

INDIANA UNIVERSITY  
DEPARTMENT OF GEOLOGY

GEOLOGY NEWS LETTER NO. 3

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INDIANA UNIVERSITY

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NEWS LETTER NO. 3

W. D. Thornbury, Editor

Contributors

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R. E. Esarey

W. R. Lowell

Judson Mead

H. H. Murray

J. B. Patton

T. G. Perry

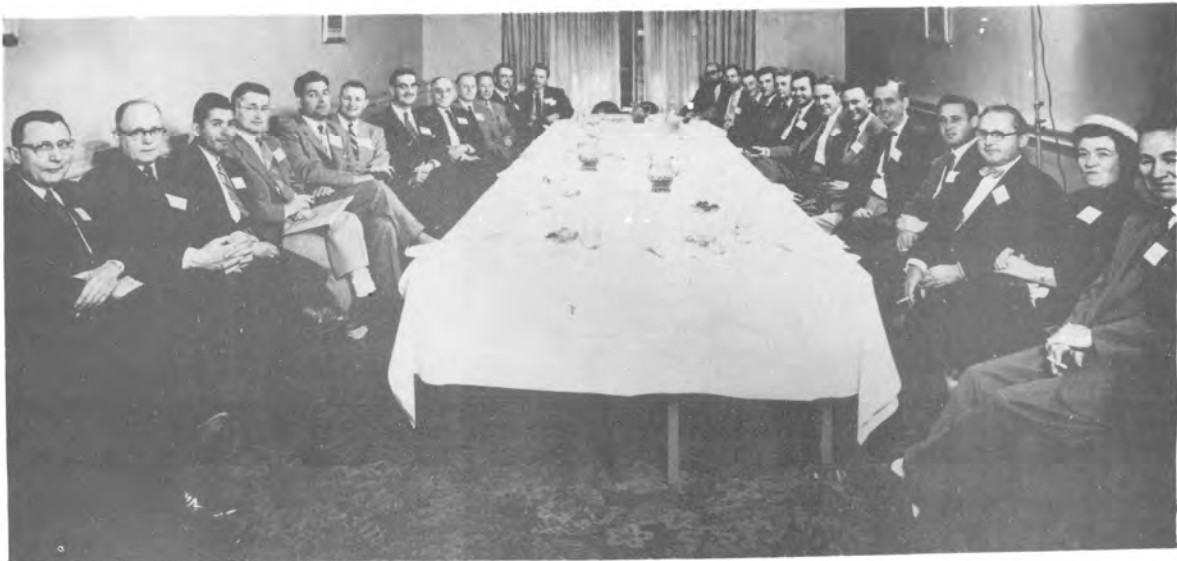
C. J. Vitaliano

Bloomington, Indiana

June 1954



A. S. G. E. group of 1930. Reading left to right, front row, Professors Logan, Brown (Chemistry), Cumings, Beede, Switzer, Visher, and Malott; second row, Bates, Huddle, Bright, Organ, (unidentified), Bartle, and Welcher; third row, Whitlatch, Esarey, Moody, McCulloch, Fix, Freed, Thornbury, and Blue.



B. Group at I. U. luncheon at A. A. P. G. meeting in St. Louis, 1954. Reading clockwise: C. F. Deiss, W. A. Thomas, Abdullah Sayyab, Ned Smith, L. L. Logue, R. B. Sublette, Tom Heistand, J. J. Galloway, R. R. Shrock, M. D. Mauck, M. M. Fidler, J. B. Patton, Thomas Dawson, Don Roemerann, A. C. Brookley, Jr., F. F. Barbour, Wayne Lowell, Richard Schweers, Glenn G. Bartle, John F. Bible, Preston McGrain, Everest E. Wible, H. H. Bradfield, Mrs. H. H. Bradfield, Ralph Esarey.

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## GREETINGS TO ALUMNI

Charles F. Deiss

By means of this Third Annual Geology News Letter, we again send our greetings to the geo-alumni of the University throughout the world. Your response to the second News Letter was stimulating and gratifying to all of us in the Department. At the suggestion of Tom Hiestand, we are inserting a photograph this year that should be particularly interesting to those of you in the oil industry. Professor Thornbury also has inserted a photograph taken 25 years ago which may stir memories of you who had the privilege of studying with Professors Cumings, Logan, Malott, Switzer, and Visher.

Two new laboratories have been added to the Department during the past year. One laboratory, designed by Dr. Haydn H. Murray, is being used for the graduate courses in sedimentation and sedimentary petrography. The addition of these, along with the one in clay mineralogy, indicates the way in which we are strengthening our offerings in these fields and, together with Dr. Beck's program in carbonate mineralogy, indicates our over-all research on the origin and composition of sedimentary rocks.

The second laboratory was set up last September in the Quonset hut on Forest Lane for the use of J. J. Galloway, Professor Emeritus since June 1953. With their customary reverence for age and accomplishment, the students promptly dubbed this lab the "Institute of Stromatoporology." They really are not too far wrong, because in the laboratory, Dr. Galloway, with the assistance of Joe St. Jean, is vigorously engaged in a complete monographic study of all known genera of stromatoporoids throughout the world. In fact, he expects to complete the manuscript by June 1955.

Professor Henrich Neumann of the University of Oslo, Norway, taught mineralogy and optical mineralogy as an interim replacement for Dr. Brian H. Mason, who left Indiana in June 1953 to take over his new duties as Curator of Mineralogy at the American Museum of Natural History and Professor of Geology at Columbia University. Professor Neumann was a stimulating and vitalizing force in the Department both for the faculty and the students.

Dr. Carl W. Beck of the University of New Mexico will join our staff as Professor of Mineralogy in September 1954. Dr. Beck, who comes from an old Hoosier family, received his public and high school education in Batesville, where he was born, and took the A. B. degree in 1938 from DePauw University with a major in chemistry. He received the A. M. and Ph. D. degrees from Harvard University, completing his work there in 1946 with a major in mineralogy-crystallography and a minor in chemistry. At DePauw, Dr. Beck was a Rector scholar; during his years at Harvard, he was the Austin teaching fellow and later the Woodward fellow. He served as mineralogist on Army Unknown Project 139 and as Assistant and Associate Professor of Mineralogy at the University of New Mexico, and he has worked on the carbonate mineralogy of recent clays from the Gulf Coast region with the Shell Development Company's Research Laboratory in Houston, Tex. Dr. Beck will continue the cooperative research project with the Medical School of Indiana University on the fundamental mineralogy of kidney stones and will spend

the major part of his research time on the mineralogy of the carbonate rocks of Indiana.

Through the efforts of Professors Haydn Murray and Ralph Esarey, and because of the success of our students now with the Company, the Geology Department has been awarded a graduate fellowship by The California Company. The stipend for the fellowship is \$1,250. In addition, the Company will pay for tuition, fees, books, related research expenses, and field expenses up to a maximum of \$500. Mr. Jack Harrison has been designated as the first California Fellow at I. U. His research will be on sedimentation under the direction of Dr. Haydn Murray.

The vigor and reputation of the Geology faculty and the completeness of our library and modern laboratories are equal to those of most other schools in the country today. Our funds for fellowships and graduate assistantships is the chief factor that limits our ability to attract graduate students in competition with other universities. If any of you can help us receive fellowships from other companies, you would perform a signal service for your Alma Mater and the Department, and you would incur the lasting gratitude from the faculty and from students who need your help.

#### SENIOR TEACHING STAFF

Jesse James Galloway, Professor Emeritus of Geology  
and Paleontology  
Charles Frederick Deiss, Chairman and Professor of Geology  
Ralph Emerson Esarey, Associate Professor of Geology  
William David Thornbury, Associate Professor of Geology  
Charles Joseph Vitaliano, Associate Professor of Geology  
Wayne Russell Lowell, Associate Professor of Geology  
John Barratt Patton, Associate Professor of Geology  
Henrich Neumann, Visiting Associate Professor of Geology  
Roy Eric Deane, Assistant Professor of Geology  
Judson Mead, Assistant Professor of Geophysics  
Haydn Herbert Murray, Assistant Professor of Geology  
Thomas Gregory Perry, Assistant Professor of Geology

#### JUNIOR TEACHING STAFF AND RESEARCH ASSISTANTS

##### Graduate Assistants

Bruce F. Bohor, B. S. Beloit College, 1953; home - Chicago, Ill.; assistant in physical geology and structural geology. He plans to complete his work for the A. M. degree under Dr. Murray in February 1955.

