BIG SKY LIFE



ALL ABOUT THE BUREAU

Bureau of Mines plays multi-faceted role in providing information

BY SUSAN BARTH

of the Montana Bureau of Mines and Geology

hen Ed Deal became the director of the Montana Bureau of Mines and Geology, he took on more than an administrative job. He stepped into history — and into more roles than he could ever have imagined.

A native of North Carolina, Deal had experienced many facets of geology before coming to Montana. He taught university courses, explored a geothermal steam reservoir in Indonesia, and was the exploration manager for the Pennzoil Sulphur Co.

"All these things tie together," said Deal, "because the bureau has such a diverse array of things that we do."

The bureau began as the State Bureau of Mines and Metallurgy, established by the Legislature in 1919 as a department of the School of Mines in Butte, and a research and service agency of the state.

Today, the Bureau of Mines and Geology is still a department of Montana Tech, still in Main Hall, and still carrying out its original mission: to aid in the responsible development of mineral and ground-water resources in Montana. Now, it just does more.

"We do practical, everyday geology," Deal said. "The issues we work on affect everyone in the state."

From the beginning, it has been the bureau's responsibility to accurately map Montana's geology and distribute that information. The bureau's maps are used

for mining, oil and gas exploration, geologic hazard studies, land-use management, and urban development — as well as hiking, or just getting around the backcountry.

The bureau plans to complete a new Montana Geologic Map at the 1:500,000 scale by the end of 2005. The map has not been updated since the 1950s, and has long been out of print.

WATER

Ground water affects everyone. It is the job of the bureau's Ground Water Assessment Program to assess and monitor the state's ground water and get that information to the

Bureau staff have visited more than 6,000 wells across Montana, and have recorded more than 201,000 well logs in the Ground Water This critical information is used every day by drillers,

of water quality across Montana (see sidebar).

The Bureau of Mines and Geology — by the numbers:

- 50 employees in Butte ■ 10 employees in Billings
- Annual budget of

\$4.5 million

- Partially funded by Legislature: Bureau generates \$1.50 in contract/grant money for every \$1 in general funds provided by the state
- *GWIC database has 30,000* well-log downloads a month
- In one day after the Dillon earthquake, the Earthquake Studies Web site had 16,600 hits
- Since 1919, the bureau has published 1,245 books and

Information Center database: http://mbmggwic.mtech.edu. real estate agents, legislators, developers and businesses. Hydrogeologists at the bureau also study many aspects

EARTHOUAKES

The recent Dillon quakes are a strong reminder of how important it is to have accurate, real-time information about earthquakes. The bureau's Earthquake Studies Office monitors and analyzes Montana's earthquakes, large and small. More than 17,000 earthquakes have been analyzed since the program's start in 1980. A new publication studying earthquake hazards in Montana, Special Publication 117, will be out this month.

ENVIRONMENT

The bureau works with partners like the state Department of Environmental Quality and the federal Environmental Protection Agency to do appropriate testing and monitoring of mining and manufacturing sites like the Berkeley Pit. Bureau staff have been treating

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HYDROGEOLOGIST KATE MILLER MEASURES the water depth of a well on her property south of Butte using a waterlevel indicator. The bureau has 15 hydrogeologists on staff, working on water quality and supply projects across Montana.

Miller helps communities understand water resources

Kate Miller spends much of her time in the field, helping farmers, ranchers and small communities across Montana understand and protect their water resources.

Miller, a Havre native, is a senior research hydrogeologist with the bureau, focusing on watershed management and contamination concerns. She studies herbicide and salinity problems in ground water, water-supply threats and ways to prevent contamination.

"Maintaining high water quality for not only agriculture but also drinking water, fisheries and other uses is critically important to Montana," said Miller.

Miller also has investigated the hazards of radon in air and ground water, a significant problem in Montana. She authored a free guide on the subject, "Radon and

You: Promoting Public Awareness of Radon in Montana's Air and Ground Water" (available online: http://www.mbmg.mtech.edu/radondefault.htm).

Currently Miller is working in the Helena Valley, studying possible bacterial contamination of ground water that supplies public and private wells.

Miller said, "We are evaluating current and proposed policies for drinking water protection and wastewater treatment and disposal. The results of this study will be important for anyone who drinks water in Montana."

The bureau has 15 hydrogeologists on staff, working on water quality and supply projects across Montana. For more information on ground-water projects call John Metesh, research division chief, at 496-4169.

McCulloch resource for miners

Rob McCulloch is a miner's best resource.

McCulloch is the sole staff member of the bureau's smallmines assistance program. On any given day McCulloch works with prospectors, hobbyists, smallscale placer operators, archaeologists, exploration companies and government regulators.

"I teach miners where to look, how to interpret deposits, how to sample and extract resources, how to permit it and how to operate within our environmental standards. It's the whole deal," said McCulloch.

