I hope this newsletter finds you well! The Department of Geology has had a busy year. Dr. Stephen Sellwood ’99 has been doing a great job teaching our hydrogeology course sequence, and he will do so in the coming year as well. Next year we will conduct a search for a tenure-track hydrogeologist—great news for us! On a sad note, Dr. Geoff Pignotta’s Field Geology Coordinator position was eliminated for budgetary reasons. He accepted a lab and field coordinator job at Carleton University in Ottawa—a huge loss.

Students and faculty continue to conduct research expanding the knowledge of our natural world. Students (with faculty mentors) have been researching topics such as quartz crystal geochemistry and the metamorphic history of the Swiss Alps (Ihinger), soil moisture/hydraulic conductivity measurements using geophysics (Grote), nanoparticles in water using TEM (Hooper), geologic conceptions and communications (Clark), Flambeau VMS geochemistry (Lodge), Neogene basin analysis in Argentina (supported by Mahoney’s three-year NSF grant), surface-water quality in western Wisconsin (Mahoney), origin of greenstone belts in Minnesota (Pignotta), petrography of frac sand cements in Wisconsin (Mahoney and Syverson), and lava flow geochemistry in Oregon (Ihinger and Castonguay). Not only this, but one student presented research results at GSA-Baltimore, three students presented at NC GSA-Champaign-Urbana, and five students at ILSG in Duluth. It’s been a great year for research!

The Responsible Mining Initiative (RMI) continues to expand student educational opportunities. An Advisory Board meeting with stakeholders was held on May 3rd to discuss potential responsible mining academic programs. Fourteen external stakeholders from industry and the DNR attended this valuable input session. A new combined Economic Geology/Hydrogeology lab is now open for business in Phillips 219, and Maptek and Anne Gauer ’08 once again provided VULCAN training in Economic Minerals and Sed-Strat. In addition, MSHA 24-hr New Miner training was offered to fourteen students and three faculty over spring break (not as glamorous as a trip to the Caribbean, but a great resume-builder). Lori and Scott taught two more high-quality workshops for high school teachers.

Our efforts to enhance internship and scholarship opportunities have been a resounding success. This summer 17 students will have paid internships with mining companies, environmental consulting firms, conservation organizations, and governmental agencies—a new record for us. In addition, $30,000 in scholarships and grants were awarded at the spring banquet thanks to generous alumni and corporations. These opportunities are helping to differentiate our program from others in the Midwest (see included stories).

Donations of alumni and friends continue to be extremely important to our program. Even as we have received several large corporate gifts, the smaller, undesignated gifts from alumni and friends commonly provide the department with the flexibility to send students to present research results at regional and national conferences, fix equipment, support our field program for undergraduates, and fund valuable scholarships to defray rising tuition expenses. Alumni who send job announcements and speak for our Earth Science Seminar Series help our students see the world beyond the campus walls. Thanks for your support! If you are ever in the Eau Claire area, please stop and visit us!

Dr. Kent Syverson
FIELD CAMP UPDATES

FIELD CAMP I UPDATE – NEW MEXICO
By Robert W.D. Lodge

The 2016 Field Camp I in New Mexico had 24 (!!) students enrolled and marks one of the largest classes we have driven across the country to teach field methods and mapping. We were greeted by snow upon our arrival in New Mexico and somehow managed to avoid a lot of nasty, snowy weather all around us, but not in our field areas! Instructors Geoff Pignotta and Robert Lodge and T.A. Rachel Fliflet were kept busy running such a large camp (it takes a tremendous amount of food to feed all those people!), but the students were a tremendous help to keep things running smoothly. This also marks the last New Mexico field camp for Geoff. His expertise and witty humor will be missed, as will his loud “DINNER!” call that students have been trying to emulate on subsequent field excursions.

The Black Range Lodge was once again our comfortable place away from the steep terrain, challenging geology, and spiny vegetation. With so many students, every space was filled with students working on their maps. The students enjoyed the reading materials and movie selections when they had some time off. We also had a chance to unwind at the White Sands National Monument. Just because it’s white doesn’t mean it’s as soft as snow! Some students discovered this the hard way… but no one was hurt other than a few bruised egos.

We had a few visitors during our time in Kingston. Geoff’s family, Tania and Sophia, flew in to join us on a few hikes and entertain the students back at the Lodge. Anne Gauer ’08 of Maptek and her dog Hank also spent a few days in the field with us. Students loved to see Hank in the field! Overall, this was a very successful field camp and the students learned much about field mapping and themselves.

FIELD CAMP II UPDATE – MONTANA
By Robert W.D. Lodge

Field Camp II in southwestern Montana was once again a successful capstone experience for our students. The weather in May 2016 started off a little wet and cold, but quickly heated up (>90 degrees in Rustlers Gulch, where we also had a UWEC photographer document this amazing “integration” experience). Instructors Geoff Pignotta, Scott Clark, and Robert Lodge and T.A. Rachel Fliflet accompanied 12 students to Whitehall, MT. This was truly a great group of students who did an excellent job with the complex geology we were throwing at them. They worked hard, completed all of their tasks in a timely fashion (even handing things in hours early!) and remained in high spirits. What an amazing atmosphere! Once again, we had to say our goodbyes to Geoff who attended his last field camp in Montana. His parting comments were, “I’ve had a great time with this group of students. This has been an awesome last field camp.” We’ll miss you, Geoff.

The folks at the Iron Wheel Guest Ranch were once again tremendous hosts. Students will talk for years to come about the absolutely delicious elk dinner they prepared for us. Because of slumping gold prices, our usual tour of the Golden Sunlight mine was cancelled. However, we were able to tour the Butte Cu-Mo Mine currently operated by Montana Resources. This was an excellent tour and students learned much about the historic mining district. They also were bounced around pretty hard in the old school bus used to transport us around the open pits! Many thanks to the mine geologist, Amanda Griffith, for taking time out of her busy day to accommodate our group.

Field Geology II students at work on their geological maps using ArcGIS, Iron Wheel Guest Ranch, MT

Students supported by the Unimin Corp. Field camp grant at Field Geology II in Whitehall, MT, June 2016. Each student received $700.
**GEOLOGY 312 FIELD TRIPS**

By Robert Hooper

The Min/Pet I field trips to the UP and Black Hills last fall were great with about 35 students onboard. Weather for both trips was unbelievable with highs in the 60's and 70's and lots of sunshine. The cool nights of late September and mid-October really kept the bugs down and made sleeping in the woods very enjoyable. For the second year in a row the students have been able to “swim” in Sheridan Lake (Black Hills) in mid-October!

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**EARTH SCIENCE SEMINAR SERIES**

The Earth Science Seminar Series continues to bring excellent speakers to campus. It provides faculty and students with the opportunity to interact with other scientists working on a broad range of research topics, and it also allows us to “show off” our department and research equipment to the visitors. Below are the talks presented during this academic year. Seminar schedules are posted on the Geology website. In addition, if you live in the area and would like to receive e-mail announcements about upcoming seminars, please contact Dr. Scott Clark at clarksco@uwec.edu. If you work for a company that would like to sponsor the seminar series or contribute money to defray speaker costs, please contact us!

- **9/11/15** | Michelle Forgette ’08 and Dean Miller, Northern Star Resources, “The Role of Geologists in Mining—with an Emphasis in Underground Gold Mining of Western Australia and Working as an Underground Miner in Western Australia.”
- **10/2/15** | Tina Pint ’99, Vice President & Senior Hydrogeologist, vat Barr Engineering, “Groundwater Modeling in Consulting Practice.”
- **10/16/15** | Christian Schardt, Assistant Professor, Dept. of Earth & Env. Sciences, UM-Duluth, “Putting Ni into Garnierite: Ni Isotopic Fractionation Processes in the Duluth Complex.”
- **10/23/15** | Dr. Phil Hinger, Department of Geology, UWEC, “So, You’re Interested in Applying to Graduate School?!”
- **11/20/15** | Ian Anderson ’04, Hydrogeologist, Wisconsin DNR, “Geology as the Foundation for Integrated Water Resources Management.”
- **12/4/15** | Matthew Kuchta, Assistant Professor, UW-Stout, “Geologic Controls on Phosphorus Dynamics within the Red Cedar Watershed.”
- **2/12/16** | Marjorie A. Chan, Professor, University of Utah, “Sedimentology Frontiers from Earth to Mars: Dunes, Deformation, and Diagenesis.”
- **3/11/16** | Robert Bergmann (President) and Brian Lentz (Executive Vice President), Big Rock Exploration, “Exploration Strategies for Industrial Minerals.”
- **4/1/16** | Nicole LaDue, Assistant Professor & Director of Earth and Space Science Teacher Licensure, Northern Illinois University, “What Students See: Investigating the Relationship between Spatial Thinking and Diagrams in Geology.”
- **4/4/16** | Mike Parsen, Hydrogeologist, Wisconsin Geological and Natural History Survey, “Chippewa County Groundwater Study: Evaluating the Hydrologic Impacts of Irrigated Agriculture and Industrial Sand Mining.”
- **4/22/16** | Mark Ciardelli ’04, Project Environmental Scientist, Foth, “Mine Waste Characterization: The Foundation of Mine Site Water Quality Predictions.”
- **4/29/16** | Mitchell Craig, Professor, Dept. of Earth & Environmental Sciences, Cal. State Univ.-East Bay, “Sedimentary Structures of the Monterey Dunes Revealed by Ground Penetrating Radar.”
- **5/3/16** | Dale Kerner ’96, Mining Services Manager, Haley & Aldrich, “Environmental Consulting for the Mining Industry.”
The spring Geology banquet is a fun time to eat a fine meal, present awards, recognize graduating seniors, say goodbye to classmates after another year, and reminisce about field trips gone by! This year 115 students, parents, faculty, and stakeholders assembled on May 14th at the Eau Claire American Legion for the event.
Heather (Bissen) Freeman
Supervisor for Unimin Corp. in Kasota, MN.

Kris is an Environmental Department Manager at Terracon in the Oklahoma City area. He is an Environmental Department Manager for Unimin Corp. in Kasota, MN.

Kristopher Benusa ’12. Kris is an Environmental Supervisor for Unimin Corp. in Kasota, MN.

Heather (Bissen) Freeman ’13 and Ian Freeman ’13. Heather is a Park Program Specialist with Lake Metroparks in the Cleveland, OH, area. Heather also reports, “Ian took a promotion with Fairmount Santrol. He is the quality manager of the two mines here in Ohio that are close to the company headquarters. He is liking his new job thus far.”

Jacob Boer ’08. Jacob writes, “I moved back to America last fall after teaching English in South Korea for six years. I applied for a commission in the United States Air Force and was selected to be a Nuclear and Missile Operations Officer. I definitely would not have gotten the position if I didn’t have my bachelor of science degree. I will complete Basic Officer training at Maxwell Air Force Base.”