Donald K. Cameron, A. B. McGill University, 1952; home - Andover, Mass.; assistant in paleontology and geomorphology. Don is completing his A. M. degree with Dr. Perry and has taken a position with The California Company.

Olin R. Holt, B. S. Indiana University, 1953; home - Spencer, Ind.; assistant in mineralogy and petrology. Olin is working for his A. M.

degree under Dr. Vitaliano.

Richard W. Larson, B. S. City College of New York, 1953; home - New York, N. Y.; assistant in physical geology and historical geology. He will complete his work for the A. M. degree under Dr. Murray in February 1955.

George T. Moore, B. S. Notre Dame University, 1952; home - Chicago, Ill.; assistant in physical geology, petrology, and economic geology. George will complete his work for the A. M. degree under Dr. Vitaliano in June 1954 and plans to study for the Ph. D. degree.

Lawrence F. Rooney, A. B. Montana State, 1948, A. M. Montana State, 1950; home - Shelby, Mont.; assistant for the first semester in mineralogy and optical mineralogy. He is working for the Ph. D. degree under Dr. Lowell.

Abdullah Sayyab, B. S. Indiana University, 1951; home - Basrah, Iraq; assistant in paleontology. Abdullah is working under Dr. Murray and hopes to receive his A. M. degree in June 1954.

#### Research Assistants

Evert W. Christensen, B. S. Michigan State College, 1951; home - Scottsville, Mich.; assistant to Dr. Vitaliano. He plans to complete his work for the A. M. degree in June 1954.

Wayne E. Fowler, A. B. Earlham College, 1951, A. M. Indiana University, 1953; home - Albany, Ga.; assistant to Dr. Lowell. Wayne is continuing his work for the Ph. D. degree.

James A. Noel, A. B. Lehigh University, 1949, A. M. Dartmouth, 1951; home - Williamstown, Pa.; assistant to Professor Esarey. He is working on his Ph. D. degree under Dr. Lowell.

Paul C. Raymond, B. S. Notre Dame University, 1952; home - San Francisco, Calif.; assistant to Dr. Perry. Paul hopes to complete his work for the A. M. degree by February 1955.

Frank A. Revetta, B. S. University of Pittsburgh, 1953; home - East Monongahela, Pa.; assistant to Dr. Deane and Dr. Thornbury. Frank is working for the A. M. degree under Dr. Murray.

Albert J. Rudnyansky, B. S. Indiana University, 1952, A. M. Indiana University, 1954; home - Miami, Fla.; assistant to Dr. Mead. Al has taken a position with The Carter Oil Company.

William K. Summers, B. S. Wayne University, 1952; home - Detroit, Mich.; assistant to Dr. Murray for the first semester. Kelley is now completing his A. M. thesis for Professor Esarey.



## Fellow

Joseph J. St. Jean, B. S. College of Puget Sound, 1949, A. M. Indiana University, 1953; home - Tacoma, Wash.; working with Dr. Galloway in a study of Devonian stromatoporoids. Joe is working on a Ph. D. thesis under Dr. Galloway's direction.

## NON-ACADEMIC STAFFS

## Department of Geology

Bernice M. Banfill, Administrative Assistant  
Theodore H. Appleton, Accountant  
Virginia L. Crider, Secretary  
Richard L. Snyder, Librarian  
Ross Hickam, Preparator

## State Geological Survey

Charles F. Deiss, State Geologist  
John B. Patton, Principal Geologist  
Mary Beth Fox, Mineral Statistician  
Martha N. Smith, Secretary

Coal Section

Charles E. Wier, Geologist and Head  
G. K. Guennel, Paleobotanist  
S. A. Friedman, Geologist  
Henry H. Gray, Geologist  
Harold C. Hutchinson, Geologist  
Saralou Voland, Secretary

Geochemistry Section

Richard K. Leininger, Spectrographer and Head  
S. Ross Taylor, Spectrographer  
Maynard E. Collier, Analytical Chemist  
Louis V. Miller, Coal Chemist

Geophysics Section

Maurice E. Biggs, Geophysicist and Head  
Judson Mead, Research Advisor  
Robert Blakely, Geophysicist  
Joseph F. Whaley, Geophysicist  
Charles S. Miller, Instrument Maker  
Raymond Robinson, Driller  
Arthur Wayne Aynes, Geophysics Technician

Glacial Geology Section

William J. Wayne, Geologist and Head  
William D. Thornbury, Research Advisor

Industrial Minerals Section

Duncan J. McGregor, Geologist and Head  
 Haydn H. Murray, Clay Mineralogist  
 Wayne M. Bundy, Petrographer  
 Seymour Greenberg, Petrographer (on military leave)  
 Arthur P. Pinsak, Geologist  
 Lawrence F. Rooney, Geologist (half-time)  
 John M. Smith, Geologist  
 Ned M. Smith, Geologist  
 Judith Spear, Secretary

Petroleum Section

Thomas A. Dawson, Geologist and Head  
 Thomas G. Perry, Research Advisor  
 Arthur Brookley, Paleontologist  
 Gerald Carpenter, Geologist  
 William Flanagan, Geologist  
 Allan Gutstadt, Geologist  
 Andrew Hreha, Geologist  
 Stanley Keller, Geologist  
 Samuel Riely, Geologist (on military leave)  
 Dan Sullivan, Geologist  
 Ruth Butcher, Secretary and Curator of Files  
 Patricia Mack, Clerk-Typist

Publications Section

Gerald S. Woodard, Editor  
 William H. Moran, Chief Draftsman  
 Anita J. Heisterkamp, Draftsman  
 John E. Peace, Draftsman  
 Jack V. Sears, Draftsman  
 George R. Ringer, Photographer

## VISITING PROFESSOR

Dr. Henrich Neumann was visiting professor in the Geology Department for the first semester of 1953-54. He filled a vacancy in mineralogy caused by the resignation of Dr. Brian Mason.

Professor Neumann, a native of Norway, received his A. M. in 1939 and his Ph. D. in 1945 at the University of Oslo. He was professor at the University of Leeds in England from 1945 to 1950. He then returned to the University of Oslo as deputy director of the geology museum.

Dr. Neumann's many friends here at I. U. agree that his knowledge of geology and good whisky are equally sound.

## FACULTY ACTIVITIES DURING SUMMER OF 1953

Professor Roy E. Deane spent the summer mapping Pleistocene deposits in the Connecticut Valley under the sponsorship of the Connecticut Geological Survey. This work will be continued this summer. The results of the study will be published by the Connecticut Geological Survey.

Dr. Charles F. Deiss took his first vacation in 27 years.

Professor Ralph E. Esarey again demonstrated his youthfulness by instructing at the Geologic Field Station in Montana. During the remainder of the summer he found time to resume his research on the geology of the St. Louis limestone.

Dr. J. J. Galloway, Professor Emeritus, continued his intensive study of the stromatoporoids, a group of hitherto poorly known invertebrates. Since his retirement, he is proceeding with this research in monastic seclusion in a Quonset hut, which he fondly refers to as the "Division of Stromatoporology." His collaborator in this investigation is Joseph St. Jean, a candidate for the Ph. D. degree.

Professor Wayne R. Lowell again directed the activities, geologic and social, of the Geologic Field Station in Montana. During the remainder of the summer he continued his investigations of phosphate deposits in Montana for the Victor Chemical Company. A few energetic and robust students assisted him in this work.

Professor Judson Mead doggedly insists that he was unemployed during the summer. It is known, however, that a large amount of his time and thought was devoted to perfecting the seismograph, a contraption which adorns the lobby of Owen Hall and which has fascinated students and faculty alike since its installation.

Professor Haydn H. Murray continued his investigations of Pennsylvanian clays and shales in the southwestern part of Indiana. This research is sponsored by the Indiana Geological Survey.

Professor John B. Patton supervised the activities of the Indiana Geological Survey while Dr. Deiss was on vacation. Some time was allotted to his continuing field and laboratory study of the limestones of Indiana.

Professor T. G. Perry examined many limestone quarries of Ordovician, Silurian, and Devonian age in Indiana. His work formed part of a program of the Geological Survey that is designed to further our knowledge of the limestones in the state. The finding of a large, well-preserved fauna in the Osgood formation, whose rocks generally are sparsely fossiliferous, climaxed the field season.

