

# NEWSLETTER

## DEPARTMENT OF GEOLOGY, WESTERN MICHIGAN UNIVERSITY

Volume I No. 10 December 1985

Dear Alumni and Friends:

Winter is upon us and students and faculty are busily engaged in study, teaching, and research as the fall semester comes to a conclusion. Drs. Passero and Schmidt have returned from their sabbatical studies of last year and Dr. Straw is on leave this year pursuing a program of study of wetlands hydrology. Dr. Constance Gawne has returned to Tennessee to pursue professional studies.

Last summer the Michigan legislature approved the Department's proposal to establish a Center for Water Resources and Contaminant Hydrology. The Center will provide a research and public service function for the State of Michigan and will fund the addition of two research hydrologists and several graduate assistantships. This is an exciting development and we are anxious to move ahead with the program as soon as funds are released. Graduate student interest in our groundwater program remains strong and many new graduate students have joined the Department this fall.

The Core Analysis Lab on east campus has made important progress. It now occupies twice as much space as originally available and Bill Harrison is acquiring cores and logs on a regular basis. Several good thesis projects using the cores have been completed and others are progressing. On November 15, Bill conducted a core workshop on the Devonian carbonates and evaporites of the Michigan Basin. More than 50 major and independent oil company geologists attended. Bill Harrison, students Sukru Apak, Peter Clemens, William Henderson, Eric Montgomery, Scott Park, John Rodwan, and Kevin Sullivan, and Dr. Charlotte Schreiber contributed articles that were incorporated into the workshop publication. Also, Bill was elected Vice-President of the Michigan Basin Geological Society.

The Department continues to offer an extensive speakers' program. A list of speakers for the fall and winter semesters is included in the <u>Newsletter</u>. Students and faculty appreciate the support alumni and friends have provided to the <u>Development</u> Fund in helping make the program possible.

Research and professional service have been a high priority for the faculty. The Department utilizes the services of several adjunct faculty members. Their willingness to help and the special expertise they bring to our programs is greatly valued. Geology adjunct faculty are: James Akers, Director of Kalamazoo County Health Department; William Bouma, President of KAR Laboratories; John Fowler, geologist for Ladd Petroleum Company; Bruce Minsley, Director of Kalamazoo Water Department; and Richard Simms, Director of Kalamazoo Wastewater Treatment Facility.

Currently, student employment opportunities are mixed. Students with specialization in hydrogeology have been quite successful in finding jobs with government agencies and environmental engineering companies. Jobs for students in the petroleum and mining industries are not abundant. Amoco International has continued its recruiting activities in the Department for geophysics students. If you know of job apportunities for our students please let me know about them.

It was enjoyable seeing so many of you in New Orleans at A.A.P.G. last spring and at G.S.A. in Orlando in October. Bill Harrison will be at A.A.P.G. in Atlanta next June and Chris Schmidt will be at G.S.A. Rocky Mountain Section in Flagstaff April 30-May 2. I expect to be at G.S.A. in San Antonio next November. Several faculty should be attending North-Central G.S.A. at Kent State, April 24-25. Please visit with us.

I had the pleasure of spending 2 1/2 weeks in Alaska last summer. It was a thrilling experience to see all the stacked up "exotic terranes" and all that argillite. Included on my itinerary where the Pribilofs volcanic islands in the Bering Sea. St. Paul Island, where we stayed, is an outpost for Exxon's activities in the Bering Sea and is a breeding ground for thousands of seals and sea birds. Other important stops on the trip were Valdez, the southern terminus of the pipeline, Whittier, Denali National Park, Skagway, and Glacier Bay.

I expect to be on leave from January to August to undertake a long delayed writing project. John Grace will be handling the affairs of the Department during my absence. I invite you to stay in touch with us and to visit the Department when you are in Kalamazoo.

Cordially yours.

Lloyd .