Melissa Boerst ’12. Melissa is a geologist with Comstock Mining, Inc. in Sparks, NV.

Nicholas Borchardt ’09. Nick is a Hydrologist 2 (ecological and water resources) with the MN DNR in St. Paul.


Mike Coughlin ’80. Mike is the Vice President of Wisconsin Phoenix, LLC in the Eau Claire area.

Taylor (Crist) Pierce ’12. Taylor is a geological engineer at Bay West LLC in the Twin Cities.

Dan Dahlman ’99. Dan is a Regulatory Affairs Manager at Ecolab in the Twin Cities.

Randy Drubek ’70. Randy went into the Navy upon graduating, was trained in computers, and stayed in that field until retiring four years ago after working overseas for many years. He now lives in Lynden, WA.

Greg Durocher ’83. Greg writes, “I’m still supervising the USGS Science Information Services (SIS) office in Anchorage. Public education and information are the raison d’être for our five SIS offices located across the continental U.S. Whenever someone clicks on the ‘Contact USGS’ link at the top-right of our web pages, they have the option of calling, e-mailing, live-chatting - even using Social Media - with a SIS office that is nearby or on-rotation. This results in an amazing range of questions to us, from arcane geophysics to tinfoil hat lunacy! Check us out. We’re also on Twitter (@USGS) and Facebook. If you’re anywhere near Anchorage this summer, stop by our office for insider info! E-mail me for directions or if you have any questions about the Great Land!”

Jae Erickson ’10. Jae completed an MS in Geology at the Colorado School of Mines (CSM). His thesis focused on the genetic relationship between spatially-associated alkali igneous rocks and a carbonatite body in Funnison County, CO. He has been hired by CSM to manage the Geology/Geological Engineering thin section lab.

Christopher Fell ’04. Christopher is a senior geologist in R&M Consultants in Anchorage, AK. In 2015 he earned his Certified Professional Geology (CPG) credential.

Kelsey Franko ’14. Kelsey writes, “I am a geologist in Arcadis Inc.’s remediation division in Helena, MT. I will spend a portion of this field season in southeastern Idaho collecting data and helping to produce reports. This will be my third summer in southeastern Idaho, but my first with Arcadis. Prior summers in southeastern Idaho have included working on a drill rig in the exploration division of a phosphate mining company and serving as the site-wide dispatch in the health and safety division.”

Kristie Franz ’95. Kristie writes, “I am still in Ames, IA, with my husband and two kids, who are all doing well. Next year my oldest will start kindergarten and I imagine, as a result, we will be thrown into yet another new realm of life. This is my 10th year at Iowa State, which is hard to believe. I have now taught some material so much that I occasionally stop myself in mid-sentence questioning whether I have already presented this topic to the given group of students, or if indeed this is a different class. Research is going smoothly. In fact, another UWEC Geology alumna, Terri Hogue ’95, and I are currently working on a NASA grant developing satellite products for hydrologic modeling and forecasting. We are always looking for great graduate students at ISU, so feel free to get people in touch with me. I would be happy to tell them about our program.”

James Engelhardt ’97. James is an Environmental Scientist at Cooper Engineering Company, Inc., in Rice Lake, WI.

Lynn Galston ’08. Lynn is a well data administrator for Statoil in the Houston, TX, area.

Anne Gauer ’09. Anne writes, “This last year has been a whirlwind of traveling to Suriname, Peru, and Mexico as a Project Geologist with Maptek. My team finished a large implementation project with a gold company; I was able to work with the geologists, improve my mine site geology experience, improve my Spanish, and even learn a little bit of Surinam-tongo. Luckily, working with Maptek has given me the opportunity to return to UWEC and teach Vulcan (our mining software) short courses to some of the geology students. This gives the students a great opportunity to be one step ahead when they apply for jobs. Besides traveling and working, I have enjoyed my time in Colorado with my dog Hank! We were even able to visit the old stompin’ grounds for some hikes in New Mexico during Field Camp I this year!”

Kevin Gostomski ’05. Kevin is working as a science teacher at City Knoll Middle School in Manhattan. He writes, “I continue to combine my scientific and creative interests by developing multidisciplinary units that combine aspects of science, math, English and social studies.”

Abbey (Graves) Sanderson ’05. Abbey is a community relations and environmental coordinator at Vulcan Materials Company in the Columbus, OH, area.

Mark Green ’15. Mark writes, “I am a geologist at Genesis Engineering and Redevelopment in Lodi, CA. I will be working on Phase I and II investigations of contaminated sites throughout California, mostly focused on PCE and TCE contaminations (lots of dry cleaners!). I just wanted to thank all of you for the tremendous impact you have had on my education. You’ve helped me grow in ways I couldn’t imagine and inspired me with a deep passion for geology as a whole.”

Leslie (Haralson) Draper ’04. Leslie writes, “I’ve been living in Portland, OR, for 11 years now. It is just beautiful out here. I’m happily married with two little kids (Rebekah 2 years, Joshua 6 months).”

Gretchen (Haupt) McDonnell ’94. Gretchen is an Environmental Department Manager at Terracon in the Oklahoma City area.
**ALUMNI NEWS (continued)**

**Jacob Heimdahl ’10.** Jacob is a staff engineer at Allender Butzke Engineers, Inc. in Colfax, IA.

**Xai Her ’14.** Xai completed his MS in volcanology at Northern Illinois University in 2016.

**David Hodek ’95.** Dave writes, “We’re still enjoying living in Duluth after 8 years. While we would trade some things (notably a foggy summer that lasts roughly 6 weeks), I have the Superior Hiking Trail five minutes from my house and the kids enjoy the recreational opportunities of the North Shore and surrounding areas. I still get back to Eau Claire a couple times a year to visit my brother and I’m amazed at all the changes to the university, makes me realize how old I really am. Except for my former apartment on Menomonie Street which somehow looks exactly the same... In any case, it’s great to see the progress the department has made, all the internship opportunities that are available, and the great new facilities.”

“I still get back to Eau Claire a couple times a year to visit my brother and I’m amazed at all the changes to the university...”

_Dave Hodek ’95_

**Andie Holm ’14.** Andie is a laboratory technician for WRR Environmental in Eau Claire.

**Mark Holmes ’97.** Mark is the Water Resources Manager for the City of Goodyear, AZ.

**Matt Hostak ’89.** For the past year I’ve been volunteering almost 40 hrs/week at Habitat For Humanity’s “ReStore” facility in Oshkosh. It’s a really worthwhile cause and it allows me to give back at least a little bit of everything I’ve been so fortunate to have received. Still really interested/active in digging old “privies” on historic properties, which is GREAT exercise and always fascinating to recover artifacts from so many other people lives from so long ago. In short, I’m happy, VERY grateful for everything this life brings, and I wouldn’t turn back the clock, because I’m looking forward to what each new day brings!

**Mark Jirsa ’76.** The editor discovered that Mark was awarded the Goldich Medal, the highest award of the Institute for Lake Superior Geology, in May 2016. Mark completed his MS at UMD in 1980 and has worked for the MN Geological Survey since 1979. His research seeks to understand the Precambrian geology of Minnesota. Congratulations, Mark! You can read the entire citation at the ILSG website.

**Ric Kopp ’75.** Ric writes, “With the low oil and natural gas prices this has been an interesting year. Spending more time talking to bankers and looking for project funding then doing geology. Still doing well in the consulting end as companies are still looking for good projects. I also get to spend more time playing cowboy, and also spend a lot of time with the grandkids as they like hiking, camping, fishing and asking about rocks--maybe future geologists.

**Kendra Keon ’14.** Kendra is a new Assistant Scientist for Tetra Tech in Sherwood, WI, and writes, “Much of the work I’ve been doing thus far is all training and database configuration. Once sampling gets a little busier, I’ll work half the time in the sediment lab analyzing the cores and the other half processing the data. So far, so good! Much less stressful than working offshore!”

**Craig Koch ’82.** Craig writes, “I will be retiring in 5 years or less. We had our first grandchild born in July. She is a joy and my wife, Marie, volunteers to watch her every chance she can get. We went on a tour of Italy in June 2015 to follow our other daughter’s singing group. A member of the group is Beth Johnson (Visiting Asst. Professor at UWEC in 2009-10), who is a geology professor at UW-Fox Valley. Neither of us knew much of Italy’s geology, so we spent time on the tour bus trying to explain the features. We started in Milan, traveled to Florence, then south through the Apennines, Tuscany, and Rome. Wonderful people, music, and food. We are visiting the Canadian Rockies this June and hope to travel more once I retire.

**Kevin Krenik ’82.** Kevin writes, “I attended graduate school at Texas Tech University as I was interested in working in the oil business. Exxon (now ExxonMobil) offered me a job following graduation in 1985, and I reported for my first assignment with Exxon’s inland Gulf Coast production office in New Orleans. I’ve spent most of my career developing mature fields in the inland Gulf Coast area, from Texas to South Florida, the Gulf of Mexico, and Offshore California. I’ve worked with people from all over the world, and had many memorable experiences, especially having lived in New Orleans for 17 years. (Trivia Note: While attending UWEC, Eau Claire had the distinction of having more taverns per capita than any city in the country. I then went to grad school in Lubbock, TX—a “dry” city with more churches per capita than any city in the country. I then spent a large portion of my working career living in New Orleans, which has no “last call.”) This past summer, I celebrated my 30th anniversary with ExxonMobil. The time has truly flown by, probably because I so enjoy what I do. For this, I feel truly blessed.”

**Bryan Kunert ’09.** Bryan is a customer service representative at Ecolab in Egan, MN.

**Alyssa Leidel ’15.** Alyssa is a geologist with Wood Rodgers, Inc., in the Sacramento, CA, area.

**April Leistikow ’14.** April reports, “I am a mudlogger on a drillship in the Gulf of Mexico. I have been a part of four deepwater wells. The beginning of this journey was filled with training, handbooks, and exams. No company lets you work offshore unless you complete Helicopter Underwater Egress Training. This prepares offshore workers for an emergency helicopter landing; yes, I take a helicopter to work. Participants enter a helicopter cockpit and strap into a helicopter seat with a 4-point restraint system. The cockpit is then submerged in a large swimming pool and flipped upside down. Participants are required to push out the chopper window next to them, undo the seat belt, and swim out of the window. Two people in SCUBA gear are in the pool in case someone has problems getting out! Although I did not expect to find myself in the oil field, I am so thankful for all the doors that have opened up to me. I have met people from all over the world and have had valuable learning experiences in an industry that is alive 24/7. It has been a great foot in the door to the working world.”