Professor William D. Thornbury, who still retains his interest in glacial deposits, studied the terraces of the Wabash Valley from the vicinity of Terre Haute to Fort Wayne. This project was a part of the field program of the Indiana Geological Survey.

Professor Charles J. Vitaliano spent the summer in Washington, D. C., where he was engaged in administrative duties in connection with the Manuscript Processing Section of the U. S. Geological Survey. He also completed his study of the mineralogy, petrology, and economic geology of the Paradise Peak, Nev., quadrangle. Special emphasis has been awarded in this study to the problems associated with magnesium metasomatism.

## STUDENT ACTIVITIES DURING SUMMER OF 1953

Arthur Brookley and Donald Basko spent an interesting summer in western Kentucky in the employ of the Chester Oil Company, mapping in the base of the Pennsylvanian system. At the conclusion of the field season, Art accepted the position of paleontologist with the Indiana Geological Survey, and Don entered the graduate school at the University of Wyoming.

Wayne Bundy had a varied summer. He was employed by the Indiana Geological Survey in the early part of the summer; then Wayne served as a consultant geologist with the Celotex Corporation, which was interested in exploiting gypsum deposits; and in the latter part of the summer he accepted a full-time position with the Indiana Geological Survey as a petrographer.

John Cleveland has been preparing Pennsylvanian shales and underclays for laboratory study since the latter part of the summer.

Alan Colville spent the summer as a preparator with the Indiana Geological Survey. Since last October, he has been working as a part-time assistant in the Coal Section of the Survey.

Jack Harrison, Marvin Warner, and Larry Rooney were employed by the Victor Chemical Company in Montana in the closing weeks of the summer; their quest for phosphate was supervised by Dr. Lowell. Larry also served as a teaching fellow at the Geologic Field Station.

Olin Holt assisted Mr. Charles E. Wier of the Indiana Geological Survey in stratigraphic mapping operations in the Terre Haute area. Olin doubtless used the Brunton that he was awarded by the faculty for outstanding scholarship.

James Noel, a candidate for the Ph. D. degree, unravelled the geology of the pre-Cambrian rocks in a region north of Globe, Ariz., while he was employed by the U. S. Geological Survey. He is now on leave of absence from this organization to take some additional "book larnin'."

Paul C. Raymond, a Californian formerly at Notre Dame, assisted Dr. Perry in his examination of limestone quarries in Indiana. Paul emerged from the summer with a hearty loathing for small hotels, a healthy tan, and an A. M. thesis problem.

Abdullah Sayyab, who adds much color to the Department, assisted Dr. Murray in the microscopic identification of minerals that are found in the coarser fractions of shales.

Joe St. Jean and Ben Ewards spent a pleasant summer in the employ of the Petroleum Section of the Indiana Geological Survey. Ben is now wearing a uniform provided by Uncle Sam but intends to return for his A. M. degree.

S. D. Theodosis (Steve to all) was engaged in geologic mapping in the foothills of the Sawtooth Range in Montana. This work was carried out while in the employ of the Shell Oil Company.

Keith Treadway, Wayne Fowler, and George Herr worked throughout the summer in the employ of the Victor Chemical Company in Montana; we understand that Wayne cracked the whip for this threesome. Montana surely has a large transient Hoosier population during the summer months.

Jack Warren assisted in geologic work about the Department of Geology. He still remains long and lean.

Wilbur Winter, Donald Buchholz, and Bob Newman spent the summer, or part of it, as employees of the Industrial Minerals Section, Indiana Geological Survey.

#### LOOK OUT NEW ZEALAND !!!

Dr. Charles J. Vitaliano, wife, and two children will go down under to New Zealand for the sabbatical year 1954-55. Dr. Vitaliano will make a petrographic and petrologic study of the relationship between the Marlborough Schist in the northern part of South Island and the similar rocks in the southern part of South Island. Dorothy, Judy, and Peter will make other studies. Although Charles finds a professorial stipend adequate to transport, feed, clothe, and house his family for a year in New Zealand, he finally succumbed and accepted a Fulbright fellowship just on general principles.

The Vitalianos will leave either from Panama in September or from San Francisco in October. We understand that Charles has not yet received a menu from the Panamanian ship and thus is undecided. After about three weeks of confinement on board ship Charles certainly will need all nine months on South Island for expansion. Charles' investigations (geologic only) will be done in conjunction with the New Zealand Department of Scientific and Industrial Research, Geology Division.

Other things being equal (to finances), the Vitalianos plan to visit Australia and to return home by way of the Suez Canal, stopping in Great Britain for two weeks. They plan to be back home in September of 1955 unless other things are not equal; in that event they will be back in June.

#### ACTIVITIES OF THE GEOLOGICAL SURVEY

##### Coal Section

Henry Gray, who will receive his Ph. D. from Ohio State University in June 1954, joined the staff of the Coal Section as a geologist on May 1. His first assignment will be mapping the Mississippian-Pennsylvanian contact.

(Mrs.) Sally Smith, secretary, resigned in August 1953 and was replaced by (Mrs.) Saralou Volland.

During the past year detailed coal resources studies of the New Goshen, Rosedale, Brazil East, and Brazil West quadrangles have been completed. General coal resources studies were continued in Clay, Pike, and Gibson Counties.

A general survey of Pennsylvanian plants was started during the summer of 1953 by Professor James Canright of the Botany Department. He is being assisted by Joseph Wood, graduate student in the Botany Department.

Spore analysis is being continued on the Pottsville coals.

#### Drafting Section

Jack V. Sears began work on November 25, 1953. He came here from the R. C. A. plant in Bloomington.

A new geologic map of Indiana, on a scale of 1:1,000,000, is to be published in 1954. It will show extensive revisions of the bedrock stratigraphy in the northern half of the state and will include several contacts not previously shown on published maps of southern Indiana.

#### Geochemistry Section

T. C. Yao, spectrographer, left the Survey on June 26, 1953, and was replaced on July 1 by S. Ross Taylor, who completed his thesis and received his Ph. D. in February 1954. Dr. Taylor will begin teaching in the fall of 1954 at Oxford, England, where he will be associated with Drs. L. R. Wager and L. H. Ahrens in geochemical research.

Louis V. Miller, coal chemist, joined the staff on February 1, 1954; he came to the Survey from the Truax-Traer Coal Corporation of Chicago. His laboratory for analytical work on coal temporarily will be in Room 215, Owen Hall.

The Spectrographic Laboratory has been working on the beneficiation of sands, the analysis of limestones, and the development of methods for the analysis of clays and silicates. Additional analytical work has been done on clays and shales for a study of raw material for lightweight aggregate.

Maynard Collier (chemist), R. K. Leininger (spectrographer), and S. Ross Taylor (spectrographer) presented papers at the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy in March 1954.

#### Geophysics Section

The roster of the Geophysics Section, Maurice Biggs, Joseph Whaley, and Robert Blakely, has grown by two. Wayne Aynes began work early in the summer of 1953, and Ray Robinson joined us last fall.

Mr. Robinson, who has had drilling experience in most of the states of the U. S., is the operator of a drilling rig purchased by the Survey in the fall of 1953.

Drill holes have been put down on the University farm, in White-water State Park, in the Pennsylvanian near Merom, and at a proposed dam site near Versailles. The drill is equipped to drill with rock bits, diamond core bits, and augers.

Mr. Aynes has assisted on the drilling rig at several locations and has worked with Mr. Whaley on seismic runs in the field.

Last summer Messrs. Whaley, Aynes, Biggs, and summer field assistant George Holland did resistivity work for the Glacial Geology Section from Vigo to Allen Counties. Seismic work on the University-owned Bradford Estate, near Martinsville, also was accomplished last summer.

During the fall and winter Whaley and Aynes did refraction seismic work in Vigo, Clay, and Parke Counties for the Coal Section and resistivity and seismic work on a water-supply problem being studied by the Glacial Geology Section.

Robert Blakely attended the Indiana University summer field camp last summer and came back to continue work on the determination of physical constants of Indiana sediments.

#### Glacial Geology Section

Dr. W. J. Wayne has been doing a detailed study of Kansan drift deposits in southwestern Indiana. He also has been studying the mollusca content of fossiliferous silts in Pleistocene deposits.

Samples of late Wisconsin organic material from northern Indiana have been collected and submitted for Carbon 14 dating.

