

is dolomite, argillaceous dolomite, and shale. The thickness of the Niagara varies from 66 feet in Kent County in southwestern Michigan to more than 700 feet in Mackinac County in the Northern Peninsula of Michigan. The Niagara increases in thickness southward from Kent County, Michigan, to 425 feet in northwestern Indiana near the area of outcrop. The sequence of Niagara rocks in southern Michigan is thin due to non-deposition of pre-Salina erosion. Outcrop and subsurface data indicate that pre-Salina erosion occurred in some areas. Local variations in thickness are due in part to reefs which in places are numerous. Niagara rocks dip at the average rate of 45 feet per mile from the outcrop area in northern Indiana to the center of the Michigan basin in Clare and Gladwin counties, Michigan, where the top of the group is more than 9,000 feet below sea level. The average dip per mile from the outcrop area in the Northern Peninsula to the center of the basin is approximately 70 feet per mile.

22. R. H. WOLCOTT,* Sohio Petroleum Company, Mt. Pleasant, Michigan, "Coldwater Field, Isabella County, Michigan."

The Coldwater field, discovered in August, 1944, is in the central part of the Lower Peninsula of Michigan, a few miles west of the center of the Michigan structural basin. The principal producing zone is the Rogers City (Devonian) dolomite. A typical Rogers City dolomite field, it has a producing closure of 55 feet covering an area of 3,160 acres. A greenish amber oil of 48° A.P.I. gravity is produced from an average depth of 3,750 feet. The reservoir is a structural trap, anticlinal in nature, the major axis striking northwest-southeast parallel with the major axis of the basin and modified by a strong cross-fold at right angles to the major axis. An important reserve in the Michigan area, the original oil in place was estimated as 43,000,000 barrels, and the expected ultimate recovery more than 5,000 barrels per acre.

On the same anticlinal structure, at an average depth of 1,400 feet, the Michigan series 'Stray' sandstone (Mississippian) forms a reservoir for dry gas with a productive area of 2,400 acres.

The limits of the producing area are well defined and little drilling is foreseen for the future.

* The writer thanks T. S. Knapp, geologist, and the production department, Sohio Petroleum Company, for their contribution to this paper.

23. JOHN G. GROHSCOPF, assistant State geologist, Rolla, Missouri, "Zones of Plattin-Joachim of Eastern Missouri."*

Examination of cable-tool cuttings from water wells has resulted in the establishment of four zones in the Plattin and two zones in the Joachim. The zoning is based on lithologic character and insoluble residues. A cross section through fourteen selected wells extending approximately 300 miles, from Kirksville in northeast Missouri to Cape Girardeau in southeast Missouri, indicates the position and thickness of the zones where present.

At Cape Girardeau the Plattin is 600 feet thick and the Joachim is 250 feet thick. In the type areas, approximately 75 miles northwest, the Plattin and the Joachim are each only 200 feet thick. In northeast Missouri, in the vicinity of Kirksville, both formations are overlapped by the "Decorah," where the latter rests on the St. Peter. The cross section indicates that older beds are overlapped from southeast to northwest and suggests an unconformity at the base of the "Decorah."

Some of the subsurface zones have been located at the outcrop of widely separated localities and can be used in surface mapping. Redefinition of the Plattin-Joachim boundary is desirable. The name Rock Levee, derived from a place of that name approximately 3 miles southwest of Cape Girardeau and near the intersection of Federal Highways 25 and 61, is proposed for the rocks lying between the redefined Plattin and Joachim. The term "Decorah" as used in Missouri requires more specific definition.

* Published by permission of Edward L. Clark, State geologist, Department of Business and Administration, Division of Geological Survey and Water Resources, Rolla, Missouri.

24. JOHN T. ROUSE, Magnolia Petroleum Company, Dallas, Texas, "A Challenge to A.A.P.G. Research."

Last summer the A.A.P.G. research program in sedimentology was presented for the consideration of the A.P.I. advisory committee on fundamental research. After due deliberation that committee recommended that the A.P.I. should sponsor specific projects within that portion of the program dealing with the origin and early diagenesis of sediments and their contained fluids.

The A.A.P.G. research committee has been holding all projects in abeyance until the A.P.I. decided which portions of the sedimentology program they wished to consider. Now the A.A.P.G. is free to go to work on any or all of the programs dealing with pre-Pleistocene sedimentary rocks.

The most important question before us is—What is the A.A.P.G. going to do? The committee feels that the Association now needs the cooperation of all local geological societies in formulating and completing a constructive and concrete attack on that part of the sedimentology program which

deals with pre-Pleistocene sedimentary rocks. Such a program would involve a detailed study of specific Paleozoic, Mesozoic and Tertiary formations on the outcrop and in the subsurface over wide areas. It is readily apparent that it would be extremely difficult to make a study of this kind without the active work and cooperation of the local geological societies.

THIRTY-THIRD ANNUAL MEETING, DENVER, APRIL 26-29, 1948

Thomas S. Harrison, chairman of the committee on arrangements, announces appointment of the following chairmen and co-chairmen to arrange the convention program and activities.

General Committee	Thos. S. Harrison, A. E. Brainerd
Technical Program	N. W. Bass, R. L. Heaton
Finance	H. W. Osborne, J. M. Kirby
Entertainment	C. E. Manion, K. L. Gow
Hotels	C. S. Lavington, Laurence Brundall
Registration	Robert McMillan, A. W. Cullen
Field Trips	J. W. Vanderwilt, F. M. Van Tuyl
	W. O. Thompson, P. G. Worcester,
	E. S. Shaw
Reception	E. W. Scudder, V. Z. Smith
Publicity	H. M. Crain, R. H. Volk
Exhibits	H. E. Christensen, C. R. McKnight
Service Detail	K. C. Forcade, E. G. Hurd
Transportation	George R. Downs, J. H. Turner
Society of Economic Paleontologists and Mineralogists	J. H. Johnson
Society of Exploration Geophysicists	C. A. Heiland
Women's Committee	Mrs. J. H. Johnson

The committee has completed its preliminary investigation of prospective attendance at the convention, and will soon send out a second card, requesting that the membership make choice of hotel accommodations and field trip preference.

N. W. Bass, chairman of the technical program, announces no papers can be included in the program later than February 20, due to restrictions by the printer.

THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS
PREPARATION OF MANUSCRIPTS¹

AUTHOR²

City and State

ABSTRACT

Helpful suggestions to authors issued by other scientific societies are here adapted to the requirements of the Association *Bulletin*. The arrangement is that of a correctly prepared manuscript. These abstracts should be prepared for all major papers submitted for publication and for all titles to be presented on Association programs. Abstracts should state all major and minor topics in which new facts are involved and should mention all conclusions reached. They must be brief.

¹ Read before the Association at the _____ meeting, _____ (date).

Manuscript received, _____ [date]. [This safeguards the author's priority.]

Published by permission of _____ [name of official or company].

² [Business or professional connection. Acknowledgment of assistance and thanks for criticism may be placed in this footnote.]