**Bjorn Lynse ’01.** Bjorn is a Quality Manager at Tetra Tech in Sherwood, WI.

**Tim Masterlark ’94.** Tim holds the Mickelson Professorship in Geodynamics at the South Dakota School of Mines.

**Nick Matula ’15.** After completing two internships with Smart Sand Inc., Nick accepted a Mining Specialist position with Smart Sand Inc. (Tomah) immediately after graduation.
Andrew Metzger ’12. Andrew is a Senior Technician at Charter Communication in Altoona, WI.

Matthew Michalski ’15. Matthew is a Hydrogeologist at METCO in La Crosse, WI. His responsibilities include soil/ground water sampling, supervising sub-contractors, vapor sampling, field measurements, data reduction, and map and report preparation.

Sarah (Mindel) Stanwicks ’01. Sarah and her husband Kabel welcomed a son, Theo, in 2015. Theo’s older brother is thrilled to be a big brother and is doing great job!

Audrey (Mohr) Boerner ’11. Audrey recently joined the Eau Claire City-County Health Dept. Audrey received the 2016 WPHA Excellence in Public Health Research Award for the Health Impact Assessment she co-authored on industrial sand mining.

Joe Nawikas ’05 & Suzie (Reed) Nawikas ’04. Joe and Suzie report, “We recently welcomed our first baby! Magdalena was born in April 2016—part of her namesake is the Magdalena limestone in New Mexico. We’ve been having so much fun taking family adventures together. And we are about to embark on a big adventure! After 11 amazing years in San Diego, we are taking an unexpected opportunity to transfer both of our jobs to Truckee, CA (Lake Tahoe). We are excited to settle into a little mountain town and soak up all that Tahoe has to offer. We still want to get back to Wisconsin someday, but this should be a fun little detour for a few years. Look us up if you are in the area!”

Brian Nehring ’15. Brian is a Geotechnical Engineer with Element Materials Technology in St. Paul. Brian completed his Dual Degree Engineering degree at the Univ. of MN.

Nate Nushart ’12. Nate writes, “I attended graduate school at the Univ. of South Florida to study structural geology and volcanology. I conducted my MS thesis work in the Henry Mountains, evaluating different models of magma emplacement in the upper crust, and graduated in August 2015. While at USF, I was invited to an ExxonMobil Geophysics Short Course which eventually led to an internship with ExxonMobil Exploration Company in Houston, TX, from Aug. 2014 to Aug. 2015. I was hired by ExxonMobil to work in the Exploration Company in September of 2015, where I currently work on a variety of upstream projects as a Senior Geoscientist.”

Lars Olaussen ’10. Lars is a Geologist with Lundin Mining Corporation, at the Eagle Mine in Marquette, MI.

Michelle Peterson ’92. Michelle is a project manager/geologist/risk manager at AMEC in the Portland, OR, area.

Heidi Rantala ’97. Heidi is a Water Quality Consultant with the MN DNR.

Pete Raymond ’11. Pete is a Project Geologist with Lundin Mining Corporation, at the Eagle Mine in Marquette, MI.

Angela Remer ’05. Angela is a Senior Project Manager/Software Development Manager in the Twin Cities.

Kenneth Ritt ’14. Kenny is a certified caregiver at Eliana Homes in Oak Creek, WI.

David Risch ’78. Dave and Sandy have been busy traveling and volunteering. “We spent 15 days in Big Bend camping and canoeing (Feb.), and 3 weeks in Peru (May) visiting ancient sites and the Amazon. We really liked the Amazon; we want to spend several days next time and visit a village, probably in Ecuador. We just attended Sandy’s 40th college reunion in Beloit. Next up is Sea Camp at Texas A&M Galveston where I (Dave) am a volunteer counselor (child wrangler) for Photography and Sandy is a counselor for Coastal Ecology.”

Andrew Rockweiler ’12. Andrew is a civil/environmental engineer at Pinnacle Engineering in the Twin Cities.

Aaron Rowland ’09. Aaron is a Field Technician at Heath Consultants Incorporated in Denver, CO.

Molly (Sandgren) Rossa ’02. Molly writes, “I have been busy as a mom, home organizer, and yoga teacher for the last five years. My husband, Kekoa, and I are raising two great kiddos aged 5 and 2. One of our favorite family pastimes is beachcombing and looking for special rocks. I’m starting their rock fascination early!”

Roger Schulz ’14. Roger is a Technical Support Engineer at Frontier Precision, Inc. in Minneapolis, MN.

Brett Shand ’14. Brett is an Associate Technician at SEH, Inc. in Minneapolis, MN.

Christopher Spencer ’11. Chris is a Software Engineer at JAMF Software in Eau Claire.

Ellyn Swenson ’15. Ellyn is a Hydrogeologist at Tetra Tech in the Boulder, CO, area.

Chad Underwood ’96. Chad writes, “Work continues to be very busy. We continue to add staff (8 total now, but never seems to be enough!), and we purchased an office building last summer to accommodate the growth. Our family is doing great. Griffin and Abigail are doing well in third grade, and Alison went back to teaching this year. As a family, we took our first ‘real’ spring break trip in 2016. We hiked Zion and Bryce Canyon National Parks and had a great time. The kids kept a running tally of all the geology lessons that I taught (or tried to teach) along the way. Given the blank looks and occasional rolled eyeballs when discussing stratigraphy, faulting, and geomorphology/erosional mechanisms, I’m not sure how much of each lesson actually stuck with them, but I enjoyed it!”

Sandra (Walsh) Chamberlain ’68. Sandra has a Master’s of Science in Adult Education. She is currently Sr. Technical Assistant in the ESOL/TRS (Transitional Studies) Mastery Lab & Writing Center at Monroe Community College - Damon City Campus. She works with mostly nontraditional and newly immigrated students who need an extra boost in English and math skills before fully entering the collegiate world.

Chuck Walter ’90. Chuck writes, “By 2035, we see the Central Florida region falling short of sustainable groundwater supplies by about 250 mgd. To meet these future challenges, the three major water management districts of the State embarked on a multi-year planning project to extend groundwater resources and create new, alternative water supplies from sources like reclaimed waste water, surface water, and storm water. The plan has been recently adopted and can be viewed at CFWiwater.com.”
CONGRATS, GRADS!

PRESENTED THE “EXCELLENCE IN GEOLOGY” AWARD IN 2015-2016

The “Excellence in Geology” Award recognizes the academic achievements of the outstanding graduating geology major, both in coursework and in faculty/student collaborative research. The winners of the Geology Excellence Award for 2015-2016 are Daniel Brennan, Ray Fliflet, and Sarah Kintner.

Daniel Brennan is a native of Prairie du Sac, WI. Dan was recipient of a Unimin Corp. Sophomore Geology Scholarship and also was an environmental affairs intern with Unimin Corp. He conducted research with Dr. Phil Ihinger in the Swiss Alps and presented this work at NC GSA. Dan also played varsity football for the Blugolds. He will be attending graduate school on a fully funded TA to specialize in sedimentary geology at Idaho State University.

Ray Fliflet is a native of Sheldon, WI. Ray conducted research with Drs. Brian Mahoney and Kent Syverson on the composition of sandstone cements. This has been of great interest because of the industrial sand mining boom in western Wisconsin. She has presented this research at two professional geology conferences. She also was a geology intern with Fairmount Santrol and served as a TA at our field camps I and II.

Sarah Kintner is from the Green Bay area. Sarah was a recipient of a prestigious Goldwater Scholarship awarded to the top STEM students in the country. Sarah also received a Unimin Corp. Sophomore Geology Scholarship, a Fairmount Santrol Responsible Mining Scholarship, and a hydrogeology internship with Barr Engineering. Sarah conducted hydrogeology research with Dr. Katherine Grote, and this past year Sarah worked with Bob Hooper to research natural nanoparticles in the Eau Claire public water supply, examining them systematically from well-head to the tap. Sarah is starting graduate school (a fully funded MS-level project) in environmental science at Washington State University after completing a summer internship in the Pacific NW studying backcountry water quality from Washington down to northern California. Sarah’s graduate work will examine models for contaminant transport and the biogeochemistry of urban storm water in Portland, OR.

RECENT GEOLOGY GRADUATES
Fall 2015, Spring & Summer 2016 (unofficial list)

Arendt, Alexander Kurtis
Brennan, Daniel Thomas
Conway, Ryan Joseph
Degner, Benjamin Arden
Dowling, Justin Andrew
Durand, Jacob John
Fliflet, Rachel
Haenke, Broderick
Herzfeld, Hannah Emily
Hutter, Alexander David
Kintner, Sarah Elizabeth
Kujawa, Bryce Lawrence
Larson, Jacob Robert
Lassa, Mitchell James
Lubach, Nicholas Duane
Matula, Nicholas James
Mau, Laura Evelyn
McCann, Chaz Michael
Michalski, Matthew Charles
Nehring, Brian Christopher
Nimon, Christopher Todd
Pickett, Courtney Brooke
Poirier, Justin Michael
Semonick, Hannah Marie
Stoll, Kinzey Lauren
Tveite, Jacob Paul
Wolf, Alexandra Jane

2015-16 Geology graduates at the annual banquet
1. Zach Zens and Sam Helmuth study Precambrian rocks in Rusk County, WI, to better understand VMS genesis.
3. Olivia Spiegel and Sarah Kintner study nanoparticles on the scanning electron microscope, Eau Claire.
4. Ray Fliflet, Jake Tveite, and Zach Zens examine VMS cores at the WGNHS core repository in Mt. Horeb, WI.
5. Erik Brinza and Ray Fliflet at Rustler’s Gulch project area, Field Geology II, Montana.
6. Samantha Bartnik with her legislator at the Posters in the Rotunda event, Madison.
7. Samantha Bartnik and Adam Wiest collect surface water for chemical analysis in the ICPMS lab.
8. Samantha Bartnik and Adam Wiest evaluate water chemistry on the ICPMS under the watchful eye of Laurel McEllistrem of Materials Science.
9. Brian Mahoney (right) with colleagues studying the uplift history of the Andes Mountains in Argentina.
10. Alex Hutter during his internship with Teck in northern Alaska, 2015.
BARTNIK, BRENNAN, AND TVEITE WIN MYERS/WILLIS FIELD CAMP SCHOLARSHIPS

Field camp experiences have become increasingly expensive for students. The Myers/Willis Scholarship, established by the department in 2006, is intended to lessen the financial burden of field camp for excellent students who also have financial need. The scholarship also honors the contributions of Dr. Paul Myers and Dr. Ronald Willis, geology professors at UWEC who worked very hard to establish a strong field component in our young geology program. (See tributes in this newsletter to Dr. Willis, who died in 2015.)

Daniel Brennan (Prairie du Sac, WI), Samantha Bartnik (Cedarburg, WI), and Jake Tveite (Owatonna, MN) are recipients of this year’s Myers/Willis scholarships. Recipients were selected based on performance excellence at Field Camp I in New Mexico. Each student will receive $600 to defray expenses for Field Camp II in Montana. Congratulations!

