Bibliography of North American Geology, 1959

GEOLOGICAL SURVEY BULLETIN 1145
Bibliography of North American Geology, 1959

By RUTH REECE KING and others

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This bibliography represents work done jointly by Ruth Reece King, Virginia M. Jussen, Elisabeth S. Loud, Mildred Challman Mead, Eleanor H. de Chadenèdes, and Florence V. Oftedahl
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Organization of the index</td>
<td>3</td>
</tr>
<tr>
<td>Serials</td>
<td>7</td>
</tr>
<tr>
<td>Bibliography</td>
<td>15</td>
</tr>
<tr>
<td>Index</td>
<td>325</td>
</tr>
</tbody>
</table>

III
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY
1959

By Ruth Reece King and others

INTRODUCTION

The current volume lists publications that appeared during 1959 on the geology of the United States (including Alaska and Hawaii), the rest of the North American continent including Greenland, the West Indies, and adjacent islands, and also Guam and other Pacific island possessions—but not the trust territories of the United States. A few articles published before 1959 and not included in previous volumes, are cited also. Articles by American authors published in foreign journals are cited if they deal with North American localities or are of a general nature, but not if they deal only with foreign areas. Articles on North America by foreign authors are included regardless of place of publication while those of a general nature are included only if they appeared in North American journals.

The citations are listed alphabetically by author, with full title and publication data. There follows a subject index to the papers cited. Geologic names in the index are those used by the individual authors, and their listing here does not imply approval by the Geological Survey.

Assistance of Margaret E. Barcroft, Virginia Elizabeth Rees, and Lillian B. Dawson in the preparation of this volume is gratefully acknowledged.


1 This bibliography represents work done jointly by Ruth Reece King, Virginia M. Jussen, Elisabeth S. Loud, Mildred Challman Mead, Eleanor H. de Chadenèdes, and Florence V. Oftedahl.
ORGANIZATION OF THE INDEX

The index to a bibliography can be used most effectively when the reader is familiar with its organization. The following paragraphs describe the system of headings, subheadings, and entries used in the index of this bibliography.

Headings.—The headings comprise the main subdivisions of the index and are recognized by their position, that is, flush with the margin of the column; these headings are in capital and small capital letters. They can be classified into two general types: geographic and subject headings. Typical examples of the headings are ALABAMA, ALBERTA, ALUMINA, ANTICLINES. Although most of the headings remain the same in each issue of the bibliography, new ones are included and others are discontinued as the need arises.

Headings with cross references.—Some headings have a cross reference only, that is, no entries are listed under the heading and the reader is referred to another heading. Examples are:

AQUIFERS. See Ground water.
BOTANY, fossil. See Paleobotany.
MINERAL MAPS. See Maps, Mineral.

Some headings have entries listed under them but also have cross references to other headings of a similar or related nature. Examples are:

MINERAL DESCRIPTIONS. See also Mineralogy.
MINERAL DEPOSITS. See also Economic geology.
ECONOMIC GEOLOGY. For areal, see subheading Economic geology under the states and countries. See also Mineral deposits; the more important economic minerals.

Geographic headings.—The geographic headings are names of countries and colonial possessions in North America, the States, territories, and possessions of the United States, the provinces of Canada, and well-known physiographic areas like the Atlantic Coastal Plain and the Appalachians. Examples of geographic headings are: ALABAMA, ALBERTA, CANADA, JAMAICA, MEXICO, NEVADA, UNITED STATES. CANADA and UNITED STATES are headings used to index papers covering the whole of these areas or more than two or three States or provinces. For example, an article on oil and gas exploration in Manitoba would be indexed under MANITOBA but one on western Canada's oil and gas potentialities would be indexed only under CANADA and not under each province discussed in the paper. Similarly, "Feldspar and mica deposits in the southeastern United States" would be indexed only under UNITED STATES and not under the individual States described.

Subject headings.—The subject headings deal with the subject of the paper rather than the geographic areas. They include, among others, the general subdivisions of geology, such as ECONOMIC GEOLOGY, MINERALOGY, PALEONTOLOGY, the phyla and larger classes of animals, such as BRACHIOPODA, MOLLUSCA, the common economic minerals and metals, such as COPPER, GOLD, MICA, and SILVER, and other geologic entries. A few of the major subject headings and the scope of the entries listed under each are:

3
### Heading

| **Bibliography** | Subject, area, or individual |
| **Biography** | Individual names |
| **Geologic formations** | Listed by name of formation; only detailed information indexed |
| **Geologic formations, lists, sections, tables** | Area listing of all formation tables and sections |
| **Geologic history** | Area |
| **Geologic maps** | Area; some sketch maps included |
| **Guidebooks** | Areas covered by field trips |
| **History** | History of various organizations or geological investigations |
| **Industrial minerals** | Subject or area |
| **Mineral deposits** | Area; also includes articles discussing origin of minerals or ores |
| **Mineral descriptions** | Mineral name listing |
| **Mineral resources** | Area; includes more than one mineral; not indexed to individual minerals |
| **Mineralogy** | Mineral examinations, origin, etc.; methods of testing and the like |
| **Oil and gas fields** | Listed by name of field |
| **Popular and elementary geology** | Papers written for the layman |
| **Rock descriptions** | Rock names and areas; restricted to new or unusual rocks or detailed descriptions |
| **Surveys** | Special activities of U.S. Geological Survey or State and foreign geological surveys |
| **Systems** | Chemical rock- or mineral-forming systems; alphabetically by formula or name |

### Subheadings.—Subheadings, in italics and indented two spaces, are used to group entries under the geographic headings and under four of the subject headings. Subheadings used under geographic headings are: Areas described (for general descriptions), Economic geology, Geologic maps, Ground water, Historical geology, Mineralogy, Paleontology, Petrology, Physical geology, Physiographic geology. Subheadings are used under the four subject headings Earth, Maps, Paleontology, and Technique. Subheadings for Earth include Crust, Interior, and Temperature. Subheadings for Maps include Aeromagnetic, Geophysical, and Mineral. The Paleontology subheadings include General and the age groups, Cambrian, Ordovician, etc. Subheadings under Technique include Apparatus, Geophysical, Mineralogic, and Petrographic.

### Entries.—Entries form the main subdivisions of headings and are indented four spaces. Entries usually follow a subheading, but where they do not fit under any of the subheadings used, they follow the main heading directly. Under both the geographic and subject headings, the entries may be either geographic, subject, or a combination of the two. Each entry is followed by the name of the author of the paper referring to it. A number following the author's name refers to the paper so numbered in the bibliography. Examples of entries under geographic and subject headings are as follows:
ORGANIZATION OF THE INDEX

ILLINOIS.

Economic geology.
Natural gas, Freeburg pool: Meents, W. F.

Historical geology.
Coal beds, Pennsylvanian, correlation by spores: Kosanke, R. M.
Cook Mills area, Mississippian-Pennsylvanian: Whiting, L. L.

INDEXES.
Geologic names of North America: Wilson, Druid.

IRON.
Alberta, Peace River area: Kidd, D. J.
Itabirite, origin of hard hematite: Park, C. F., Jr.
Mineralizing solutions, ore deposition: Butler, B. S.
Minnesota, Cook County, titaniferous magnetite: Grout, F. F.
Pennsylvania, eastern: Gray, C., I.
United States, resources: Carr, M. E. S.
Wisconsin, Ironwood iron-formation, origin: Huber, N. K.

Use of index.—In general, if the paper sought deals with a specific mineral resource from a specific State, province, or country, it should be found under the following entries: (a) the heading for the specific geographic area under the subheading Economic geology, and (b) the mineral resource heading with an entry under the specific geographic area. For example, a paper on iron deposits in Minnesota might be found under:

MINNESOTA.

Economic geology.
Iron, Cook County, titaniferous magnetite: Grout, F. F.

IRON.

Minnesota, Cook County, titaniferous magnetite: Grout, F. F.

However, if a paper discusses iron in a particular State but also covers deposits in several other States, there will be no entry under the specific States discussed but only under the United States. Thus the index would read in such a case:

UNITED STATES.

Economic geology.
Iron, resources: Carr, M. E. S.

IRON.

United States, resources: Carr, M. E. S.

In other words, papers covering the larger geographic area, of which the area of interest is a part, should also be examined for possible supplementary information on the particular area under study.

In the case of subjects and other special types of entry, a similar situation holds true. Most mineral names will not be indexed with an individual heading but will be found under the headings Mineral descriptions or Mineralogy, or under the Mineralogy subheading for the geographic area in which they are found. In general, items will be included under the larger, more general group heading rather than under an individual entry: that is, a special oil field, under Oil and gas fields; general papers on aeromagnetic surveys under Geophysics or Technique, Geophysical; Ordovician trilobites under Trilobita; etc.
SERIALS

The following list gives the abbreviated title of periodicals and serials most commonly cited in this bibliography. Included also are their complete titles, as used in library catalogs and the "Union List of Serials," and the place of publication. Periodicals cited only infrequently have been omitted from this list, but in the case of those published in foreign countries, the place of publication has been included in the citation in the bibliography proper. Guidebooks, proceedings, and related types of literature prepared for special conferences, congresses, and symposiums are not listed here as serials but are cited in the bibliography proper under the name of the editor or of the issuing society.

Am. Scientist—American Scientist. New Haven, Conn.
Arctic—Arctic. Montreal, Quebec.


Asoc. Mexicana Geólogos Petroleros Bol.—Asociación Mexicana de Geólogos Petroleros Boletín. México, D.F.


Brigham Young Univ. Research Studies Geology Ser.—Brigham Young University Research Studies Geology Series. Provo, Utah.


Cahiers Géographie Québec—Cahiers de Géographie de Québec. Quebec, Quebec.


Canadian Alpine Jour.—Canadian Alpine Journal. Banff, Alberta.

Canadian Geographer. Manotick, Ontario.

Canadian Inst. Mining and Metallurgy Trans.—Canadian Institute of Mining and Metallurgy Transactions. Montreal, Quebec.


Canadian Mineralologist. Ottawa.

Canadian Oil and Gas Industries. Gardenvale, Quebec.

Clíenca. México, D.F.


Compass—The Compass. Provo, Utah.


Desert Mag.—Desert Magazine. Palm Desert, Calif.


Earth Science. Chicago, Ill.

Ecology. Durham, N.C.

Econ. Geology—Economic Geology. Urbana, Ill.


<table>
<thead>
<tr>
<th>Serial Title</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Field &amp; Lab.—Field &amp; Laboratory. Dallas, Texas.</td>
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<td>Gainesville, Fla.</td>
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<td>Fla. Geol. Survey Rept. Inv.; Special Pub.—</td>
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<td>Florida Geological Survey Report of</td>
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<td>Investigations; Special Publication. Tallahassee,</td>
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<td>Fla. State Mus., Biol. Sci. Bull.—Florida State</td>
<td>Museum, Biological Sciences</td>
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<td>Ga. Acad. Sci. Bull.—Georgia Academy of Science</td>
<td>Bulletin. Emory University,</td>
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<td>Gems and Gemology. Los Angeles, Calif.</td>
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<td>Toronto, Ontario.</td>
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<td>Histories; Proc.—Geological Society of America</td>
<td>Engineering Geology Case</td>
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<td>Bulletin; Proceedings.</td>
<td>Histories; Proceedings.</td>
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<td>New York.</td>
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<td>Geologram. Bismarck, N. Dak.</td>
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<td>Geophys. Soc. Tulsa Proc.—Geophysical Society</td>
<td>of Tulsa Proceedings. Tulsa,</td>
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<td>Geophysics. Tulsa, Okla.</td>
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<td>Geotimes. Washington, D.C.</td>
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<td>Ghana. Charlottenlund, Denmark.</td>
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<td>Grønland. Charlottenlund, Denmark.</td>
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<td>undersøgelse Bulletin; Miscellaneous Papers.</td>
<td>Undersøgelse Bulletin;</td>
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<td>Copenhagen.</td>
<td>Miscellaneous Papers.</td>
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<td>Gulf Coast Assoc. Geol. Soc. Trans.—Gulf Coast</td>
<td>Association of Geological</td>
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<td>Cambrige, Mass.</td>
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<td>Herpetologica. San Diego, Calif.</td>
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<td>Houston Geol. Soc. Bull.—Houston Geological</td>
<td>Society Bulletin. Houston,</td>
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<td>Pamphlet. Moscow, Idaho.</td>
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<td>Ill. State Water Survey Cooperative Ground-Water</td>
<td>Survey Circular; Educational</td>
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<td>Illinois State Geological Survey Circular;</td>
<td>Urbana, Ill.</td>
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<td>Indiana Geological Survey Circular; Report of</td>
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<td>Report of Progress. Bloomington, Ind.</td>
<td>Circular; Report of</td>
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<tr>
<td>Inst. Marine Sci. Pub.—Institute of Marine</td>
<td></td>
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<tr>
<td>Science Publications. Port Aransas, Texas.</td>
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<tr>
<td>Internat. Geod. Geophys. Union Assoc. Seismology</td>
<td>International Geodetic and</td>
</tr>
<tr>
<td>Sér. A, Travaux Scientifiques. Toulouse, France.</td>
<td>Geophysical Union, Association</td>
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<tr>
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<td>of Seismology, Série A,</td>
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<tr>
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<td>Iowa State Univ. Sci. and Technology, Eng. Expt.</td>
<td>Proceedings. Des Moines,</td>
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<td>bulletin. Ames, Iowa.</td>
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<td>Jamaica Geol. Survey Pub.—Jamaica Geological</td>
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Mexico Univ. Nac. Inst. Geologia Bol.; Paleontologia Mexicana—Mexico Universidad Nacional, Instituto de Geologia Boletın; Paleontologia Mexicana. Mexico, D.F.
Min. Eng.—Mining Engineering. New York.
Mineralogist.—The Mineralogist. Portland, Oreg.
Mines Mag.—Mines Magazine. Denver, Colo.
SERIALS

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Circ. Circular

Geol. Quadrangle Map Geologic Quadrangle Map

Geophys. Inv. Map Geophysical Investigations Map

Index Geol. Mapping U.S. Index to Geologic Mapping in the United States

Mineral Inv. Field Studies Map Mineral Investigations Field Studies Map

Misc. Geol. Inv. Map Miscellaneous Geologic Investigations Map

Oil and Gas Inv. Chart Oil and Gas Investigations Chart

Oil and Gas Inv. Map Oil and Gas Investigations Map

Prof. Paper Professional Paper

Water-Supply Paper Water-Supply Paper

<table>
<thead>
<tr>
<th>Serials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Miner. — Vancouver, British Columbia.</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
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[A double dagger (†) indicates material produced by means other than ordinary printing. Superscript letters are used to identify different authors with the same name: as Jones, Robert William and Jones, Robert William. An analytical citation in which the author or editor name follows in, refers the reader to the author or editor citation to be found in this volume, where full title and place of publication are given; but if the title follows in, full information is contained within the citation.]

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Baird, David McCurdy.  See also Canada G. S., 22.


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Wasley, William W.  See Haury, E. W.

Wassall, Harry William, 3d.

Wasserburg, Gerald J.  See also Kennedy, G. C., 3.

Wasson, Paul A.  See Helsing, L. F.

Waters, Aaron Clement.  See Gilluly, J.


Watkins, Jackie Lloyd.

Watkins, Joel S., Jr.

Watson, Elaine.  See Boardman, L., 2.

Watson, John R., Jr.  See Nichols, Donald R., 1.

Watson, Kenneth DePencier.

Wayland, John Rex.  See also Dickinson, R.

Wayman, Cooper H.

Wayne, William John.  See also Minard, J. P.

Weaver, Charles Edward.  See also Goldich, S. S., 1.

Weaver, John Dodsworth.
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Webster, G. R. See Theisen, A. A., 1.

Weddle, James Reid. See Park, W. H.

Weege, Randall J. See Bailey, S. W.; Sun. M.-S., 1.

Weeks, Alice Dowse. See also Truesdell, A. H.

Weeks, Lewis George.

Weeks, Ludlow Jackson.

Weertman, J.

Wehrenberg, John Patteson. See Geol. Soc. America Rocky Mtn. Sec.; Hayden, R. J.
Weidick, Anker.

Weidie, Alfred E.

Weimer, B. R.

Weimer, Robert Jay. See also Rocky Mtn. Assoc. Geologists.

Weintraub, Judy.

Weir, Charles Edward. See Lippincott, E. R.

Weir, James Elbert, Jr. See N. Mex. Geol. Soc.

Weis, Paul Lester.

Weiss, L. E.

Welby, Charles William.

Welch, Stewart William.

Weld, Betsy Anne.

Welder, Frank A.

Weller, James Marvin. See also Harrington, H. J.
Welles, Samuel Paul. See Fox, W.

Wells, Francis Gerritt. See also Imlay, R. W., 5.

Wells, John David. See also Harrison, J. E.

Wells, John West.

Wendorf, Fred.

Wengerd, Sherman Alexander.


Wentorf, Robert H., Jr.

Wentworth, Ruth H.

Werner, Marian A.

Wesselman, John B. See Garza, S.

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Wetherill, George W. See also Wasserburg, G. J.
Wetmore, Alexander.

Wetterhall, Walter Steers.

Weyl, Peter K.

Weyl, Richard.

Wheatley, George York. See Braun, T. H.

Wheeler, Harry Eugene.

Wheeler, John Oliver.

Wheeler, Richard P. See McNutt, O. H.

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Wherry, Edgar Theodore. See also McLaughlin, D. B.

Whitaker, Thomas N. See Lewis, D. R.

Whitaker, W. W.

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White, George Willard. *See* Droste, J. B., 3; Shepps, V. C., 2.

White, Joe Lloyd. *See also* Bailey, G. W.


White, John Francis.


White, Malcolm Lunt. *See* Tennant, C. B.

White, Sidney Edward.


White, Theodore Elmer.


White, W. R. H. *See* Willmore, P. L.

White, Walter Stanley. *See also* Murthy, V. R., 1.


White, William F[!A]lexander.


White, William Arthur.


White, William B.


White, William Harrison.


Whited, Charles Lewis.

308 BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959


Whitham, Kenneth.

Whiting, Lester Leroy.

Whitlow, Jesse William. See Overstreet, W. C.

Whitmore, Frank Clifford, Jr.

Whitten, Charles Arthur. See Cloud, W. K.

Whitten, E. H. Timothy.

Whittington, Harry Blackmore. See also Harrington, H. J.

Wickersheim, Kenneth A.

Widess, Moses B.

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Wiebelt, Frank Joseph.

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Wier, Charles Eugene.

Wier, Kenneth Leland. See James, H. L., 1.

Wiesnet, Donald Richard. See Postel, A. W.

Wiggins, James Wolston.

Wilcox, Floyd B.

Wilcox, Ray Everett.

Wiles, William W.

Wilgus, Alva Curtis. See Hardy, F.

Wilkerson, Albert Samuel.

Wilkie, Lorna C. See Sweet, W. C., 2.

Wilkinson, L. See Radforth, N. W., 2.

Wilkinson, William Donald.
Willard, Bradford. See also McLaughlin, D. B.

Willard, Max Emery. See also Weber, R. H., 2, 3.

Willard, Robert Jackson.

Wille, Alvaro.

Williams, David T.

Williams, Eugene Griffin. See also Dutcher, R. R.

Williams, George Arthur. See Stewart, J. H., 1.

Williams, Harold L.

Williams, Howel. See Thomson, J. E., 2.

Williams, James Frederick.

Williams, James Steele, 1896–1957. See McKelvey, V. E., 1.

Williams, James Stewart. See Hardy, C. T.

Williams, John Bernard Edgar. See also Proctor, G. R.; Versey, H. R., 2.
Williams, John Ropes.

Williams, Milton. See Whitaker, W. W.


Williams, R. J. P.

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Williamson, Donald Robert.

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Williamson, W. R. M.

Willis, Ronald Porter.


Willmore, P. L.

Wilmarth, Verl Richard. See also Warner, L. A.
Wilmuth, Benton McMillian, Jr.

Wilpolt, Ralph Henry.

Wilson, Basil W. See Fisher, R. L.

Wilson, Ben Hur.

Wilson, Charles R.

Wilson, Charles William, Jr.

Wilson, Clark L.

Wilson, Derek William Raymond. See Raasch, G. O.

Wilson, Druid.


Wilson, Eldred Dewey. See also Butler, B. S.

Wilson, Ernest Elmer. See Vaughn, W. W., 1, 2.

Wilson, George Miller. See Ill. Geol. Soc.

Wilson, Harry David Bruce.

Wilson, Harry Dennis, Jr.
Wilson, James A.

Wilson, James Lee.

Wilson, James Tinley.

Wilson, John Andrew.

Wilson, John Tuzo. See also Jacobs, J. A., 1.
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Wilson, Stanley DeWolf.
Wilson, Stephen Ray.

Wilson, William Harold. See also Osterwald, F. W., 1.

Wilson, William Jay. See Roberts, E. D.

Wilson, William Westfall. See Sawatzky, H. B.

Winchell, Horace.

Winchell, Richard Lee.

Winchester, John W.

Winder, Charles Gordon.

Wing, Lawrence Alvin.

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Winslow, Allen George.

Winslow, Marcia Ring. See also Deul, M.

Wise, Donald Underkofler. See also Canada G. S., 28.

Wise, William S.
Wiseman, John Dugdale Holt. *See also Yalkovsky, R.*, 1.

Wisler, Chester Owen. *See Ferris, J. G.*

Wisser, Edward Hollister.

Witkind, Irving Jerome. *See also Smith, J. F.*, Jr.


Wojciechowski, Walter Anthony. *See Clayton, N.*

Wolf, Karl H.

Wolfe, Caleb Wroe. *See also Fletcher, Gustav L.*

Wolff, Gunther A.

Wolff, Roger G. *See Ritter, J. R.*

Wolleben, James A. *See Murray, G. E.*, 2; Weidie, A. E.


Wolman, Markley Gordon.

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Wong, H. D. *See Tipton, M. J.*, 1, 2.

Wood, Albert Elmer. *See also McGrew, P. O.*
Wood, Elizabeth Armstrong.

Wood, George V.

Wood, Gordon Harry, Jr. See also Arndt, H. H.


Wood, John A., Jr.

Wood, Leonard Alton. See Winslow, A. G.

Wood, Noel H.

Wood, Paul Alan.

Wood, Perry Rowley.

Wood, R. D.

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Woodard, A. E. See Cantrell, R. B.

Woodburne, Michael Osgood.

Woodford, Alfred Oswald. See also Gilluly, J.
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Woods, John Price.

Woods, Kenneth Brady. See Pryer, R. W. J.

Woodward, Herbert Preston. See also Appalachian Geol. Soc.

Woodward, Lee A.

Woolfenden, Glen E.

Woollard, George Prior. See also Thiel, E.

Woolsey, R. D. See Nagy, B. S., 2.

Woolson, John Robert.

Worden, John A.

Workman, Lewis Edwin.
Wornardt, Walter W., Jr.  

Worthing, Helen Witherbee. See Jaffe, H. W.

Worzel, John Lamar. See also Talwani, M., 1-3.

Wourms, John P., Jr. See Nagy, B. S., 1.

Wrigglesworth, L. A. See Brown, C. E. G.

Wright, A. C. S.

Wright, Edward P. See Ehlers, G. M., 2.

Wright, Grant MacLachlan. See Canada G. S., 64.

Wright, Harold Douglas. See Shulhof, W. P.

Wright, Herbert Edgar, Jr. See also Arneman, H. F.

Wright, James Clifton. See White, W. S.

Wright, John Kirtland.

Wright, Lauren Albert. See Jahns, R. H., 3; Wasserburg, G. J.

Wright, Martin. See Morgan, J. P.

Wright, Michael D.

Wrucke, Chester Theodore. See Luedke, E. M.

Wu, T. H.

Wuerker, Rudolph G.
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Wurden, Frederick H.
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Yalkovsky, Ralph.

Yardley, Donald Homer.

Yates, Robert Gertz.
Ybarra, R. A.

Yeckl, George Nelson. See LeRoy, W. H.

Yehle, Lynn Alois. See Nichols, Donald R., 2.

Yerkes, Robert F. See Durham, D. L.

Yochelson, Ellis Leon. See Knight, J. B.

Yoder, E. J. See Shurig, D. G.

Yoder, Hatten Schuyler, Jr. See also Kullerud, G., 2; Schreyer, W. F.

Youmans, Arthur H.
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Young, Frank N.

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Zaborski, Bogdan.

Zacher, E. G. See Steinbrugge, K. V.; Tocher, D., 4.


Zalesny, Emil R.

Zamora M., Salvador. See Esquivel Morales, J.

Zandle, Gerald L. See Bromery, R. W., 1, 2, 4-9, 12, 13, 15-19.

Zans, Verners Aleksandrs. See also Eyles, V. A.

Zeigler, John M.

Zeitner, June Culp.

Zeller, Edward Jacob.
Zeller, Howard Davis. *See also* Denson, N.M., 2; Gill, J. R., 1.

Zeller, Robert Allen, Jr.

Zen, E-an. *See also* New England Intercollegiate Geol. Conf.

Zenkovitch, V. P. *See* Fisher, R. L.


Ziebell, W. G. *See* Wanless, H. R., 1.


Zietz, Isidore. *See also* Mabey, D. R.; Peselnick, L.

Zimmerman, C. W. *See* Youmans, A. H.

Zimmerman, James A.

Zimmerman, James R. *See* Tasch, P., 2.

Zoltai, Tibor.

Zoppis Bracci, Luigi.

Zulberti, John L.

Zumberge, James Herbert.

Zussman, Jack. See Brindley, G. W., 1.

Zweifel, Hans.

Zwicker, Walter Karl. See Faulring, G. M.

Anonymous.
INDEX

[The numbers refer to entries in the bibliography]

<table>
<thead>
<tr>
<th>ADDRESSES</th>
<th>ALABAMA—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geology teacher, problems: Behre, C. H., Jr., 2.</td>
<td>Historical geology—Continued</td>
</tr>
<tr>
<td>Mineralogy and the field geologist: Stevenson, J. S., 1.</td>
<td>Mineralogy.</td>
</tr>
<tr>
<td>Oil is found with ideas: Dickey, P. A., 1.</td>
<td>Pyrite and marcasite, Coastal Plain, origin: Pallister, H. D.</td>
</tr>
<tr>
<td>Paleotectonic history, western North America: Laudon, L. R.</td>
<td>Petrology.</td>
</tr>
<tr>
<td>Petroleum geology, future: Conselman, F. B., 2.</td>
<td>Chattahoochee River, stream sediments: Cazeau, C. J.</td>
</tr>
<tr>
<td>Quebec, St. Lawrence Lowlands, Trenton group, Ordovician: Clark, T. H.</td>
<td>Chattanooga shale: Glover, L., 3d.</td>
</tr>
<tr>
<td><strong>AERIAL PHOTOGRAPHS. See also Photogeology.</strong></td>
<td>ALASKA. See also Arctic America.</td>
</tr>
<tr>
<td><strong>AEROMAGNETIC MAPS. See Maps, Aeromagnetic.</strong></td>
<td>West-central: Dempsey, W. J.</td>
</tr>
<tr>
<td><strong>AGRICULTURAL MINERALS. See Limestone; Phosphate.</strong></td>
<td>Arctic bibliography: Arctic Inst. North America.</td>
</tr>
<tr>
<td>ALABAMA.</td>
<td>Bibliography, petroleum and oil shale: Miller, D. J.</td>
</tr>
<tr>
<td>Bibliography, ground water: Powell, W. J.</td>
<td>Engineering geology, Big Delta and Fairbanks areas, silts: Lindholm, G. F.</td>
</tr>
<tr>
<td><strong>Economic geology.</strong></td>
<td>Cape Thompson area, nuclear excavation site: Kachadoorian, R.</td>
</tr>
<tr>
<td>Oil and gas, Black Warrior basin: Welch, S. W.</td>
<td>Matanuska Valley silts cf. Iowa loess: Stump, R. W.</td>
</tr>
<tr>
<td>Phosphate, Limestone County: Hastings, E. L.</td>
<td>Point Barrow area, sediments: Carlson, P. R.</td>
</tr>
<tr>
<td>Ground water.</td>
<td>Exploration: Belcher, D. J., 2.</td>
</tr>
<tr>
<td>Bibliography: Powell, W. J.</td>
<td>Geochemical exploration, tungsten, fusion method: Mukherjee, N. R.</td>
</tr>
<tr>
<td><strong>Historical geology.</strong></td>
<td>Northern: Woolson, J. R.</td>
</tr>
<tr>
<td>Black Warrior basin, northern, Devonian-Pennsylvanian: Welch, S. W.</td>
<td>Gravity surveys: Thiel, E.</td>
</tr>
</tbody>
</table>
Alaska—Continued

Areas described.

Glacier Bay, Gulkana Inlet area: Seltz, J. F.
Matanuska coal field, Little Susitna district: Barnes, F. F., 1.
Northern: Woolson, J. R.

Economic geology.

Bloating shale, Kings River-Sutton and Lawing areas: Eckhart, R. A.
Cement materials, Windy Creek area: Moxham, R. M.
Coal, Corwin formation, Cretaceous, northern: Sable, E. G.
Kenai field, Homer district: Barnes, F. F., 2.
Reserves: Barnes, F. F., 1.
Construction materials, Anchorage area: Miller, R. D., 1.
Glacier Bay, Reid Inlet area: Rossman, D. L., 1.
Mercury, Red Devil mine, structural control: Berg, H. C.
Oil and gas, possibilities, Arctic slope: Burnside, R. J., 2.
Possibilities, central and southern: Carey, J. B.
Northern: Woolson, J. R.
Test wells, Sentinel Hill and Fish Creek areas: Robinson, F. M., 2.
Simpson area: Robinson, F. M., 3.
Square Lake and Wolf Creek areas: Collins, F. R.
Titaluk and Knifeblade areas: Robinson, F. M., 1.
Petroleum, possible provinces: Miller, D. J.
Tin, Cape Mtn. placer district: Mulligan, J. J., 2.
Reconnaissance: Matzko, J. J., 1.

Geologic maps—Continued

Adak Island, southern, and Kagalaska Island, Cenozoic: Fraser, G. D., 2.
Anchorage area, Quaternary: Miller, R. D., 1.
Arctic slope, foothills, northern, Cretaceous: Detterman, R. L.
Big Delta quadrangle, western, Quaternary: Williams, J. Ropes, 2.
Cook Inlet area: Ayres, M. G.
Fairbanks (D-1) quadrangle, Cenozoic: Williams, J. Ropes, 1.
Franklin Mts., Quaternary glaciation: Holmes, G. W., 1.
Glaciers, post-Wisconsin changes, southeastern: Goldthwait, R. P., 2.
Imuruk Lake, Quaternary: Hopkins, D. M., 2.
ALASKA—Continued

Historical geology—Continued

Jurassic-Quaternary: Miller, D. J.
Kenai formation, Eocene, Kenai coal field, Homer district: Barnes, F. F., 2.
Little Sitkin Island, Cenozoic: Snyder, G. L.
McCall Valley, Romanzof Mts., Paleozoic and Quaternary: Keeler, C. M.
Mississippian-Jurassic, northern: Patton, W. W., Jr., 1.
Mt. Katmai area, Jurassic-Tertiary: Keller, A. S.
Pacific coast, central and western, Pleistocene glaciation: Karlstrom, T. N. V., 1.
Paleozoic, correlations: Dutro, J. T., Jr.
Semisopochnoi Island, late Cenozoic: Coats, R. R., 2.
Sentinel Hill and Fish Creek areas, Cretaceous, test wells: Robinson, F. M., 2.
Shakotlk and lower Yukon Rivers, Cretaceous: Patton, W. W., Jr., 2.
Simpson area, pre-Mesozoic-Cretaceous, test wells: Robinson, F. M., 3.
Square Lake and Wolf Creek areas, Cretaceous, test wells: Collins, F. R.
Titaluk and Knifeblade areas, Cretaceous, test wells: Robinson, F. M., 1.
Trinity Islands, Cretaceous-Recent: Kirchner, C. E.
Umnak-Bogoslof Islands area, Cenozoic volcanism: Byers, F. M., Jr.
Windy Creek area, pre-Devonian-Devo­
nian, Triassic-Cretaceous: Moxham, R. M.

Mineralogy.
Phosphorite, Lisburne group, Mississippian, northern: Matzko, J. J., 2.

Paleontology.
Delarof and westernmost Andreanof Is­
lands, Cenozoic, list: Fraser, G. D., 1.
Echinoid, Scutellaster oregonensis, Pliocene: Durham, J. W., 3.
Ostracodes, Gulkana formation, Quater­
nary: Swain, F. M., Jr., 3.

ALASKA—Continued

Paleontology—Continued

Plants, Johnson River area, Tertiary: Benninghoff, W. S.
Seward Peninsula and Johnson River area, Pliocene(?): Hopkins, D. M., 3.
Pleistocene, biota refuges: Karlstrom, T. N. V., 1.
Spores, caytonialean, Jurassic-Cretaceous: Gray, J.
Square Lake and Wolf Creek areas, Cretaceous, test wells, micro­fauna: Collins, F. R.
Titaluk and Knifeblade areas, Cretaceous, test wells, microfauna: Robinson, F. M., 1.

Petrology.
Adak Island, southern, and Kagalaska Island, igneous rocks: Fraser, G. D., 2.
Barrow area, sediments, shallow-water marine: Werner, M. A.
Cape Mtn. tin-placer district: Mulligan, J. J., 2.
Continental shelf, Arctic, sediments: Shumway, G.
Delarof and westernmost Andreanof Islands, igneous rocks: Fraser, G. D., 1.
Fairbanks area, basalt: Pévé, T. L.
Glacier Bay, Geikie Inlet area: Seitz, J. F.
Reid Inlet area: Rossman, D. L., 1.
Little Sitkin Island, lava flows: Snyder, G. L.
Matanuska formation shales, Kings River-Sutton areas: Eckhart, R. A.
Point Barrow area, sediments, analyses: Carlson, P. R.
Prince of Wales Island, Ross-Adams uranium-thorium deposits: Mac­
Kerett, E. M., Jr., 1.
Semisopochnoi Island, volcanic rocks: Coats, R. R., 2.
Silt, Big Delta and Fairbanks areas: Lindholm, G. F.
Matanuska Valley: Stump, R. W.
Umnak-Bogoslof Islands, igneous rocks: Byers, F. M., Jr.
Union Bay area, ultramafic intrusive complex, petrography and origin: Ruckmick, J. C.

Physical geology.
Adak Island, southern, and Kagalaska Island, volcanism and fracture patterns: Fraser, G. D., 2.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

ALASKA—Continued
Physical geology—Continued
Alaska Range, Johnson River-Tok area, Pleistocene glaciation: Holmes, G. W., 2.
Rock glaciers: Wahrhaftig, C. A.
Aleutian arc and southeastern coast, fault systems: St. Amand, P.
Arctic coastal plain, structural control of oriented lakes: Carson, C. E.
Arctic slope, foothills, northern: Detterman, R. L.
Foothills, southern: Patton, W. W., Jr., 3.
Bering-Chukchi platform: Hopkins, D. M., 1.
Candle quadrangle: Cass, J. T., 2.
Cook Inlet area: Ayres, M. G.; Zietz, I., 2.
Copper River basin, mud volcanoes: Nicholls, Donald R., 2.
Delarof and westernmost Andreanof Islands: Fraser, G. D., 1.
Earthquake, Fairweather Range, 7/10/58: Tocher, D., 3.
Ltituya Bay: Powell, B. W.
Southeastern, 7/9–10/58: Jordan, J. N.; Mann, V. I.
Franklin Mts., Quaternary glaciation: Holmes, G. W., 1.
Garelol Island, volcanism: Coats, R. R., 1.
Glaciers, post-Wisconsin changes, southeastern: Goldthwait, R. P., 2.
Kenai coal field, Homer district: Barnes, F. P., 2.
Lemon Creek Glacier, surficial movement: Wilson, C. R.
Little Sitkin Island, volcanic activity: Snyder, G. L.
Melozitna quadrangle: Cass, J. T., 5.
Mt. Katmai area: Keller, A. S.
Norton Bay quadrangle: Cass, J. T., 1.
Nulato quadrangle: Cass, J. T., 6.
Red Devil mercury mine, faults and dikes: Berg, H. C.
Ruby quadrangle: Cass, J. T., 4.
Semisopochnoi Island: Coats, R. R., 2.

ALASKA—Continued
Physical geology—Continued
Shaktolik and lower Yukon Rivers, Cre­taceous: Patton, W. W., Jr., 2.
Simpson area: Robinson, F. M., 3.
Tectonic elements: Miller, D. J.
Tectonic framework: Gyr, G.
Tiglukpuk Creek and upper Kiruktagnik River areas: Patton, W. W., Jr., 1.
Tittluk and Knifeblade areas: Robinson, F. M., 1.
Trinity Islands: Kirschner, C. E.
Umnak-Bogoslof Islands area, Cenozoic volcanism: Byers, F. M., Jr.
Unalakleet quadrangle: Cass, J. T., 3.
Volcanic activity and ash falls: Wilcox, Ray E., 1.
Physiographic geology.
Adak Island, southern, and Kagalaska Island: Fraser, G. D., 2.
Alaska Range, Johnson River-Tok area, Pleistocene glaciation: Holmes, G. W., 2.
Rock glaciers: Wahrhaftig, C. A.
Anchorage area: Miller, R. D., 1.
Big Delta area: Lindholm, G. F.
Chena area, permafrost: Williams, J. Ropes, 3.
Chukchi shelf, Ogorotuk submarine valley area: Scholl, D. W., 2.
Crustal-warping evidences, northwestern, and Bering-Chukchi platform: Hopkins, D. M., 1.
Delarof and westernmost Andreanof Islands: Fraser, G. D., 1.
Earthquake, 7/9–10/58, southeastern: Jordan, J. N.
Fairbanks (D-1) quadrangle: Williams, J. Ropes, 1.
Gleenallen area, permafrost, engineering studies: Nicholls, Donald R., 1.
Lemon Creek Glacier, budget study: LaChapelle, R. E., 1.
McCall Glacier, Romanzof Mts.: Sater, J. E.
McCall Valley, Romanzof Mts., glacial: Keeler, C. M.
Matanuska Valley: Stump, R. W.
Mt. Katmai area: Keller, A. S.
Oriented lakes, origin, northern: Carson, C. E.; Rex, R. W.
Point Barrow area: Carlson, P. R.
St. Lawrence Island, cuspate spits: Fisher, R. L.
Semisopochnoi Island, volcanic and glacial: Coats, R. R., 2.

ALBERTA
Aeromagnetic map, Lethbridge to British Columbia, adjacent to 49th parallel: Canada G. S., 14.
Aeromagnetic survey, northeastern: Garland, G. D., 1.
ALBERTA—Continued

Excursions, Drumheller area: Chamney, T. P.
Moose Mtn. area: Bossort, D. O.
Geochemical study, petroleum relocation, trace-metal evidence: Hodgson, G. W., 1.
Geophysical investigations, Athabasca Glacier, thickness and ice properties: Keller, G. V., 6.
Precambrian, central and foothills areas: Garland, G. D., 2.
Gravity surveys, North Sturgeon Lake oil field, reef structures: Stackler, W. F.

Northeastern: Myers, W. H., 1.
Guidebook, Cadomin area: Edmonton Geol. Soc.

Oxygen-isotope variations, Saskatchewan Glacier: Epstein, S., 2.
Resistivity study, Woodbend group, Devonian, interreef deposits: McCrossan, R. G.
Seismic investigation, Mississippian surface, plains: Blundun, G. J.
Seismic profile, crustal thickness, plains area, parallel to Rocky Mts.: Richards, T. C., 1.

Economic geology.
Cadomin area: Edmonton Geol. Soc.
Coal, Wabamun Lake district: Pearson, G. R.
Industrial minerals: Govett, G. J. S.
Iron, Clear Hills deposits: Kidd, D. J.
Peace River area: Kidd, D. J.
McMurray area, possibilities: Carrigy, M. A., 1.
Natural gas, East Calgary field: Mason, A. D. M.
Provost field: Renaud, J. E.
Oil and gas, Edmonton reef chain, stratigraphic traps: Herbaly, E. L.
Fields and discoveries, map: Canada G. S., 1.
Mississippian formations, south-central: Fenner, D. G.
Rocky Mts., foothills: Fox, F. G.
Wlnborne field: Brennan, P. F.
Petroleum, Athabasca sands: Ellison, A. H.
Bellshill Lake field: Rudolph, J. C.
Bellshill Lake-Thompson Lake fields: Edie, R. W., 2.
Drumheller fields: Roop, M. R.
Swan Hills pool: Hemphill, C. R.
Wayne field: Erickson, R. H.
Sulfur, Panther dome area, hydrogen sulfide: Hunt, C. W., 2.

INDEX 329

ALBERTA—Continued

Geologic maps.
Cadomin area: Edmonton Geol. Soc.

Carbondale River area: Canada G. S., 32.
Fort Macleod area, surficial: Canada G. S., 21.
Front ranges, Banff area: Usher, J. L.
McMurray area: Carrigy, M. A., 1.
Moose Mtn. area: Dahlstrom, C. D. A.
Northwestern, sketch: Kidd, D. J.
Sturgeon Lake area, surficial: Henderson, Eric P., 2.

Ground water.
Banff area, thermal springs: Haltes, T. B., 1.

Historical geology.
Alberta group, Cretaceous, foothills: Stott, D. F.
Blairmore group, Cretaceous, central and southern: Workman, L. E.
Bow Valley area, Carboniferous, diachronism, magnafacies: Drummond, J. M.
Cadomin area: Edmonton Geol. Soc.
Cambrian, Middle-Upper, southern plains: Hees, H. van.
Carbondale River area, Precambrian-Cretaceous: Canada G. S., 32.
Cardium formation, Cretaceous, South Ram River area, measured section: Magdich, F. S.
Clear Hill iron deposits, Cretaceous: Kidd, D. J.

Cretaceous, Lower, southern: Glaister, R. P.
Cretaceous-Cenozoic, northwestern: Bayrock, L. A.
Devonian, Middle-Upper unconformity, Drumheller area to Rocky Mtn. front: Storey, T. P., 2.
Reefs, north-central: Clark, A.
Devonian-Mississippian, cyclic sedimentation, southern: Illing, L. V.
Drumheller area, Upper Devonian: Kirker, W. P.
Elk Point basin, Cambrian-Devonian: Belyea, H. R.
Fernie group, Jurassic, glauconitic unit, Jasper National Park: Hawryssko, J. W.

Oxfordian: Frebold, H. W. L., 2.
Flathead North area: Price, R. A.
Front ranges, Banff area, Cambrian-Jurassic: Usher, J. L.
Glacial lakes, northern: Taylor, R. S.
Kootenay formation, Jurassic, type section, Grassy Mt.: Norris, D. K.
McMurray area, Precambrian, Devonian, Cretaceous: Carrigy, M. A., 1.

Miette area, Fernie group, Jurassic: Carrigy, M. A., 2.

Miette area, Fernie group, Jurassic: Frebold, H. W. L., 2.
ALBERTA—Continued

Historical geology—Continued

Mississippian, south-central: Penner, D. G.
Nisku formation, Devonian: Har­greaves, G. E.
Panther dome area: Hunt, C. W., 1, 2.
Peace River area, Triassic: Hunt, A. D.
Upper Mississippian-Permian, nomen­clature and type sections: Halbertsma, H. L.
Precambrian: Burwash, R. A. M.
Rocky Mts., foothills: Fox, F. G.
Rundle group, Mississippian, Crowns­nest Pass section, correlation of fault slices: Nelson, S. J., 1.
Shunda formation, Mississippian, cor­relation with Banff formation: Nelson, S. J., 6.
Swan Hills member of Beaverhill Lake forma­tion, Devonian, type section: Fong, G.
Viking formation, Cretaceous, southern: Roessingh, H. K.
Wabamun Lake district, Cretaceous-­Tertiary: Pearson, G. R.
Winterburn-Wabamun groups, Devonian, sedimentation: Sutterlin, P. G.

Mineralogy.
Clay minerals, Bearpaw shale, marine­nonmarine differences: Byrne, P. J. S.
Garnet, etched, Cardium formation: McMullen, R. M.
Heavy minerals, Athabasca sandstone: Gravenor, C. P., 2.
Soils, postglacial lacustrine: Rice, H. M.
Tourmaline, Athabasca sandstone, guide mineral: Gravenor, C. P., 2.

Paleontology.
Algae, Devonian: Konishi, K., 1.
Ammonoids, Fernie group, Jurassic, Ox­fordian: Frebold, H. W. L., 2.
Beaverhill Lake formation, Devonian, lists: Fong, G.
Cephalopods, neponic, Exshaw forma­tion, Mississippian: Schinde­wolf, O. H.
Dinosaur, ceratopsian, Oldman forma­tion, Cretaceous: Langston, W., Jr., 2.
Fernie group, Jurassic, Oxfordian: Fre­bold, H. W. L., 2.
Fungal filaments, Flume formation, top limestone, Devonian: Fry, W. L., 1.
McMurray area, Devonian: Carrigy, M. A., 1.
Vertebrates, Devonian-Quaternary: Langston, W., Jr., 1.

ALBERTA—Continued

Petrology.
Athabasca oil sand, organic com­ponents: Nagy, B. S., 2.
Bearpaw formation, Cretaceous, clay minerals in shale, marine­nonmarine differences: Byrne, P. J. S.
Blairmore group, Cretaceous, central and southern: Workman, L. E.
Cambrian, Middle-Upper, southern plains: Hees, H. van.
Cretaceous, Lower, southern: Glauster, R. P.
Devonian-Mississippian, southern: Fong, G.
Drumheller area, Upper Devonian facies: Kirker, W. P.
Elkton member of Turner Valley forma­tion, facies and porosity: Thomas, G. E.
Fernie group, Jurassic, Oxfordian: Fre­bold, H. W. L., 2.
Ireton formation, Devonian, interreef deposits, subsurface: McCrossan, R. G.
McMurray area: Carrigy, M. A., 1.
McMurray sands, Cretaceous(?), grain­size analysis: Carrigy, M. A., 2.
Mississippian, facies, south-central: Penner, D. G.
Moose Mtn. area, Mississippian: Illing, L. V.
Nisku formation, Devonian, facies: Har­greaves, G. E.
Peace River area, Triassic: Hunt, A. D.
Precambrian, subsurface, central and foothills areas: Garland, G. D., 2.
Subsurface, northeastern: Garland, G. D., 1.
South Ram River area, Cardium forma­tion, measured section: Mag­dich, F. S.
Swan Hills member, Devonian, porosity: Beard, D. E.
Viking formation, Cretaceous, southern: Roessingh, H. K.
Wabamun group, Devonian, facies, west­central: Andrichuk, J. M., 2.

Physical geology.
Alberta shelf, southern: Burwash, R. A. M.
Cadomin area: Edmonton Geol. Soc.
Carbondale River area: Canada G. S., 32.
Elk Point basin, southern: Belyea, H. R.
Flathead North area: Price, R. A.
Folding Mtn., erratics let down from thrust sheet: Landes, K. K., 4.
Foothills and mountain deformation, faulting, theories: Choquette, A. L.
INDEX

ALBERTA—Continued
Physical geology—Continued
Fort Macleod area, glaciation: Canada G. S., 21.
Front ranges, Banff area: Usher, J. L.
Lake Athabasca area, Precambrian structures: Godfrey, J. D.
Moose Mtn. area, faulting: Dahlstrom, C. D. A.
Panther dome area: Hunt, C. W., 1, 2.
Precambrian, subsurface, central and foothills areas: Garland, G. D., 2.
Subsurface, northeastern: Garland, G. D., 1.
Rocky Mts., foothills: Fox, F. G.
Tectonic history, Cretaceous, southern: Glaister, R. P.
Physiographic geology.
Fort Macleod area, glacial: Canada G. S., 21.
Lake Athabasca area, glacial and structural features: Godfrey, J. D.
Northwestern: Bayrock, L. A.
Sturgeon Lake area: Henderson, Eric P., 2.

ALGAE. See also Diatoms.
Alberta, Devonian: Konishi, K., 1.
Calcisphaera: Konishi, K., 1.
California, northern, Silurian: Johnson, J. Harlan, 1.
Canada, western, Mississippian: Johnson, J. Harlan, 1.
Charophyta, identification lists, game-tangia! constants: Wood, R. D.
Stratigraphic distribution, North America, western interior: Peck, R. E.
Collenia kona, Precambrian, Michigan, Kona dolomite, polar-shift indicator: Nordeng, S. C.
Conostichus, Pennsylvanian, restricted: Branson, C. C., 8.
Dasycladaceae, Mississippian, Montana, Lodgepole formation, Big Snowy Mts.: Johnson, J. Harlan, 1.
Slurian, United States, southwestern: Rezak, R.
Devonian: Johnson, J. Harlan, 2.
Litostruma oklahomense, Pennsylvanian, Oklahoma, Boggy shale, McAlester area: Mamay, S. H., 1.
Mississippian: Johnson, J. Harlan, 1.
Montana, Belt series, Precambrian, Glacier National Park: Ross, C. P., 1.
Precambrian, colony growth as indicator of polar shift: Nordeng, S. C.
Slurian: Johnson, J. Harlan, 3.

ALGONKIAN. See Precambrian.

ALLUVIAL FANS.
Arizona, southeastern, relation to pediments: Tuan, Y.-F.
California, San Joaquin Valley, aquifers: Davis, G. H., 1.
White Mts.: Beaty, C. B., 2.

ALLUVIUM. See Sediments.
ALTERATION. See Hydrothermal alteration.
ALUMINA. See also Bauxite; Clay.
Hydrated minerals, phase relations, cf. experimental: Kennedy, G. C., 1.
North Dakota, western, content in clays: Hansen, M.
South Carolina, Piedmont residual soils, possibilities: Council, R. J.
West Virginia, content in clays: Tallon, W. A.

AMMENONIDEA. See Cephalopoda.

AMPHIBIA.
Acraclosorus vorax, Permian, Kansas, Spelser formation, relation to other genera: Hutton, N., 3d, 1.
California, Mehrten formation, Pliocene, salamander tracks: Peabody, F. E., 1.
Evolution: Romer, A. S., 2.
Tetrapoda, Triassic, extinction: Colbert, E. H., 2.
Texas, Friesenhahn Cave, Pleistocene: Mecham, J. S.
Wyoming, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, P. O.

AMPHIBOLE.
Compositions, graphical representation: Smith, J. V., 1.
Ferro-magnesian, crystal structure, Mg-Fe ordering: Ghose, S., 2.
Grunerite, crystal structure and Mg-Fe distribution: Ghose, S., 1.
Holmquistite, structure: Vogt, T.
Hydrothermal investigations: Boyd, F. R., 1.
Quebec, Grenville gneiss, hornblende, spectrochemical analyses: Kretz, R. A.
Utah, Henry Mts., hornblende pheno-crysts in porphyries, composition: Engel, C. G.
Virginia, Floyd County, Precambrian: Dietrich, R. V.
Washington, Shuksan belt, sodic, metamorphic facies: Misch, P. H.
ANALYSES. See also Spectrochemical analysis; Spectrographic analysis; Thermal analysis.
Argillites, Ontario, Cobalt series: Pettjohn, F. J.
ANALYSES—Continued

Bauxitic clays and others, Mexico, chemical: Moosser, F., 2.
Beryllium, nonpegmatic: Warner, L. A.
Clay minerals, Alberta, Bearpaw shale: Byrne, F. J. S.
Kaolin group, elements by size-fractions: McLaughlin, R. J. W.
Coal, Kansas, germanium content, spectrographic: Schleicher, J. A., 1.
Dakota group, Kansas, detailed core: Merriam, D. F., 4.
Diorite and monzonite porphyries, Utah, Henry Mts.: Engel, C. G.
Feldspars, potassium, composition, relation to optical properties: Hewlett, C. G.
Granitic gneisses and minerals, Wyoming, Beartooth Mts.: Harris, R. L., Jr.
Granophyres, Oklahoma, chemical: Hamilton, W. B., 2.
Ground water, California, San Joaquin Valley: Davis, G. H., 1.
Hornblende phenocrysts in porphyries, Utah, Henry Mts.: Engel, C. G.
Igneous rocks, California, southern California batholith: Sen, N.
Costa Rica, chemical and modal: Weyl, R., 1.
Kainol group, elements by size-fractions: McLaughlin, R. J. W.
Coal, Kansas, germanium content, spectrographic: Schleicher, J. A., 1.
Dakota group, Kansas, detailed core: Merriam, D. F., 4.
Diorite and monzonite porphyries, Utah, Henry Mts.: Engel, C. G.
Feldspars, potassium, composition, relation to optical properties: Hewlett, C. G.
Granitic gneisses and minerals, Wyoming, Beartooth Mts.: Harris, R. L., Jr.
Granophyres, Oklahoma, chemical: Hamilton, W. B., 2.
Ground water, California, San Joaquin Valley: Davis, G. H., 1.
Hornblende phenocrysts in porphyries, Utah, Henry Mts.: Engel, C. G.
Igneous rocks, California, southern California batholith: Sen, N.
Costa Rica, chemical and modal: Weyl, R., 1.
Greenland, Werner Bjerge massif, alkali: Bearth, P.
Limestone, Illinois, southern: Lamar, J. E.
Marl, Minnesota: Schwartz, G. M., 1.
Minerals, chemical: México Com. Fomento Min.
Phosphate, Florida: Catheart, J. B.
Plagioclase, potassium content: Sen, S. E.
Precambrian metasedimentary rocks, Colorado, Front Range: Wahlstrom, E. E.
Pre-Simpson and younger rocks, Texas-New Mexico, cores: Barnes, V. E., 1.
Sedimentary rocks, marine cf. fresh-water, trace-element and isotopic differentiation: Keith, M. L.
Sediments, Alaska, Point Barrow area: Carlsson, P. E.
Florida, southern, bird rookeries, phosphate content: Lund, E. H., 1.
Selenium in sulfide ores: Hawley, J. E.
ANTICLINES—Continued
West Virginia, Burning Springs anticline: Woodward, H. P., 1, 4.
ANTILLES. See West Indies.
APPALACHIANS.
Cambrian-Ordovician, correlation with West Virginia, Wood County deep well: Woodward, H. P., 2.
Oil and gas: Woodward, H. P., 1.
Pennsylvanian-Permian: Arkle, T., Jr., 1.
Regional structure and stratigraphy: Woodward, H. P., 1, 2.
APPALACHIANS.
Ground water.
Historical geology.
Cumberland Plateau, Mississippian: Vail, P. R.
Paleontology.
Ostracodes, paleocoobe, Silurian, central: Wainwright, J. E. N.
Trilobites, Trempealeauian faunules, Late Cambrian, central: Rasetti, F. R. D.
Petrology.
Cumberland Plateau, Mississippian: Vail, P. R.
Metamorphic complex, thin-section descriptions and absolute ages, southern: Long, L. E., 2.
Physical geology.
Cacapon Mtn. anticlinorium: Appalachian Geol. Soc.
Caves, origin: Davies, W. E., 1.
Origin, shallow-phreatic: White, W. B.
Landslides, Plateaus province: Baker, Robert F., 2.
Physiographic geology.
Blue Ridge Front, migrating Atlantic-Gulf divide: Dietrich, R. V.
Plateau province, drainage basins, quantitative geomorphology, relation to stream flow: Morisawa, M. E., 2.
APPARATUS. See Technique, Apparatus.
AQUIFERS. See Ground water.
ARACHNIDA. See Arthropoda.
ARACHNOCYATHA.
British Columbia, Salmo area, Early Cambrian: Greggs, R. G.
Washington, Colville area, Early Cambrian: Greggs, R. G.
ARCHIBALD. See Precambrian.
ARCTIC AMERICA. See also Alaska; Greenland; Northwest Territories; Yukon.