#### Industrial Minerals Section

Dr. Duncan J. McGregor became Head of this section on June 15, 1953, replacing Dr. John B. Patton, who moved into his new office in Owen Hall as Principal Geologist.

(Mrs.) Judith Spear became secretary of this section in October; she replaced (Mrs.) Mary Beth Fox, who moved to the Principal Geologist's office and assumed the duties of Mineral Statistician, a new position in the Survey.

Arthur P. Pinsak joined the staff as geologist on July 1, 1953. He is working on subsurface Salem and is attempting to tie together the surface and subsurface occurrences.

Elmer Craig was employed on March 15, 1954, as technician and field equipment custodian for the Geochemistry and Industrial Minerals Sections.

Wayne M. Bundy, petrographer, began work in September 1953. Mr. Bundy is working on the petrology of a core from Owen County as part of an investigation of Indiana's gypsum deposits.

Seymour Greenberg, who left for a tour of duty with Uncle Sam in March 1953, may be back on duty as petrographer by the end of the year.

Ned M. Smith has completed an investigation of the Meramec-Chester contact, which will be published with Dr. T. G. Perry's work on the lower-middle and middle-upper Chester contacts.

The section has been working on the location of active and abandoned building limestone quarries and the sampling of the building stone and associated formations.

The sedimentary iron ores of Martin and Greene Counties are now receiving attention.

Public relations work has included the preparation of sample sets of rocks, minerals, and fossils and the manuscript for a circular describing the material included in the sets.

Haydn H. Murray and John M. Smith have essentially concluded their studies of lightweight aggregate potentialities of shales and of the bonding properties of some clays. The results of both investigations will be published.

#### Petroleum Section

Tom Jones left the Survey on August 14, 1953, to join the staff of the Magnolia Oil Company of Houston, Texas.

(Mrs.) Mary Ann Lowrance left August 28, 1953. Her duties in maintaining records and maps of current drilling activity were taken over by William H. Flanagan, who was employed on June 16, 1953.

Dan M. Sullivan and Samuel L. Riely began work in June 1953, and Stanley J. Keller, in September 1953, as geologists on the staff of the Petroleum Section.

(Mrs.) Virginia Schulz, secretary, left on June 12, 1953, and was replaced by (Mrs.) Opal Bell, who resigned the first of August. (Mrs.) Ruth Butcher succeeded Mrs. Bell.

Allan Gutstadt joined the section on October 1, 1953, after completing course work for the Ph. D. degree at Northwestern University. He is making a regional study of the Trenton and sub-Trenton.

Well location and total depth maps for a number of counties have been completed during the past year.



The annual A. I. M. E. statistical report on oil production in Indiana and the annual A. A. P. G. report on drilling in Indiana were compiled.

Arthur C. Brookley, Jr. began his work as paleontologist on September 16, 1953. In addition to routine identifications, he has worked mainly on correlation of Pennsylvanian limestones, on a Devonian fauna from northern Indiana, and on micropaleontology of the Harrodsburg, Salem, and St. Louis limestones.

#### Publications Section

On February 1, 1954, work was resumed on the annotated bibliography of Indiana geology. Lawrence F. Rooney has been employed by the Survey on a half-time schedule for this project.

#### General

The Geological Survey has entered into a cooperative agreement with the U. S. Bureau of Mines for the collection of mineral statistics in Indiana.

Dr. Charles F. Deiss and Dr. John B. Patton attended meetings of the Association of American State Geologists at Hartford, Conn., in September, and at Baltimore, Md., in February.

As retiring chairman of the Dimension Stone and Slate Committee of the American Institute of Mining and Metallurgical Engineers, Dr. Deiss led a forum discussion on dimension stone at the February A. I. M. E. meeting in New York City.

In December, Dr. Deiss attended the Interstate Oil Compact Commission meeting in Oklahoma City.

Dr. Patton addressed the annual meeting of the Indiana Mineral Aggregates Association in March on the subject "Mineral economics of the crushed stone industry in Indiana."

The work of the Geological Survey was the subject of a television program over Bloomington station WTTV in February.

The Audio-Visual Center is making an educational moving picture in color concerning the State Geological Survey.

#### MASTER OF ARTS DEGREES IN GEOLOGY

1886	1. Moore, David Ross	Deceased
1891	2. Call, Richard Ellsworth	Deceased
1899	3. Price, James Arra	Deceased

1901	4. Mauck, Abram Vardiman	Deceased
1904	5. Reagan, Albert B.	Deceased
1904	6. Smith, Essie Alma	R. R. 3, Box 77, Bloomington, Ind.
1907	7. Shannon, Charles William	Deceased
1909	8. Greene, Frank Cook	Principal Geologist, Missouri Geological Survey, Rolla, Mo.
1909	9. Snider, Luther Crocker	Deceased
1909	10. Tucker, William Motier	(Retired) Professor, Fresno State College, Fresno, Calif.
1911	11. Bonsib, Ray Myron	Deceased
1911	12. Galloway, Jesse James	Emeritus Professor, Indiana University, Bloomington, Ind.
1913	13. Bybee, Halbert Pleasant	Professor, University of Texas, Austin, Tex.
1913	14. Vickrey, Earl Wayne	Deceased
1914	15. DuBois, Henry Mthusalem	Clackamas, Ore.
1914	16. Jackson, Thomas Franklin	Deceased
1914	17. Mance, Grover Cleveland	Consulting Geologist, Rock Hill, S. C.
1914	18. McEwan, Mrs. Eula Davis	(Retired) Professor, University of Nebraska, Lincoln, Nebr.
1914	19. Whitmarsh, James Hardin	607 Blain Avenue, South Bend, Ind.
1915	20. Coryell, Horace Noble	Columbia University, New York N. Y.
1915	21. Malott, Clyde Arnett	Deceased
1915	22. Wood, Harry Warren	443 Belmont, Chicago, Ill.
1921	23. Harrell, Marshall Allen	Consulting Geologist, San Antonio, Tex.
1921	24. Moore, Prentiss D.	206 Club Drive, Midland, Tex.
1921	25. Reeves, John Robert	Dominion Natural Gas Company, Ltd., Buffalo, N. Y.

1921	26. Roark, Louis	Deceased
1921	27. Stockdale, Paris Buell	Professor, University of Tennessee, Knoxville, Tenn.
1922	28. Ferguson, Luther S.	1317 East 10th, Bloomington, Ind.
1923	29. Baker, Lora May	R. R. 3, Hartford City, Ind.
1923	30. Bartle, Glenn Gardner	Provost, Harpur College, State University of New York, Endicott, N. Y.
1923	31. Esarey, Ralph Emerson	Professor, Indiana University, Bloomington, Ind.
1923	32. Malott, Burton Joseph	629 Carlisle Place, Indianapolis 44, Ind.
1923	33. Zierer, Clifford Maynard	Professor, University of California, Los Angeles, Calif.
1924	34. Lee, Glen A.	Science Teacher, Austin High School, Chicago, Ill.
1924	35. Lucas, Elmer Lawrence	Professor, University of Oklahoma, Norman, Okla.
1924	36. Thomas, William Avery	The Ohio Oil Company, Houston, Tex.
1925	37. Addington, Arch Rombaugh	Professor, Fresno State Teachers College, Fresno, Calif.
1925	38. Hunt, Raymond Samuel	1211 West 7th Street, Roswell, N. Mex.
1926	39. Rawles, William Post	Consulting Geologist, Calgary, Alberta, Canada
1926	40. Shrock, Robert Rakes	Professor, Massachusetts Institute of Technology, Cambridge, Mass.
1927	41. Martin, Mrs. Vivian Dutton	Address unknown
1927	42. Stouder, Ralph Eugene	Louisville Gas & Electric Company, Louisville, Ky.
1929	43. Whitlatch, George Isaac	Tennessee State Planning Commission, Nashville, Tenn.
1931	44. Fix, Philip Forsyth	3011 Broadway, Boulder, Colo.

