### 212 North Market Wichita, Kansas 67202

A not-for-profit educational and scientific corporation

#### **GOALS:**

- promote geology and earth science

- preserve geological records
- establish memorials and endowments
- support field trips and seminars
- financial aid and grants to students

## PLEASE HELP SUPPORT THE FOUNDATION

#### Kansas Geological Foundation Services

The Kansas Geological Foundation provides the following services as a part of the organization's commitment to educate the public regarding earth science.

#### Speaker's Bureau

A list of speakers available to talk about various aspects of geology may be obtained by contacting Janice Bright at the KGS Library, 265-8676. This service is free to the public.

#### **DVD/Videotape Library**

The KGF maintains a DVD & videotape library focused primarily on the various fields of earth science. These tapes may be checked out without charge by the public. To obtain a list of tapes, please contact the KGS Library, 212 N. Market, Ste. 100, Wichita, KS 67202, or call Janice Bright at 265-8676. The Kansas Geological Foundation was founded in March, 1989 as a not-for-profit corporation under the guidelines of section 501(c)(3) of the tax code to provide individuals and corporations the opportunity to further the science of geology. It is dedicated to providing charitable, scientific, literary and educational opportunities in the field of geology for the professional geologist as well as the general public.

KGF can receive in-kind donations through which the donor may receive a tax deduction. Of equal importance, the KGF provides the financial resources to sort, process and file this data at the KGS library. If you have a donation to make, please contact the KGF at 265-8676.

Your tax-deductible membership donation helps to defray the cost of processing donations and to support public education programs about the science of geology. Annual membership begins at \$50.00 per year. Donations of \$100.00 or more are encouraged through the following clubs:

Century Club \$500 Club Millennium Club President's Club \$ 100 to \$ 499
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\$1000 to \$5000
\$5000 and over



#### Exploration Highlights By John H. Morrison, III Independent Oil & Gas

AMSTROPHY MODELLE I SALINA CAMBRIDGE ARCH BASIA RAL KANSAS UPL ALL ACT FOREST CITY BASH IRANKS, viciti i int cierts AS DEFINE antimes. WIN BRUN 10.01 CHEROKEE BASIN EMBA HUGOTON LONG 11.00 άđ TRATAL

1-Fossil Resources, LLC, Hays (KS), has discovered new oil reserves in the Lansing – Kansas City formation at their #1 Nelson in the SW/4 of section 33-T12s- R36W, Logan County. The wildcat well was drilled to a total depth of 4,750 ft last December by Pickrell Drilling tools. The well establishes a new unnamed oil field about six miles south and four miles west of the town of Winona, KS. Closest recognized production in the immediate vicinity lies over four miles away in the Winona Field (1977; abd 1983).

**2-Merit Energy Company LLC,** Dallas (TX), has successfully completed their #1 Brennaman in Finney County for 100 bbls of oil per day, no water. Spotted in the SW/4 of section 22- T25s- R33W, the well confirms production in the Coyote Northeast Field which they opened in July last year. The well is producing crude from Marmaton perforations between 4546 to 4610 ft overall. Rotary total depth was obtained at 5250 ft. Field area is located almost six miles south and two miles west of Garden City, Kansas.

**3-RJM Company**, Claflin (KS), has established new oil production at their #1 Barton County well near the Barton County landfill. The well was drilled to a depth of 3,530 ft in the NE/4 of section 12- T19s- R13W, about two miles north and east of the City of Great Bend. The new Kath South pool opener is producing oil from the Arbuckle formation at site almost one mile north of the now abandoned Kath Field (1961), which also produced a small amount of oil from the Arbuckle.

**4-Dolomite Resources Corporation,** Wichita (KS), is pumping 20 bbls of oil per day, no water, at the #33-1 Riedel in Graham County in the NW/4 of section 33-T10s- R25W. The well establishes the new Foxfire Field a little over four miles southwest of the town of St. Peter. Dolomite Resources hired WW Drilling tools to drill the well to a total depth of 4400 ft. The well is producing crude from Lansing - Kansas City perforations placed from 3956 to 3962 ft. Well site lies nearly one and one-quarter miles southwest of existing LKC oil production in the Ambrose South Field (1982).