2016 UNIMIN SOPHOMORE GEOLOGY SCHOLARSHIPS ANNOUNCED

For the third year, Unimin Corp. has funded a merit-based scholarship for geology majors who will be taking Mineralogy-Petrology I in the following fall semester. Four $2500 scholarships and one $1250 scholarship were awarded for the 2016-17 academic year. The pool for this scholarship competition was extremely strong. The recipients (L to R in photo above), include Melissa Hackenmueller (Albertville, MN), Mara Reed (Apple Valley, MN), Maria Delgado Gomez (Stevens Point, WI), Unimin’s Mark Massicotte, Carly Mueller (Andover, MN), and Derek Lindquist (Ramsey, MN).

2016 UNIMIN FRESHMAN GEOLOGY SCHOLARSHIPS ANNOUNCED

For the third year, Unimin Corp. has funded a merit-based, annual scholarship for high-potential incoming freshman who are majoring in Geology. This year three recipients were selected, and each will receive $1000. This year’s winners are Matthew Durham (Hudsonville, MI), Jessica Stamp (Granton, WI), and Megan Ullery (Burnsville, MN). Congratulations to these recipients, and we look forward to their arrival on campus this fall!

ALEX LUTZE WINS BECKSTROM GEOLOGY MAJOR SCHOLARSHIP

This year’s recipient of the Beckstrom Geology Major Scholarship is Alex Lutze (Menomonee Falls, WI). Alex is active in the UWEC Honors Program, serves as an editor for an on-campus publication (NOTA), and hopes to join the Peace Corps someday.

This $1000 scholarship, established in the fall of 2005 by alumnus Greg Beckstrom ‘84, is awarded annually to a comprehensive geology major who has completed Mineralogy-Petrology I. The awardee must have an excellent academic record and financial need.

UNIVERSITY-WIDE SCHOLARSHIPS

Two Geology majors received university-wide scholarships for 2016-17. Adam Wiest, a senior from Green Bay, received the $7000 Michael F. Fredrich Scholarship. The Fredrich Scholarship is the largest and most prestigious scholarship in the College of Arts and Sciences. Also, Kyle Tollefson, a senior from Independence, was named a McNair Scholar. This program prepares students for graduate school, and Kyle will be conducting research with Dr. Phil Ihinger.

The Geology Dept. hopes to offer Myers/Willis scholarships to more students each year as the scholarship fund balance rises. We encourage all alumni who have benefited from our field experiences over the years to contribute to this fund. In addition, this is a great way to honor Paul and Ron for their dedication to our field program! See page 26 for information about contributing to this important scholarship fund.

2016 UNIMIN FRESHMAN GEOLOGY SCHOLARSHIPS ANNOUNCED

For the third year, Unimin Corp. has funded a merit-based, annual scholarship for high-potential incoming freshman who are majoring in Geology. This year three recipients were selected, and each will receive $1000. This year’s winners are Matthew Durham (Hudsonville, MI), Jessica Stamp (Granton, WI), and Megan Ullery (Burnsville, MN). Congratulations to these recipients, and we look forward to their arrival on campus this fall!
One goal of the Responsible Mining Initiative is to provide practical work experiences for our undergraduate students through paid internships. We now have four Responsible Mining Initiative internships with Fairmount Santrol, Smart Sand Inc., and Unimin Corp. where Blugold geology majors are given preference over students from other universities!

Our efforts to enhance internship opportunities have been a resounding success. One student had a hydrogeology internship in Philadelphia last fall. This summer 17 students have paid internships with metallic and non-metallic mining companies, environmental consulting firms, governmental agencies, and conservation groups. This large number of paid internships is highly unusual for an undergraduate geology program.

**INTERNSHIPS**

**BIG ROCK EXPLORATION**  |  Minneapolis, MN  
Jacob Durand  |  Geology Intern

**USGS**  |  Wichita, KS  
Ben Degner  |  Hydrogeology intern

**LANGAN ENGINEERING**  |  Philadelphia, PA  
Ben Degner  |  Hydrogeology Intern, Fall 2015

**AMERICAN CONSERVATION EXPERIENCE** and **BUREAU OF LAND MANAGEMENT**  
Corvallis, Oregon  
Sarah Kintner  |  Stream Survey Technician

**STUDENT CONSERVATION ASSOCIATION**  |  Great Smoky Mountains National Park, TN & NC  
Maria Delgado Gomez  |  Project Technician

**SEH INC.**  |  Chippewa Falls, WI  
Anna Brickheimer  |  Environmental Geology Intern  
pictured with SEH mentor Darrell Reed

**MN DNR**  
Kyle Roloff  |  Environmental intern

**WISCONSIN DOT**  - Eau Claire office  
Olivia Alloy  |  Environmental Intern (wetlands)
Of the 52 USGS-NAGT internships awarded nationally, TWO are Blugolds!

Julia Bowe | USGS/NAGT Summer Co-op Field Program, hydrogeology
East Hartford, CT

Mitchell Lassa | USGS/NAGT Summer Co-op Field Program, hydrogeology
Troy, NY

SMART SAND INC. | Oakdale, WI
Jane Williams | Geology Intern (non-metallic mining)
pictured with Smart Sand mentor Todd Lindblad '13

LUNDIN MINING | Marquette, MI
Jacob Tveite | Mining Geology Intern
pictured with Lundin Mining mentor Pete Raymond '11 (right)

CONSERVATION CORPS
Hannah Herzfeld (left) | Conservation Apprentice
Marshall County (MN) Soil and Water Conservation District

Kinsey Stoll (right) | Conservation Apprentice
Carlton County (MN) Soil and Water Conservation District

UNIMIN
Morgan Kubishak (left)
Environmental Affairs | Mankato, MN

Andrew Faris (right)
Geology, non-metallic mining | Ottawa, IL
pictured with Unimin mentor Mark Massicotte
ENVIRONMENTAL INTERNSHIPS HELP SHAPE GEOLOGY STUDENTS’ FUTURE CAREER PLANS

Geology majors Sarah Kintner and Dan Brennan see their futures a bit differently, but the many opportunities they found inside and outside their classrooms at UW-Eau Claire have prepared them well for their professional journeys. Both seniors say their summer internships with industry leaders have most influenced how they see their futures.

“Most academic work is aimed at teaching you the fundamentals, or teaching you to think,” Kintner said. “There’s really no way for a class to cover the complexities of a real-world experience. My internship gave me a peek into the professional world, allowing me to see the connections between school work and a professional job, and allowing me to experience things that aren’t possible at school.”

“My internship gave me a peek into the professional world, allowing me to see the connections between school work and a professional job...”

Sarah Kintner ’16

During her internship with Barr Engineering in Minneapolis, Kintner spent four weeks doing geologic drilling that included supervising a drill team and classifying and logging soil samples. “In school I’ve classified soil, but the internship gave me a far fuller experience, one that will help me stand out from other job applicants,” Kintner said.

Brennan’s summer as an environmental intern with Unimin Corp. in Mankato, MN, also influenced his plans for his immediate future. “Several of my internship mentors were big supporters of me pursuing a master’s degree right away, so I’ll be attending a fieldwork-intensive graduate program at Idaho State University,” Brennan said.

As an intern with a leading producer of industrial nonmetallic minerals, Brennan spent much of his time with Unimin working with the environmental affairs department on environmental monitoring, permitting, and compliance. He also worked with Unimin’s sedimentary geologist in the field alongside rotosonic drillers describing sediment cores, he said.

“I experienced many facets of the nonmetallic mining industry ranging from environmental, to geological, to operational,” Brennan said.

The internship helped Brennan demonstrate his scientific knowledge as well as the interpersonal skills he will need to succeed in a professional environment, said Jamie Swenson, the environmental affairs manager at Unimin who supervised Brennan during his internship.

Brennan came to Unimin with an ability to research, review and process data, and to quickly understand tasks assigned, Swenson said. “He also was eager to learn and was able to communicate, which is essential to anyone in any organization,” Swenson said. “Dan’s personality, behavior, flexibility and ability to interact made him a great intern. A takeaway that I can’t emphasize enough is that hard skills look great on a resume and get you the interview, but soft skills get you hired.”

The internship helped him determine what career path is the best fit for his strengths and interests, Brennan said, noting that his Unimin mentors shared their advice as well as their industry knowledge. “Energy is going to be a critical and changing industry over my lifespan,” Brennan said of his proposed career path. “I would really enjoy applying what I’ve learned through research, internships, and classwork in an energy-orientated geology career.”

Brennan and Kintner were among 11 UW-Eau Claire geology students who gained real-world experience last summer and were paid for it, said chair Dr. Kent Syverson. “These internships are providing our geology students with amazing opportunities to gain practical work experience, as well as graduate with fewer loans,” said Syverson. “At the same time, we’re benefiting the environmental and mining industries by partnering with them to develop highly skilled professionals to fill their workforce needs and protect the environment.”

Swenson said UW-Eau Claire’s internship program is impressive and different from anything she’s seen at other universities. “I’ve seen UWEC professors go out of their way to immerse themselves in current events, going ‘door-to-door’ to understand what they can do to help minimize the gap between students and employers,” Swenson said. “They network. They communicate. They’ve spent endless hours understanding what employers are looking for to ensure students are prepared when they enter the workforce.”

As a result of those efforts, both the students and organizations benefit, Swenson said. Students gain valuable knowledge and experience, while bringing to the organization new ideas and value-added knowledge in technology. And organizations can connect with prospective future employees, something that’s increasingly important as competition has increased to attract and retain talented young professionals from the science fields, Swenson said.

The opportunity to test out a field that interests her was an invaluable part of her college experience, Kintner said. “It was reassuring to enter my last year of school knowing that I enjoyed the line of work I was studying and planned to work in,” Kintner says. “But it also has opened my eyes to all the career possibilities that are out there for me.”

An earlier version of this story appeared on UW-Eau Claire’s Department of Geology page.
RESPONSIBLE MINING INITIATIVE UPDATE
By Kent Syverson

In November 2013, the University of Wisconsin System awarded UWEC Geology a $451,000 Economic Development Incentive Grant to create a Responsible Mining program. This grant was awarded to prepare highly qualified graduates for work in the mining industry, the environmental consulting industry, and in regulatory agencies such as the DNR.

Has it had a positive impact on students? Absolutely! The new Economic Geology/Hydrogeology lab opened last fall (P219). MSHA 24-hr new miner training was offered on campus to 14 students—a great resume builder for those wishing to work in mining and environmental consulting. Here are two other telling statistics: Geology scholarships and grants in 2013 ($2500) vs. 2016 ($30,000), and the number of paid internships in 2012-13 (4) vs. 2015-16 (18—a new record for us). This is in spite of a downturn in commodities prices (sand, metals, and oil). More than 75% of the 2016 internships are in hydrogeology, environmental geology, and environmental conservation. Our first RMI intern, Nick Matula, was hired in a permanent position by Smart Sand, his internship sponsor, in January 2016. This bodes well for the future as other interns graduate.