1931	45. Rose, John Kerr	1311 G. Street, N. W., Washington, D. C.
1932	46. Bates, Robert Ellery	Dean of Students, Colorado A. & M., Fort Collins, Colo.
1932	47. Manning, Christine	329 Shaw Avenue, Apt. 4, Dayton, Ohio
1932	48. Freed, Richard George	The Texas Company, New Orleans, La.
1936	49. Beard, Charles Noble	5540 Arthur, Fresno 4, Calif.
1936	50. Fidler, Marion Moore	Mountain Fuel Supply Company, Rock Springs, Wyo.
1936	51. Payne, Kenneth Armstrong	Clarion Oil Company, Houston, Tex.
1937	52. Schweers, Richard Henry	The Texas Company, Fort Worth, Tex.
1938	53. Allen, William Odis	905 City National Building, Oklahoma City, Okla.
1938	54. Tipsword, Howard Lee	Magnolia Petroleum Corporation, Lake Charles, La.
1939	55. Heap, George	414 West Thompson Street, Sullivan, Ind.
1939	56. Reeves, James Elmo	Sinclair Gas & Oil Company, Box 521, Tulsa, Okla.
1939	57. Spencer, Charles Grasen	316 West Johnson, Sullivan, Ind.
1940	58. Childs, Lewis	R. R. 2, Byington, Tenn.
1940	59. Dawson, Thomas A.	Indiana Geological Survey, Bloomington, Ind.
1940	60. Harris, John Rodefer	The Texas Company, Tulsa, Okla.
1940	61. Patton, John Barratt	Professor, Indiana University, Bloomington, Ind.
1940	62. Schweers, Frederick Paul	Mercury Drilling Company, Oklahoma City, Okla.
1940	63. Spangler, Walter Blue	Creole Petroleum Corporation, Apt. 3097, Maturin, Monagas, Venezuela

- |      |                                     |   |
|------|-------------------------------------|---|
| 1942 | 64. McGrain, Preston                | Kentucky Geological Survey,<br>Lexington, Ky.                       |
| 1943 | 65. English, Richard Stoddard       | 425 Washington Avenue, Terre<br>Haute, Ind.                         |
| 1943 | 66. Passel, Charles F.              | 866 Grove, Abilene, Tex.  |
| 1944 | 67. Bajza, Charles Earl             | Texas College of Arts &<br>Industries, Kingsville, Tex.             |
| 1944 | 68. Warner, Esther Ruth             | Kingsville, Tex.  |
| 1947 | 69. Winston, George Otis            | 2136 Colt Street, N.E.,<br>Grand Rapids, Mich.                      |
| 1948 | 70. Harris, Hobart Byron            | 3917 Edmunds Street, N. W.,<br>Washington, D. C.                    |
| 1949 | 71. Bush, James                     | 1216 Wolfe, Galena Park, Tex.                                       |
| 1949 | 72. Erickson, George E.             | Graduate Student, Columbia<br>University, New York, N.Y.            |
| 1949 | 73. Fender, Hollis Blair            | Gulf Refining Company,<br>Evansville, Ind.                          |
| 1949 | 74. Kottlowski, Frank Edward        | New Mexico Bureau of Mines,<br>Socorro, N. Mex.                     |
| 1949 | 75. Roberts, Carroll Norton         | 3744 North Salem Street<br>Indianapolis, Ind.                       |
| 1949 | 76. Waddell, Courtney               | United Geophysical Company,<br>Plains, Tex.                         |
| 1949 | 77. Weidman, Robert McMaster        | Department of Geology, Montana<br>State University, Missoula, Mont. |
| 1950 | 78. Barua, Victor Felix             | Anda Pardo, 557 Miraflores,<br>Lima, Peru                           |
| 1950 | 79. Bieberman, Robert Arthur        | New Mexico Bureau of Mines,<br>Socorro, N. Mex.                     |
| 1950 | 80. Biggs, Maurice Earl             | Indiana Geological Survey,<br>Bloomington, Ind.                     |
| 1950 | 81. Fiantdt, Dallas N.              | The Texas Company, New Orleans,<br>La.                              |
| 1950 | 82. Frielinghausen, Karl<br>William | The Trigood Oil Company, Casper,<br>Wyo. .                          |

1950	83. Parker, Raymond L.	New Mexico Bureau of Mines, Socorro, N. Mex.
1950	84. Waters, Kenneth Montell, Jr.	The California Company, Harvey, La.
1950	85. Wayne, William John	Indiana Geological Survey, Bloomington, Ind.
1950	86. Wier, Charles Eugene	Indiana Geological Survey, Bloomington, Ind.
1951	87. Barr, John George	Standard Oil Company of California, Bakersfield, Calif.
1951	88. Bowen, Richard Lee	Standard Oil Company of California, Sacramento, Calif.
1951	89. Hughes, John Herbert	Skelly Oil Company, Bismarck, N. Dak.
1951	90. Hyer, Donald Eugene	The Texas Company, New Orleans, La.
1951	91. Kugler, Harry Wesley, Jr.	907 North Colorado, Midland, Tex.
1951	92. Six, Don Eldon	The Texas Company, Box 328, Danville, Calif.
1951	93. Taylor, Walter Eugene	Union Producing Company, Jackson, Miss.
1952	94. Axenfeld, Sheldon	461 Lennox Road, Brooklyn, N. Y.
1952	95. Crites, William Henry	Gulf Oil Corporation, Midland, Tex.
1952	96. Deane, Harold Lutz	Standard Oil Company of California, Seattle, Wash.
1952	97. Erickson, Wayne Albert	Fort Worth, Tex.
1952	98. Grender, Gordon Conrad	Standard Oil Company of California, Bakersfield, Calif.
1952	99. Holloway, Perry Gregory	Skelly Oil Company, Shreveport, La.
1952	100. Hutchison, Harold Christy	Indiana Geological Survey, Bloomington, Ind.
1952	101. Johnson, Frank Marion	Standard Oil Company of California, Oildale, Calif.

1952	102. Kaska, Harold Victor	Dominion Oil Ltd., Port-of-Spain, Trinidad
1952	103. Kline, Beryl Dale	Standard Oil Company of California, Bakersfield, Calif.
1952	104. Olson, Victor Emanuel	Houston, Tex.
1952	105. Pierce, Howard Wesley	Graduate Student, University of Arizona, Tucson, Ariz.
1952	106. Pickering, Ranard Jackson	New Jersey Zinc Company, Ogdensburg, N. J.
1952	107. Rago, Frank Thomas, Jr.	Standard Oil Company of California, Bakersfield, Calif.
1952	108. Renzetti, Bert Lionel	Chile Exploration Company, Chuquicamata, Chile
1952	109. Riely, Samuel Leander	Indiana Geological Survey, Bloomington, Ind.
1952	110. Sorgenfrei, Harold	The Texas Company, Lafayette, La.
1952	111. Taylor, Ira Dan	Skelly Oil Company, Tulsa, Okla.
1952	112. Warren, Elbert Clay	The California Company, Grand Junction, Colo.
1953	113. Boyer, Robert	Graduate Student, The Pennsylvania State College, State College, Pa.
1953	114. Bundy, Wayne Miley	Indiana Geological Survey, Bloomington, Ind.
1953	115. Clark, Dean Stanley	Phillips Petroleum Company, Salt Lake City, Utah
1953	116. Connaughton, Charles Robert	Pawhuska, Okla.
1953	117. Devening, Donald Clayton	The California Company, Jackson, Miss.
1953	118. Erd, Richard Clarkson	U. S. Geological Survey, Geochemistry Section, Washington, D.C.
1953	119. Fowler, Wayne Edward	Graduate Student, Indiana University, Bloomington, Ind.

1953	120. Greenberg, Seymour Samuel	Indiana Geological Survey, Bloomington, Ind.
1953	121. Heisterkamp, Warren Craig	Standard Oil Company of California, Durango, Colo.
1953	122. Jones, Thomas David	Magnolia Petroleum Company, Houston, Tex.
1953	123. Pinsak, Arthur Peter	Indiana Geological Survey, Bloomington, Ind.
1953	124. Puscas, George	U. S. Army
1953	125. St. Jean, Joseph	Graduate Student, Indiana University, Bloomington, Ind.
1953	126. Sargent, Robert Edward	Homestake Gold Mining Company, Lead, S. Dak.
1953	127. Vance, Kenneth Raymond	The California Company, Bismarck, N. Dak.
1953	128. Cass, John T.	U. S. Geological Survey, Alaskan Branch, Menlo Park, Calif.

#### RECENT GRADUATES IN GEOLOGY

##### A. B. - June 1953

Gibson, James R., 602 East Sycamore, Jasonville, Ind.