## GEOLOGY DEVELOPMENT FUND

As many of you know, a special letter was mailed last November asking for contributions to purchase computer equipment for faculty and student use. The faculty has decided to expand the use of computers in research and instruction utilizing many of the computer applications to solve geological problems. Results from this special request have been slow in coming in. If you have not sent your contributions in yet, please do so soon to take advantage of the 1985 tax year. Funds from the Development Fund will also be used to fund scholarships, support research, and field trips. Michigan residents may qualify for a tax credit in addition to the federal deduction for gifts to Universities. Also, please determine if matching funds are available from employers. Gifts to the Development Fund are greatly appreciated by students and faculty and contribute to the success of our programs.

## ADVISORY COUNCIL

The Council held two meetings since the last Newsletter, one in April and the other during Homecoming in October. New members to the Council are: Mr. Jerry Aiken, U.S. Borax, Tucson, AZ; Dr. William Emery, Whirlpool Corporation, Benton Harbor, MI; and Mr. Thomas Kamin, Sun Exploration and Production, Dallas, TX. Expansion of the Council membership is nearly complete with 20 active members.

The October meeting was highlighted by a panel discussion on computer skills, which included members of the Council, and a Homecoming barbecue for the Department sponsored by the Council. Bob Garrison served as chef and provided rice and hot beans ala New Orleans style. A good time was had by students, faculty, staff and Council.

Beginning in 1986 the Council will sponsor a scholarship for a deserving student. The next meeting of the Council is scheduled for April 18, 1986. A roster of current Council members is included.

#### **MEMBERS**

Mr. Jerry Aiken, U.S. Borax

Mr. Michael Cowen, Cowen Oil Corp.

Mr. James Duncan, First of America Corp.

Mr. Robert Dunn, Nomeco

Dr. William Emery, Whirlpool Corp.

Mr. John Fowler, Ladd Petroleum Co.

Mr. Robert Garrison, McMoran Exploration

Dr. Lee Gerhard, Gerhard and Associates

Mrs. Mari Hall, Pennzoil Mr. Tom Kamin, Sun Exploration & Production

Mr. George McAleenan, Peninsular Oil & Gas

Mr. John Miller, Miller Brothers Oil Co. Mr. Robert Minning, Keck Consulting Services

Ms. Elizabeth Oldham, CGG Data Processing

Mr. Earl Schmidt, Kulka & Schmidt, Inc.

Mr. Thomas Segall, Dept. of Natural Resources

Dr. Brian Shaw, Monsanto Oil Co.

Mr. John Shea, Exxon Co.

Dr. Roger Steininger, Amselco Exploration,

Mr. John Yellich, Consultant

Ms. Susan Rezek, Graduate Student Member Mr. Matt Kaplinski, Undergraduate Member

### FACULTY NEWS

Chris Schmidt spent fall term of his sabbatical in Montana doing field work, working with colleagues at the Montana Bureau of Mines in Butte, and preparing several manuscripts. He gave two papers at the national G.S.A. meeting in Reno and spent three weeks working at the U.S. Geological Survey in Denver. During winter term Chris was a visiting research associate at Texas A & M University where he attended classes in thrust mechanics and rock deformation and worked on strain analysis of limestone samples he collected in Montana. Chris also organized a G.S.A. Special Paper on the interaction of the Cordilleran thrust belt and Rocky Mountain foreland. There will be about 40 contributions to the volume which he hopes to have edited and published by early 1987. During the summer Chris led a field trip on thrust/foreland interaction in southwest Montana and presented a paper on this topic at a meeting of the Tobacco Root Geological Society. He also taught at Indiana field camp for three weeks and worked on an U.S.G.S. project in the Highland Range. This fall Chris presented a paper at the International Conference on Basement Tectonics in Santa Fe, NM and at the national G.S.A. meeting in Orlando, FL. One of his papers appeared in Rocky Mt. Assoc. Geologists Seismic Atlas (written with David Lopez), and was reprinted in the Oct. 7 issue of Oil and Gas Journal. Chris is currently busy reviewing abstracts for a Rocky Mt. Section of G.S.A. symposium he has organized with Bill Perry of the U.S.G.S. on thrust belt/foreland interaction. This symposium will be held next May.