ARCTIC AMERICA—Continued
Alaska-Ellesmere Island-Greenland mountain system: Wilson, John T., 3.
ARCTIC OCEAN. See also Oceans; Submarine geology.
Continental shelf-central basin, Quaternary cores, lithology: Bushnell, V. C.
Floor, gravels, ice-rafted, central: Schwarzacher, W.
Structure: Hope, E. R.
Topography and seismic velocities: Bushnell, V. C.; Hunkins, K. L.
Forammlifer, continental shelf-central basin, Quaternary: Ericson, D. B., 2.
Continental shelf-central basin, Recent: Green, K. E.
Geological exploration, additional work, suggestions: Hanna, G. D.
Geophysical studies: Crany, A. P.
Continental shelf: Plouff, D.
Magnetic anomaly: Hope, E. R.
Mid-continental ridge: Heesen, B. C., 5.
Pleistocene climates: Ewing, W. M., 4.
Sediments, Prince of Wales Strait and Amundsen Gulf, grain size and composition: Bader, R. G., 1.
Quaternary, oxygen isotopic composition and paleotemperatures: Ault, W. U., 3.
Tectonics: Hope, E. R.
ARIZONA.
Aerial photograph, high-altitude, interpretation: Mitcham, T. W.
Engineering geology, Glen Canyon dam site: Lasson, G. D.
Geochemical dating, igneous and metamorphic rocks: Damon, P. E.
Geochemical studies, Sun Valley mine, rhenium-uranium association: Petersen, R. G., 3.
Test holes, southern valleys, subsurface geology: Johnson, P. W.
Areas described.
Black Canyon schist belt, Bradshaw Mts.: Jerome, S. E., 2.
Lees Ferry-Glen Canyon dam area: Phoenix, D. A., 2.
Economic geology.
Beryllium, nonpegmatitic, possibilities: Warner, L. A.
Mineral Hill and Daisy mines, East Sierrita area: MacKenzie, F. D.
Mission deposit: Richard, K. E.
Copper-molybdenum, pegmatite, Tuscon area: Lutton, R. J., 1.
ARIZONA—Continued

**Economic geology**—Continued

Dragoon quadrangle: Cooper, J. R., 2.
East Sierra Nevada: Lacy, W. C.
Metallic minerals, Copper Basin district: Johnston, W. P.
Mineral resources: Galbraith, F. W., 3d, 3.
Oil and gas, map: Stipp, T. F.
Rhenium, Sun Valley uranium mine: Petersen, R. G., 3.
Silver-lead-zinc, San Xavier mine: Irvin, G. W.
Tungsten, Yuma-Maricopa-Pinal-Graham Counties: Dale, V. B., 1.
Uranium, Cameron area, recent redistribution: Austin, S. R.
Dripping Spring quartzite: Granger, H. C.

**Geologic maps.**

Dragoon quadrangle, generalized: Cooper, J. R., 2.
Emmett Wash NE quadrangle: Petersen, R. G., 2.
Empire Mts.: Galbraith, F. W., 3d, 1.
Gila County: Wilson, Eldred D., 1.
Hurricane Cliffs—2 NW quadrangle, photogeologic: Pomeroy, J. S.
Igneous and metamorphic rocks: Stipp, T. F.
Mayer NW quadrangle: Anderson, C. A.
Mohave County: Wilson, Eldred D., 2.
Paria Plateau NE quadrangle: Petersen, R. G., 1.
Pinal County: Wilson, Eldred D., 3.
Red Bluff area: Granger, H. C.
Southeastern, field-trip areas: Ariz. Geol. Soc.
Tucson Mts., Saginaw area: Kinnison, J. E., 2.
Waterman Mts., central and eastern: McClymonds, N. E., I.
Workman Creek area: Granger, H. C.

**Ground water.**

Hopi Buttes area, in diatremes: Callahan, J. T., 1.
Provinces, aquifers: Harshbarger, J. W.

**Historical geology.**

Basin and Range province, igneous rocks: Titley, S. R., 1.
Cambrian-Ordovician, southeastern: Dickinson, B. G.

ARIZONA—Continued

**Historical geology**—Continued

Chetoh country, Cenozoic: Howell, P. W.
Cretaceous, southeastern: Ferguson, W. B.
Devonian, southeastern: Pye, W. D., 2.
Dragoon quadrangle: Cooper, J. R., 2.
Empire Mts., Paleozoic and Cretaceous: Galbraith, F. W., 3d, 1.
Formation names, catalog, southern: Pye, W. D., 3.
Grand Canyon, popular account: May, J.
Hop Buttes volcanic area: Callahan, J. T., 1.
Kayenta and Moenave formations, Triassic-Jurassic, Vermillion Cliffs: Wilson, R. F., 1.
Lehner site, Pleistocene: Antevs, B. E.
Mission copper deposit: Richard, K. E.
Mississippian, southern: Thomas, G. C.
Papago Indian Reservation, Precambrian-Paleozoic: McClymonds, N. E., 2.
Pennsylvaniaian, southeastern: Havenor, K. C.
Pennsylvaniaian-Permian, northwestern: Brill, K. G., Jr.
Permian, southern: Bryant, D. L.
Precambrian, southeastern: Lance, J. F., 1.
Precambrian-Cenozoic, southern: Heindl, L. A., 1; Pye, W. D., 1.
San Francisco Mtn. volcanic field, geochronology: Sabels, B. E., 2.
Late Cenozoic: Sabels, B. E., 1.
Southeastern, and adjoining areas: Pye, W. D., 5.
Springerville-St. Johns area, Permian-Quaternary: Sirrine, G. K.
Tapeats sandstone, Cambrian, central: Krieger, M. H.
Tertiary, southern: Wood, P. A.
Triassic, east-central: Cooley, M. E., 1.
Tuscon Mt. chaos, Tertiary: Kinnison, J. E., 1.
Verde formation, Tertiary or Pleistocene, Verde Valley: Lange, A. L., 2.

**Mineralogy.**

Apache group, Gila County: Granger, H. C.
Bradshaw Mts., pegmatite dike, collecting: Ransom, J. E.
ARIZONA—Continued

Mineralogy—Continued

Chrome diopside, Buell Park, Apache County, description: Williams, S. A.

Davidite, Quijotoa Mts.: Pabst, A., 5.

Localities: Galbraith, F. W., 3d, 3.


Umoholite, Cameron, fine-grained: Hamilton, P. K.

Wulfenite crystals, Glove mine: Beaux, R. A.

Yavapalite, Jerome area: Hutton, C. O., 3.

Paleontology.

Corals, Uphaa dolomite, Ordovician, Clifton area: Hill, D.

Elephant tracks, Verde formation, Pliocene-Pleistocene, Montezuma Castle National Monument area: Brady, L. F.

Mammals, Lehner site, Pliocene-Pleistocene, Montezuma Castle National Monument area: Brady, L. F.

Man and mammals, Lehner site: Haury, E. W.


Sloth dung, Rampart Cave, Cenozoic, pollen study: Martin, P. Schultz.

Petrology.

Apache group, Gila County: Granger, H. C.

Chetoh country, Cenozoic: Howell, P. W.


Copper Basin mining district: Johnston, W. P.

Naco group, Pennsylvanian, limestone textures as key to deposition depth: Wanless, H. R., 1.

Porphyry copper deposits, hydrothermal alteration facies: Creasey, S. C.


South Comobabi Mts. and Ko Vaya Hills, intrusive rocks: Bryner, L.

Superior-Globe area, dacite sheet, pyroclastic origin: Peterson, D. W.

Physical geology.

Apache group, Gila County: Granger, H. C.

Basin and Range province: Wilson, Eldred D., 4.

Basin and Range structure, southeastern: Tuan, Y.-F.

Black Mesa basin: Elston, W. E., 1.


ARIZONA—Continued

Physical geology—Continued


Copper Basin mining district: Johnston, W. P.

Dragoon quadrangle: Cooper, J. R., 2.

East Sierrita area: Lacy, W. C.

Empire Mts.: Galbraith, F. W., 3d, 1.


Hopí Buttes area, diatremes: Callahan, J. T., 1.


Hurricane fault and other Laramide reverse faults: Lovejoy, E. M. P.

Laramide fold structure, complications, basement wrench faults, southern: Lutton, R. J., 2.

Lineament tectonics, ore localization, southern: Mayo, E. B., 4.

Mission copper deposit: Richard, K. E.

Montezuma Well and Cave, origin: Lange, A. L., 2.

Oracle granite, foliation: Mayo, E. B., 3.

Pedregosa and Swisshelm Mts.: Eps, R. C.

Precambrian, southeastern: Lance, J. F., 1.


Springerville-St. Johns area: Sirrine, G. K.

Tucson Mts., Saginaw area: Kinnison, J. E., 2.

Volcanic necks, emplacement, Navajo and Hopi types: McBirney, A. R.

Waterman Mts.: McClymonds, N. E., 1.

Physiographic geology.


Desert-terrain analogs, mapping technique, Yuma area, cf. world deserts: Van Lopik, J. R.

Pediments, description, types, and origin: Tuan, X.-F.

ARKANSAS.

Block diagram: Branner, G. C.


Guidebook, Arkansas Valley basin, southwestern part: Fort Smith Geol. Soc.

Ouachita Mts.: Cline, L. M., 1.

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Areas described.

Arkansas Valley: Couser, C. W.

General: Branner, G. C.
ARKANSAS—Continued

**Economic geology.**
- Natural gas, Aetna field: Planalp, R. N.
- Cecil field: Mock, F. W.
- Pre-Atoka rocks, northern: Frezon, S. E.
- Washburn anticline: Bartlett, C. S., Jr.
- White Oak field: Clark, Joseph
- Oil and gas, McAlester-Arkansas Valley basin, fields: Brooks, R. P., Jr.
- Ouachita province, possibilities: Howell, J. V., 1.
- Titanium, bauxite deposits, possibilities: Hartman, J. A.

**Geologic maps.**
- Fayetteville area: Jackson, K. C., 1.
- Ouachita Mts.: Miser, H. D.
- Washington County, southwestern: Jackson, K. C., 2.

**Ground water.**
- Resources: Wood, N. H.

**Historical geology.**
- Atoka formation, Pennsylvanian, Arkansas Valley: Scull, B. J., 2.
- Brownstown and Toklo formations, Cretaceous: Thorsen, C. P. E.
- Cambrian-Lower Pennsylvanian, northern: Frezon, S. E.
- Cecil gas field, Pennsylvanian: Mock, F. W.
- Fayetteville area, Mississippian-Pennsylvanian: Jackson, K. C., 1.
- Ouachita Mts., Cambrian-Silurian, graptolite correlation: Decker, C. E.
- Washington County, southwestern, Mississippian-Pennsylvanian: Jackson, K. C., 2.

**Mineralogy.**
- Bauxite deposits, ilmenite alteration products: Hartman, J. A.
- Diaspore, Magnet Cove area: Scull, B. J., 3.
- Quartz, Ouachita Mts.: Miser, H. D.

**Paleontology.**
- Belemnoids, Fayetteville shale, Mississippian: Flower, R. H., 2.
- Graptolites, Ouachita Mts., Cambrian-Silurian, correlation: Decker, C. E.
- Mastodon, Garland area, Pleistocene (?): Fay, G. E.
- Ostracodes, Brownstown and Toklo formations, Cretaceous: Thorsen, C. P. E.

ARKANSAS—Continued

**Petroleum.**
- Magnet Cove area: Scull, B. J., 3.
- Ouachita Mts., Bigfork chert and Arkansas novaculite, silica origin: Goldstein, A., Jr., 3.
- Paleozoic sandstones, petrography: Goldstein, A., Jr., 2.
- Pre-Atoka rocks, northern: Frezon, S. E.
- Wilcox formation sands, heavy minerals and grain-size distribution: Jones, E. L.

**Physical geology.**
- Aetna gas field: Planalp, R. N.
- Southern edge: Brent, W. B., 1.
- Cecil gas field: Mock, F. W.
- Crystal Mtn. area, anticlinal hills: Pitt, W. D.
- Fayetteville area, fault zone: Jackson, K. C., 1.
- Ouachita Mts.: Miser, H. D.
- Pre-Atoka rocks, northern: Frezon, S. E.
- Washington County, southwestern: Jackson, K. C., 2.

**Physiographic geology.**
- Arkansas Valley basin, western, representative areas, geomorphology: Tanner, W. F., Jr., 1.
- Boston Mts., southern edge: Brent, W. B., 1.

**ARTIFICIAL WATERS AND WELLS.** See also Ground water.
- California, Long Beach-Santa Ana area, zones, water movement and structural barriers: Poland, J. F., 2.
- San Joaquin Valley: Davis, G. H., 1.
- Florida, Lake Istokpoga and Lake Placid areas, effect of proposed drainage canal: Kohout, F. A., 1.
- Ruskin area: Peek, H. M.
- Wells: Hendry, C. W., Jr.
- Georgia, Savannah area, Ocala limestone, decline in head, subsidence: Davis, G. H., 2.
- Idaho, Snake River basin, aquifer tests: Walton, W. C.
- New Mexico, Hot Springs area, nontermal: Murray, C. R.

**ARTHROPODA.** See also Cirripedia; Crustacea; Eurypterida; Insecta; Ostracoda; Trilobita.
- Arthropoda oristata, Pennsylvanian, Illinois, Mason Creek area: Richardson, E. S., Jr., 2.
- Evolution: Evans, H. E.
- General features: Harrington, H. J.
ARTHROPODA—Continued
Protarthropoda, systematic descriptions: Harrington, H. J.
Trilobitomorpha, systematic descriptions: Harrington, H. J.

ARTIFACTS. See also Man, fossil.

Arizona, Lehner site: Haury, E. W.
California, San Diego area, Pleistocene dating: Carter, G. F.
Great Lakes region, Aqua-Plano points, fossil beaches, dating: Quimby, G. I.
Iowa, western, Pleistocene: Frankforter, W. D.
Mexico, Puebla area, Puebla: Armenta, J.
Obsidian, age, hydrated-layer thickness: Friedman, I. I.
South Dakota, Big Bend dam site area, Pleistocene terraces: Coogan, A. H.
Texas, Midland fossil-man site, Pleistocene: Wendorf, F.
Washington, Lind Coulee site: Daugherty, R. D.

ARTIFICIAL MINERALS. See also Experimental investigations.
Analcite: Saba, P., 1.
Structure, temperatures of formation: Burley, B. J.
Barium titanate, growth in KF solutions, butterfly twins and dendrites: DeVries, R. C.
Bastnaesite, cf. natural: Jansen, G. J.
Borate, crystal structure: Clark, J. R., 3.
Brannerite, synthesis: Clark, J. R., 3.
Chalcedony, conversion from solid silica: White, J. R.
Coffinite: Fuchs, L. H.
Crystals, synthesis by refrigeration: Wolfe, C. W., 2.
Dolomite, precipitation: Medlin, W. L., 2.
Eplstilbite, synthesis: Buckner, D. A.
Montmorillonoids, adsorption-desorption characteristics: Gillery, F. H., 2.
Variable exchange capacity: Kolzumi, M.
Quartz, red-luminescing: Claffy, E. W.
Sabugalite: Magin, G. B., Jr.
Serpentine and chlorite, magnesium-aluminum, synthesis: Gillery, F. H., 1.
Spessartite, replacement of aluminum by iron, experimental: Geller, S., 2.
Tilleyite, synthesis: Harker, R. I.
Uvarovite: Geller, S., 1.

ASBESTOS.
California, northern: Wiebelt, F. J.
Minerals, electron micrographs: Huggins, C. W.

ASPHALT. See also Bituminous rocks and sands; Hydrocarbons.

Texas, southwestern, Anacacho limestone, origin: Harvill, L. L.

ASSOCIATIONS, ETC. See also Surveys.
American Association for the Advancement of Science: Mather, K. F.
Smithsonian Institution, early contributions to geology: Ochs, P. H.

ASTERIOIDEA. See also Echinodermata.

Hudsonaster wardii, Devonian, Pennsylvania, Mahantango formation, Pike County: Cramer, H. R., 2.

ATLANTIC COASTAL PLAIN. See also Submarine geology.
Seismic profiles, continental margin, Cape Henry to Jacksonville: Hersey, J. B.

Economic geology.
Petroleum, possibilities: Johnston, J. E.
Geologic maps.
Generalized: Johnston, J. E.

Ground water.
Chemical facies, northern: Back, W., 2.

Historical geology.

Physical geology.
Bays and basins, origin: Rasmussen, W. C., 3.
Continental margin, Cape Henry to Jacksonville, structural interpretation of seismic data: Hersey, J. B.
Sandy flatlands, erosion cycle: Rasmussen, W. C., 2.

Physiographic geology.
Bays and basins, origin: Rasmussen, W. C., 3.
Sandy flatlands, erosion cycle: Rasmussen, W. C., 2.

ATLANTIC OCEAN. See also Oceans; Submarine geology.
Abyssal hills, plains, and seamounts: Heezen, B. C., 2.
Carbonate accumulation rate cf. paleotemperatures: Wiseman, J. D. H.
Continental margin, Cape Henry to Jacksonville, seismic profiles and structure: Hersey, J. B.
Coral reefs, deep-sea, Quaternary: Squires, D. F., 1.
Lead isotopes in manganese nodules: Chow, T. J., 2.

Mid-Atlantic Ridge: Heezen, B. C., 2.
Physiographic diagram: Heezen, B. C., 2.
Physiographic regions and provinces: Heezen, B. C., 2.
Sediment refraction, crustal structure: Ewing, J. L., 1.

AVES.
Coltoria recurvirostra, Eocene, Utah, Colton formation: Hardy, J. W.
Rock Spring Run, Pleistocene: Wolfenden, G. E.
Wilconico formation, Pleistocene, Arredondo area: Brodkorb, W. P., 1.


Plagopus fisheri, Pliocene, Kansas, Rextroad fauna: Tordoff, H. B.
Sulidae, Miocene, California, southern: Howard, H.

Tympianuchus ceros, Pleistocene, Arkansas, Willcockson area: Wetmore, A., 2.

BAHAMAS. See also West Indies.
Gravity anomalies: Taiwani, M., 3.
Petroleum, evaporite basin, possibilities: Wassall, H. W., 3d, 2.

BARBADOS. See also West Indies.
Fishes, Eocene-Miocene: Casler, E. M.

BARITE.
British Columbia, Torbrit silver mine, depositions: Campbell, F. A.
Illinois, southern, fluorite district: Bradbury, J. C., 1.
Mississippi Valley type deposits, hydrothermal origin: Behre, C. H., Jr., 1.
Origin: Ohle, E. L., Jr.
Pennsylvania, Fort Littleton area, origin: Socelow, A. A., 1.

BARS.
Louisiana, Mississippi delta, natural levees: Weider, F. A.
Streams, talweg, stability, curved channels: Shultis, S., 2.

BASALT—Continued
Magma, crystallization and differentiation, role of oxygen pressure: Osborn, E. F.
Michigan, Portage Lake lava series, amygdale zones: Stolber, R. E.
Nevada, Black Rock Summit flow: Vitaliano, C. J.
New Mexico, Union County, late Cenozoic: Baldwin, J., 1.
Oregon, eastern, Miocene, relation to deformation patterns: Thayer, T. P.
Texas, Mustang Hill laccolith, analcitic olivine: Greenwood, R.

BASINS.
Anadarko basin, northern, Morrow series: Abels, T. A.
Northwestern, Kansas-Oklahoma-Texas: Beebe, B. W., 1, 2.
Ardmore basin, Oklahoma: Tomlinson, C. W., 2.
Arizona, ground-water, arid, geologic framework: Lance, J. E., 3.
Arkoma basin, Oklahoma-Arkansas: Branson, C. C., 1.
Basin of Mexico, Cenozoic volcanic cycles: Mooser, F., 1.
California, southern, sedimentation: Emery, K. O.
Carbonate-evaporite relations, petroleum accumulation: Sloss, L. L., 1.
Central Basin, Tennessee: DeSelm, H. R.
Correlation by insoluble residues, Cambrian-Pennsylvanian: McCracken, E.
Cyclic sedimentation, differential subsidence as cause: Imbrie, J., 1.
Drainage, hypsometric analysts: Strahler, A. N., 1.
Evolution mechanics, relation to habitat of oil: Dallmus, K. F.
Great Basin, saline deposition: Kerr, P. F., 3.
Gulf Coastal Plain, eastern: Braunnstein, J., 2.
Los Angeles basin, California, early Pliocene sedimentation: Conrey, B. L.
Mexico, sedimentary, petroleum origin and migration: López Ramos, E.
Mississippi salt basin, Gulf Coastal Plain: Braunnstein, J., 2.
Narragansett basin, Rhode Island-Massachusetts, Pennsylvanian: Towe, K. M.
Nebraska, Basin and Range structure, tectonic history: Steele, G.
New Mexico, northeastern: Panhandle Geol. Soc., 2.
Newark basin, United States, eastern, Upper Triassic: Bock, W., 3.
Nonfolded, statistical analysis of thickness and structural mobility: Fairbridge, R. W.
<table>
<thead>
<tr>
<th>BASINS—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parras basin, Mexico, Coahuila, structure: Weydie, A. E.</td>
</tr>
<tr>
<td>Rocky Mtn. area, oil and gas prospects: Van Couvering, M.</td>
</tr>
<tr>
<td>San Juan Basin, Colorado-New Mexico, hydrodynamics of Jurassic-Cretaceous aquifers: Berry, F. A. F.</td>
</tr>
<tr>
<td>San Pedro and Santa Monica submarine basins, California, sedimentation, turbidity currents: Gorsline, D. S.</td>
</tr>
<tr>
<td>Sedimentary, analysis of structures, vertical displacement of homogeneous rock layer: Sanford, A. R.</td>
</tr>
<tr>
<td>Tucumcari basin, New Mexico: Krisle, J. E.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BATHOLITHS.</th>
</tr>
</thead>
<tbody>
<tr>
<td>California, Bald Rock batholith, cf. Bald Mtn. batholith, Oregon: Larsen, L. H.</td>
</tr>
<tr>
<td>Southern, trace elements: Sen, N.</td>
</tr>
<tr>
<td>Colorado, Pikes Peak and Kenosha batholiths, K-A ages: Hutchinson, R. M., 1, 2.</td>
</tr>
<tr>
<td>Granite emplacement, classified by crustal zones: Buddington, A. F.</td>
</tr>
<tr>
<td>Idaho, Idaho batholith, Stanley uranium area: Kern, B. F.</td>
</tr>
<tr>
<td>Minnesota, Saganaga batholith, Cook County: Grout, F. P.</td>
</tr>
<tr>
<td>Montana, Idaho and Boulder batholiths: Anderson, Roy E., 1.</td>
</tr>
<tr>
<td>Oregon, Wallowa batholith: Smedes, H. W.</td>
</tr>
<tr>
<td>Quebec, Preissac-La Motte-Lacorne batholiths, differentiation: Siroonian, H. A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BAUXITE—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titanium mineralogy: Hartman, J. A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BEACHES. See also Changes of level; Glacial lakes; Shorelines; Terraces.</th>
</tr>
</thead>
<tbody>
<tr>
<td>California, San Francisco area, ocean, wave-pattern control: Trask, P. D., 1.</td>
</tr>
<tr>
<td>Colorado, Lyons sandstone, Permian, cf. modern: Thompson, W. O.</td>
</tr>
<tr>
<td>Firmness as function of sand properties: Krumbel, W. C., 2.</td>
</tr>
<tr>
<td>Great Lakes region, glacial lakes, archaeological sites, dating: Quimby, G. I.</td>
</tr>
<tr>
<td>Louisiana, chenier plain, development: Gould, H. R., 2.</td>
</tr>
<tr>
<td>Chennier plain, faces, cf. shoestring sands: Byrne, J. V.</td>
</tr>
<tr>
<td>Hurricane modification: Morgan, J. P.</td>
</tr>
<tr>
<td>Massachusetts, Cape Cod, outer beaches, storm effects: Zelger, J. M., 2.</td>
</tr>
<tr>
<td>Michigan, Mackinac Straits region, Quaternary: Shelden, F. D.</td>
</tr>
<tr>
<td>Sand, hydraulic equivalence of grain-size distributions: McIntyre, D. D.</td>
</tr>
<tr>
<td>Movement, irradiated-quartz tracer: Inman, D. L.</td>
</tr>
<tr>
<td>Texas, Galveston Island, sand, gulf cf. bay: Rogers, J. J. W., 2.</td>
</tr>
<tr>
<td>West Indies, beachrock origin and distribution: Russell, R. J., 4.</td>
</tr>
<tr>
<td>Zones, differentiation by mechanical composition of sands: Harris, Stuart A.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BENCHES. See Terraces.</th>
</tr>
</thead>
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<tr>
<th>BENTONITE. See also Clay.</th>
</tr>
</thead>
</table>

| BERMUDA, caves and karst, origin, changes of sea level: Bretz, J. E., 3. |

<table>
<thead>
<tr>
<th>BERYL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia, localities: Furcron, A. S., 2.</td>
</tr>
<tr>
<td>Infrared spectrum, impurity identification: Wickersheim, K. A.</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY—Continued

Beryl—Continued

New Mexico, Harding pegmatite: Jahns, R. H., 3.
South Dakota, Beecher No. 3—Black Diamond pegmatite: Redden, J. A., 1.

Beryllium. See also Elements.
Exploration: Brownell, G. M.
Neutron detector, gamma-ray: Moyd, L. S.
Isotopes, geochemistry and age determination: Merrill, J. R.
Neutron detector, laboratory: Cantwell, T.
New Mexico, Wind Mtn. area: Warner, L. A.
Nonpegmatitic: Warner, L. A.
Origin: Erickson, E. C., 2.
United States, nonpegmatitic: Griffitts, W. R.; Warner, L. A.

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Alaska, petroleum and oil shale: Miller, D. J.
Algae, Devonian: Johnson, J. Harlan, 2.
Mississippian: Johnson, J. Harlan, 1.
Silurian: Johnson, J. Harlan, 3.
Arkell, W. J.: Maubeuge, P. L.
Bowman, Isaiah: Wright, J. K.
Bramkamp, R. A.: Woodford, A. O.
Brant, Ralph A.: Peterson, E. T.
California, water resources, theses: Giefer, G. J.
Central America: Maldonado-Koerdell, M., 2.
Coal, stratigraphy and resources: Wier, C. E.
Daly, R. A.: Billings, M. P.
Decker, C. E.: Branson, C. C., 11.
DeGolyer, E. L.: Deslon, A. R.
Eaton, J. E.: Corey, W. H.
Elements, geochemical distribution: Green, J., 1.
Foraminifera: Thalmann, H. E., 4; Todd, R.
Non fusulinid, Paleozoic: Toomey, D. F.
Geophysical abstracts: Vitaliano, D. B., 1, 2.
Granite emplacement: Buddington, A. F.
Holland, C. A.: Van Tuyl, F. M.
BIBLIOGRAPHY.—Continued


Seismology: Smith, W. E. T.

Selenium: Luttrel, G. W.

Silicates, aluminum, United States: Grambeau, A. B.


South Dakota, ground water: Newport, T. G.

Texas, 1833-50: Girard, R. M.

Straw series, Pennsylvanian: Cragg, N. G.

Thorium: Solset, P. E.

U.S. Geological Survey, reports and maps in open files: Weld, B. A.

Uranium: Solset, P. E.

Van Amringe, E. V.: Hill, H. S.

Vertebrate paleontology: Nichols, R. H.

Weaver, C. Edwin: Goodspeed, G. E., 2.

Winchell, A. N.: Corbett, C. S.; Emmons, R. C.


Wyoming, mineral resources: Osterwald, F. W., 1.

Zerfoss, Samuel: Van Valkenburg, A., Jr.

BIOGEOCHEMISTRY. See also Geochemistry.

Pteropod shells, composition change after deposition: Krinsley, D., 2.

Sea water, phosphorus-nitrogen ratio, control: Redfield, A. C., 1.

Uranium prospecting, Utah, Thompson district: Cannon, H. L.

Weathering, accumulator plants: Lovering, T. S., 1.

BIOGRAPHY.

Apell, G. A.: Ewoldt, H. B.

Arkell, W. J.: Maubenge, P. L.

Backlund, H. G.: Koch, L.


Bowman, Isaiah: Wright, J. K.

Bramkamp, R. A.: Duce, J. T.; Woodford, A. O.

Brant, Ralph A.: Enlows, H. E.; Murray, A. N.; Peterson, E. T.; Upp, J. E.

Camsell, Charles: Bostock, H. S., 1-3; Goudge, M. I.

Daly, R. A.: Billings, M. P.

Decker, C. E.: Branson, C. C., 11; Huffman, G. G., 2; Monnett, V. E.

DeGolyer, E. L.: Denisov, A. R.

Deiss, C. F.: Patton, J. B., 1, 2.

Deussen, Alexander: Anonymous, L.

Douglas, G. V.: Milligan, G. C.; Weeks, L. J.

Eaton, J. E.: Corey, W. H.

Evans, John: Lange, E. F.

Faissler, Carl: Auger, P. E.

Fettke, C. R.: Simmons, A. C.


Gordon, Dugald: Judson, S. A.

Gould, C. N.: Branson, C. C., 12; Gould, C. N.

Gray, Asa: Dupree, A. H.


Heland, C. A.: Van Tuyl, F. M.

Hennen, R. V.: Reger, D. B.

Hewlett, C. G.: Kalman, S., 2.


Jacobs, E. C.: Doten, R. K.

Kildale, M. B.: Perry, V. D.

Kleinpell, W. D.: Fitzgerald, T. J.

Leavenworth, P. B.: High, J. A.


Lesley, J. P.: Cate, A. S.

Lobec, A. K.: Miller, Ralph L.; Smith, G.-H.


Moffitt, F. E.: Mertle, J. B., Jr., 3.


Mullen, J. T., Jr.: Fanshawe, J. R., 2d.

Overbeck, R. M.: Cloos, E.

Peabody, F. E.: Camp, C. L.


Schmidt, K. P.: Davis, D. D.

Schneider, Hyrum: Eardley, A. J., 2.

Schrieber, William: Fowler, R. G.; Jones, V. L.

Shideler, W. H.: Martin, W. D.


Spencer, L. J.: Smith, W. Campbell.

Stadtlenko, T. M.: Breger, A. M.

Thompson, H. R.: Parker, W. H.

Van Amringe, E. V.: Hill, H. S.


Weaver, C. Edwin: Fulmer, C. V.; Goodspeed, G. E., 2.

White, L. C.: Price, P. H.

Winchell, A. N.: Corbett, C. S.; Emmons, R. C.


Woolnough, W. G.: Raggatt, H. G.

Zerfoss, Samuel: Van Valkenburg, A., Jr.

BIOHERMS. See also Reefs.

Facies: Lewis, P. J.

Indiana, Columbus area, Devonian, microfacies: Carozzi, A. V., 2.

Montana, northeastern, Mission Canyon formation, Mississippian, facies: Lewis, P. J.

BIRDS. See Aves.

BITUMEN. See Asphalt; Hydrocarbons.
BRECCIA—Continued
Virginia, Max Meadows fault breccia: Cooper, B. N., 2.

BRINES.
California, Searles Lake, tungsten: Carpenter, L. G.
Indiana, southeastern, and adjacent areas, Cambrian-Pennsylvanian: Walker, F. H.
Oil-field, iodides and bromides, spectrophotometric determination: Collins, A. G., 1.
Williston basin, northern, Cambrian-Silurian: Porter, J. W.

BRITISH COLUMBIA.
Aeromagnetic map, Pacific coast to Alberta, adjacent to 49th parallel: Canada G. S., 14.
Geochemical and geophysical exploration, Krain copper deposit: Hansen, D. A.
Geochemical studies, copper-zinc ratios in eruptive rocks, southern: Warren, H. V., 4.
Geologic thermometry, Torbrit silver mine, sphalerite: Campbell, F. A.
Geophysical investigation, Puget Sound area, anomalous crustal structure: Neumann, F., 2.
Gravity study, Salmon Glacier: Jacobs, J. A., 2.
Helicopter reconnaissance, Coast Mts., Pitt Lake area: Canada G. S., 32.
Cordilleran, northwestern, Operation Stikine: Canada G. S., 64.
Paleomagnetism, late Tertiary basalts: Du Bots, P. M., 1.
Ripple Rock explosion, crustal thickness: Willmore, P. L.

Areas described.
Chutine area: Canada G. S., 34.
Flathead area: Canada G. S., 28.
Queensel area: Canada G. S., 39.
Tetsa River area: Canada G. S., 55.

Economic geology.
Germanium, Lang Creek area, Eocene coal lenses and brown bed: Buckland, F. C.
Gold, Atlin area: Aitken, J. D., 1.
Vernon area: Jones, A. G.
Lead-zinc, Salmo area: Fyles, J. T.
Whitesail Lake area: Duffell, S., 1.
Mineral deposits, Atlin area: Aitken, J. D., 1.

Economic geology—Continued
Oil and gas: Lucie-Smith, A. N.
Map, northeastern: Canada G. S., 1.
Silver, Torbrit mine: Campbell, F. A.
Tungsten: Little, H. W.
Vernon area: Jones, A. G.
Whitesail Lake area: Duffell, S., 1.

Geologic maps.
Atlin area: Aitken, J. D., 1.
Canal Flats area: Canada G. S., 24.
Caribou Lake area: Canada G. S., 32.
Chutine area: Canada G. S., 34.
Flathead area: Canada G. S., 28.
Nechako River area, Mesozoic distribution: Tipper, H. W.
Queensel area: Canada G. S., 39.
Salmo lead-zinc area: Fyles, J. T.
Tetsa River area: Canada G. S., 55.
Vernon area: Jones, A. G.
Victoria-Vancouver area: Canada G. S., 8.
Whitesail Lake area: Duffell, S., 1.

Historical geology.
Atlin area: Aitken, J. D., 1.
Caribou Lake area, Precambrian-Cretaceous: Canada G. S., 32.
Coast Mts., Bennett area, plutonic rocks: Christie, R. A.
Cordilleran, depositional and orogenic sequences: White, W. Harrison.
Granitic intrusions, ages: Baadsgaard, H., 3.
Fernie group, Jurassic, Oxfordian: Frebold, H. W. L., 2.
Flathead area: Canada G. S., 28.
Flathead North area: Price, R. A.
Granites, Upper Jurassic-Lower Cretaceous, northern: Aitken, J. D., 2.
Ice River complex, sedimentary contact, age revision, Precambrian: Gusow, W. C., 2.
Mesozoic, central: Tipper, H. W.
Peace River area, Triassic: Hunt, A. D.
Upper Mississippian-Permian, nomenclature and type sections: Halbertsma, H. L.
Precambrian: Burwash, R. A. M.
Quaternary, southwestern: Wagner, F. J. E.
Salmo lead-zinc area, Cambrian-Tertiary (?): Fyles, J. T.
Takla and Hazelton groups, Mesozoic, Nechako River area, revision: Tipper, H. W.
Tetsa River area, Devonian-Cretaceous: Canada G. S., 55.
Vernon area: Jones, A. G.
Wapiti Lake area, Pennsylvanian-Permian boundary: Forbes, C. L.
British Columbia—Continued

Historical geology—Continued
Whitesail Lake area, Jurassic-Oligocene: Duffell, S., 1.

Mineralogy.
Barite, Fort St. John area, subsurface: Pugh, D. C.
Kahntah River area, subsurface: Pugh, D. C.
Chlorite and vermiculite in soils, Vancouver Island: Thelsen, A. A., 1.
Torbrit silver mine: Campbell, F. A.

Paleontology.
Ammonoids, Fernie group, Jurassic, Oxfordian: Frebold, H. W. L., 2.
Ammonoids and pelecypods, Nelson-Salmo area, Jurassic: Duffell, S., 1.
Chlorite and vermiculite in soils, Vancouver Island: Theisen, A. A., 1.
Fusulinid, Wapiti Lake area, early Permian: Forbes, C. L.
Insects, Tertiary, Canada Geological Survey collection: Rice, H. M. A.
Invertebrates, Quaternary, southwestern, lists: Wagner, F. J. E.
Paleozoic sedimentary rocks, textures, northeastern: Eccles, J. K.
Fernie group, Jurassic, Oxfordian: Frebold, H. W. L., 2.
Fusulinid, Wapiti Lake area, early Permian: Forbes, C. L.

Physical geology.
Atlin area: Atken, J. D., 1.
Chuteine area: Canada G. S., 34.
Coast Mts., Bennett area, plutonic rocks: Chrétien, R. L.
Granitization and symplutonic dikes: Roddiek, J. A.
Cordilleran: White, W. Harrison.
Fernie group, Jurassic, Oxfordian: Frebold, H. W. L., 2.
Kitsault River area, upper: Campbell, F. A.

Petrology.
Atlin area: Atken, J. D., 1.
Chuteine area: Canada G. S., 34.
Coast Mts., Bennett area, plutonic rocks: Chrétien, R. L.
Granitization and symplutonic dikes: Roddiek, J. A.
Cordilleran: White, W. Harrison.

British Columbia—Continued

Physical geology—Continued
Carbondale River area: Canada G. S., 32.
Coast Mts., symplutonic dikes, pre-Tertiary: Roddiek, J. A.
Cordilleran, tectonic history: White, W. Harrison.
East Kootenay area, basement: Burwash, R. A. M.
Flathead area: Canada G. S., 28.
Flathead North area: Price, R. A.
Kitsault River area, upper: Campbell, F. A.
Mesozoic tectonics, northwestern: waves, J. O.
Nodales Channel, marine lignite deposition: Carsola, A. J., 1.
Salmo lead-zinc area: Fyles, J. T.
Salmon Glacier, velocity: Mathews, W. H.
Tetsa River area: Canada G. S., 55.
Vernon area: Jones, A. G.
Whitesail Lake area: Duffell, S., 1.

Physiography.
Atlin area: Atken, J. D., 1.
Nugget Mtn. area, Cariboo district, unequal erosion rate: Crickmay, C. H.
Trutch Creek, stream piracy: Barton, R. H.
Whitesail Lake area: Duffell, S., 1.

British Honduras. See also Central America.
Cays, formation: Vermeer, D. E.
Geologic map, soil parent materials: Wright, A. C. S.
Physiography: Vermeer, D. E.; Wright, A. C. S.
Shorelines, Pliocene-Recent changes: Wright, A. C. S.

Bryozoa.
Archimedes bentleyi, Mississippian, Utah, Manning Canyon shale, Utah County: Burckle, L. H., 1.
Fenestrate, Mississippian, Utah, central: Burckle, L. H., 3.
Fistuliporidae, Silurian and Pennsylvanian species, astogeny: Perry, T. G., 2.
Jamaica, Bowden formation, Miocene: Lagaaij, R.
Montana, Amsden formation, Pennsylvanian: Perry, T. G., 3.
Polypora, nomenclature: Burckle, L. H., 2.
Trematopora, Silurian, revision: Boardman, R. S.

Building stone. See Construction materials.
INDEX

CALCITE. See also Carbonates.
Cone-in-cone, on trilobites, Utah, Wheeler formation: Bright, R. C.
Crinoidal limestone, paragenetic depositional sequence: Waldschmidt, W. A.
Echinoid, crystallographic orientation: Raup, D. M., 1
Melting in presence of water: Wyllie, P. J., 3.
Microcrystalline and sparry, in carbonate rocks: Folk, R. L., 2.
Monocrystalline speleothems: Quinlan, J. F., Jr., 2.
Petrofabric analysis, Conestoga limestone, Pennsylvania, Hanover area: Nickelsen, R. P.
Solubility, experimental: Segnit, R. E.
Thermoluminescence, impurity effects: Medlin, W. L., 1.
CALCITE. See also Carbonates.
CALIFORNIA—Continued
Seismic refraction, crustal structure of continental borderland, southern: Shor, G. G., Jr., 1.
Seismographs, Dalton Canyon and Isabella fused-quartz extensometers, long-period strain measurements: Benloff, V. H.
Soils, central: Kelley, F. R.
Areas described.
La Honda-San Gregorio quadrangles: Touring, R. M., 1, 2.
Lake Elsinore quadrangle: Engel, R. L. H.
Lava Beds National Monument: Knox, R. G.
Little San Bernardino-Oroceplia Mts. area: Oesterling, W. A.
Mazourka Canyon area: Greffe, J. L.
Rock Creek-Conway Summit area: Rinchert, C. D., 1.
Economic geology.
Asbestos, northern: Wiebelt, F. J.
Bentonite, Vallecratitos area: Aune, Q. A.
Borates, Kramer deposit, mineral relations and origin: Christ, C. L., 3.
 Mojave Desert, western, geophysical exploration: Mabey, D. R.
Cement materials, north-central: Falck, J. N.
Chert, reactivity in concrete aggregate: Goldman, H. B.
Clay, Ione basin: Gates, R.
Temescal Valley, southern: Engel, R. L. H.
Diamonds: Pages History.
Fire clays, Ione area: Kelley, F. R.
Gold, Lake Elsinore quadrangle: Engel, R. L. H.
Limestone and dolomite, Gabillan Range: Bowen, O. E., Jr.
Standard quadrangle, possibilities: Hart, E. W.
Mercury, origin of deposits, relation to froth veins including oil: Bailey, E. H., 2.
Mineral resources, Lake Elsinore quadrangle: Engel, R. L. H.
Natural gas, Bounde Creek field: Bruce, D. D., 2.
Chowchilla field: Hunter, G. W.
Compton Landing field: Bruce, D. D., 1.
Gill Ranch field: Loken, K. P.
Johe Ranch and Maddux Ranch areas: Land, P. E.
Princeton field: Bruce, D. D., 3.
Sacramento basin: Loomis, F. B., Jr.
Oil and gas, Buena Vista field: Borkovich, G. J.
CALIFORNIA—Continued

Economic geology—Continued

Canfield Ranch field: Matthews, J. F., Jr.
Oak Canyon field: Ybarra, R. A.
Olive field: Gaede, V. F.
Perlite, Rust area, San Bernardino County: Chesterman, C. W., 1.
Petroleum, Aliso Canyon field: Ingram, W. L.
Bellevue field: Sullivan, J. C.
Cuyama area: Cross, R. K.
East Gosford field: Horton, R. E.
Fillmore field: Schultz, C. H.
Jasmin field: Hluza, A. G.
Midway-Sunset field, Thirty-five anticline: Zulberti, J. L.
North Tejon field: LeRoy, W. H.
Northwest Ten Section pool: MacKevett, N. H.
South Mtn. field, Bridge pool: Hall, Edward A.
Tapia field: Dosch, M. W.
Tejon Ranch field, Slosson pool: Ivanhoe, L. F., Jr.
Pumice, Coso Range area: Chesterman, C. W., 1.
Salts, Searles Lake, core logs: Haines, D. V.
Tungsten, Searles Lake brines, possibilities: Carpenter, L. G.

Geologic maps.

Alpine Butte quadrangle: Dibblee, T. W., Jr., 2.
Avenal-McKittrick area: Wood, P. E.
Blairsden quadrangle, Tertiary, parts: Durrell, C., 1, 2.
Camp Irwin area: Kunkel, F. F.
Chico Martinez Creek area: San Joaquin Geol. Soc.
Coast Ranges-Sacramento Valley, northern: Bailey, E. H., 4.
Crestmore area, Commercial quarry: Burnham, C. W., 1.
Daly City, Westlake area: Bonilla, M. G.
Death Valley, Black Mts., turtleback fault areas: Drewes, H. D.
Eureka area: Evenson, R. E.
Fremont Peak area: Bowen, O. E., Jr.
Golden Gate Hill area, Calaveras County: Rose, R. L., 1.
Klamath Mts., Shasta Valley-Scott Valley area: Wells, F. G.
Lake Elsinore quadrangle: Engel, R. L. H.
Long Beach-Santa Ana area: Poland, J. F., 2.

CALIFORNIA—Continued

Geologic maps—Continued

Mojave quadrangle: Dibblee, T. W., Jr., 1.
Nopah Range, southern: Wasserburg, G. J.
Orocopia Mts., northern: Crowell, J. C., 1.
Pigeon Point area: Hall, C. A., Jr., 2.
Puente Hills, eastern: Durham, D. L.
San Andreas fault zone, Marin and San Mateo Counties: Oakeshott, G. B.
San Francisco peninsula, western, Pliocene-lower Pleistocene: Glen, W.
Santa Ynez River basin, Quaternary: Wilson, H. D., Jr.
Soda Mts., northeastern: Grose, L. T.
Standard quadrangle, Calaveras group carbonate belt: Hart, E. W.
Stanislaus-Merced Counties: Davis, S. N.
Temescal Valley, southern: Engel, R. L. H.
Torrance-Santa Monica area: Poland, J. F., 1.
Warm Spring-Silver Lady Canyons area: Wasserburg, G. J.

Ground water.

Aqua de Ney, chemical character: Schuch, J. P.
Avenal-McKittrick area: Wood, P. R.
Camp Irwin area, alluvium: Kunkel, F. F.
Eureka area: Evenson, R. E.
Los Angeles County, sea-water intrusion: Bruington, A. E.
Mojave Desert: Antelope Valley Californian.
San Joaquin Valley, conditions and storage capacity: Davis, G. H., 1.
Decline in pressure, land subsidence: Gibbs, H. J.
Santa Ynez River basin: Wilson, H. D., Jr.
Stanislaus-Merced Counties: Davis, S. N.
Theses, bibliography: Glefer, G. J.
Torrance-Santa Monica area: Poland, J. F., 1.
CALIFORNIA—Continued

**Ground water—Continued**


**Historical geology.**

Anacapa Island, San Onofre breccia, Miocene: Scholl, D. W., 1.
Bay Point formation, Pleistocene, type locality: Valentine, J. W., 1.
Blairden quadrangle, Tertiary: Durrell, C., 2.
Camp Irwin area, Cenozoic: Kunkel, F. P.

Cenozoic volcanism, potassium-argon ages: Evernden, J. F., 1.
Chaos Jumbles, avalanche deposit, dating by tree rings: Heath, J. P.
Chico Martinez Creek area, Miocene: San Joaquin Geol. Soc.
Coast Ranges, lower Tertiary biostratigraphy: Mallory, V. S.
Coast Ranges-Sacramento Valley, northern, Jurassic-Cretaceous: Bailey, E.H., 4.
Corona South quadrangle, Triassic-Quaternary: Gray, C. H., Jr.
Crowell, J. C., 1.
Merced formation, Pliocene-Pleistocene, correlations: Glen, W.
Mescal Range: Evans, J. R.
Mojave Desert, Schuiling Cave area, Cenozoic: Downs, T.
Monterey area, Cretaceous granitic rocks, Th-Pb age: Hutton, C.O., 1.
Newberry area, post-Miocene: Danhez, E. A.
Newport Bay area, late Pleistocene: Kanakoff, G. P.
North Whittier Heights area, Cenozoic: Hunter, W. J.
Orocopia Mt., Eocene: Crowell, J. C., 1.
Rock Creek-Conway Summit area: Rinheart, C. D., 1.
Sacramento Valley, northern, subsurface gorge, Cretaceous: Frick, J. D.
Pleistocene dating, fossil-man evidence: Carter, G. F.
San Francisco Bay area, Jurassic-Quaternary: Oakeshott, G. B.
San Francisco peninsula, western, Pleistocene-lower Pleistocene: Glen, W.
San Joaquin Valley, Cenozoic continental deposits, aquifers: Davis, G. H., 1.

Cenozoic correlation section: Church, H. V., Jr.
Southern, Jurassic-Quaternary, correlation chart: Park, W. H.
San Mateo County, northwestern, late Cenozoic: Bonilla, M. G.
Santa Maria basin, Jurassic-Pleistocene, correlation section: Krammes, K. F.
Santa Rosa Island, Pleistocene terraces, radiocarbon ages: Orr, P. C.
Santa Ynez River basin, Pliocene-Recent, aquifers: Wilson, H. D., Jr.
Searles Lake evaporites, Quaternary: Smith, G. I.
Sierra Nevada, northern: Lydon, P. A., 2.
Soda Mts., northeastern: Grose, L. T.
Standard quadrangle, southern, Carboniferous (?)—Tertiary: Hart, E. W.
Stanislaus-Merced Counties, Jurassic-Recent: Davis, S. N.
CALIFORNIA—Continued

Historical geology—Continued

Tin Mtn. limestone and Perdido formation, Devonian-Mississippian, Quartz Spring area: Langenheim, R. L., Jr., 3.

Torrance-Santa Monica area, Cenozoic aquifers: Poland, J. F., 1.

Vallecitos area, Tertiary: Davis, D. M.

Ventura basin, east edge, Miocene sedimentary environment: Skolnick, H., 1.

Eastern, Tertiary: Hackel, O.

Mineralogy.

Albite, East Shasta copper-zinc district, metasomatic origin: Albers, J. P.

Attapulgite, veins in Tropico group, Kern-San Bernardino Counties: Droste, J. B., 4.

Borates, Kramer deposit, mineral relations and origin: Christ, C. L., 3.

Boron area, clay mineral and borate decomposition relations: Gates, G. R.

Clay minerals, Mojave Desert, playas: Droste, J. B., 1.

Crestmore area, contact-metamorphic mineral assemblages and zonation: Burnham, C. W., 1.

Diamonds: Pages History.

Division of Mines collection: Gary, G. L.

Eureka Peak, zoned gabbro pegmatites: Lovering, J. K.

Gelkielite, Santa Lucia Mts.: Wise, W. S., 1.

Gowerite, Death Valley: Erd, R. C.

Halweeite, Halwee Reservoir area: McBurney, T. C.


Heavy minerals, granitic plutons, central: Spotts, J. H.

Santa Cruz Mts., lower Tertiary: Beveridge, A. J.


Jadeite, origin, New Idria serpentine body inclusions: Coleman, R. G., 3.

Ludwigite, Fresno County: Chesterman, C. W., 2.

Meteorite, Goose Lake iron: Ferry, P.

Meteoritic dust, Miocene: Skolnick, H., 3.

 Mojave Desert, western, collecting map: Berkoz, M. P.

Pyrite, precipitation, Ventura basin: Skolnick, H., 1.

Roemerite, Island Mtn. area, X-ray study: Van Loan, P. R., 2.

Saltine deposits: Kerr, P. F., 3.

Southern California batholith, trace elements: Sen, N.

Veatchite, Kramer district: Clark, J. R., 4.

Paleontology.

Algae, Silurian, northern: Johnson, J. Harlan, 4.

CALIFORNIA—Continued

Paleontology—Continued

Ammonoids, Albion, northern: Murphy, M. A.

Cretaceous, Late, systematic descriptions: Matsumoto, T.

Birds, Miocene, southern: Howard, H.


Chico Creek canyon, Cretaceous, Upper, assemblages: Saul, L. R.

Coral, McCloud limestone, Permian: Langenheim, R. L., Jr., 1.

Dwarf fauna, Miocene, Ventura basin, ecology: Skolnick, H., 1.

Fish eggs, Calico Mts., Miocene: Pierce, W. D., 3.

Foraminifera, Coast Ranges, early Tertiary: Mallory, V. S.

Globigerina pachyderma, Cenozoic, correlation, coiling habit: Bandy, O. L.

Santa Catalina Island, biofacies, ecology: McGlasson, R. H.

Santa Monica Bay, ecology, intertidal, seasonal variations: Reiter, M.

Ecology, relation to marine geology: Zalesny, E. R.

Stanford University campus, Cretaceous: Graham, J. J.

Temblor formation, Miocene: Garrison, Lowell E.


Trace manganese in shells, modern cf. fossil: Krinsley, D., 1.

Insects, Miocene nodules, southwestern: Pierce, W. D., 2.

Mojave Desert, Miocene, popular account: Kirkby, R. A., 1.

Invertebrates, Newport Bay area, late Pliocene fauna, cf. Recent: Kanakoff, G. P.

San Francisco peninsula, western, Pliocene-early Pliocene: Glen, W.

Jurassic-Cretaceous age fossils in Franciscan rocks, central: Durham, J. W., 4.

Mammals, Awatash formation, Pliocene, footprints: Alff, R. M., 2.

Manohra formation, Eocene, Orocopia Mts.: Crowell, J. C., 1.


Mollusks, Palos Verdes Point, Pliocene, list: Valentine, J. W., 1.

Huntington Beach Mesa, Pliocene, list: Valentine, J. W., 3.

San Andreas fault zone, Miocene, displacement: Hall, C. A., Jr., 3.

San Diego area, late Pliocene: Emerson, W. K., 1.
Paleontology—Continued

Pelecypod, Kirker sandstone, Oligocene, Mt. Diablo: Durham, J. W., 2.
Plants, Rancho La Brea, Pleistocene: Templeton, B. C.
Salamanter tracks, Mertenh formation, Pilocene: Peabody, F. E., 1.
Silicoflagellates, Cenozoic, paleoclimate indicators: Mandra, Y. T.
Tin Mtn. limestone and Perdido formation, Devonian-Mississippian, Quartz Spring area: Langenheim, R. L., Jr., 3.
Vertebrates, Schuiling Cave, Mojave Desert, Pleistocene: Downs, T.
Wolf and coyote, Samwel Cave, Pleistocene: Graham, R.