##### B. S. - June 1953

Edwards, Bennie, R. R. 1, Westville, Ill.  
Holt, Olin R., B-8 Hoosier Courts, Bloomington, Ind.  
Jankovich, Jack R., 3529 Carolina, Gary, Ind.  
Keller, Stanley J., 1100 Atwater Avenue, Bloomington, Ind.  
McIntosh, Jack W., 231 Plum, Mount Carmel, Ill.  
Newman, Robert M., 3d Armored Division, Fort Knox, Ky.

##### A. M. - June 1953

Connaughton, Charles R., 414 East 9th Street, Pawhuska, Okla.  
Thesis: A subsurface study of the Jackson formation in Vanderburgh  
County, Ind.

Devening, Donald C., The California Company, 1503 Standard Life  
Building, Jackson, Miss.  
Thesis: The petrology of the sandstone in the Linton formation.



Fowler, Wayne E., Room 108, Rogers G, Box 433, Bloomington, Ind.  
Thesis: The Pleistocene geology of Hendricks County, Ind.

Riely, Samuel L., 1100 Atwater Avenue, Bloomington, Ind.  
Thesis: The petrology of the Upper and Lower Block underclays of Clay, Owen, and Parke Counties, Ind.

St. Jean, Joseph, Jr., 03 East University Apts., Bloomington, Ind.  
Thesis: A middle Pennsylvanian Foraminiferal fauna from Dubois County, Ind.

Sargent, Robert E., Homestake Gold Mining Company, Lead, S. Dak.  
Thesis: Geology of the New Bullion mine area, Tooele County, Utah.

Vance, Kenneth R., 1014 $\frac{1}{2}$  Rosser Street, Bismarck, N. Dak.  
Thesis: The petrology of a Pennsylvania cyclothem.

A. M. - September 1953

Jones, Thomas D., 1035 Rochow, Houston 19, Tex.  
Thesis: Pre-Pennsylvanian unconformity in parts of Knox, Sullivan, Greene, and Daviess Counties, Ind.

Pinsak, Arthur P., 824 East University, Bloomington, Ind.  
Thesis: High-silica sand potentialities of the Ohio River formation.

Puscas, George, 1345 Webster Avenue, Chicago 14, Ill.  
Thesis: The study of the Aux Vases formation in the Monroe City Oil Field, Knox County, Ind.

B. S. - February 1954

Roberts, Edgar M., 1210 East 3d Street, Bloomington, Ind.

A. M. - February 1954

Boyer, Robert E., 370 Columbia Avenue, Palmerton, Pa.  
Thesis: The geology of the structural anomaly near Kentland, Ind.

Bundy, Wayne M., Indiana Geological Survey, Bloomington, Ind.  
Thesis: The geology and mineralization of the Cochiti Mining District, N. Mex.

Cass, John T., U. S. Geological Survey, Alaskan Branch, No. 4 Homewood Place, Menlo Park, Calif.  
Thesis: Geology of the northern part of the Highland Mountains, Montana.

Erd, Richard C., 2104 Hildarose Drive, Apt. 3, Silver Spring,  
Md.

Thesis: The mineralogy of Indiana.

Rudnyansky, Albert J., 408 North Grant, Bloomington, Ind.

Thesis: A study of the electrical resistivity and seismic  
velocity of Indiana coals.

Ph. D. - February 1954

Patton, John B., 809 Sheridan Drive, Bloomington, Ind.

Major: Economic Geology

Minors: Chemistry and Mineralogy

Thesis: Limestone resources of southern Indiana.

Taylor, S. Ross, 1209 Maxwell Lane, Bloomington, Ind.

Major: Geochemistry

Minors: Petrology and Chemistry

Thesis: Geochemistry of some New Zealand igneous and metamorphic  
rocks.

#### VITAL STATISTICS

We are starting a new section in the NEWS LETTER in which we will attempt to keep you up to date on vital statistics. If you want your friends (the ones with whom you do not correspond) to know about your marriage, offspring, or death let us know about it. (If you anticipate difficulty in communicating with us from the other world, have your nearest of kin notify us.) We promise you that we will not send presents or flowers, but we will publish the information in the NEWS LETTER. Undoubtedly this year's VITAL STATISTICS is incomplete, but we have done the best we could with the available information.

#### Births

December 9, 1953, to Professor and Mrs. Judson Mead, a son, John Stanley.

January 30, 1954, to Dr. and Mrs. Paul Proctor, a son, Kirk.

(Two more sons each and Paul and Jud can field their private basketball teams.)

February 18, 1954, to Mr. and Mrs. Kenneth Vance, a daughter, (name not available).

February --, 1954, to Mr. and Mrs. Kelley Summers, a daughter, Susan Bridget.

-----, to Mr. and Mrs. Raymond Parker, a son, Bradner.

October 17, 1953, to Mr. and Mrs. Al Meisch, a daughter, Catherine.

January 16, 1954, to Mr. and Mrs. Maurice Biggs, a son, Donald Charles.

November 20, 1953, to Mr. and Mrs. Harold Deane, a son, Christopher Andrew.

-----, to Mr. and Mrs. Robert Bieberman, a daughter, (name not available).

#### Marriages

December 27, 1953, J. W. Stover to Gail R. Smith of Gary, Ind.

August 16, 1953, John W. Cleveland to Elinor Hetlin.

August 29, 1953, Bruce F. Bohor to Barbara Stegenga.

#### Deaths

March 1954, Mrs. T. R. Legge, widow of the late T. R. Legge.

#### FACULTY AND STUDENT PARTICIPATION IN SCIENTIFIC MEETINGS

G. S. A. meeting at Toronto, Ontario, November 1953.

In attendance: Drs. Deiss, Deane, Murray, Perry, Thornbury, and Vitaliano.

Papers presented: "Transgressions and regression of early Alleghenian (Penn.) seas in Indiana"--H. H. Murray; "Restudy of the genus Fistulipora through Hall's types"--T. G. Perry.

The Toronto meeting of the G. S. A. will be remembered most by some for the Bureau of Mines cocktail party. Equally outstanding, in a different way, were the post-meeting field trips which covered many areas that are famous in Canadian geology. Dr. Vitaliano was a member of the small conference group that visited the nepheline and corundum-bearing igneous and metamorphic rocks in the Haliburton-Bancroft area. As a result of this trip, the Geology Department's petrology collection has grown by three drawers full of pre-Cambrian rocks related to the nepheline syenites.

Indiana Academy of Science annual meeting held in November 1953 at Earlham College, Richmond, Ind.

In attendance: Drs. H. H. Murray and T. G. Perry; George T. Moore and Samuel L. Riely.

Papers presented: "Chester rocks north of the east fork of the White River, Ind."--George T. Moore and T. G. Perry; "Petrology of the Block underclays of west-central Indiana"--Samuel L. Riely and H. H. Murray.

Annual meeting of the Association of Geology Teachers, Lexington, Ky., March 25-26, 1953. Attended by Drs. C. F. Deiss and W. R. Lowell. Dr.

Lowell addressed the group on: "The aim and responsibility of the geology field training program."

Annual meeting of the A. I. M. E., New York, N. Y., February 14, 1954. Attended by Drs. C. F. Deiss and J. B. Patton.

A. A. P. G. annual meeting held in St. Louis, Mo., April 12-15, 1954. Attended by Professors Deiss, Esarey, Lowell, Mead, Murray, and Patton.

#### I. U. SUMMER FIELD CAMP, 1953

The summer field camp was held from June 18 to August 11, 1953. Twenty-two students were enrolled for the course. Miss Janice Pastorius, Mount Holyoke College, and John Kempton, Dennison University, were the only students enrolled from other colleges. The weeks at the Station passed rapidly and without accidents.

Staff members for the field course included Lawrence Rooney, Graduate Assistant, and Professors Ralph E. Esarey and Wayne R. Lowell.

Geologic mapping progressed very well in the rugged area west of the Geologic Field Station, in the area northeast of Summit Valley, and in the area of North Boulder Creek on the north side of the Jefferson River. The mapped areas make an imposing addition to the geologic map of the camp area.

The students showed unusual interest in their work and accomplished more geologic mapping than had been assigned. The usual Glacier and Yellowstone Parks trips were taken. A collection of petrified wood was made from an area about 5 miles west of camp. The wood was found by Professor Lowell in the Bozeman Lake beds. A good fossil collection was made from the Devonian Threeforks formation.

