

DEPARTMENT OF GEOLOGY



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Dear Alumni and Friends:

Many months have passed since the last <u>Newsletter</u> and much has occurred since then. Accompanying this issue is the Department's first Alumni Directory. Thanks to our computer terminal and the efforts of Carol Harkness many of the alumni are now on file; in the future it will be quite easy to update the records. We can now produce mailing lists and printouts quickly. The faculty hopes you find the Directory useful and you will help us by keeping your addresses current.

The <u>Hydrogeologic Atlas of Michigan</u>, which was a major project involving many students and several faculty, was published last spring and nearly 300 have been sold already. Copies of the Atlas were presented to the W.M.U. Board of Trustees and Governor Milliken. All students and faculty involved in the project can be proud of the Atlas which has brought much recognition to the Department.

Student achievement during the past year include the selection of: Fred Heck as the Department of Geology Distinguished Scholar; Timothy Clarey as the recipient of the Kalamazoo Geological and Mineralogical Society Field Trip cash award; Fred Heck, Deanna Palladino, Timothy Clarey, and Jonathan Schrantz as Senior Honor Award winners; Robin Geesey as Earth Science Award winner; and Mark Sheedlo as the recipient of a \$250 cash award from the W. David Kuenzi Scholarship Fund. Congratulations to all!

The Department was fortunate to receive scholarship and cash grants from Amoco, Citgo, Conoco, and Exxon. The Amoco scholarship awards were for students enrolled in the geophysics program. Ms. Janet Koehler, from Indiana University/Purdue University, was selected for the Amoco Graduate Fellowship, Kevin Fisk, James Konnie, and David Jiral received the juniorsenior scholarships and David Burke the freshman scholarship. It is important to report that the oil company gifts are partly determined by the efforts of our graduates with those firms. Thanks to all those that have contributed to this effort.

Individual gifts for the Development Fund and the W. David Kuenzi Scholarship Fund have been received from a growing number of Alumni and Friends. In a number of cases these gifts are matched by employers on a 1:1 or 2:1 basis. These funds are used to support a variety of Departmental activities that include: guest speaker expenses, student awards, professional travel for faculty, and field trips. A recent individual gift will provide substantial support for the Florida Keys carbonate trip. Faculty and students sincerely appreciate this

Unfortunately, some bad news must accompany the good news. The State of Michigan is still in financial difficulty and is expected to remain so for some time. As a result, substantial cuts in University funding have occurred during the past year and future reductions are likely. Unfortunately, the Department was a victim of these reductions with the loss of the position held by Dr. Raymond Freeman-Lynde upon his resignation to accept a research position with the Office of Naval Research. The faculty is hopeful this position will be restored in better times.

On the brighter side, student enrollments remain strong with nearly 100 geology, 20 geophysics, and 20 earth science majors. Graduate enrollment is near 25. Faculty and student research is active with papers presented at regional and national meetings. The Department received delivery of a mobile drilling rig in November. The rig will be used for drilling shallow water wells for ground-water research in southwest Michigan.

Dr. Cynthia Wood has joined the faculty for the 82-83 year while Dr. Chase is on leave. Dr. Wood received her Ph.D. in mineralogy and petrology from the University of Wisconsin, Madison and is very busy teaching optical mineralogy to more than 40 students. Dr. Chase is spending the fall semester in Denver with the U.S.G.S. at the Federal Center, and conducting field studies on the Cripple Creek Arch in south-central Colorado. He expects to return to Kalamazoo in January.

The geology faculty has approved a resolution to establish a Department of Geology Advisory Council. The Council will be composed of alumni and friends and have the charge of advising on program and fund raising activities. The 82-83 year will be used to organize the council with the first meeting to be held in October of 1983.

As part of the University wide emphasis on computer education for faculty and students, the Department will increase its efforts to provide more computer experience for students. Much of the Fall Seminar Series organized by Dr. Straw is devoted to applications of computers in geology.

Please keep in touch. We are always anxious to know about personal and professional accomplishments. Best wishes for the Holiday Season and a prosperous 1983.

From the Faculty



Capital Fund Drive

With the greatly increased cost required to run class field trips and a reluctance to curtail or increase the charge to students, the faculty has endorsed a Capital Fund Drive leading toward the purchase of two 15-passenger vans to be owned and operated by the Department of Geology. It is hoped that one and possibly two vans can be obtained for the Spring 1983 field trips. The faculty believes that by maintaining a strong field trip emphasis for the Department programs it can best serve the needs of our students.