Petrology.
Alameda Creek, gravels, size and sphericity analyses: Inderbitzen, A. L.
Amboy Crater, basaltic lava, differentiation: Parker, R. B., 1.
Avenal-McKittrick area: Wood, P. R.
Bald batholith, cf. Bald Mtn. batholith, Oregon: Larsen, L. H.
Bentonite, Vallecitos area: Aune, Q. A.
Crestmore area, contact metamorphism of magnesian limestones: Burnham, C. W., 1.
East Shasta copper-zine district, soda metasomatism: Albers, J. P.
Eureka Peak, zoned gabbro pegmatites: Lovering, J. K.
Franciscan chert cf. Monterey chert: Goldman, H. B.
Franciscan group, Jurassic-Cretaceous (?) Isabel-Eylar area: Sollman, S. M.
Pacheco Pass area: McKee, E. B., Jr.
Fremont Peak area: Bowen, O. E., Jr.
Froth veins including oil, in mercury deposits, immiscible hydrothermal fluids: Bailey, E. H., 2.
Inyo batholith, Pelliser granite, non-metamorphic origin: Emerson, D. O., 2.
Jackson area, Tertiary volcanic domes: Rose, R. L., 1.
Lake Elsinore quadrangle: Engel, R. L. H.

Lovejoy formation, Eocene, basalt lava, northern: Durrell, C., 1.
Nopah Range, southern: Wasserburg, G. J.
Pigeon Point shelf, sediments: Moore, D. G.
Poe Tunnel, metamorphic rocks and intrusions, petrography: Lydon, P. A., 1.
Santa Catalina Island, submarine sediments: McGlasson, R. H.
Santa Monica Bay, sediments, grain size, correlation with foraminiferal abundance: Retter, M.
Sierra Nevada, northern: Lydon, P. A., 2.
Soda Mts., northeastern: Grose, L. T.
Tectonic history, southern: Emery, K. O.
Corona South quadrangle: Gray, C. H., Jr.
Death Valley, Black Mts., turtleneck faults: Drewes, H. D.
List: Wood, H. O.
Los Angeles basin, seismic regionalization: Richter, C. F., 1.
Minor, restudy: Richter, C. F., 3.
Sedimentological studies: Richter, C. F., 1.
Fremont Peak area: Bowen, O. E., Jr.
Fresno County, subsidence due to alluvial-fan compaction: Bull, W. B.
Jackson area, Tertiary volcanic domes: Rose, R. L., 1.
Kramer area, borax-solution collapse structures: Smith, Ward C.
La Honda-San Gregorio quadrangles: Touring, R. M., 2.
Lake Elsinore quadrangle: Engel, R. L. H.
California—Continued

Physical geology—Continued

Lava Beds National Monument, caves: Knox, R. G.
Little San Bernardino Mts.: Pruss, D. E.
Little San Bernardino-Orocopia Mts. area: Osterling, W. A.
Long Beach Harbor area, subsidence: Bercbower, R. F.
Los Angeles, landslides, Pacific Palisades area, map: McGill, J. T., 1.
Mescal Range: Evans, J. R.
Mineral King area, cleavage and folding: Christensen, M. N.
Mojave Desert, faults: Antelope Valley Californian.
Newberry area, post-Miocene: Danby, E. A.
North Whittier Heights area: Hunter, W. J.
Owens Valley, faulting, 1872 earthquake, left-lateral movement: Gianella, V. P., 1.
Precambrian continental margin, southeastern: Wasserburg, G. J.
San Andreas fault, displacement measured by Miocene molluscan provinces: Hall, C. A., Jr., 3.
Hollister area, creep: Tocher, D., 4.
Popular account: Gems & Minerals.
San Francisco Bay area: Oakeshott, G. B.
San Francisco Peninsula, Pleistocene offset: Smith, D. D.
San Diego area, marine lignite deposition: Carosla, A. J., 1.
San Francisco area, ocean beaches, wave-pattern control: Trask, P. D., 1.
San Gabriel Mts., Vincent thrust, Pelona schist facies: Ehlig, P. L.
San Joaquin Valley, subsidence: Small, J. B.
San Pedro and Santa Monica submarine basins, sedimentation, turbidity currents: Gorsline, D. S.
Santa Lucia Range, Church Creek-Willow Creek faults: Dickinson, W. R.
Sierra Nevada, Alpine County, roof pendants, deformation: Parker, R. B., 2.
Glacial advances: Birman, J. H.
Soda Mts., northeastern: Grose, L. T.

California—Continued

Physical geology—Continued

Standard quadrangle, south half: Hart, E. W.
Torrance-Santa Monica area, faults: Poland, J. F., 1.
Turbidites, load-deformation structures, Modelo formation, Miocene: Sullivan, H. H., Jr.
Vallecitos area: Davis, D. M.
Ventura basin, eastern, Tertiary: Hackel, O.

Physiographic geology.

Camp Irwin area: Kunkel, F. F.
Chileno Canyon drainage basin, Los Angeles County, longitudinal stream profiles, quantitative analysis: Broscoe, A. J., 1.
Continental borderland, southern: Emery, E. O.
Newport Bay marshes: Stevenson, R. Everett, 2.
Pigeon Point, marine terraces, bedrock, buried: Moore, D. G.
Pleistocene valley glaciers, southern: Sharp, R. P., 2.
San Diego area, coastal geomorphology, Pleistocene terraces: Carter, G. F.
San Francisco area, ocean beaches, wave-pattern control: Trask, P. D., 1.
San Francisco Bay, east side, former shoreline features: Radbruch, D. H.
San Francisco Bay area, fault zone: Oakeshott, G. B.
San Joaquin Valley, drainage: Davis, G. H., 1.
Southern: Wood, P. R.
Santa Catalina Island, submarine topography: McGlasson, R. H.
Santa Rosa Island, Pleistocene terraces: Orr, P. C.
Sierra Nevada, glacial: Birman, J. H.
Torrance-Santa Monica area: Poland, J. F., 1.
White Mts., slope retreat by gullying: Beaty, C. B., 1.

Cambrian. See also Paleontology, Cambrian; Paleozoic.

Absolute ages: Adams, J. A. S., 2.
Alberta, southern plains, Middle-Upper: Hees, H. van.
Arizona, southeastern: Dickinson, R. G.
Waterman Mts.: McClymonds, N. E., 1.
British Columbia, Salmo lead-zinc area: Fyles, J. T.
CAMBRIAN—Continued
Colorado, northwestern: Hallgarth, W. E.
Illinois, Chicago region: Suter, M.
Montana, Garnet Range: Kauffman, M. E., 2.
New Mexico, southeastern: Barnes, V. E., 1.
Washington County, northern, Taconic sequence: Theokritoff, G., 2.
Oregon, southwestern, subsurface: Sanford, B. V.
Tennessee, Buffalo Mtn.—Cherokee Mtn. area: Ordway, R. J.
Texas: Barnes, V. E., 1.
Utah, Bismark Peak quadrangle: Foster, J. M.
Deep Creek Mts.: Bick, K. F.
House Range, southern: Powell, D. K.
Oquirrh Mts., southern: Rigby, J. K., 2.
Sheeprock Mts.: Cohenour, R. E.
Wasatch Mts.: Lechman-Balk, C., 1.
Vermont, Taconic Range, north end: Zen, Evan, 1.
West Virginia, Wood County deep well, carbonate rocks: Prouty, C. E., 2.
Wisconsin, southwestern: Tri-State Geol. Field Conf.

CANADA. See also the provinces; Arctic America; Rocky Mountains; Williston basin.
Aeromagnetic maps, index: Canada Geol. Surv., 15.
Aeromagnetic surveys, northern, problems: Hoylman, H. W.
Geochemical prospecting methods, Canada Geological Survey: Gilbert, M. A.
Geochemical study, petroleum, trace-metals content: Baker, B. L.
Geological surveying, helicopter operations: Canada Geol. Surv., 64.
Geophysical investigations, A l a s k a Highway, gravity and magnetic: Oldham, C. H. G.
Gravity anomaly map: Canada Dominion Observatories.
Paleomagnetism, Maritime provinces, post-Carboniferous: Nairn, A. E. M.
Sedimentary exploration, wide-angle reflection, limestone structures, western: Richards, T. C., 2.

CANADA—Continued
Symposium, Rocky Mtn. Trench: Holland, S. S.

Economic geology.
Heavy minerals, Maritime Provinces, sand and gravel deposits, possibilities: McLeod, C. R.
Iron, classification of deposits: Gross, G. A.
Eastern: Krzywicki, E.
Map: Canada Geol. Surv., 1.
Mineral exploration, techniques, symposium: Huston, C. C.
Molybdenum, map: Canada Geol. Surv., 3.
Northwestern, possibilities: Lang, A. H.
Oil and gas, Arctic areas, possibilities: Allen, A. R.
Eastern fields and possibilities: Rolliff, W. A.
Peat, Maritime Provinces, chemical composition: Smith, D. G.
Selenium in sulfides: Hawley, J. E.
Sulfides, ore bodies, metal ratios: Wilson, H. D. B.
Tungsten: Little, H. W.
Uranium: Griffith, J. W.

Historical geology.
Arctic region, Pleistocene: Craig, B. G., 2.
Athabasca formation, lower Paleozoic, Precambrian relations, western: Gussow, W. C., 1.
Devonian, fossils as lithologic constituents in defining rock units, western and Arctic: McLaren, D. J., 2.
Logan Sea, Upper Jurassic, western: Frebold, H. W., L., 2.
Northeastern: Corbel, J., 2.
West Canadian basin, Paleozoic: Sibbonsy, L. A.

Mineralogy.
Clay minerals, deposition environments, eastern: Allen, V. T., 1.
Heavy minerals, Maritime Provinces, sand and gravel deposits: McLeod, C. R.
Sols, Maritime Provinces, relation to underlying rocks: Brydon, J. E., 2.

Paleontology.
Algae, Mississippian, western: Johnson, J. Harlan, 1.
Ammonoids, gastropillean, Cretaceous, evolution: Warren, P. S.
Canada—Continued
Paleontology—Continued
Mississippian, possible index fossils, western: Nelson, S. J., 4.
Index fossils, Red River and Stony Mtn. formation equivalents, Ordovician, western: Nelson, S. J., 3.
Petrology.
Granite, lognormal distribution of lead: Durovic, S.
Physical geology.
Karst, development, eastern: Corbel, J., 1.
Permafrost, thermal characteristics and terrain factors: Legget, R. F.
Tectonic history, western: Charlesworth, H. A. K.
Weathering, mechanical, freeze-thaw frequencies: Fraser, J. K., 2.
West Canadian basin, Paleozoic: Sikabonyi, L. A.
Physiographic geology.
Bogs, Hudson Bay lowland: Stüer, H.
Geomorphic history, northern: Bird, John B.
Glacial features, ice-disintegration deposits, western: Gravenor, C. P., 3.
Karst features, eastern: Corbel, J., 1.
Periglacial phenomena: Cook, F. A.
Photogeology, petroleum exploration, northern: Brechtel, F. C.
Canadian Shield.
Moraines, pre-Pleistocene tropical weathering evidence, eastern: Brochu, M., 1.
Paleozoic outliers: Liberty, B. A.
Canal Zone. See Panama.
Carbonate rocks. See also Dolomite; Limestone; Marble; Travertine.
Calcium mosaics: Bathurst, R. G. C.
Calcite and dolomite, quantitative manometric determination: Skinner, S. I. M.
Calcium-magnesium determination, automatic spectrophotometric titration: Malmstadt, H. V.
Calcium-magnesium determination, automatic photometric titration: Malmstadt, H. V.
California, Crestmore area, contact metamorphism of magnesian limestone: Burnham, C. W., 1.
Classification: Folk, R. L., 3.
Cuba, Gulf of Batabano region, grain types: Daetwyler, C. C.
Sierra de Trinidad, metamorphic: Hill, P. A.
Illinois, clay minerals: Ostrom, M. E.
Carbonate rocks—Continued
Magnesium-insoluble residue direct variation: Bisque, R. E., 1.
New Mexico, Lea County, Ellenburger group, cores, thin-section study: Folk, R. L., 3.
Sedimentation cycle: Illing, L. V.
Shatter cones, meteorite-Impact origin: Dietz, R. S., 2.
Silification susceptibility, argillaceous rocks: Bisque, R. E., 2.
Texas, Ellenburger group, cores, thin-section study: Folk, R. L., 3.
Vermont, Burchards limestone, mineralogy and origin: Zen, E-an, 3.
West Virginia, Wood County deep well, Cambrian-Ordovician: Prouty, C. E., 2.
Williston basin, Mississippian, facies, effects on fluid migration: Thames, C. B., Jr.
Carbonates. See also Calcite; Dolomite; Magnesite.
Accumulation rates cf. paleotemperatures: Wiseman, J. D. H.
Calcite-phosphatic pellets, internal structure: Tasch, P., 1.
Chemical analysis, rapid: Goldich, S. S., 2.
Colorado, Salt Wash member, cf. uranium-vanadium content: Archbold, N. L.
Synthetic precipitation: Medlin, W. L., 2; Zeller, E. J., 2.
Fresh-water vs. marine, carbon-13 to carbon-12 ratio: Clayton, R. N.
Geochimistry and mineralogy: Goldsmith, J. E., 1.
Identification by differential staining: Friedman, G. M., 2.
Siderite, spontaneous oxidation of powdered sample: Schaller, W. T.
Solubility in sea water, experiments: Garrels, R. M., 8.
System, CaCO₃-MgCO₃-FeCO₃, John CaMg (CO₃)₂-CaFe(CO₃)₂: Rosenberg, P. E.
CaCO₃-MgCO₃-MnCO₃: Goldsmith, J. E., 2.
Calcite-dolomite in sea water: Kramer, J. R.
Calcium carbonate in sea water: Wyllie, P. J., 3.
Vermont, Burchards limestone, X-ray diffraction: Zen, E-an, 3.
Carboniferous. See also Mississippian; Paleontology, Carboniferous; Paleozoic; Pennsylvanian.
Alberta, Bow Valley area, diachronism, magnasfacles: Drummond, J. M.
INDEX 353

CARBONIFEROUS—Continued
Montana, central, Big Snowy group, revised: Gardner, L. S., 2.
CARIBBEAN REGION. See also West Indies.
Crustal structure, seismic studies: Ewing, J. L. 2.
Geophysical investigations, structure sections, eastern: Officer, C. B., Jr., 1.
Island-arc and mountain systems, tectonics: Hess, Harry H., 2.
Origin and development, eastern: Officer, C. B., Jr., 1.
CARIBBEAN SEA.
Banks parallel to British Honduras coast, fault origin: Vermeer, D. E.
Beata Ridge area, deep-sea core, distribution of elements, carbonate content unrelated to paleotemperature: Yalkovsky, R., 1.
CAROLINA BAYS.
Origin: Rasmussen, W. C., 2, 3.
Theories: Agocs, W. B., 1.
CASE HARDENING, Hygiene sandstone, Colorado: Charlesworth, L. J., Jr.
CATALOGS. See also Geologic names, lexicons, catalogs, glossaries.
Arizona, southern, formation names: Pye, W. D., 3.
Foraminifera: Ellis, B. F., 1.
Mexico, Sonora, northern, formation names: Pye, W. D., 3.
New Jersey, minerals: Wilkerson, A. S.
New York State Museum, fossils: Killfoyle, C. F.
Spores and pollen, Cretaceous: Kremp, G. O. W., 3.
Mississippian-Pennsylvanian: Kremp, G. O. W., 2.
Pennsylvanian: Kremp, G. O. W., 1.
CAYES.
Alberta, Cadomin area: Edmonton Geol. Soc.
Appalachians, origin: Davies, W. E., 1.
Origin, shallow-phreatic: Whitte, W. B.
Arizona, Montezuma Well Cave: Lange, A. L., 2.
California, Lava Beds National Monument: Knox, R. G.
CENozoic. See also Paleontology, Cenozoic; Quaternary; Tertiary.
Alaska, Unnak-Bogoslof Island area, volcanism: Byers, F. M., Jr.
California, San Francisco Bay area, San Andreas fault zone: Oakeshott, G. B.
San Francisco peninsula, western, Pliocene-lower Pleistocene: Glen, W.
San Joaquin Valley, correlation section: Church, H. V., Jr.
Santa Maria basin, correlation section: Krammes, K. F.
Gulf Coastal Plain, southern: Williamson, J. D. M.
Kansas, Flint Hills, erosional history: Frye, J. C., 1.
Louisiana, southern, post-Oligocene composite thicknesses: Crouch, R. W.
Mexico, Basin of Mexico, volcanic series: Mooser, F., 1.
Nevada, Carlin area, volcanic-sedimentary sequence: Reguler, J. P. M.
Lone Mtn., conglomerate, tuffs, and intrusions: Lovejoy, D. W.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

CENOZOIC—Continued

New Mexico, Union County, volcanism, late: Baldwin, B.

North America, paleoclimates: Dorf, E., 1.

South Carolina, Charleston area: Malde, H. E., 1.

Volcanic belts, relation to continental drift and total crustal shift: Ma, T. Y. H.

West Indies, Leeward Islands, by islands: Martin-Kaye, P. H. A.

CENTRAL AMERICA. See also the countries.

Bibliography: Maldonado-Koerdell, M., 2.

Paleontology, bibliography: Maldonado-Koerdell, M., 2.


Volcanoes, activity: Bullard, F. M.

CEPHALOPODA.

See also Mollusca.

Alberta, Exshaw formation, Mississippian, nepionic, sutural development: Schindewolf, O. H.

Ammonoids, classification by soft parts: Torre y Capablanca, C. de la.


Albion, California, northern: Murphy, M. A.

Late, California, systematic descriptions: Matsumoto, T.

Texas, trans-Pecos area, zones: Young, K. P., 1.


Greenland, Jameson Land: Callomon, J. H.

Triassic, British Columbia, Peace River area, nomenclature: McLearn, F. H.

Nevada, Luning formation: Silberling, N. J.

Belemnitidae, Mississippian, morphology and classification: Flower, R. H., 2.

Belemnoids, Devonian-Triassic, morphologic distinction from nautiloids: Flower, R. H., 2.

Gastropiles, Cretaceous, Canada, evolution: Warren, P. S.

Goniattes, Mississippian, Alberta, Exshaw formation, nepionic, sutural development: Schindewolf, O. H.

Goniattes choctawensis, Mississippian, Oklahoma, Caney shale, neoholotype: Branson, C. C., 10.

Mississippian, Oklahoma, earliest description: Branson, C. C., 2.

Nautiloids, collected, Pennsylvanian: Hansman, R. H.

CEPHALOPODA—Continued

Nautiloids—Continued

Paleozoic, muscle-attachment impressions: Sweet, W. C., 1.

Perisphinctes, Jurassic, Cuba, impressions of soft parts: Torre y Capablanca, C. de la.

CERAMIC MATERIALS.

Chemistry and physics: Searle, A. B.

Clay-mineral mixtures, high-temperature reactions: Bridgley, G. W., 5.

Electron microscopy: Comer, J. J.

Feldspar, popular account: Tilden, P. M., 1.

Illinois, LaSalle County, light-burning clay: Parham, W. E., 1.

Oregon, western clays: Kelly, H. J.

Puerto Rico, Carolina clay deposit: Callada, J. F., 2.

Utah, Henefer area, red clay: Stringham, B. F., 2.

Washington, western clays: Kelly, H. J.

CHANGES OF LEVEL. See also Shorelines; Subsidence.


British Honduras, cays and barrier reef: Vermeer, D. E.

Shorelines, Pliocene-Recent: Wright, A. C. S.

California, San Diego area, Pleistocene terraces: Carter, G. F.

Southern, Cretaceous-Quaternary: Emery, K. O.

Canada, northern, Quaternary: Bird, John B.

Cause, phase changes at Mohorovičić discontinuity due to temperature change: Lovering, J. F., 2.

Crustal depression by ice masses, and postglacial uplift: Pfeifer, L.


Gulf of Mexico, southern Florida area: Jordan, G. F.

Louisiana, chenier plain, postglacial: Gould, H. R., 2.

Quaternary valley systems: Russell, R. J., 2.

Maine, southwestern, Quaternary: Bloom, A. L., 1.

Massachusetts, Boston Basin, Recent: Barchoorn, E. S.

Fresh Pond buried-valley area: Chute, N. E.

Shelburne Falls quadrangle: Segerstrom, K.

Michigan, Mackinac Straits region: Shelden, F. D.; Zumberge, J. H., 2.

Minnesota, Lake Superior, north shore, Pleistocene beaches: Farrand, W. R.
INDEX 355

CHANGES OF LEVEL.—Continued

King William Island-Adelaide Peninsula, Quaternary: Fraser, J. K., 1.
Ontario, Lake Superior, Pleistocene beaches: Farrand, W. R.
Pacific atolls, reef thickness: Wiens, H. J.
Porto Rico, Isla Mona, Miocene-Recent: Fraser, J. K., 1.
Ontario, Lake Superior, Pleistocene: Farrand, W. R.
Pacific atolls, reef thickness: Wiens, H. J.
Puerto Rico, Isla Mona, Miocene-Recent: Fraser, J. K., 1.
Ontario, Lake Superior, Pleistocene: Farrand, W. R.

CHROMITE.
Analysis, rapid technique: Dinnin, J. I.
Maryland, early mines: Pearre, N. C.
Newfoundland, Shoal Pond deposit, magnetite association: Jenness, S. E., 1.
Pennsylvania, early mines: Pearre, N. C.

CIROPEIIA. See also Arthropoda.
Palaeocresis devonica, Devonian, probably a limpet: Ladd, H. S., 2.

CLASSIFICATION.
Algae, Devonian: Johnson, J. Harlan, 2.
Mississippian: Johnson, J. Harlan, 1.
Silurian: Johnson, J. Harlan, 3.
Rhyynchonellidea, Mesozoea: Ager, D. V.
Tertiary and Recent: Cooper, G. A., 2.
Breyoza: Kerr, P. F., 1.
Bryozoa, Trematopora, Silurian: Boardman, R. S.
Carbonate rocks: Folk, R. L., 3.
Cephalopoda, Belemnitidae, Mississippian: Flower, R. H., 2.
Nautiloida, muscle-attachment impressions: Sweet, W. C., 1.
Coal, petrographic, American cf. European: Teichmüller, M.-L.
Problem of intraspecific variability: Scott, A. J.

Eurypterida, late Paleozoic: Jellesvig-Waering, E. N.
Evaporites, occurrences: Sloss, L. L., 1.
Faults, slip-based and separation-based: Crowell, J. C., 2; Hill, M. L.
Folds: Mertle, J. B., Jr., 1.
Foraminifera: Hofker, J., 2.
Globigerinidae, natural taxonomy: Hofker, J., 1.
Globotruncanidae: Bronnimann, P.
Lepidocyclinidae, Eocene-Miocene: Blackmon, P. D.
Gastropoda, Pterynotus, Tertiary: Emerson, W. K., 2.
Glaciation, ice-disintegration deposits: Gravenor, C. F., 3.
Holothurian sclerites, fossil cf. Recent: Hampton, J. S.
Industrial rocks and minerals: Bates, R. L.
Iron deposits, Canada: Gross, G. A.
Limestones, marine: Folk, R. L., 2.
Mammalia, Sirenia and Desmostyla, new order: Reinhart, R. H.

CHEMICAL ANALYSES. See Analyses.

CHERT. See also Silica.
California, Franciscan chert cf. Monterey chert, alkali reactivity: Goldman, H. B.
Kansas, Flint Hills: Frye, J. C., 1.
Nebraska, Humboldt River, north fork, diagenesis: Kirchmayer, M.
New Mexico, trans-Pecos area, Montoya group, penecontemporaneous: Howe, H. J.
Ohio, Flint River area: Pagnucco, J. W.
Ouachita facies, origin: Goldstein, A., Jr., 3.
Sedimentation and diagenesis: Kirchmayer, M.
Tennessee, Cleveland area, residuum, criteria in mapping bedrock: Swingle, G. D.
Texas, Cherokee area: Stone, C. M.
Edwards limestone, origin: Pittman, J. S., Jr.
Trans-Pecos area, Montoya group, penecontemporaneous: Howe, H. J.

CHLORITE. See also Clay minerals.
Identification by infrared spectra: Tuddenham, W. M.
Iron, stability range: Turnock, A. C., 2.
Magnesium-aluminum, synthesis: Gilbery, F. H., 1.
CLASSIFICATION—Continued
Metalliferous provinces and ores: Sullivan, C. J., 1.
Metamorphic facies: Fyfe, W. S., 1.
Metamorphic rocks, standard mineral zones: Barth, T. F. W.
Monoplacophora: Knight, J. B.
Ostracoda, Pararaparichitidae, new family: Scott, H. W.
Paleozoic coal measures, stratigraphic: Wanless, H. R., 2.
Pleistocene nonmarine sediments, lithologic: Wayne, W. J.
Reptilia, Captorhinidae: Seltin, R. J., 2.
Rocks, spheroidal structures: Sabourin, R. J. E.
Scolecodonts, taxonomic problems: Sylvester, R. K.
Sedimentary rocks, formation contacts: Winder, C. G.
Maine, Sandy River area, origin and properties: Caldwell, D. W.
Mexico, bauxite and others, thermal analysis: Schmitter, E.
Mineral composition—particle orientation—interparticle adhesion relations: Kaarsberg, E. A.
Nicaragua, Las Maderas—Poza del Padre area, composition and properties: Bongechéa, A. J.
North Dakota, Golden Valley formation, Eocene, kaolinitic deposits, origin: Freas, D. H.
Western, alumina content: Hansen, M.
Oregon, western basins: Kelly, H. J.
Particle-size analysis, log-probability plotting: Phelps, G. W.
Pennsylvania, Gatesburg formation, clay-limonite deposits, electrical investigation: Gross, G. W., 1.
Mereer high-alumina clay, prospecting: Williams, E. G., 2.
Pennsylvania underclay, depth of burial, determination: Altschaefi, A. G.
Puerto Rico, Carolina deposit: Cadilla, J. F., 2.
Role in petroleum origin: Hodgson, G. W., 2.
Sedimentology, petroleum exploration aid: Rolfe, B. N., 1.
Soil mechanics, clay-water systems, mineral phase of water: Rosenqvist, I. T.
Soils, engineering, content and mineral type, effect on strength of clay-sand-water mixtures: Trask, P. D., 2.
Underclays, origin: Harrison, J. L.; Huddle, J. W.
Utah, Henefer area, red ceramic: Stringham, R. F., 2.
Virginia, James River sediments, formation: Powers, M. C.
Washington, western basins: Kelly, H. J.
West Virginia, alumina content: Tallon, W. A.
CLAY—Continued
CLAY—Continued
CLAY MINERALS.
Alaska, Big Delta and Fairbanks areas, silts: Lindholm, G. F.
Matanuska Valley silts: Stump, R. W.
Alberta, Bearpaw shale, marine-nonmarine differences: Byrne, F. J. S.
Postglacial lacustrine soils: Rice, H. M.
CLAY MINERALS—Continued


California, attapulgite veins in Tropico group, Kern-San Bernardino Counties: Droste, J. B., 4.

Boron area, borate deposition relations: Gates, G. R.


Mojave Desert, playas: Droste, J. B., 1.

Canada, eastern, deposition environments: Allen, V. T., 1.

Cation-exchange capacity, petroleum reservoirs: Smoot, T. W., 1.

Chemistry and physics: Searle, A. B.


Front Range mineral belt, hydrothermal alteration: Gonzalez-Bonorino, F.


Salt Wash member, vanadiferous: Foster, M. D.

Vanadiferous: Hathaway, J. C., 2.

Conference: Swineford, A., 1.


Dispersion reagents: Reeves, W. D.

Electron microscopy: Comer, J. J.

General: Rolfe, B. N., 1.

Gulf Coastal Plain, diagenetic conversion with depth, Wilcox formation, Eocene: Burst, J. F., Jr.

Gulf of Mexico, Recent sediments: Meyer, J. W.

Halloysite, crystal structure, treatment with salt solutions: Wada, K., 1, 2.


Hydromica, Chine formation, origin: Stewart, J. H., 1.

Illinois, carbonate rocks: Ostrom, M. E.

Sandstones and shales: Smoot, T. W., 2.

Illite, mixed layering: Bohor, B. F.

Sediments, ancient and modern: Harvey, P. M., 4.

Infrared spectra, structural formulas of layer lattices: Stubican, V., 1.

Infrared spectra and isomorphous substitution: Stubican, V., 2.

Interlayer mixtures in poorly crystallized clays, X-ray diffraction: Jonas, E. C., 1.

Ion exchange: Carroll, D., 5.

Kaolin clays, high-temperature phases: Slaughter, M.

INDEX 357

CLAY MINERALS—Continued

Kaolinite, crystallinity index: Johns, W. D., 2.

Thermal dehydration rate: Holt, J. B.

Kaolinite group, geochemistry, element distribution by size-fractions: McLaughlin, R. J. W.

Uranium localization: Stewart, J. H., 1.


Kaolinite-mullite reaction series: Brindley, G. W., 3.

Kaolinite-muscovite-quartz and kaolinite-illite-quartz mixtures, high-temperature reactions: Brindley, G. W., 5.

Kaolinite-type, high-temperature reactions, X-ray diffraction: Wahl, F. M.

Leaching of silica in limestone environment, experimental: Carroll, D., 4.

Metakaolin, crystal structure: Brindley, G. W., 3.

Mexico, Yucatan Peninsula, soils and limestone: Aguillera Herrera, N.

Mica in vermiculite-illite clays, weathering, potassium-release mechanism: Mehra, O. P.

Missouri, Lindley soil, X-ray studies: Eyton, J. E., 1.

Montmorillonite, adsorption of organic molecules: Hoffman, R. W.

Aluminum substitution for silicon: Roberson, H. E., 2.

Expansibility tests, polar liquids, solvating ability: Johns, W. D., 1.

Inorganic-organic cation exchange: McAtee, J. L., Jr., 1.

Montmorillonoids, low-temperature dehydration, experimental: Crowley, M. S., 1.

Synthetic, adsorption-desorption characteristics: Gillery, F. H., 2.

Variable exchange capacity: Kolzumi, M.


New Mexico, Cochiti mining district, alteration zones: Bundy, W. M.

North Carolina, Carolina bays, southeastern: Ingram, R. L.

North Dakota, Golden Valley formation, Eocene, kaolinitic deposits, origin: Freas, D. H.

Ohio, central, preglacial limestone soil: Summerson, C. H., 2.

Organo-montmorillonite complex, heat effect: McAtee, J. L., Jr., 1.

Pacific Ocean, origin and germanium content: El Wardani, S. A.

Particle size and shape determination, aqueous suspension: Kahn, A.

Saskatchewan, postglacial lacustrine soils: Rice, H. M.
CLAY MINERALS—Continued

Sols, analyses, vermiculite-chlorite-kaolinite differentiation: Dixon, J. B.

Distribution, relation to formation factors: Jackson, M. L.

South Dakota, southern, Pierre formation members, correlation technique: Collins, S. G., 2.

Stevensite, montmorillonite group: Faust, G. T.

Structure, composition, origin: Grim, R. E.

Systems with carbonates, phase relations, marine sediments and rocks: Zeis, E-an, 2.

Texas, Ellenburger group, igneous source: Jonas, E. C., 2.


Utah, Lake Mts., hot springs, halloysite alteration zone: Ames, L. L., Jr., 1.


Virginia, York River tributary, Piedmont cf. Coastal Plain sources: Brown, C. Q.

Water-sorption characteristics: White, W. Arthur, 1.

Weathering: Harrison, J. L.

X-ray diffractometer, wide-range, alignment: Kittrick, J. A.

CLEAVAGE. See also Lineation.

California, Mineral King area, structural: Christensen, M. N.


Vermont, Strafford dome area: Howard, P. F.

CLIMATES, GEOLOGIC. See Paleoclimatology.

COAL. See also Lignite; Maps, Coal.

Alaska, Kenai field, Homer district: Barnes, F. F., 2.

Matanuska field, Little Susitna district: Barnes, F. F., 1.

Northwestern, Coralville, Iowa, formation: Cretaceous: Sable, E. G.

Alberta, Wabamun Lake district: Pearson, G. E.

Beds as lithostratigraphic units: Hedberg, H. D., 2.

Bibliography, stratigraphy and resources: Wier, C. E.

Colorado, Mesa Verde area: Wanek, A. A.


Trinidad-Aguilar area: Harbour, R. L.


Germanium concentration in ash: Corey, R. C.

COAL—Continued

High-volatile bituminous, physical and chemical properties: Ergun, S., 2.

Hydroaromatic structure: Ergun, S., 1.

Idaho, Fall Creek area,uraniferous: Vine, J. D., 1.


Cumberland-Coles-Douglas Counties: Clegg, K. E.

Pennsylvanian beds, correlation: Kosanke, R. M.

Indiana, Coal City quadrangle: Kottlowski, F. E., 1.

Paper-textured: Guennel, G. K.

Kansas, eastern, Mulky coal, resources: Schowe, W. H., 1.

Germanium content, spectrographic analysis: Schleicher, J. A., 1.

Mexico, Sabinas region, Coahuila: Robeck, R. C.

Montana, Birney-Broadus field: Warren, W. C.

New Mexico, La Ventana Mesa area,uraniferous: Bachman, G. O., 2.

North Dakota, Square Buttes field: Johnson, W. D., Jr.

Nova Scotia, Cumberland County, western: Copeland, M. J.

Ohio, Beach City area, cyclothems: Gray, H. H.


Western, bituminous: Deasy, G. F.

Petrographic analysis, transmitted cf. reflected light: Telechmlller, M.-L.

Petrographic classification, American cf. European: Telechmlller, M.-L.

Petrology, proposed international glossary: Cady, Gilbert H.

Petrology and petrographic methods, applications: Schopf, J. M., 1.

Questions answered: Pearl, R. M.

Reserves: Scarlott, C. A.

Tennessee, reserves: Luther, E. T.

United States, western,uraniferous: Denson, N. M., 1.

West Virginia, Bakerstown seam, germanium, petrographic distribution: Corey, R. C.

Hernshaw bed, Boone County, petrography: Parks, B. C.

Wyoming, Red Desert area,uraniferous: Mazursky, H.

COBALT, geochemistry: Carr, M. H.

COELENTERATA. See Anthozoa; Stomatomorpha.

COLLECTIONS.

Fossils, New York State Museum, catalog: Klifoyle, C. F.

Washington University, St. Louis, types: Trumbull, E. J.

Insects, Tertiary, British Columbia, Canada Geological Survey: Rice, H. M. A.
COLLECTIONS—Continued

Meteorites, Towson collection, Cleveland Museum of Natural History: Snow, D.

Minerals, California Division of Mines: Gary, G. L.

Samples for geologic research, Utah: Crawford, A. L.

COLLOQUIA. See Symposia.

COLORADO.

Aeromagnetic and gravity surveys, Lisbon Valley area: Byerly, P. E.

Geochemical prospecting, Clear Creek drainage basin: Theobald, P. K., Jr., 2.

Geochemical studies, Boulder Creek granodiorite, weathering profile, uranium-thorium distribution: Piller, R., 2.

Radioactive limonite: Lovering, T. G., 2.

Geophysical investigations, Jo Dandy area, gamma-ray logs: Bunker, C. M.

Spud Patch area, directional-resistivity trends: Keller, G. V., 3.


Areas described.


Mesa Verde area: Wanek, A. A.

Economic geology.

Beryllium, nonpegmatitic, possibilities: Warner, L. A.

Clay, refractory: Van Sant, J. N.

Coal, Mesa Verde area: Wanek, A. A.


Trinidad-Aguilar area: Harbour, R. L.

Copper, Garo deposit: Wilmarth, V. R., 1.


Copper-lead, Slick Rock district: Shawe, D. R.

Copper-zinc, skarn deposits, southwestern: Heinrich, E. W., 3.

Iron: Harrer, C. M.

Mineral deposits, Chicago Creek area: Harrison, J. E.

Front Range belt, hydrothermal-alteration patterns and ore types: González-Bonorino, F.

Natural gas, Divide Creek field: Berry, G. W.

Lewis formation, Sand Wash basin: Parker, J. M.

North Craig field: Greer, W. J., Jr.

North Douglas Creek field: Tutten, W. D., 2.

Piceance Creek basin, traps: Peterson, V. E.

Powell Park field: Tutten, W. D., 1.

Vermilion Creek basin: Reene, D. L.

Niobium, Powderhorn area, possibilities: Grogan, R. M.

COLORADO—Continued

Economic geology—Continued

Oil and gas, Cliff field: Severy, C. L.

Denver basin, Mesaverde group: Nolte, C. J.

Mesa Verde area, possibilities: Wanek, A. A.

Niobrara formation: McAuslan, E. R.

Northwestern, possibilities: Bond, B. C.

Raton basin, possibilities: Clair, J. R.

Petroleum, Buck Peak field: Cummings, K. F.

New Windsor field: Rold, J. W.

Niobrara formation, northwestern: Haskett, G. L.

San Juan Basin, Pennsylvanian possibilities: Wender, S. A., 2.

Sulfides, Gilman district, depth: Lovering, T. G., 1.

Thorium, McKinley Mtn. area: Christman, R. A., 1.

Tungsten, Clear Creek drainage basin, prospecting: Theobald, P. K., Jr., 1.

Uranium, Cochetopa district, Los Ochos mine area: Malan, R. C.

Uranium-vanadium, Garo deposit: Wilmarth, V. R., 1.

J. J. mine: Elston, D. P.

Peanut mine: Roach, C. H.


Slick Rock district, ore bodies: Shawe, D. R.

Vanadium, Rifle and Garfield mines: Botinelly, T.

Geologic maps.

Chicago Creek area: Harrison, J. E.

Coach Creek quadrangles, photogeologic: Hackman, R. J., 1, 2.

Cochetopa mining district, uranium area: Malan, R. C.

Cortez SW quadrangle: Ekren, E. B., 1.


Garo deposit: Wilmarth, V. R., 1.

Grand Junction area, generalized: Young, R. G.

Hall Valley area, Front Range: Wahlstrom, E. E.

Huerfano Park area: Johnson, Ross B.

Lisbon Valley area: Byerly, P. E.

Lowden Park area: Johnson, Ross B.

South Park and Garfield districts, contacts: Shawe, D. R.

Uranium, Cochetopa district, Los Ochos mine area: Malan, R. C.

Uranium-vanadium, Garo deposit: Wilmarth, V. R., 1.

J. J. mine: Elston, D. P.

Peanut mine: Roach, C. H.


Slick Rock district, roll ore bodies: Shawe, D. R.

Vanadium, Rifle and Garfield mines: Botinelly, T.

Geologic maps.

Chicago Creek area: Harrison, J. E.

Coach Creek quadrangles, photogeologic: Hackman, R. J., 1, 2.

Cochetopa mining district, uranium area: Malan, R. C.

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Lisbon Valley area: Byerly, P. E.

Lowden Park area: Johnson, Ross B.

South Park and Garfield districts, contacts: Shawe, D. R.
COLORADO—Continued

Geologic maps—Continued
Slick Rock district, sketch: Shawe, D. R.
Trinidad-Aguilar area: Harbour, R. L.
Yellow Jacket quadrangle, photogeologic: Hackman, R. J., 3.

Ground water.
Morrison formation: Phoenix, D. A., 1.
Reservoirs, popular account: Bittinger, M. W.
San Juan Basin, Jurassic-Cretaceous aquifers, hydrodynamics: Berry, F. A. F.
Slick Rock district, roll ore bodies: Shawe, D. R.

Historical geology.
Arkansas and Eagle River valleys, upper, Pliocene-Pleistocene: Tweto, O. L.
Big Thompson Canyon area, Precambrian: Hudson, B. D.
Blanca Peak area: Kasbach, H. F.
Chicago Creek area, Precambrian and Cretaceous-Cenozoic: Harrison, J. E.
Cretaceous, Lower, paleogeography: Haun, J. D., 1.
Post-Mancos correlation, northwestern: Masters, C. D.
Post-Morrison correlation, western: Quigley, M. D.
Upper: Weimer, R. J., 1.
Intertonguing sediments, northwestern: Hale, L. A.
Dakota formation, Cretaceous, San Juan Basin, correlations: Tyrrell, W. W., Jr.
Dakota sandstone, Cretaceous, northwestern: Konishi, K., 2.
General: Van Sant, J. N.
Grand Junction area, Cretaceous: Young, R. G.
Hall Valley area, Front Range, Precambrian, unformable series: Wahlstrom, E. E.
Huerfano Park area, Pennsylvanian-Miocene(?): Johnson, Ross B.
Leadville limestone, Mississippian, Gilman sulfaide district: Lovering, T. G., 1.
Lyons sandstone, Permian, beach features, cf. modern: Thompson, W. O.

COLORADO—Continued

Historical geology—Continued
Mesa Verde area, Cretaceous-Cenozoic: Waneck, A. A.
Mesaverde formation, Cretaceous, Carbonale area: Donnell, J. R.
Minturn formation, Pennsylvanian, marine red beds: Walker, T. R.
Peerless and Manitou formations, Cambrian-Ordovician: Berg, R. R.
Perry Park, Precambrian-Paleocene: Ellis, C. H.
Piceance Creek basin, Cretaceous-Cenozoic: Peterson, V. E.
Palaeocene-Eocene, vertebrate horizons: Ganz, C. L., 1.
Pierre shale, Cretaceous, sandstone members, correlation: Scott, G. R., 2.
Sandstone members, northeastern: Dunn, H. L., Jr.
Pikes Peak batholith, north end, Precambrian, K-A ages: Hutchinson, R. M., 2.
Precambrian basement, orogenies, K-A ages: Giffin, C. E.
Precambrian-Pennsylvian, northwestern: Hallgarth, W. E.
Rouft-Moffat Counties, Cretaceous: Konishi, K., 3.
Sangre de Cristo Mts., Pennsylvanian-Pennsylvanian: Bolyard, D. W.
Slick Rock district, uranium-vanadium deposits, Jurassic: Shawe, D. R.
Spring Creek area, Cretaceous: Ellis, D. W.
Trinidad-Aguilar area: Harbour, R. L.
Ute Mtn. area, Cretaceous, stratigraphic section: Houser, F. N., 1.
Wet Mts., southern, Precambrian and Tertiary: Boyer, R. E., 1.
Yampa district, Cretaceous: Kucera, R. E.

Mineralogy.
Chicago Creek area: Harrison, J. E.
Cochetopa district, Los Ochos uranium mine area: Malan, R. C.
Collecting localities: Fancher, P.
Delrioite, Paradox Valley: Thompson, M. E.
Front Range mineral belt, hydrothermal-alteration minerals: González-Bonorino, F.
COLORADO—Continued

Mineralogy—Continued

Garo uranium-vanadium-copper deposit: Wilmarth, V. R., 1.
Gilman district, sulfides, depth: Lovering, T. G., 1.
Green River formation, mineral assemblages, relations: Milton, C., 1.
J. J. uranium-vanadium mine: Elston, D. P.
Meteoric, Washington County iron, cosmogenic noble gases: Schaefer, O. A., 1.
Rifle and Garfield vanadium mines: Botinelly, T.

Paleontology.
Cretaceous, megafossil zones, western: Katich, P. J., Jr.
Foraminifera, Pierre shale, Cretaceous, sandstone members: Dunn, H. L., Jr.
Fountain formation, Pennsylvanian, Perry Park: Ellis, C. H.
Insect, Florissant shale, Miocene: Carpenter, F. M.
Trilobites, Peers and Manitou formations, Cambrian-Ordovician: Berg, B. R.
Vertebrates, Piceance Creek basin, Paleocene-Eocene: Gazin, C. L., 1.

Petrology.
Big Thompson Canyon area, Pre cambrian: Hudson, B. D.
Blanca Peak area: Kasabach, H. F.
Chicago Creek area: Harrison, J. E.
Copper-zinc skarn deposits, southwestern: Heinrich, E. W., 3.
Creede caldera, ash flows: Ratté, J. C.
Cretaceous, sedimentary facies: Rocky Mt. Assoc. Geologists.
Flagstaff Mtn., granite, weathered material: McEwen, M. C.
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Garo uranium-vanadium-copper deposit: Wilmarth, V. R., 1.
Hall Valley area, Front Range, Precambrian, unconformable series: Wahlstrom, E. E.
Hygiene sandstone, case hardening: Charlesworth, L. J., Jr.
McKinley Mtn. area: Christman, R. A., 1.
Mesa Verde area: Wanek, A. A.
Permian-Jurassic: Stewart, J. H., 1.
COLORADO—Continued

Physical geology—Continued

Turkey Creek Canyon, Idaho Springs gneiss: Hutchinson, R. M., 4.
Wet Mts., southern, Precambrian core: Boyer, R. E., 1.

Physiographic geology.

Drainage basins, low-order streams, longitudinal profiles, quantitative analysis, east-central: Broscoe, A. J., 1.
Laramie Range, east flank, geomorphic evolution: Moore, F. E.

COLORADO PLATEAU.

Geochemical studies, Mancos shale, uranium-thorium distribution: Pliler, R., 1.
Uranium in carbonaceous materials: Breger, I. A., 1.
Uranium-vanadium ores, redox relations: Garrels, R. M., 2.
Geothermometry, coalified wood, extractable organic matter: Breger, I. A., 3.

Areas described.

Uraniferous regions: Weeks, A. D., 1.

Economic geology.

Copper, Triassic rocks, uraniferous: Finch, W. I., 2.
Oil and gas, Cordilleran shelf hinge area, possibilities: Turnbow, D. R.
Paradox-San Juan basins: Peterson, J. A.
Paradox basin, Pennsylvanian possibilities: Fetzner, R. W.
Uranium, Chinde formation: Stewart, J. H., 1.
Exploration, statistical analysis: Bates, R. C.
Origin, isotopic data, new hypothesis: Miller, D. S., 1.
Uranium-lead age problem: Miller, D. S., 2.
Sandstone deposits, cf. New Mexico, Grants area, Toadilto limestone deposits: Truesdell, A. H.
Theories of origin: Garrels, R. M., 1.
Uranium-vanadium: Garrels, R. M., 2.
Sandstone deposits, genesis: Garrels, R. M., 5.
Triassic rocks: Finch, W. I., 2.

Geologic maps.

Triassic outcrops, central: Finch, W. I., 2.
COLORADO PLATEAU—Continued

**Physiographic geology.**

Scarp, Pleistocene climate effects: Ahnert, F. O.

**COLUMBIA.** See Niobium.

**CONCRETIONS.**

Maryland, Cumberland area, Marcellus shale, carbonate, origin: Norwood, E. M., Jr.

Virginia, Millboro shale: Roberts, C. E.

**CONFERENCES.**

Bee Symposiums.

**CONGLOMERATE.**

Ancient, uranium mineralization, Blind River, Ontario, cf. Witwatersrand, hypotheses: Davidson, C. F.

Florida, summit, potential oil traps: Banks, J. E.

Mexico, Guanajuato district, Tertiary red, replacement by rhyolitic intrusive complex: Schulze, G., 2.

New Mexico, Sangre de Cristo Mts., Mississippian limestone boulder conglomerates: Sutherland, P. K., 2.

Ontario, Blind River-Algoma area, uranium-bearing: Davidson, C. F.

**CONNATE WATER.**

Ground water.

**CONNECTICUT.**

Geologic maps.

Middle Haddam quadrangle: Rodgers, J., 1.

Middletown quadrangle, bedrock: Lehmann, E. P.

New Britain quadrangle, surficial: Simpson, H. E.

Pre-Triassic-Triassic: Rodgers, J., 1.

Roxbury quadrangle, bedrock: Gates, R. M.

**Historical geology.**

Middletown quadrangle, Triassic: Lehmann, E. P.

Pre-Triassic-Triassic: Rodgers, J., 1.

Roxbury quadrangle, Paleozoic: Gates, R. M.

**Mineralogy.**

Collecting, western: Januzzi, R. E., 1.

Wulfenite and cerussite, Bethel area, pegmatite: Januzzi, R. E., 2.

**Petrology.**

Bedrock map units, descriptions: Rodgers, J., 1.

Roxbury quadrangle: Gates, R. M.

**Physical geology.**

Middletown quadrangle, faults and joints: Lehmann, E. P.

Roxbury quadrangle: Gates, R. M.

**Physiographic geology.**

New Britain quadrangle, glacial: Simpson, H. E.
CONSTRUCTION MATERIALS—Continued
Southern, limestone, clay, and shale: Lamar, J. E.
Kansas, cement materials: Runnels, R. T.
Marion County: Byrne, F. E.
Nemaha County: Mudge, M. R., 1.
Pottawatomie County: Scott, G. R., 1.
Wabaunsee County: Mudge, M. R., 2.
Maine, Sandy River area, lightweight aggregate, potential: Caldwell, D. W.
Massachusetts, Shelburne Falls quadrangle: Segerstrom, K.
Mississippi: Mellen, F. F.
New Hampshire, lightweight aggregate: Stewart, G. W.
New Jersey, Newark area, glacial deposits: Jumikis, A. R.
Pennsylvania, Bucks County: Gault, H. R.
Puerto Rico: Cadilla, J. F., 1.
Southern, limestone, clay, and shale: Lamar, J. E.
Kansas, cement materials: Runnels, R. T.
Marion County: Byrne, F. E.
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Maine, Sandy River area, lightweight aggregate, potential: Caldwell, D. W.
Massachusetts, Shelburne Falls quadrangle: Segerstrom, K.
Mississippi: Mellen, F. F.
New Hampshire, lightweight aggregate: Stewart, G. W.
New Jersey, Newark area, glacial deposits: Jumikis, A. R.
Pennsylvania, Bucks County: Gault, H. R.
Puerto Rico: Cadilla, J. F., 1.
South Carolina, Sumter County, by physiographic divisions: Johnson, H. S., Jr., 4.
United States, western, volcanic lightweight aggregates: Chesterman, C. W., 1.
West Virginia, highways, survey: Seger, R. W.
Wyoming: Osterwald, F. W., 1.
CONTACT METAMORPHISM. See Metamorphism.
CONTINENTAL DRIFT.
Cenozoic, cause of volcanic belts, relation to total crustal shift: Ma, T. Y. H.
Forces of displacement, theories: Heezen, B. C., 1.
Paleomagnetic evidences: Runcorn, S. K.
Theory, status: Trump, G. W.
CONTINENTAL SHELF.
Arctic Ocean, seismic and gravity studies: Plouff, D.
Atlantic Ocean, Cape Henry to Jacksonville, and adjoining deep-water area, seismic profiles and structure: Hersey, J. B.
California, southern, crustal structure, seismic refraction: Shor, G. G., Jr., 1.
Geophysical investigations, geosyncline, northeastern: Drake, C. L.
Gulf of Mexico, petroleum: Atwater, G. L., 1.
CONTINENTAL SHELF—Continued
Louisiana, Quaternary sediments, engineering properties for offshore foundations: Fisk, H. N., 2.
Physiographic provinces: Heezen, B. C., 2.
Popular account: Shepard, F. P., 1.
CONTINENTAL SLOPE.
Gulf of Mexico, Bay of Campeche: Creager, J. S.
Florida, topography: Jordan, G. F.
Physiographic provinces: Heezen, B. C., 2.
CONTINENTS.
Growth, contraction theory, fracture system: Wilson, John T., 2.
Mobile-belt diastrophic-sedimentary cycle: Weeks, L. G.
North America, tectonic evolution: King, P. B.
Origin and structure, phase-transition concept: Kennedy, G. C., 2.
CONULARIDA, Oklahoma, Pennsylvanian: Strimple, H. L., 3.
COPPER.
Mineral Hill and Daisy mines, East Sierrita area: MacKenzie, F. D.
Tucson area, pegmatitic: Lutton, R. J., 1.
Colorado, Garo deposit: Wilmarth, V. R., 1.
Geochemical exploration, dithzone colorimetry, use of mineral turpentine: Hill, V. G.
Readily extractable from intrusive rocks: Warren, H. V., 3.
Rubeanic-acid test: Warren, H. V., 1.
Michigan, Portage Lake lava series, origin: Stober, R. E.
White Pine deposit, origin: White, W. S.
Nevada, Liberty mine: Fournier, R. O.
Nova Scotia, northern, supergene possibilities: Brummer, J. J.
Northern mainland, stream sediments, map: Canada G. S., 53.
Ontario, Falconbridge Township, Sudbury district: Thomson, J. E., 1.
Ore deposition, system Cu-Fe-S-O: McKinstry, H. E.
Porphyry deposits, hydrothermal alteration facies: Creasey, S. C.
Hydrothermal origin: Burnham, C. W., 3.
Quebec, Chibougamau area: Precambrian.
Eastern Metals mine, Montmagny County, origin: Pollock, D. W., 1.
Gaspe Peninsula, Copper Mtn.-Needle Mt. area: Ford, R. E.
Saskatchewan, northern, Precambrian: Beck, L. S.
COPPER—Continued
Solubility in natural waters: Silman, J. A.
Traces in soil: Canney, F. C., 2.
Southwestern, porphyry deposits: Creasey, S. C.
Vermont, Elizabeth mine: Howard, P. F.
CORAL REEFS. See Bioherms; Reefs.
CORALS. See also Anthozoa.
Cores. See also Boring: Wells and drillhole logs.
Alaska, Sentinel Hill and Fish Creek areas, Cretaceous, test wells: Robinson, F. M., 2.
Simpson area, test wells: Robinson, F. M., 3.
Square Lake and Wolf Creek areas, Cretaceous, test wells: Collins, F. R.
Titaluk and Knifeblade areas, Cretaceous, test wells: Robinson, F. M., 1.
Arctic Ocean, continental shelf-central basin, Quaternary: Bushnell, V. C.
Atlantic Ocean, midequatorial, carbonate accumulation rate: Wiseman, J. D. H.
California, Bristol-Cadiz-Danby Dry Lakes, description: Bassett, A. M.
Searles Lake salt body: Haines, D. V.
Caribbean Sea, Beata Ridge area, distribution of elements, carbonate content unrelated to paleotemperature: Yalkovsky, R., 1.
Colorado, Jo Dandy area, Salt Wash member of Morrison formation: Newman, W. L., 1.
Uranium district, uraniferous: Keller, G. V., 1, 2.
Florida, land-pebble phosphate district: Cathcart, J. B.
West-central, Cenozoic: Ketner, K. B.
Middle Tertiary: Carr, W. J.
Formation water, chloride determination: Swartzsak, W. V., 1.
Kansas, Dakota group, Cretaceous, Cheyenne County, detailed description: Merrilam, D. F., 4.
Louisiana, continental-shelf sediments, Quaternary, engineering data: Fisk, H. N., 2.
Michigan, Mackinac bridge site: Roseau, J. C.
New Mexico, Lea and Eddy Counties, pre-Simpson: Barnes, V. E., 1.
Plains of San Augustin, Pleistocene: Clisy, K. H.
North Dakota, southwestern, uraniferous lignite: Zeller, H. D.

