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# NEWS IN BRIEF

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## Makelky Named ND Pipeline Authority Director



On May 29 the North Dakota Industrial Commission (NDIC) named Mark J. Makelky as North Dakota Pipeline Authority Director. The North Dakota Pipeline Authority was established by the North Dakota Legislature earlier this year to diversify and expand the North Dakota economy by facilitating development of pipeline facilities as they relate to energy-related commodities. The North Dakota Pipeline Authority is governed by the North Dakota Industrial Commission.

Mr. Makelky, 53, was raised in Minot. He attended the University of North Dakota in Grand Forks where he obtained a Bachelor's degree in Civil Engineering in 1975. He was employed for over thirty years with MDU Resources Group, a natural resource and energy corporation. During most of his time with the MDU Resources Group he was involved in the design, construction, and operation of natural gas production and pipeline facilities. In 2003, he served as the Project Manager on the Grassland Pipeline, a 250-mile 16" diameter high pressure natural gas pipeline that ran from Gillette, Wyoming to Killdeer, North Dakota. Mr. Makelky is a licensed Professional Engineer in North Dakota, South Dakota, Montana and Wyoming and a member of the American Society of Civil Engineers. He and his wife Joanne live in Bismarck, ND. They have two grown daughters.

Industrial Commission Executive Director, Karlene Fine, indicated that Mr. Makelky's responsibilities will primarily be focused in the immediate future on:

- Meeting with agencies and companies to identify areas where the Pipeline Authority can assist in developing infrastructure for natural gas, crude oil, CO<sub>2</sub>, refined products and renewable energy commodities that utilize pipelines as their mode of transportation;
- Gathering information for and facilitating meetings between energy companies and agencies to resolve infrastructure barriers that impede the production, transportation and utilization of North Dakota energy-related commodities; and
- Developing a plan of action for each area and identifying opportunities for the Pipeline Authority to assist with meeting the needs of companies producing energy-related commodities.

The Industrial Commission of North Dakota, consisting of Governor John Hoeven, as chairman, Attorney General Wayne Stenehjem and Agriculture Commissioner Roger Johnson, oversees the North Dakota Pipeline Authority. Funding for the Pipeline Authority comes from the Oil and Gas Research Fund.



## Comings and Goings



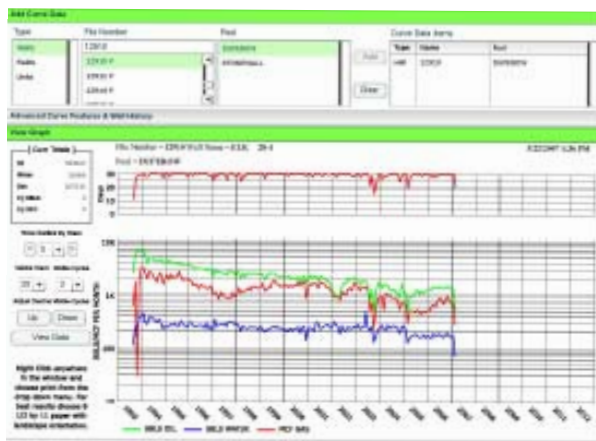
Six college students are currently working as temporary employees of the ND Geological Survey. Bailey McCommon (far left) is entering uranium information into a database in our Bismarck office. From left to right: Marron Bingle, Ryan Klapperich, Josh Dub, Rich Snuggs, and Jessica Bergman are photographing core and thin sections in the Wilson M. Laird Core and Sample Library in Grand Forks.

## New Maps and Performance Curves added to the Oil and Gas Division Website

There have been two recent additions to the Oil & Gas Division web site. A PDF map generator on the GIS page, and a decline curve program that is accessible through the scout ticket page in the subscription service portion of the web site.



The PDF map generator creates a vector-based map that can be printed or saved to your personal computer. Because it is vector based, you can scale the map to any printer page size desired and not lose any image quality. Another feature of the PDF map is the ability to turn some of the layers off and on inside Adobe Acrobat Reader. This is useful if you want to print the same map without labels or some of the other features to produce a less cluttered map. To use this feature you will need to either turn off any pop-up blockers you may have turned on, or configure your computer to allow them from the [www.dmr.nd.gov](http://www.dmr.nd.gov) address.



The decline curve program is an Adobe Flash application that will allow you to view performance curves for wells, fields, and units. The values that can be displayed include oil, water, gas, injection volumes, days produced for wells, and number of wells producing and injecting for fields and units. The graph can be customized with respect to the number of log cycles and years that are displayed. All curve data may also be displayed in tabular format by clicking on the View Data button. Clicking on the Well History bar will allow you to display well history events from the database such as workovers and operator changes.



## Technical Session on Microbial Methane Energy Resources at GSA

A technical session on Microbial Methane Energy Resources was held at the Geological Society of America 2007 Joint North Central/South Central Section Meeting in Lawrence, Kansas at the University of Kansas (KU) on April 11<sup>th</sup>, 2007. The session consisted of seven talks given by key scientists and engineers engaged in the study, exploration, and development of microbial methanogenic resources from across the upper-Midwest. The session was chaired by George W. Shurr of GeoShurr Resources, LLC, and co-chaired by Fred J. Anderson of the North Dakota Geological Survey.

Presentation topics included: the concept of the conversion of residual oil to methane as a future bioenergy resource, a discussion of microbial methane-generating systems on the shallow basin margins in the Great Plains, an overview of the origins of coalbed and shale gas in eastern Kansas, a summary of recent results from shallow gas field screening studies in North Dakota, the influences on production from shales by glaciation and gas hydrate formation in Kansas, an overview of the City of Fargo's landfill gas resource, and discussion of studies on chemical processes linked to promote microbial activity in soils contaminated with hydrocarbons.

