

# ALUMNI NEWSLETTER

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## U OF C 40TH ANNIVERSARY

### SEPT. 9 HOMECOMING EVENT

featuring

**Football: U of C Dinos  
vs. U of A**

**Pre-game Tailgate Party**

**Outdoor Concert**

**For info & tickets, see  
[www.uofckickoff.com/#](http://www.uofckickoff.com/#)**

**Proceeds from ticket sales  
to be donated to a 40th  
Anniversary Scholarship**



UNIVERSITY OF  
CALGARY

## MESSAGE FROM THE DEPARTMENT HEAD

These are exciting times for the Department of Geology and Geophysics! With petroleum prices soaring, the demand for geology and geophysics graduates has seldom been higher. As a result of the success of the recent ACCESS proposal to the province, the University of Calgary has initiated new programs in petroleum geology and reservoir characterization to help meet the needs of industry. The Unit Review of our Department last year provided a recommendation that we should double the number of faculty, staff, and graduate students within 5-10 years, and we are in the process of initiating a planned expansion. Our undergraduate and graduate enrollments (approximately 375 and 140 students, respectively) are already among the highest in North America.

A Departmental Retreat was held in April 2006 to begin planning for these changes. Faculty and staff wrestled with the challenges of staffing, programs, departmental space, and internal governance. Working groups will continue the planning process on an ongoing basis. The recent retirements of Drs. Terry Gordon, Jon Jones, and Ken Duckworth make it necessary to recruit new faculty members to ensure that our expertise in teaching and research is maintained. In terms of support staff, we note the retirement of our Administrative Manager, Norma Tischer, who worked

tirelessly on many projects including the creation of this Newsletter. Norma will continue working in the department as an administrator for the Petroleum Reservoir Group. Louise Klatzel-Mudry has also left our staff after providing terrific technical support for our geology courses since 2002.

With so many academic challenges, we are pleased to announce that Dr. Steve Hubbard joined us in July 2006 as Assistant Professor in the area of petroleum geology, and we expect to hire two new Instructors in the near future. We are also recruiting to fill new support staff positions, including the recent appointment of an Administrative Assistant, Laura Baird. It is an exciting time, a period of program development in both research and teaching!

Along with all of these activities and staff additions, there was a time of sadness as we observed the passing of our friend and colleague, Dr. Alan Oldershaw. Alan faithfully served the Department as a geology professor from 1972 to 1995, and served as Department Head from 1982-1987. His inspirational service to the earth sciences and the community will certainly be missed.

I look toward the completion of my final year as Department Head with a sense that this Department has accomplished much in times of budget cuts and expansion. The Unit Review evaluations were generally very positive and optimistic. We are on the brink of many new developments, and I know that the exceptional individuals in this Department are up to the challenges of the future. With the help of energetic alumni, faculty, staff and students, we hope to rank as one of the world's great geoscience departments.

*Contributed by Dr. Larry Lines*



**Mini-Field Trip, Department Retreat, April 2006**  
(Photos by C. Collom).

**Above:** Jerry Osborn & Phil Simony describing geologic features along the Bow River near Banff

**Right:** Charles Henderson pointing out the Permian-Triassic boundary section at Bow Falls



## RECENT THESES

### **Natalia Soubotcheva (MSc):**

*"Reservoir property prediction from well-logs, VSP and multicomponent seismic data: Pikes Peak heavy oilfield, Saskatchewan"*

### **David Repol (MSc):**

*"Structural geology and tectonics in the southern extent of the Agrío Fold and Thrust Belt, Neuquen Basin, Argentina"*

### **Ye Zheng (PhD):**

*"Seismic azimuthal anisotropy and fracture analysis from PP reflection data"*

### **Darlie Greggs (PhD):**

*"The effects of reactivating basement structure on the overlying Devonian sedimentary cover in the Western Canada Sedimentary Basin: Selected case examples"*

### **Brooke Berard (MSc):**

*"Rapid multioffset ground penetrating radar data – acquisition, processing and interpretation in diverse archaeological contexts"*

### **Richard Bale (PhD):**

*"Elastic wave-equation depth migration of seismic data for isotropic and azimuthally anisotropic media"*