George Moore worked all summer on the basic sills in the Cambrian formations of the Cottonwood Canyon area as a master's thesis problem. Bill Kaschube and Jack Warren helped the local ranchers put up hay. Jack says the bales got almighty heavy about 5:00 P. M.

#### DOINGS OF RHO CHAPTER OF SIGMA GAMMA EPSILON

Arthur Brookley, who was elected president of Rho chapter in the spring of 1953, submitted his resignation at the beginning of the fall semester of 1954 because he had accepted a position with the Indiana Geological Survey. Don Cameron was elected to succeed him. Other officers are Keith Treadway, vice-president, and David Prentiss, secretary-treasurer. The following new members were initiated: Bruce Bohor, George Herr, Richard Larson, James Noel, Paul Raymond, Frank Revetta, David Von Tress, John Cleveland, Jack Harrison, Carl Lockhart, and Marvin Warner. The following associate members were elected: Dr. Heinrich Neumann, visiting professor of mineralogy from Norway; Dr. Duncan J. McGregor of the State Geological Survey; and Ross Hickam, mineral curator and preparator. Of the 11 new members, seven are graduate students.

A committee was appointed early in the semester to aid Professor Ralph Esarey, Chairman of Journal Club and Grand Historian of SGE, to

obtain speakers for Journal Club. The chapter has provided the traditional coffee and doughnuts before Journal Club each Monday afternoon and has been host at an informal departmental coffee hour each Wednesday afternoon. Of the chapter's several activities, the coffee and doughnut service, although humble, is the most widely appreciated.

During the week before Christmas vacation, the chapter had an informal party, with refreshments, two short movies, and a good deal of conversation. The chapter plans a picnic this spring to which the rest of the Department is invited.

The only active member of Rho chapter who left school at the end of the fall semester is Kelley Summers. He has only to complete his thesis to satisfy the requirements for an A. M. degree.

#### FACULTY SCHOLARSHIP AWARD

In the fall of 1952 the Geology faculty inaugurated an annual scholarship award to stimulate scholarship and to increase enthusiasm and competition among the undergraduates in the Department. The award is given to the geology Junior with the highest scholastic standing.

The student of distinction for 1952-53 was Jack Harrison, who now proudly sports the new Brunton compass awarded by the faculty. Jack topped all other students with the impressive score of 32 hours of A, 68 hours of B, and 5 hours of C for an ever-all average of 2.26. His geology record was even better with 24 hours of A and 4 hours of B for a 2.86 average.

Why don't some of you wealthy alumni set up some similar awards or scholarships? Here is an excellent chance to help some needy student and to ensure getting your name in the NEWS LETTER each year.

#### NEW SEISMOGRAPH AT I. U.

A new seismograph has been installed at I. U. under the able direction of Dr. Judson Mead. The seismograph is set upon a concrete pier that rests upon the limestone bedrock below the basement floor of Wylie Hall. The recording drum is located in the first-floor corridor of Owen Hall. It has created much interest among all persons who come to Owen Hall. In fact, many persons who are not inmates of Owen drop in every day to see if there has been any earthquake. Dr. Mead becomes ecstatic when he sees the pen going through its paroxysms and thus indicating that an earthquake is in progress. As someone has aptly stated, he "counts that day lost whose low descending sun sees no earthquake begun."

Most seismographs record on a narrow strip of paper that is fed under the pen from one roller to another. Dr. Mead has improved upon this method by having the waves recorded upon a large sheet which is wrapped around a drum. Thus it is possible to see the entire 24-hour record.

Geology students are becoming very conscious of primary waves, secondary waves, microseisms, etc. and are beginning to realize that "every little movement has a meaning all its own" applies equally as

well to the earth's crust as to hula dancers.

One of the local newspapers in writing about the seismograph proclaimed it as "the world's most sensitive seismograph," Dr. Mead claims that this, like the report of Mark Twain's death, is a gross exaggeration.

#### JOURNAL CLUB PROGRAMS

In addition to the graduate students and staff members who appeared on the Journal Club programs, we had the following outside speakers during the past year:

Carl W. Beck, University of New Mexico, "Origin of dolomites."

Carleton A. Chapman, University of Illinois, "Geology of Mount Desert Island."

Frank K. Edmondson, Astronomy Department, Indiana University, "Theories of earth origin."

R. W. Fairbridge, University of Western Australia (visiting professor at the University of Illinois), "Ancient and modern reefs."

John Galbraith, Standard of California, "Organization of the Standard Oil Company of California."

Ray Gutschick, University of Notre Dame, "Qualifications of a geologist."

Leland Horberg, University of Chicago, "Interrelations and correlation of Rocky Mountain Pleistocene deposits with the Continental drift sheets."

Kiguma J. Murata, Geochemistry and Petrology Branch, U. S. Geological Survey, "Fluorescence in minerals."

Norman Pounds, Geography Department, Indiana University, "The iron ores of Lorraine."

Pete Scholl, District Engineer, Slumberger Company, "Electric logging."

William H. Shideler, Miami University, "The Cincinnati Arch as the mother of geologists."

Paul Witherspoon, Illinois Geological Survey, "Secondary recovery of oil."

Hatten S. Yoder, Jr., Geophysical Laboratories, Washington, D. C., "Liaison between field and laboratory workers in metamorphic geology."

## ALUMNI NEWS

Kenneth Vance is working for The California Company in Bismarck, N. Dak.

John R. Harris writes from the hospital that he will be back in circulation immediately. The Harris's have two girls, the youngest only 6 months old. John is working for The Texas Company in Tulsa.

Dean Pennington left the New Mexico Bureau of Mines for a job with The Ohio Oil Company. He had been living in Evanston, Wyo., but we understand that he was transferred elsewhere. Dean likes both his company and job.

Frank Kottlowski, Bob Bieberman, and Frank Parker are still working for Dr. Callaghan at the Bureau of Mines in Socorro, N. Mex. The new quarters for the Bureau should be completed very soon. The Biebermans and the Parkers both have new daughters.

Jim Powell is working for the Victor Company in Tennessee, prospecting for phosphate. He lives in Columbia, Tenn.

Vic Barua sent Christmas cards to most of the faculty. The address is Tacnu, Peru. He is head of the Geology Department and also is working for a copper company in southern Peru.

An impromptu Indiana breakfast was held at the Albuquerque meeting of the Rocky Mountain section of the A. A. P. G. Despite the hangovers, etc., Tom Heistand, Ray Hunt, Clay Warren, Charles Passel, Bill Williams, Warren Heisterkamp, Barbara Brooks, Bill Hite, Karl Frielinghausen, and Ralph Esarey had a very pleasant visit.

Col. John Combs of the Air Force Reserves was called back into service for a "hitch" which is now about completed. John is a pilot with Pan-American Air Lines and lives in Miami, Fla. He wrote from Tokyo.

Ad King is still prospecting and exploring for the Morgan Brothers Coal Company of Indianapolis. Ad has investigated everything from clay deposits to gold and uranium mines.

Capt. and Mrs. Willis L. Smith left the address of 7507th Air Base Group, A. P. O. 147, c/o Postmaster, New York, N. Y.

Charley Passel is doing all right at Abilene, Tex. Seems his chief worry is income tax.

Don Kralis with his Geo-Service Company at Abilene is becoming a big operator.

Ray Robbins and his new assistant Karl Frielinghausen are guiding the fortunes of the Trigood Oil Company. Their batting average is well above par.

George Winston, who is with the Carter Company at Grand Rapids, visited I. U. for a couple of days. Thanks are due to him for some sample sets from the Michigan Basin.

Paul Yundt and Bob Sublette apparently have become permanent residents of Owensboro. They agree that there is not a better place to live.

Charley and Eileen Connaughton write from Pawhuska, Okla., that they like the Skelly Company and living in Oklahoma. They send regards to all their friends.

To the best of our knowledge the U. S. G. S. complement in Washington still consists of Roz Robinson, Helen Beikman, Dick Erd, and Charley Solbrig.

Hollis Fender is now employed by Sinclair Oil Company and works out of Shawnee, Okla.

Frank Rago and Dale Kline are with Standard of California at Bakersfield. The California contingent includes Diz Deane, Gordon Grender, Don Six, John Barr, and Frank Johnson.

Don Basko is attending graduate school at the University of Wyoming. Don Newsom and Bill Winters have applied for admission to the University of Utah.

Bennie Edwards is doing his "stint" for Uncle Sam along with George Puscas and Bill Crites.