The diverse range of topics related to microbial methane provided attendees an opportunity to learn about the many diverse ways in which microbial methane is generated, characterized, and utilized to meet ever-changing energy resource demands.

## “Bigfoot” Coming to North Dakota

The Incorporated Institutions for Seismology (IRIS), under the EarthScope Experiment, are planning to continue their continent-wide seismological survey of the lower 48 states by installing up to 37 individual seismometers in North Dakota in 2008 and 2009 that will be a part of a larger transportable array (the US Array). This array is affectionately known as “Bigfoot” and it will be making a complete traverse of the United States from the west coast of California to the Eastern seaboard.

The EarthScope project is focused on surveying the structure of the continental lithosphere and interior of the deep earth beneath the U.S. by analyzing and collecting seismic waves from ongoing earthquakes throughout the world. The project typically utilizes local university involvement and expertise for the selection, siting, and installation of individual seismometers.

The transportable array consists of around 400 stations that are being deployed in a grid across the U.S. at a station spacing of approximately 70 km for a period of around 18 months and are to advance across the U.S. in a roll-along fashion. The stations will be telemetered to a central site with continuous data being received at the US Array Network Facility from where it will be passed directly to the IRIS Data Management Center (DMC). It is possible that one station could be left behind in ND to be a part of a larger permanent array to be utilized for future seismologic research. The ND portion of the transportable array (the northernmost segment) is scheduled to be installed in 2008 and 2009. Station removal would follow 24 months later. More information on the EarthScope project and the IRIS program can be found on the IRIS website at [www.iris.edu](http://www.iris.edu)



## Postcard and Bookmarks



The North Dakota Geological Survey recently published a postcard of the geologic surface map of North Dakota. We have printed several versions of this postcard over the years. This most recent version has the surface geology draped over a shaded relief base map so that the relationship between topography and geology can be observed.

The North Dakota Geological Survey recently printed four bookmarks. One highlights all of the Survey programs and the others highlight aspects of our three main programs; surface, subsurface, and paleontology. In the past we printed a ND Geological Survey brochure. Now that the information previously in the brochure is on our website, we thought colorful bookmarks featuring our website address were a novel way of advertising our web page and the numerous duties and functions that we perform for the citizens of North Dakota.





## Williston Basin Petroleum Conference and Prospect Expo

The 2007 Williston Basin Petroleum Conference and Prospect Expo was held in Regina, Saskatchewan April 29 - May 1. There were 450 registrants of which about 100 were from the U.S. Bob Knoll presented a workshop on complex well technology and Ross Crain taught a two day workshop on practical quantitative log analysis. In addition to activity updates for the surrounding states and provinces, presentations included Enbridge pipeline capacity expansions, fingerprinting of formation waters using stable isotopes as guides to exploration, several talks on the Bakken Formation (including multi-stage fracturing), and the oil potential of the Three Forks, Ratcliffe, Ratner Laminite, and Red River Formation. The conference is hosted by the ND Petroleum Council, Saskatchewan Industry and Resources, and the ND Department of Mineral Resources. The 2008 Williston Basin Petroleum Conference and Prospect Expo will be held April 27-29 in Minot.



### FOP 2007

The Midwest Friends of the Pleistocene met for their 53<sup>rd</sup> annual field conference in Oshkosh, Wisconsin on May 18-20, 2007. Organizers Tom Hooyer of the Wisconsin Geological and Natural History Survey and Bill Mode of the University of Wisconsin, Oshkosh and their colleagues put together an outstanding program that took the more than 120 participants on a grand geologic tour of glacial Lake Oshkosh and the Fox River lowland. Stops included the Wolf River dune field, Duck Creek ridges (Wisconsin's equivalent of our Hogback ridge), and a truly fascinating example of a late Pleistocene/early Holocene pond environment containing an abundance of plant fossils including many pieces of beaver-chewed wood and the remnants of what appeared to be a beaver dam. The traditional evening banquet was highlighted by an affectionate tribute to Lee Clayton who will retire from the WGNHS later this summer following an illustrious career spanning more than forty years.

The Friends will meet again in Illinois in 2008.



### NDGS Public Fossil Dig Program expanded to include sites near Rhame, Marmarth, and Medora

The success of the North Dakota Geological Survey public fossil digs program has prompted us to expand the program to include three excavation sites in 2007. This program was begun in 2000 at a Cretaceous Pierre Formation site adjacent to the Pembina Gorge near Walhalla. The program is meant to provide educational fossil dig experiences for visitors to North Dakota and to residents of the state interested in this kind of ecotourism adventure. The program also provides a unique kind of economic diversity to rural areas of North Dakota where paleontological resources occur.

Our past public participation fossil digs have included sites near Walhalla, Marmarth, and Medora. Several hundred people have participated in these digs from at least 15 states and foreign countries, including Canada, Norway, and Australia. This year we will conduct week-long excavations as follows: 1) near Rhame with the Pioneer Trails Museum where again *Triceratops* fossils occur and fossil leaves are found in the Hell Creek Formation on BLM land; 2) near Marmarth with the Marmarth Research Foundation where *Triceratops* dinosaur and other fossils will be collected from the Cretaceous Hell Creek Formation on USFS-Dakota Prairie Grasslands administered land; and 3) near Medora with the Theodore Roosevelt Medora Foundation where crocodile, champsosaur, fish, and turtle fossils will be collected from the Paleocene Sentinel Butte Formation.

Rhame - June 17 - June 23, 2007  
Marmarth - July 14 - July 21, 2007  
Medora - August 4 - August 12, 2007

For more information:  
<http://www.state.nd.us/ndgs>