### **Lisa McCluskey (MSc):**

*"The metamorphism and structure of the Mount Roberts Formation in the Murphy Creek map area, southeastern British Columbia"*

### **Josh Moncrieff (MSc):**

*"Numerical modeling as a tool in the understanding and protection of groundwater in Central America"*

### **Oana Cutlac (MSc):**

*"Comparative geophysical study of Elkwater Lake Holocene landslide system"*

(Continued on p. 3)

## FUND DEVELOPMENT UPDATE

Geology and Geophysics alumni and friends continue to support students, scholars, and research in the department. In particular, donations reflect growing awareness of the department's goal of making U of C "the top petroleum geoscience program in Canada, and top-tier globally."

Highlight gifts in the past few months include a donation from Mrs. Genia Boulware to double in size the supporting endowment for the **Robert Boulware Memorial Scholarship**. This award was initiated by Canadian Natural Resources Ltd., of which Robert was a co-founder. Thanks to Mrs. Boulware's generous donation, the award – which goes to an undergraduate student in Geophysics or Geology – has doubled in value to \$2,400.

The 2005/06 recipient was **Marc Boulet**, incoming president of the Geophysics Undergraduate Student Society. Marc thanked Mrs. Boulware and all donors of G&G awards, as the featured student speaker at the annual G&G Student Awards reception on April 5, 2006.

Many family, friends and alumni have donated in memory of the passings last year of two giants in the department – Grant Mossop and Al Levinson. The **Grant Mossop Graduate Scholarship in Geology** is valued at \$5,000. It goes to a student entering or enrolled in a full-time, thesis-based program in Sedimentary Geology in the Department of Geology and Geophysics, whose research includes primarily basic and also applied components, and significant hands-on field experience.

The **Dr. Alfred. A. Levinson Memorial Graduate Scholarship in Mineralogy / Geochemistry** is valued at \$1,000. It goes to a student in the second year of a full-time, thesis-based graduate program leading to a Master's or doctoral degree in the Department of Geology and Geophysics.

Alumni and friends continue to support the **Gallagher Library**. Donations in the fiscal year ending March 31, 2006 totalled more than \$23,000 for this important learning resource for the geoscience community. Students generated an additional \$1,617 via the annual "**Rock for the Gallagher**" event in February.

**"Thanks" to all alumni, students and friends of geoscience for their generous donations.**

Donations to the Grant Mossop and Al Levinson awards may be sent to:

**University of Calgary Development Office  
2500 University Dr. NW  
Calgary, AB T2N 1N4**

Please make cheques payable to the University of Calgary, indicating on the memo line where you would like your donation directed.

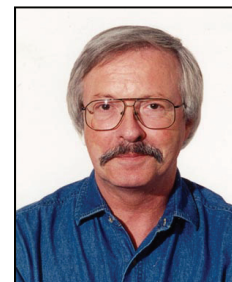
Contributed by Ron Burke,  
Development Office

## IN MEMORIAM— DR. ALAN OLDERSHAW

We were saddened to learn that Dr. Alan Oldershaw, Professor Emeritus in the Department of Geology & Geophysics, passed away on January 2, 2006. Dr. Oldershaw received his BSc in 1962 and his PhD in 1966, from Liverpool University. He came to Canada in 1967, first as a National Research Council post-doctoral fellow, then an Assistant Professor, at the University of Toronto. He joined the Geology Department at the U of C in 1972, serving as Department Head from 1982–1987.

Dr. Oldershaw's teaching ranged from the introductory level through advanced graduate courses; he presented seminars and workshops on varied topics such as electron microscopy and continental evolution through geologic time. His research interests ranged from the rocks of the Northwest Territories to the Caribbean carbonates, and he published extensively in journals and presented papers at national and international meetings. He and his co-authors were recognized by the CSPG in 1982 with the Medal of Merit Award.

Following his retirement in 1995, Dr. Oldershaw continued his involvement with the department, including service for several years as chair of the department's Awards Committee. His life was dedicated to the quest for knowledge and the effective communication of information to students and the community, and he will be missed by family, friends, and colleagues.



Contributed by Dr. Fin Campbell

# SPOTLIGHT ON RESEARCH



The **Hydrogeology Research Group** is made up of Drs. Larry Bentley, Cathy Ryan, Bernhard Mayer, and Masaki Hayashi and their students, post-doctoral fellows (PDF), and research technicians .