These successes have required much work to build relationships with industry. In May, we held our first Geology/Responsible Mining Advisory Board meeting on campus. Fourteen outside stakeholders from Wisconsin, Minnesota, Idaho, and Colorado discussed curriculum, attended a poster session with our geology student researchers, met Responsible Mining Initiative interns, and toured facilities.

The Board’s conclusions? First, a Blugold geology degree is extremely valuable and they are willing to invest resources to enhance the educational experience by providing internships, seminar speakers, and scholarships. Secondly, they like to hire Blugold geology graduates! This benefits a student while in school, and also provides a valuable professional network when seeking employment after graduation.

We thank all the professionals who attended the Advisory Board meeting. Attending such an event requires valuable time from people who are very busy with important projects, so we are grateful for their investment in our program. Participants included Nick Bartol (Badger Mining Corp.), John Behling (Weld Riley law firm, UW System Regent), Ken Bradbury (State Geologist) and Jay Zambito (WGNHS), Mark Ciardelli ’04 (Foth), Dale Kern ’96 (Haley & Aldrich), Todd Lindblad ’13 and Nick Matula ’15 (Smart Sand Inc.), Maureen Moore (Maptek), Phil Newman and Darrell Reed (SEH Inc.), Tina Pint ’99 (Barr Engineering), Roberta Walls (WDNR), and Mark Waters (Fairmount Santrol).

FIRST GEOLOGY/RMI ADVISORY BOARD MEETING HELD
By Kent Syverson

A Blugold geology degree is valuable not only for what a student learns, but also for the respect it commands around the country. We are always seeking to keep our curriculum up-to-date in times of changing technology and work force needs. So why not seek input from the people who hire our students? On May 3, 2016, the UWEC Geology/Responsible Mining Advisory Board met for the first time. Fourteen outside stakeholders from Wisconsin, Minnesota, Idaho, and Colorado discussed curriculum, attended a poster session with our geology student researchers, met Responsible Mining Initiative interns, and toured facilities.

The Board’s conclusions? First, a Blugold geology degree is extremely valuable and they are willing to invest resources to enhance the educational experience by providing internships, seminar speakers, and scholarships. Secondly, they like to hire Blugold geology graduates! This benefits a student while in school, and also provides a valuable professional network when seeking employment after graduation.

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STUDENT RESEARCH DAY – SPRING 2016

The Twenty-Fourth Annual UW-Eau Claire Celebration of Excellence in Research and Creative Activity Day was held April 27-28, in Davies Center on the UWEC campus. This event showcases faculty/student collaborative research occurring on campus. The Geology Department has been very well represented throughout the years, and this year was no exception. All students listed below presented posters this year. We are very proud of our students!

Note: Students who presented posters at professional conferences are also indicated. Student travel to conferences was supported with money from the Geology Advancement Fund and the Office of Research and Sponsored Programs.

Kinzy Stoll, Justin Dowling with Katherine Grote
Comparisons of Estimates of Hydraulic Conductivity in the Un saturated Zone

Justin Poirier, Ray Fliflet with J. Brian Mahoney and Kent Syverson
Diagenetic History of Cambrian Sandstone Units in Western Wisconsin: Implications for Resource Extraction. Presented at NC GSA, Champaign, IL, April 18-19, 2016.

Sarah Kintner with Robert Hooper
Evaluation of Nanoparticles and Colloids in a Public Water Supply from Well-Head to the Consumer Tap

Chase Friedemann, Forest Friedricks with Phillip Ihinger
Geologic Mapping and Petrologic Modeling of the Green Mountain Shield Volcano, Oregon

Zacharie Zens with Robert Lodge
Geology of the Precambrian Rocks Hosting the Flambeau Volcanogenic Massive Sulfide Deposit in Rusk County, Wisconsin. Presented at the Institute on Lake Superior Geology Deposit, Rusk County, WI. Presented at the ILSG, Duluth, MN, May 4-6, 2016.

Nathaniel Jackson, Bruno Henrique De Moura Mess with Robert Lodge
Geology of the Eisenbrey Zn-Cu-Pb Deposit, Rusk County, WI. Presented at the ILSG, Duluth, MN, May 4-6, 2016.

William Fitzpatrick, Eric Brinza, Steven Brost with Phillip Ihinger
Infrared Spectroscopy of Quartz and Feldspar in Alpine Hydrothermal Veins

Maile Olson with Robert Lodge
Ore Petrography and Precious Metals of the Primary Flambeau Massive Sulfide Ore. Presented at the ILSG, Duluth, MN, May 4-6, 2016.

Mitchell Lassa with Scott Clark

Samuel Helmuth with Robert Lodge
A New Rusk County: Producing a new geological map from new field observations and compilations of historic geological/geophysical data. Presented at the ILSG, Duluth, MN, May 4-6, 2016.

Carly Mueller, Samantha Bartnik, Adam Wiest with J. Brian Mahoney
New Zircon U-Pb Ages for the Choiyoi Silicic Large Igneous Province of Argentina that Define a Strong Episodic History of Magmatism and Mass Extinction in the Permo-Triassic Time

Kaelyn Blotz with Geoffrey Pignotta and J. Brian Mahoney
Quantifying Grain Shape Characteristics and Fragmentation in Raw and Processed Frac Sand from Western Wisconsin

Samantha Bartnik, Adam Wiest, Carly Mueller with J. Brian Mahoney
Tracking Basin Inversion in the RetroArc Foreland Basin: Integrated Provenance Studies in the Cacheuta Basin, South-Central Andes and logistics in return for free registration and lodging at the Marriott Hill Country Resort (a fancy place). Interns were able to attend most of the lectures and networking sessions, and they also saw the River Walk and the historic Alamo in downtown San Antonio. Syverson gave a presentation to the group about the RMI. It was a great learning/networking opportunity for all. Thanks to Pete Cook and the Petroleum Connection for sponsoring the trip for the RMI interns.

Drake Bortolameolli (Geography), Benjamin Degner with Harry Jol (Geography)

Eric Brinza with Phillip Ihinger
Schematic Illustration of Evolving Tholeiitic and Calc-Alkaline Magmatic Systems: New Models

Jacob Larson, Lucy Horst, Kyle Tollefson with Scott Clark
Severe Weather Siren Protocol in Eau Claire: Does It Produce Intended Responses?

Samantha Bartnik, Adam Wiest, Carly Mueller with J. Brian Mahoney, Stephen Sellwood, Laurel McEllistrem
Surface Water and Groundwater Chemistry of Western Wisconsin: Establishing an Environmental Baseline. Presented at the Posters on the Rotunda event, Wisconsin State Capitol, April 21, 2016.

Sarah Sortedahl (MatSci/Geology double major) and Alexandra Putney, Christopher Hopp, Tanner Olson, Gavriel DePrenger-Gottfried with Matthew Jewell (all of MatSci)
Investigating Metallographic Sample Preparation Techniques for Bi₂Sr₂CaCu₂O₈+x Superconductor Wire
Another year is coming to an end. My Water Resources class just visited a silica sand mine and a dairy cow CAFO (Concentrated Animal Feeding Operation). Both operations opened students’ eyes to how these types of businesses can be run in environmentally and socially responsible ways. My Earth Science students are in the middle of five straight weeks of field trips to local outcrops. For the most part, the weather has cooperated, and they are getting a solid foundational grasp on the big-picture geologic history of western Wisconsin.

Another part I truly enjoy is the collaborative research with our students. Jacob Larson, Lucy Horst, and Kyle Tollefsen have been studying Eau Claire university students’ knowledge and perceptions of Eau Claire’s severe weather siren alert policy. The city activates the sirens for both thunderstorm warnings and tornado warnings. Unfortunately, because some people aren’t concerned about thunderstorms, that protocol appears to cause some to ignore the sirens. Jake has also joined Mitch Lassa’s study: Analyzing 36 years of data on climate scientists’ evolving stances on climate change. Mitch presented initial findings at last year’s GSA meeting, and we are working to finalize the analysis and write up a manuscript. I’ve also been working with a professor from the Communication & Journalism Dept. (Evan Perrault) and a group of mostly C&J students, but also Olivia Spiegel from the Geology Dept. That project aims to improve sustainability efforts here on campus. Recent, local news stories about how compost is being handled efforts here on campus. Recent, local news stories about how compost is being handled

Last summer Lori Snyder and I ran two editions of weeklong Responsible Mining workshops for area high school teachers that we had piloted the prior summer. We visited a number of mines from a gravel pit to a frac sand mine and two active taconite mines in Minnesota, including Hibtac where we met up with UWEC alumnus Kris Benusa ’12 and saw some of the reclamation work that takes place in an active mine. All of the teachers came away with a much better understanding of mining activities in Wisconsin.

During the county fair this past July, Broderick Haenke, Eric Brinza, Kinzey Stoll, Ray Fillet, and Sarah Kintner helped me mark the third year in a row that the department participated in STEM (Science, Technology, Engineering, and Math) outreach at the Eau Claire County Fair. It’s great to see our students really get into outreach efforts. All in all, it has been a very busy and productive year.

On the home front, Patricia has been enjoying her last year as an elementary school student. She still skates, and she continues to be active in 4-H, working with a horse and with our dog. Last spring, she told us that she wanted to learn to play the violin; she started piano lessons, instead. Last summer, Francine became the secretary at Meadowview Elementary. This challenging job keeps her busy, and she thoroughly enjoys it.

Wishing everyone the best and hoping you are doing well.


KAREN HAVHOLM
Assistant Vice Chancellor of Research
Greetings! Not much has changed in my personal life. My husband still works for a non-profit in Menomonie and my daughter and her husband are still in graduate school in Alberta. We are enjoying having a “cabin up north” to retreat to and I am attending my (gasp) 40th college reunion this summer. We plan to step outside our comfort zone to attend the Eaux Claire music festival with the younger crowd this summer!

This past year was the toughest of the 23 I have spent at UW-Eau Claire. The enormous budget cut, on top of a number of years of erosion of the university finances, had many visible impacts. Probably the greatest seen so far is the 15% or so cut in staff institution-wide. In the department this means Geoff Pignotta will be leaving. In the Research Office, where I work, we are losing 1.5 out of 4.5 staff. Someone calculated that through retirements alone (very high because of an incentive package) we have lost 3000 years of experience. Students have not yet felt the impact that will ensue in the form of larger classes and difficulty getting classes needed for graduation, as well as fewer special opportunities (such as research) because there are fewer faculty with less time and energy to work with students. That said, those of us left have redoubled our efforts to ensure that students get a great Blugold experience here. Differential tuition was not cut directly, so there are still funds available to support student-faculty research. CERCA (now a week-long version of Student Research Day with multiple events) continues to highlight great student scholarly work. This year our new event was “Spotlight on First-Year Research” – giving first-year students who are involved in research a chance to shine (and practice their presentations ahead of the main event).