Gerry Clarkson has been staying busy teaching geophysic courses, advising students, and trying to do a little research as well. Several interesting projects are underway by M.S. students using the new Bison 8012A portable 12-channel signal enhancement seismograph which was obtained during this past year. Gerry is currently revising a paper on the heat flow and thermal history in the San Juan Basin-San Juan volcanic field and is : beginning a study on heat flow within landfills and the relationship between heat flow and water movement within landfills.

John Grace has continued his research on radon geochemistry and is investigating the variability of radon emanations from different areas in Michigan. He has also been involved in some x-ray crystallographic work with physics students. John has applied for a sabbatical for the 1986-87 academic year and hopes to spend some time at Argonne National Laboratory in Illinois.

Ron Chase is currently involved in grant proposal writing and publications related to his Colorado research on the role of Precambrian compositions and fabrics in the development of Rocky Mountain foreland structures. He recently published two U.S. Geological Survey Miscellaneous Field Investigation maps and presented a paper at the Annual Meeting of the Geological Society of America at Orlando, FL. Ron also taught at the Indiana University Geologic Field Station in Montana last summer and spent a brief period of time in Colorado directing two M.S. theses. still enjoys the teaching of his courses very much and sends greetings to all former students.

Iom Straw is currently expanding his interests and research in the area of wetlands hydrology while on sabbatical. He is working closely with the U.S. Army Corps of Engineers in Vicksburg, Mississippi. Tom is organizing a session of an international conference on wetlands hydrology which he will chair.

Dick Passero was on sabbatical during the 1984-85 academic year. completing the E.P.A. grant on the Walker Oil Field study he attended several short courses on groundwater modeling, attended the regional G.S.A. at Northern Illinois University, continued to serve on the Kalamazoo County Solid Waste Management Planning Committee, the KL Avenue Landfill Technical Committee and Kalamazoo Forum on Solid Waste. Dick co-authored a publication: Hydrogeologic Investigation for Remedial Action Related Chromium-Arsenic-Copper Discharge to Soil and Groundwater, with William French, et. al. He is currently becoming more familiar with a new micro computer and new software related to contaminant hydrology.

Bill Harrison has been continuing activities with the Core Lab. collection has increased to over 125 cores from throughout the Michigan Basin. The core workshop held in mid-November displayed 15 cores from the Devonian formations in Michigan. Sixty-one geologists attended the workshop, making it a big success for our first effort. Plans are being made to continue this sort of activity to maintain a strong relationship with the Michigan petroleum industry. A large guidebook was published by the department to accompany the cores that were displayed. We were also fortunate to have Dr. Charlotte Schreiber here to lecture during the workshop.

#### 1985-86 SPEAKERS PROGRAM

Dr. Robert Van Der Voo Dept. of Geological Sciences University of Michigan

Dr. Stanley Williams Dept. of Geology Louisiana State University

Dr. Kazuya Fujita Dept. of Geological Sciences Michigan State University

Mr. Angus Mann Geophysicist Hosking Geophysical Corporation

Mr. William E. Mero Chevron, USA AAPG Distinguished Lecturer

Dr. Ralph Von Frese Dept. of Geology & Mineralogy Ohio State University

Dr. Paul Morgan Dept. of Geosciences Purdue University

Dr. Richard Dietrich Dept. of Geology Central Michigan University

Dr. Robert N. Ginsberg Comparative Sedimentology Laboratory University of Miami AAPG Distinguished Lecturer

## W. DAVID KUENZI SCHOLARSHIP FUND

W. David Kuenzi Scholarships were awarded to David Piotrowski, a graduate of Illinois State University, and Eric Montgomery, a graduate of Bridgewater State College in MA. Dave is researching "Styles of Rocky Mountain Foreland Deformation in Precambrian Rocks of the Southern Front Range, Colorado." Eric's study concerns the "Dundee Formation in Michigan."