**Larry Bentley's** research program is focused on near surface geophysical applications to hydrogeologic and environmental problems and groundwater modeling. His research group currently consists of a PDF, a research associate, five graduate students and two summer students. Salt and petroleum hydrocarbon contamination of soils and groundwater is a major problem for Canada's energy industry. The group is currently working on using electrical resistivity imaging, induced polarization and spontaneous potential methods to map contaminated soils and groundwater and monitor their remediation progress. Mathematical modeling of salt transport is being conducted in support of the salt monitoring study. In addition, his group, in collaboration with Dr. Hayashi's team, is starting a three year geophysical campaign in support of the alpine hydrology research project. Finally, the research group is looking at novel ways to characterize and mathematically model the Paskapoo aquifer system, which is the largest source of groundwater in Alberta.



**Cathy Ryan** and her students and colleagues enjoy working on research projects related to water issues in the Calgary region and beyond. Currently these projects include research to understand the fate of Calgary's nutrients and pathogens in the Bow River, groundwater-surface water interaction in Sylvan Lake, groundwater nitrate in the Abbotsford aquifer, and sampling and analysis of dissolved gases in groundwater. She also continues to work with colleagues and students in the Central American Water Resources Network.



**Bernhard Mayer's** research team employs isotope techniques to study water quantity and quality issues in Alberta and elsewhere. Together with his students he uses hydrogen and oxygen isotope ratios to differentiate contributions to riverine flow from snow-melt, glacier runoff, groundwater and precipitation. In addition, his research team employs isotopic tracers to identify the sources and study the fate of nitrate and sulfate in surface water and groundwater.

Physical hydrology research is conducted by **Masaki Hayashi's** group, which consists of one PDF, four graduate students, three research technicians, and one summer student. Among many projects conducted by this group are:



- 1) alpine-hydrology research focusing on how glacier-melt and snow-melt water makes its way to mountain rivers and how climate warming is affecting these processes,
- 2) integrated study of surface and groundwater in a prairie watershed focusing on groundwater recharge mechanisms and the impacts of drought on prairie groundwater,
- 3) physical and chemical hydrology of prairie wetlands,
- 4) flow dynamics of Banff hot springs,
- and 5) eco-hydrology of the discontinuous permafrost region.

They all spend lots of time in the field, at locations ranging from gorgeous glacier lakes in the Rockies to coffee plantations in Latin America to urban sites contaminated by industrial chemicals. To find out more about their activities, please visit the Hydro website ([www.geo.ucalgary.ca/hydro/](http://www.geo.ucalgary.ca/hydro/)).



**Setting up a Weather Station at Lake O'Hara**  
Photo by Masaki Hayashi

## MORE THESES

**Lisa Grief (MSc):**  
*"Establishing a groundwater monitoring network using rural wells in the West Nose Creek watershed, Alberta"*

**Brendan Mulligan (MSc):**  
*"Geochemical evolution and groundwater flow in a volcanic aquifer"*

**Fuju Chen (MSc):**  
*"Interpretation of time-lapse surface seismic data at the Violet Grove CO<sub>2</sub> injection site, Alberta"*

**Sonia Graham (MSc):**  
*"Subthrust imaging in the foothills of the Llanos basin, Colombia"*



**GEOSCIENCE  
PROFESSIONAL  
DEVELOPMENT  
CENTRE**

**Courses currently on offer:**

**Practical Sequence Stratigraphy: Concepts and Applications**  
November 7 - 8, 2006

**Applications of Geostatistical Reservoir Modeling—Overview**  
November 20 - 21, 2006

**The Origin, Prediction and Impact of Fluid Property Variations in Heavy Oils and Tar Sand Reservoirs on Recovery Processes**  
December 11, 2006

**Geological History of the Western Canada Sedimentary Basin**  
January 16 - 17, 2007

For more information on additional courses, and to register, see our website:  
<http://www.geo.ucalgary.ca/gpdc/>

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*Some other useful  
websites:*

University of Calgary:  
[www.ucalgary.ca/](http://www.ucalgary.ca/)

U of C Alumni Page:  
[www.alumni.ucalgary.ca/](http://www.alumni.ucalgary.ca/)



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## AWARD WINNERS

**Dr. Finley Campbell (Professor Emeritus)** - admitted as a Member of the Order of the University of Calgary at the June, 2006 Convocation. Dr. Campbell was Head of the Department from 1965–1970 and served in three vice-presidential portfolios – VP (Capital Resources), VP (Academic), VP (Priorities and Planning). He was also president of the Faculty Club and president of the University of Calgary Emeritus Association.