As always, hope to see some of you back for a visit before long.

ROBERT HOOPER, Professor
I hope this newsletter finds all of our alumni in good health. The geology department continues to have great students who are genuinely interested in learning about geology. I continue to teach Min/Pet I in the fall and Physical Geology and Geochemistry in the spring. Enrollments have been strong in all geology courses and the students are still the highlight of this profession. Morale has been low on campus this year among faculty and staff as the university is under assault from the governor’s office and the legislature. Despite the recent budget cuts, we have still been able to get students out into the field to study geology. Being in
the field with students, it is easy to forget all of the negative talk and actions on campus.

I really enjoyed my Physical Geology students during the spring semester, and we had excellent weather on Monday’s for a total of seven local field days for the second year in a row. We visited Big Falls, Little Falls, Wissota, Plum City, Mt. Simon, the Eau Claire well field, and Jim Falls. Maybe it’s a sign of global climate change, but I started field trips before spring break by taking my first field trip on March 7 with 70°F temps and bright sunshine. I am not sure that I’ll completely re-work my syllabus to plan on the same field trips for all future offerings.

I continue to work on nano-particles in natural environments with undergraduate student researchers. Sarah Kintner ’16 worked on natural nano-particles in the Eau Claire public water supply and we found that the Eau Claire water supply is very clean and contains very low concentrations of metals. This is good for the local water consumers but does not bode well for future funding for the project. I also had students looking at air particulates in California and a continued study of Fe-oxide nano-particles and aggregation-based crystal growth models in low-temperature environmental samples. Be sure to visit campus if you are back in Eau Claire. And, I would encourage all of our alumni who can vote in Wisconsin to remember to support public education before it is too late.

PHILLIP IHINGER, Professor

It’s that time of year again, when I get to check in with all of you who have inspired me (and continue to inspire me). It’s sad to think that this little paragraph is often all we have to reconnect throughout the entire year. In fact, I would really appreciate a quick check-in email, if any of you are feeling up to it. This past year has been very hard on both our Department and on our University. The loss of both Katherine and Geoff continues to impact our program and our morale, but fortunately Kent keeps us all looking up and forward. Meanwhile, the UWEC faculty just passed a resolution of no confidence in the President of the UW Board of Regents, as the tremendous financial losses we have endured have taken a massive toll on UWEC’s (we lost over 178 employees at UWEC just last year).

Despite this, my students continue to motivate me. Dan Brennan ’16 presented his Swiss quartz research at the NC-GSA last May, and now he is heading to Idaho State Univ. to pursue graduate studies with Dr. Paul Link. Eric Brinza ’17 and Billy Fitzpatrick ’18 keep the FTIR humming with fabulous work on coexisting feldspars and quartz crystals. Their amazing work was featured at this year’s annual CERCA celebration. Kyle Tollefson ’17 has received a McNair Scholarship and is completing a unique and sexy project studying the thermal evolution of gemmy watermelon tourmaline. To round out our group’s summer efforts, Gabe Moizinho, a visiting student-scholar from Brasilia, Brazil, is investigating silexites from Brazilian carbonatites — a very cool problem that we hope will shed light on the field-scale magmatic evolution of low-degree partial melts from the deep mantle.

Lastly, but certainly not leastly: my lovely wife Patricia is in France for the second straight summer pursuing archival research on past heroes of the Revolutionary War; Ghislaine (now 26) continues to edit and write for Volume One; Mati (now 15) ran the 800 and 4x400 meter relay for Memorial (while taking AP Euro!); and Evie (now 11) played in her last travel league basketball tournament of the summer. My promise to my family and my students is to stay optimistic and to keep smiling throughout these tough times. Take care, all!

ROBERT W.D. LODGE, Assistant Professor

Another year in the books and I haven’t been kicked out of the building yet! Year two at UWEC has been just as busy as the first (if not more). I am still teaching Physical Geology, Structural Geology and Economic Geology, and my course enrollments have been going up. Now that I’ve settled into my role a little better, I’ve been able to create better and more rewarding labs for students in all of my classes. Students are now getting a healthy dose of Precambrian geology in their upper-division curriculum. My Economic Geology class visited the renamed Flambeau mine site near Ladysmith, and the Tilden/Empire and Eagle mines near Marquette, MI. These amazing sites are all in our backyard! There are world-class mining and reclamation projects within a few hours of this campus. My Structural Geology class visited the complexly deformed Archean province of northeastern Minnesota. I even dragged the students underground in the Soudan mine for a geologic tour of the various structures controlling the locations of the ore bodies. My Physical Geology class remains a very fun class to teach and it is a spectacle for the students that take it. My strange Canadian accent (ahem… Newfie accent) is something that students always comment on in my course evaluations.

While I find myself a little more comfortable in my teaching role, any time saved in teaching prep is now given to the research students with whom I’m collaborating. Now that I’m no longer the new guy (thanks to Dr. Sellwood), students are no longer scared of me and have been approaching me for research opportunities. I have been working with five students on various aspects of volcanicogenic massive sulfides ore bodies here in Wisconsin. Zacharie Zens and Maile Olson have been studying the geology of the Flambeau Cu-Zn-Au deposit, Nathaniel Jackson and Bruno Mess have been studying the geology of the Eisenbrey Zn-Cu deposit, and Samuel Helmuth has been re-interpreting the Precambrian geology of Rusk County. All of these students presented their research at the Institute of Lake Superior Geology meeting in Duluth, CERCA, and the RMI advisory board meeting…all in a span of ten days! We are currently preparing this research for publication as manuscripts in peer-reviewed journals and as maps with the WGNHS.

At home, my beautiful wife Cassie has been keeping the kids alive and happy while Daddy is at work. Every time I think that my job is tough, I quickly remind myself what she must be going through at home. I can’t believe that Hillary is turning three this summer. Right after our 2015 newsletter was printed, we welcomed the newest member of the Lodge family, Claudia Pearl, to the world. She is already almost a year old and has already grown up so much. It’s truly a magical time of life to have these two wonderful little girls at home.


J. BRIAN MAHONEY, Professor

Greetings once again. The annual newsletter always serves as a distinct marker in the passage of time, which inevitably generates some interesting retrospection. Our Department continues to move ahead and be strong, despite significant headwinds from UW System and the legislature that have led to very troubled times at the university. Faculty and students continue to move forward with the tremendous synergy that has been the highlight of this Department since I got here in the early 1990s. That synergy is what keeps us going and makes it all worthwhile.

My research program continues to expand thanks to the interest and motivation of my outstanding
students. Our orogenic exhumation and basin evolution studies in the south-central Andes are yielding some spectacular results. Ellen Buelow ’13 took on an M.Sc. project at San Diego State University working on this NSF project, and I am thrilled to report she has both graduated and is ready to submit an excellent paper on the evolution of the Cacheuta basin. I led an excellent horsepack trip to the high spine of the Andes in December, during which we sampled some critical strata in the upper part of the Neogene section. Our excitement at the new discoveries was a bit dampened by our arrest and confiscation of our samples by the Argentine National Gendarmerie upon our return – we are apparently in the middle of major border dispute between the provinces of Mendoza and San Juan, and are still fighting to get our samples back six months later! Despite our troubles, we will be submitting two new NSF proposals this year to continue our Andean research. 

Our research into the geology of western Wisconsin and its relation to the silica sand industry continues to generate very interesting findings. Ray Fliflet and Justin Poirier have completed an excellent project on the diagenesis of the Cambrian sandstone units in the region, and we will be submitting a paper early in the fall. Samantha Bartnik and Adam Wiest are spearheading a very interesting project establishing an environmental baseline on trace element composition of surface water and groundwater in western Wisconsin. This study is vital to guide the development of reasonable and responsible environmental regulations, and everyone from the WDNR, the silica sand industry, Wisconsin legislators, and WPR is extremely interested in our results. Should be a fascinating study!

This has been a year of decidedly mixed emotions. The Department has been severely impacted by the indiscriminant cancellation of Geoff Pignotta’s contract, without any consideration of the impact to our students and department. Geoff has been instrumental in the development of our field program over the last eight years, and his departure is going to be a significant detriment for our field geology experiences. I am thrilled he landed on his feet in an excellent position at Columbia, and the synergy between students from our Department and students from Carleton will be excellent. UWEC’s catastrophic loss is Carleton’s substantial gain! All the best to you, Geoff!

STEPHEN SELLWOOD, Associate Lecturer

Greetings alumni and friends of the geology department. I am the new face in the department, wrapping up my first year here teaching hydrogeology and environmental geology. I am here on an interim basis, and recently received the good news that I will be back in the fall for a second year. As a graduate of the UWEC Geology Department myself (’99), I have enjoyed being back on campus. Campus has changed a lot (no tunnel from Davies to Schofield anymore), but the department is still a hive of activity.

My path back to UWEC has had several stops along the way. After UWEC I spent a year as a graduate student at the UM-Duluth before making my way to Kansas to complete an MS degree at KU. From there I moved to Madison, WI, to begin a career in environmental consulting. In 2011, inspired by former classmate Jean Morrison ’00 who completed her PhD in 2010, I left my consulting career and began working toward a PhD in hydrogeology at UW-Madison. While nearing the PhD finish line in 2015, I learned that the UWEC Geology Department was in need of an interim hydrogeologist so I applied, and here I am!

It has been a great year getting to know the students in the program and getting to know the faculty (and reconnecting with those who were here in the late 90s). Most of my effort this year has been focused on teaching the hydrogeology courses in keeping with the high standards set by Katherine Grote and John Tinker before me. Big shoes to fill indeed. My thanks to Katherine for leaving course materials for me to work with so I didn’t have to start from scratch. The students have been great and very patient with their first-time instructor. In addition to Hydro I and Hydro II, I’m also teaching environmental geology. It has been fun getting back to the basics and seeing sparks of interest in students early in their college careers. It has also been fun taking students on the same local field trips (Mt. Simon, Big Falls, and Little Falls) that first inspired my interest in geology.

On the research front, I will be starting a summer research project with two students investigating background metals concentrations in western Wisconsin groundwater. I’m looking forward to collaborating with students on groundwater research, collecting some (hopefully) interesting groundwater data, and spending another year at UWEC.