Cores—Continued
Pacific Ocean, white ash layer: Worzel, J. L., 1.
Petroleum reservoirs, evaluation, detailed study: Nesbitt, J.
South Dakota, Harding-Perkins Counties, uraniferous lignite: Zeller, H. D.
Mendehall area, uraniferous lignite: Gill, J. R., 1.
Texas, Ellenburger group, thin sections, descriptions: Folk, R. L., 4.
Pre-Simpson: Barnes, V. E., 1.
South-central, Ellenburger group, clay minerals: Jonas, E. C., 2.
Utah, Naval Oil-Shale Reserve No. 2: Cashlon, W. B., Jr.
Well cuttings, examination: Castillo Tejero, C.
West Virginia, Wood County deep well: Woodward, H. P., 2.
Wyoming, Red Desert area, Eocene coal beds: Masursky, H.
CORRELATIONS. See also Geologic formations, lists, sections, tables; Index fossils; Technique, Stratigraphic.
Alberta, Beaverhill Lake formation, Devonian: Fong, G.
Blairmore group, Cretaceous, central and southern: Workman, L. E.
Peace River area, Triassic: Hunt, A. D.
Upper Mississippian-Permian: Halbertsma, H. L.
Southern, Lower Cretaceous: Glaister, R. P.
Southern plains, Middle-Upper Cambrian: Hees, H. van.
Arizona, east-central, Triassic, with New Mexico: Cooley, M. E., 1.
Southeastern, Cretaceous: Ferguson, W. B.
Peace River area, Triassic: Hunt, A. D.
Upper Mississippian-Permian: Halbertsma, H. L.
Takla and Hazelton groups, Mesozoic: Tipper, H. W.
California, Coast Ranges, lower Tertiary, Foraminifera: Mallory, V. S.
Merced formation, Pliocene-Pleistocene: Glen, W.
San Joaquin Valley, Cenozoic, section: Church, H. V., Jr.
Southern, Jurassic-Quaternary, chart: Park, W. H.
Santa Maria basin, Jurassic-Quaternary, section: Krannes, K. F.
CORRELATIONS—Continued

Canada, western, Athabasca formation, Precambrian-lower Paleozoic rela-
tions: Gussow, W. C., 1.
Western, Jurassic, Oxfordian: Fre-
bold, H. W., L, 2.
Western and Arctic, Devonian, fossils as lithologic constituents of rock
units: McLaren, D. J., 2.
Coal beds, petrographic and palyno-
logical techniques: Deul, M.
Colorado, Cretaceous: Rocky Mt.
Assoc. Geologists.
Dakota formation, Cretaceous, San
Juan Basin: Tyrrell, W. W., Jr.
Dakota group, Cretaceous: Rocky
Mt. Assoc. Geologists.
Eastern, Cretaceous, with Kansas:
Landis, E. R., 1.
Southwestern, Jurassic-Cretaceous,
Colorado Plateau, Hoskinnint member of
Moenkopi formation, with Ten-
derfoot member: Stewart, J. H.,
2.
Moenkopi formation, Triassic: Shoe-
maker, E. M., 2.
Pennsylvanian-Permian: Bolyard, D.
W.
Florida, land-pebble phosphate district,
Eocene-Pleistocene, drill-core
cross sections: Cathcart, J. B.
West-central, middle Tertiary: Carr,
W. J.
Grain-size analyses, silt and thin-
section data: Friedman, G. M., 1.
Greenland, east-central, Devonian: Bütt-
er, H.
Jameson Land, Jurassic, with north-
western Europe: Callomon, J. H.
Nōgasuq Peninsula: Koch, B. E.
Illinois, coal beds, Pennsylvanian,
silurian: Kosome, R. M.
Coal beds, Upper Mississippian-Penn-
sylvanian, megaspore: Winslow,
M. R.
Southwestern, Boskydell sandstone,
Pennsylvanian:Deeborough, G.
A., 2.
Jamaica, St. Ann's Great River, Cre-
taceous inlier: Chubb, L J., 1.
Kansas, northeastern, Pennsylvanian-
Northern, Kansas City-Lansing
groups, Pennsylvanian: Park-
hurst, R. W.
South-central, Noxie-Cottage Grove
sandstones, Pennsylvanian: Schu-
te, G. S.
Wabanaunee County, Pennsylvanian-
Permian: Mudge, M. R., 2.
Kentucky, south-central, Silurian-De-
vonian, with adjacent states:
Norow, E., 2.

CORRELATIONS—Continued

Manitoba, southwestern, Mississippian,
with Williston basin: McCabe,
H. R.
Mexico, Chiapas, central, Upper Cre-
taceous: Chubb, L J., 2.
Eastern and south-central, Jurassic,
biostratigraphic: Erben, H. K., 2.
Necoxtla formation, Cretaceous, Ver-
acruz, age from microfossils: Thalman, H. E., 2.
Tampico-Misantla basin, Danian, base
of Paleocene, foraminiferal
zones: Obregon de la Parra, J., 1.
Michigan, Mackinac Straits region and
subsurface northern Lower Penin-
sula, Silurian-Devonian: Landes,
K. K., 1.
Mississippi, Cretaceous, Upper: Braun-
stein, J., 1.
Missouri, Des Moines series, Pennsyl-
vanian: Seagirt, W. V., 1.
Montana, central, Carboniferous: Gard-
ner, L. S., 2.
Nevada, Pahranagat Range, Devonian
section: Reso, A., 1.
New Jersey, Cretaceous: Richards,
H. G., 1.
New Mexico, Dakota formation, Creta-
cceous, San Juan Basin: Tyrrell,
W. W., Jr.
Montoya group, Ordovician, trans-
Pecos area: Howe, H. J.
Pre-Simpson formations, Cambrian-
Ordovician, color: Barnes, V. E.,
4.
Cambrian-Ordovician, southeastern:
Barnes, V. E., 1.
Sand Canyon area, lower Permian:
Bachman, G. O., 1.
Southern, pre-Pennsylvanian: Flower,
R. H., 1.
New York, Chemung County, Cambrian-
Devonian, deep well: Wiggins,
J. W.
Esopus stage, proposed time term,
Long Island, Cretaceous: Richards,
H. G., 1.
Seneca-Cayuga Lakes area, Upper De-
vonian: Sutton, R. G., 1.
Western, Upper Devonian, revision:
de Witt, W., Jr.
North America, northeastern, Quater-
nary pollen sequences: Devey,
E. S., Jr., 1.
Upper Triassic continental, verte-
brates: Gregory, J. T.
North Dakota, Jurassic-Cretaceous
boundary, subsurface: Hansen,
D. E.
Northwestern, Madison group, Missis-
sippian: Anderson, S. B.
CORRELATIONS—Continued

Northwest Territories, Cornwallis and Little Cornwallis Islands, Paleozoic and Cenozoic: Thorsteinsen, R., 1.

Oklahoma, Arbuckle Mts., north and south flanks, Mississippian: Champlin, S. C.

Arbuckle and Ouachita Mts., Ordovician-Mississippian: Ham, W. E.

Creek County, Ordovician-Pennsylvanian: Oakes, M. C.

North-central, Mississippian, with Kansas, by lithology: McDuflie, R. H.

Sycamore formation, Mississippian, Anadarko basin: Braun, J. C.

Oregon, Columbia Plateau, Miocene floras, with adjacent areas: Cheney, R. W.


Pacific Ocean, tropical, Oligocene-Miocene, with West Indies, Radiolaria: Riedel, W. R., 2.

Pleistocene, late, radiocarbon dates: Karlstrom, T. N. V., 2.

Quebec, Gaspé Peninsula, Silurian-Pennsylvanian: Carbonneau, C.

Saskatchewan, Jurassic, microfaunas: Wall, J. H.

Sesame, petroleum exploration: Woods, J. P.

South Dakota, Mendenhall area, Tertiary: Gill, J. R., 1.

Minnelusa formation, Pennsylvanian-Permian, Black Hills, faunal zonation and age: Jennings, T. V.

Stratigraphic, meaning and criteria: Rodgers, J., 3.

Texas, Cretaceous, mollusk zonation, techniques: Young, K. P., 3.

Ellenburger formation, Ordovician, insoluble residues: Barnes, V. E., 5.

Montoya group, Ordovician, trans-Pecos area: Howe, H. J.

Ogalala formation, Miocene-Pliocene, with Nebraska: Frye, J. C., 3.

Pre-Simpson formations, Cambrian-Ordovician: Barnes, V. E., 1, 4.


Midcontinent, Devonian-Permian: Branson, C. C., 3.

Mississippian: Moore, C. A.

Pennsylvanian-Permian cyclothemes: Moore, R. C.

Midcontinent to Appalachians, Paleozoic, chart: Oil and Gas Jour., 2.

Newark basin, Triassic, Upper: Bock, W., 3.

CORRELATIONS—Continued

United States—Continued

Triassic: McKee, E. D.

Western, layered volcanic rocks, criteria: Cook, E. F.

Phosphoria-Park City-Shedhorn formations: McKelvey, V. E., 1.

Utah, central, Paleozoic: Utah Geol Soc.

Manning Canyon shale, Mississippian-Pennsylvanian: Moyle, R. W.

North-central, Devonian: Brooks, J. E.

Paleozoic: Telcher, J. A.

Northern, Mississippian: Crittenden, M. D., Jr.

Oquirrh formation and Durst group, Pennsylvanian-Permian, fusulinids: Sadlick, W., 2.

Pavon Range with Great Basin and Colorado Plateau: Crosby, G. W., 2.

Sheeprock Mts.: Cohenour, R. E.

Uinta Mts., Mississippian-Pennsylvanian boundary formations: Sadlick, W., 1.

Wasatch Mtn. area, Jurassic: Stokes, W. L.


Washington, continental Miocene: Molineaux, D. R.

West Virginia, Wood County deep well, Cambrian-Ordovician, with Appalachian basin: Woodward, H. P., 2.

Williston basin, northern, Cambrian-Silurian: Porter, J. W.

Paleozoic limestones, clastic marker beds: Cumming, A. D.

Wyoming, Elk Mtn.-Tabernacle Butte area, Eocene mammalian faunas: McGrew, P. O.

Red Desert area, Eocene: Masursky, H.

Yukon, south-central, Mesozoic: Wheeler, J. O.

CORUNDUM.


COSMOCHEMISTRY. See also Meteorites.

Atmospheres, primitive planets: Oparin, A. I.

Elements, abundances: Suess, H. E.

Distribution: Green, J. I.

Origin, stellar evolution: Cameron, A. G. W.
COSMOCHEMISTRY—Continued


Composition and age methods: Beiser, A., 2.

Heavy elements: Reed, G. W., Jr., 2.
Iron, cosmogenic potassium-40: Honda, M.

Origin, temperature-pressure estimates within parent body: Lovering, J. F., 1.

Radioactivation analysis, cosmic abundances and age: Reed, G. W., Jr., 1.

Troilite nodules, element abundances: Nichiporuk, W.

Meteorites and tektites, thorium and uranium: Adams, J. A. S., 1.


COSTA RICA. See also Central America.

Cordillera de Talamanca: Weyl, R., 2.
Igneous rocks, chemical and modal analyses: Weyl, R., 1.


Oil and gas, Limón province, possibilities: Cia. Petrolera Costa Rica.

Soils, genesis: Hardy, E.

CRAETERS.

Alaska, Semisopochnoi Island, calderas, collapse mechanism: Coats, R. R., 2.


Caldera development, cf. moon crater origin: Green, J., 2.

Colorado, Creede caldera: Steven, T. A.

Cryoturbation structures as meteorite-impact scars: Dietz, R. S., 2.

Earth cf. Moon: Kellogg, W. W.

Mexico, Finacate craters, Sonora: Galbraith, F. W., 3d, 2; Jahns, R. H., 2.

Saskatchewan, Deep Bay, origin: Innes, M. J. S.

Volcanic cf. meteorite: Kellogg, W. W.

CRETACEOUS. See also Mesozoic; Paleontology, Cretaceous.


Alaska, Sentinel Hill and Fish Creek areas, test wells: Robinson, F. M., 2.

Shaktolik and lower Yukon Rivers: Patton, W. W., Jr., 2.

Simpson area, test wells: Robinson, F. M., 3.

CRETACEOUS—Continued

Alaska—Continued

Square Lake and Wolf Creek areas: Collins, F. R.

Tittuluk and Knifeblade areas, test wells: Robinson, F. M., 1.


Foothills, Alberta group; Stott, D. F.

McMurray area: Carrigy, M. A., 1.

Southern, Lower: Glaister, R. P.

Arizona, southeastern: Fergusson, W. B.

Arkansas, Brownstown and Tokio formations: Thorsen, C. F. E.

California, Santa Maria basin, correlation section: Krammes, K. F.

Yreka-Hornbrook area, Hornbrook formation: Jones, D. L.


Front Range foothills, Lytle and South Platte formations: Waagé, K. M., 3.

Grand Junction area: Young, R. G.

Lower, paleogeography: Haun, J. D., 1.

Mesa Verde area, Upper: Wanek, A. A.


Northwestern, intertonguing sediments: Hale, L. A.

Furgatoire and Dakota shales, kaolinite genesis: Sand, L. B., 1.

Routt-Moffat Counties: Konishi, K., 3.

San Juan Basin, Dakota formation, correlations: Tyrrell, W. W., Jr.


Southwestern, Jurassic boundary: Ekren, E. B., 4.


Upper: Welmer, R. J., 1.

Yampa district: Kucera, R. E.

Delaware, Potomac group, spores and pollen, formations, validity: Penny, J. S.

Jamaca, central Inlier: Williams, J. B. E., 1.

Richmond beds, age and nomenclature: Chubb, L. J., 4.


Kansas, Cheyenne County, Dakota group, detailed description of core: Merriam, D. F., 4.

Mitchell County: Hodson, W. G.


Maryland, Potomac group, spores and pollen, formations, validity: Penny, J. S.
CRETACEOUS—Continued

Mexico, Chiapas, central, Ocozocauhtla formation: Chubb, L. J., 2.

Eastern: López Rubio, J. M.

Huetamo de Núñez region, Michoacán: Pantoja Alor, J.

Sabinas region, Coahuila: Robeck, R. C.

Saltillo-Galeana area, Coahuila-Nuevo León: South Texas Geol. Soc.

Southeastern: Contreras Velázquez, H.

Veracruz, Necoxila formation, age from microfossils: Thalmann, H. E., 2.

Veracruz basin and Isthmus of Tehuantepec salt basin: Rios Macbeth, F.

Mississippi, subsurface, Upper: Brauns, J.

Mississippi embayment, northern, sedimentary petrology: Fryor, W. A.

Montana, Flint Creek Range, northwest flank: McGill, G. E.

Little Rocky Mtn. area: Knetchel, M. M.

North-central, Lower: Glaister, R. P.

South Moccasin Mts.: Miller, Richard N.

Sweetgrass arch, Colorado group: Cobban, W. A., 2.

New Jersey, Coastal Plain, Upper: Olsson, R. K.

Correlations: Richards, H. G., 1.

New Mexico, San Juan Basin, Dakota formation, correlations: Tyrrell, W. W., Jr.

West-central: Gadway, K. L.

New York, Long Island: Charlier, R. H., 1.


North Carolina, Fayetteville area, basal: Geol. Soc. America Southeastern Sec., 2.

Greenville area: Brown, P. M.

North Dakota, Jurassic boundary, subsurface: Hansen, D. E.

Puerto Rico, eastern, Upper: Berryhill, H. L., Jr., 1.


Central, Dakota formation, correlation: Gries, J. P.

Texas, Brazos River valley: Soc. Econ. Paleontologists and Mineralogists Gulf Coast Sec., 2.

Central, Edwards limestone: Nelson, H. F.

Middle: Baylor Geol. Soc.

Medina County: Holt, C. L. R., Jr.

Mollusk zonation, techniques: Young, K. P., 3.

North-central, mid-Comanche: Lozo, F. E., 2.

CRETACEOUS—Continued

Texas—Continued

Terlingua mercury district: Yates, R. G.

Val Verde basin, Del Rio marl-Buda limestone contact: Hazzard, R. T.

Van Horn Mts.: Twiss, P. C.

United States, northern Great Plains: Wulf, G. R.

Utah, coal beds, cycles: Speker, E. M.

Coalville area, Upper: Williams, N. C.

Northeastern, intertonguing sediments: Hale, L. A.

Virgin Islands, British Islands: Martin-Kaye, P. H. A.

St. Thomas and St. John: Donnelly, T. W.


Pierre shale, sandstone members: Scott, G. R., 2.

CRINOIDEA. See also Echinodermata.

galeatacrinus allioni, Pennsylvanian, Oklahoma, Wann formation: Strimple, H. L., 2.

Nonbrachiate, Early Mississippian-Pennsylvanian phylogeny: Koennig, J. W., 2.

Oklahoma, Missouri series, Pennsylvanian, Barriesville area: Strimple, H. L., 1.

Pentecocentricus parvus, Mississippian, Missouri, Louisiana formation: Koennig, J. W., 2.

CROSSBEDDING. See also Sedimentary structures.

Absence in turbidity current deposits, causes: Brush, L. M., Jr.

Kansas, Ottawa County, Dakota sandstone, dip bearings, statistics: Franks, P. C., 2.

Limestone, detrital, small scale: Harborth, J. W., 1.

Origin, meandering and braided streams: Wright, M. D.

Rhode Island, Narragansett intermontane basin, Pennsylvanian: Towe, K. M.

Vectors, polymodal: Tanner, W. F., Jr., 3.

CRUSTACEA. See also Arthropoda; Cirripedia; Ostracoda.

Crabs, Paleocene, North Dakota, Canonball formation: Hub, F. D., Jr., 1.

Crustacea. See also Arthropoda; Cirripedia; Ostracoda.

Crabs, Paleocene, North Dakota, Canonball formation: Holm, F. D., Jr., 1.

Cryopedology. See Permafrost.

CRYSTAL STRUCTURE. See also Mineral descriptions; Mineralogy.

Abernathyite: Ross, M., 2.

Albite, low- and high-temperature: Ferguson, R. B., 1.

Amblygonite, Maine: Baur, W. H.

Analcite, temperatures of formation: Bulley, B. J.
CRYSTAL STRUCTURE—Continued
Anhydrite formed by gypsum dehydration: Atoji, M.
Attapulgite: Kulbicki, G.
Borate minerals: Clark, J. R., 1-5.
Synthetic: Clark, J. R., 3.
Carbonates, types: Goldsmith, J. R., 1.
Carminite: Rosenzweig, A.
Carnotite: Barton, P. B., Jr., 1.
Chabasite, calcium, activated: Smith, J. V., 5.
Chevkinite: Bonatti, S.
Clay and other ceramic minerals: Searle, A. B.
Clay minerals: Grim, R. E.
Color centers: Gordon, R. B.
Cryptomelane, thermal transformation: Faulring, G. M.
Cummingtonite: Ghose, S., 2.
Danburite: Johansson, G.
Datolite group, garrelsite: Christ, C. L., 2.
Diamond, lamellar: Denning, R. M., 2.
Type I, nitrogen content, optical effects: Kaiser, W.
Dolomite: Steinsland, H.
Feldspars, perthites: Kuellmer, F. J., 1.
Perthites, orthoclase and microcline: Smith, J. V., 3.
Potassium, relation to optical properties: Hewlett, C. G.
Galena-granite intergrowth: Hellaer, E. E.
Garnets, iron, rare-earth ion radii: Geller, S., 3.
Grunerite: Ghose, S., 1.
Halloysite, treatment with salt solutions: Wada, K., 1, 2.
Holmquistite: Vogt, T.
Hydrocalumite: Buttler, F. G.
Ilmenite-hematite system, spin arrangement: Shfrane, G.
Inyoite: Clark, J. R., 1.
Kernite: Ross, V. F., 1.
Lattice constants from Weissenberg patterns: Christ, C. L., 1; Pabst, A., 1.
Layered sequences, short-range ordering, X-ray diffraction effects, experimental: Chayes, F.
Lazulite-scorzalite-barboselite, isostructural: Lindberg, M. L. L.
Metakaolin: Brindley, G. W., 3.
Microframeworks: Wood, E. A.
Mixed crystals: Birman, J. L.

CRYSTAL STRUCTURE—Continued
Olivine-spinel solid solutions: Ringwood, A. E., 1, 3.
Perrierite: Bonatti, S.
Phosphates, complex, X-ray studies: Smith, J. P.
Plagioclase, heat-treatment effect on superstructure, relation to lattice-angle changes: Brown, W. Liddle, 1.
Protoenstatite: Smith, J. V., 2.
Rings of tetrahedra, relative energies: Zoltai, T., 3.
Saponite: Kulbicki, G.
Schroekingerite and dehydration product: Smith, D. K., Jr.
Sepiolite: Kulbicki, G.; Preisinger, A.
Silica and germania polymorphs, infrared studies: Lippincott, E. R.
Silica-structure phases, experimental: Dachille, F., 2.
Silicates, layer: Bradley, W. F.
Infrared spectra: Stubican, V., 1.
Stevensite, defect structure: Faust, G. T.
Studies, history and applications: Evans, H. T., Jr., 1.
Sulfides, zinc and cadmium: Smith, F. G., 1.
Teepleite and bandylite: Ross, V. F., 2.
Ulexite and probertite: Clark, J. R., 2.
Uraninite and coffinite: Garrels, R. M., 3.
Vanadinite minerals: Evans, H. T., Jr., 2.
Veatchite: Clark, J. R., 4.
Vector space, textbook: Buenger, M. J.
Zeolites, adsorptive powers: Breck, D. W.
Zinc blende and wurtzite: Birman, J. L.

CRYSTALLIZATION.
Crystal orientation under stress: Kamb, W. B., 1.
Feldspars, zoning, oscillatory: Boone, G. M.
Force, vs. pressure solution: Weyl, P. K., 2.
Growth from solution, rate, laminar flow boundary layer: Carlson, A. E.
Heat of formation under stress: Bennington, K. O.
Ice, recrystallization, orientation: Kamb, W. B., 1.
Interfacial free energy about grains: DeVore, G. W., 2.
CUBA—Continued

Paleontology.
Ammonoids, Vifales area, Jurassic: Torre y Capablanca, C. de la.
Foraminifera, heterohelicids, Late Cretaceous: Selgile, G. A.
Larger, Eocene-Oligocene: Hewitt, P. C.
Sloths, Pleistocene: Matthew, W. D.

Petroleum.
Gulf of Batabano region, carbonate sediments: Daetwyler, C. C.
Santa Clara area, serpentine, origin and relation to oil: Wassall, H. W., 3d, 1.
Sierra de Trinidad, metamorphic rocks, petrography: Hill, P. A.

Physical geology.
Santa Clara area, low-angle thrusting, serpentine-limestone contacts, trapped oil: Wassall, H. W., 3d, 1.
Sierra de Trinidad: Hill, P. A.

CYCLOTHEMS. See also Sedimentation.
Origin, theories: Lowman, P. D., Jr.

CYSTOIDEA. See also Echinodermata.
Ordovician, parallel evolution: Sinclair, G. W., 2.

DAMS AND DAM SITES. See Engineering geology.

DEFINITIONS.
Correlation, stratigraphic: Rodgers, J., 3.
Faulting: Crowell, J. C., 2; Hill, M. L.
Foraminiferal terminology: Butler, E. A. M.
Geology, stochastic terms: Brown, B. W.
Igneous rocks, metamorphic: Goldsmith, R.
Joints: Kelley, V. C., 1.
Limestone facies, petrographic classification terms: Folk, R. L., 2.
Petrology: Nelson, H. F.
Lithostratigraphic units: Alvarez, M., Jr.
Metamorphic facies: Fyfe, W. S., 1.
Uranium deposits, peneconcordant: Finch, W. L., 3.

DEFORMATION.
California, Sierra Nevada, Alpine County, roof pendants: Parker, R. B., 2.

CUBA—Continued

Limestone, recrystallization: Folk, R. L., 2.

Pegmatitic minerals, compromise growth surfaces: Haynes, V.

Picritic intrusions, layered, sinking oil: Bailey, E. B.

CRYSTALLIZATION—Continued

Limestone, recrystallization: Folk, R. L., 2.

Pegmatitic minerals, compromise growth surfaces: Haynes, V.

Picritic intrusions, layered, sinking oil: Bailey, E. B.

CRYSTALLOGRAPHY. See also Mineralogy.
Barium titanate, growth in KF solutions, butterfly twins and dendrites: DeVries, R. C.

Calcite, echinoid, orientation: Raup, D. M., 1.

Crystal habit, proposed rule: Schneer, C. J.

Elementary account: Jahns, R. H., 1.

History: Evans, H. T., Jr., 1.

Kaolinite, crystallinity index: Johns, W. D., 2.

Laboratory manual: Tunell, G.

Microframeworks: Wood, E. A.

Models, polyhedral, construction: Zoltai, T., 1.

Olivine, penetration twin: Brothers, R. N., 1.

Textbook: Jong, W. F. de.

Trona: Pabst, A., 2.

Twin symmetry, complete twin: Curien, H.

Viviirinite, relation to euclase: Mroz, W. E., 1.

Vector space in crystal-structure analysis, textbook: Buerger, M. J.

CRYSTALS.
Color centers: Gordon, R. B.

Dolomite, deformation, experimental: Higgs, D. V., 2.

Optical properties, absorption and pleochroism: Mandarino, J. A., 1.

Surfaces, compositional adjustments: DeVore, G. W., 3.

Synthesis by refrigeration: Wolfe, C. W., 2.

Cuba. See also West Indies.

Lithostratigraphic: Bermúdez y Hernández, P. J.

Economic geology.
Bituminous deposits: Brodermann y Vignler, J.

Lignite: Brodermann y Vignler, J.

Mineral deposits, origin: Schneider, Harras.

Petroleum, Santa Clara area, accumulation in serpentine: Wassall, H. W., 3d, 1.

Geologic maps.
General: Bermúdez y Hernández, P. J.
Sierra de Trinidad, northwestern: Hill, P. A.

Historical geology.
Jurassic-Pleistocene: Brodermann y Vignler, J.

Stratigraphic lexicon: Bermúdez y Hernández, P. J.

Mineralogy.
Nicarao nickel ores: Fisher, R. B.
DEFORMATION—Continued
Geologic structures, analysis, vertical displacement of homogeneous rock layer: Sanford, A. R.
Kansas, Lyons salt mine, rock-salt flowage: Delwig, L. F.
Shawnee County, ice-push: Wood, R. L.
Mississippi Valley, upper, lead-zinc district: Heyl, A. V., Jr., L.
Montana, Flint Creek Range, northwest flank: McGill, G. E.
Line Creek area, Laramide, Precambrian structures: Casella, C. J.
North Carolina, Mt. Airy granite, expansion domes and shear cones: Lowry, W. D., I.
Spruce Pine district, pegmatites: Lesure, F. G.
Oregon, eastern, relation to Miocene volcanic rocks: Thayer, T. P.
Plagioclase, experimental: Borg, I. Y.
Quartz grains, lamellae, orientation, stress-field deduction: Hansen, E. C.
Lamellae, origin: Christie, J. M.
United States, Ouachita structural belt, age: Flawn, P. T., I.
Wyoming, Beartooth Mts., Gardner Lake area, foliation and larger structures: Harris, R. L., Jr.
Line Creek area, Laramide, Precambrian structures: Casella, C. J.
DELWARE.
Clinopyroxenes, Piedmont region, igneous origin: Norton, D. A.
Potomac group, Cretaceous, formations, validity, spores and pollen: Penny, J. S.
Wilmington complex, petrology and metamorphism: Ward, R. F.
DELTA.
Alaska, Point Campbell-Point Woronzof area, Pleistocene: Miller, R. D., I.
Mississippi River, continental-shelf sediments, Quaternary: Fisk, H. N., 2.
Development, cf. prehistoric settlements: McIntire, W. G.
Quaternary: Russell, R. J., 2.
Sedimentary facies: Shepard, F. P., 2.
Sediments and development: Welder, F. A.
Northwest Territories, Mackenzie delta, physiography: Merrill, C. L.
Texas, deltaic plains: LeBlanc, R. J.
DEPOSITION. See Sedimentation.
DESERTS.
Maine, Desert of Maine, popular account: Sutherland, P.
Terrain analogs, mapping technique, world deserts cf. Arizona, Yuma area: Van Lopik, J. R.
DEVONIAN. See also Paleontology, Devonian; Paleozoic.
Alberta, Drumheller area, Upper: Kirkor, W. P.
Drumheller area to Rocky Mtn. front, Middle-Upper unconformity: Storey, T. P., 2.
McMurray area: Carigy, M. A., 1.
North-central, reefs: Clark, A.
Swan Hills member of Beaverhill Lake formation, type section: Feng, G.
Winterburn-Wabamun groups, sedimentation: Sutterlin, P. G.
Appalachians, central, Lower: Appalachian Geol. Soc.
Arizona, southeastern and central: Pye, W. D., 2.
Arkansas, northern: Frezon, S. E.
Canada, western and Arctic, fossils as lithologic constituents in defining rock units: McLaren, D. J., 2.
Greenland, east-central: Büttler, H.
Kentucky, south-central: Nosow, E., 2.
Michigan, Mackinac Straits region: Ehlers, G. M., 1.
Mackinac Straits region and surface northern Lower Peninsula: Landes, K. K., 1.
Michigan basin, Middle phases: Briggs, L. I., Jr.
Nevada, Pananagat Range, section Reso, A., 1.
New Mexico, southern: Flower, R. H., I.
Southwestern: Pye, W. D., 2.
New York, Cayuga Lake basin: N. Y. State Geol. Assoc.
Western, correlation revision: de Witt, W., Jr.
Northwest Territories, Great Slave and Trennt River areas: Douglas, R. J. W., 1.
Pennsylvania, central: Arndt, H. H.
Upper, nomenclature: Miller, J. T.
Quebec, Causapscal area, east half: Stearn, C. W.
Gaspé Peninsula, eastern: Cumming, L. M.
Madeleine River area: McGerrigle, H. W.
Richard-Gavlar area: Carbonneau, C.
Rhode Island, Carolina-Quocheontaug quadrangles: Moore, G. E., Jr.
Slocum quadrangle: Power, W. R., Jr.
Saskatchewan, central, Middle: Edle, E. W., I.
Quill Lakes-Qu’Appelle area, Dawson Bay formation: Lane, D. M.
West-central, Upper: Kents, P.
**INDEX**

<table>
<thead>
<tr>
<th>DEVONIAN—Continued</th>
<th>DISTRICT OF COLUMBIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five mile Pass-northern Boulter Mtn. area: Bissell, H. J., 4.</td>
<td><strong>DOLOMITIZATION. See also</strong> Carbonate rocks; Carbonates.</td>
</tr>
<tr>
<td>North-central, Mississippian boundary: Brooks, J. E.</td>
<td>California, Fremont Peak area: Bowen, O. E., Jr.</td>
</tr>
<tr>
<td>Vermont, St. Johnsbury quadrangle, age: Hall, L. M.</td>
<td>Crystal structure: Steinman, H.</td>
</tr>
<tr>
<td>Yukon, northern: Martin, L. J., 1.</td>
<td>Diagenetic sequence of calcite deposition: Waldschmidt, W. A.</td>
</tr>
<tr>
<td><strong>DIABASE. See also</strong> Igneous rocks.</td>
<td>Manitoba, southern, Ordovician-Silurian, origin: Andrichuk, J. M., 1.</td>
</tr>
<tr>
<td><strong>DIAMOND. See also</strong> Gems and gem materials.</td>
<td>New Mexico, Lea County, Ellenburger group, cores, thin-section study: Folk, R. L., 3.</td>
</tr>
<tr>
<td>California: Pages History.</td>
<td><strong>Trans-Pecos area, Montoya group:</strong> Folk, R. L., 3.</td>
</tr>
<tr>
<td>Crystal-structure types, cleavage, relation to bonding and surface structure: Wolff, G. A., 1.</td>
<td><strong>Texas, Ellenburger group, cores, thin-section study:</strong> Folk, R. L., 3.</td>
</tr>
<tr>
<td>General: Pages History.</td>
<td><strong>Trans-Pecos area, Montoya group:</strong> Howe, H. J.</td>
</tr>
<tr>
<td>Type I, nitrogen content, optical effects: Kaiser, W.</td>
<td><strong>Primary, cf. dolomitic limestone, pH relations:</strong> Dott, R. H., Jr., 1.</td>
</tr>
<tr>
<td><strong>DIASTROPHISM. See also Changes of level:</strong> Deformation; Orogeny; Tectonics.</td>
<td><strong>Synthetic, precipitation:</strong> Medlin, W. L., 2.</td>
</tr>
<tr>
<td>United States, landscapes: Shimer, J. A.</td>
<td><strong>Trans-Pecos area, Montoya group:</strong> Howe, H. J.</td>
</tr>
<tr>
<td><strong>DIATOMS, NEVADA, FALLON AREA:</strong></td>
<td>Great Salt Lake Desert, subsurface bed: Graf, D. L.</td>
</tr>
<tr>
<td><strong>DIFFERENTIATION. See also</strong> Magmas and magmatic differentiation.</td>
<td>West Virginia, Wood County deep well, Ordovician, chemical and physical properties: Robertson, E. C.</td>
</tr>
<tr>
<td><strong>DIES. See also</strong> Intrusions.</td>
<td><strong>DOLOMITIZATION.</strong> Alberta, southern, Paleozoic: Illing, L. V.</td>
</tr>
<tr>
<td>British Columbia, Coast Mts., synplutonic, pre-Tertiary: Roffeick, J. A.</td>
<td><strong>Evaporite relations:</strong> Sloss, L. L., 1.</td>
</tr>
<tr>
<td>Colorado, Chicago Creek area: Harrison, J. E.</td>
<td>Magnesium-insoluble residue direct variation: Bisque, R. E., 1.</td>
</tr>
<tr>
<td>Sawatch Range, northern, Precambrian: Pearson, R. C.</td>
<td>Michigan, central, Rogers City-Dundee formation: Tinklepaugh, B. M.</td>
</tr>
<tr>
<td>New Mexico, Carlsbad potash district: Jones, C. L., 2.</td>
<td>Montana, southern, Maurice formation: Brown, C. William.</td>
</tr>
<tr>
<td>North Carolina, Charlotte belt, Concord area, relations: Bell, H., 3d.</td>
<td><strong>DOMES. See also</strong> Salt domes.</td>
</tr>
<tr>
<td>Ontario, Bristol Township, gold possibilities: Ferguson, S. A.</td>
<td>Alberta, Panther dome: Hunt, C. W., 1.</td>
</tr>
<tr>
<td>Utah, Bismark Peak area, silica breccia: Foster, J. M.</td>
<td>New Mexico, Delaware basin: Vine, J. D., 3.</td>
</tr>
<tr>
<td><strong>DINOSAURIA. See also</strong> Reptilia.</td>
<td><strong>Northwest Territories, Ellef Ringnes Island, Isachsen Ringnes dome:</strong> Saint-Onge, D.</td>
</tr>
<tr>
<td><strong>DIORITE. See also</strong> Igneous rocks.</td>
<td>Richardson Mts., evaporite placement: Kent, P. E.</td>
</tr>
</tbody>
</table>
DOMES—Continued
Texas, Terlingua mercury district: Yates, R. G.

DOMINICAN REPUBLIC. See West Indies.

DRAINAGE CHANGES. See also Glacial geology; Physiographic geology; Stream capture.

Colorado, Mesa Verde area: Wanek, W. D., Jr.

DOMINICAN REPUBLIC, Bee West Indies.

DRAINAGE CHANGES. Bee also Glacial geology; Physiographic geology; Stream capture.

Delaware, Antelope exposed, Delaware River: Leith, B. F., Jr.

DRAINAGE PATTERNS. See also Geomorphology; Physiographic geology; Streams.

Anastomosing channels, climate interpretations: Garner, H. F.

DRAINAGE PATTERNS-Continued
New Mexico, Sacramento Mts., east side: Motts, W. S., Jr.

Ohio, Little Mill Creek drainage basin, Coshocton County, quantitative geomorphology, relation to stream flow: Morisawa, M. E., 1.

Quebec, Mt. Tremblant area, glaciation effects: Laverdière, C.

South Carolina, sea-island coast: Zeigler, J. M., 1.

United States, landscapes: Shimer, J. A.

Virginia, Blue Ridge Upland, New River and Roanoke River basins: Dietrich, R. V.

WASHINGTON, channeled scablands, glacial outwash: Bretz, J. H., 1.

DRAINAGE PATTERNS. See also Glacial geology.

DRAINAGE PATTERNS—Continued
Drift. See Glacial geology.

DRAINAGE PATTERNS. See also Glacial geology.

DRAINAGE PATTERNS. See also Geomorphology; Physiographic geology; Streams.

Drainage patterns, continued
New Mexico, Sacramento Mts., east side: Motts, W. S., 1.

Ohio, Little Mill Creek drainage basin, Coshocton County, quantitative geomorphology, relation to stream flow: Morisawa, M. E., 1.

Quebec, Mt. Tremblant area, glaciation effects: Laverdière, C.

South Carolina, sea-island coast: Zeigler, J. M., 1.

United States, landscapes: Shimer, J. A.

Virginia, Blue Ridge Upland, New River and Roanoke River basins: Dietrich, R. V.


DRIFT. See Glacial geology.

DRILL-HOLE LOGS. See Well and drill-hole logs.

DROLINS. See also Glacial geology.

Massachusetts, Shelburne Falls quadrangle: Segerson, K.

North Dakota, Warwick-Tokio area: Aronow, S.

Northwest Territories, King William Island-Adelaide Peninsula: Fraser, J. K., 1.

DUNES. See also Glacial geology.

Massachusetts, Provincetown area, Quaternary: Smith, H. T. U.

Mexico, Sonora, northwest shore, shell dunes: Ives, R. L.

Ontario, Prescott area, parabola dunes, origin: Terasmae, J., 2.

Puerto Rico, coastal areas, cemented: Kaye, C. A., 2.

Quebec, Magdalen Islands, sands, grain size and shape, sequence of processes: Dumont, B.

DYNAMIC GEOLOGY. See Physical geology.

EARTH.

Atmosphere, primordial, origin of life: Oparin, A. I.

Chemical evolution and density, reduction hypothesis, cf. planets and meteorites: Ringwood, A. E., 5.

Composition, cf. chondritic meteorites: MacDonald, G. J., 1.

Constitution, equations of state and polymorphism at high pressures: Clark, S. P., Jr., 1.

Craters, cf. Moon: Kellogg, W. W.

Degassing constant, argon-40 and helium economy: Turekian, K., 1.

Expanding-earth hypothesis: Carey, S. W.

Geophysics: Wilson, John T., 2.


Hydrosphere, accumulation, relation to argon-40 escape: Turekian, K. K., 1.

Origin, popular account: Pfeiffer, J.
### Earth—Continued

<table>
<thead>
<tr>
<th>Origin and history, popular account:</th>
<th>Origin and structure, popular account:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical properties and origin, popular account:</td>
<td>Pacific basin, tectonic history:</td>
</tr>
<tr>
<td>Beiser, A., 1.</td>
<td>Menard, H. W., Jr., 2.</td>
</tr>
<tr>
<td>Physics and chemistry: Ahrens, L. H.</td>
<td>Pacific Ocean, Mendocino escarpment,</td>
</tr>
<tr>
<td>Polar movement, Precambrian, algal</td>
<td>gravity studies: Talwani, M., 1.</td>
</tr>
<tr>
<td>colony growth as indicator: Nor-</td>
<td>Northern, seismic waves: DeNoyer, J. M.</td>
</tr>
<tr>
<td>dend, S. C.</td>
<td></td>
</tr>
<tr>
<td>Polar wandering: Runcorn, S. K.</td>
<td></td>
</tr>
<tr>
<td>Primitive, organic compound synthesis</td>
<td></td>
</tr>
<tr>
<td>under reducing conditions: Miller, S. L.</td>
<td>Shifting, total, Cenozoic, cause of continental drift and volcanic belts: Ma, T. Y. H.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Structure and composition: Jeffrey's, H. Age.</th>
<th>Structure, phase-transition concept:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Popular account: Hurley, P. M., 1. Radioactive estimates cf. others: Cook, M. A.</td>
<td>Structure from G waves and Love waves: Press, F.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basins, evolution mechanics, relation to habitat of oil: Dalimis, K. F.</td>
<td>Crustal andesite, origin: Wilson, John T., 2.</td>
</tr>
<tr>
<td>British Columbia, Puget Sound area, anomalous structure: Neumann, E., 2.</td>
<td>Convection cells, two-phase orogenic cycle: Reitan, P. H.</td>
</tr>
<tr>
<td>Western, Ripple Rock explosion: Wilmore, P. L.</td>
<td>Core, diffraction study: Gilbert, F.</td>
</tr>
<tr>
<td>Caribbean region, eastern, seismic studies: Officer, C. B., Jr., 1.</td>
<td>Mantle, below oceans and continents, depths, surface-wave dispersion: Landisman, M. G.</td>
</tr>
<tr>
<td>Structure, seismic studies: Ewing, J. L., 2.</td>
<td>Conductivity mechanism: Hughes, H.</td>
</tr>
<tr>
<td>Continental shelf and slope, northeastern, geophysical investigations: Drake, C. L.</td>
<td>Density difference, Northern cf. Southern Hemisphere: Carey, S. W.</td>
</tr>
<tr>
<td>Depression by ice masses: Fischer, I. Elements, major, abundance chart: Poldervaart, A., 1.</td>
<td>Low-velocity zone, seismic evidence: Takeuchi, H.</td>
</tr>
<tr>
<td>Evolution, continental growth: Wilson, John T., 2.</td>
<td>Olivine-spinel inversion, experimental: Dachille, F., 1; Ringwood, A. E., 1, 3, 4; Wentorf, R. H., Jr.</td>
</tr>
<tr>
<td>Geophysics: Gutenberg, B., 2.</td>
<td>Plasticity computations, deep-focus earthquake: Das, S. C.</td>
</tr>
<tr>
<td>Geosyncline formation, temperature variations: Grossling, B. F.</td>
<td>Rayleigh-wave dispersion: Dorman, H. J.</td>
</tr>
<tr>
<td>Gravity anomalies, causes and applications: Geyer, R. A.</td>
<td>Mohorovitch discontinuity, phase changes due to temperature changes: Lovering, J. E., 2.</td>
</tr>
<tr>
<td>Objectives: Hess, Harry H., 1.</td>
<td>Nuclear explosions: Carder, D. S.</td>
</tr>
<tr>
<td>Oceanic mobile belts, tectonic history: Weeks, L. G.</td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

EARTH—Continued

Interior—Continued

Structure, earthquake evidence: Bullen, K. E.

Temperature.

Crust, variations due to geosyncline formation: Grossling, B. F.

General: Gutenberg, B., 2.

Gradients, climatic effects: Lange, A. L., 1.

Effect on magma formation: Uffen, R. J.

Heat balance, relation to age: Cook, M. A.


Under continents and oceans: Kennedy, G. C., 2.


Mantle-core boundary, iron fusion curve: Strong, H. M.

Measurement on sea floor, proposed rapid method: Bullard, E. C.

Mohorovicic discontinuity, changes, basalt-eclogite phase changes: Lovering, J. F., 2.

Pacific Ocean floor, heat flow: Von Herzen, R., 1.

Rocky Mts. and Colorado Plateau, depth, Cenozoic uplift: Mackin, J. H.

Thermal history, model studies: MacDonald, G. J. F., 2.

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Lituya Bay: Powell, B. W.

Southeastern, 7/9-10/58: Jordan, J. N.; Mann, V. I.


List: Wood, H. O.

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Regionalization mapping: Richter, C. F., 1.


1906, pictorial account: Bronson, W.


Southern, minor, restudy: Richter, C. F., 3.

EARTHQUAKES—Continued

Earth's interior, structure, evidence: Bullen, K. E.

Fault stress and displacement conditions, types: Knopoff, L., 2.


Focus, horizontal displacement, plasticity calculations: Das, S. C.

Intensity, distribution analysis: Neumann, F., 3.

Jamaica, 8/4/57; Versey, H. R., 2.

Mexico, Guerrero coast, 7/28/57, damage, relation to soil conditions: Duke, C. M.

Michigan, 8/9/47, effect of Illinois basin on surface waves: Espinosa, A. F.


Nevada, western, list: Wood, H. O.

Wonder district, 1903, evidence: Simmons, D. B.

Oklahoma, 4/9/52, effect of Ozark dome on surface waves: Espinosa, A. F.

Recording, principles: Neumann, F., 1.

Regionalization mapping: Richter, C. F., 1.

Tsunami: Filice, F. P.

United States, eastern cf. western: Wilson, James T.

Regionalization mapping: Richter, C. F., 1.

ECHINODERMATA. See also Asteroidea; Crinoidea; Cystoidea; Echinoidea; Holothuroidea.

Iowa, Le Grand area, Mississippian, popular account: Harnack, C.

Ophiuroidea, Ophiura graysonensis, Cretaceous, Texas, Austin chalk: Clark, D. L., 2.


ECHINOIDEA.

Calcite, crystallographic orientation: Raup, D. M., 1.

Dendraster, Pliocene-Recent, morphology, relation to water turbulence: Raup, D. M., 2.

Recent, skeletal magnesium and strontium, water temperature and salinity effect: Pilkey, O. H.

Scutellaster oregonensis, Pliocene, United States, Pacific coast and Alaska: Durham, J. W., 3.

United States, eastern, Cenozoic: Cooke, C. W.

ECOLOGY. See also Paleoecology.

Arctic Ocean, Foraminifera, Recent: Green, K. E.


California, Foraminifera, Santa Catalina Island, biofacies: McGlashan, R. H.
<table>
<thead>
<tr>
<th>ECOLOGY—Continued</th>
<th>ECONOMIC GEOLOGY—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>California—Continued</td>
<td>Mineral deposits—Continued</td>
</tr>
<tr>
<td>Foraminifera, Santa Monica Bay, intertidal, seasonal variations: Reiter, M.</td>
<td>Origin, heavy-metals transport: Barton, P. B., Jr., 2; Krauskopf, K. B., 1.</td>
</tr>
<tr>
<td>Louisiana, Mississippi delta, foraminiferal assemblages: Lankford, R. R.; Shepard, F. P., 2.</td>
<td>Ore genesis, source-bed concept: Knight, C. L.</td>
</tr>
<tr>
<td>Maine, pelecypods, Sagadahoc Bay tidal flat: Bradley, W. H., 1.</td>
<td>Ore reserves, estimation: Patterson, J. A.</td>
</tr>
<tr>
<td>Mexico, coral reefs, Gulf of California: Squires, D. F., 2.</td>
<td>Origin, thermodynamic approach: Cieslewicz, W. J.</td>
</tr>
<tr>
<td>Ostracodes, Bahia Todos Santos, Baja California: Benson, R. H., 2.</td>
<td>Rare earths: Williamson, D. R., 1.</td>
</tr>
<tr>
<td>Texas, Laguna Madre—coastal bays, benthic biofacies, cf. late Cenozoic: Parker, R. H.</td>
<td>Massive deposits, origin, symposium: Gill, J. E., 1.</td>
</tr>
<tr>
<td>ELEM:ENTS. See also Geochemistry; Isotopes; Metals; the more important economic elements.</td>
<td>Textbook: Riley, C. M., 1.</td>
</tr>
<tr>
<td>Abundances, cosmic: Suess, H. E.</td>
<td>Vanadum ores, origin, reduction by wood and lignite, experimental: Pommer, A. M.</td>
</tr>
<tr>
<td>Bibliography, geochemical distribution: Green, J., 1.</td>
<td>Bismuth-thallium-mercury, stone meteorites, neutron-activation analysis: Ehmann, W. D.</td>
</tr>
<tr>
<td>Chlorine, silicate rocks, rapid determination: Peck, L. C.</td>
<td>Chlorine, silicate rocks, rapid determination: Peck, L. C.</td>
</tr>
<tr>
<td>Distribution in coexisting mineral phases, Grenville gneiss: Kretz, R. A.</td>
<td>Distribution in coexisting mineral phases, Grenville gneiss: Kretz, R. A.</td>
</tr>
<tr>
<td>Earth's crust, abundance, chart: Poldervaart, A., 2.</td>
<td>Frequency distribution in rocks: Jizba, Z. V.</td>
</tr>
<tr>
<td>Abundance, estimation problems: Fiedler, M., 2.</td>
<td>Geochemical table: Green, J., 1.</td>
</tr>
</tbody>
</table>

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- Distribution in coexisting mineral phases, Grenville gneiss: Kretz, R. A.
- Earth's crust, abundance, chart: Poldervaart, A., 2.
- Abundance, estimation problems: Fiedler, M., 2.
- Frequency distribution in rocks: Jizba, Z. V.
- Geochemical table: Green, J., 1.
- Concentration in coal ash: Corey, R. C.
- Marine geochemistry, origin of clay minerals: El Wardani, S. A.
- Helium, isotopic distribution in Carbo iron meteorite: Hoffman, J. H.
- Terrestrial economy: Turekian, K., 1.
EL SALVADOR—Continued

Palaeontology.

Fish, poeciliid, Zanjón de Taltimiquín diatomite beds, Quaternary: Álvarez del Villar, J.

Physical geology.


Landslides, study, military aspects: Baker, Robert E., 1.

Physiographic geology.


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Aerial-photograph interpretation: Laeder, D. R.

Alaska, Big Delta and Fairbanks areas, slits: Lindholm, G. F.

Big Delta quadrangle, western, foundation problems: Williams, J. Ropes, 2.

Cape Thompson area, nuclear excavation site: Kachadoorian, R.

Glennallen area, permafrost: Nichols, Donald R., 1.

Matanuska Valley slits cf. Iowa loess: Stump, R. W.

Point Barrow area, sediments: Carlson, P. R.

Arizona, Glen Canyon dam site: Lasson, G. D.


British Columbia, Alcan tunnel, Tahats Lake-Kemano: Duffell, S., 1.


California, Black Butte dam site: Hall, B. M.

Los Angeles County, barrier to seawater intrusion: Brussels, A. E.


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Coastal inlets, bypassing of littoral drift sand: Bruun, P.

Connecticut, New Britain quadrangle: Simpson, H. E.

Foundation engineering, importance of geology: Fletcher, G. A.

Glacial-lake clays, geotechnical properties, Great Lakes region: Wu, T. H.

Greenland, Tuto area, ice tunnel: Rausch, D. O.
ENGINEERING GEOLOGY—Continued
Highways, applied geomorphology:
Belcher, D. J., 1.
Iowa, southeastern, till and loess, properties: Hansen, J. A., Jr.
Kansas, highways, earth-resistivity investigations: Crumpton, C. F.
Shallow geophysical prospecting:
Wantland, D.
Louisiana, continental-shelf deposits, offshore foundation problems:
Fisk, H. N., 2.
Mississippi Valley, lower, alluvial deposition and soil formation:
Kolb, C. R.
Muskeg, measurement of bearing strength, relation to drainage:
Radforth, N. W., 1.
New Jersey, Newark area, glacial soils:
Jumikis, A. R.
Spruce Run dam site and reservoir:
Widmer, K., 4.
New York, New York City water-supply system:
Fluhr, T. W.
Ohio, Lake Erie shoreline, Perry Township Park, bluff erosion:
Chieruzzi, R.
Ontario, Kingston area, soils:
Hughes, G. T.
Niagara area, rock movement:
Hogg, A. D.
Open-pit mines, slide prevention:
Wilson, S. D.
Pennsylvania, Allegheny Plateau, bedrock faulting in river valleys:
Ferguson, H. F.
Fort Pitt tunnel, north portal area, landslides:
Threet, R. L., 2.
Pennsylvania Turnpike, subsurface exploration, evaluation of machines:
Shurig, D. G.
Pittsburgh area, field trip:
Philbrick, S. S.
Puerto Rico, San Juan area:
Kaye, C. A., 1.
Utuado area, tunnels:
Kaye, C. A., 4.
Quebec, Moulie River valley, banded sediments, stability tests:
Pryer, R. W. J.
Radioactive-waste disposal:
Roedder, E. W., 1; Thel's, C. V.
Rock failure, strength and elastic properties:
Wuerker, R. G.

ENGINEERING GEOLOGY—Continued
Rock failure—Continued
Time-dependent deformation, laboratory tests:
Hardy, H. R., Jr.
Rock mechanics, symposium:
Colo. School Mines.
Saskatchewan, South Saskatchewan River Dam, Bearpaw shale problems:
Ringhelm, A. S.
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Rose, R. B.
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Rosenqvist, I. T.
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Trask, P. D., 2.
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Thompson, J. R.
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Trefethen, J. M.
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Dapples, E. C., 1.
Volume estimates from contours:
Hughes, R. J., Jr.
Washington, Rocky Reach dam site, Columbia River:
Swiger, W. F.
West Virginia, proposed turnpike, electrical resistivity data cf. core borings:
White, C. L.