**Kelley Classen (BSc 2006)** - 2006 APEGGA Education Foundation Gold Medal in Geophysics.

**Joanna Cooper (BSc 2006)** - 2006 APEGGA Education Foundation Gold Medal in Geology.

**Dr. Jon Downton (PhD 2006)** - John Kendall Doctoral Thesis Award (Faculty of Science).

**Erik Katvala (BSc 2000, PhD Candidate)** - Alberta Ingenuity Fund (AIF) PhD Student Scholarship; CSPG John B. Webb Memorial Award for the Best Graduate Student presenta-

tion at the Western Inter-University Geosciences Conference held in Calgary in January 2006.

**Sarah Mouneimne - (MSc Candidate)** - Alberta Ingenuity Fund (AIF) MSc Student Scholarship.

**Mark Radomski (MSc Candidate)**, (with co-authors Prof. Charles Henderson (PhD 1989), T. Moslow, and J-P. Zonneveld ) - 2006 CSPG Conference Best Student Poster .

**Dr. Leslie Reid (MSc 1997, PhD 2003)** - 2005-06 Students' Union Teaching Excellence Award.

**Rick Schroeder (PhD Candidate)** - Faculty of Science Graduate Student Award for Excellence in Teaching (Jim and Josie Gray Award).

**Heather Wilson (BSc 2006)** - CSPG John B. Webb Memorial Award for the Best Undergraduate presentation at the WIUGC conference in January 2006.

**Dr. Darla Zelenitsky (PhD 2005)** - Killam Research Fellowship, to begin January 2007.

*Alumni are encouraged to nominate classmates and colleagues for the APEGGA Summit Awards. Deadline for nominations is September 30, 2006. More information at [http://www.apegga.org/members/ScholarshipsAwards/toc\\_summit.html](http://www.apegga.org/members/ScholarshipsAwards/toc_summit.html)*

## ALUMNI NOTES

**Bob Parney (BSc, 1986; PhD Geophysics, 1989)** is living in Denver, CO, and recently joined Tricon Geophysics as a Senior Reservoir Geoscientist. He and his wife, Laura, and their daughter celebrated the birth of a son in December 2005.

**James T. (Terry) McCoy (BSc Geology, 1970)** is currently the President of TRAFINA Energy Ltd.

**Brian Schulte (BSc Geology, minor Geophysics, 1989)** recently joined Geophysical Development Corporation in Houston as a Senior Geophysicist. He also teaches courses at the Houston Community College, in conjunction with the SEG to help non-degree individuals understand geophysics.

**Leonard Gal (MSc Geology, 1990)** is a Petroleum Geologist with the NWT Geoscience Office.

**Jonathan White (BSc Applied & Environmental Geology, 1997)** is working with Pavilion Energy Corp. in Vancouver.

**Louise Klatzel-Mudry (BSc Geology, 1979)** has decided to return to industry, after working since 2002 in the Department of Geology & Geophysics, U of C. We wish her success in her new job with Husky !

**Louis Chabot (MSc Geophysics, 2004)** is currently employed with Pennwest, working on the Willesden Green and Pembina areas. He specializes in time-lapse and multicomponent seismology .

## KEEP IN TOUCH!

We'd really like to hear how YOU are doing. Drop us a line! Let us know about your new job, your growing family, an interesting trip that you have taken!

Please write to us (address above, or by e-mail to [geoalumni@ucalgary.ca](mailto:geoalumni@ucalgary.ca)) with your news and to update your address and contact information. Be sure to include your degree and date of graduation.

*All information is collected under the authority of the Freedom of Information and Protection of Privacy Act. It will be used to update our records and will not be disclosed to any other parties. If you have any questions about collection or use of this information, please contact the Newsletter Editor.*