Modest contributions to the Kuenzi Fund continue to add to the endowment. Declining interest rates will lower the income from the endowment this year and a real need exists to increase the size of the endowment in order to sustain the present level of scholarship support. All former students of Dr. Kuenzi are invited to make a contribution this year.

## AWARDS & SCHOLARSHIPS

Senior Honor Awards - Geology
Anne Marie Clark (Geology)
Sherry Ward (Earth Science)
John Vlasity (Geophysics)

Department of Geology Undergraduate Scholarship Robert DeBoer

Graduate College Fellowship Lisa Johnson-Phillips

Amoco Undergraduate Fellowship -Geophysics

Matthew Kaplinski Gary Mauchmar Dennis Tripp

Amoco Graduate Fellowship - Geophysics Carolyn Knight

Presidential Scholar Sherry Ward Kalamazoo Geological & Mineral Society
Field Trip Scholarships
Robert DeBoer
Brian Jeffs

National Association of Geology Teachers -Summer Field Camp Scholarship Brian Jeffs

Argonne National Laboratory Summer Research Fellowship Anne Marie Clark (Undergraduate) David Howell (Graduate)

Wiser Oil Company Research Grant Award Eric Montgomery

Marathon Oil Research Grant Award Scott Park

The department would like to congratulate Brian Jeffs (geology major from Traverse City, MI and Gail Lancaster (earth science major from Warren, MI) on their selection for inclusion in Who's Who Among Students in American Universities and Colleges. This honor is conferred upon students who not only have outstanding academic records but have also a distinguished record of service to their school and community.

## GEOLOGY & EARTH SCIENCE CLUB

The club is doing its best to sponsor club activities and fund raisers. This year the officers are: Brian Jeffs, President; Tim Cowen, Vice-President; Nora Rooney, Treasurer; Gail Lancaster and Mike Chiasson, Secretaries. Fresh donuts are sold every morning in the lobby of Rood Hall. Sales are up this year due to the addition of coffee. Our annual I-shirt design contest is currently under way. We have added a new item this year - club baseball hats. There is also a baseball hat design contest. Another profitable addition is the collection of empty pop cans and bottles.

The club also participates in departmental activities. Mr. John Fowler led a field trip for interested students to an oil sight in Albion, MI. For many students this was their firston sight experience. The club plans to sponsor a tour of the Detroit area salt mines during the winter semester. Our annual raffle will be held in January. Prizes include a Hewlett-Packard calculator, an Estwing rock hammer and a hand lens.

The club had three successful softball teams this year. There was a graduate team and two undergraduate teams. Winter semester sports include volleyball, water polo, and floor hockey. Upcoming events include our annual bake sale, summer field camp presentations by Brian Jeffs, Tim Cowen and Mike Chiasson, and our eventful end of the year banquet.

Mike Chiasson, Secretary Brian Jeffs, President

## **GRADUATE STUDENTS**

From all of us here: Hello!

This year the graduate student community decreased in size from 44 to 37 students with 9 new people coming in and 16 old-timers moving on.

Thesis topics cover a wide range of interests, including seismic surveys of oil-bearing areas in Michigan; sediments and stratigraphy in the Michigan Basin; mapping in the Colorado Front Range; kimberlites in Crystal falls; petrology of the Idaho Batholith; and fission-track dating in southwestern Montana. Other thesis topics are concerned with various aspects of hydrogeology, including groundwater flow directions; possible groundwater contamination; wetlands hydrology; and various studies of landfill problems.

A few personal tidbits on former students: Sukru Apak has returned to Turkey and is working there. Jan Koehler has joined the Department of Health in Lansing; Kent Meisel is working in Oregon; Mancheol Suh is at Louisiana State University working towards his Ph.D.; Kevin Sullivan is with an oil company in Traverse City; Steve Wigger is a geophysicist with Amoco in Houston; and Gerard Martin is with a consulting firm in Massachusetts.

Congratulations are in order for Jean Talanda, who married Matt Fisher in December, 1984; and for David Piotrowski who will marry Penny Adams this month.