EOCENE. See Tertiary.
EOolian action. See Wind work.
EROSION.
Atlantic Coastal Plain, sandy flatlands, cycle:
Rasmussen, W. C., 2.
Blue Ridge Front, migrating Atlantic-Gulf divide:
Dietrich, R. V.
Canada, eastern, limestone, rate:
Corbel, J., 1.
Erosion-deposition processes as phases of continual transfer:
Wilson, John A., 3.
Georgia, coastal valley parallel to shoreline:
Zeigler, J. M., 1.
Jamaica, north-central, karst area:
Sweeting, M. M.
Kansas, Flint Hills, Cenozoic:
Frye, J. C., 1.
Lava flows in valleys, inverted relief:
Threet, R. L., 2.
Maryland, Watts Branch, Montgomery County, cohesive bank:
Wolman, M. G., 1.
Northwest Territories, Ellef Ringnes Island, Beaufort basin:
Leach, A. C.
Oceanic abysses:
Heezen, B. C., 3.
Ohio, Lake Erie shoreline, Perry Township Park, bluff recession:
Chieruzzi, R.
Rate, unequal-activity hypothesis:
Crickmay, C. H.
Reefs:
Wiens, H. J.
Sand, experimental abrasion, stream action:
Kuenen, P. H.
Semiarid areas, studies, landform analysis:
Schumm, S. A.
ERSION—Continued
Slope angles, characteristic and limiting: Young, Anthony.
Slope retreat by gullying: Beaty, C. B., 1.
South Carolina, coastal valley parallel to shoreline: Zeigler, J. M., 1.
Stream, analytical model: Culling, W. E. H.
Cycles, hypsometric analysis: Strahler, A. N., 1.
Entrenchment and bed load: Quinn, J. H., 3.
Submarine, unconformities, ocean-current scour: Heezen, B. C., 4.
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United States, landscapes: Shimer, J. A.
Southwestern, lava flows in valleys, inverted relief: Thrreet, R. L., 2.
Wind River Range, chemical: Hembree, C. H.
ERRATICS, Alberta, Folding Mtn., let down from thrust sheet: Landes, K. K., 4.
ESKERS. See Glacial geology.
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Adelopeltolamus sellardai, Permian, Oklahoma, Fallis sandstone, Red Rock area: Branson, C. C.
Paleozoic, late, classification: Kellensvig-Waering, E. N.
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Southwestern, Mississippian: McCabe, H. R.
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Newfoundland, southwestern, Carboniferous belt: McKillop, J. H.
EVAPORITES—Continued
Primary, petroleum accumulation: Sloss, L. L., 1.
Saskatchewan, central, Middle Devonian: Edle, R. W., 1.
Sulfur, origin, isotopic fractionation: Ault, W. U., 1.
Thermal analysis: Kopp, O. C.
West Virginia, Silurian, Upper: Ludlow, J. C.
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Ammonoids, gastropod: Warren, P. S.
Arthropods: Evans, H. E.
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Crinoids, nonbrachiate, Early Mississippian: Koenig, J. W., 2.
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Fossil record, evaluation since Darwin: Newell, N. D., 2; Romer, A. S., 1.
History, forerunners of Darwin: Glass, H. B.
Newton to Darwin: Greene, J. C.
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Invertebrates, primary differentiation: Nicol, D.
Life, origin: Nourse, J. R., 2; Oparin, A. I.
Origin, free-oxygen availability: Nourse, J. R., 1.
Organic compound synthesis under reducing conditions: Miller, S. L.
Popular account: Pfleffer, J.
Life on earth, elementary account: MacNell, M. G.
Mammals, hypsodont teeth: White, T. E.
Transition from reptiles, criteria: Olson, B. C.
Man: Howells, W. W.
INDEX

EVOLUTION—Continued
Natural-selection concept, history in vertebrate paleontology: Wilson, John A., 1.
Origin of concept: Daniel, G. E.
Plants, bigtree forest, Cenozoic, Nevada, Sierra Nevada: Axelrod, D. I., 1.
Flowering, insect-pollinators role: Leppik, E.
Phylogenetic classification, evaluation of fossil record: Sporne, K. R.
Psilophytes, Devonian, minimal role: Axelrod, D. I., 2.
Reptiles, middle ear, pelycosaur tympanum: Botton, N., 3d, 2.
Nasal cavities: Parsons, T. S.
Tetrapods, molar cusp patterns: Edmond, A. G.
Vertebrates: Romer, A. S., 2.

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Alberta, Drumheller area: Chamney, T. P.
Moose Mtn. area: Bossert, D. O.
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Jamaica, Buff Bay, and Low Layton volcanic series: Robinson, E.
Central inlier: Williams, J. B. E., 2.
Dallas and Cane River Falls areas: Zans, V. A., 4.
Kingston to Bowden, Miocene: Chubb, L. J., 6.
Kentucky, Cumberland River valley, Cumberland County, by boat: Jillson, W. R., 2.
Ohio, Columbus-Galena-Gahanna area: Ohio Acad. Sci. Geology Sec.

EXPERIMENTAL INVESTIGATIONS—Continued
Analcites, solid solution: Saha, P. I.
Barium disilicate, polymorphism: Roth, R. S., 1, 2.
Bastnasite, synthesis: Jansen, G. J.
Biotite, alteration to vermiculite: Bassett, W. A., 1.
Phase relations of end member: Wones, D. R.
Borax-Vinalcoalkite-kernite: Gleese, R. F., Jr.
Borosilicates, synthesis and phase relations: Eggster, H. P., 2.
Calcite, melting in presence of water: Wyllie, P. J., 3.
Solubility: Segnit, R. E.
Calcite and aragonite solution kinetics: Weyl, F. K.
Carbonate systems: Goldsmith, J. R., 1.
Solubility in sea water: Garrels, R. M., 8.
Chalcedony, conversion from solid silica: White, J. F.
Chalcopyrite, resistivity vs. temperature measurements: Frueh, A. J., Jr., 2.
Chlorite, iron, stability range: Turnock, A. C., 2.
Cinnabar and metacinnabar, stability relations: Dickson, F. W.
Cross folding: Bhattacharji, S.
Cryptomelane, thermal transformation: Faulring, G. M.
Crystal structure, layered sequences, X-ray diffraction effects of short-range ordering: Chayes, F.
Feldspar, alkali, synthetic, and alkali chloride solution, ion-exchange reaction: Orville, P. M.
Feldspar and mica, low temperature and pressure: Garrels, R. M., 7.
Frost heaving of soil, thermal and hydraulic factors: Higashi, A.
Geologic structures, models, vertical displacement of homogeneous layer: Sanford, A. R.
Granite and alkali feldspars, melting, effect of CO₂: Wyllie, P. J., 5.
Gypsum dehydration to anhydrite, crystal structure: Atolli, M.
Halloysite, crystal structure, treatment with salt solutions: Wada, K., 1, 2.
Hydrous minerals, dissociation pressures: Wayman, C. H.
EXPERIMENTAL INVESTIGATIONS—Continued


Ilmenite, alteration, high temperature: Karkhanavala, M. D., 2.

Alteration mechanism, sand cf. parent rock: Lynd, L. E.

Iron, fusion curve: Strong, H. M.

Iron oxides and silicates, redox reactions in metamorphism: Eugster, H. P.

Kaolinite clays, high-temperature phases of minerals: Slaughter, M.

Kaolinite, thermal dehydration rate: Holt, J. B.

Kaolinite-mullite reaction series: Brindley, G. W., 3.

Limestone, fine-grained, internal friction at ultrasonic frequencies: Peselnick, L.

Magmatic gas phase, composition from equilibrium calculations: Krauskopf, E. B., 1.

Magnetic susceptibility cf. composition, wolframite group and sphalerite: Spokes, E. M.

Magnetite-hematite-corundum assemblages: Turnock, A. C., 1.

Magnetite-hercynite assemblages: Turnock, A. C., 1.

Metamorphic reactions: Fyfe, W. S., 1.

Metasomatic processes, local phase equilibrium: Thompson, J. B., Jr., 1.

Mg-cordierite, stability: Schreyer, W. F.

Micas: Yoder, H. S., Jr.

Minerals, heats of solution of grain sizes: Cumbelridge, J. T.

Transformations in up-pressure direction by grinding: Dachille, F., 4.

Monticellite, PT curve: Walter, L. S., 1.

Montmorillonite, adsorption of organic molecules: Hoffman, R. W.

Inorganic-organic cation exchange: McAtee, J. L., Jr., 2.

Montmorillonoids, low-temperature dehydration: Crowley, M. S., 1.

Synthetic, adsorption-desorption characteristics: Gillery, F. H., 2.

Variable exchange capacity: Kokumi, M.

Mullites and sillimanite: Aramaki, S., 2.

Olivine-spinel inversion: Dachille, F., 1.

Application to earth's mantle: Ringwood, A. E., 1, 3.

Payette: Ringwood, A. E., 2.

Forsterite synthesis: Wentorf, R. H., Jr.

Organo-montmorillonite complex, heat effect: McAtee, J. L., Jr., 1.

Petroleum origin, chlorophyll, primary degradation: Hodgson, G. W., 2.

Plagioclase, deformation: Borg, I. Y.

Pyrite, optical anisotropy, polishing methods: Stanton, R. L., 1.

Stability limits: Kullerud, G., 2.

EXPERIMENTAL INVESTIGATIONS—Continued

Pyrite-vaesite phase relations: Clark, T. T., 4.

Quartz, crystalline, amorphous transition under shock: De Carli, P. S.


Rock failure, strength and elastic properties: Wuerker, R. G.

Time-dependent deformation: Hardy, H. R., Jr.


Sand, abrasion by stream action: Kuenen, P. H.

Movement, irradiated-quartz tracer, beach and nearshore: Inman, D. L.

Sedimentary rocks, failure characteristics: Robinson, L. H., Jr.

Sediments, organic compounds, chromatographic type accumulation: Nagy, B. S., 1.

Seismic surface waves near point source: Kuo, J. T. F.

Serpentine and chlorite, magnesium-aluminum, synthesis: Gillery, F. H., 1.

Shale, metastable alumina polymorph with structure approaching corundum: Lapham, D. M., 2.

Shell transport, partially submerged: Kornicker, L. S., 2.

Silica, soluble, removal from fresh water entering the sea: Bien, G. S.-N.

Silica-structure phases: Dachille, F., 2.

Sols, engineering, strength of clay-sand-water mixtures, effect of grain size: Trask, P. D., 2.

Spessartite, synthetic, replacement of aluminum by iron: Geller, S., 2.

Stannite series: Koucky, F. L., Jr.

Streams, abrasion, Lookout formation samples, Georgia: Fagan, J. M.

Channels, size and shape controls in sand: Wolman, M. G., 2.

Sediment load and bed configuration, effects on friction factor: Vanoni, V. A.

Strontium, coprecipitation with calcite and aragonite: Oxburgh, U. M.

Sulfides, copper, high temperature: Meikle, B. K.

Oxidation, electrochemical: Sato, M., 2.

Rapid-cooling: Lyon, R. J. P., 2.

Solid diffusion and volatility: Gill, J. E., 2.

Systems, geologic thermometers: Kullerud, G., 1.

Systems, AgS-Bi2S3-PbS: Van Hook, H. J.
INDEX 383

EXPERIMENTAL INVESTIGATIONS—Continued
Systems—Continued
Albite, low- and high-temperature: Ferguson, R. B., 1.
Albite-nepheline-water: Saha, P., 2.
BaO·2SiO2·BaO·3SiO2: Roth, R. S., 2.
CaAl2(SiO4)2·Ga4Fe5(FeO4): Geller, S., 4.
CaAl2(SiO4)3·Y3Fe2(FeO4): Geller, S., 4.
CaCO3·H2O, solubility: Ellis, A. J., 3.
CaCO3·MgCO3·FeCO3, join: CaMg(CO3)3·CaFe(CO3)2: Rosenberg, P. E.
CaO·Al2O3·SiO2: Goldsmith, J. R., 2.
Calcite-dolomite in sea water: Kramer, J. R.
CaO·Al2O3·SiO2, mullite-corundum boundary: Aramaki, S., 1.
CaO·CO2·H2O: Wyllie, P. J., 2, 3.
CaO·FeO·Fe2O3·SiO2: Phillips, B.
CaO·H2O, melting of portlandite: Wyllie, P. J., 4.
CaO·MgO·Al2O3·SiO2, join: grossularite — pyrope: Chinner, G. A.
CaO·MgO·Al2O3·SiO2·H2O: MacDougall, J. F.
CaO·FeO·Fe2O3·SiO2, compound: 6CaO·3SiO2·H2O: Dent Glasser, L. S.
CaO·H2O, solubility at high temperatures: Ellis, A. J., 1.
Cu3Fe·FeO: MacDougall, J. F.
CuS·FeS·FeO: MacDougall, J. F.
FeO·H2O, hematite-goethite boundary: Schmalz, R. F.
FeO·TiO2, subsolidus: Karkhanavala, M. D., 1.
FeS·ZnS, geologic thermometer: Skinner, B. J., 3.
Forsterite-diopside-silica-albite, join: protoenstatite — diopside — albite: Schairer, J. F.
Iron oxide-Cr2O3·SiO2: Muan, A., 3.
Iron oxide-titania oxide: MacChesney, J. B., 1, 2.
K2O·Al2O3·SiO2·H2O: Hemley, J. J.
Manganese oxide-silica: Muan, A., 2.
In air: Muan, A., 1.
MgAl2O4·MgSiO3: Dachille, F., 1.
MgAl2O4·SiO2, mullite-corundum boundary: Aramaki, S., 1.
MgO·GeO2, cf. silicate: Robbins, C. R.
MnAs4(SiO4)3·3Y3Fe2(FeO4): Geller, S., 4.
Mn·OH: Klingberg, C.
NaCl·H2O: Walter, L. S., 3.
Na2CO3·NaHCO3·CO2·H2O: Ellis, A. J., 2.
Na2Al2O3·SiO2, role of beta alumina: Pablo-Galan, L. de.

EXPERIMENTAL INVESTIGATIONS—Continued
Systems—Continued
Na2PO4·CaCO3·H2O: Ames, L. L., Jr., 2.
Ni-As-S: Yund, R. A.
Ni-S: Kullerud, G., 3.
Pyrrhotite-pyrite: Arnold, R. G.
SiO2·H2O: Kennedy, G. C., 3.
ThO2·SiO2: Harris, L. A.
ZnS·H2S·H2O: Barnes, H. L., 3.
Thermoluminescence, calcite, impurity effects: Medlin, W. L., 1.
Thrusting, mechanisms of large over-thrusts, pressures in fluid-filled porous solids: Hubert, M. K.
Tilleyite, synthesis and stability: Harker, R. L.
Tobermorite, dehydration: Taylor, H. F. W.
Tridymite-cristobalite relations: Roy, D. M.
Uvarovite: Glasser, F. P.
Vanadium, origin of ores, reduction by wood and lignite: Pommer, A. M.
Water, pressure-volume-temperature relations: Holser, W. T.
Zeolites, adsorptive powers: Breck, D. W.
Lithium: Ruiz-Menacho, C.
Stability: Ross, H.
Zinc sulfide, solubility in water at high temperatures: Ellis, A. J., 4.

EXPLORATION. See also Geochemical investigations; Geophysical investigations; Technique.
Alaska: Belcher, D. J., 2.
Manual, short course: Anthony, L. M.
Canada, geological, helicopter operations: Canada G. S., 64.
Techniques, symposium: Huston, C. C.
Elementary geology: Anderson, D. Loraine.
Manitoba, northern, status: Godard, J. D.
Manual, short course: Anthony, L. M.
Mexico, Las Truchas iron district, Michoacán: Mapes Vázquez, E.
Uranium, handbook: Antúnez Echebaray, T.
Mineral resources at great depths, possibilities: Foose, R. M.
Northwest Territories, Mackenzie District, southwestern, helicopter: Canada G. S., 64.
Ore deposits, anomalous structure: Aho, A. E., 1.
Saturation prospecting: Riley, C.
Geochemical: Warren, H. V., 2.
Geophysical: Smellie, D. W.
Symposium: Canadian Inst. Mining and Metallurgy.
EXPLORATION—Continued
Petroleum, geologic interpretation problems: Guzmán Jiménez, E. J.
Photogeology, role in planning: Hogg, N. Quebec, mining properties: Quebec Dept. Mines.
Uranium: Cornwall, E. D.

FACIES—Continued
Alberta, Bow Valley area, Carboniferous, diachronism: Drummond, J. M.
Cretaceous, Lower, foothills cf. plains area: Glaster, R. P.
Drumheller area, Upper Devonian, reef cf. off-reef: Kirker, W. P.
Nisku formation, Devonian: Hargreaves, G. E.
Woodbend group, Devonian, interreef deposits, resistivity study: McCrossan, R. G.
Appalachian basin, Pennsylvanian-Permian: Arkle, T., Jr., 1.
Indiana, Columbus area, Devonian biohermal microfacies: Carozzi, A. V., 2.
Limestone, stratigraphic traps: Edie, R. W., 3.
Western, Chainman formation, Mississippian: Sadlick, W., 3.
Wyoming, east-central, Mesaverde formation, Cretaceous: Barwin, J. R.

FAULTS AND FAULTING. See also Lineaments; Lineation; Thrusts and thrusting.
Denali fault: St. Amand, P.
Fairweather fault, earthquake, 7/10/58: Tocher, D., 3.
Montana, Lombard facies of Big Snowy group, Mississippian: Blake, O. D.
Northeastern, Mission Canyon bioherms, Mississippian: Lewis, P. J.
New Mexico, Sacramento Mts., Laborcita formation, Permian: Otte, C., Jr., 2.
Northwestern, Cobourg limestone, Ordovician: Lippitt, L.
North Dakota, Jurassic-Cretaceous boundary, subsurface: Hansen, D. E.
Northwestern, Madison group, Mississippian: Anderson, S. B.
Oklahoma, Ouachita Mts.: Tomlinson, C. W., 1.
Wichita Mts., north flank, Pennsylvanian, source-rock variations: Edwards, A. R.

ONTARIO, southern, Cobourg limestone, Ordovician: Lippitt, L.
Pennsylvania, Bucks County, Newark group, Triassic: McLaughlin, D. B.
Saskatchewan, central, Middle Devonian reefs: Edle, R. W., 1.
Texas, central, Edwards limestone: Nelson, H. F.
Textural data, multiple-regression analysis: Lippitt, L.
United States, Anadarko basin, northem, Morrow series: Abels, T. A.
Midcontinent, Permian, cyclic: Imbrie, J., 1.
Western, Phosphoria-Park City-Shoshone formations: McKelvey, V. E., 1.
Utah, Phosphoria formation, Permian: Cheney, T. M.
Uinta Basin, western, Green River and lower Uinta formations, Eocene: Pleard, M. D., 1.
Western, Chainman formation, Mississippian: Sadlick, W., 3.
Williston basin, Mississippian carbonate rocks, effects on fluid migration: Thames, C. B., Jr.
Wyoming, east-central, Mesaverde formation, Cretaceous: Barwin, J. R.
INDEX

FAULTS AND FAULTING—Continued

California, Corona South quadrangle: 
Gray, C. H., Jr.
Death Valley, Black Mts., turtleback: 
Drewes, H. D.
Elsinore fault system: Engel, R. L. H.
Little San Bernardino Mts.: Pruss, D. E.
Little San Bernardino-Oroceopia Mts. area: Oesterling, W. A.
Owens Valley, 1872 earthquake, left-lateral movement: Gianella, V. P., 1.
San Andreas fault, Cenozoic movement: Oakeshott, G. B.
Displacement measured by Miocene molluscan provinces: Hall, C. A., Jr., 3.
Hollister area, creep: Tocher, D., 4.
Popular account: Gems & Minerals.
San Francisco Peninsula, Pleistocene offset: Smith, D. D.
Santa Lucia Range, Church Creek—Willow Creek faults: Dickinson, W. R.
Soda Mts., northeastern: Grose, L. T.
Torrance-Santa Monica area: Poland, J. F., 1.
Canada, west Canadian basin, Paleozoic: Sikabonyi, L. A.
Western: Charlesworth, H. A. K.
Caribbean Sea, banks, parallel to British Honduras coast, fault origin: Vermeer, D. E.
Classification and nomenclature, slip-based and separation-based: Crowell, J. C., 2; Hill, M. L.
Colorado, Blanca Peak area: Kasbach, H. F.
Canon City embayment: Marshall, G. L., Jr.
Chicago Creek area, Tertiary: Harrison, J. E.
Golden fault: Boos, C. M.
Huerfano Park area, Laramide revolution: Johnson, Ross B.
Perry Park: Ellis, C. H.
Salt anticline region: Jones, R. W.
Connecticut, Middletown quadrangle: Lehmann, E. P.
Direction, deep-focus earthquakes, plasticity computations: Das, S. C.
Earthquake initiation, stress and displacement conditions, types: Knopoff, L., 2.
Foothills, structure and dynamics: Dahlstrom, C. D. A.
Georgia, Tovaliga fault: Grant, W. H., 2.

FAULTS AND FAULTING—Continued

Idaho, Elk City region: Reid, R. R., 1.
North Fork quadrangle: Anderson, A. L.
Snake River Plain, northern boundary, late Cenozoic: Malde, H. E., 2.
Illinois, Des Plaines area: Emrich, G. H.
Southeastern: Ill. Geol. Soc.
Union County, northern, sulfide mineralization: Desborough, G. A., 1.
Indiana, Mt. Carmel fault region: Melhorn, W. N., 2.
Kentucky, Big Four fault system: Hardin, G. C., Jr.
Manitoba, Elbow-Hemlocks Lakes area: McGlynn, J. C.
Mechanics, large overthrusts, pressures in fluid-filled porous solids: Hubert, M. K.
Mexico, Saltillo area, Coahuila, Parras basin: Weddle, A. E.
San Rafael sulfur mine, San Luis Potosi, volcanic chimney: González Reyna, J., 1.
Santa Barbara district, Chihuahua, veins: Scott, J. B.
Mississippi Valley, upper, lead-zinc district: Heyl, A. V., Jr., 1.
Montana, Flathead Range: Woodward, Lee A.
Gravelly Range, northern: Hadley, J. B., 2.
Hegben Lake area: U. S. Coast and Geod. Survey.
Lincoln County, western: Johns, W. M.
Sixteenmile area: Robinson, G. D., 1.
South Moccasin Mts.: Miller, Richard N.
Sun River Canyon area: Mudge, M. R., 3.
Western: McMannis, W. J.
Nevada, Bare Mtn.: Cornwall, H. R.
Basin and Range province, Hazen to Austin, gravity study: Thompson, G. A., 1.
Candelaria mining district: Page, B. M., 1.
Gold King fault: Slemons, D. B.
New Mexico, Sacramento Mts., west escarpment: Pray, L. C.
New York, Kalkberg Ridge and Fuyk Valley anticline: Taylor, M. H., Jr.
Rockland County, Palisades: Thompson, H. D.
Oklahoma, Ouachita Mts.: Hendricks, T. A.
Ouachita-Arbuckle junction: Flawn, P. T., 4.
Pawnee County: Greig, P. B., Jr.
FAULTS AND FAULTING—Continued
Ontario, Falconbridge Township, Sudbury district: Thomson, J. E., 1.
Gripp Lake area: Langford, F. F.
Timiskaming region: Wilson, M. E.
Oregon, south-central, Tertiary basalt flows: Donath, F. A.
Pennsylvania, Allegheny Plateau, bedrock faulting in river valleys: Ferguson, H. F.
Bucks County, Paleozoic areas: Willard, B., 2.
Triassic area: McLaughlin, D. B.
Central, Appalachian front: Dort, W., Jr., 2.
Doylestown area, Triassic basin: Zietz, I., 3.
Transcurrent: Berryhill, H. L., Jr., 2.
Quebec, Fancamp Lake fault: Holmes, S. W.
Timiskaming region: Wilson, M. E.
Rocky Mts., Rocky Mtn. Trench: Leech, G. B.
Saskatchewan, Avonlea area: Haites, T. B., 2.
Beaverlodge area, St. Louis-ABC faults, 80° bend: Chamberlain, J. A.
Submarine fractures, displacement measurement: Vacquier, V.
Tennessee: Luther, E. T.
Texas, Balcones fault zone: Boyd, C. E.
Balcones fault zone, Medina County: Holt, C. L. R., Jr.
Grayson County: Bradfield, H. H., 1.
Karnes County, coastal: Eargle, D. H., 1.
Marathon basin, Haymond boulder beds: Hall, W. Ellis.
Oaschita-Arbuckle junction: Flawn, P. T., 4.
United States, landscapes: Shimer, J. A.
Utah, Bismark Peak quadrangle: Foster, J. M.
Central: Proctor, P. D., 2.
Chalk Creek-Evanston fault zone: Eardley, A. J., 1.
Mt. Nebo-Salt Creek area: Johnson, K. D.
Needle Range: Gould, W. J.
Pavant Range, southern, block: Crosby, G. W., 2.
Salt anticline region: Jones, R. W.
Sheeprock Mts.: Cohounour, R. E.
Silver Lake Flat area: Burge, D. L.
Thomas Range fluorite district: Staatz, M. H.
Uinta Mts.: Ritzma, H. R., 2.
Washatch Mts., Provo area: Baker, A. A.
West Portal-Soldier Summit area: Walton, P. T.

FAULTS AND FAULTING—Continued
Vermont, Elizabeth copper mine: Howard, P. F.
Taconic Range, north end: Zen, E-an, 1.
Vertical displacement measured from aerial photographs: Elliott, D. H.
Virginia, Blacksburg-Shawsville area: Deaton, J. B.
Washington, Mt. Stuart area: Pratt, R. M.
Chalk Creek-Evanston fault zone: Eardley, A. J., 1.
Teton Range: Bradley, C. C.
Yellowstone National Park area, post-glacial movement: Love, J. D., 2.
Yukon, Tintina Valley: Aho, A. E., 2.

FELDSPAR.
Albite, chessboard twinning, origin: Starkey, J.
Structure changes, high-temperature to monoclinic: Brown, W. Liddle, 2.
Low- and high-temperature: Ferguson, R. B., 1.
Alkalie, crystallisation sequence and ore deposition: Kuebler, F. J., 2.
Melting experiments, effect of CO2: Wyllie, P. J., 5.
Optical classification: Hewlett, C. G.
Stability, charge balance in crystal structure: Ferguson, R. B., 1.
Synthetic, ion-exchange reaction with alkali chloride solution: Orville, P. M.
California, East Shasta copper-zinc district, albite, metasomatic origin: Albers, J. P.
Clastic, staining: Hayes, J. R.
Massachusetts, Salem area, granite-gneiss complex, compositions: Toumlin, P., 3d.
Montana, Boulder batholith, perthite, origin, replacement of plagioclase: Robertson, F. S.
Perthites, orthoclase and microcline: Smith, J. V., 3.
Unmixing from homogeneous state: Kuebler, F. J., 1.
Plagioclase, antiperthitic, origin: Sen, S. K.
Deformation, experimental: Berg, I. Y.
Identification by fusion: Dawson, K. R.
Potassium content cf. temperature of formation: Sen, S. K.
Structure, heat-treatment effect on superstructure, relation to lattice-angle changes: Brown, W. Liddle, 1.
INDEX 387

FLORIDA—Continued

Economic geology—Continued

Uranium, land-pebble phosphate district: Cathcart, J. B.

Geologic maps.

Surficial: Purl, H. S., 2.

West-central: Carr, W. J.

Ground water.

Artesian wells: Hendry, C. W., Jr.


Biscayne aquifer, salt-water intrusion, cyclic, southeastern: Kohout, F. A., 2.

Lake Istokpoga and Lake Placid areas, hydrology, effect of proposed drainage canal: Kohout, F. A., 1.

North-central peninsula, lakes, origin: Pirkle, E. C., Jr.

Oakland Park area: Sherwood, C. B., Jr.

Polk County, northwestern: Stewart, H. G., Jr.

Ruskin area, artesian: Peek, H. M.

Historical geology.

Bone Valley formation, Pliocene, drill-core data: Cathcart, J. B.

Cenozoic, type localities: Purl, H. S., 2.

West-central: Ketner, K. B.

Land-pebble phosphate district, Eocene-Pleistocene, drill-core data: Cathcart, J. B.

Polk County, northwestern, Cenozoic aquifers: Stewart, H. G., Jr.

Ruskin area, Eocene-Pleistocene: Peek, H. M.

Tertiary, middle, west-central: Carr, W. J.

Mineralogy.

Quartz crystals and chaledony in fossil coral, Ballast Point, simultaneous deposition: Lund, E. H., 2.

Titanium-bearing beach sands, ilmenite alteration: Bailey, S. W.

Paleontology.

Amphibians, Orange Lake area, Pleistocene: Holman, J. A., 3.


Bat, Reddick area, Pleistocene: Gut, H. J.


Rock Spring Run, Pleistocene: Woolfenden, G. E.

Wicomico formation, Pleistocene, Arredondo area: Brodkorb, W. P., 1.


Cenozoic, lists, west-central: Ketner, K. B.

Type localities: Purl, H. S., 2.

Fish, beryciform, Marianna limestone, Oligocene: Dunkle, D. H.
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FLUORESCENCE, FLUORITE—Continued

Insects, Vero Beach, Pleistocene: Young, F. N.


Ordovician-Silurian black shales, sargassoid microfossil assemblage: Schopf, J. M., 2.

Porpoise, Bartow area, Miocene: Kellogg, R.

Reptiles, Orange Lake area, Pleistocene: Holman, J. A., 3.


Rodent, Vero Beach, Pleistocene: Bader, R. S., 1.

Tertiary, middle, west-central, lists: Carr, W. J.

Turtles, Pleistocene, Marion County: Auffenberg, W., 1.

Petrology.

Biscayne-Florida Bays, Quaternary sediments: Titus, F. B., Jr.

Carrabelle area, nearshore sediments: Vause, J. E., Jr.

Cenozoic, residual vs. depositional origin, west-central: Kettner, K. B.


Sandstone and shale, Ordovician-Devonian, borings, northern: Carroll, D., 7.

Summit conglomerates, Cretaceous and Recent, potential oil traps: Banks, J. E.

Tertiary, middle, west-central: Carr, W. J.

Physical geology.

Continental slope, southwestern: Jordan, G. F.

Tectonic provinces, Paleozoic relations to Appalachian and Ouachita Mts.: King, E. R., 2.

Tertiary, middle, west-central: Carr, W. J.

Physiographic geology.

Continental slope, Gulf of Mexico: Jordan, G. F.


North-central peninsula, lake region: Pirkle, E. C., Jr.

Ruskin area, Pleistocene terraces and shorelines: Peek, H. M.

FLUORESCENCE.

Geologic applications: Riecker, R. E.

Minerals, list, with colors: Riecker, R. E.

FLUORITE.

Illinois, physical and chemical environments: Nackowski, M. P., 2.

Kentucky, Big Four fault system, Crittenden County: Hardin, G. C., Jr.

Physical and chemical environments: Nackowski, M. P., 2.

Mississippi Valley type deposits, hydrothermal origin: Behre, C. H., Jr., 1.


Montana: Ackerman, W. C., 1.

New Mexico, Lincoln County, possibilities: Gruawold, G. B.

Utah, Juab County: Nackowski, M. P., 1.

Spurs Mt., uraniumiferous: Staatz, M. H.

FOLDING.

Alberta, Rocky Mts., foothills: Fox, F. G.

Arctic Ocean floor: Hope, E. R.

Arizona, East Sierra area: Lacy, W. C.

Southern, Laramide: Lutton, R. J., 2.

Arkansas, Boston Mts.: Quinn, J. H., 2.

Washington County, southwestern: Jackson, K. C., 2.


Salmo lead-zinc area: Fyles, J. T.

Vernon area: Jones, A. G.

Colorado, Chicagoo Creek area, Precambrian: Harrison, J. E.

Cross folding, theoretical and experimental: Bhattacharji, S.

En echelon: Campbell, James D.

Idaho, Elk City region, double axial-plane: Reid, R. R., 1.

Manitoba, Elbow-Heming Lakes area: McGlynn, J. C.

Mechanics, operational: Kelley, V. C., 4.

Minnesota, Cuyuna district, North range: Schmidt, R. George.

Mississippi Valley, upper, lead-zinc district: Heyl, A. V., Jr., 1.

Montana, Flint Creek Range, northwest flank: McGill, G. E.

Sun River Canyon area: Mudge, M. R., 3.

Nonparallel folds, classification, delineation, and measurement: Mertle, J. B., Jr., 1.


Northwest Territories, diapiric, Hay River canyon: Dewitt, R.


Bucks County, Triassic area: McGlaughlin, D. B.

Petrofabric analysis by quartz diagrams: Jones, K. A.

Quebec, Causapscal area, east half: Stearn, C. W.

Superposed on tectonites, geometry: Weiss, L. E.
INDEX

389

INDEX

FOLDING--Continued
Utah, central: Proctor, P. D., 2.
Needle anticline and syncline: Gould, W. J.
West Portal-Soldier Summit area: Walton, P. T.
Vermont, eastern: Murthy, V. R., 1.
Elizabeth copper mine: Howard, P. F.
St. Johnsbury quadrangle, refolding: Hall, L. M.
Wyoming, Beartooth Mts., Gardiner Lake area: Harris, R. L., Jr.
Bighorn Mts., northern: Osterwald, F. W., 2.

FOOTPRINTS. See Tracks and trails.

FORAMINIFERA.

Acervulina linearis, Eocene, West Indies, St. Bartholomew, cf. Indo-Pacific region: Hanawa, S.
Arctic Ocean, continental shelf-central basin, Quaternary: Ericson, D. B., 2.
Continental shelf-central basin, Recent: Green, K. E.
Bibliography: Todd, R.
Nonfusulinid, Paleozoic: Toomey, D. F.
Bibliography and Index: Thalmann, H. E., 4.
California, Coast Ranges, early Tertiary: Mallory, V. S.
Santa Catalina Island, bionomic ecology: McGlasson, R. H.
Santa Monica Bay, ecology, intertidal, seasonal variations: Reiter, M.
Ecology, relation to marine geology: Zalesny, E. R.
Stanford University campus, Cretaceous: Graham, J. J.
Temblor formation, Miocene: Garrison, L. W.
Catalog: Ellis, B. F., 1.
Classification and nomenclature: Hofker, J., 2.
Coskinolina floridana, Eocene, Mexico, Yucatan, index fossil: Bonet, F.
Cuba, larger, Eocene-Oligocene: Hewitt, P. C.
Discococcolithus (Discococcolithus), Paleocene-Eocene, North America, species and distribution: Cole, W. S.
Eponides, classification: Hofker, J., 2.
Fusulinidae, Mississippian-Permian, Nevada: Rich, M.
Pennsylvanian, Early, Illinois-Kentucky, southern Illinois basin: Thompson, M. L.
Texas, central, Strawn series, upper: Stewart, W. J.
Marble Falls limestone: King, W. Edward.

FORAMINIFERA--Continued

Fusulinidae--Continued
Pennsylvanian-Permian, New Mexico, Sacramento Mts.: Otte, C., Jr., 1.
South Dakota, Minnelusa formation, Black Hills: Jennings, T. V.
Utah, Oquirrh formation and Durst group, correlations: Sadleik, W., 2.
Perman, Texas, Wolfcamp series, Glass Mts.: Ross, C. A.
Washington, northwestern: Danner, W. R.
Perman zoogeography, climatic zonation: Stehl, F. G.
Globigerina pachyderma, colling habit, Cenozoic correlation, California: Bandy, O. L.
Colling habit, Pleistocene isothermal guide: Ericson, D. B., 1.
Globigerinidae, natural taxonomy: Hofker, J., 1.
Globotruncanidae, taxonomy: Branson, C. C., 9.

Haiti, Late Cretaceous: Ayala Castaño, A.
Heterohelicidae, Late Cretaceous, Cuba: Segil, G. A.
Indiana, Rockford limestone, Mississippian, arenaceous: Gutschick, R. C., 2.
Lepidocyclinidae, Eocene-Miocene, evolution and classification: Grimsdale, T. F.
Louisiana, Anahuac formation, Oligocene or Miocene: Geocen, H. C.
Mississippian delta, ecology: Lankford, R. R.; Shepard, F. P., 2.
Oligocene-Miocene, catalog: Butler, E. A. M.
Mexico, La Peña formation, Cretaceous, Nuevo León: Obregón de la Parra, J., 2.
Tampico-Tuxpan basin, Late Cretaceous: Eternod Olvera, Y.

Mineralogy of tests, Recent, classification and ecology: Blackmon, P. D.
Nomenclature: Thalmann, H. E., 1, 3.
North Carolina, Pee Dee formation, Cretaceous, Kinston area: Morehead, M. B.
Operculina catenula zone, Paleocene, southern North America: Cole, W. S.
Planktonic, terminal growth stages, morphologic variations: Bé, A. W. H.
FORAMINIFERA—Continued

Pseudophrygina (Proporocyclina) tobleri zone, Eocene, southern North America: Cole, W. S.

Pseudotextularia, Late Cretaceous, Cuba, differentiation of species: Seigle, G. A.

Puerto Rico, San Sebastian formation, Oligocene, larger, correlations: Sachs, K. N., Jr.

Quaternary, deep-sea sediments, pore concentration in tests, climatic fluctuations: Wiles, W. W.

Saskatchewan, Jurassic: Wall, J. H.

Schwagerina emaciata, Permian, British Columbia, Wapiti Lake area: Forbes, C. L.

Stratigraphic correlation, well cores, cyclic occurrence patterns of species: Hendrix, W. E.

Terminology: Butler, E. A. M.

Texas, Big Saline formation, Pennsylvanian: Moore, W. Leroy.

Goodland formation, Cretaceous, Midway group: McLean, J. D., Jr.

X-ray absorption techniques, applied to analysis, vertical displacement of homogeneous rock layer: Hooper, K.

FORMATIONS. See Geologic formations; Geologic formations, lists, sections, tables; Geologic names, lexicons, catalogs, glossaries.

FOSSILS. See Paleobotany; Paleontology.

FOUR CORNERS REGION. See Colorado Plateau.

FRACTURING. See also Faults and faulting; Jointing; Lineaments; Lineation.

Analysis, vertical displacement of homogeneous rock layer: Sanford, A. R.


Montana, Beartooth Mts., patterns: Spencer, E. W.

North America, Cordilleran region, relation to mineral districts: Wissler, E. H.

Pacific Ocean, minor lineations, relation to island arcs and fracture zones: Menard, H. W., Jr., 3.

Sedimentary rocks, origin: Kelley, V. C., 1.

Wyoming, Beartooth Mts., patterns: Spencer, E. W.

FULGURITE, Nebraska, Iron: Riley, C. M., 2.

Fumaroles, Nicaragua, potential source of electrical energy: Giudice, D. del, 2.

FUSULINIDAE. See Foraminifera.

GABBRO. See also Igneous rocks.

California, Eureka Peak, zoned pegmatite: Lovering, J. K.

Greenland, Skergaard intrusion, uranium distribution: Hamilton, E. I.

Minnesota, Cook County: Grout, F. F.

Duluth complex, distribution of elements: Snyder, J. L.

GALENA. See also Lead; Sulfides.

Colorado Plateau, origin, isotopic data, new hypothesis: Miller, D. S., 1.

Lead isotopes, ordinary and anomalous, origin: Stanton, R. L., 2.

Montana, Boulder batholith, replacing uraninite: Shulhofer, W. P.

Thermal analysis: Dunne, J. A.

GARNET.

Alberta, Cardium formation, etched: McMullen, R. M.

Grossularite and spessartite, solid solutions with yttrium-iron garnet: Geller, S., 4.

Grossularite-pyrope series, hydrothermal studies: Chinner, G. A.

Iron, crystal structure, rare-earth ion radii: Geller, S., 3.

Quebec, Grenville gneiss, spectrochemical analyses: Krets, R. A.

Spessartite, synthetic, replacement of aluminum by iron, experimental: Geller, S., 2.

Stability in soils: Raelside, J. D.

Uvarovite, stability and synthesis: Glasser, F. P.


Virginia, Piedmont: Crist, C. W., Jr.

GASTROPODA. See also Mollusca; Pteropoda.

Acantinina emersoni, Piocene, Mexico, Baja California, northern western: Hertlein, L. G., 1.

Cambrian, primitive, relation to monoplacophorans: Knight, J. B.

Ceratostoma, Miocene-Recent: Hall, C. A., Jr., 1.

Oklahoma, Excelsior shale, Pennsylvanian, spine-bearing: Branson, C. C., 5.


Trace manganese in shells,modern cf. fossil: Krinsley, D., 1.

Turritella, species and subspecies, Miocene, Maryland: Oleksyshyn, J.

Turritella granti, Pleistocene, California, Palos Verdes Hills: Valentine, J. W., 2.

GEMS AND GEM MATERIALS. See also Mineral collecting.

Agates, popular account: Smith, I.

GEMS AND GEM MATERIALS—Continued

Diamonds: Pages History.
California: Pages History.
Lamellar structure: Denning, R. M., 2.
Type I, nitrogen content, optical effects: Kaiser, W.
Gemology for the rockbound: Parsons, C. J.
Georgia: Lester, J. G.
Granites, collecting: Van Landingham, S. L.
Identification, elementary account: Lee, E.
Jadeite, origin, California, New Idria serpentine body inclusions: Coleman, R. G., 3.
Leucite: Gubelln, E. J.
Michigan, collecting guide: Hardenberg, H. J.
Moonstone, Virginia, Goochland County: Sinkankas, J., 2.
North America: Sinkankas, J., 1.
Opal, Kansas, Ogallala formation, origin: Swineford, A., 2.
Oregon, beaches, collecting: De Voe, D. F.
Physical properties: Jahns, R. H., 1.
Questions answered: Pearl, R. M.
United States, rare: McIntosh, F. G.
Zinclte: Trumper, L. C.

GENESIS OF ROCKS. See Petrogenesis; Petrology.

GEOCHEMICAL INVESTIGATIONS. See also Exploration; Technique, Geochemical.
Alaska, tungsten, fusion method: Mukherjee, N. R.
Alberta, petroleum relocation, trace-metal evidence: Hodgson, G. W., 1.
British Columbia, Kain copper deposit: Hansen, D. A.
California, Avenal-McKittrick area, natural waters: Wood, P. R.
Darwin mines, silver-lead-zinc: Austin, C. F.; Hall, Wayne E.
San Joaquin Valley, ground water: Davis, G. H., 1.
Caribbean Sea, Beata Ridge area, deep-sea core, distribution of elements, carbonate content unrelated to paleotemperature: Yakovskv, R., 1.
Colorado, Boulder Creek granodiorite, weathering profile, uranium-thorium distribution: Piller, R., 2.
Jo Dandy area, Salt Wash member of Morrison formation: Newman, W. L., 1.
Radioactive limonite: Lovering, T. G., 2.

GEOCHEMICAL INVESTIGATIONS—Continued
Colorado Plateau, Mancos shale, uranium-thorium distribution: Piller, R., 1.
Morrison formation, composition, guide to size of uranium deposits: Newman, W. L., 2.
Uranium-vanadium ores, redox relations: Garrels, R. M., 2.
Delaware, clinopyroxenes, Piedmont region: Norton, D. A.
Georgia, Waycross-Valdosta area, need: Burdick, G. A., 1.
Greenland, Skawガard intrusion sillicates, trace-elements uptake: Williams, R. J. P.
Idaho, Coeur d'Alene district, smelter contamination: Canney, F. C., 1.
Mexico, Parral district, Chihuahua, base-metals distribution: Barnes, H. L., 2.
Michigan, Ironwood iron-formation: Huber, N. K.
New Mexico, Hanover district, base-metals distribution: Barnes, H. L., 2.
Lea County, cores, Cambrian-Ordovician, pre-Simpson: Barnes, V. E., 2.
Northwest Territories, Yellowknife district, gold-bearing volatiles: Boyle, R. W., 2.
Ohio, coal-mine discharge waters: Brant, Russell A., 2.
Ontario, Blind River conglomerate, uranium-thorium ratio: Davidson, C. F.
Cobalt series, Precambrian, soda-rich composition of argillites, origin: Pettijohn, F. J.
Pennsylvania, clinopyroxenes, Piedmont region: Norton, D. A.
Saskatchewan, petroleum relocation, trace-metal evidence: Hodgson, G. W., 1.
South Carolina, Charleston area, marlphosphatic rock relationships: Malhe, H. E., 1.
Texas, cores, Cambrian-Ordovician, pre-Simpson: Barnes, V. E., 2.
United States, Great Basin, carbon-14 in fresh-water systems: Broecker, W. S., 3.
Southeastern, prospecting: Bloss, F. D., 2.
Western, uraniumiferous carbonaceous materials: Denison, N. M., 1.
Utah, radioactive limonite: Lovering, T. G., 2.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

GEOCHEMICAL INVESTIGATIONS—Continued

Wisconsin, Ironwood iron-formation: Huber, N. K.

Wyoming, radioactive limonite: Lovering, T. G., 2.

Yukon, Mayo area, oxidation and hydrogeochemical studies: Boyle, R. W., 3.

Vangorda Creek area, sulfides: Chisholm, E. O.

GEOCHEMISTRY. See also Analyses; Biogeochemistry; Cosmochemistry; Elements; Isotopes; Systems; Technique, Geochemical.

Argon diffusion in selected minerals, experimental: Evernden, J. F., 2.

Argon-40 and helium, terrestrial economy: Turekian, K. K., 1.

Beryllium: Merrill, J. R.

Carbohydrates in bituminous sedimentary rocks: Palacas, J. G.

Carbon-14 in fresh-water systems: Broecker, W. S., 3.

Carbonate systems: Goldsmith, J. R., 1.

Chlorine-36, ground water and streams, relation to rain: Schaeffer, O. A., 2.

Clays, formation, environment changes, equivalence-level concept: Powers, M. C.

Kaolinitic, element distribution by size-fractions: McLoughlin, R. J.

Coal-mine discharge waters: Braley, S. A.

Cobalt: Carr, M. H.

Copper, solubility in natural waters: Silman, J. A.

Crystal-structure studies, history: Evans, H. T., Jr., 1.

Degassing of Earth’s interior, and volcanism, surface results, cf. Moon: Green, J., 2.

Dolomites, diagenetic, formation: Bissell, H. J., 1.

Earth, chemical evolution and density, reduction hypothesis, cf. planets and meteorites: Ringwood, A. E., 5.

Composition, abundances of metals, cf. chondritic meteorites: MacDonald, G. J. F., 1.

Elements, frequency distribution in rocks: Zibita, Z. V.

Lognormal distribution, igneous rocks: Varrovit, S.


Exploration, methods: Hawkes, H. E., Jr.

Saturation prospecting: Warren, H. V., 2.

Feldspars, alteration to micaceous minerals: DeVore, G. W., 1.

General: Ahrens, L. H.

GEOCHEMISTRY—Continued

Germanium, concentration in coal ash: Corey, R. C.

Marine, origin of clay minerals: El Wardani, S. A.

Ground water, genetic types, chemical and isotopic compositions: Thomas, H. E.

Heavy metals, soil vs. water analyses: Yardley, D. H., 1.

Hydrothermal alteration: Schwartz, G. M., 2.


Hydroxyapatite, formation in oceans at 25°C: Corbett, R. G.

Iron exchange, clay and other minerals: Carroll, D., 5.

Iron and sulfur deposition, mineralizing solutions: Butler, B. S.

Iron-formations, iron content, Precambrian cf. younger: Lepp, H., 2.

Iron content, uniformity, origin: Lepp, H., 1.

Lead isotopes, separation and migration, cause of anomalous ages: Boyle, R. W., 1.


Manganese, sedimentary, origin: Marchand, H.

Manganese in weathering zone: Williamson, D. R., 2.

Manganese nodules, metabolic precipitation of trace elements: Graham, J. W., 2.

Metals, translocation by podzollization: Cate, R. B., Jr.

Mineral deposits, element associations: Jolliffe, A. W.

Location, relation to lineament tectonics: Erickson, E. C., 1.


Montmorillonite, aluminum substitution for silicon: Roberson, H. E., 2.

Multiple distribution of mineralization, statistical analysis: Tennant, C. B.

Ore-forming fluid, sulfide solubility in aqueous solutions: Czamanske, G. K.

Temperature-fugacity relations of O, S, and CO2: Holland, H. D.


Sediments, chromatographic-type accumulation, experimental: Nagy, B. S., 1.

Organic substances: Abelson, P. H., 2.

Oxygen, isotopic fractionation in natural waters: Epstein, S., 1.
GEOCHEMISTRY—Continued
Petroleum, origin, chlorophyll, primary degradation: Hodgson, G. W., 2.
Origin, processes: Hanson, William E.
Trace metals: Hodgson, G. W., 1.
Trace metals and porphyrins: Baker, B. L.
Porphyry copper deposits, hydrothermal alteration facies: Creasey, S. C.
Radioactive and other dating methods, evaluation: Cook, M. A.
Radioactive disequilibrium, uranium series: Rosholt, J. N., Jr., 2.
Radiocarbon distribution study, recent age lists: Broecker, W. S., 1.
Research: Abelson, P. H., 1.
Rhenium: Fleischer, M., 1.
Salt chronology of lakes, concentration of chlorine ion: Broecker, W. S., 4.
Sandstones, chemically precipitated cements: Siever, R., 2.
Pennsylvania, silica cement: Siever, R., 1.
Sedimentary rocks, marine cf. freshwater, trace-element and isotopic differentiation: Keith, M. L.
Selenium, volcanic rocks: Davidson, D. F.
Shales, black, constituents, environments: Strahl, E. O.
Silica, behavior in diagenesis: Dapples, E. C., 2.
Sedimentary environments: Krauskopf, K. B., 2.
Sediments and sedimentary rocks, symposium: Ireland, H. A., 2.
Soluble, removal from fresh water entering the sea: Bien, G. S.-N.
Stable-isotope research, economic applications: James, H. L., 2.
Strontium, coprecipitation with calcite and aragonite: Oxburgh, U. M.
Sulfur, isotopic fractionation: Ault, W. U., 1, 2.
Table of elements: Green, J., 1.
Telluric currents, possible effects: Norton, M., F., 3.
Thorium: Adams, J. A. S., 1.
Deposition in marine environments: Sheldon, R. P.
Distribution in marine calcareous material: Tatsumoto, M.
Sandstone-type deposits: Garrels, R. M., 1.
Uranium minerals: Fischer, R. P.
Vanadium minerals: Fischer, R. P.
Water, analysis: Hem, J. D.
Zirconium: Fronde!, C.

GEOCHRONOLOGY. See Geologic time.

GEODES.
Illinois, Nota area, oil-filled: Borschel, K.
Iowa, collecting: Borschel, K.
Warsaw formation, minerals: Tripp, R. B.
Popular account: Smith, I.

GEOLOGIC FORMATIONS. See also Geologic names, lexicons, catalogs, glossaries.
Abo formation, Permian, New Mexico: Otte, C., Jr., 1.
Active formation, Cambrian, British Columbia: Fyles, J. T.
Allegheny group, Pennsylvanian, Pennsylvania: Dutcher, R. R.
Allen Bay formation, Ordovician-Silurian, Northwest Territories: Thorsteinsson, R., 1.
Alum phyllite, Precambrian, Virginia, new: Dietrich, R. V.
Anga formation, Jurassic, Mexico, new: Pantoja Alor, J.
Anville limestone, Ordovician, Pennsylvania: Prouty, C. E., 1.
Araplen shale, Jurassic, Utah: Johnson, K. D.
Arcturus formation, Permian, Utah: Rose, R. K.
Arkansas formation, Miocene, Montana-North Dakota-South Dakota: Denson, N. M., 1.
Ash Creek series, Precambrian, New Mexico: Hewitt, C. H.
Atankerdulk formation, Tertiary, Greenland, upper part, type members: Koch, B. E.
Athabasca formation, Cambrian (?) or Devonian(?), Saskatchewan, redefined: Gussow, W. C., 1.
Atoka formation, Pennsylvanian, Oklahoma, members: Blythe, J. G.
Avawatz formation, Pliocene, California: Grose, L. T.
Aziscohos formation, lower Paleozoic, New Hampshire: Green, J. C.
Bakken formation, Mississippian, Saskatchewan: Green, J. C.
Baldy Hill formation, Triassic, New Mexico: Baldwin, B.
Barre group, Ordovician-Devonian, Vermont: Murthy, V. R., 1.
Basco formation, Ordovician, Nevada, new: Lovejoy, D. W.
Bear River formation, Cretaceous, Idaho: Vine, J. D., 1.
Beattie limestone, Permian, United States, midcontinent: Imbrie, J., 1.
Beauharnois formation, Ordovician, Quebec, new members: Byrne, A. W.
### Geologic Formations—Continued

<table>
<thead>
<tr>
<th>Formation</th>
<th>Age</th>
<th>Location</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaverhill Lake formation</td>
<td>Devonian</td>
<td>Alberta</td>
<td>Carrigy, M. A.</td>
</tr>
<tr>
<td>Beck Pond limestone</td>
<td>Devonian</td>
<td>Maine</td>
<td>Boucot, A. J.</td>
</tr>
<tr>
<td>Bell Hill dolomite</td>
<td>Silurian</td>
<td>Utah</td>
<td>Staats, M. H.</td>
</tr>
<tr>
<td>Beaver formation, Permian</td>
<td>Alberta</td>
<td>Halbertsma, H. L.</td>
<td></td>
</tr>
<tr>
<td>Big Snowy group</td>
<td>Carboniferous</td>
<td>Montana</td>
<td>Gardiner, L. S.</td>
</tr>
<tr>
<td>Bird Spring formation</td>
<td>Mississippian-Permian</td>
<td>Nevada</td>
<td>Rich, M.</td>
</tr>
<tr>
<td>Bissell Peak series</td>
<td>Precambrian</td>
<td>New Mexico</td>
<td>Bissell, H. J.</td>
</tr>
<tr>
<td>Bluebird dolomite</td>
<td>Cambrian</td>
<td>Utah</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Bluefield formation</td>
<td>Mississippian</td>
<td>Washington</td>
<td>Wilpolt, R. H.</td>
</tr>
<tr>
<td>Bone Valley formation</td>
<td>Pliocene</td>
<td>Florida</td>
<td>Cathcart, J. B.</td>
</tr>
<tr>
<td>Bonner quartzite</td>
<td>Precambrian</td>
<td>Montana</td>
<td>Nelson, W. H.</td>
</tr>
<tr>
<td>Bonta formation</td>
<td>Miocene</td>
<td>California</td>
<td>Durrell, C.</td>
</tr>
<tr>
<td>Bootlegger Cove clay</td>
<td>Devonian</td>
<td>Alaska</td>
<td>Miller, R. D.</td>
</tr>
<tr>
<td>Boskydell sandstone</td>
<td>Pennsylvanian</td>
<td>Illinois</td>
<td>DeShoehoer, G. A.</td>
</tr>
<tr>
<td>Brazier dolomite</td>
<td>Mississippian</td>
<td>Utah</td>
<td>Sando, W. J.</td>
</tr>
<tr>
<td>Brasil formation</td>
<td>Pennsylvanian</td>
<td>Indiana</td>
<td>Kottlowski, F. E.</td>
</tr>
<tr>
<td>Bullard Peak series</td>
<td>Mississippian</td>
<td>New Mexico</td>
<td>Hewitt, C. H.</td>
</tr>
<tr>
<td>Cameron Creek formation</td>
<td>Carboniferous</td>
<td>Montana</td>
<td>Gardiner, L. S.</td>
</tr>
<tr>
<td>Caney shale</td>
<td>Mississippian</td>
<td>Oklahoma</td>
<td>Braun, J. C.</td>
</tr>
<tr>
<td>Mississippi-Pennsylvanian</td>
<td>Oklahoma</td>
<td>Tomlinson, C. W.</td>
<td></td>
</tr>
<tr>
<td>Cape Phillips formation</td>
<td>Ordovician-Silurian</td>
<td>Northwest Territories</td>
<td>Thorstenson, R. E.</td>
</tr>
<tr>
<td>Cedar Fort member of Oquirrh formation</td>
<td>Pennsylvanian</td>
<td>Utah</td>
<td>Bussell, H. J.</td>
</tr>
<tr>
<td>Cedar Mtn. formation</td>
<td>Cretaceous</td>
<td>Colorado</td>
<td>Young, R. G.</td>
</tr>
<tr>
<td>Central Valley sandstone</td>
<td>Devonian</td>
<td>New York</td>
<td>Boucot, A. J.</td>
</tr>
<tr>
<td>Chaffee formation, Devonian</td>
<td>Colorado</td>
<td>Hallgarth, W. E.</td>
<td></td>
</tr>
<tr>
<td>Chalils volcanics, Oligocene</td>
<td>Idaho</td>
<td>Anderson, A. L.</td>
<td></td>
</tr>
<tr>
<td>Chapperon group</td>
<td>Precambrian</td>
<td>British Columbia</td>
<td>Jones, A. G.</td>
</tr>
<tr>
<td>Characharano volcanic series</td>
<td>Tertiary</td>
<td>Mexico</td>
<td>Pantoja Alor, J.</td>
</tr>
<tr>
<td>Chataanooa shale</td>
<td>Devonian</td>
<td>Alabama-Georgia-Tennessee</td>
<td>Glover, L.</td>
</tr>
<tr>
<td>Chinle formation, Triassic</td>
<td>Arizona-New Mexico</td>
<td>Cooley, M. E.</td>
<td></td>
</tr>
<tr>
<td>Colorado Plateau</td>
<td>Nev.</td>
<td>Finch, W. I.</td>
<td></td>
</tr>
<tr>
<td>Chukotat group</td>
<td>Precambrian</td>
<td>Quebec</td>
<td>Beall, G. H.</td>
</tr>
<tr>
<td>Coal Creek sequence</td>
<td>Devonian</td>
<td>Nevada</td>
<td>Lovejoy, D. W.</td>
</tr>
<tr>
<td>Cole Canyon dolomite</td>
<td>Cambrian</td>
<td>Utah</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Colina limestone</td>
<td>Permian</td>
<td>Arizona</td>
<td>Bryant, D. L.</td>
</tr>
<tr>
<td>Conococheague formation</td>
<td>Cambrian</td>
<td>Pennsylvania</td>
<td>Cohenour, R. E.</td>
</tr>
<tr>
<td>Cooper marn</td>
<td>Cretaceous</td>
<td>South Carolina</td>
<td>Malde, H. E.</td>
</tr>
<tr>
<td>Cornwallis formation</td>
<td>Ordovician</td>
<td>Northwest Territories</td>
<td>Thorstenson, R. E.</td>
</tr>
<tr>
<td>Cottage Grove sandstone</td>
<td>Mississippian</td>
<td>Kansas</td>
<td>Schulte, G. S.</td>
</tr>
<tr>
<td>Cove Fort quartzite</td>
<td>Devonian</td>
<td>Utah</td>
<td>Crosby, G. W.</td>
</tr>
<tr>
<td>Croatan formation</td>
<td>Pliocene</td>
<td>North Carolina-South Carolina</td>
<td>Du Bar, J. R.</td>
</tr>
<tr>
<td>Cumberland group</td>
<td>Pennsylvanian</td>
<td>Nova Scotia</td>
<td>Copeland, M. J.</td>
</tr>
<tr>
<td>Dakota formation</td>
<td>Cretaceous</td>
<td>Colorado-New Mexico</td>
<td>Tyrrell, W. W.</td>
</tr>
<tr>
<td>Dakota sandstone</td>
<td>Cretaceous</td>
<td>Colorado</td>
<td>Konishi, K.</td>
</tr>
<tr>
<td>Dawson Bay formation</td>
<td>Devonian</td>
<td>Saskatchewan</td>
<td>Edle, R. W.</td>
</tr>
<tr>
<td>Day Point formation</td>
<td>Ordovician</td>
<td>New York-Vermont</td>
<td>Oxley, P.</td>
</tr>
<tr>
<td>Days Creek formation</td>
<td>Cretaceous</td>
<td>Oregon</td>
<td>Imlay, R. W.</td>
</tr>
<tr>
<td>Decorah formation</td>
<td>Ordovician</td>
<td>Upper Mississippi Valley</td>
<td>Heyl, A. V.</td>
</tr>
<tr>
<td>Deer Creek formation</td>
<td>Pennsylvanian</td>
<td>Colorado</td>
<td>Bolyard, D. W.</td>
</tr>
<tr>
<td>Deese group</td>
<td>Pennsylvanian</td>
<td>Oklahoma</td>
<td>Gunter, C. E.</td>
</tr>
<tr>
<td>Delleker formation</td>
<td>Miocene</td>
<td>California</td>
<td>Durrell, C.</td>
</tr>
</tbody>
</table>
INDEX

395

GEOLoGIC FORMATIONS—Continued

Devils Pocket formation, Pennsylvanian, Montana: Gardner, L. S., 2.