LORI SNYDER, Senior Lecturer and Undergraduate Program Coordinator

I hope this year has been a very good one for all of you. As you are probably aware, the UW System, UWEC, and the Department of Geology have had rather a difficult budget situation lately. The massive funding cuts have made their negative impacts felt with fewer student opportunities, larger classes and the loss of a valuable member of our community. We are going to miss you so much, Geoff! These events have taken a toll personally and I find it extremely difficult to be bright and cheery. National Parks have taken a toll personally and I find it extremely difficult to be bright and cheery. National Parks was increased to nearly 300 students last fall. The morale at the University is as low as I have ever seen, and everyone seems to be waiting for the next cut. The only bright aspect is the students, and that is where I plan on putting my energy. Stop by and say hello if you are in town, and best wishes for a wonderful next year!

LORILIE STEINKE, Academic Department Associate

This year has been all about change. There were many changes at the university with several colleagues taking a voluntary separation incentive and retiring early. Those individuals were not replaced and much reorganization happened across our campus. The one thing that will never change for me is the satisfaction I get from working with all of our students, watching them grow as individuals, and then staying in contact with them after they
graduate and as they start making their marks on the world. So that being said, I hope all alumni stay in contact with our department and fill us in on what you have been doing.

In my personal life, there have also been many changes. My daughter Margo gave birth to a beautiful, healthy baby girl in May. As a new grandmother, I need to work on mastering my spoiling skills. It really is an easy task however, as Opal Marie is the cutest baby ever! My oldest child, Morgan, graduated cum laude from UWEC in May with a degree in psychology. Morgan is planning to take a year break before grad school and has moved to Illinois, so I am officially an “empty nester.” After 22 years of having children living at home, this is definitely a big change. I am truly enjoying this new stage in my life and feel very blessed.

KENT SYVERSON, Professor
Greetings from Eau Claire! I have now completed my 24th year in the department. I still enjoy teaching college students very much! The past year I taught Geomorphology and Oceanography. In Geomorphology I am still fighting the battle to improve technical writing skills.

My fall semester was a whirlwind once again. In September I accompanied five Responsible Mining Initiative interns to the 4th Annual Frac Sand Supply & Logistics conference in San Antonio, TX. I had never stayed in such a fancy hotel (Marriott, paid for by the conference organizer), and I saw the Alamo for the first time. The students were excellent ambassadors for UWEC and the RMI. Grading and budget meetings occupied much time.

I continue to seek more internships, scholarships, and other educational opportunities for our students. I am thankful for industry stakeholders who have assisted our students. The Advisory Board meeting held in early May was extremely valuable.

Brian Mahoney and I supervised students Justin Poirier ’16 and Ray Fliflet ’16 in studying the mineralogy of frac sand cements (Brian was the major supervisor). Justin and Ray presented their research at the NC GSA meeting in Champaign-Urbana. Work has begun on a journal manuscript.

My family and I had a good year. We stayed rather close to Eau Claire during the summer. We attended the Syverson family reunion in northwestern MN and somehow found a time for all of us to camp on the North Shore of Lake Superior. I also attended a UMD hockey game at the Target Center, and that was fun. Early June was marked by the high school graduation of my “baby.” How did I get so old? This summer marks the 30th anniversary of my USGS-NAGT internship at Mt. St. Helens—amazing memories!

I will be around Eau Claire much of the summer. If you are around, please visit the department!

PIGNOTTA TAKES JOB AT CARLETON UNIVERSITY
As the result of budget cuts to the UW System, Dr. Geoffrey Pignotta’s contract as Field Geology Coordinator was not renewed by the university. This was a major loss to the department. As one might expect, Geoff was quickly hired by another fine university, Carleton University in Ottawa, Canada, to be their laboratory and field geology coordinator.

Geoff has been a wonderful teacher at UWEC. He came to us in 2007 from the Univ. of Southern California. He has been a critical part of our field camp program and has also taught Physical Geology, Structural Geology, and large National Parks classes. His wonderful computer skills have helped us with computer problems in the office and the field. He also has done structural geology research with our students in British Columbia, Montana, Minnesota, and Wisconsin. Even though Geoff is Canadian, he has been a great colleague! (A little joke there, …) Geoff has been pleasant, capable, professional, and ALWAYS willing to help. Such a person is nice to have around the office or field station. This makes it even harder to say goodbye to Geoff, his wife Tania, and their young daughter.

Geoff, thanks so much for your contributions to our program, and we wish you well in your new position at Carleton University. We will miss you!
EMERITUS FACULTY NEWS

JOHN TINKER, Professor Emeritus

Hello to all current and former geology majors and geology faculty. It is hard for me to believe another year has elapsed. When one is having fun, time flies by.

It was great to see and have lunch with Dr. Paul Myers and the geology department faculty. Dr. Syverson gave us a tour of the department, and the conversation over lunch was fun.

I am still on my “farm” near Eleva about 15 miles south of UWEC. It is a great wellness program for myself, dog, chickens, and guinea hens. I did not travel much this past year because I have been busy taking care of family matters. I think I wrote last year that Christine and I did travel to Iceland and Sweden on a seven-day trip. Iceland is a geologic wonder.

I thank Dr. Syverson for keeping all of us informed of the activities of our geology department. I hope life has been good to all of you. Stay positive, work hard, and enjoy your family and friends.

PAUL E. MYERS, Professor Emeritus

LIFE IN THE FAST LANE (Retirement is a Myth)

After many years of goading, I convinced AT&T to evaluate our ridge-top as a potential cell tower site because of its superb location and the lack of complaining neighbors. Construction operations, which began in June, were finally completed in September. Naturally I became such a dedicated sidewalk supervisor that the construction crew presented me with an “honorary hard-hat”. Needless to say, AT&T reception has greatly improved all around us, for which most of our neighbors are thankful. So now, our two wind turbines have company on the hill; we call it “Big Brother.”

Welthy and I are like the old lady who keeps rearranging the furniture – never satisfied. So – we have reinvented retirement. We decided that we really don’t like New England winters, and since close family has scattered to the wind, why shouldn’t we too? So, we found a group of New York lawyers who love to ski, and we rent them our “Peru Ski-Haus” for the entire winter while we vacation in sunny Panama and Florida. Not a bad deal, right? We figure it’s such a good deal that we may repeat it every winter.

“We took a taxi to our rental home a mile outside the mountain city of Boquete. We spent the following three months intensely exploring this lush tropical paradise called the ‘Land of Perpetual Springtime’, where everything is beautiful to see, hear, smell, and taste.”

Paul Myers, Professor Emeritus

We landed at David Airport, western Panama, on January 3rd, 2016, and took a taxi to our rental home a mile outside the mountain city of Boquete (population = 20,000). We spent the following three months “intensely” exploring this lush tropical paradise called the “Land of Perpetual Springtime”, where everything is beautiful to see, hear, smell, and taste. Although the Boquete region is famous for its coffee, fruits, and vegetables, it is also a rapidly growing tourist attraction with 7,000 ex-pats in residence. The Flower Festival in January and the Jazz Festival keep things lively. Although the predominant language is Spanish, one can get along quite well with a limited vocabulary. However, before we return to Boquete next January, we have vowed to bone up on our Spanish. Promise.

Since we had rented our Peru home to skiers who believe that ski season lasts until May, we were “forced” to find a lovely lakeside tourist town in north-central Florida called Mont Dora to “wait out” our return to Vermont. It was a tough assignment, but we survived it okay. One would have to say that, except for the volcanic terranes of Panama, geology was not a prominent part of our vacation landscape last winter. We’ll have to rectify that with a trip to Mt. Etna in Sicily in October. What can I say? Retirement has its “drawbacks”.

Best wishes to you for another year of great successes and their “natural compensations”. Paul and Welthy Myers.
Professor Emeritus Ronald Willis and his wife Thora were killed in a tragic car accident in July 2015. This happened just as the 2015 newsletter was going to press, so we were unable to produce a fitting tribute to Ron and Thora. What follows are snippets of stories about Ron and Thora from former faculty and students.

**TRIBUTE BY DR. PAUL MYERS, PROFESSOR EMERITUS**

I had the pleasure to work with Dr. Ronald Willis during the Precambrian Era of our department.... Of all my Ron Willis impressions, the outstanding one was that regardless of circumstance, he made professional decisions based heavily on his religious principles. As he stated many times, his priorities were: Family First, Mormon Faith Second, and Geology Department Third. These priorities governed his relationship with the Geology Dept. from 1969 to 1992. Thus, he combined his oil company connections with funding from philanthropic organizations to secure overseas assignments mostly in petroleum exploration and took his family to foreign countries for missionary work. His many absences from UWEC placed considerable stress upon the Geology Department to find qualified, temporary substitutes. More than half of his tenure in the Geology Department was spent overseas. On campus, his relationships with students were always cordial. His foreign experiences added interest to his lectures and in the field, as did I. We enjoyed teaching together - especially on combined field trips - with students working the local Precambrian lower Paleozoic section, and I spent much time in the folded sedimentary rocks of Wyoming. During the school years, Ron took many local field trips. His reactions to this emergency were admirably stoic, was whistling at breakfast the next morning. I was relieved - and amazed - at his heroic calmness under stress, and, thanks mainly to his perennial good spirits, a mutiny had been averted. It was always a great pleasure to collaborate with Ron Willis in the field.

Ron was also instrumental in developing the field camp program. In the early 1970's John Bergstrom taught field courses in many locations in the Southwest. Then Ron Willis taught several summer field courses in his old "stompin' grounds" in the folded sedimentary rocks of Wyoming. Many of our students took summer field study with the Indiana Field Station in Montana. Finally in 1980, I assumed responsibility for establishing a more or less "permanent" field station in Boulder, MT, using my experience with the USGS Boulder batholith mapping project in the 1950's. Our first field station was at the Boulder Hot Springs. I could spend a whole chapter just on that experience, but will leave it for another time.

During the school years, Ron took many local field trips around Eau Claire, mostly dealing with the lower Paleozoic section, and I spent much time with students working the local Precambrian of the Chippewa Valley and Wausau. Thus, our "Field Program" evolved collaboratively over the years as the staff changed and brought their own specialties into it. Ron was basically a traditional exploration geologist with specialization in sedimentary terranes, so his field instruction dealt mainly with them. That's the reason for our collaboration, because of my preferences with in...
igneous and metamorphic terranes, with greater emphasis on structural and tectonic history. Our present field program has gone WAY beyond that thanks to a vigorous, field-oriented staff. Ron Willis and I always felt that on-site field study combined with lab research should always be the BASIC component of any geology instruction, and worked collaboratively to achieve that goal.

Believing that field instruction is the basic foundation of any geology department, I will be making a donation to the Myers/Willis Field Camp Scholarship in memory of Ron Willis. If you believe, as I do, in the importance of a first-class field experience, and that those who have benefited from it have a responsibility to support it, I urge all UWEC Geology alumni to join me in donating to the Myers/Willis Field Camp Scholarship fund.