> Francine Cohen Graduate Student

The following students joined the graduate program in September, 1985:

Francine Cohen State University of New York-Binghamton

Scott Dennis Wayne State University

Peter Haff State University of New York-Binghamton

Carolyn Knight Eastern Michigan University Toledo University

Tim Mayotte Michigan State University

Barry McBride Furman University, South Carolina

Paul Micciche State University of New York-Brockport

Ray Milejczak Michigan State University

Pam Ruppert Indiana University-Fort Wayne

The following students joined the graduate program prior to September, 1985:

Sandra Barnick University of Wisconsin-Oshkosh

Lynn Broede Illinois State University

Jeff Brown Olivet Nazarene College

Andrew Calder Illinois State University

Neal Carey Bridgewater State College

Richard Christensen Grand Valley State Colleges

Daniel Fronczek SUNY-Geneseo Michelle Fults Indiana University-Fort Wayne

Jeff Hawkins Southern Illinois University

William Henderson Central Michigan University

Joe Hobin Boston State College

Paul Horton Olivet Nazarene College

Dave Howell University of Michigan

Kayleen Jalkut Bridgewater State College

Lisa Johnson-Phillips Western Michigan University

Kurt Koella University of Michigan

Anne Little Southern Illinois University

Homa Moaddel Hope College

Eric Montgomery Bridgewater State College

Daniel Nicoski Eastern Connecticut State University

Scott Park Albion College

David Piotrowski Illinois State University

Eric Porcher St. Cloud State University

Susan Rezek Drake University

Eileen Shannon Wittenburg University

Dave Skrocki Albion College



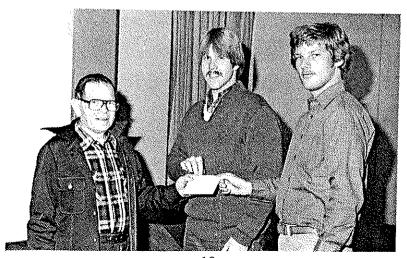




Above: Sherry Ward receiving Senior Honor Award in Earth Science from Lloyd Schmaltz. Center: Anne Marie Clark accepting Senior Honor Award in Geology from Lloyd Schmaltz.

Below: Harlan Waters, from the Kalamazoo Geological and Mineral society, presenting summer field trip scholarships to Brian Jeffs and Robert DeBoer.







Participants and students at the Devonian Core Workshop held November 15, 1985.





### **ALUMNI NEWS**

Brad Jordan (B.S. 79) is teaching geology courses at a private miliary university called Norwich University, in Vermont.

Jim Jessmore (B.S. Geology 83) is now employed at Michigan Petroleum Geologist in Jackson, MI.

Steve Wilmoth (8.S. Geology 75) is a consultant to Bayleaf Corp., Houston, TX. He has three children.

Susan Leah Stone (B.S. Earth Science 74) is a horticulturist in Kalamazoo. Her interests include environmental issues, and she enjoys improved health with a vegetarian diet.

Dane Alexander (8.5. Earth Science 73) has been involved with implementing an earth science program at Mattawan High School. He is interested in developing a "Teacher Trade" for earth science teachers (neat things you do and want to share).

<u>Donna Bentley</u> (B.S. Earth Science 79) is a park ranger for the National Park Service. Her current position is at Gateway NRA - Sandy Hook Unit in NJ.

Jim Bohlin (M.A. Earth Science 69) is a science teacher at Brockton High School and Massasoit Community College in MA.

Ed Carlson M.D. (B.A. Geology 64) wrote to say he is the Director of the Emergency Trauma Center in Modesto, CA. His interests include skiing, photography, fly fishing and of course geology. Ed has four children.

Rupert "Rocky" Shaft (B.S. Earth Science 77) is teaching 9th grade physical science along with being the head wrestling coach and assistant football coach in the Holt Public Schools in MI. Rocky is currently working on a masters in secondary science at Michigan State, and is looking to start another program in sports psychology.

Lawrence Goldman (M.A. Earth Science 73) is still president of Monadnock Trading Co. in Mackinaw City, MI. Good to hear from you Larry!