He also assists miners with the sometimes confusing documentation required by different agencies: planning documents, contracts and conservation easements. He keeps records of current mining operations and companies, and maps of current and past placer deposits.

And he answers lots and lots of questions.

"Ten to 15 calls per day and an equal amount of e-mails is normal. It's not unusual to have visitors backed up into the hallway," said

In an effort to help even more would-be miners, last year he published a detailed how-to guide, "Applied Gold Placer Exploration and Evaluation Techniques." He also recommends "Gold Placers of Montana," recently reprinted by the bureau

To reach McCulloch, call 496-4171. If you've got a question about mining, he'll be happy to help you.

> STAFF MINING ENGINEER **ROB MCCULLOCH** stands

in a field where a gold mine used to be on the east side of the East Ridge around the Delmoe Lake area. McCulloch helped to put the land back together in a non-polluting state. LISA HORNSTEIN / THE MONTANA STANDARD



SKY LIFE

Нот **PROPERTY**

Celebrities part ways with homes

BY RUTH RYON of the Los Angeles Times

LOS ANGELES -Jennifer Aniston and Brad Pitt, whose highly publicized breakup in January made as much of a splash as their million-dollar fairy tale wedding in 2000, have quietly listed their Beverly Hills estate for \$28 million.

Last week, a select group of Realtors got a peek inside. Little evidence remains of the actors, who decided to sell the acreplus estate as part of their divorce settlement. The closets are empty and the furniture, except for the bed in the master suite, is gone.

The stars, who only lived in the home for a year or two, have moved on, both to Malibu, where he bought a midcentury home for \$8 million in April and she has been renting a \$15-million house since spring. Both also have Hollywood Hills homes that they purchased before they were married.

They bought the refurbished Wallace Neffdesigned Beverly Hills home for about \$13.5 million in 2001. (Neff, "architect to the stars" from the 1930s to the '60s, has an avid following among Hollywood's current generation.) The pair then spent two years working on the French Normandy house, built in the '30s for actor Fredric March. The couple's tastes in

decor are among their differences. She likes comfy, he likes modern, among other styles. Pitt is known to have an obsession with Realty agents who have

seen the house report it has some high-end features: a screening room with 35 mm equipment and black leather seating; Brazilian mahogany floors; a stainless-steel kitchen; skylights. The lacquer finish on the white living room walls was likened by one to the glossy surface of a Ferrari.

The master bedroom suite had separate sitting rooms, one for him and one for her. One was turned into an enormous closet. There are also three guest suites.

On the ground level, a pub has walls of glass opening to an outdoor fireplace, pool and spa. A lawn leads to a north-southaligned tennis court.

The exterior of the walled and gated, 10,000-plus-square-foot house was meticulously restored to its original look. The couple planned to build a guesthouse but never started construction.

Scott Grimes has made a change on the home front as well as on "ER," where he has moved from a recurring role to a regular as Dr. Archie Morris.

The actor, who appeared in the HBO miniseries "Band of Brothers," and his wife, Dawn Bailey Grimes, sold their gated home in the Woodland Hills section of Los Angeles for about \$1.1 million. They bought a nearby house for close to \$1.2 million.

The house he sold has four bedrooms in 2,500 square feet and was built in 1950. It also has 31/2 bathrooms, a remodeled kitchen and walk-in closets. The yard has a pool, pond and

The couple's new home has four bedrooms and 4¹/₂ bathrooms in 3,800 square feet. It also has a large-size yard and a guesthouse.

The actor, 34, was a regular as Will in the Fox-TV series "Party of Five" and now is a voice on the TV series "American Dad."



ED DEAL is the Director of the Montana Bureau of Mines and Geology located at the Montana Tech campus. The Bureau's mission is to aid in the responsible development of mineral and ground-water resources in Montana.

Bureau ...

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contaminated soil at the Montana Pole Treatment Plant in Butte since 1995. Staff also study abandoned mines, coalbed-methane discharge, acid mine drainage and the Big Hole watershed, among other projects.

ENERGY AND MINING

In addition to the small-mine assistance program (see sidebar), the bureau does resource analysis of the state's coal, coalbed-methane, conventional oil and gas, and mineral deposits. The bureau houses extensive files on the history and technology of mining in Montana. "Butte, Montana: Richest Hill on Earth" and "Gold Placers of Montana" are both very popular publications for interested historians and miners.

As the director, Deal supervises all these operations and more. He is the state geologist, the official Montana representative in the group of 50 chief executives of state geological surveys. Every two years he presents the bureau's funding request

Looking for remodeling tips?



THE BUREAU OF MINES AND GEOLOGY BUILDING is located on the Montana Tech campus in Main Hall. You can buy geologic maps and reports along with USGS topographical maps and thematic maps.

· Homes Every Sunday in The Montana Standard

to the Legislature. And now he's becoming a fund-raiser, too, in a joint effort to raise money for a new building on the Tech campus that will provide modern facilities for the bureau and better access for the public.