**5-Falcon Exploration, Inc.,** Wichita (KS), has discovered new oil deposits one and one-quarter miles northeast of the Renegade Southeast Field (2011) in Gray County. The #1-5 (SW) Carrie Nichols is producing crude oil from an undisclosed zone at site located in the SW/4 of section 5- T28s- R29W, about two miles north and four miles west of Montezuma, Kansas. Operator had indicated on permit to drill notice that the Mississippian formation as a primary zone of interest. Sterling Drilling tools were used to drill the well to a total depth of 5425 ft. Falcon Exploration also opened the Renegade Southeast Field with Wabaunsee gas and LKC oil and gas pays.

**6-Jason Oil Company LLC,** Russell (KS), has a new pool discovery in Graham County. The #1 Hart – Billips, spotted in the NW/4 of section 29- T6s- R21W, is producing an undisclosed amount of crude oil from the Shawnee (Toronto) and Lansing A zones. WW Drilling tools drilled the well to a total depth of 3863 ft, about one and one-half miles southeast of the GOB Southeast Field (2003) where similar pay exists. The well has been recognized as having established the new High Plains Field eight miles north and four miles west of the town of Nicodemus, Kansas.

**7-Prolific Resources LLC**, Great Bend (KS), has established the Corinne South Field in southeastern Logan County with the completion if their #1 Randy Rose in the SW/4 of section 3- T15s- R32W. Operator has completed the new pool opener for 50 bbl of oil and 50 bbl water per day with pay coming from the Lansing-Kansas City perforations from 3937 to 3943 ft and Cherokee perforations from 4234 to 4281 ft. WW Drilling tools bottomed the well at a total depth of 4,485 ft in the Mississippian. Field area lies one mile south of the multi-pay Corinne Field (2012) and is about nine miles south and sixteen miles east of Russell Springs, Kansas.

**8-Infinity Oil, Inc.**, Hays (KS), has discovered new Cherokee oil reserves at the #1 Ottley A, located in the SW/4 of section 17- T 14s- R 31W in Gove County. The wildcat well opens the new Thies Ranch North Field eight miles south and sixteen miles west of Gove, Kansas. The new discovery is situated over one mile northeast of the Bridges Northeast Field (2011), where both the Lansing-Kansas City and Cherokee formations have given up oil. Pickrell Drilling tools were used to drill the well to a rotary total depth of 4265 ft.



Plan To Attend The Foundation's Spring Mixer When? Thursday, April 28th Time? 4:30 PM—8:00 PM Where? Where else, The Petroleum Club Who Should Come? Everyone! And Bring a friend too! Free finger food and drinks (wine & beer)

Special Presentation by David Doyel:

"Discovery and Development of the Scoda Field in T1S - R36W of Rawlins County, Kansas"