Disappointment Bay formation, Silurian or Devonian, Northwest Territories: Thorsteinsson, R., 1.

Double Point dacite, Quaternary, Alaska: Snyder, G. L.

Dripping Spring quartzite, Precambrian, Arizona: Granger, H. C.

Dutch Peak tillite, Precambrian, Utah, new: Cohenour, R. E.

Duzel formation, Ordovician, California, new: Wells, F. G.

Earp formation, Pennsylvanian-Permian, Arizona: McClymonds, N. E., 1.

East Berlin formation, Triassic, Connecticut, new: Lehmann, E. P.

East Point formation, Quaternary, Alaska: Snyder, G. L.

Echo Canyon conglomerate, Cretaceous, Utah: Williams, N. C.

Edwards Limestone, Cretaceous, Texas: Nelson, H. F.

Edward River formation, Ordovician (?), Northwest Territories: Thorsteinsson, R., 1.


Elliott group, Precambrian, Ontario: Pienaar, P. J.

Ely limestone, Mississippian-Permian, Utah: Rose, R. K.

Epitaph dolomite, Permian, Arizona: Bryant, D. L.

Erath member of Anahuac formation, Oligocene or Miocene, Louisiana: Geohence, H. C.


Farewell group, Ordovician (?), Newfoundland: Baird, D. M., 1.

Fernando group, Pliocene, California: Durham, D. L.

Fernie group, Jurassic, Oxfordian, western Canada: Frebold, H. W. L., 2.

Florida dolomite, Ordovician or Silurian, Utah: Staatz, M. H.


Fort Union formation, Paleocene, Montana-North Dakota-South Dakota: Denson, N. M., 1.

Franciscan formation, Jurassic-Cretaceous, California: Durham, J. W., 4.
GEOLOGIC FORMATIONS—Continued

Hershey limestone, Ordovician, Pennsylvania, new: Prouty, C. E., 1.
Hornbrook formation, Cretaceous, California, units: Jones, D. L.
Hoskinini member of Moenkopi formation, Triassic(?), Colorado Plateau: Stewart, J. H., 2.
Hubbard evaporite member of Dawson Bay formation, Devonian, Saskatchewan, new: Lane, D. M.
Hygiene group, Cretaceous, Colorado: Scott, G. R., 1.
Hoskinni member of Moenkopi formation, Triassic(?), Colorado Plateau: Stewart, J. H., 2.
Hubbard evaporite member of Dawson Bay formation, Devonian, Saskatchewan, new: Lane, D. M.
Hygiene group, Cretaceous, Colorado: Scott, G. R., 2.
Hoskinni member of Moenkopi formation, Triassic(?), Colorado Plateau: Stewart, J. H., 2.
Hubbard evaporite member of Dawson Bay formation, Devonian, Saskatchewan, new: Lane, D. M.
Hygiene group, Cretaceous, Colorado: Scott, G. R., 2.
Hoskinni member of Moenkopi formation, Triassic(?), Colorado Plateau: Stewart, J. H., 2.
Hubbard evaporite member of Dawson Bay formation, Devonian, Saskatchewan, new: Lane, D. M.
Hygiene group, Cretaceous, Colorado: Scott, G. R., 2.
Hoskinni member of Moenkopi formation, Triassic(?), Colorado Plateau: Stewart, J. H., 2.
Hubbard evaporite member of Dawson Bay formation, Devonian, Saskatchewan, new: Lane, D. M.
Hygiene group, Cretaceous, Colorado: Scott, G. R., 2.
INDEX

GEOLoGIC FORMATIONS—Continued

Lynchburg(?) formation, Precambrian, Virginia: Dietrich, R. V.
McClellan Creek sequence, Devonian (?), Nevada, new: Lovejoy, D. W.
McMurray formation, Cretaceous (?), Alberta: Carrigy, M. A., 2.
Madera formation, Pennsylvanian, Colorado: Bolyard, D. W.
Madison group, Mississippian, North Dakota: Anderson, S. B.
Mal Paso formation, Cretaceous, Mexico, new: Pantoja Alor, J.
Mancos formation, Ordovician, Iowa: Parker, Mary C.
Mannville group, Cretaceous, Alberta: Glaister, R. P.
Marras River shale, Cretaceous, Montana, members: Cobb, W. A., 2.
Martin Lake series, Precambrian, Saskatchewan, new: Gussow, W. C., 1.
Matinenda formation, Precambrian, Ontario: Pienaar, P. J.
Max Meadows fault breccia, Paleozoic (?), Virginia: Cooper, B. N., 2.
Meadow Canyon member of Oquirrh formation, Pennsylvanian, Utah: Bissell, H. J., 3.
Meguma group, Ordovician (?), Nova Scotia: Stevenson, I. M.
Menashee group, Cretaceous, Alberta: Glaster, R. P.
Menefee formation, Cretaceous, Colorado: Wanek, A. A.
Merced formation, Pliocene-Pleistocene, California: Glen, W.
Mesaverde formation, Cretaceous, Wyoming: Barwin, J. R.
Mesaverde group, Cretaceous, Colorado: Rocky Mtn. Assoc. Geologists; Wanek, A. A.
Midway group, Paleocene, Texas: Kellough, G. R.
Millard formation, Cambrian, Utah: Cohenour, R. E.
Mine Hill granite gneiss, Paleozoic, Connecticut: Gates, R. M.
Minnelusa formation, Pennsylvanian, Permian, Wyoming: Foster, D. I.
Minturn formation, Pennsylvanian, Colorado: Walker, T. R.

GEOLoGIC FORMATIONS—Continued

Modesto formation, Pleistocene, California, new: Davis, S. N.
Monashee group, Precambrian, British Columbia: Jones, A. G.
Monongahela series, Pennsylvanian, Appalachian basin: Arkle, T., Jr., 1.
Montoya group, Ordovician, Texas-New Mexico: Howe, H. J.
Morapos sandstone member of Mancos shale, Cretaceous, Colorado: Ritzma, H. R., 1.
Mt. Ida group, Precambrian, British Columbia: Jones, A. G.
Mt. Kindle formation, Ordovician, Northwest Territories: B e 11, W. A.
Mt. Tom hornblende gneiss, Paleozoic, Connecticut: Gates, R. M.
Munising sandstone, Cambrian, Wisconsin-Michigan: Driscoll, E. G.
Múzquita formation, Cretaceous, Mexico, new: Robeck, R. C.
Myerstown limestone, Ordovician, Pennsylvania, new: Frouty, C. E., 1.
Naturita formation, Cretaceous, Colorado: Young, R. G.
Neal ranch formation, Permian, Texas: Ross, C. A.
Necoxtla formation, Cretaceous, Mexico: Thalmann, H. E., 2.
New York City group, Paleozoic (?), New York: Prucha, J. J.
Newark group, Triassic, Pennsylvania, lithofacies: McLaughlin, D. B.
Newberry formation, post-Miocene, California, new: Danchy, E. A.
Nicholville conglomerate member of Potsdam sandstone, Cambrian, New York: Postel, A. W.
Nisku formation, Devonian, Alberta: Hargreaves, G. E.
Nonesuch shale, Precambrian, Michigan: White, W. S.
Noxie sandstone, Pennsylvanian, Kansas: Schulte, G. S.
Ocozocautlia (Tuxtla) formation, Cretaceous, Mexico: Chubb, L. J., 2.
Ogallala formation, Miocene-Pliocene, Oklahoma: Kitts, D. B., 2.
Texas: Frye, J. C., 3.
Pilocene, South Dakota: Taft, W. H.
Opex dolomite, Cambrian, Utah: Rigby, J. K., 2.

594526—61—26
**Geologic Formations—Continued**


Oriskany sandstone, Devonian, central Appalachians: Appalachian Geol. Soc.

Otero member of Yeso formation, Permian, New Mexico, new: Bachman, G. O., 1.

Pablo formation, Permian(?), Nevada: Silberling, N. J.

Park City formation, Permian, United States, western: McKelvey, V. E., 1.

Utah, members: Johnson, K. D., 2.

Utah-Wyoming: Cheney, T. M.

Park City group, Permian, Utah: Hose, R. K.

Pass Creek sandstone, Pennsylvanian, Colorado: Bolyard, D. W.

Patterson Point formation, Quaternary, Alaska: Snyder, G. L.

Payette(?), formation, Miocene or Pliocene, Idaho-Nevada-Utah: Mapel, W. J., 1.

Penman formation, Pliocene, California, new: Durrell, C., 2.

Pennington group, Mississippian, Kentucky-Virginia-West Virginia: Wilpolt, R. H.

Pepoqu formation, Permian, Nevada: Steele, G.

Phosphoria formation, Permian, United States, western, members: McKelvey, V. E., 1.


Wyoming-Montana: Robinson, C. S.

Pigeon Point formation, Cretaceous, California: Hall, C. A., Jr., 2.


Pine Canyon limestone, Mississippian, Utah: Bissell, H. J., 3; Var. Geol. Soc.

Pinyon Peak formation, Devonian-Mississippian, Utah: Brooks, J. E.

Platteville formation, Ordovician, upper Mississippi Valley: Heyl, A. V., Jr., 1.


Plumb shale member of Wood Sliding formation, Pennsylvanian, Kansas, new: Mudge, M. R., 2.

Plympton formation, Permian, Utah: Hose, R. K.

Pole Canyon member of Oquirrh formation, Pennsylvanian, Utah: Bissell, H. J., 3.

Pottsville group, Pennsylvanian, Pennsylvania: Dutcher, R. R.


**Geologic Formations—Continued**

Price River formation, Cretaceous, Colorado-Utah: Hale, L. A.

Purisima formation, Pliocene, California: Glen, W.

Quebec group, Cambrian-Ordovician, Quebec: Duquette, G.

Raton formation, Paleocene(?), Colorado: Harbour, R. L.

Red Bay formation, Silurian, Northwest Territories: Thorsteinsson, R., 1.

Red River formation, Ordovician, Manitoba: Andrichuk, J. M., 1; Sinclair, G. W., 1.

Repello formation, Pliocene, California: Durham, D. L.

Riddle formation, Jurassic, Oregon: Imlay, R. W., 5.

Riverbank formation, Pleistocene, California, new: Davis, S. N.

Salen limestone, Mississippian, Illinois, new members: Baxter, J. W.

Saline River formation, Cambrian, Northwest Territories: Bell, W. A.

Salt Lake formation, Pliocene, Idaho-Nevada-Utah: Mapel, W. J., 1.

San Andres limestone, Permian, New Mexico: Hayes, P. T.

San Lucas formation, Cretaceous, Mexico, new: Pantoja Alor, J.

Sappa formation, Pleistocene, Nebraska: Keech, C. F., 1.

Sappington formation, Devonian-Mississippian, Montana: Achauer, C. W.

Schoharie formation, Devonian, New York-New Jersey-Pennsylvania, redefined: Johnsen, J. H.

Sept-Iles group, Precambrian, Quebec, new: Eno, W. B.


South Dakota-Nebraska: Kepferle, R. C.

Shedhorn sandstone, Permian, United States, western: McKelvey, V. E., 1.

Sheeprock series, Precambrian, Utah, new: Cohoun, R. E.

Shinarump member of Chinle formation, Triassic, Utah: Lewis, R. Q., Sr., 1.

Shunda formation, Mississippian, Alberta: Nelson, S. J., 6.

Shuswap terrane, Precambrian, British Columbia: Jones, A. G.

Shuttle Meadow formation, Triassic, Connecticut, new: Lehmann, E. P.

Sitkin Point formation, Quaternary, Alaska: Snyder, G. L.

Snowblind Bay formation, Silurian or Devonian, Alaska: Snyder, G. L.
INDEX

**GEOLOGIC FORMATIONS—Continued**

Soda Mtn. formation, Triassic-Jurassic, California, new: Grose, L. T.

South Platte formation, Cretaceous, Colorado: Waage, K. M., 2, 3.

Spring Hill limestone member of Plattsburg limestone, Pennsylvanian, Kansas: Harbaugh, J. W., 2.

Springer sandstone, Mississippian-Pennsylvanian, Oklahoma: Jacobeen, C. L., 2.

Stanley group, Mississippian, Oklahoma: Cline, L. M., 2.

Stanton limestone, Pennsylvanian, Kansas members: Ball, S. M.

Stony Mtn. formation, Ordovician, Manitoba: Andrichuk, J. M., 1.

Swan Hills member of Beaverhill Lake formation, Devonian, Alberta, new: Fong, G.

Swasey limestone, Cambrian, Utah: Cohenour, R. E.

Takla group, Triassic-Jurassic, British Columbia, revision: Tipper, H. W.

Taylor Flat formation, Pennsylvanian, Alberta-British Columbia, new: Habertsha, H. L.

Teutonic limestone, Cambrian, Utah: Rigby, J. K., 2.

Thaynes formation, Triassic, Utah: Hose, R. K.

Tivola member of Ocala limestone, Eocene, Georgia: Connell, J. F. L., 2.

Travesser formation, Triassic, New Mexico: Baldwin, B.

Tres Hermanos sandstone member of Mancos shale, Cretaceous, New Mexico: Davis, S. N.


Turlock Lake formation, Pliocene-Pleistocene, California, new: Davis, S. N.

Tyler formation, Pennsylvanian, Montana-North Dakota: Willis, R. P.

Valcour formation, Ordovician, New York-Vermont, members: Oxley, P.

Vamoosa formation, Pennsylvanian, Oklahoma, members: Greig, P. B., Jr.

**GEOLOGIC FORMATIONS—Continued**

Victoria formation, Devonian, Utah: Brooks, J. E.

Viking formation, Cretaceous, Alberta: Roessingh, H. K.


Waccamaw formation, Pleistocene, North Carolina-South Carolina: Du Bar, J. R.

Waits River formation, Devonian(?), Vermont, redefined: Murthy, V. R., 1.

Silurian or Devonian, Vermont: Hall, L. M.


Waterways stage, Devonian, Alberta, not formation: Carrigy, M. A., 1.

Welden formation, Mississippian, Oklahoma: Braun, J. C.

Wells Cloud shale, Pennsylvanian, Kansas, channel sandstone: Mendoza, H. A.

White River group, Oligocene, Montana-North Dakota-South Dakota: Denson, N. M., 1.

Wilberns formation, Cambrian, Texas-New Mexico, members: Barnes, V. E., 1.


Williss phyllite, Precambrian, Virginia, new: Dietrich, R. V.

Williwaw Cove formation, Tertiary or Quaternary, Alaska: Snyder, G. L.

Winnipeg formation, Ordovician, Manitoba: Andrichuk, J. M., 1.

Winnipegosis formation, Devonian, Saskatchewan: Edle, R. W., 1.

**GEOLOGIC FORMATIONS, LISTS, SECTIONS, TABLES. See also Correlations; Fence diagrams; Geologic names, lexicons, catalogs, glossaries; Well and drill-hole logs.**

Alabama, Black Warrior basin, northern, Devonian-Pennsylvanian, sections and correlation table: Welch, S. W.

Limestone County, Ordovician, correlated with Tennessee, Giles County: Hastings, E. L.


Alaska, Anchorage area, Quaternary: Miller, R. D., 1.

Big Delta quadrangle, western, structure section: Williams, J. Ropes, 2.

Kenai formation, Eocene, Kenai coal field, Homer district: Barnes, F. F., 2.
GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Alaska—Continued

Little Sitkin Island, Cenozoic, cross sections: Snyder, G. L.

Mt. Katmai area, Jurassic-Tertiary: Keller, A. S.

Northern, Devonian-Cretaceous, sections and chart: Patton, W. W., Jr., 1.

Stratigraphic sections: Miller, D. J.

Union Bay area, ultramafic complex, structure sections: Ruckmick, J. C.

Alberta, Bearpaw formation, Cretaceous, measured sections, lithology: Byrne, F. J. S.

Blairmore group, Cretaceous, cross sections: Workman, L. E.

Carbondale River area, structure sections: Canada G. S., 32.

Cardium formation, Cretaceous, South Bearpaw area, measured sections: Magdich, F. S.

Clear Hills iron deposits, Cretaceous, correlation of core holes: Kidd, D. J.

Drumheller area, Cretaceous, correlation: Chamney, T. P.

Elk Point basin, Devonian, columnar sections: Belyea, H. R.

Fernie group, Jurassic, glauconitic unit, Jasper National Park, section: Hawryszko, J. W.

Kootenay formation, Jurassic, Grassy Mtn., type section: Norris, D. K.

McMurray area, cross sections: Carney, M. A., 1.


Northwestern, Cretaceous, cross section: Kidd, D. J.

Panther dome area: Hunt, C. W., 1.

Peace River area, Triassic: Hunt, A. D.

Upper Mississippian-Permain, type sections: Halbertsma, H. L.

Rocky Mts., foothills, structure sections: Fox, F. G.


Southern, Devonian-Mississippian: Illing, L. V.

Lower Cretaceous: Glaister, R. P.

Southern plains, Middle-Upper Cambrian: Hees, H. van.

Wabamun Lake district, coal seams, sections: Pearson, G. R.

Appalachian basin, Monongahela series, Pennsylvanian, facies, cross sections: Arkle, T., Jr., 1.

Appalachian basin—Continued

Pennsylvanian-Permian, nomenclature chart and sections: Arkle, T., Jr., 1.

Arizona, Basin and Range province, igneous rocks, chart: Titley, S. R., 1.

Bisbee area, Cambrian-Ordovician, correlation with New Mexico, Silver City area: Dickinson, R. G.

Bisbee district, Dripping Springs Valley, and Mohave County, cross sections: Wilson, Eldred D., 4.

Central and southeastern, Devonian unit names: Pye, W. D., 2.


Dragoon quadrangle: Cooper, J. R., 2.

East Sierra area, cross sections: Lacy, W. C.


Precambrian-Quaternary, sections: Stipp, T. F.


Southern, and adjacent areas, nomenclature chart: Pye, W. D., 1.

Tucson Mtn. chaos, Tertiary, Tucson Mts., cross sections, Kinnison, J. E., 1.

Arkansas, Aetna gas field, Pennsylvanian, cross section: Planalp, R. N.

Atoka formation, Pennsylvanian, Arkansas Valley, cross sections: Scull, B. J., 2.

Fayetteville area, Mississippian-Pennsylvania, columnar and cross sections: Jackson, K. C., 1.

Northwestern, Mississippian-Pennsylvanian: Fort Smith Geol. Soc.


Atlantic Coastal Plain, continental margin, Cape Henry to Jacksonville, structure sections from seismic data: Hersey, J. B.

British Columbia, Carbondale River area, structure sections: Canada G. S., 32.

Flathead area, structure sections: Canada G. S., 28.

Northeastern, Devonian-Cretaceous, correlation section: Lucie-Smith, A. N.

Peace River area, Triassic: Hunt, A. D.

Upper Mississippian-Permian, type sections: Halbertsma, H. L.
INDEX

GEOLOGIC FORMATIONS, LISTS, ETC.--Con.

British Columbia—Continued
Salmo lead-zinc area, Cambrian, columnar and correlation: Fyles, J. T.
Structure sections: Fyles, J. T.
Southwestern, Quaternary, tables: Wagner, F. J. E.
Takla and Hazelton groups, Mesozoic, sections and diagrams: Tipper, H. W.
Tetsa River area, Mississippian-Cretaceous, cross sections: Canada G. S., 55.

California, Aliso Canyon oil field, cross sections: Ingram, W. L.
Alpine Butte quadrangle, structure sections: Dibblee, T. W., Jr., 2.
Avenal-McKittrick area, cross sections: Wood, P. R.
Bellevue oil field, cross section: Sullivan, J. C.
Boude Creek gas field, cross section: Bruce, D. D., 2.
Buena Vista oil and gas field, Cenozoic: Borkovich, G. J.
Canfield Ranch oil and gas field, Miocene-Recent: Matthews, J. F., Jr.
Chowchilla gas field, Cretaceous-Recent, cross sections: Hunter, G. W.

Coast Ranges, lower Tertiary, foraminiferal zones: Mallory, V. S.
Compton Landing gas field, Cretaceous-Pliocene, cross sections: Bruce, D. D., 1.
Death Valley, Black Mts., turtleback fault areas, structure sections: Drewes, H. D.
Eureka area, Jurassic-Quaternary: Evenson, R. E.
Fillmore oil field, cross section: Schultz, C. H.
Gazelle formation, Silurian, Klamath Mts., composite section: Wells, F. G.
Gill Ranch gas field, cross section: Loken, K. P.
Jasmin oil field, Jurassic-Pleistocene: Huza, A. G.
Johe Ranch and Maddux Ranch gas areas, cross section: Land, P. E.
Lake Elsinore quadrangle, structure sections: Engel, R. L. H.
Livermore-Hollister area, cross sections: Geol. Soc. Sacramento.
Mammoth Lakes region, Sierra Nevada, roof pendents, Paleozoic-Mesozoic columnar section: Bluehart, C. D., 2.

California—Continued
Maniobra formation, Eocene, type section, Oroopia Mts.: Crowell, J. C., 1.
Merced formation, Pliocene-Pleistocene, type section: Glen, W.
Midway-Sunset oil field, Thirty-five anticline, cross sections: Zulberti, J. L.
Mojave quadrangle, structure sections: Dibblee, T. W., Jr., 1.
North Whittier Heights area, cross sections: Hunter, W. J.
Oak Canyon oil and gas field, Miocene, cross sections: Ybarra, R. A.

Olive oil and gas field, Miocene-Pleistocene, cross sections: Gaede, V. F.
Oroopia Mts., structure sections: Crowell, J. C., 1.
Poo Tunnel, structure section: Lydon, P. A., 1.
Princeton gas field, cross section: Bruce, D. D., 3.
San Joaquin Valley, Cenozoic, correlation section: Church, H. V., Jr.
Cenozoic continental deposits, aquifers: Davis, G. H., 1.
Cross section: Gibb, H. J.
Jasmin oil field to Tejon Hills oil field and McDonald Anticline oil field to Deer Creek oil field, cross sections: Park, W. H.
Santa Maria basin, Jurassic-Pleistocene, correlation section: Krammes, K. F.
Santa Ynez River basin, Pliocene-Recent, cross sections, aquifers: Wilson, H. D., Jr.
Stanislaus-Merced Counties, aquifers: Davis, S. N.
Tapia oil field, cross sections: Dsh, M. W.
Temescal Valley, southern, cross sections: Engel, R. L. H.
Torrance-Santa Monica area, Cenozoic, cross sections, aquifers: Poland, J. F., 1.
Canada, Arctic areas, correlation chart: Allen, A. R.
West Canadian basin, Paleozoic, cross sections: Sikabony, L. A.
Colorado-Chicengo Creek area: Harrison, J. E.
Upper, diagrammatic sections: Welmer, R. J., 1.
Dakota formation, Cretaceous, San Juan Basin, correlations: Tyrell, W. W., Jr.
Dakota sandstone, Cretaceous, correlation: Konishi, K., 2.
COLORADO—Continued


Grand Junction area, Cretaceous: Young, R. G.

Huerfano Park area: Johnson, Ross B.

Little Cone quadrangle, structure sections: Bush, A. L., 2.

Mesaverde formation, Cretaceous, Carbondale area, measured section: Donnell, J. R.

Moenkopi formation, Triassic, salt-anticline region, measured sections: Shoemaker, E. M., 2.


Northwestern, Cretaceous, Upper, correlation sections: Masters, C. D.

Precambrian-Permian, sections: Hallgarth, W. E.

Piceance Creek basin, Paleocene-Eocene, chart: Gazin, C. L., 1.

Placerville quadrangle, structure sections: Ekren, E. B., 2.

Sangre de Cristo Mts., Pennsylvanian-Permian: Bolyard, D. W.

Spring Creek area, Cretaceous, columnar section: Elias, D. W.

Trinidad-Aguilar area, Upper Cretaceous-Paleocene: Harbour, R. L.

Ute Mtn. area, Cretaceous, measured section: Houser, F. N., 1.

Western, Jurassic-Cretaceous, correlation sections: Quigley, M. D.

Yampa district, Cretaceous, columnar: Kneera, R. E.

Connecticut, Middletown quadrangle, Triassic, measured sections: Lehmann, E. P.

Florida, Cenozoic type localities, sections: Purl, H. S., 2.

Lake Istokpoga and Lake Placid areas, cross sections, lithology and hydrology: Kohout, F. A., 1.

Land-pektlite phosphate district, Eocene-Pleistocene, drill-core cross sections: Cathcart, J. B.

West-central, Cenozoic: Ketner, K. B.

Mississippi: Moore, C. A.
INDEX

GEOLeGIC FORNATIONS, LISTS, ETC.—Con.

KANSAS—Continued

Nemaha County, Pennsylvanian-Permian, Quaternary, measured and columnar sections: Mudge, M. R., 1.

Northern, Kansas City-Lansing groups, Pennsylvanian-Permian, Quaternary, measured and columnar sections: Mudge, M. R., 2.


Plattsburg limestone, Pennsylvanian, Neodesha-Fredonia area, correlation section: Harbaugh, J. W., 2.

Pottawatomie County, Pennsylvanian-Permian, measured sections: Scott, G. R., 1.

South-central, Noxie-Cottage Grove sandstones, Pennsylvanian: Schulte, G. S.

Southeastern, Pennsylvanian, sections: Davis, J. C.

Wabaunsee County, Pennsylvanian-Permian, Quaternary: Mudge, M. R., 2.

Western, Pennsylvanian, Lower, cross section: McManus, D. A.

Kentucky, Big Four fault system, Mississippian, section: Hardin, G. C., Jr.


Labrador, Wabush-Mills Lake area, Precambrian, table: Moss, A. E.

Louisiana, chenier plain, cross section: Byrne, J. V.; Gould, H. R., 2.

Southern, Miocene: Limes, L. L.

Southwestern, cross section: Gulf Coast Assoc. Geol. Soc.

Maine, Sandy River area, glacial: Caldwell, D. W.

Manitoba, Amaranth evaporite, Jurassic, lithology and cross sections: Bannatyne, B. B.


Southwestern, Mississippian: McCabe, H. R.

Massachusetts, Wilmington to Charles River buried-valley area: Chute, N. E.

Mexico, Ciudad Victoria region, Tamaulipas, Paleozoic, diagrammatic structure sections: Carrillo Bravo, J.

Ciudad Victoria and Tamaulipas regions, correlation chart: Carrillo Bravo, J.

Eastern and south-central, Jurassic correlation charts: Erben, H. K., 2.

GEOLeGIC FORMATIONS, LISTS, ETC.—Con.

MEXICO—Continued
Huetamo de Núñez region, Michoacán, Jurassic-Tertiary, structure and columnar sections: Pantoja Alor, J.


Macuspana basin, Tabasco, Tertiary, structure sections: Hernández Herrera, S.

Michoacán-Morelos-Guerrero, correlation chart: Pantoja Alor, J.

Rodolfo Ogarrio oil field, Tabasco, structure sections: Pérez Rincón, E.

Sabinas region, Coahuila, Cretaceous-Quaternary, stratigraphic and structure sections: Robeck, R. C.

Saltillo area, Coahuila, Parras basin, structure sections: Weidie, A. E.

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Tertiary, stratigraphy and paleogeographic stages: Fuente Navarro, J. M. de la

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Ironwood iron-formation, Precambrian: Huber, N. K.

Lower Peninsula, northern, Silurian-Devonian, cross sections: Landes, K. K., 1.

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Red Cedar River basin, Mississippian-Permian, cross sections: Humphreys, C. R.

Schoolcraft County, Cambrian-Silurian, Pleistocene: Sinclair, W. C.

White Pine copper deposit, Precambrian: White, W. S.

Minnesota, Cook County, Precambrian: Grout, F. F.

Mississippi, Black Warrior basin, northern, Devonian-Pennsylvanian, sections and correlation table: Welch, S. W.
GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Mississippi Valley, upper, Devonian-Mississippian, columnar: Collins, C. W., 2.
Upper, lead-zinc district: Heyl, A. V., Jr., 1.
Missouri, Cambrian-Mississippian: McCracken, E.
Des Moines series, Pennsylvanian, east-west cross section: Searight, W. V., 1.
Ozark area, Mississippian: Branson, C. C., 3.
Montana: Billings Geol. Soc.
Amaden formation, Pennsylvanian, Wolf Springs oil field, subsurface section: Ramsey, R. D.
Belt series, Precambrian, correlation chart: Johns, W. M.
Big Snowy group, Mississippian, cross sections: Blake, O. D.
Birney-Broadus coal field, measured sections: Warren, W. C.
Black Hills, Triassic-Recent: Mapel, W. J., 3.
Central, Carboniferous: Gardner, L. S., 2.
Central and eastern, Mississippian-Pennsylvanian: Willis, R. P.
Cut Bank area, Mississippian-Cretaceous, cross sections: Weimer, W. J., 2.
Eastern, Charles and Mission Canyon formations, Mississippian, cross section: Fish, A. R.
Flint Creek Range, northwest flank, structure sections and table: McGill, G. E.
Glacier National Park region, table: Ross, C. P., 1.
Lewistown area: Gardner, L. S., 1.
Little Rocky Mtn. area, columnar section: Knechtel, M. M.
Pierre shale, Cretaceous, measured sections: Robinson, C. S.
Red Creek oil field to Cut Bank oil and gas field, Mississippian-Cretaceous: Love, H. R.
Sixteenmile area, cross sections and table: Robinson, G. D., 1.
South Moccasin Mts., Cambrian-Recent: Miller, Richard N.
Stensvad-Ivanhoe area, Mississippian-Pennsylvanian, cross sections: Todd, D. F.
Stensvad-Sumatra-Ivanhoe oil fields area, Mississippian-Jurassic: Staggs, J. O.
Sun River Canyon area, Devonian-Cretaceous, table: Mudge, M. R., 3.
Wolf Springs-Delphia area, Mississippian-Pennsylvanian, cross sections: Ramsey, R. D.

GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Nebraska, Big Blue River basin above Crete, cross sections: Johnson, C. R.
Clay County, Cretaceous-Quaternary, sections: Keech, C. F., 1.
Pleistocene, correlation table: Johnson, C. R.
Nebraska, Buffalo Mtn. quadrangle, Permian-Quaternary, cross section: Wallace, R. E.
Goose Creek district: Mapel, W. J., 1.
Lone Mtn., structure sections: Lovejoy, D. W.
Pahranagat Range, Devonian, section: Reso, A., 1.
Snake Range and Kern Mts., Precambrian-Tertiary, list: Nelson, R. B.
Union district, Triassic-Jurassic, columnar: Silberling, N. J.
Virginia Range, Wadsworth area, Mesozoic-Quaternary: Rose, R., 2.
New Hampshire, Ordovician-Devonian, correlation chart: Murthy, V. R., 1.
New Jersey, Cape May County, southern, Miocene-Pleistocene, cross section: Gill, H. E.
New Mexico, Cambrian-Ordovician, pre-Simpson, correlation sections: Barnes, V. E., 1.
Central, Mississippian: Armstrong, A. E., 1.
Dakota formation, Cretaceous, San Juan Basin, correlations: Tyrrell, W. W., Jr.
Fresnal group, Pennsylvanian, La Luz anticline, sections: Cline, L. M., 3.
Laboreita formation, Permian, Sacramento Mts., columnar sections: Otte, C., Jr., 2.
Lordsburg quadrangle, Cretaceous-Tertiary, cross sections: Flege, R. F., Jr.
Lucero region, sections: Wengerd, S. A., 1.
Montoya group, Ordovician, trans-Pecos area: Howe, H. J.
Northern, cross sections: Panhandle Geol. Soc., 2.
Oscura Mts., to El Paso, Texas, Precambrian-Cretaceous, diagrammatic sections: Kottlowski, F. E., 2.
Sacramento Mts., generalized section: Motts, W. S., 1.
Northern: Otte, C., Jr., 1.
Pennsylvania-Permian unconformity: Oppel, T. W.
Sections: Pray, L. C.; Soc. Econ. Paleontologists and Mineralogists Permian Basin Sec.
INDEX

GEOLOGIC FORMATIONS, LISTS, ETC.—Con.
New Mexico—Continued
Southern, pre-Pennsylvanian: Flower, R. H., 1.
Southwestern and south-central, Devonian unit names: Pye, W. D., 2.
Sunshine Valley: Winograd, I. J.
Tucumcari basin, cross sections: Krisle, J. E.
Union County, Mesozoic, columnar sections: Baldwin, B.
Western: N. Mex. Geol. Soc.
Chazy series, Ordovician, Champlain Valley, measured: Oxley, P.
Chemung County, Cambrian-Devonian, deep well, lithology and correlation: Wiggins, J. W.
Hudson River, Storm King to Manhattan, structure sections: Wessel, J. L., 3.
Western, Upper Devonian: de Witt, W., Jr.
Nicaragua, Santa Rosa del Peñon area, Tertiary, columnar and structure sections: Zoppis Bracci, L., 2.
North America, Silurian algae-bearing beds, worldwide correlation: Johnson, J. Harlan, 3.
North Dakota, Charles and Missan Canyon formations, Mississippian, cross section: Fieh, A. R.
Jurassic-Cretaceous boundary, cross sections: Hansen, D. E.
Northwestern: Anderson, S. B.
Square Buttes coal field, Tertiary formations, measured sections: Johnson, W. D., Jr.
Northwest Territories, Arctic Archipelago, table: Bateman, J. D.
Cornwallis and Little Cornwallis Islands, Paleozoic and Cenozoic: Thorsteinson, R., 1.
Fort Liard-La Biche areas, Precambrian-Cretaceous, cross sections and charts: Douglas, R. J. W., 2.
Great Slave and Trout River areas, Devonian: Douglas, R. J. W., 1.
Wrigley-Fort Norman area, Precambrian-Ordovician, measured sections: Bell, W. A.
Nova Scotia, northern, Carboniferous: Brummer, J. J.
Shubenacadie-Kennetcook area: Stevenson, I. M.
Ohio, Columbus-Galena-Gahanna area: Ohio Acad. Sci. Geology Sec.

GEOLOGIC FORMATIONS, LISTS, ETC.—Con.
Ohio—Continued
Hamilton County and vicinity, Ordovician-Silurian, table: Hyde, D. E.
Hocking and Scioto Valleys, glacial-outwash terraces, profiles: Kemp-ton, J. P.
Oklahoma, Arbuckle and Ouachita Mts., Cambrian-Silurian, correlation chart: Decker, C. E.
Arbuckle and Ouachita Mts., Precambrian-Mississippian, correlation chart: Ham, W. E.
Ardmore basin, Pennsylvania: Jacobsen, C. L., 1.
Pennsylvanian, cross section: Tol- linson, C. W., 2.
Measured sections: Blythe, J. G.
Caney shale, Mississippian, type section: Ellis, M. K., 2.
Creek County, measured and cross sections: Oakes, M. C.
Deese group, Pennsylvanian, electric-log cross sections: Gunter, C. E.
Eastern, Mississippian-Pennsylvanian, cross sections: Laudon, R. B., 1.
Garvin County, Ordovician-Pennsylvanian, composite log: Gunter, C. E.
Harper County, cross sections: Jordan, L., 3.
Measured sections: Myers, A. J.
Pleistocene-Pleistocene correlation chart: Myers, A. J.
Hugoton embayment, north-south cross section: Liberal Geol. Soc.
Love-Carter Counties, Cambrian-Mississippian, cross sections: Reed, B. K.
Mississippian: Moore, C. A.
Northeastern, Pennsylvanian, chart: Branson, C. C., 1.
Ogalalla group, Miocene-Pliocene, and terrace deposits, Roger Mills County, measured sections: Kitts, D. B., 2.
Ouachita Mts., cross sections: Hendricks, T. A.
Mississippian-Pennsylvanian: Cline, L. M., 2; Harlot, B. H.
Ozark area, Mississippian: Branson, C. C., 3.
Paleozoic: Boier, M. E.
Correlation chart: Bereutt, H.
Pawnee County, sections: Greig, P. B., Jr.
Pittsburg County, Glity's Station 2078, Devonian-Mississippian, measured section: Branson, C. C., 10.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

406

GEOLoGIC FORMAtIONS, LISTS, etc.—Con.

Oklahoma—Continued

Seminole-Hughes Counties, Ordovician-Pennsylvanian: Duck, J. H., Jr.
South Palacine oil field, Cambrian-Pennsylvanian: Atkinson, Walter E.
Southern, oil fields: Ardmore Geol. Soc.
Ordovician-Mississippian, sections: Maxwell, R. W.
Stratigraphic standard tables: Ardmore Geol. Soc.
Velma-Camp area, Pennsylvanian, cross sections: Parker, E. C.
Wesley-Johns Valley sequence, Mississippian-Pennsylvanian, Ouachita Mts., correlation: Cline, L. M., 2.
Wichita Mts., north flank, Pennsylvanian facies: Edwards, A. R.
Ontario, Boston-Pacaud Townships, Precambrian: Lawton, K. D.
London area, Wisconsin glacial stage: Friends Pleistocene Geology of Eastern Sec.
Southwestern, Upper Cambrian: Sanford, B. V.
Southwestern, Myrtle group, Jurassic-Cretaceous: Imlay, R. W., 5.
Pennsylvania, Allegheny County, Pennsylvania, sections: Philbrick, S. S.
Annville-Myerstown-Hershey limestones, Ordovician, measured sections: Frounty, C. E., 1.
Bucks County, Pleistocene, measured sections: Pettler, L. C., 1.
Central, Silurian-Pennsylvanian, sections: Arndt, H. H.
Newark group, Triassic, Bucks County, measured sections and correlation table: McLaughlin, D. B.
Pleistocene, nomenclature chart: Shepps, V. C., 1.
Quaternary, table and measured sections: Shepps, V. C., 2.
Sinking Valley, Cambrian-Silurian, structure sections, thrust relations: Moehs, N. N.
Southern and Western Middle anthracite fields, Mississippian-Pennsylvanian, sections: Arndt, H. H.
Western, Pennsylvanian, sections and correlation chart: Dutcher, R. R.
Puerto Rico, southwestern: Navarro de Haydon, R.

Quebec, Causapscal area, east half, Silurian-Devonian: Stearn, C. W.
Cross Lake area, Precambrian, table: Beall, G. H.
Gaspé Peninsula, eastern, Silurian-Lower Devonian, measured sections: Cumming, L. M.
Grondines area, Precambrian and Pleistocene, cross section: Canada G. S., 62.
Richard-Gravier area, cross sections: Carboneau, C.
Squateck area, west half: Lespérance, P.-J.
Saskatchewan, Avonlea area: Sawatsky, H. B.
Northern, Precambrian-lower Paleozoic, cross sections: Gussow, W. C., 1.
Quill Lakes-Qu’Appelle area, Middle Devonian: Lane, D. M.
Souris Valley area, Mississippian-Pennsylvanian, measured sections: Stauft, P.
Southwestern, algal zones: Johnson, J. Harlan, 1.
Swift Current area, upper Pleistocene: Christiansen, E. A.
West-central, Upper Devonian-Lower Mississippian, cross section: Kents, P.
South Carolina, Coastal Plain, Cretaceous-Quaternary, correlation with Gulf and mid-Atlantic Coastal Plains: Siple, G. E., 1.
South Dakota, Black Hills, west flank, cross section and correlation table, Jurassic-Cretaceous: Mapel, W. J., 2.
Harding-Perkins Counties, uraniumiferous lignite beds: Denison, N. M., 1.
Tennessee, Buffalo Mt.-Cherokee Mt. area, Cambrian-Ordovician, structure and columnar sections: Ordway, R. J.
Cleveland area, Cambrian-Mississippian: Swingle, G. D.
Giles County, Ordovician, correlated with Alabama, Limestone County: Hastings, E. L.
Pennsylvanian, generalized section: Luther, E. T.
GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Texas, Bexar County: Arnow, T.

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Galveston Island, cross section: Gulf Coast Assoc. Geol. Soc.

Grayson County: Bradfield, H. H., 1.

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Scurry County, cross sections: Stafford, P. T.

McLennan County, middle Cretaceous: Baylor Geol. Soc.

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Medina County, Cretaceous-Pleistocene, sections: Holt, C. L. R., Jr.

Midland fossil-man site, Pleistocene: Wendorf, F.

Montoya group, Ordovician, trans-Pecos area: Howe, H. J.

North-central, Fredericksburg and adjacent formations, Cretaceous, control and stratigraphic sections: Lozo, F. E., 2.

Northern, Strawn series, Pennsylvanian: Roberts, E. D.

Ogallala formation, Miocene-Pliocene, measured sections: Frye, J. C., 3.

Padre Island-Laguna Madre Flats area, Quaternary, cross sections: Fisk, H. N., 1.

Puckett oil field, Mississippian-Cretaceous, cross section: Hester, R. J.

INDEX

GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Texas—Continued

Rimrock country, Tertiary, measured sections: DeFord, R. K.

Rio Grande valley, Hudspeth County, basin fill, lower Pleistocene: Strain, W. S.

Southwestern, Cretaceous-Oligocene cross sections: McClain, O. G.

Terlingua mercury district, structure sections: Yates, R. G.

Van Horn Mts., Precambrian and Permian-Quaternary: Twiss, P. C.

Washita group, Cretaceous, Duck Creek-Denison area, measured section: Curtis, N. M., Jr., 3.

Table: Curtis, N. M., Jr., 3.

Western, chart: Philfer, R. L., 1, 2.

Winkler County: Garza, S.

Time chart, popular: Collinson, C. W., 1.

United States, east-central salt basins, Silurian, table: Ailing, H. L.

Great Basin to Colorado Plateau, post-Paleozoic cross section, generalized: Harris, H. D.

Midcontinent, Devonian-Pennsylvanian, correlation chart: Branson, C. C., 3.

Mississippian: Moore, C. A.

Pennsylvanian, Oklahoma to Pennsylvania, diagrammatic section: Moore, R. C.

South-central, Chattanooga shale, Devonian, columnar: Glover, L., 3d.

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Western, Ordovician, correlation chart: Hintze, L. F., 2.

Phosphoria-Park City-Shedhorn formations, Permian, chart and measured sections: McKelvey, V. E., 1.

Utah, Arapien shale, Jurassic, Salt Creek area, correlated with Wasatch Plateau: Johnson, K. D.

Bismark Peak area, Paleozoic measured sections: Foster, J. M.

Camp Maple Dell area, Cambrian-Quaternary: Rigby, J. K., 8.

Cedar Mtn. area, Cenozoic: Johnson, H. S., Jr., 1.

Central, Paleozoic, measured and columnar sections: Utah Geol. Soc.

Park City formation, Permian, correlation: Johnson, K. D.

Upper Devonian regional unconformity, cross sections: Rigby, J. K., 5.

Coalville area, Upper Cretaceous section: Williams, N. C.
GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Utah—Continued

Confusion Range, Mississippian-Triassic: Hose, R. K.

Cottonwood-American Fork area, generalized section: Wilson, Clark L.

Daggett County: Ritzma, H. R., 2.

Deep Creek Mts., Precambrian-Tertiary, list: Nelson, R. B.

Diamond Fork anticline, cross section: Neighbor, F.

Elk Ridge 4 quadrangles, Pennsylvanian-Jurassic: Lewis, R. Q., Sr., 3, 4.


Goose Creek district: Mapel, W. J., 1.

Green River and lower Uinta formations, Eocene: Picard, M. D., 1.

Hermosa formation, Pennsylvanian, Paradox basin, well-log correlations: Millard, F. S.

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North-central, Phosphoria interval, Permian, intertonguing, diagrams: Cheney, T. M.


North-central, Phosphoria interval, Permian, intertonguing, diagrams: Cheney, T. M.

Northeastern, Upper Cretaceous, cross sections: Hale, L. A.

Pavant Range, southern: Crosby, G. W., 2.

Perthian, correlation charts: Cheney, T. M.

Randolph quadrangle, Mississippian-Permian(?): Sando, W. J.

Sheeprock Mts., Cambrian-Mississippian, cross sections: Cohenour, R. E.

Permian-Mississippian, measured sections: Cohenour, R. E.

Southeastern, Permian-Jurassic: Stewart, J. H., 1.

Stansbury Mts., southern: Telchert, J. A.

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Ttraffic Mts. to Wasatch Mts., Paleozoic: Johnson, K. D.

Tooele arch, Ordovician, cross sections: Hintze, L. F., 2.

Uinta Mtn. area basins, Paleocene-Eocene, chart: Gazin, C. L., 1.

Vermont, Chazy series, Ordovician, Champlain Valley, measured: O'Leary, P.

Clairens-Dorset area, Precambrian-Ordovician, table: Thompson, J. B., Jr., 2.

Coxe Mtn. area, Precambrian-Ordovician: Osberg, P. H.

Ordovician-Devonian, correlation chart: Murthy, V. R., 1.

Rutland area, marble belt, Cambrian-Ordovician: Bain, G. W.

St. Johnsbury quadrangle: Hall, L. M.

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West Virginia, Doddridge-Harrison Counties, Silurian-Permian: Haught, C. L., 2.

Wood County deep well: Woodward, H. P., 2.

Williston basin, Mississippian-Pennsylvanian: Willis, R. P.

Northern, Cambrian-Silurian, cross sections: Porter, J. W.

Mississippian, chart: Fish, A. R.

Southern, Jurassic: Sandberg, D. T.

Wisconsin, Ironwood iron-formation, Precambrian: Huber, N. K.

Southwestern, Cambrian-Ordovician, measured sections: Tri-State Geol. Field Conf.


Black Hills, Triassic-Recent: Mapel, W. J., 3.


Dubois area: Reeves, C. C., Jr., 1, 3.


Meridian anticline area, cross section: Cochran, K. L.

Miller Hill area: Vine, J. D., 2.

Oil and gas fields, penetration chart: Wyo. Geol. Assoc. Penetration Chart Comm.

Phosphoria Interval, Permian, intertonguing, diagrams: Cheney, T. M.
INDEX

409

GEOLOGIC FORMATIONS, LISTS, ETC.—Con.

Wyoming—Continued

Pierre shale, Cretaceous, measured sections: Robinson, C. S.

Powder River basin, Pennsylvanian-Permian, correlation: Foster, D. I.

Rawlins area, Cretaceous, measured section: Barlow, J. A., Jr.

Red Desert area: Masursky, H.

Southeastern, Mesaverde group, Cretaceous, composite section: Bergstrom, J. R.

Southwestern, correlation with adjoining areas: Schick, R. B.

Uinta area basins, Paleocene-Eocene, chart: Gazin, C. L., 1.

Wasatch and Uinta Mts., Triassic: Scott, W. F.

Western, overthrust belt in geosynclinal area, structure sections: Rubey, W. W.

GEOLOGIC HISTORY. See also Paleoclimatology; Paleogeography.

Alaska, Big Delta quadrangle, western, Quaternary: Williams, J. Ropes, 2.

Fairbanks (D-1) quadrangle: Willams, J. Ropes, 1.

Trinity Islands, Cretaceous-Recent: Kirschner, C. E.

Alberta, Panther dome area: Hunt, C. W., 1.

Arizona, Basin and Range province: Wilson, Eldred D., 4.

Southeastern, and adjoining areas: Pye, W. D., 5.


Verde Valley: Lange, A. L., 2.


Washington County, southwestern: Jackson, K. C., 2.

Colorado, Blanca Peak area: Kasabach, H. F.

Trinidad-Aguilar area: Harbour, R. L.

Connecticut, New Britain quadrangle, Quaternary: Simpson, H. E.

Great Lakes, basins: Hough, J. L., 2.

Kansas: Jewett, J. M.

Massachusetts, Shelburne Falls quadrangle, Quaternary: Segerstrom, K.

Wilmingtion quadrangle, glacial: Castle, R. O.

Michigan, Holland area: Deutsch, M.

Montana, Glacier National Park: Ross, C. P., 1.

Granite County, Laramide orogeny: Poultier, G. J.

Marlas River area, lower: Smith, J. F., Jr.

New Mexico, southern: Flower, R. H., 1.

GEOLOGIC HISTORY—Continued

New York, Long Island: Charlier, R. H., 1.

Nicholville quadrangle: Postel, A. W.

Northwest Territories, Arctic Archipelago: Fortier, Y. O.

Oklahoma, Anadarko basin, southeastern: Braun, J. C.

Harper County: Myers, A. J.

McAlester basin, Atoka time, Pennsylvanian: Blythe, J. G.

Northwest Butner oil field area: Duck, J. H., Jr.


Pawnee County: Greig, P. B., Jr.

Southwestern: McDaniel, G. A.


Texas, central, Edwards limestone, Cretaceous: Nelson, H. F.

Devils River uplift: Flawn, P. T., 2.

Grayson County: Bradfield, H. H., 1.

Horseshoe atoll, Scurry-Kent Counties: Stafford, P. T.

Puckett oil field: Hester, R. J.

Utah, Bismark Peak quadrangle: Foster, J. M.

Fish Lake Plateau, Jurassic-Quaternary: McGookey, D. P.

Mt. Nebo-Salt Creek area: Johnson, K. D.

Pavant Range, southern: Crosby, G. W., 2.

Unita Mts.: Ritesma, H. R., 2.

Wasatch and Unita Mts., Triassic: Scott, W. F.

Virginia, Lebanon area, popular account: Cameron, C. C.

Washington, Buckeye quadrangle, Cenozoic: Crandell, D. R.

West Indies, Aruba-Bonaire-Curacao Islands, popular account: Buisonje, P. H. de.

Wyoming, Dubois area: Reeves, C. C., Jr., 1.

Wasatch and Unita Mts., Triassic: Scott, W. F.

GEOLOGIC MAPPING. See also Technique, Mapping.

Graphic-locator method: Varnes, D. J.

Helicopter reconnaissance, Canada: Canada G. S., 64.

Operation Mackenzie, Northwest Territories: Canada G. S., 64.


GEOLOGIC MAPS. See also subheading Geological maps under the states and countries; Maps, Photogeologic.

Alaska: Miller, D. J.

Adak Island, southern, and Kagalaska Island: Fraser, G. D., 2.

Alaska Range, parts of Healy quadrangle, glacial: Wahrhaftig, C. A.
GEOLOGIC MAPS—Continued
Alaska—Continued
Anchorage area: Miller, R. D., 1.
Big Delta quadrangle, western: Williams, J. Ropes, 2.
Candle quadrangle: Cass, J. T., 2.
Delarof Islands: Fraser, G. D., 2.
Big Delta quadrangle, western: Williams, J. Ropes, 2.
Candle quadrangle: Cass, J. T., 2.
Delarof Islands: Fraser, G. D., 2.