"It's an exciting time," said Deal. "There is a bright future for the bureau."

The bureau is located in Main Hall, 1300 W. Park St. For more information, call 496-4180, or contact the Publication Sales Office at

496-4167. The bureau's Web site is http://www.mbmg. mtech.edu.

Susan Barth is publications editor with the Montana Bureau of Mines and Geology. She holds a degree in English from the University of California, Davis, and previously worked as a scientific editor at Academic Press in San Diego; she moved to Butte with her family two years ago. She recently completed her first novel.

'The Pleasure Was Mine'

Family divided, united by grief

BY CLAUDIA SMITH BRINSON Knight Ridder Newspapers

"The Pleasure Was Mine" by Tommy Hays; St. Martin's Press (\$23.95)

Tommy Hays writes beautifully. Better yet, he is heart-true.

"The Pleasure Was Mine" and — "In the Family Way," published in 1999, deal with the everyday in family life. That, of course, means the big stuff: love, death, joy and despair.

Hays' writing style is quiet. His subject matter, his sense of the South and Southerners, his ability to reflect on the deep in the ordinary are reminiscent of James Agee's "A Death in the Family" and Eudora Welty's "Delta Wedding." And that's a compliment.

While "In the Family" is narrated by a 10-year-old trying to deal with his brother's death, "The Pleasure Was Mine" is narrated by a retired house painter, definitely an old codger, Prate Marshbanks.

Irene, Prate's wife of 50 years, is fading from Alzheimer's. Newell, their son, continues to struggle after his wife's death. And Jackson, their 9-year-old grandson, has been diminished, almost silenced by his

Prate and Jackson come together over a summer to help each other and Irene as families do. This is not a set piece, though; nothing corny or predictable about it. Much of that is due to Prate's cranky view of the world, combined with his sincere efforts to do better by everyone.

On one of Irene's good days, Prate thinks, "Of course I knew she might not feed herself tomorrow, but I had begun to see that the older we became, the smaller the victories, and if we didn't glory in the little ones, then likely as not, we gloried in nothing. And with every bite she took, Irene was telling that frowning dining room heifer See? You don't know the first thing about the woman I was.'

Irene is an English teacher, forgetting her words, storing her iron in the freezer. But as she diminishes physically, she seems to infuse into Prate her sensibilities. When he becomes irritated by Jackson's silence, her voice within changes his view. "The more I was away from Irene, the more she became a part of my thinking, helping me see the other side, short-circuiting my anger. Irritated the hell out of me.

There's a pleasing symmetry throughout the book. Prate and Jackson are very different, yet both bereaved. Prate discovers compassion as his wife leaves. Jackson, too, finds and offers comfort, which helps him emerge from his grief.

As Irene — the rich, beautiful, educated girl who marries a high-school dropout — loses her mind, she becomes the wise fool. She asks Prate if he's married, and he says, "To you," then asks, "What do you think?"

"She dabbed her mouth with her napkin, refolded it, set it carefully on the tray and said, matter-of-factly, 'I could have done worse." As Prate loses the woman

who gave him love, he finds his heart — opening to receive the love of others. He finally lays claim to the wisdom he needs to help his wife, son and grandson.

There are sweet small roles played by a telephone man, a waitress, a next-door neighbor. Each offers small moments when we are reminded help is everywhere, if we're awake enough to notice and open enough to accept.

Hays, a native of Greenville, S.C., and a graduate of Furman University, is director of the Great **Smokies Writing Program at** the University of North Carolina-Asheville. Hays' father died of Alzheimer's, and at first, Hays tried writing a memoir of the experience. Despite Prate's appeal in the ensuing novel, Hays had difficulty finding a publisher: they feared the tonic

Don't do the same. Hays is not only a writer to read — whatever his topic — but a writer to recommend to friends.

WHEN?

Starts October 1, 2005.

Any driver and/or passengers in the passenger area of a vehicle.

HOW MUCH? Any amount of alcohol.

"Highway" means the entire width between the boundary lines of every publicly maintained way when any part thereof is open to the use of the public for purposes of vehicular travel.

WHERE CAN OPEN CONTAINERS BE TRANSPORTED?

- In a locked glove compartment or storage compartment.
- In a vehicle trunk or luggage compartment.
- · In a truck bed or cargo compartment. · If a vehicle is not equipped with a trunk:
- · Behind the last upright seat.
- · In a closed container in an area not normally occupied by passengers.

HIRED TRANSPORTATION

Passengers in a bus, taxi or limousine that is used for the transportation of persons for compensation which includes a hired driver may have an open container in their immediate possession.

Open containers are allowed in the living quarters of a camper, trailer or motor home.

Not to exceed \$100.

SEE MCA (MONTANA CODE ANNOTATED) 61-8-460 & 61-8-461 FOR COMPLETE LAW.

For more information, visit www.mdt.mt.gov, or www.mdt.mt.gov/safety/driving tips.shtml