Harold Sorgenfrei left the Indiana Geological Survey for a job with the Texas Company in the Louisiana district and is stationed in Lafayette. Dallas Fiantt has been transferred to New Iberia, about 20 miles away. Don Hyer also is in this area. Phil Lane, district geologist with the Continental Company, also is working out of Lafayette. We hope that he keeps his promise to visit the Department the next time he is in Indiana.

One always has a pleasant visit with Frank Spencer at the meetings. Our congratulations to him for the report on Indiana coals just issued by the U. S. G. S.

The alumni group in and around New Orleans includes Dick Freed, Kenneth Waters, Don Hyer, Earle Newcomer, Denny Lucas, Perry Holloway, Gene Taylor, and several others we can't think of at present.

We understand that Norbert Parker and Everest Wible have left Evansville for the Rocky Mountain area. We do not have their present addresses.

Pres McGrain of the Kentucky Geological Survey is handling the annual Geological Society of Kentucky field trip this year. The trip is to be in the area around Mammoth Cave.



John Huddle has charge of U. S. G. S. operations for Kentucky. He lives in Lexington.

When we start naming the alumni working in the Illinois Basin we always miss several. Here are a few: Gordon Fix at Mattoon; Paul Kelly at Olney; Jack McIntosh at Mount Carmel; Wes Williams (?), Robert Faith, and Dick Horton with Bell Brothers; Robert Howden, Dick English, John Organ, George Heap, and Charley Spencer in Sullivan.

Raymond Parker has received his Ph. D. degree at Columbia University and has returned to work at the New Mexico Bureau of Mines.

Robert M. Weidman went to Montana State University, Missoula, Mont., last fall as an instructor in structural geology, mineralogy, and petrology. He has been working for his Ph. D. degree at the University of California at Berkeley. He expects to return there this coming summer to teach and complete his thesis on the King City quadrangle in the California Coast Ranges.

Dr. Eugene (Pat) Callaghan spent 3 days in February around the Department working with Charlie Vitaliano on some joint papers. Pat is building a strong survey in New Mexico. If the number that he has employed is any indication, he seems to think well of Indiana graduates.

Our congratulations to Marion Fidler on his promotion to V. P. of the Mountain Fuel Supply Company. He now "oscillates" between Rock Springs and Salt Lake City. He reported that his company had drilled a well which he believes was at a record altitude of 10,074 feet on the mountainous Wyoming Range. The well was drilled through a thrust plate to test a seismically-determined structure beneath.

Bob Reeves, who is with the Dominion Natural Gas Company Ltd., Buffalo, N. Y., writes that Robert L. Kidd has been appointed president of the Arkansas Fuel Oil Corporation with head offices at Shreveport, La.

Glenn Bartle is provost of Harpur College, Endicott, N. Y. He writes that he still retains his interest in geology and is seeing to it that his school develops a good geology department.

Ralph McClintock seems to have forsaken geology. According to our latest information he is Superintendent of Parks and Recreation in Omaha, Nebr. Maybe he will feature the geology of the city parks.

L. F. Bemmett of Saginaw, Mich., was kind enough to write the editor his appreciation of the NEWS LETTER. He was graduated in 1898 and was Dr. Cuming's first student. Although 80, he still retains a keen interest in geology.

Warren Heisterkamp writes that he is seeing lots of Mesozoic geology around Durango, Colo.

Frank and Florence Kottlowski are still at Socorro, N. Mex., with the New Mexico Bureau of Mines. Your editor and his wife enjoyed a

pleasant visit with them at the Toronto meeting of the G. S. A. We had the doubtful honor of being the only two I. U. couples who attended the dance at that meeting.

Mrs. Patricia Gerdson (Pat Arkin) was renewing old acquaintances at the spring field conference held at Clifty Park last spring. At that time she was attending the University of Cincinnati.

Dr. Robert R. Shrock recently was appointed consulting editor by the McGraw-Hill Book Company. Bob visited old friends in Bloomington on his way to the A. A. P. G. meeting in St. Louis.

A Christmas note from Bob Sargent stated that he is now working at the Homestake Gold Mine at Lead, S. Dak., after having spent 2 years at Coeur d'Alene, Idaho.

On February 20, Dr. E. R. Cumings, former head of the Geology Department, reached his 80th birthday. Over 50 of his former students wrote him letters on this occasion, and Dr. Cumings personally replied to all who wrote him.

"Diz" Deane is still working for Standard of California in the Seattle area.

A Christmas card came from John and Wanemah Hughes. He is still with the Skelly Oil Company at Bismarck, N. Dak. They have two children, Deitrah and Cynthia. He said that he "enjoyed" the 30-below-zero weather they have in North Dakota.

George Bechner has been moving around considerably since he left I. U. He first had a job with The Carter Oil Company at Ness City, Kans. Next he was in the Carter office at Tulsa for 6 months and then for 6 months in the Denver office. In April 1952 he went to work for Standard Vacuum Oil Company in Sumatra as a geophysicist on loan from Carter. While there he enjoyed a vacation in Bali. More recently Uncle Sam has beckoned him for a stint in the army.

James McCulloch has been appointed chief geologist for the western division of The Carter Oil Company with his office at Denver, Colo. He had previously worked for Carter at Billings, Mont., Lamder, Wyo., and Vernal, Utah. His wife, an I. U. graduate, is the former Jan Crawford of Madison, Ind.

Bert Renzetti acknowledged receipt of the NEWS LETTER from Chuquicamata, Chile, where he is employed by the Chile Exploration Company.

Delmer Elston is with the National Lead Company at Cincinnati, Ohio.

F. H. Latimer is assistant to the manager of the Sun Oil Company at Toledo, Ohio. He writes that he is engaged in practically all phases of production work and finds his geologic training very useful.

Charles Bajza is still at Texas A. & I. College, Kingsville, Tex. He is collecting material for a geography of Texas.

John I. Moore and his brother Prentiss D. are still engaged in the production and search for oil in west Texas. They operate at Midland, Tex., under a partnership entitled the Moore Exploration Company. They also operate a royalty company under the name of Permian Royalty Company No. 2.

Sheldon Axenfeld, after working for a while for a petroleum company in Texas, has returned to his first love, the sea. He is now a member of the Merchant Marine and has made several trips to Europe and the Far East.

Helen Beikman, who is with the Petroleum Division of the U. S. G. S., spent last summer at Jackson, Miss. According to our spies, she will be in Denver during the coming summer.

Dean Clark is doing non-metalliferous geology for the Phillips Chemical Company, a division of the Phillips Petroleum Company, around Salt Lake City. He reports that he likes the country fine.

John Cass, who is with the Alaskan Branch of the U. S. G. S., when last heard from was heading for Alaska to map the geology of the Mount McKinley area.

Don Devening is doing subsurface geology for The California Company around Jackson, Miss.

Lowell Plock is working for the Gulf Oil Company at Fort Meyers, Fla.

Steve Theodosis, who has been working for the Shell Oil Company at Billings, Mont., spent several weeks during the spring in Bloomington working toward completion of his Ph. D. requirements.

Dr. Paul Proctor has resigned from the staff of Brigham Young University to accept a position as geologist on the research staff of the U. S. Steel Corporation. He is still living at Provo.

Richard H. Schweers was at Albuquerque attending a committee meeting of the A. A. P. G. He is in charge of the subsurface work for The Texas Company at Fort Worth. Judging by his embonpoint, we think that his work agrees with him.

Harold V. Kaska is chief micropaleontologist for the Dominion Oil Company in Port-of-Spain, Trinidad. He has a new laboratory fully equipped with 12 binocular microscopes, library, photostat machine, and other equipment. He has two trained micropaleontologists working under him as well as 15 local people for washing and picking samples. Harold at first disliked Trinidad but now says that he enjoys his life there. The Kaskas' little daughter, Diane, is now 16 months old.

## ALUMNI DIRECTORY

We have made an attempt to bring the directory up to date and in addition indicate the various degrees obtained in geology and the years in which they were obtained. Doubtless we have conferred some degrees that are not merited and have omitted some that were received. We will appreciate your help in eliminating mistakes in the directory. PLEASE KEEP US INFORMED OF YOUR CHANGE IN ADDRESS IF YOU WISH TO CONTINUE TO RECEIVE THE NEWS LETTER. We are not psychic when it comes to changes in addresses.

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