Arizona—Continued
Dragoon quadrangle, generalized: Cooper, J. R., 2.
Emmett Wash NE quadrangle: Petersen, R. G., 2.
Empire Mts.: Galbraith, F. W., 3d, 1.
Gila County: Wilson, Eldred D., 1.
Igneous and metamorphic rocks: Stipp, T. F.
Mayer NW quadrangle: Anderson, C. A.
Mohave County: Wilson, Eldred D., 2.
Paria Plateau NE quadrangle: Petersen, R. G., 1.
Pinal County: Wilson, Eldred D., 3.
Red Bluff area: Granger, H. C.
Southern, field-trip areas: Ariz. Geol. Soc.
Tucson Mts., Saginaw area: Kinison, J. E., 2.
Workman Creek area: Granger, H. C.
Arkansas, Fayetteville area: Jackson, K. C., 1.
Onachita Mts.: Miser, H. D.
Washington County, southwestern: Jackson, K. C., 2.
Atlantic Coastal Plain, generalized: Johnston, J. E.
British Columbia, Atlin area: Altken, J. D., 1.
Canal Flats area: Canada G. S., 24.
Cariboo River area: Canada G. S., 32.
Chuteina area: Canada G. S., 34.
Flathead area: Canada G. S., 28.

Alberta, Cadomin area: Edmonton Geol. Soc.
Carboneal River area: Canada G. S., 32.
Fort Macleod area, surficial: Canada G. S., 21.
Front ranges, Banff area: Usher, J. L.
McMurray area: Carrigy, M. A., 1.
Moose Mtn. area: Dahlstrom, C. D. A.
Northwestern, sketch: Kidd, D. J.
Sturgeon Lake area, surficial: Henderson, Erle P., 2.
Clifton quadrangle: Wilson, Eldred D., 4.
INDEX

GEOLoGIC MAPS—Continued

California—Continued

Crestmore area, Commercial quarry: Burnham, C. W., 1.
Daly City, Westlake area: Bonilla, M. G.
Death Valley, Black Mts., turtleback fault areas: Drews, H. D.
Eureka area: Evenson, R. E.
Fremont Peak area: Bowen, O. E., Jr.
Golden Gate Hill area, Calaveras County: Rose, R. L., 1.
Klamath Mts., Shasta Valley-Scott Valley area: Wells, F. G.
Lake Elsinore quadrangle: Engel, R. L. H.
Long Beach-Santa Ana area: Poland, J. F., 2.
Mojave quadrangle: Dibblee, T. W., Jr.
Nopah Range, southern: Wasserburg, G. J.
Orocopia Mts., northern: Crowell, J. C., 1.
Pigeon Point area: Hall, C. A., Jr., 2.
Puente Hills, eastern: Durham, D. L.
San Andreas fault zone, Marin and San Mateo Counties: Oakeshott, G. B.
San Francisco peninsula, western, Pliocene-Pleistocene: Glen, W.
Santa Ynez River basin, Quaternary: Wilson, H. D., Jr.
Soda Mts., northeastern: Grose, L. T.
Standard quadrangle, Calaveras group carbonate belt: Hart, E. W.
Stanislaus-Merced Counties: Davis, S. N.
Temescal Valley, southern: Engel, R. L. H.
Torrance-Santa Monica area: Poland, J. F., 1.
Warm Spring-Silver Lady Canyons area: Wasserburg, G. J.
Colorado, Chicago Creek area: Harisson, J. E.
Cochetopa mining district, uranium area: Malan, R. C.
Cortez SW quadrangle: Ekren, E. B., 1.

Colorado—Continued

Garo deposit: Wilmarth, V. R., 1.
Grand Junction area, generalized: Young, R. G.
Hall Valley area, Front Range: Wahlstrom, E. E.
Huerfano Park area: Johnson, Ross B.
Lisbon Valley area: Byerly, P. E.
Little Cone quadrangle: Bush, A. L., 2.
Long Canyon area, Boulder County: Broscoe, A. J., 1.
McKinley Mtn. area: Christman, R. A., 1.
Manitou Park area, Teller County: Broscoe, A. J., 1.
Mesa Verde area: Wanek, A. A.
Moqui quadrangles: Ekren, E. B., 2; Houser, F. N., 2.
Sentinel Peak NE quadrangle: Ekren, E. B., 3.
Slick Rock district, sketch: Shawe, D. R.
Trinidad-Aguilar area: Harbour, R. L.
Connecticut, Middle Haddam quadrangle: Rodgers, J., 1.
Middletown quadrangle, bedrock: Lehmann, E. P.
New Britain quadrangle, surficial: Simpson, H. E.
Pre-Triassic-Triassic: Rodgers, J., 1.
Roxbury quadrangle, bedrock: Gates, R. M.
Cuba: Bermúdez y Hernández, P. J.
Sierra de Trinidad, northwestern: Hill, P. A.
Delaware, Wilmington complex: Ward, R. F.
Florida, surficial: Purl, H. S., 2.
West-central: Carr, W. J.
Georgia, Cloudland Canyon State Park: Croft, M. G.
Greenland, east-central: Büttler, H.
Nathorst Land: Zweifel, H.
Nugssuaq Peninsula, south coast: Koch, B. E.
Werner Bjerge massif: Bearth, P.
Haiti, sketch: Salas, G. P., 1.
Honduras, northeastern: Helbig, K. M.
Idaho, Big Wood River-Silver Creek area: Smith, Rex O.
Elk City region: Reid, R. R., 1.
Fall Creek area: Vine, J. D., 1.
Goose Creek district: Mapel, W. J., 1.
Index: Boardman, L., 1.
North Fork quadrangle: Anderson, A. L.
Stanley uranium area: Kern, B. F.
GEOLOGIC MAPS—Continued

Chicago region, glacial and bedrock: Suter, M.
Southeastern: Ill. Geol. Soc.
Southern limestone areas: Lamar, J. E.

Indiana, Coal City quadrangle: Kottlow, F. E., 1.

Whitewater drainage basin, upper, Pleistocene terraces: Gooding, A. M., 1.

Jamaica: Jamaica G. S.; Salas, G. P., 1.
Central inlier, Cretaceous: Williams, J. B. E., 1.

North-central: Sweeting, M. M.

Kansas, Clay County, surficial: Walters, K. L.
Cloud County, surficial: Bayne, C. K.

Kansas River valley, Wamego to Topeka, surficial: Beck, H. V.

Marion County: Byrne, F. E.

Mitchell County, surficial: Hodson, W. G.

Nemaha County: Mudge, M. R., 1.

Pottawatomie County: Scott, G. E., 1.


Wabaunsee County: Mudge, M. R., 2.

Kentucky, Big Four fault system, Crittenden County: Hardin, G. C., Jr.

Labrador, Redmond area: Blais, R. A.
Snegamook Lake area: Canada G. S., 10.

Wabush Lake district: Knowles, D. M.

Louisiana, Sabine Lake area: Gulf Coast Assoc. Geol. Soc.; Kane, H. E.


Poland quadrangle, surficial: Hanley, J. B.

Sandy River area, glacial: Caldwell, D. W.


Manitoba, Brandon area, bedrock and surficial: Halstead, E. C.
Elbow Lake area: McGlynn, J. C.
Hemling Lake area: McGlynn, J. C.
Island Lake area, sketch: Quinn, H. A.

Knee Lake area, bedrock and surficial: Barry, G. S., 2.
INDEX

GEOLeGIC MAPS—Continued

Minnesota, Cook County, shorelines, lava flows: Grout, F. F.
Cook County, whole County and townships: Grout, F. F.
Cuyuna district, North range: Schmidt, R. George.
Missouri, Precambrian rock types, paleogeologic: Grenia, J. D.
Montana, Birney-Broadus coal field: Warren, W. C.
Bitterroot Valley, surficial: McMurry, R. G.
Black Hills: Mapel, W. J., 3.
Ekalaka Hills: Gill, J. R., 2.
Flint Creek Range, northwest flank: McGill, G. E.
Helena area: Sahinen, U. M., 1.
Lewistown area: Gardner, L. S., 1.
Lincoln County, southwestern: Johns, W. M.
Little Rocky Mtn. area: Neechtel, M. M.
Marias River area, lower: Smith, J. F., Jr.
Sixteenmile area: Robinson, G. D., 1.
Smoke Creek-Medicine Lake area: Witkind, I. J., 1.
South Moccasin Mts.: Miller, Richard N.
Yaak River quadrangle, south half: Johns, W. M.
Nebraska, Clay County, Cretaceous: Keech, C. F., 1.
Nevada, Buffalo Mtn. quadrangle: Wallace, R. E.
Candelaria mining district: Page, B. M., 1.
Goose Creek district: Mapel, W. J., 1.
Lone Mtn.: Lovejoy, D. W.
Shoshone Range, breccia pipes: Gates, O. G.
Union district, pre-Tertiary: Silberling, N. J.
New Brunswick, Aroostook area, surficial: Canada G. S., 18.
Grand Falls area, surficial: Canada G. S., 50.
Musquash area: Canada G. S., 12.
Napadogan area: Canada G. S., 19.
Woodstock-Padrickton area: Canada G. S., 60.
New Hampshire, Isles of Shoals: Fowler-Billings, E.
Monroe area: Hall, L. M.
New Mexico, Ash Creek area: Hewitt, C. H.
Big Burro Mts.-Redrock area: Hewitt, C. H.
Catron County, northern, Cenozoic: Willard, M. E.

GEOLoGIC MAPS—Continued

New Mexico—Continued

New Mexico—Continued

Last Chance Canyon area: Hayes, P. T.
La Ventana Mesa area: Bachman, G. O., 2.
Lincoln County: Griswold, G. B.
Little Black Peak quadrangle, east half: Smith, C. T., 1.
Lordsburg quadrangle: Flege, R. F., Jr.
Sacramento Mts., northern: Otte, C., Jr., 1, 2.
West escarpment: Pray, L. C.
Sand Canyon area: Bachman, G. O., 1.
Sunshine Valley area: Winograd, I. J.
Union County: Baldwin, B.
Wind Mtn. area: Warner, L. A.
New York, Loon Lake quadrangle and part of Chateaugay quadrangle: Balsley, J. R., Jr., 3.
Nichville quadrangle: Postel, A. W.
Oswagatchie quadrangle: Balsley, J. R., Jr., 4.
Phillips mine—Camp Smith area: Klemic, H., 1.
Rockland County: Perlmutter, N. M., 1.
Palisades: Thompson, H. D.
Santa Clara quadrangle and part of St. Regis quadrangle: Balsley, J. R., Jr., 2.
Southeastern, metamorphic area: Prucha, J. J.
Tupper Lake quadrangle: Balsley, J. R., Jr., 5.
Newfoundland, Baie Verte area: Canada G. S., 18.
Burgeon-Ramea area: Canada G. S., 48.
Flat Bay gypsum area: McKillop, J. H.
Flat Bay and Fishells River gypsum area: Baird, D. M., 3.
Fleur de Lys area: Canada G. S., 42.
Marlon Lake area: Canada G. S., 43.
Nippers Harbour area: Canada G. S., 22.
Nicaragua, Santa Rosa del Peñón area: Zoppis Braeck, L., 2.
North America, granitic plutons, examples: Buddington, A. F.
North Carolina, Albemarle quadrangle: Carolina Geol. Soc.
Denton quadrangle: Carolina Geol. Soc.
Ishenour quarry, Cabarrus County: Bell, H., 3d.
Raleigh area: Geol. Soc. America Southeastern Sec., 1.
North Dakota, Bullon Butte area: Moore, G. W., 1.
### Bibliography of North American Geology, 1959

#### Geologic Maps—Continued

**North Dakota—Continued**

- Chalky Butte area: Moore, G. W., 1.
- Grenora area: Witkind, I. J., 1.
- Medicine Pole area, sketch: Denson, N. M., 2.
- Northern, and adjacent areas, pre-Triassic paleogeologic: Fish, A. R.
- Sentinel Butte area: Moore, G. W., 1.
- Square Buttes coal field: Johnson, W. D., Jr.
- Northwest Territories, Axel Heiberg and Stor Islands: Canada G. S., 59.
- Baffin Island, Brodeur Peninsula: Canada G. S., 35.
- Northwest Territories, Axel Heiberg and Stor Islands: Canada G. S., 59.
- Cape Dorset area: Canada G. S., 45.
- Cumberland Sound area: Canada G. S., 7.
- Foxe Peninsula, eastern: Canada G. S., 31.
- Lake Harbour area: Canada G. S., 27.
- Bathurst Islands group: Canada G. S., 44.
- Cornwallis and Little Cornwallis Islands: Thorsteinsson, R., 1.
- Devon Island: Canada G. S., 46.
- Ellesmere Island, southern: Canada G. S., 47.
- Fort Island area: Douglas, R. J. W., 2.
- Foxe Basin area, northern: Canada G. S., 17.
- Fury and Hecla Strait area: Canada G. S., 16.
- Graham and North Kent Islands: Canada G. S., 47.
- Great Slave area: Douglas, R. J. W., 1.
- King William Island-Adelaide Peninsula: Fraser, J. K., 1.
- La Biche area: Douglas, R. J. W., 2.
- Mesa Lake area: Canada G. S., 56.
- Nonacho Lake area: Canada G. S., 37.
- Penylan Lake—Firedrake Lake area: Canada G. S., 25.
- Prince of Wales and Somerset Islands: Canada G. S., 45.
- Queen Elizabeth Islands, western: Thorsteinsson, R., 2.
- Trout River area: Douglas, R. J. W., 1.
- Wolda Lake West area: Canada G. S., 36.
- Yellowknife district: Boyle, R. W., 2.
- Nova Scotia, Chedabucto Bay area: Canada G. S., 30.

**Nova Scotia—Continued**

- Cumberland County, western: Cope, M. J.
- Kennetcook area: Stevenson, I. M.
- Shubenacadie area: Stevenson, I. M.
- Ohio, Hocking and Scioto Valleys, glacial, sketch: Kempston, J. P.
- Oklahoma, Boktukula syncline area: Cline, L. M., 2.
- Creek County: Oakes, M. C.
- Eastern, Devonian and Pennsylvanian, paleogeologic: Bercut, H.
- Garvin County, Pennsylvanian, paleogeologic: Gunter, C. E.
- Harper County: Myers, A. J.
- Johns Valley area: Harlot, B. H.
- Love-Carter Counties, pre-Atokan, paleogeologic: Reed, B. K.
- Lynn Mtn. syncline, western: Cline, L. M., 2.
- Medicine Springs area: Johnson, R. H., Jr.
- Northwestern, Devonian (?) and Pennsylvanian, paleogeologic: Bolter, M. E.
- Ousshita Mts.: Hendricks, T. A.; Miser, H. D.
- Ousshita-Arbuckle junction: Flawn, P. T., 4.
- Pawnee County: Greig, P. E., Jr.
- Potato Hills: Tomlinson, C. W., 1.
- Roger Mills County, northern: Kitts, D. B., 2.
- Roman Nose State Park: Fay, R. O., 1.
- Southwestern, Mississippian base and Pennsylvanian base, paleogeologic: McDaniel, G. A.
- Tuskahoma syncline, western: Harlton, B. H.
- Woods County, Silurian-Mississippian, paleogeologic: Bowles, J. P. F.
- Ontario, Bancroft area, generalized: Hewitt, D. F.
- Boston-Pacaud Townships: Lawton, K. D.
- Bristol Township: Ferguson, S. A.
- Cardiff-Faraday Townships: Hewitt, D. F.
- Carroll Lake area, east half: Canada G. S., 25.
- Deer Lake area, east half: Canada G. S., 26.
- Echo Lake area: Canada G. S., 49.
- Falconbridge Township, Sudbury district: Thomson, J. E., 1.
- Gripp Lake area: Langford, F. F.
GEOLOGIC MAPS—Continued

Ontario—Continued

Hamilton area, Pleistocene: Karrow, P. F.
Kirkland Lake area: Wilson, M. E.
Lindsay-Peterborough area: Canada G. S., 5.
McKim mine, Sudbury district: Clarke, A. M.
Quetico Provincial Park area: Meen, V. B.
Sam Reid Lake sulphide deposit: Friedman, G. M., 3.
Southwestern, Cambrian, subsurface: Sanford, B. V.
Sudbury district: Falconbridge Nickel Mines Ltd.
Wapesi Lake-Tully Lake area: Williamson, W. R. M.
Westport area: Canada G. S., 54.

Ontario—Continued

Northwestern, glacial: Pa. Geologists; Shepps, V. C., 1, 2.
Sinking Valley: Moebis, N. N.
Somerset County, southern: Dutcher, R. R.

Pennsylvania, Allensville quadrangle, reconnaissance: Dort, W., Jr., 1.
Boyetown quadrangle, Precambrian and Hardyston formation, Cambrian: Buckwalter, T. V., Jr.
Buckingham Mtn., formational boundaries problem: Wherry, E. T.
Bucks County: Willard, B., 1.
Central: Arndt, H. H.

Puerto Rico, Carolina clay deposit, Quaternary: Cadilla, J. F., 2.
Mayaguez area: Navarro de Hayden, R.
San Juan area: Kaye, C. A., 1.

Quebec, Aguanish area: McPhee, D. S.
Causapscal area, east half: Stearn, C. W.
Céloron-Carqueville area: Ross, S. H.
Chaste-Maxarin area: Tiphane, M.
Cross Lake area: Beall, O. H.
Deception River area, upper: De Montigny, P.-A.
Eau Jaune Lake and Muscocho Lake sulphide deposits: Holmes, S. W.
Fancamp-Bauy area: Holmes, S. W.
Flemington Township, southeast quarter: Van Loan, P. R., 1.
Gaillard-Lorrain area: Laurin, A. F. J.
Gamache area: Deland, A. N.
Grady-Machault area: Deland, A. N.
Grondines area, surficial: Canada G. S., 62.
Hazeur-Druillette area: Deland, A. N.
La Grande-Lac Bliveau area: Canada G. S., 23.
La Motte Township, west half: Leuner, W. R.
La Trappe-Hudon area: Berrange, J. F.
Leaf Bay area: Sauvé, P.
Leaf Lake area: Bérard, J.
Litchfield-Leslie area: Kretz, R. A.
Lyonne area: Bray, J. G.
Madeleine River area: McGerrigle, H. W.
Malartic area: Wilson, M. E.
Margy-Prévert area: Remick, J. H., 3d.
Marion Lake area: Canada G. S., 43.
Matawin-Mékinac area: Rondot, J.
Montrey Township, northeast quarter: Hogg, W. A., 1.
Mt. Wright area: Canada G. S., 33; Murphy, D. L.
Noranda area: Wilson, M. E.
Pepper Lake area: Phillips, L. S.
Perche-Poitou area: Marleau, R.-A., 1.
Plessis-Lartigue area: Lachance, L.
Povungnituk Range: Bergeron, R.
Queylus area: Imbault, P. E.
Richard-Gravier area: Carbonneau, C.
Rocheflave area: Pollock, D. W., T., 1.
Rohault area: Gilbert, J. E. J.
Rouyn-Beauchastel area: Wilson, M. E.
Roy Township, southeast quarter: Gaucher, E. H. S.
St.-Hippolyte area: McGerrigle, J. I.
GEOLOGIC MAPS—Continued
Quebec—Continued
Southern: Deland, J. R.
Squateck area, west half: Lespérance, P.-J.
Surprise Lake area: Deland, A. N.
Vermette Lake area: Moyer, P. T., Jr.
Wabush Lake district: Knowles, D. M.
Yamaska area, surficial: Canada G. S., 63.
Rhode Island, Carolina-Quonochontaug quadrangles, bedrock: Moore, G. E., Jr.
Providence quadrangle, bedrock: Quinn, A. W.
Saskatchewan, Athabasca formation, lower Paleozoic, distribution: Gussow, W. C., 1.
Battleford area, surficial: Canada G. S., 41.
Brabant Lake area: Kirkland, S. J. T.
Index map: Kupsch, W. O., 1.
Martin Lake series, Precambrian, type area: Gussow, W. C., 1.
Northern, Precambrian mineral deposits: Beck, L. S.
Swift Current area, glacial: Christiansen, E. A.
Uranium City area: Canada G. S., 20.
Wapus Bay area: Cheesman, R. L.
South Carolina, Coastal Plain, generalized: Siple, G. E., 1.
Ladson quadrangle: Malde, H. E., 1.
South Dakota, Beecher No. 3-Black Diamond pegmatite: Redden, J. A., 1.
Camp Crook and Midland No. 4 quadrangles: Schulte, J. J.
Cascade Springs quadrangles: Post, E. V., 1–6.
Cave Hills-Table Mtn. area: Denso, N. M., 2.
Chester quadrangle: Tipton, M. J., 1.
Dallas quadrangle: Stevenson, R. Evans, 4.
Dell Rapids quadrangle: Tipton, M. J., 2.
Hartford quadrangle: Steece, F. V., 1.
Ladner quadrangle: Petsch, B. C., 1.
Lodgepole area, sketch: Denso, N. M., 2.
McIntosh quadrangle: Stevenson, R. Evans, 1.
McLaughlin quadrangle: Stevenson, R. Evans, 2.
Martin quadrangle: Collins, S. G., 1.
Mendenhall area: Gill, J. R., 1.
Miscol quadrangle: Stevenson, R. Evans, 5.
Mouth of Bull Creek quadrangle: Petsch, B. C., 2.

GEOLOGIC MAPS—Continued
South Dakota—Continued
Murchison quadrangle: Curtiss, R. E.
Okreek quadrangle: Sevon, W. D.
Ralph quadrangle: Stevenson, R. Evans, 3.
Sioux Falls quadrangle: Steece, F. V., 2.
Slim Buttes area: Denson, N. M., 2.
Sorum quadrangle: Bolln, E. J.
Willett and Midland No. 1 quadrangles: Erickson, H. D.
Tennessee, Buffalo Mtn.—Cherokee Mtn. area: Ordway, R. J.
Cleveland area: Swingle, G. D.
Dyersburg quadrangle: Schreurs, R. L.
Texas, Bexar County: Arnow, T.
Cave Peak area: Warner, L. A.
Galveston Island-Bolivar Peninsula area: Gulf Coast Assoc. Geol. Soc.
Lancaster quadrangle: Ingels, J. J. C.
McLennan County, Edwards limestone, Cretaceous, outcrop: Nelson, H. F.
Marathon uplift: West Texas Geol. Soc.
Medina County: Holt, C. L. R., Jr.
Ouachita-Arbuckle junction: Flawn, P. T., 4.
Sabine Lake area: Gulf Coast Assoc. Geol. Soc.; Kane, H. E.
Terlingua mercury district: Yates, R. G.
Van Horn Mts.: Twiss, P. C.
Winkler County, sketch: Garza, S.
Yearlinghead Mtn. area: Clabaugh, S. E.
United States, beryllium-bearing areas: Warner, L. A.
Earliest, history: Wells, J. W.
East of Rocky Mts., glacial: Flint, R. F.
Paleogeologic, units above Triassic: McKee, E. D.
Units below Triassic: McKee, E. D.
Utah: Brigham Young Univ. Dept. Geology.
Bismarck Peak quadrangle: Foster, J. M.
Camp Maple Dell area: Rigby, J. K., 8.
Central and northeastern, Devonian, paleogeologic: Rigby, J. K., 1, 5.
Circle Cliffs 1 NE quadrangle: Davidson, E. S., 1.
Clay Hills quadrangle: Mullens, T. E., 1, 2.
Coalville area: Shelley, C. T.
Co-op Creek area: Bissell, H. J., 2.
Crawford Mts., central: Sand, W. J.
Daggett County: Ritzema, H. R., 2.
INDEX

GEOLcIC MAPS—Continued
Utah—Continued
Goose Creek district: Mapel, W. J., 1.
Southern: Powell, D. E.
Lisbon Valley area: Byerly, P. E.
Mt. Nebo—Salt Creek area: Johnson, K. D.
Naval Oil-Shale Reserve No. 2: Cashton, W. B., Jr.
Needle Range: Gould, W. J.
Oquirrh Mts., southern: Utah Geol. Soc.
Park City mining district: Wilson, Clark.
Pavant Range, southern: Crosby, G. W., 2.
Sheeprock Mts.: Cohener, R. E.
Silver Lake Flat area: Burge, D. L.
Spors Mtn.: Staatz, M. H.
Stansbury Mts., east and west flanks: Davis, B. L.
Southern: Telchert, J. A.
Thomas Range fluorite district: Staats, M. H.
Zion National Park: Brigham Young Univ. Dept. Geology.

Vermont, east-central, generalized: Howard, P. F.
St. Johnsbury quadrangle: Hall, L. M.
Virgin Islands, Tortola and adjacent cays: Martin-Kaye, P. H. A.
Virgin Gorda: Martin-Kaye, P. H. A.
Virginia, Cacapon Mtn. area: Appalachian Geol. Soc.
Calfpasture—Middle—North Rivers drainage basins, generalized: Carroll, D., 2.
Floyd County: Dietrich, R. V.
Index: Boardman, L., 3.
Middle River drainage basin: Carroll, D., 2.
Washington, Buckley quadrangle: Candell, D. R.
Cascade Mts., northern, reconnaissance: Crowder, D. F.
Entiat Mts., northern: Crowder, D. F.
Grand Coulee area: Bretz, J. H., 1.
West Indies, Antigua: Martin-Kaye, P. H. A.
Barbuda: Martin-Kaye, P. H. A.

GEOLOGIC MAPS—Continued
West Indies—Continued
Montserrat: Martin-Kaye, P. H. A.
Nevis, Clarke's—Pinney's Estates area: Martin-Kaye, P. H. A.
St. Kitts: Martin-Kaye, P. H. A.
West Virginia, Cacapon Mtn. area: Appalachian Geol. Soc.
Williams Basin, northern: Porter, J. W.
Wisconsin, Baraboo syncline: Hintze, W. J., 1.
Southwestern, lead—zinc district: Heyl, A. V., Jr., 1.
Black Hills: Mapel, W. J., 3.
Elk Mtn.—Tabernacle Butte area, Tertiary: McGrew, P. O.
Lodgepole Creek drainage basin, upper: Bjorklund, L. J.
Miller Hill area: Vine, J. D., 2.
Rawlins area: Barlow, J. A., Jr.
Red Desert: Masursky, H.
Riverton irrigation project: Morris, D. A.
Saratoga area: Stephens, J. G.
Tongue River area, Bighorn Mts.: Osterwald, F. W., 2.
Yukon, La Biche area: Douglas, R. J. W., 2.
South-central: Wheeler, J. O.

GEOLOGIC NAMES, LEXICONS, CATALOGS, GLOS­SARIES. See also Geologic formations; Nomenclature.
Arizona, southern, catalog: Pye, W. D., 3.
Cuba, lexicon: Bermúdez y Hernández, P. J.
Mexico, Sonora, northern, catalog: Pye, W. D., 3.
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North America, index to lexicon: Wilson, Druid.

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College course in writing recommended: Hough, J. L., 1.
For nongeologists: Whitmore, F. C., Jr.
Student writing, need for improvement: Agnew, A. F., 2.

GEOLcIC THERMOMETRY. See also Liquid inclusions; Paragenesis; Systems.
Argentite—acanthite, inversion temperature: Roy, R.
British Columbia, Torbrit silver mine, sphalerite: Campbell, F. A.
Colorado, Gilman sulfide deposits: Loving, T. G., 1.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

GEOLOGIC THERMOMETRY—Continued
FeS-ZnS system, unit-cell edge: Skinner, B. J., 1.
Froth veins including oil, in mercury deposits: Bailey, E. H., 2.
Georgia, Holton area, gneiss, pyrrhotite with sulfur: Hurst, V. J., 3.
Halite, synthetic, liquid inclusions, vacuole disappearance: McCulloch, D. S.
Intrusive sheet, temperatures at contact and in country rock: Jaeger, J. C.
Liquid inclusions, H$_2$O-CO$_2$ filling temperatures: Smith, F. G., 2.
Michigan, Portage Lake lava series, amygdale zones: Stoiber, R. E.
Naumannite, inversion temperature: Roy, R.
New Brunswick, Brunswick and Nigadoo deposits, sphalerites, iron content: Kalliokoski, J. O. K.
Ontario, Sarnreid Lake sulfide deposit: Friedman, G. M., 3.
Wollaston and Chandos Lake plutons, granites and paragneisses, dehydration: Saha, A. K., 1.
Sphalerite, manganese effect: Skinner, B. J., 2.
Sulfide systems: Kullerud, G., 1.
Sulfides, rapid-cooling experiments: Lyon, R. J. P., 2.

GEOLOGIC TIME—Continued
California—Continued
San Diego area, Pleistocene chronology: Carter, G. F., 1.
Cambrian, absolute ages: Adams, J. A. S., 2.
Cenozoic time scale, K-A ages, North America, west coast: Evernden, J. F., 3.
Precambrian basement, K-A ages: Giffin, C. E.
District of Columbia, Kensington gneiss, K-A and Rb-Sr ages: Wetherill, G. W.
Earth, popular account: Hurley, P. M., 1.
Fossils, oldest, radioactive dating: Briggs, M. H.
Igneous rocks, lead-alpha ages: Gottfried, D.; Jaffe, H. W.
Lake Superior region, Precambrian, three-fold division, orogenies: Goldich, S. S., 3.
Lead isotopes, separation and migration, cause of anomalous ages: Boyle, R. W., 1.
Manitoba, northern, Precambrian crystalline rocks, K-A ages: Moore, J. M., Jr.
Maryland, Baltimore-Washington, D.C., area, K-A and Rb-Sr ages: Wetherill, G. W.
Meteorites, Carbo iron, potassium age: Marshall, E. R.
Sloue quartzite, Precambrian, K-A ages: Goldich, S. S., 1.
Missouri, Precambrian, K-A ages: Allen, V. T., 2.
Siyeh limestone, Precambrian, isotope ages: Goldich, S. S., 1.
Western, Precambrian, K-A ages: Hayden, R. J.
New Jersey, Precambrian Highlands, isotope ages: Long, L. E., 1.
INDEX

GEOLoGIC TIME—Continued
New York—Continued
Manhattan Prong and Precambrian Highlands, isotopic ages: Long, L. E., 1.
North America, Cordilleran granite intrusions: Baadsgaard, H., 3.
Cordilleran plutons, Ordovician—Tertiary, K–A ages: Baadsgaard, H., 1.
Ocean-floor sediments, age, methods: Arrhenius, G. O. S.
Sudbury-Blind River area, granitic rocks, Rb–Sr ages: Fairbairn, H. W., 2.
Potassium-argon method, A as value: Signer, P.
Quaternary, post-Valders time, terminology: Cooper, W. S.
Radioactive and other methods, evaluation: Cook, M. A.
Sedimentary rocks, absolute ages: Kulp, J. L., 1.
South Dakota, Pleistocene moraines, correlation: Lee, K.-Y., 3.
Tennessee, Dowelltown member of Chattanooga shale, Devonian, bentonite layer, K–A ages: Faul, H., 3.
Ordovician, Middle, zircon ages: Edwards, G.
Texas, Midland fossil-man site, isotopic and radiocarbon dates: Wendorf, F.
Time-scale revision, isotope ages: Kulp, J. L., 4.
Time-stratigraphic units, abuse of isochronous concept: Bell, W. C., 2.
Uranium-lead ages, discordant, evaluation methods: Stieff, L. R., 2.
Yukon, Mt. Fitton, granite, K–A age: Baadsgaard, H., 2.
GEOLOGICAL ABSTRACTS. See GeoScience abstracts.
GEOLOGICAL SURVEYS. See Surveys.

GEOLOGISTS. See also Biography.
Thinking patterns: Ellison, S. P., Jr.
Training, major problems of teacher: Behre, C. H., Jr., 2.

GEOLOGY.
Populization, prehistory: Pangborn, M. W., Jr.
Public support, history: Back, W., 1.
Stochastic terms, definitions: Brown, B. W.
Subsurface, symposium: Moore, C. A.
Textbook, principles: Giluly, J.
Uniformity principle, modified: Crickmay, C. H.

GEOMAGNETISM.
British Columbia, late Tertiary basalts: Du Bols, P. M., 1.
Great Arctic anomaly: Hope, E. R.
Lake Superior district, Keweenawan formations: Du Bols, P. M., 2.
Meteorite, achondrite, remanent, position in primary body: Lovering, J. F., 8.
Minnesota, northern, remanent: Bath, G. D.
New Mexico, late Cenozoic basalts, varied orientations: Baldwin, B.
New York, Adirondack area, magnetic oxide assemblages, lithologic relations, reverse remanent: Balsley, J. R., Jr., 1.
Newfoundland, post-Carboniferous rotation with respect to North America: Nairn, A. E. M.
North magnetic pole, motions: Whitham, K.
Paleomagnetism, ilmenite-hematite system, spin arrangement: Shirane, G.
Polar wandering cf. continental drift: Runcorn, S. K.
Pre-Tertiary data, rapidly changing dipole hypothesis: Doell, R. R.
Paleomagnetism and crustal-shift theory, relation to paleoclimates: Opdyke, N. D.
Perman marine rocks, relation to climatic zonation: Stehli, F. G.
Quebec, Allard Lake ilmenite, remanent: Carmichael, C. M.; Hargraves, R. B., 1, 2.
Rocks with analyzed magnetic minerals, stress experiments: Graham, J. W., 1.
Thermoremanent, origin: Verhoogen, J.
Yukon, late Tertiary basalts: Du Bols, P. M., 1.

GEOMORPHOLOGY. See also Physiographic geology.
Alaska, Big Delta area: Lindholm, G. F.
Matanuska Valley: Stump, R. W.
Point Barrow area: Carlson, P. R.
GEOMORPHOLOGY—Continued
Appalachian Plateaus, drainage basins, quantitative analysis, relation to stream flow: Morisawa, M. E., 2.
Arizona, southeastern, pediments: Tuan, Y.-F.
Arkansas, Arkansas Valley basin, western, representative areas: Tan­ner, W. F., Jr., 1.
Block diagrams, idealized drainage basins: Chorley, R. J.
Canada, northern, history: Bird, John B.
Canadian Shield, eastern, pre-Plieto­cene tropical-weathering evi­dence: Brochu, M., 1.
Coastal landforms, classification, appli­cability to maps: McGill, J. T., 2.
Coastal regions: Russell, R. J., 1.
Concepts, changes 1941~59: Miller, J. P.
Desert-terrain analogs, mapping: Van Lopik, J. R.
Drainage basins, low-order streams, longitudinal profiles, quantitative anal­ysis: Broscoe, A. J., 1.
Highway engineering: Belcher, D. J., 1.
Hypsometric analysis, erosional topog­raphy, drainage basins: Strahler, A. N., 1.
Landforms, aerial-photograph interpre­tation: Lueder, D. R.
Lands­scape development, weathering and sedimentation studies: Rolfe, B. N., 2.
Man as agent, Tri-State lead-zinc dis­trict: Doerr, A. H.
Maryland, Beaverdam Creek basin: Rasmussen, W. C., 1.
Meanders, Intrenchment, control by bed­rock structure: Hack, J. T., 1.
Ohio, Little Mill Creek drainage basin, Coshocton County, quantitative anal­ysis, relation to stream flow: Morisawa, M. E., 1.
Petroleum reconnaissance in areas of low relief: Lattman, L. H., 1.
Pingos: Müller, Fritz.
Profile analysis, departure from Gaus­sian distribution: Tanner, W. F., Jr., 2.
Quantitative, interstream recharge char­acteristics, use: Motts, W. S., 4.
Map analysis, scale influence: Coates, D. R., 2.
Quebec, Hudson Strait shoreline: Robi­taille, B.
Shorelines, chenier plain: Gould, H. R., 2.
Slope angles, characteristic and limit­ing: Young, Anthony.
Slope retreat by gullying: Beaty, C. B., 1.
Slopes, climatic control: Frye, J. C., 2.
Stream erosion, analytical model: Cul­ling, W. E. H.
Structural, aerial photography: Melton, F. A.
Terrain analysis, sampling: Peitler, L. C., 2.
Textbook, for laymen: Dury, G. H.
Unequal-activity hypothesis, modification of uniformitarianism: Crick­may, C. H.
Virginia, Blue Ridge Upland, New River and Roanoke River basins: Die­trich, R. V.
Shenandoah Valley, residual and allu­vial deposits: Bretz, J. H., 1.
Wisconsin, Baraboo district: Thwaites, F. T.
GEOPHYSICAL INVESTIGATIONS. See also Maps, Aeromagnetic, Geophysical; Technique, Geophysical.
Alaska, Alaska Highway, gravity and magnetic: Oldham, C. H. G.
Cook Inlet area, aeromagnetic: Zietz, L., 2.
Gravity: Tiel, E.
Jarvis Glacier, Alaska Range, gravity: Ostensø, N. A.
West-central, sedimentary basins, aeromagnetic: Dempsey, W. J.
Alberta, central and foothills, Precam­brian subsurface: Garland, G. D., 2.
North Sturgeon Lake oil field, reef structures, gravity: Stackler, W. F.
Gravity: Myers, W. H., 1.
Plains, Mississippian surface, seismic: Blundun, G. J.
Arctic Ocean: Crary, A. P.
Arkansas, Ouachita province, gravity: Howell, J. V., 1.
Atlantic Coastal Plain, continental mar­gin, Cape Henry to Jacksonville, seismic profiles: Hersey, J. B.
Atlantic Ocean, crustal structure, seis­mic: Ewing, J. L., 1.
Bahamas, gravity anomalies: Talwani, M., 3.
Bering Sea, seismic: Shor, G. G., Jr., 2.
INDEX

GEOGRAPHICAL INVESTIGATIONS—Continued
British Columbia, Kain copper deposit: Hansen, D. A.
California, crustal thickness, Sierra Nevada to continental slope: Thompson, G. A., 2.
Los Angeles basin, gravity: McCulloh, T. H.
Mojave Desert, salines: Mabey, D. R.
San Fernando Valley, gravity: Corbató, C. E.
Southern, crustal structure of continental borderland, seismic refraction: Shor, G. G., Jr., 1.
Tejon Ranch oil field, Slosson pool, seismic and gravity: Ivanhoe, L. F., Jr.
Ten Section oil pool, radiometric anomalies: Sikka, D. B.
Canada, Alaska Highway, gravity and magnetic: Oldham, C. H. G.
Northern, aeromagnetic, problems: Hoylman, H. W.
Western, limestone structures, seismic: Richards, T. C., 2.
Caribbean region, crustal structure: Ewing, J. L., 2.
Eastern, seismic: Officer, C. B., Jr., 1.
Colorado, Gilman sulfide deposits, geothermometry: Lovering, T. G., 1.
Lisbon Valley area: Byerly, P. E.
Continental shelf and slope, northeastern, geosynclines: Drake, C. L.
Florida, tectonic provinces, magnetic and gravity evidence: King, E. R., 2.
Geologic preparation: McCollum, E. V.
Georgia, Augusta area, aeroactivity: Schmidt, R. Gordon.
Waycross-Valdosta area, need: Bursick, G. A., 1.
Greenland, Thule area, seismic: Röthlisberger, H., 1.
Idaho, Snake River Plain, northern boundary: Malde, H. E., 2.
Kansas, central uplift, seismic: Koester, E. A.
Dunes oil pool, seismic: Rupnik, J. J.
Engel oil pool, seismic: Care, J. L.
Fall Creek oil pool, seismic: Biss, B. L.
Koelsch Southeast oil pool, seismic: Beebe, B. W., 3.
Law Southeast oil pool, seismic: Winchell, R. L.
Lead-zine district: Hambleton, W. W., 2.
Lindsborg oil pool, seismic: Brewer, R. R., Jr.
Northern and eastern, magnetic: Merriam, D. F., 6.
Salina basin, Greenleaf gravity anomaly: Lyons, P. L.

GEOGRAPHICAL INVESTIGATIONS—Continued
Kansas—Continued
Windom oil pool, seismic: Smith, M. W.
Lake Superior iron ranges, electromagnetic: Frischknecht, F. C.
Lake Superior iron and copper region: Keller, G. V., 4.
Lake Superior region, borehole logging methods: Zablocki, C. J.
Louisiana, Washington oil and gas field: Clayton, N.
Massachusetts, Buzzards Bay, seismic: Bunce, E. T.
Mexico, Faja de Oro, northeast extension, Veracruz, seismic: Rockwell, D. W.
Michigan, Lake Mary quadrangle, magnetic: Bayley, R. W., 1.
Missouri, Racine-Spurgeon area, resistivity: Chester, J. W.
Montana, Sweetgrass County, dipneedle: Randall, J. A.
Nevada, Hazen to Austin, gravity: Thompson, G. A., 1.
Ferson-Churchill Counties, magnetic, aeromagnetic and gravimetric: Sheppard, E. P.
New Brunswick, Juniper Prospect area: Ward, S. H., 1.
New Jersey, Passaic River, bedrock topography, seismic: Bonini, W. E.
New York, Adirondack area, magnetic-oxide assemblages, relation to lithology and magnetism: Balsley, J. R., Jr., 1.
Long Island, onshore and offshore, seismic: Blaik, M.
Phillips mine-Camp Smith area: Kiemle, H., 1.
Tappan Zee Bridge area, seismic: Worzel, J. L., 3.
Newfoundland, Burlington Peninsula, magnetic anomaly missing over ultramafic rocks: Balsley, J. R., Jr., 1.
Nicaragua, Potosi area, Rivas, ground water, resistivity: Zoppis Bracel, L., 1.
North Carolina, Coastal Plain and Piedmont, gravity: Forner, L. A.
Durham-Sanford Triassic basin, gravity: Zablocki, F. S.
Northwest Territories, Boyd Lake area, aeromagnetic: Canada G. S., 9.
Mackenzie River, seismic: Meador, J. G.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

GEOPHYSICAL INVESTIGATIONS—Continued

Northwest Territories—Continued

Wholda Lake area, aeromagnetic: Canada G. S., 11.

Oklahoma, Ouachita province, gravity: Howell, J. V., 1.

Wichita Mt., area, Precambrian, layering: Widess, M. B.

Ontario, Blind River basin, basement, aeromagnetic: Steenland, N. C.

Bristol Township, electric and magnetic: Ferguson, S. A.

Pacific Ocean, Jasper Seamount, gravity anomalies: Harrison, J. C.

Pennsylvania—Continued


West Chester quadrangle, aeromagnetic: Socolow, A. A., 5.


Saskatchewan, Avonlea area, seismic: Sawatzky, H. B.

Souris Valley, Mississippian oil fields, seismic: Parry, D. H.

South Carolina, Augusta, Georgia, area, aeroradioactivity: Schmidt, R. Gordon.

Beaufort area, magnetic: Burdick, G. A., 2.

Mullins quadrangle, Carolina bays: Agoes, W. B., 1.

South Dakota, Corson-Dewey-Zblech Counties, magnetometer: Fetesch, B. C., 3.

Harding-Perkins Counties, magnetometer: Fetesch, B. C., 4.

Tennessee, Union County, mica-peridotite body, aeromagnetic: Johnson, R. W., Jr.

Texas, gulf coast, Frio formation, thin beds, resistivity: Walker, T.

Mustang Hill laccolith, gravity: Greenwood, R.

Stamford area, reef, seismic: Van Siclen, D. C.

Val Verde basin, seismic, problems: Shock, L. I.

United States, crustal structure, phase velocity of Rayleigh waves: Ewing, W. M., 3.

Trio-State lead-zinc district: Hambleton, W. W., 2.

Utah, Lisbon Valley area: Byerly, P. E.

Paradox basin, well logs, types, correlation and evaluation uses: Millard, F. S.

Virginia, southwestern, Appalachians, gravity: Sears, C. E., Jr., 2.

West Virginia, proposed turnpike, resistivity: Whited, C. L.

Wisconsin, Baraboo syncline region, gravity anomaly at depth: Hinze, W. J., 1.

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Advances: Landsberg, H. E.

Dielectric-constant determination, rocks and minerals: Howell, B. F., Jr., 2.

Earth, properties and origin, popular: Belser, A., 1.

Earth's core, diffraction study: Gilbert, F.

Earth's crust, gravity and seismic measurements: Woollard, G. P., 3.

Earth's interior: Gutenberg, B., 2.
GEOPHYSICS—Continued
Earth’s mantle, conductivity mechanism: Hughes, H.
Ore deposits; Slichter, L. B., 1, 2.
Saturation prospecting: Smellie, D. W.
Synthetic seismograms: Larguler, L. J.
General: Ahrens, L. H.
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Sedimentary rock, argillaceous, sound-wave velocities; Kaarsberg, E. A.
Sediments, deep-sea, thickness and consolidation, seismic surveys; Hamilton, E. L.
Seismic correlation, petroleum exploration: Woods, J. P.
Seismic data, interpretation, principles: Neumann, F., 1.
Seismograms, interpretation: Myers, W. H., 2.
Seismology, need for fundamental research: U.S. Dept. State.
Sonic log, applications: Doh, C. A.
Stratigraphic problems; Westby, G. H.
Sulfide ore bodies, electrochemistry of self-potential: Sato, M., 1.
Telluric currents, geochemical effects: Norton, M. F., 3.

GEOPHYSICS—Continued
Thermal history of earth, model studies: MacDonald, G. F., 2.
Velocity logging, continuous, applications: Bryant, H. L.
Continuous, examples and applications: Hammond, J. W.

GEORGIA.
Aeroradioactivity survey, Augusta area: Schmidt, R. Gordon.
Geochemical and geophysical investigations, need, Waycross-Valdosta area: Burdick, G. A., 1.
Geologic studies in connection with ground-water investigations: Callahan, J. T., 3.

Areas described.
Cloudland Canyon State Park: Croft, M. G.
Jekyll Island: Callahan, J. T., 2.

Economic geology.
Bauxite, Andersonville district, relation to topography: Cofer, H. E., Jr.
Kyanite-rutile-pyrophyllite, Graves Mtn.: Hurst, V. J., 1.

Geologic maps.
Cloudland Canyon State Park: Croft, M. G.

Ground water.
Jekyll Island: Callahan, J. T., 2.
Piedmont, saprolite: Callahan, J. T., 4.
Savannah area: Counts, H. B.
Decline in artesian head, subsidence: Davis, G. H., 2.
Sumter County: Owen, V., Jr.

Historical geology.
Chattanooga shale, Devonian: Glover, L., 3d.
Cloudland Canyon State Park, Carboniferous: Croft, M. G.
Coastal regions, Quaternary: Zeigler, J. M., 1.
Savannah area, Cretaceous-Quaternary: Counts, H. B.
Sumter County, Cretaceous-Quaternary aquifers: Owen, V., Jr.
Withlacoochee Valley, Oligocene-Miocene: Fortson, C. W., Jr., 1.

Mineralogy.
Bentonites, accessory minerals, northwestern: Reade, E. H., Jr.
Beryl, localities: Furcron, A. S., 2.
Gem minerals: Lester, J. G.
Graves Mtn.: Hurst, V. J., 1.
Gypsum, Dahlonega area, efflorescent, origin: Gardner, C.
Meteorite (?), Waycross area, unusual composition: Holland, W. A., Jr.
**Georgia—Continued**

**Mineralogy—Continued**

Tekites, Dodge and Irwin Counties, composition cf. moldavites and others: Cohen, A. J.

Localities: Bruce, G. A.

**Paleontology.**

Ordovician-Slurian black shales, sargassooid microfossil assemblage: Schopf, J. M., 2.

Tivola member of Ocala limestone, Eocene, list: Connell, J. F. L., 2.

**Petrology.**

Chattahoochee River, stream sediments: Cazeau, C. J.

Chattanooga shale: Glover, L., 3d.

Granite contacts, Emory University area, grain-size studies: Grant, W. H., 1.

Graves Mtn., metamorphic sequence: Hurst, V. J., 1.

Holton area, granitic, pyrrhotite with sulfur, possible geothermometer: Hurst, V. J., 3.

Metadolerites, coronas, Culloden area: Hurst, V. J., 2.

Pegmatites, monazite-bearing, Culloden area: Fortson, C. W., Jr., 2.

Perote member of Providence sand, Cretaceous, basal contact, lithology: Smallwood, J. K.

Quartzite, Lamar County, coarse to fine grading, possible river-channel deposit: Adams, A. A.

Saprolite, Piedmont: Callahan, J. T., 4.

Savannah area: Counts, H. B.


Towaliga fault zone, mylonite: Grant, W. H., 2.

Withlacoochee Valley, Oligocene-Miocene limestones: Fortson, C. W., Jr., 1.

**Physical geology.**

Graves Mtn., mineralization control: Hurst, V. J., 1.


Stone Mtn., exfoliation, circular weathering pits: Hopson, C. A.

Stream abrasion, experimental, Lookout formation samples: Fagan, J. M.

Towaliga fault: Grant, W. H., 2.

**Physiographic geology.**

Salt marshes, drainage patterns: Ragotzkie, R. A.


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**Geosynclines.** See also Orogeny; Synclines; Tectonics.

Appalachian, Vermont and Quebec, tectonics: Cady, W. M.

Continental shelf and slope, northeastern, geophysical investigations: Drake, C. L.

**Geosynclines—Continued**

Diastrophic-sedimentary polycycles: Weeks, L. G.

Gulf of Mexico, Cenozoic: Williamson, J. D. M.

Origin: Hau, K. J., 2.

Ouachita: Flawn, P. T., 1.

Oklahoma, double cycle: Goldstein, A., Jr., 2.

Oklahoma-Texas: Goldstein, A., Jr., 1.

Parageosynclinal basins, statistical analysis: Fairbridge, R. W.

Temperature variations due to formation: Grossling, B. F.

Tensional-compressional orogenic cycle: Keelan, P. H.

West Indies, Antilles, Cretaceous: Chubb, L. J., 7.

Wyoming, western, sedimentation followed by overthrusting, fluid-pressure hypothesis: Rubey, W. W.

Yukon, south-central, Whitehorse trough, Mesozoic: Wheeler, J. O.

**Geothermal Gradients.** See also Earth, Temperature.

Heat-flow measurement in steaming ground: Bensenman, R. F.

Magma formation: Uffen, R. J.

Mexico, Pathé area, Hidalgo, geothermic-energy field, steam wells: Anda, L. F. de.

Pacific Ocean floor, heat flow: Von Herzen, R., 1.

**Geothermometry.** See Geologic thermometry.

**Germanium.** See also Elements.

British Columbia, Lang Creek area, Eocene coal lenses and brown bed: Buckland, G. W.

**Glacial Geology.** See also Quaternary; the major features of glaciation.

Alaska, Alaska Range, Johnson River-Tok area, Pleistocene: Holmes, G. W., 2.

Anchorage area: Miller, R. D., 1.

Big Delta area: Lindholm, G. F.

Franklin Mts., Quaternary: Holmes, G. W., 1.

McCall Valley, Romanzof Mts.: Keeler, C. M.

Matanuska Valley: Stump, R. W.


**Semisopochnoi Island:** Coats, R. R., 2.

**American Columbia, Lang Creek area:** Buckland, G. W., 2.

**Alaska Range, Johnson River-Tok area:** Holmes, G. W., 2.

**Anchorage area:** Miller, R. D., 1.

**Big Delta area:** Lindholm, G. F.

**Franklin Mts., Quaternary:** Holmes, G. W., 1.

**McCall Valley, Romanzof Mts.:** Keeler, C. M.

**Matanuska Valley:** Stump, R. W.

**Pacific coast, central and western, Pleistocene:** Karlstrom, T. N., V., 1.

**Semisopochnoi Island:** Coats, R. R., 2.

**Alberta, Drumheller-Morrin area:** Brosee, A. J., 2.

**Fort Macleod area:** Canada G. S., 21.

**Sturgeon Lake area:** Henderson, Eric P., 2.

**California, Sierra Nevada:** Birman, J. H.

**Southern, Pleistocene valley glaciers:** Sharp, R. P., 2.
GLACIAL GEOLOGY—Continued
Periglacial phenomena: Cook, F. A.
Western, ice-disintegration deposits: Gravenor, C. F., 3.
Connecticut, New Britain quadrangle: Simpson, H. E.
Great Lakes region, late Pleistocene lake stages: Bretz, J. H., 2.
Greenland, northeastern, Pleistocene: Krinsley, D. B.
Illinoian glacial lobe, crevasse troughs and ridges: Leighton, M. M.
Indiana, Whitewater drainage basin, upper: Gooding, A. M., 1.
Iowa, Des Moines River valley, Pleistocene drainage systems: DeKoster, G. R.
Jasper County, granite erratics: Tuttle, S. D.
Quaternary, substage erosion surfaces: Ruhe, R. V., 2.
Southeastern, till and loess distribution: Hansen, J. A., Jr.
Kansas, Kansas River valley, Wamego to Topeka: Beck, H. V.
Pottawatomie County: Scott, G. R., 1.
Shawnee County, ice-push deformation: Wood, R. L.
Wabaunsee County: Mudge, M. R., 2.
Glacial drainage channels, regional slope of ice sheet: Ives, J. D.
Maine, Poland quadrangle: Hanley, J. B.
Sandy River area: Caldwell, D. W.
Manitoba, Brandon area: Halstead, E. C.
Massachusetts, Fresh Pond buried valley area: Chute, N. E.
Shelburne Falls quadrangle: Segerstrom, K.
Wilmington quadrangle: Castle, R. O.
Michigan, Holland area: Deutsch, M.
Luce County: Vanlier, K. E.
Mackinac Straits region: Landes, K. K., 1.
Red Cedar River basin: Stillwell, H. D.
Schoolcraft County: Sinclair, W. C.