REFLECTIONS

Reflections by Sandra (Walsh) Chamberlain '68. Sandra writes, "I remember Dr. Bergstrom's excitement when he learned that Dr. Willis was joining the faculty. Dr. Bergstrom ran from the then-new Davies Center to Phillips Hall with the news. He was beside himself with excitement and said Dr. Willis would be a really good fit. Once Dr. Willis was hired, both of them were like two children in a candy store. They were dreamers and created all sorts of possibilities if... They were ready with a joke and a smile with a gleam in their eyes. Good memories include the bear that invaded our camping area in West Yellowstone after leaving the first field mapping class encampment (June 1968), and visiting a local rancher who escorted us into a beautiful canyon with waterfalls—and wild horses running on the ridges of the Deer Creek Range, WY. We dammed a small stream to serve as our bathing area for at least two weeks."

Reflections by Randy Drubek '70. I can see the good Doc Willis talking yet, in class and on the road. I can easily say that his classes and the road trips were the highlights of my college days.

Reflections by James Tannler '75. "I first met Dr. Willis in the late 1960's. His office was in a double-wide trailer parked next to Zorn Arena. I have some recollections of the 1974 summer field camp in Cottonwood Canyon in the Bighorn Mountains near Lovell. One day we were all sitting on one side of the canyon and he asked if anyone noticed anything on the opposite wall. Nobody said anything. Then he pointed to a perfect normal fault on the opposite wall—from top to bottom. A textbook example! So he let us make mistakes before he corrected us and tried to increase our powers of observation. I'm glad I got to know him a little bit, take his classes, and experience that summer field camp."

Reflections from Jacqueline Kopp (non-major and wife of Ric Kopp, 1970's). "After a Sed Strat contouring exercise, Dr. Willis looked at my contouring and told me, ’I'll pass you if you promise not to be a geologist.’"

Reflections from Ric Kopp '75. "Dr. Willis, besides being my professor and advisor in undergrad, through graduate school and my career, he became a mentor, guidance counselor, and he and Thorie became our best friends. Whenever I called to talk with him, he always had positive, constructive support to give and was always making sure that no matter what I was doing in work, family came first. I still greatly miss our regular conversations."

Reflections by Kevin Krenik '82. Kevin writes, "I had the pleasure of attending courses taught by Prof's Willis, Myers, Bergstrom, Wilson and Pickett. UWEC's summer field camp, run by Dr. Willis mostly in the Bighorn Basin, was one of my most memorable experiences. We camped the entire time, cooked for ourselves over a campfire, and commonly drew all of our water from a spring-fed creek. We showered once a week in the Lovell (WY) High School locker room. Needless to say, after working long days in 90o heat, we were all quite "ripe" when we paraded into the locker rooms. The look of horror on the faces of the local teenage guys upon seeing these bearded, dirty, smelly creatures invade their locker room was quite humorous. I still chuckle about it to this day. Dr. Willis also was able to arrange for us to do homework at night in the two watering holes on the main street in Lovell—the Shoshone Bar and the Medicine Wheel Tavern."

As you can see, Ron Willis had a great impact on our department and its students. He will be missed.
In partnership with Hoffman Construction, the Responsible Mining Initiative offered the first Mining Safety and Hazard Administration (MSHA) 24-hour New Miner Training over spring break. Fourteen students and three faculty participated in the three-day course. Gary Kaas of Hoffman Construction led the course, and his years of experience as a Safety Officer in mining and construction provided an outstanding background for the training. Pete Fasching of HeartQuest Trainers provided an intensive, hands-on, first aid course to complete the training. The course was excellent and will be an outstanding complement to resumes of the participants. We hope to make this training an annual event. Thanks to Hoffman Construction for sponsoring this training session.

“Environmental responsibility is both one of BMC’s corporate values as well as an objective of the Responsible Mining Initiative.”

Nick Bartol, BMC

Badger Mining Corporation recently donated $5000 to Geology to help buy new microscopes in Phillips 175. These microscopes are critical for MinPet I, Sedimentology and Stratigraphy, and Economic Minerals classes.

Badger Mining operates three sand mines in Wisconsin – Taylor (Jackson County), Alma Center (Jackson County), and Fairwater (Fond du Lac County). These mines primarily supply sand for the foundry and the oil and gas industries, but also provide material for filter media, industrial filler, recreational products, field turf, and multiple specialty applications.

“BMC is glad to help support the Department of Geology,” said Nick Bartol, Associate at Badger. “Environmental responsibility is both one of BMC’s corporate values as well as an objective of the Responsible Mining Initiative, and we are excited to be able to help further this mutual goal of ours.”

This is the third $5000 donation Badger Mining has supplied for equipment. Thanks to Badger Mining Corp. for supporting us as we us train the next generation of geologists (and non-geologists as well)!
UNIMIN, UW-EAU CLAIRE CONTINUE PARTNERSHIP ON RESPONSIBLE MINING INITIATIVE

Unimin Corporation is continuing to invest approximately $50,000 annually in UW-Eau Claire’s Responsible Mining Initiative during the 2015-16 academic year. For the third year Unimin has committed resources to fund two paid summer internships, five $1,000 scholarships for first-year geology students, four $2,500 scholarships for sophomore geology students and $10,000 in additional grants to be distributed to UW-Eau Claire geology field camp students.

One intern has been placed at Unimin’s Ottawa, IL, mining operation, and one is working in the Environmental Affairs Department at Unimin’s North American operations headquarters in Mankato, MN. Interns gain valuable work experience and apply knowledge from the classroom. Such experiences can give students an advantage when searching for jobs after they graduate. In addition, Unimin has benefited from the skills of highly motivated young people who might work for Unimin in the future.

The scholarships have reduced student dependence on loans. The freshman scholarships help us recruit students into our program. Last summer we enrolled a record 15 new incoming freshman! Not only that, but the quality of the freshman class was extremely high. It will be exciting to see that class become involved in collaborative research and internships!

We thank Unimin Corp. for its continued investment in our program. The last year has not been an easy one in the commodities business, so Unimin’s commitment to our program has been extremely appreciated.

Unimin Corporation is one of North America’s leading producers and distributors of non-metallic industrial minerals, including quartz, feldspar, nepheline, calcium carbonate, clay, kaolin, lime and limestone. Many of its products are the essential raw materials of nearly every manufacturing process. For more information visit www.uniminsustainability.com.

NEW ECONOMIC GEOLOGY/HYDROGEOLOGY LAB OPENS IN P219

Our new Economic Geology/Hydrogeology lab opened for use in September 2016. Anne Gauer ’08 of Maptek taught geology majors Vulcan software classes in the new computer space this fall (see photo). Thanks to Maptek for sponsoring the training and the Vulcan site license. The computers also have state-of-the-art ground water modeling, geochemistry, and GIS software. In addition, the back half of the lab is devoted to economic geology – storing core boxes, counters for setting out rock cores for description and analysis, microscopy, etc. This lab was developed using approximately $125,000 from the Responsible Mining Initiative grant and will be a valuable learning space for many years to come.

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Unimin Corporation is one of North America’s leading producers and distributors of non-metallic industrial minerals, including quartz, feldspar, nepheline, calcium carbonate, clay, kaolin, lime and limestone. Many of its products are the essential raw materials of nearly every manufacturing process. For more information visit www.uniminsustainability.com.
DONATIONS

HOW TO DONATE

The Geology funds with UW-Eau Claire Foundation are used to support a wide range of activities in the Department including student travel to professional meetings, faculty/student field trips, faculty recruitment, and student scholarships. The attached slip is intended to make it easy to contribute to the Geology funds. Please be assured that your gift will be greatly appreciated and it will be used effectively within the Department. In addition to financial support, we also welcome and encourage your support by volunteering to speak to our majors/minors about your job experiences, offering possible job opportunities to our students, or by the donation of equipment or field supplies.

During the past year, 35 individuals and companies donated $47,265 to the Geology Foundation accounts. Please understand that all gifts, large or small, are greatly appreciated! Please consider giving something back to your undergraduate department.

Due to state budget cuts, alumni gifts to the Department of Geology, here are a few basic guidelines from the Foundation Office.

- All gifts to the UWEC Foundation are tax deductible to the fullest extent allowed by law. You may use cash, checks, credit cards, stocks or other tangible assets to fund a scholarship.
- There are two types of scholarships: the annual scholarship, which is funded each year, and the endowed scholarship, where principal is invested and only the income is used for the annual scholarship award.
- A minimum commitment of $500 is required to establish an annual scholarship fund.
- A minimum investment of $10,000 is required to establish an endowed fund; there is no maximum.
- The name of the scholarship is determined by the donor(s). Most name a scholarship after their family or the name of a loved or honored one. Some have endowed scholarships in the name of a favorite professor.

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James Robert Tannler (in memory of Dr. Ronald and Thora Willis)
Chad and Alison Underwood
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Thank you to the following donors who have contributed to the Department of Geology and the UW-Eau Claire Foundation, June 1, 2015 through May 31, 2016:

BECKSTROM GEOLOGY MAJOR SCHOLARSHIP
Gregory Beckstrom
The Donaldson Foundation

PAUL MYERS & RONALD WILLIS GEOLOGY FIELD CAMP SCHOLARSHIP
Chevron Corporation
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Rebecca J. Moore
Curtis and Laura Peck
Steven T. Pierce
Ric and Jacqueline Kopp and Pinion Hill Resources LLC (in memory of Dr. Ronald and Thora Willis)
Mitchell and Barbara Piper
Kent and Lila Syverson (in memory of Dr. Ronald and Thora Willis)

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Smart Sand Inc.
Teck Resources
Unimin Corporation
Wisconsin Industrial Sand Association (WISA)

If you would like more information about establishing an annual or endowed scholarship, please feel free to contact the Foundation Office at 715.836.5630. We ask that if the UWEC Foundation Office calls you asking for a donation, please remember the Geology advancement funds! If you work for a corporation or a geology-related firm, please inquire if your company has a matching program for contributions to academic geology departments.
Our Geology Department Advancement Fund is the primary support fund for the department. It is used to support a wide range of activities in the Department including student travel to national meetings, special research and instructional equipment, faculty recruitment, and the seminar program. If you choose, your gift can also be applied in part or total to individual scholarship award funds. See information above for minimum commitments for establishing your own scholarship. Undesignated funds will be credited to the Geology Department Advancement Fund.

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$ _______  Emeriti Faculty Scholarship Fund - Unnamed (#1632)

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_______  My employer (or my spouse's) will match this gift.

_______  I have made plans to benefit the Geology Department through my estate. Please have someone contact me.

_______  Please send me information about how I might make provisions in my estate to benefit the Geology Department.

Please indicate how you wish your contribution to be recorded:

☐ Record jointly with my spouse ______________________________
☐ Record in my name only
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☐ My check is enclosed (made payable to UW-Eau Claire Foundation)
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