Bruce McLeod (M.A. Earth Science 72) is a chemistry teacher at Green Bay East High School in WI. The glacial geology of N.E. Wisconsin is of interest to Bruce.

Jean Baier (B.S. 78) is owner/operator for a second hand clothing consignment and costume rental shop. She is still interested in geology, especially since she lives at the base of the Big Horn Mountains in WY.

Ernest Kern (M.A. Earth Science 72) is an Assistant Professor of Earth Science and Director of Earth Science Teacher Preparation for SE Missouri State University's Department of Earth Sciences. Ernie completed his Ph.D. at South Carolina and recently received a \$500,000 NSF grant for "Enhancement of Science Teaching Program." Congratulations!

Tom Sherman writes that he was promoted to Deputy Minister of Lands, Mines & Energy at the Liberian Geological Survey.

Scott Green (B.S. Geology 84) recently married and is living in the Chicago area. Scott is working for Ecology and Environment, Inc.

Mark Fonte is working for Schlumberger in Arkansas, and Steve Brown is working for Schlumberger in Oklahoma.

<u>Jim Plumber</u> is working on a masters degree at Wright State University in OH.

John Frisinger (B.S. Geology) is now married and teaching at Muskegon Community College.

Paul Jurasin (B.S. Geology 84) is working for the Defense Mapping Agency in Louisville, KY.

Julie Stein (B.A. Anthropology/Geology 74) is an Assistant Professor in the Dept. of Anthropology at the Univ. of Washington. Julie completed a book entitled "Archaeological Sediments in Context," published by the Center for the Study of Early Man, Univ. of Maine. She says that many of the ideas were ones planted by David Kuenzi.

Kevin Prochaska (M.S. Geology 81) is a production geologist for Exxon. He transfered to the Corpus Christi area during the summer.

Everett Wirqau (B.S. Earth Science 61) has been with Oldsmobile for the past 20 years. He presently is a senior metallurgical engineer. He holds memberships in the American Society for Metals and the Michigan Basin Geological Society.

Josef Schuler (B.S. Geology 83) last reported he was a mud logger for Tooke Engineering. He would like to get into groundwater related work and is considering getting an associates degree to become a hydrologic technician.

<u>Sue (Zimmerman) Merrill</u> (B.S. Earth Science 72) is teaching earth science at Hartland High school in MI. A former student of hers is now a graduate student at WMU.

Joseph O'Sullivan (M.A. Earth Science 74) is President of the Brockton Education Association in MA. He is busy keeping B.E.A. members and himself out of jail, while keeping America safe for democracy.

John Heinsius (M.S. Geology 74) is Vice President of Exploration for Buttonwood Petroleum in OK. Interests include complex faulting in the southern Oklahoma aulacogen. He has 2 boys, and he and his wife are presently restoring their 60 year old house.

Vince Szymanski (B.S. Geology 79) is a senior geologist for West Bay Exploration Co. in Traverse City, MI. He worked with Bill Harrison and Dr. Schreiber on cores from Alpena County, and identified a Clinton Reef.

<u>Jim Brode</u> (B.S. Geology 83) is working for Keck Geologic Consulting in MI. His wife Janet is expecting a baby this spring. Congratulations!

Robert Ramsey (B.S. Geology 79) currently holds a position as a geophysicist for Union Oil - International Division in CA. Bob received his M.S. from Penn. State Univ. in 1981.

Sally Snell paid a visit to the department while on a visit to Michigan. Sally is continuing her work in the mining industry and her current position is Safety, Land and Environmental Coordinator for Aspen Mining is NV.

Lynne (Aldrich) Sammis (B.S. Geology 80) also visited the department with her baby daughter Kelly. Lynne is with Exxon in New Orleans.

Pat Ellsworth (B.S. Geology 85) is with KEP Exploration in Traverse City, MI.

George Rapp is currently employed by Western Geophysical in Houston.

Mike Gallagher (M.S. Geology 84) is now working for the State of Washington. He reports that <u>Don Leske</u> is in the same office.