A small beginning in raising the funds has already taken place with some previous gifts from alumni and friends and a contribution from Exxon, however, the goal of \$24,000 is an ambitious one. If you have not made a contribution for 1982 and would like to help purchase the vans, we know our students would be greatful. Or if you have made a 1982 taxable year gift and would like to help the drive, a contribution after January 1, 1983 can be used for the 1983 taxable year. The new federal tax law for 1983 allows charitable contributions as deductions on the short form for the first time. Please remember that many employers provide a 1 or 2 matching sum in addition to the employees gift. Michigan residents can take advantage of the very favorable law allowing a Michigan Income Tax credit for contributions for the Geology Development Fund. The faculty is excited over the prospect of having our own vans for field trips and we hope you will share in this excitement by sending a contribution.

Geology/Earth Science Club News

The Geology/Earth Science Club wrapped up their activities last April with the annual banquet. The evening was a great success highlighted by a humorous slide presentation and the presentation of the traditional satirical and serious awards to faculty and students.

During the spring semester the club organized both co-ed and all male intermural softball teams. Although neither team was very successful, everyone who participated had lots of fun.

The club is busy again this fall. Topics at meetings this semester have included presentations by students on recent field camp experiences and tips on applying to graduate schools. The club's volleyball team had a great time again this fall and even won some games! The record was 3-2. They are setting their sights on a winning record in the upcoming water polo season.

Selling donuts in the lobby of Rood Hall continues as their main money making venture. Other club activities have included a trip to the Paw Paw wine festival and a halloween costume party. The club is currently considering suggestions for the design of the club T-shirt for this year. Tom Straw continues to work on the glacial geology and hydrogeology of southwestern Michigan. He and Dick Passero are working jointly on a number of problems in this area. His interests in the Silurian of Michigan now include studies of micrometeorites and the paleogeomorphology of the Middle and Upper Silurian. He directed the six-credit option of the Indiana University Field Course, and is pleased to report that Western students received the highest marks in each of the Indiana courses. Tom and Chris Schmidt insist that their Heart Mountain paper wi be finished this year.

<u>Dick</u> <u>Passero</u> spent the past year completing the <u>Hydrogeologic Atlas of Michigan</u> and other projects related to the EPA Grant. After a two year delay, he is ready to make use of the drilling rig mounted on an all-terrain vehicle and begin many hydrogeologic research projects. He anticipates that one of the first will be nitrate contamination resulting from agricultural practices. Dick's consulting participation on the Michigan Environmental Review Board and miscellaneous lectures continue as in the past.

In addition to <u>Bill Harrison's</u> normal teaching of oceanography and paleontology, he has been increasingly more involved in the sedimentology part of our program. His research includes continuing activity in Ordovician and Silurian sedimentology and paleoecology of the Cincinnati region. More recent activity has been started on the stratigraphy and paleoecology of Ordovician and Cambrian sandstone units in the Michigan Basin.

<u>Bill Sauck</u> spent a month in Brazil giving papers at the "International Symposium on Applied Geophysics in Tropical Regions". He also participated on a 3-day field trip to the Serra Pelada gold mine and the Carajas Mining District. His seismic methods class has a capacity enrollment of 22 and is using the computer for almost every problem set. The field geophysics class returned to the Crystall Falls study area for the third year this spring for a productiv week of data gathering while enjoying good weather and fishing. He is happy to report that over \$8,000 in geophysics scholarships and fellowships has been awarded this academic year.

<u>Chris Schmidt</u> continued field research on faulting in Montana and has purchased a home there as a base of operations. He led a GSA field trip on the western fold and thrust belt and was an invited attendee at a Penrose Conference on Laramide deformation in the Rocky Mountain foreland. He has been asked to contribute to the Rocky Mountain Association of Geologists' special volumes on the western thrust belt and is also contributing to an RMAG volume on Laramide basins and uplifts. He and his wife Carolyn are expecting a baby in December.

John Grace had an enjoyable trip to Glacier National Park via Indiana University's field camp with a tour of the area by Tom Straw and Chris Schmidt. He stopped at Mahan's "Hostelry" in Denver and visited with many WMU alumni. On the local scene, John has become involved with a local plating firm trying to benefact chrome from their waste water.

In addition to <u>Bob Havira's</u> varied duties as technician, he is teaching a section of earth studies this fall and winter. For Bob, its enjoyable change of pace (and a lot of work).

Graduate Students at Western continue to Investigate a Wide Range of Topics

James Barnett is studying micrometeorites from salts in the Salina Group of Michigan. Chemical analyses of the spherules will be done by the Department of Physics using PIXIE.