## **Kansas Geological Foundation Memorials**

KGS Member	Date Deceased	Memorial Est.	KGS Member	Date Deceased	Memorial Est.
Dan Bowles	09/89	1990	Claud Sheats	02/02	2002
John Brewer	10/89	1990	Merle Britting	2002	2002
George Bruce	08/89	1990	Harold Trapp	11/02	2002
Robert Gebhart	01/90 11/90	1990 1990	Donald M. Brown	11/02 03/03	2003 2003
Ray Anderson, Jr. Harold McNeil	03/91	1990	Elwyn Nagel Robert Noll	03/03	2003
Millard W. Smith	08/91	1991	Benny Singleton	09/03	2003
Clinton Engstrand	09/91	1991	Jay Dirks	2003	2003
M.F. "Ted" Bear	10/91	1991	J. Mark Richardson	02/04	2003
James & Kathryn Gould	11/91	1991	John "Jack" Barwick	02/01	2004
E. Gail Carpenter	06/91	1993	Richard Roby	03/04	2004
Benton Brooks	09/92	1992	Ruth Bell Steinberg	2004	2004
Robert C. Armstrong	01/93	1993	Gordon Keen	03/04	2004
Nancy Lorenz	02/93	1993	Lloyd Tarrant	05/04	2004
Norman R. Stewart	07/93	1993	Robert J. "Rob" Dietterich	08/96	2004
Robert W. Watchous	12/93	1993	Mervyn Mace	12/04	2004
J. George Klein	07/94	1994	Donald Hoy Smith	04/05	2005
Harold C.J. Terhune	01/95	1995	Richard M. Foley	06/05	2005
Carl Todd	01/95	1995	Wayne Brinegar	06/05	2005
Don R. Pate R. James Gear	03/95 05/95	1995 1995	Charles B. Moore Jack Heathman	09/96 05/06	2005 2006
Vernon Hess	06/95	1995	Charles Kaiser	09/06	2006
E. K. Edmiston	06/95	1995	Rod Sweetman	09/06	2006
Jack Rine	07/95	1995	Karl Becker	10/06	2006
Lee Cornell	08/95	1995	Frank Hamlin	10/06	2006
John Graves	10/95	1995	Marvin Douglas	12/06	2006
Wilson Rains	10/95	1995	Robert W. Hammond	04/07	2007
Heber Beardmore, Jr.	09/96	1996	Eldon Frazey	04/07	2007
Elmer "Lucky" Opfer	12/96	1996	Pete Amstutz	05/07	2007
Raymond M. Goodin	01/97	1997	Charles Spradlin	05/07	2007
Donald F. Moore	10/92	1997	Donald R. "Bob" Douglass	09/07	2007
Gerald J. Kathol	03/97	1997	Vincent Hiebsch	11/07	2007
James D. Davies	08/88	1997	Glen C. Thrasher	03/08	2008
R. Kenneth Smith	04/97	1997	Peg Walters	06/08	2008
Robert L. Dilts Delmer L. Powers	05/97 06/72	1997 1997	Theodore "Ted" Sandberg James Ralstin	07/08 11/08	2008 2008
Gene Falkowski	11/97	1997	Earl Brandt	04/09	2008
Arthur (Bill) Jacques	01/98	1998	Walter DeLozier	05/09	2009
Bus Woods	01/98	1998	Don D. Strong	01/10	2009
Frank M. Brooks	03/98	1998	John Stone	02/10	2010
Robert F. Walters	04/98	1998	Craig Caulk	03/10	2010
Stephen Powell	04/98	1998	Joseph E. Moreland, Jr.	03/10	2010
Deane Jirrels	05/98	1998	Gene Garmon	03/10	2010
William G. Iversen	07/98	1998	James F. Dilts	05/10	2010
Ann E. Watchous	08/98	1998	Jerry Pike	05/10	2010
W.R. "Bill" Murfin	09/98	1998	Donald Hollar	06/10	2010
Donald L. Hellar	11/98	1998	Delbert Costa	08/10	2010
Joseph E. Rakaskas	01/99 02/99	1999 1999	John Tanner William (Bill) Owen	08/10 09/10	2010 2010
Charles W. Steincamp Robert and Betty Glover	10/96	1999	Harold (Hal) Brown	10/10	2010
Howard E. Schwerdtfeger	11/98	1999	Edmund G. Lorenz	11/10	2010
W. W. "Brick" Wakefield	03/99	1999	Thomas E. Black	05/11	2010
V. Richard Hoover	01/00	2000	Wayne E. Walcher	07/11	2011
Warren E. Tomlinson	01/00	2000	Henry F. Filson	07/11	2011
James A. Morris	01/00	2000	Thomas Ray	07/11	2011
Eric H. Jager	03/00	2000	Edgar E. Smith	09/11	2012
Kenneth W. Johnson	03/00	2000	Marilyn Messinger	06/13	2013
Dean C. Schaake	03/00	2000	Micheal Mitchell	09/13	2013
Fred S. Lillibridge	05/00	2000	Orvie Howell	11/13	2013
Jerry A. Langrehr	07/00	2000	James Thompson	11/13	2013
Clark A. Roach	07/00 10/00	2000 2000	Dick Rowland Robbie Thompson	09/13 12/13	2014 2014
Floyd W. "Bud" Mallonee Ralph W. Ruuwe	09/00	2000	Kris Kennedy	04/14	2014
Robert L. Slamal	02/01	2000	Annette Hedke	02/15	2015
Jerold E. Jesperson	06/01	2001	James Devlin	04/15	2015
William A. Sladek	06/01	2001	Robert Gensch	09/15	2015
Harlan B. Dixon	06/01	2001			2010
Edward B. Donnelly	08/01	2001			
Richard P. Nixon	02/02	2002			
Robert W. Frensley	12/01	2002			
Gerald W. Zorger	01/02	2002			
Don L. Calvin	03/02	2002			

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#### **CHANGE SERVICE REQUESTED**

KGS BULLETIN March—April 2016



Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1 Tech Talk	2	3	4	5
6	7	8 KGS Board Meeting	9	10	11	12
13	14	15 Tech Talk	16 KGF Board Mtg.	17	18	19
20	21	22	23	24	25	26
27	28	29 Tech Talk	30	31		

## April 2016

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5 Tech Talk	6	7	8	9
10	11	12 KGS Board Mtg.	13 KGF Board Mtg.	14	15	16
17	18	19 Tech Talk	20	21	22	23
24	25	26	27	28 Foundation Spring Mixer	29	30

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