<u>John Vlasity</u> (B.S. Geophysics 85) is pursuing a masters in geophysics at Memphis State University.

Kathy Crone (8.S. 85) recently married (now Kathy Crone-Gardner) and is living in the Grand Haven area.

Mike DeVries (B.S. 85) joined the Army this past year and expects to be transferred to South Carolina.

<u>Bill Gierke</u> (M.S. Geology) is now working for Golder Associates in Atlanta.

Clark Niewendorp is employed with an engineering firm in Sarasota, Ft.

Barry McCool is currently with an environmental consulting firm in St. Louis, Missouri.

Joe Porter and his wife have moved to the Chicago area. Joe is interested in getting a masters degree in environmental engineering.

Steve Savoie (B.S. 81) is now working for Terra Energy Limited in Mt. Pleasant, MI.

Mike Pendergrass (8.S. 80) is now in Torrance, CA with Union Oil. Rich Gubitosa is also with Union Oil in London.

<u>Donald Drozdenko</u> (M.S. Geology 75) is now living in Santa Clara, CA.

<u>Kent Meisel</u> is now working in Tigard, <u>Oregon for an engineering consulting firm.</u>

<u>Bob Garrison</u> (B.S. Geology 74) is now an independent consulting geologist on retainer to McMoran Exploration Co. in New Orleans.

Mary Lannon (B.S. Geology 84) is pursuing a masters at Southern Illinois University.

Mari Hall (M.S. Geology 81) is currently living in Humble, TX and is enjoying her new son Jeffrey.

Bridget Wisniewski (B.S. Geology 85) recently joined the Peace Corps and is in training in Nairobi, Kenya. Write to her at P.O. Box 30518.

Kevin Wilson (B.S. 77) is president of Wildhorse Exploration, Inc. in Boulder, Colorado.

Michael Dunn is working at the Naval Oceanographic Office in St. Louis, MS. He is a hydrographic physical scientist.

<u>Jean Talanda</u> and <u>John Rodwan</u> took positions in November with Michigan's Department of Natural Resources.

Thomas Robyn is working for ARCO in Oslo, Norway.

Dan Marvin (B.S. Geology 81) is an assistant laboratory supervisor with Core Laboratories, Inc. in Mt. Pleasant. Dan is interested in doing experimental work with drill cuttings using chromatography and fluorescence relationships. Dan has two daughters.

<u>Darcy Davenport</u> (B.S. Geology 80) surprised the department with a visit this fall. Darcy is living in Portland, OR.

Betty Garrett is an adjunct faculty for the Anthropology Department at the University of New Mexico in Albuquerque. Betty is involved with the petrographic analysis of prehistoric ceramics and lithic material and geologic assessments of archaeological sites.

Thomas Dream (B.S. 74) is Manager of Exploration for the Eastern Division of Park-Ohio Energy, Inc. in Cleveland. OH.

Thanks to all of you for keeping us updated on your activities, and to those of you who have stopped by the department to visit. We look forward to hearing from all of you again this year.

Bill Sauck (geophysics professor 1979-83) visited the department on a recent trip to the States from Brazil. Bill is the academic administrative officer related to graduate students in the geophysics department at the Universidade Federal do Para. He is continuing his research with several students on chromite deposits. His wife Elen recently attended a NASA conference in Washington D.C. She was involved with an elaborate NASA flight over the Amazon to determine the effects the Atlantic Ocean has on the Amazon. Bill and Elen look forward to returning to the States during the summer of 1987, when Elen will be pursuing post-doctoral work.

Department of Geology Western Michigan University Kalamazoo, MI 49008 It would be appreciated if you would complete the following form to keep our files updated for the  $\underbrace{Register\ of\ Alumni\ and\ Friends}$ .

Name		
Major	Degree	Year
Address & Phone		
Current Position		
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Return to: Dr. Lloyd Schmaltz Department of Geology Western Michigan University Kalamazoo, MI 49008 (616) 383-1775