<u>Gary Barton</u> is comparing the resistivity of soils under forest canopys to that of soils in open spaces and farmed land. His investigation includes aspects of geophysics and soil chemistry.

<u>Michael Gallagher</u> is investigating a ground-water contamination site near Schoolcraft, Michigan The site is undergoing renovation and Mike is studying the response of the aquifer through this procedure.

Suhas Ghatge is in the preliminary stages of studying a possible astrobleme in Cass County, Michigan. The feature is buried by glacial drift, and as a consequence, Suhas' work will be geophysical. <u>William Gierke</u> has completed two summers of field work on the structural geology and hydrogeology of the White Sulphur Springs area in Montana. He is in the compilation stage of thesis completion.

Our <u>Bridgewater connection</u> is still active. Joseph Hobin, Kathleen Jalkut, Gerard Martin and Ann Nevero joined our group this year. Joe is changing areas of concentration from biology to geology, and Ann holds an Assistantship in the College of Arts and Sciences Dean's office. Other members of this group are actively seeking research topics. Gerard is considering undertaking a regional hydrogeologic study of the Traverse Limestone in southwestern Michigan.

Janet Koehler is this year's AMOCO Geophysics Fellowship holder, and will pursue research in geophysics.

Kent Meisel is interested in environmental geology and will be undertaking research in that area.

Lula Palmer has changed her program from the Earth Science area to Geology. She is currently considering research involving the historical aspects of acid rain.

<u>Mark Sheedlo</u> is working on the structural geology of the Snowcrest Range and the adjacent basin area in southwestern Montana.

<u>Michael Streeter</u> is in the final phase of studying the structural relationships on the southern end of Bull Mountain, southwestern Montana.

Terry Wagner is studying brine contamination of ground water in the Walker Oil Field, Kent County, Michigan.

Kevin Walsh is in the initial phase of a geophysical study involving possible mineralization over oil fields in Cass County, Michigan.

<u>Arthur Williams</u> is in the final phases of a structural study of the northwestern corner of the Beartooth Block-Snowy Range. His study area is near the Gardner entrace to Yellowstone National Park.

Mary Anne Wunderlich is nearing completion of field and petrographic study of some aspects of the geology of the Cripple Creek Arch, Colorado.

<u>Michael Werkema</u> is completing a structural investigation of the western margin of the Madison Range in southwestern Montana.

Kevin Sullivan and Edward Gaynes continue the Central Michigan-Western Michigan line reinitiated by Mark Sheedlo. They are actively seeking research topics.

<u>Robert Watkins</u> is in the Environmental Option of the Masters Program in Earth Science. He is currently much involved in the study of phosphate contamination of the Schoolcraft aquifer in south-central Kalamazoo County.

Sally Snell, David Lindsay and Joe Glenn are in the Geology program and will be formulating research plans in the near future.

Several members of our group have completed all aspects of their research except the final thesis draft. Most of these folks have taken positions with industry. The message we have received from a number of them is, "It is not easy to finish once you leave". We are looking forward to receiving several completed theses by return mail, and we will pass the message on to those students still in residence.

Tom Straw Graduate Advisor Alumni News

John Grace, Bill Harrison, Lloyd Schmaltz and spouses served as hosts at the annual Cocktail Hour held at the Geological Society of America meeting in New Orleans on October 18th. Attending were Mark Parrish, Bob Garrison, Roger Steininger, Eric Swanson, Gary Myers, Lisa Dulin, and Marcus Bowen. Jim and Diane Farnsworth were able to join the group for dinner in the French Quarter.

In June, Bill and Linda Harrison and Lloyd Schmaltz served as hosts at the Cocktail Hour at the Annual Meeting of the American Association of Petroleum Geologists in Calgary. Attending were Jim and Colette Hahnenberg, Kevin Wilson, Mari & Paul Hall, Harriet Kloft with Placid Oil in Anchorage, and Rich Gubitosa with Union Oil Co.

On the way home Bill and Lloyd stopped at the Indiana Field Station and spent an enjoyable ½ day in the field with Chris Schmidt. Enroute to Kalamazoo, via Denver, we arranged for an enjoyable reunion with Denver area alumni at the home of Tom and Hallie Mahan. Attending the beer party were: George Duba, Gary Miller, Bill Schroger, Mike Wireman, Bob Steckley, Elizabeth (Buffy) Oldham, Stuart Ellsworth Hall and Cindy Taylor - J. Grace dropped in on the Mahans a week later & saw the same as above & Tom & Mary (Meyer) Robynn (Tom may be going to Oslo, Norway soon.) Gary Miller visited the department on November 11th. He is working with U.S.G.S. and doing back country mapping and geochemical sampling in the Durango area. He enjoys the remoteness and the experience with packhorses.

Robin Geesey is wearing a big NO. 10 on the hardness scale, thanks to Jim Bartel. Jim is with Exxon in the Midland area. Shelly Fortin has also moved to Midland and recently landed a job. Good going Shelly! Let's hear about the job.

Received a nice letter and many color pictures from John Stanek who is with Quality Logging in Midland.

John Grace attended the U.S. Oil and Gas Technology Conference at Cobo Hall in Detroit in Sept. Visiting with John were Doug Daniels, Mike Cote, Jean Shoquist, and Randy Milstein of the Geological Survey, Michigan Dept. of Natural Resources. Randy arranged to display our Atlas at the conference, and he wrote a favorable article in the Dept. of Natural Resources <u>Register</u> about it. Paul Daniels with Hunt Energy Co. and Vince Szymanski with West Bay Petroleum also attended.

Steve Saudii is a well-site geologist in the Rocky Mountain area and Cam Hoover is sitting wells in the Gulf Coast area.

Steve Wilmoth in Houston is back with Cotton Petroleum. We understand Bob Zamboras with Mitchell Energy is a neighbor of Steve's. Ray Kizer is in Houston and is employed by Challenger Minerals. Tom Walker is in Houston and working for Seiscom Delta.

Warren French called the department recently. Warren is organizing a raft trip through the Grand Canyon this summer. Warren and Norm and Janell Lovan are in Tulsa doing consulting.

Ray Zomparelli is working for the Corps of Engineers in Detroit. Rumor has it Steve Kimm is back in Manistee, Michigan.

John Pinchock is in Casper, Wyoming. Jeff DeYoung, and Steve Vealey are in Gillette, Wyoming. Dave Burdette is with Maynard Oil Co. in Casper. Let's hear from you all!

The MikeDueweke's have a new youngster and are living in Kenai, Alaska. Bob and Cindy Horntvelt now make their home in Clifton, Colorado. R. Cheeseboro is now with Gem Oil Co., in Denver.

Bob Ramsey received a M.S. in geophysics from Penn State and now works for Union Oil Co., in L.A. He is in the same office as Rich Gubitosa.

John Fowler presented a paper at a special symposium on the Michigan Basin held in the Department last March. Thanks John! Attending that meeting were Bob Brady working for an independent in Michigan and Mike Cote, Doug Daniels; Mike Moss, and Randy Milstein.

Betty Garrett will return to campus on November 30th to defend her dissertation. Betty is busy analyzing pot sherds in the southwest and teaching in the Continuing Education Division for the University of New Mexico, in Albuquerque.

Terry Schmaltz teaches in the Cherry Creek district near Denver. He has just about completed his solar energy efficient home in the mountains above Golden, near Evergreen.

Tom Sherman with the Liberia Geological Survey is traveling all over the world (Geneva, New York, Mexico City) completing work on the <u>Law of the Sea</u>. He sent a copy of the <u>Law of the Sea</u>. Dr. Richard McGehee has a Fullbright this year and is teaching geology and physical education in Liberia while on leave from Southwest Louisiana State. Tom has visited with Dick and our other graduates with the Liberia Geological Survey. It's a small world.

Chuck Harrington brought a field trip group into the Kalamazoo area to look at Michigan's glacial geology. Welcome back, Chuck. Dr. Richard (Skip) Davis is now a Dean for research at South Florida. Congratulations. Bill Middleton stopped by during Thanksgiving week. Bill is with Esso in Houston. Cris Kemter visited the department recently. She is now teaching Earth Science at Schoolcraft Community College in Livonia, Michigan.

Recent graduates include: Kurt Schrantz an M.S. Candidate at Wright State. Fred Heck a grad student at Northwestern. Tom Cleary a M.S. candidate at Wyoming.

Paul Goudreau (B.S. 79) is now a graduate student at University of Minnesota. John Yellich called recently. He is project manager, uranium development Rocky Mountain Energy Co., Broomfield, Colorado.

Just received a nice letter from Phil McLaren, now Chairman of the Dept. of Biology at Eastern Nazarene College, Quincy, Massachusetts. Phil is active as usual and hopes to go to Africa on a Fullbright and/or to LaJolla, CA. with NOAA. Phil would like to get the New England alumni together. All those interested, please contact him. He is listed in the <u>Register</u>.