Michigan—Continued
Upper Peninsula, map: Martin, H. M. M.
Minnesota, Cook County: Grout, F. F.
Wisconsin glaciation sequence: Arne
man, H. F.
Wisconsin substages, pollen studies: Wright, H. E., Jr.
Montana, Lincoln County, western: Johns, W. M.
Marias River area, lower: Smith, J. F., Jr.
Smoke Creek-Medicine Lake area: Witkind, I. J., 1.
Western: Montagne, J. M. de la.
New Brunswick, Aroostook area: Canada G. S., 58.
Grand Falls area: Canada G. S., 50.
New Jersey, Newark area: Juniklis, A. R.
New York, Cayuga Lake basin, drainage changes: N. Y. State Geol. Assoc.
Finger Lakes region, depth of leaching, relation to carbonate content of till: Merritt, R. S.
Long Island: Charlier, R. H., 1.
Popular account: Bailey, P.
Western, moraines, allignment: Holmes, C. D., 2.
North America, periglacial features, relation to climate: Brunnenschweiler, D. H.
Pleistocene gumbotil and interglacial clays, petrographic study of weathering: Lougee, R. J.
Square Buttes coal field: Johnson, W. D., Jr.
Warwick-Tokio area, drumlins and streamlined forms: Aronow, S.
Westhope area, aquifers: Powell, J. E.
Northwest Territories, Great Slave and Trout River areas: Douglas, R. J. W., 1.
Ice-push ridges: Nichols, R. L.
King William Island-Adelaide Peninsula: Fraser, J. K., 1.
Nova Scotia, Annapolis Valley: Hickox, C. F., Jr., 2.
Ohio, Franklin County, buried valleys: Norris, S. E., 3.
Hocking and Scioto Valleys, outwash terraces, pre-Illinoian-Wisconsin: Kempton, J. P.
Madison County: Norris, S. E., 1.
Ohio Valley terraces, East Liverpool area, pre-Illinoian Pleistocene: Lessig, H. D., 3.
Warnock Terrace, McMahan Creek, early Pleistocene, paleosols: Lessig, H. D., 2.
GLACIAL GEOLOGY—Continued

Ohio—Continued
Wisconsin stage, cf. modern glaciers: Goldthwait, R. P., 1.
Ontario, Bristol Township: Ferguson, S. A.
Hamilton area: Karrow, P. F.
Lindsay-Peterborough area, map: Canada G. S., 6.
London area: Friends Pleistocene Geology Eastern Sec.
Wisconsin stage, stratigraphy: Dreimanis, A., 1.
Oregon: Baldwin, E. M., 1; Wilkinson, W. D., 1.
Northwestern, Pa.: Geologists: Shepps, V. C., 1, 2.
Pleistocene stages, single-glaciation concept: Lougee, E. J.
Quebec, central: Henderson, Eric P., 1.
Grondines area: Canada G. S., 62.
Monts Notre-Dame, glacial deposits, petrology: Brochu, M., 1.
Mt. Tremblant area: Laverdière, C.
Northeastern, glacial drainage channels, regional slope of ice sheet: Ives, J. D.
Yamaska area: Canada G. S., 63.
Retreats, dating, lichenometry: Beschel, R. E.
Saskatchewan, Battlegford area: Canada G. S., 41.
Claybank area, subglacial drag structures: Byers, A. R., 1.
Swift Current area, Wisconsin stage: Christiansen, E. A.
South Dakota, Big Bend dam site area, Pleistocene terraces: Coogan, A. H.
Cary outwash, Potter, Walworth, and Brookings Counties, petrography: Lee, K.-Y., 1.
Chester quadrangle: Tipton, M. J., 1.
Dell Rapids quadrangle: Tipton, M. J., 2.
Hartford quadrangle: Steege, F. V., 1.
Sioux Falls quadrangle: Steege, F. V., 2.
Tillites, ancient, may be subaqueous slides: Dott, R. H., Jr., 2.
United States, east of Rocky Ms., map: Flint, R. F.
Lakes: Shimer, J. A.
Middle West, Pleistocene: Heinzelin, J. de.
Vermont, Mt. Mansfield quadrangle: Christiansen, A. A., 2.
Washington, Buckley quadrangle: Crandell, D. R.
Channeled scablands: Bretz, J H., 1.

GLACIAL GEOLOGY—Continued

West Virginia, Ohio Valley terraces, Globe Hill, pre-Wisconsin Pleistocene, paleosols: Lessig, H. D., 1.
Wisconsin, Baraboo district: Thwaites, F. T.
Research: Black, R. F., 1.
Southwestern: Tri-State Geol. Field Conf.
West-central: Friends Pleistocene Midwestern.
Yukon, coast, Herschel Island to King Point, glacial ice-thrusting: Mackay, J. R.

GLACIAL LAKES. See also Lakes, extinct.
Alberta, Sturgeon Lake area: Henderson, Eric P., 1.
Connecticut, New Britain quadrangle: Simpson, H. E.
Lake Algonquin: Zumberge, J. H., 2.
Michigan: Shelden, F. D.
Lake Chicago, double Calumet stage: Bretz, J H., 2.
Lake Edmonton, Alberta, northern: Taylor, R. S.
Lake Farmington, Maine: Caldwell, D. W.
Lake Hitchcock, New England: Segerstrom, K.
Lake Madawaska, New Brunswick: Canada G. S., 50.
Lake Missoula, Montana: Montagne, J. M. de la.
Lake Musselshell, Montana, spillways: Colton, R. B.
Lake Peace, Alberta-British Columbia: Taylor, R. S.
Lake Souris, North Dakota-Manitoba: Powell, J. E.
Lake Tyrrell, Alberta, northern: Taylor, R. S.
Manitoba, Brandon area: Halstead, E. C.
Miette Lake, Alberta, northern: Taylor, R. S.
Minnesota, Cook County, shorelines: Grout, F. F.
Popular account: Ahlquist, G. R., 2.
New Jersey, Newark area: Jumikis, A. R.
Nipissing Great Lakes: Zumberge, J. H., 2.
North America, proglacial remnants, distribution of relict crustaceans: Ricker, K. E.
Ohio, northern: Forsyth, J. L.
Quebec, central: Henderson, Eric P., 1.
INDEX

GLACIAL MAPS. See Geologic maps; Maps, Miscellaneous, Physiographic.

GLACIATION.

Alberta, Fort Macleod area: Canada G. S., 21.
Lake Athabasca area: Godfrey, J. D.
British Columbia, Atlin area: Altkem, J. D., 1.
Whiteisll Lake area: Duffell, S., 1.
Canada, northeastern: Corbel, J., 2.
Northern: Bird, John B.
Causes, crustal-shifting theory: Hapgood, C. H.
Continental, elementary account: Lauber, P.
Plant migration: Love, D.
Relics, popular account: Tilden, P. M., 2.
Cycles, fluctuation in atmospheric water vapor, theory: Gosselink, J. G.
Iowa, Quaternary substages: Rubie, R. V., 2.
Labrador, central, late Wisconsin, ice-flow directions: Henderson, Eric P., 1.
Manitoba, plant migration: Love, D.
Montana, Glacier National Park: Ross, C. P., 1.
Southwestern: Hall, W. B.
New Brunswick, Grand Falls area: Canada G. S., 50.
North America, Pleistocene, position of ice centers, distribution of relict crustaceans in proglacial lakes: Ricker, K. E.
Theelon Valley, pinglo, radiocarbon age, deglaciation indicator: Craig, B. G., 1.
Ohlo, western, Pleistocene, forest burial: Burns, G. W.
Wisconsin stage, cf. modern glaciers: Goldthwait, R. P., 1.
Quebec, central, late Wisconsin, ice-flow directions: Henderson, Eric P., 1.
Hudson Strait shoreline, Pleistocene: Robitaille, B.
United States, landscapes: Shimer, J. A.
Washington, Buckley quadrangle: Crandell, D. R.

GLACIERS—Continued

Alaska—Continued
Rock glaciers, Alaska Range: Warbaftig, C. A.
Southeastern, post-Wisconsin changes: Goldthwait, R. P., 2.
Boulder transport, maximum size, calculation: Weertman, J., 2.
British Columbia, Salmon Glacier, gravity study: Jacobs, J. A., 2.
Salmon Glacier, velocity: Mathews, W. H.
Continental, fluctuations, causes: Ewing, W. M., 1.
Electrical-resistivity studies, thickness and properties: Keller, G. V., 6.
Flow law, creep tests on glacier and laboratory ice: Butkovich, T. R., 1.
Travelling waves: Weertman, J., 1.
Vertical profiles of velocity: Meier, M. F.
Greenland, high-arctic cf. temperate, temperature sensitivity: Fris-trup, B.
Icecap, thermal regimen: Nobles, L. H., 1.
Jakobshavn Isbræ, retreat, 1850–1953: Georgi, J.
Nuukatarssuak, ice-cliff motion: White, S. E.
Ice-tunnel deformation, Camp Red Rock: Hilty, R. E.
P-Mtn. glacier, regime: Griffiths, T. M.
Southeastern, variations, 1800–1955: Weldeick, A.
Thule area, patterned moraine, formation over melting ice: Corte, A. E.
Plasticity: Landauer, J. K.
Tuto area, ice cliff, tunnel studies: Rausch, D. O.
Ice, crystal fabrics and structures, cf. laboratory-deformed: Rigsby, G. P.
Ice-tunnel deformation, grid measurement: Butkovich, T. R., 3.
Mexico: Lorenzo, J. L.
Model, Malaspina-type, motion of serpentine medial moraines: McCutchen, W. T.
Motion studies, time-lapse camera method: Miller, R. D., 2.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

GLACIERS—Continued
Oregon, Mt. Hood, recent changes: Handewith, H. J., Jr.
Oxygen-isotope ratios in ice: Epstein, S., 2.

PHYSICS OF MOVEMENT, SYMPOSIUM
Blue Glacier, ice petrofabrics: Kamb, W. B., 2.
Nisqually Glacier, maximum recent advance: Sigafoos, R. S.

GNEISS.
Pennsylvania, Boyertown quadrangle: Buckwalter, T. V., Jr.
Bucks County: Freedman, J.
Quebec, Doller-Charron area: Neale, E. R. W., 1.
Litchfield-Leslie area, mineral assemblages: Krets, R. A.
Rohanit area: Gilbert, J. E. J.
Rhode Island, Carolina-Quonochontaug quadrangles: Moore, G. E., Jr.
Slocum quadrangle: Power, W. R., Jr.
Virginia, Floyd County, Precambrian: Dietrich, R. V.
Wyoming, Beartooth Mts., Gardner Lake area, structures and graniteization: Harris, R. L., Jr.
Beartooth Mts., Lonesome Mt. area, orbicular: Leveson, D. J.

GOLD.
Glacier Bay, Reid Inlet area: Rossman, D. L., 1.
British Columbia, Atlin area: Aitken, J. D., 1.
B.C., Vernon area: Jones, A. G.
California, Lake Elsinore quadrangle: Engel, R. L. H.
Idaho, North Fork quadrangle: Anderson, A. L.

GNEISS—Continued

GOLD—Continued

GOLD—Continued

GOLD—Continued

GOLD—Continued
INDEX

Granite—Continued
Canada, lognormal distribution of lead: Durovic, S.
Complex, sampling patterns for quantitative modal analysis: Whitten, E. H. T.
Emplacement, plutons classified by crustal zones: Buddington, A. F.
Gem materials, collecting: Van Landingham, S. L.
Greenland, Nathorst’s Land: Zweifel, H.
Emplacement, plutons classified by crustal zones: Buddington, A. F.
Gem materials, collecting: Van Landingham, S. L.
North America, emplacement of plutons, examples: Buddington, A. F.
North Carolina, Mt. Airy, origin, expansion domes and shear cones: Lowry, W. D., 1.
Wake County, pluton: Dumas, E. M.
Ontario, Bancroft area, uraniferous: Hewitt, D. F.
Kalladar area, pebbles in conglomerate, metamorphism: Walton, M. S., Jr.
Southeastern, emplacement of plutons: Saha, A. K., 2.
United States, western, quartz diorite boundary line, stialic cf. simatic origin: Moore, J. G.
Weathered, texture and mineralogy: McEwen, M. C.
Yukon, Upper Jurassic-Lower Cretaceous: Atken, J. D., 2.
Granitization. See also Metamorphism; Metasomatism.
British Columbia, Coast Mts., pre-Tertiary: Roddick, J. A.
Granitic plutons, role in emplacement: Buddington, A. F.
Newfoundland, eastern, Gander Lake group: Jenness, S. E., 2.
Solid-state diffusion, intergranular pathways: Naughton, J. J.
Washington, Enalt Mts., quartz diorite complex: Crowder, D. F.
Graphite, exploration, spectrochemical analysis of soil: Dennen, W. H.
Graptolithina—Continued
Demograptus cancellatus, Ordovician, Minnesota, Stewartville dolomite: Sloan, R. E., 1.
New York, Deepkill shale, Ordovician, zones: Berry, W. B. N., 2.
Taconic area, Cambrian-Ordovician: Berry, W. B. N., 1.
Northwest Territories, Cape Phillips formation, Ordovician-Silurian, Cornwallis and Little Cornwall Islands: Thorsteinsson, R., 1.
Oklahoma, Arbuckle and Ouachita Mts., Cambrian-Silurian, correlation: Decker, C. E.
Vermont, Taconic area, Cambrian-Ordovician: Berry, W. B. N., 1.
Gravel. See also Construction materials; Pebbles; Sediments.
Alberta, Stony Lake area: Henderson, E. P., 2.
California, Alameda Creek, size and sphericity analyses: Inderbitzen, A. L.
Idaho, Elk City region, Tertiary: Reid, R. R., 1.
Massachusetts, Shelburne Falls quadrangle: Segerstrom, K.
Minnesota, northern, stream valleys, openwork deposits: Braden, G. E., 1.
Gravitation. See Geophysical investigations; Geophysics.
Greenland. See also Arctic America.
Engineering geology, ice tunnel, Tuto area: Rausch, D. O.
Geochemical study, Skergaard intrusion silicates, trace-elements uptake: Williams, R. J. P.
Areas described.
East-central coast: Sorgenfrei, T.
Economic geology.
Radioactive minerals, Jullanebaab district: Bondam, J.
Werner Bjerga massif, possibilities: Bearth, P.
Geologic maps.
Moskusoksefjord area: Bütler, H.
Nathorst’s Land: Zweifel, H.
Nagnaaxi Peninsula, coastal: Koch, B. E.
Werner Bjerga massif: Bearth, P.
Historical geology.
Alkaline intrusons, Cretaceous-Tertiary, northeastern: Bearth, P.
East-central: Bütler, H.
Ivigtut area: Berthelsen, A.
Jameson Land, Jurassic, correlation with northwestern Europe: Callomon, J. H.
Moskusoksefjord area, Devonian: Bütler, H.
GREENLAND—Continued

Historical geology—Continued

Nathorst Land, Precambrian-Devonian: Zweifel, H.
Nügssuaq Peninsula, Tertiary, non-marine: Koch, B. E.

Mineralogy.

Ivigtut area: Berthelsen, A.:
Julianehaab district, nepheline syenite minerals, description and origin: Dangé, M.
Skærgaard intrusion, uranium distribution: Hamilton, E. I.
Werner Bjerre massif, alkaline rocks: Bearth, P.

Paleontology.

Ammonoid zones, Jameson Land, Middle Jurassic: Callemon, J. H.
Conifers, Cape Stewart formation, Jurassic, Scoresby Sound: Florin, R.
Devonian, east-central, lists: Bütler, H.
Fishes, Dipnoi, Late Devonian, eastern: Lehman, J.-P.
Plants, Nügssuaq Peninsula, Paleocene: Koch, B. E.
Scoresby Sound, Triassic-Jurassic, cf. Sweden: Lundblad, B.
Trilobites, Proliostracus, Early Cambrian, statistical analysis: Shaw, A. B.

Petrology.

Basalt province, Tertiary sequence, western: Münck, S.
Ivigtut area: Berthelsen, A.
Julianehaab district, nepheline syenite minerals, description and origin: Dangé, M.
Moskusoksefjord area: Bütler, H.
Nathorst Land, metamorphic and migmatitic rocks: Zweifel, H.
Skærgaard intrusion, magmatic differentiation: Shimazu, Y.
Uranium distribution: Hamilton, E. I.
Snow, high-density, petrofabrics: Fuchs, A.
Ubekendt Ejland, picritic sill, sinking olivine: Bailey, E. B.
Werner Bjerre massif, alkaline rocks: Bearth, P.

Physical geology.

Basalt province, Tertiary volcanism, western: Münck, S.
Glaciers, high-arctic cf. temperate, temperature sensitivity: Fristrup, B.
Icecap, thermal regime: Nobles, L. H., 1.
Tuto area: Rausch, D. O.
Ivigtut area: Berthelsen, A.
Jakobshavn Isbrae, retreat, 1850-1953: Georgi, J.
GROUND WATER—Continued
Uranium solution and redeposition:
Garrels, R. M., 2.
GUATEMALA. See also Central America.
Areas described:
General: Walper, J. L.
Economic geology.
Mineral deposits, Antillean Cordillera, possibilities: Ljunggren, P.
Paleontology.
Crocodilian, Petén, Pleistocene: Mook, C. C., 2.
Petrology.
Rabinal-Salama area, granites and gneisses: Ljunggren, P.
Physical geology.
Antillean Cordillera core, Alpine and Hercynian orogenies: Ljunggren, P.
Physiographic geology.
General: Walper, J. L.
GUIDEBOOKS. See also Excursions.
Alberta, Cadomin area: Edmonton Geol. Soc.
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San Joaquin Geol. Soc.
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Assoc. Am. State Geologists.
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GUIDEBOOKS—Continued
Montana—Continued
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New Mexico, Sacramento Mts.: Soc. Econ. Paleontologists and Mineralogists Permian Basin Sec.
Silver City-Santa Rita-Hurley area, popular: Schilling, J. H.
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Ontario, London area, glacial geology:
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Organization and publication: Fentress, G. H.
Puerto Rico, central and western: Navarro de Haydon, R.
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Oldham County, Saddleback Pueblo and Rotten Hill fossil site:
Panhandle Geol. Soc., 1.
Rio Grande embayment, upper: Corpus Christi Geol. Soc.
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GUIDEBOOKS—Continued

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Petroleum, salt domes, area-uplift factor: Halbouty, M. T.

Historical geology.

Cenozoic, southern: Williamson, J. D. M.


Mineralogy.

Clay minerals, diagenetic conversion with depth, Wilcox formation, Eocene: Burst, J. F., Jr.

Physical geology.

Cenozoic, southern: Williamson, J. D. M.

Eastern: Braunstein, J., 2.

Salt domes: Clark, G. C.

Growth rate, relation to local unconformities: Sovinsky, V. N.

Sedimentation, consolidation mechanics of clayey rocks, cause of high fluid pressures: Rubey, W. W.

Physiographic geology.

Coastal regions: Russell, R. J., 1.

GULF OF MEXICO. See also Submarine geology.

Bay of Campeche: Creager, J. S.

Continental shelf, Cretaceous-Quaternary: Atwater, G. I., 1.

Continental shelf and slope, pinnacles and faults: Goedicke, T. R. E.

Continental slope off Florida, topography: Jordan, G. E.

Petroleum, continental shelf: Atwater, G. I., 1.

Sediments, Recent, clay minerals: Meyer, J. W.

GYPSUM. See also Evaporites.

California, Bristol-Cadiz-Danby Dry Lakes, cores: Bassett, A. M.

Conversion to hemihydrate, X-ray investigation, continuous: Droste, J. B., 2.

Dehydration, anhydrite crystal structure: Atoji, M.

Georgia, Dahlonega area, efflorescent origin: Gardner, C.

GYPSUM—Continued

Manitoba: Bannatyne, B. B.

Mexico, Sierra del Fauje, Nuevo Leon, intrusive in folds: Murray, G., E., 1.

New Brunswick, origin: Sund, J. O.


Alteration to Capitan limestone: Moore, G. W., 2.


Southwestern, Carboniferous belt: McKillop, J. H.

Nicaragua, Santa Rosa del Penon area: Zoppis Bracci, I., 2.

Northwest Territories, Ellef Ringnes Island, Isachsen dome, erosion resistance: Saint-Onge, D.

Texas, alteration to Capitan limestone: Moore, G. W., 2.

HAITI. See also West Indies.

Bauxite: Salas, G. P., 1.

Geologic map, sketch: Salas, G. P., 1.

Microfossils, planktonic, Late Cretaceous: Ayala Castafiares, A.

HALITE. See also Evaporites; Salts.

Synthetic, liquid inclusions, vacuole disappearance, geothermometer: McCulloch, D. S.

Thermoluminescence, natural crystals: Halperin, A.

HAWAII.

Gibbsite amygdules, Halku bauxite area, Maui: Sherman, G. D.

Ground-water resources: Hawaii Water Authority.

Haleakala volcano, Maui, age of lava flows: Reber, G.

Selenium in volcanic rocks: Davidson, D. F.

Springs of varying salinity, Pearl Harbor area: Cooper, H. E., Jr.

HEAVY MINERALS. See also the individual minerals; Placers.

Alaska, Sentinel Hill and Fish Creek areas, test wells: Robinson, F. M., 2.

Square Lake and Wolf Creek areas: Collins, F. R.

Alberta, Athabasca sandstone, correlation: Gravenor, C. P., 2.

Arkansas, Wilcox formation sands: Jones, E. L.

California, central, granitic plutons: Spotts, J. H.


Santa Cruz Mts., lower Tertiary: Beveridge, A. J.

Canada, Maritime Provinces, sand and gravel deposits: McLeod, C. R.


Paleosols, Sangamon, till profiles, outwash: Brophy, J. A.
HEAVY MINERALS—Continued
Ilmenite, alteration, beach sands:
Bailey, S. W.
Michigan, Munising sandstone, correlation with Wisconsin: Driscoll, E. G.
New Jersey, southern, ilmenite sands:
Johnston, M. E.
North Carolina, Coastal Plain, Cretaceous-Tertiary:
Dryden, A. L., Jr., 1.
Oklahoma, Ardmore basin, Pennsylvanian sandstones:
Jacobsen, C. L., 1.
Sedimentary petrology, regional analyses:
Andel, T. H. van.
South Carolina, Coastal Plain, distribution:
Dryden, A. L., Jr., 1.
Texas, Bastrop County, Eocene sands:
Folk, R. L., 1.
United States, Illinois No. 2 coal underclay, eastern interior basin:
Parham, W. E., 2.
Utah, central, North Horn formation, Cretaceous-Paleocene, differentiation:
Lee, K.-Y., 2.
Virginia, Middle River drainage basin, country rocks and soils:
Carroll, D., 2.
South River tributaries, stream sands, variation, source:
Carroll, D., 1.
Wisconsin, Munising sandstone, correlation with Michigan: Driscoll, E. G.

HELIUM. See Elements.

HEMATITE. See also Iron.

Hard, origin in itabirite:
Park, C. F., Jr.
Magnetic properties, single crystals:
Lin, S. T.

HISTORICAL GEOLOGY. For areal, see subheading Historical geology under the states and countries. See also the geologic systems; Correlations; Geologic history.

Absolute-age measurements, reliability and applications:
Tilton, G. R.
Beginnings, Charles Lyell:
Elseley, L. C., 2.

Fossil record, idea of time process, 18th century:
Haber, F. C., 3.
Geochronology, methods, evaluation:
Cook, M. A.
Geologic time scale, isotope revision:
Kulp, J. L., 4.
Paleozoic coal measures, stratigraphic classification:
Wanless, H. R., 2.
Quaternary, nomenclature and classification problems:
Post-Vailders's time, terminology:
Cooper, W. S.
Teaching, Bryn Mawr College:
Dryden, A. L., Jr., 2.
HONDURAS—Continued

Historical and physical geology: Mills, R. A.
Northeastern: Heilig, K. M.
Petroleum, possibilities: Mills, R. A.

HYDROCARBONS. See also Asphalt; Bituminous rocks and sands.
Formation in Recent sediments, cf. petroleum: Hanson, William E.
Liquid, effect of sea water: Chilingar, G. V.
Petroleum origin: Kidwell, A. L.
Petroleum source, natural solubilizers in waters: Baker, E. G.
Selective accumulation by water: Meinschein, W. G.
Wyoming, Fremont County, Mesaverde formation, Cretaceous, dopplerite: Vine, J. D., 4.

HYDROLOGY. See Ground water.

HYDROTHERMAL ALTERATION. See also Metasomatism.
Arizona, Mission copper deposit: Richard, K. E.
Arizonite, from limemente: Karkhena, M. A., 3.
Biotite to vermiculite: Bassett, W. A., 1.
Colorado, Front Range mineral belt, patterns, relation to ore veins: González-Bonorino, F.
Experimental data: Meyer, C.
Experimental investigation on K-feldspar and mica systems, applications: Hemley, J. J.
Granodiorite wallrocks: Meyer, C.
Greenland, Werner Bjerga massif: Beath, P.
Idaho, Gem monzonite stocks area: Crosby, G. M.
Mexico, Guanajuato district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 2.
Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.
Michigan, Portage Lake lava series, amygdale zones: Stolte, R. E.
Mississippi Valley, upper, lead-zinc district: Heyl, A. W., Jr., 1.
Mississippi Valley type ore deposits: Behre, C. H., Jr., 1.
New Mexico, Cochiti mining district, argilization: Bundy, W. M.
Magdalena mining district: Tittle, S. B., 2.
Northwest Territories, Yellowknife district, gold-bearing volatiles: Boyle, R. W., 2.

ORE solutions, temperature-fugacity relations of O, S, and CO2: Holland, H. D.

HYDROTHERMAL ALTERATION—Continued

Oregon, Buffalo gold mine, Granite district: Koch, G. S., Jr.
Porphyry copper deposits, facies: Creasey, S. C.
Origin: Burnham, C. W., 3.
Puerto Rico, southeastern: Hildebrand, F. A.
Solutions, composition and chemical reaction: Schwartz, G. M., 2.
Utah, Bismark Peak quadrangle: Foster, J. M.
Ophir Hill mine, micaceous minerals: Weltraub, J.
Vermont, Elizabetb copper mine: How ard, P. F.
Volcanic glass, zeolites: DiPiazza, J. J.
Wallrock: Schwartz, G. M., 2.

HYDROZOA. See Stromatoporoidea.

ICE. 

Bibliography: U.S. Libr. Cong. SIPRE Bib!.
Crystal fabrics and structures, glacier and laboratory-deformed ice: Rigsby, G. P.
Vertical profiles of velocity in glaciers: Meler, M. F.
Greenland, glacier ice, plasticity: Landauer, J. K.
Nunarsuaq, ice-cliff motion: White, S. E.
Thule area, physical properties: Butkovich, T. R., 2.
Tuto area, glacier ice, excavation studies: Rausch, D. O.
Ice cliffs: Rausch, D. O.
Northwest Territories, ice-pushed ridges: Nichols, R. L.
Recrystallization, orientation: Kamb, W. B., 1.
Washington, Blue Glacier, petrofabrics: Kamb, W. B., 2.

IDAHO.

Bibliography, 1941-57: Ross, C. P., 2.
Geochemical prospecting, Coeur d'Alene district, smelter contamination: Canney, F. C., 1.
Geophysical Investigation, Snake River Plain, northern boundary: Malde, H. E., 2.
INDEX

IDAHO—Continued

Economic geology.

Coal, uraniferous, Fall Creek area: Vine, J. D., 1.

Lead, Coeur d'Alene district, Precambrian mineralization: Long, Austin.

Lead-zinc, Coeur d'Alene district, Pine Creek area, mineralization: Gin, T. T.

Lignite, uraniferous, Goose Creek district: Mapel, W. J., 1.

Lead, Coeur d'Alene district, Precambrian mineralization: Long, Austin.

Lead-zinc, Coeur d'Alene district, Pine Creek area, mineralization: Gin, T. T.

Lignite, uraniferous, Goose Creek district: Mapel, W. J., 1.

Mineral resources, North Fork quadrangle: Anderson, A. L.

Silver-lead, Lucky Friday mine, Coeur d'Alene district: Folwell, W. T.

Silver-lead-zinc, Gem monzonite stocks area: Crosby, G. M.

Geologic maps.

Big Wood River-Silver Creek area: Smith, Rex O.

Elk City region: Reid, R. R., 1.

Fall Creek area: Vine, J. D., 1.

Goose Creek district: Mapel, W. J., 1.

Index: Boardman, L., 1.

North Fork quadrangle: Anderson, A. L.

Stanley uranium area: Kern, B. F.

Ground water.


Big Wood River-Silver Creek area: Smith, Rex O.

Snake River basalt, aquifer tests: Walton, W. C.

Historical geology.

Brazer limestone, Mississippian, Lost River Range, southern: Wornardt, W. W., Jr.

Coeur d'Alene district, Precambrian mineralization, lead-lead age: Long, Austin.

Elk City region, Precambrian, Jurassic, and Tertiary orogenies: Reid, R. R., 1.

Fall Creek area, Jurassic-Cretaceous: Vine, J. D., 1.

Goose Creek district, Cenozoic: Mapel, W. J., 1.

North Fork quadrangle, Precambrian and Cenozoic: Anderson, A. L.

Stanley uranium area, Idaho batholith and Challis formation: Kern, B. F.

Wallace formation, argillite, scalplization: Ackerman, W. C., 2.

Physical geology.

Elk City region: Reid, R. R., 1.

Fall Creek area: Vine, J. D., 1.

Gem monzonite stocks area: Crosby, G. M.

Goose Creek district: Mapel, W. J., 1.

Kyanite-garnet gedrite, Orofino area: Hietanen, A. M.

North Fork quadrangle: Anderson, A. L.

Stanley uranium area, Idaho batholith and Challis formation: Kern, B. F.

Skeena River Plain, northern boundary, late Cenozoic fault zone: Malde, H. E., 2.

South Fork of Clearwater River, upper, metamorphic rocks: Reid, R. R., 2.


Precambrian-Cambrian unconformity, northern: Campbell, A. B.

Mineralogy.

Carbonates, Bunker Hill mine, phase studies: Shaw, H. R.

Elk City region: Reid, R. R., 1.

Fluorapatite, Fort Hall phosphate deposits: Lund, E. H., 1.

Gem monzonite stocks area: Crosby, G. M.

Kyanite-garnet gedrite, Orofino area: Hietanen, A. M.

Stanley uranium area: Kern, B. F.

Physiographic geology.

Big Wood River-Silver Creek area: Smith, Rex O.

Elk City region: Reid, R. R., 1.

North Fork quadrangle, post-Paleozoic erosion surfaces: Anderson, A. L.
IGNEOUS ROCKS—Continued

Differentiation, heat-pressure reaction in tectonic deformation: Bennett, K. O.

Elements, geochemical distribution: Green, J. J.

Lognormal distribution: Durovich, S. Granite, emplacement, plutons classified by crustal zones: Buddington, A. F.

Granodiorite, hydrothermal alteration: Meyer, C.

Greenland, Werner Bjerge massif, alkaline: Beath, P.

Western basalt province, Tertiary sequence: Munck, S.

Hawaii, volcanic, selenium content: Davidson, D. F.

Idaho, Goose Creek district, Tertiary volcanic: Mapel, W. J., 1.

North Fork quadrangle, Tertiary: Anderson, L.

Jointing, columnar, quantitative study: Beard, C. N.

Magmatic, textural features: Goodspeed, G. E., 1.

Maine, Rangeley area, metadiorite stock: Willard, R. J., 3.

Manitoba, Island Lake series, Precambrian: Quinn, H. A.

Northern Indian Lake area: Canada G. S., 29.

Oxford House-Knee Lake area, Precambrian: Barry, G. S., 2.

Mexico, Guanajuato district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 2.

Las Truchas iron district, Michoacan: Mapes Vazquez, E.

Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.

Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.

West Kierann sill, Iron County, differentiated metagabbro: Bayley, R. W., 2.

Minnesota, Cook County: Grout, F. F.

Duluth gabbro complex, distribution of elements: Snyder, J. L.

Montana, Helena area: Sahinen, M. E.

Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.

Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.

West Kierann sill, Iron County, differentiated metagabbro: Bayley, R. W., 2.

Minnesota, Cook County: Grout, F. F.

Duluth gabbro complex, distribution of elements: Snyder, J. L.

Montana, Helena area: Sahinen, M. E.

Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.

Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.

West Kierann sill, Iron County, differentiated metagabbro: Bayley, R. W., 2.

Minnesota, Cook County: Grout, F. F.

Duluth gabbro complex, distribution of elements: Snyder, J. L.

Montana, Helena area: Sahinen, M. E.

Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.
INDEX

IGNEOUS ROCKS—Continued

New Mexico—Continued
Southwestern, volcanic: Wargo, J. G., 3.
Sunshine Valley area: Winograd, I. J.
Union County, late Cenozoic, volcanic: Baldwin, B.
New York, Adirondack area, magnetic-oxide assemblages, relation to lithology and magnetism: Balsley, J. R., Jr., 1.

Nipper's Harbour area: Canada G. S., 22.

Nitrogen, isotopic and elemental abundances: Scanlan, R. S.
Obsidian, magnetic susceptility, cf. tektites: Senftle, F. E.


New York, Adirondack area, magnetic-oxide assemblages, relation to lithology and magnetism: Balsley, J. R., Jr., 1.

Ontario, Boston-Pacaud Townships, Keewatin volcanic rocks: Lawton, K. D.
Bristol Township: Ferguson, S. A.
Cardiff-Faraday Townships: Hewitt, D. F.

Haliburton-Bancroft area, nepheline syenites: Gittins, J., 1.
Southeastern, granitic plutons, emplacement: Saha, A. K., 1.

Timiskaming region: Wilson, M. E.
Oregon, Cenozoic: Baldwin, E. M., 1; Wilkinson, W. D., 1.

Eastern, Miocene, volcanic, relation to deformation: Thayer, T. P.
Pennsylvania, Bucks County: McLaughlin, D. B.

Puerto Rico, San Juan area: Kaye, C. A., 1.

Pyrite stability limits: Kullerud, G., 2.
Pyroclastic flows: Martin, R. C.

Quebec, Allard Lake area, anorthosite suite: Hargraves, R. B., 2.

Brongniart-Lescure area: Lyall, H. B., 1.

Coloron-Carqueville area: Ross, S. H.
Chaste-Mazarin area: Tiphane, M.

Cross Lake area: Beall, G. H.

Hazeur-Druillettes area: Deland, A. N.

Margry-Prévert area: Remick, J. H., 3d.

Timiskaming region: Wilson, M. E.

Questions answered: Pearl, R. M.

Rhode Island, Carolina-Quonochontaug quadrangles: Moore, G. E., Jr.

Providence quadrangle: Quinn, A. W.

Questions answered: Pearl, R. M.

Texas, Mustang Hill laccolith, basalt: Greenwood, R.

Terlingua mercury district: Yates, R. G.

Thorium and uranium distribution: Adams, J. A. S., 1.

United States, Basin and Range province, porphyry, ore relations: Stringham, R. F., 1.

Western, layered volcanic, stratigraphic and structural utility: Cook, E. F.

Volcanic, selenium content: Davidson, D. F.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Grouse Creek pluton: Baker, W. H.
Henry Mts., porphyries, composition: Engel, C. G.

House Range, southern, Notch Peak intrusive: Powell, D. K.
Mercuri-Opfhir area, granodiorite-rhyolite intrusions: Proctor, P. D., 1.

Pavant Range, upper Tertiary, volcanic: Crosby, G. W., 2.

Sheeprock Mts.: Cohenour, E. E.
Stansbury Mts., volcanic, petrography: Davis, B. L.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Missouri, Cenozoic: Baldwin, E. M., 1;

Wilkinson, W. D., 1.

Oregon, Cenozoic: Baldwin, E. M., 1.

Western, layered volcanic, stratigraphic and structural utility: Cook, E. F.

Volcanic, selenium content: Davidson, D. F.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Grouse Creek pluton: Baker, W. H.
Henry Mts., porphyries, composition: Engel, C. G.

House Range, southern, Notch Peak intrusive: Powell, D. K.
Mercuri-Opfhir area, granodiorite-rhyolite intrusions: Proctor, P. D., 1.

Pavant Range, upper Tertiary, volcanic: Crosby, G. W., 2.

Sheeprock Mts.: Cohenour, E. E.
Stansbury Mts., volcanic, petrography: Davis, B. L.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Missouri, Cenozoic: Baldwin, E. M., 1;

Wilkinson, W. D., 1.

Oregon, Cenozoic: Baldwin, E. M., 1.

Western, layered volcanic, stratigraphic and structural utility: Cook, E. F.

Volcanic, selenium content: Davidson, D. F.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Grouse Creek pluton: Baker, W. H.
Henry Mts., porphyries, composition: Engel, C. G.

House Range, southern, Notch Peak intrusive: Powell, D. K.
Mercuri-Opfhir area, granodiorite-rhyolite intrusions: Proctor, P. D., 1.

Pavant Range, upper Tertiary, volcanic: Crosby, G. W., 2.

Sheeprock Mts.: Cohenour, E. E.
Stansbury Mts., volcanic, petrography: Davis, B. L.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Missouri, Cenozoic: Baldwin, E. M., 1;

Wilkinson, W. D., 1.

Oregon, Cenozoic: Baldwin, E. M., 1.

Western, layered volcanic, stratigraphic and structural utility: Cook, E. F.

Volcanic, selenium content: Davidson, D. F.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.

Grouse Creek pluton: Baker, W. H.
Henry Mts., porphyries, composition: Engel, C. G.

House Range, southern, Notch Peak intrusive: Powell, D. K.
Mercuri-Opfhir area, granodiorite-rhyolite intrusions: Proctor, P. D., 1.

Pavant Range, upper Tertiary, volcanic: Crosby, G. W., 2.

Sheeprock Mts.: Cohenour, E. E.
Stansbury Mts., volcanic, petrography: Davis, B. L.

Utah, Goose Creek district, Tertiary, volcanic: Mapel, W. J., 1.
Economic geology—Continued


Cumberland-Coles-Douglas Counties: Clegg, K. E.

Fluorite, physical and chemical environments: Nackowski, M. P., 2.

Lead-zinc, Jo Daviess County, crevice deposits: Bradbury, J. C., 2.

Northwestern: Bradbury, J. C., 3, 4; Heyl, A. V., Jr., 1.

Limestone, southern: Lamar, J. E.


Natural gas, Freeburg pool: Meents, W. F.


Cooks Mills area, Spar Mtn. sandstone: Whiting, L. L.

Sulfides, Union County, northern: Desborough, G. A., 1.

Geologic maps.

Buda quadrangle, surficial: MacClintock, P., 1.

Chicago region, glacial and bedrock: Suter, M.

Southern limestone areas: Lamar, J. E.

Ground water.

Chicago region: Suter, M.

Lake Michigan area: Bergstrom, R. E.

Historical geology.


Buda quadrangle, Cambrian-Pennsylvanian, Quaternary: MacClintock, P., 1.

Chicago region: Suter, M.

Coal beds, Pennsylvanian, correlation by spores: Kosanke, R. M.

Cooks Mills area, Mississippian-Pennsylvanian: Whiting, L. L.

Cumberland-Coles-Douglas Counties, Pennsylvanian: Clegg, K. E.

Elementary account: Ill. State G. S.

Illinian glacial lobe stagnation: Leighton, M. M.

Salem limestone, Mississippian, new members, southwestern: Baxter, J. W.

Mineralogy.

Clay minerals, carbonate rocks: Ostrom, M. E.

Sandstones and shales: Smoot, T. W., 2.

Elementary account: Ill. State G. S.

Geodes, oil-filled, Niota area: Borschel, K.


Jo Daviess County, lead-zinc crevice deposits: Bradbury, J. C., 2.

Paleontology.

Brachiopod, Reticulatina, Chester series, Mississippian, type specimens: Campbell, K. S. W.

Buda quadrangle, surficial: MacClintock, P., 1.

Chicago region: Suter, M.

Coal beds, Pennsylvanian, correlation by spores: Kosanke, R. M.

Cooks Mills area, Mississippian-Pennsylvanian: Whiting, L. L.

Cumberland-Coles-Douglas Counties, Pennsylvanian: Clegg, K. E.

Elementary account: Ill. State G. S.

Ordovician-Mississippian limestones, southern: Lamar, J. E.

Platteville group, Ordovician, limestone textures as key to deposition depth: Wanless, H. R., 1.

Wisconsin outwash sediments, Wabash Valley, pebble lithology: McCammon, R. B.

Physical geology.

Chicago region: Suter, M.

Cooks Mills area, Mississippian sedimentary environment, evolution: Whiting, L. L.

Cumberland-Coles-Douglas Counties: Clegg, K. E.

Des Plains area, faulting: Emrich, G. H.

Fluorite district, deformation stages: Nackowski, M. P., 3.

Freeburg gas pool: Meents, W. F.
INDEX --Continued

PHYSICAL GEOLOGY --Continued
Jo Daviess County, joint control of shallow lead-zinc deposits: Bradbury, J. C., 2.
Northwestern lead-zinc district, structural control: Bradbury, J. C., 3.
Southeastern, Ill. Geol. Soc.
Springfield Plain lakes, sedimentation, statistical analysis: Stall, J. B.
Union County, northern, faults: Desborough, G. A., 1.

PHYSIOGRAPHIC GEOLOGY.
Glacial crevasse troughs and ridges: Leighton, M. M.

ILMENITE. See also Heavy minerals; Titanium.
Alteration, beach sands: Bailey, S. W.
High-temperature: Bailey, S. W.; Karkhanavala, M. D., 2.
Bauxite deposits, alteration products: Hartman, J. A.
Hydrothermal alteration to arzomite: Karkhanavala, M. D., 3.

INCLUSIONS. See also Liquid inclusions.
Oriented, in pyroxene crystals, identification: Bown, M. G.
Plagioclase, antiperthitic, origin: Sen, S. K.
Utah, Mineral Range pluton: Condie, K. C.
Washington, Mackinaw mine, Fe S in chalcopyrite: Birks, L. S., Jr.

INDEX FOSSILS.
Ammonoids, Cretaceous, Texas, trans-Pecos area: Young, K. P., 1.
Conodonts, Eden formation, Ordovician, Ohio-Kentucky, provincial indicators: Sweet, W. C., 2.
Conodonts and fusulindus, Minnelusa formation, Pennsylvanian-Permian, South Dakota, Black Hills: Jennings, T. V.
Foraminifera, *Cosmobolina*, Eocene, Mexico, Yucatan: Bonet, F.
Larger, Paleocene-Eocene, southern North America: Cole, W. S.
Late Cretaceous, Mexico, Tampa-Tuxpan basin: Eternod Olvera, Y.
Temblior formation, Miocene, California: Garrison, Lowell E.
Paleozoic, Texas, Delaware and Val Verde basins, cores and cuttings: Williams, H. L.
Red River and Stony Mtn. formation equivalents, Ordovician, Canada, western: Nelson, S. J., 3.

INDEXES.
Foraminifera, nomenclature: Thalmann, H. E., 4.
Geologic names of North America: Wilson, Druid.

INDEXES--Continued

Ostracodes, new genera and species: Levinson, S. A.

INDIANA.

ECOLOGICAL GEOLOGY.
Brines, oil fields, Cambrian-Pennsylvanian, southeastern: Walker, F. H.
Coal, Coal City quadrangle: Kottlowski, F. E., 1.
Oil and gas, south-central: Melhorn, W. N., 2.

GEOLOGIC MAPS.
Coal City quadrangle: Kottlowski, F. E., 1.
Whitewater drainage basin, upper, Pleistocene terraces: Gooding, A. M., 1.

HISTORICAL GEOLOGY.
Coal City quadrangle, Pennsylvanian and Quaternary: Kottlowski, F. E., 1.
Dearborn County, Fairview-McMillan formational contact, Ordovician: Hyde, D. E.
Marion County, Wisconsin tills: Harrison, P. W.
Pleistocene drift, leached zones, paleosol theory, southeastern: Gooding, A. M., 2.

MINERALOGY.
Marion County, Wisconsin tills: Harrison, P. W.
Tilisit silt loam, mineral composition and genesis: Bailey, G. W.

PALEONTOLOGY.
Foraminifera, arenaceous, Rockford limestone, Mississippian: Gutschick, R. C., 2.
Fossil guide, popular: Shaver, R. H., 1.
Golconda formation, Mississippian: Rodriguez, J.
Holothurian sclerites, Rockford limestone, Mississippian: Gutschick, R. C., 1.
Invertebrates, caves, age of colonization: Barr, T. C., Jr.
Jeffersonville formation, Devonian, biothermal microfossils: Carozzi, A. V., 2.
Plants, Booneville area, Pennsylvanian coal balls: Phillips, T. L.
North Vernon area, Devonian: Beals, H. O.
Pennsylvanian, paper coal, matted cuticle: Guennel, G. K.
Southwestern: Canright, J. E.
INDIANA—Continued

Paleontology—Continued

Pollen diagrams, Two Creeks interval, late Quaternary, Myers Lake: Frey, D. G.

Popular account: Perry, T. G., 4.

Petrology.

Brazil area, Pennsylvanian underclay depth of burial, determination: Altschaefil, A. G.

Columbus area, Devonian biothermal microfacies: Carozzi, A. V., 2.

Marion County, Wisconsin tills: Harrison, P. W.

Pleistocene nonmarine sediments, classification: Wayne, W. J.

Putnam County, brecciated limestone, Mississippian: Bieber, C. L.

Wisconsin outwash sediments, Wabash Valley, pebble lithology: McCain, R. B.

Physical geology.


Physiographic geology.

Fayette-Union Counties, Wisconsin moraines as source of loess: Ulrich, H. P.

Muck mound, Lake County, growth and cause: Bushnell, T. M.

Whitewater drainage basin, upper, Pleistocene terraces: Gooding, A. M., 1.

INDUSTRIAL MINERALS.

Alberta: Govett, G. J. S.


Classification: Bates, R. L.

Feldspar, popular account: Tilden, P. M., 1.

Kentucky, silica sand, Calloway and Carlisle Counties: McGrawn, P., 2.

Silica sandstone and conglomerate, Elkhorn City area: McGrawn, P., 1.

Manitoba, bibliography: Mills, B. A.

Mexico: Esquivel Morales, J.

Michigan, Mackinac Straits region and northern Lower Peninsula: Landes, K. K., 1.

Mississippian: Mellen, F. F.

Missouri, possibilities: Beveridge, T. R.

North Carolina, pyrophyllite: Stuckey, J. L., 1.

Pennsylvania, Bucks County: Gault, H. R.

Questions answered: Pearl, R. M.

Saskatchewan: Carlson, E. Y.


Wyoming: Osterwald, F. W., 1.

INSOLUBLE RESIDUES.

Texas, Ellenburger formation cores: Barnes, V. E., 5.

United States, midcontinent, Cambrian-Mississippian correlation: McCracken, E.

Virginia, Martinsburg shale, Ordovician, zircon from bentonite: Carroll, D., 3.

Middle River drainage basin, country rocks and soils: Carroll, D., 2.

West Virginia, Wood County deep well cores: Shearrow, G. G., 1.


INTRUSIONS.

See also Batholiths; Dikes; Laccoliths; Magnas and magmatic differentiation; Sills; Stocks.


Union Bay area, ultramafic complex, emplacement: Ruckmick, J. C.

Arizona, East Sierra area: Lacy, W. C.

South Comobabi Mts. and Ko Vaya Hills: Bryner, L.

Basic and ultrabasic, olivine flow orientation, fabric analysis: Brothers, R. N., 2.

British Columbia, Atlin area: Atkhen, J. D., 1.

Chutine area: Canada G. S., 34.

Salmo lead-zinc area: Fyles, J. T.

Vernon area: Jones, A. G.

Whitesail Lake area: Duffell, S., 1.

INSECTA. See also Arthropoda.

Bibionidae, British Columbia, Canada Geological Survey collection: Rice, H. M. A.

California, Mojave Desert, Miocene, popular account: Kirkby, R. A., 1.

Southwestern, Miocene nodules: Pierce, W. D., 2.

Ceratocombus (Ceratocombus) hurdi, Miocene amber, Mexico, Chilapas: Wygodzinsky, P.

Florida, Vero Beach, Pleistocene: Young, F. N.

Illinois, Mason Creek area, Pennsylvanian: Richardson, E. S., Jr., 1.

Kansas, Wellington formation, Permian: Tasch, P., 2.

Marquetta americana, Miocene, Colorado, Florissant shale: Carpenter, F. M.

Oklahoma, Wellington formation, Permian: Tasch, P., 2.

Olivierina metzeli, Oligocene, Montana, Alder area: Carpenter, F. M.; Pierce, W. D., 1.

Scarabaeidae, Jurassic(?) -Recent: Halfker, G.

Trigona (Nogueirapla) silacea, Miocene amber, Mexico, Chilapas: Wille, A.
INTRUSIONS—Continued

California, Crestmore area, contact metamorphism: Burnham, C. W., 1.
Delaware, Wilmington complex: Ward, R. F.
Granite emplacement, classified by crustal zones: Buddington, A. F.
Greenland, Nathorst's Land, migmatization: Zweisfel, H.
Ubekendt Ejland, picritic sill, sinking olivine: Bailey, E. B.
Werner Bjerge massif, alkaline: Béarth, P.
Idaho, Gem monzonite stocks area: Crosby, G. M.
North Fork quadrangle, Tertiary: Anderson, A. L.
South Moccasin Mts.: Miller, Richard N.
New York, Rockland County, Fallsades: Low, K. E.
Ontario, Boston-Pacaud Townships, post-Keewatin: Lawton, K. D.
Cardiff-Faraday Townships: Hewitt, D. F.
Deer Lake area, plutons: Helmich, R. A.
Southeastern, granitic plutons, emplacement: Saha, A. K., 2.
Sudbury intrusive: Thomson, J. E., 1.
Timiskaming region: Wilson, M. E.
Oregon, eastern, granitic plutons, Jurassic: Taubenek, W. H.
Pennsylvania, Bucks County, Triassic area: McLaughlin, D. B.
Quebec, Dore Lake complex, layered: Allard, G. O.

Quebec—Continued

Fancamp-Havre area: Holmes, S. W.
Queylus area: Imbault, P. E.
Timiskaming region: Wilson, M. E.
Rhythmic layering, Skaergaard and Willow Lake types: Poldervaart, A., 2.
Sheet, temperatures at contact and in country rock: Jaeger, J. C.
Texas, Terlingua mercury district: Yates, R. G.
United States, Basin and Range province, porphyry-ore relations: Stringham, B. F., 1.
Utah, Grouse Creek pluton: Baker, W. H.
Henry Mts., porphyries, composition: Engel, C. G.
Mercer-Ophir area, granodiorite-ryholite: Proctor, P. D., 1.
Stansbury Mts.: Davis, B. L.
Vermont, St. Johnsbury quadrangle: Hall, L. M.
Volcanic necks, emplacement: McBurney, A. R.
Washington, Entiat Mts., quartz diorite complex, granitization: Crowder, D. F.
Mt. Stuart area: Pratt, R. M.
Twin Sisters dunite: Ragan, D. M.

INVERTEBRATA. See also the phyla and classes; Evolution; Paleontology.

California, Newport Bay area, late Pleistocene, cf. Recent: Kanakoff, G. P.
San Francisco peninsula, western, Pliocene-early Pleistocene: Chen, W.
Evolution, primary differentiation: Nicol, D.
Illinois, Mazon Creek area, Pennsylvanian: Richardson, E. S., Jr., 1.
Kansas, Niobrara formation, Cretaceous: Miller, H. W., Jr.
Mexico, Islas Tres Marias, Pliocene-Pleistocene: Herlind, L. G., 2.
Punta Cabras, Baja California, late Pliocene: Addicott, W. O.
Treatise, Trilobitomorpha: Harrington, H. J.

IOWA.

Engineering geology, till and loess, properties, southeastern: Hansen, J. A., Jr.

Economic geology.

Lead-zinc, northeastern: Heyl, A. V., Jr., 1.

Ground water.

Radium content: Brown, C. N.
IOWA—Continued

Historical geology.
Cedar Valley formation, Devonian: Dunn, D. L.
Des Moines River valley, middle section, Pleistocene: DeKoster, G. R.
Galena formation, Ordovician, correlations: Ethington, R. L., 1.
Jasper County, glacial erratics, Kansas (?): Tuttle, S. D.
Maquoketa formation, Ordovician: Parker, Mary C.
Pleistocene, loess deposits, western: Daniels, R. B.
Yarmouth paleosol, northwestern: Steele, F. V., 3.
Quaternary, glacial substages: Ruhe, R. V., 2.

Mineralogy.
Geodes, collecting: Borschel, K.
Warsaw formation, inclusions: Tripp, R. B.
Till, southern: Dahl, A. R.

Paleontology.
Chittenangoan, Cedar Valley formation, Devonian: Dunn, D. L.
Conodonta, Galena formation members, Ordovician: Ethington, R. L., 1.
Echinoderms, Le Grand area, Mississippian, popular account: Harnack, C.
Fern, coenopterid, Des Moines series, Pennsylvanian: Egbert, D. A., 1.
Man, Pleistocene, western: Frankforter, W. D.

Petrology.
Black shales, Pennsylvanian cyclothems: Payton, C. E.
Carbonate rocks, magnesium-insoluble residue direct variation: Bisque, R. E., 1.
Loess and paleosol substages: Ruhe, R. V., 2.
Till, southern: Dahl, A. R.
Till and loess, analyses, southeastern: Hansen, J. A., Jr.

Physiographic geology.
Des Moines River valley, middle section, drainage patterns: DeKoster, G. R.
Missouri River flood plain, alluvial deposits: Glenn, J. L.
Quaternary, glacial substages, erosion surfaces: Ruhe, R. V., 2.

IRON—Continued
Canada, classification of deposits: Gross, G. A.
Eastern: Kryzwicki, E.
Map: Canada G. S., 4.
Western: Gravenor, C. P., 1.
Colorado: Harrer, C. M.
Fusion curve, earth’s mantle-core boundary: Strong, H. M.
Primary content, uniformity, origin: Lepp, H., 1.
Itabrite, origin of hard hematite: Park, C. F., Jr.
Labrador, Redmond area: Biais, R. A.
Wabush Lake district: Knowles, D. M.; MacDonald, R. D.; Moss, A. E.
Yarmouth paleosol, northwestern: Mapes Vizquez, E.
Mississippi, Greenwood mine, specularite-magnetite: Broderick, A. T.
Ironwood iron-formation, origin: Huber, N. K.
Lake Mary quadrangle: Bayley, R. W., 1.
Mineralizing solutions, ore deposition: Butler, B. S.
Minnesota, Cook County, titaniferous magnetite: Grout, F. F.
Cuyuna district, iron-silicate minerals: Blake, R. L.
North range: Schmidt, R. George.
Missouri, sedimentary and hydrothermal, southeastern: Hayes, W. C., Jr.
New Mexico, Lincoln County, possibilities: Griswold, G. B.
Ontario, Boston Township area, Keewatin banded formation: Lawton, K. D.
Nakina area: Swensen, W. T.
Ottawa area, metasomatic deposits, Eh-pH data: Machamer, J. F.
Samreid Lake sulfide deposit: Friedman, G. M., 3.
Ore deposition, system Cu-Fe-S-O: McKinstrey, H. E.
Ore solutions, stability field: Holland, H. D.
Precambrian iron-formation, metamorphism, redox reactions, cf. experimental: Eugster, H. P., 1.
Quebec, native nickel-iron, Eastern Townships, serpentinite rock: Nickel, E. H.
Wabush Lake district: Knowles, D. M.
System Fe-S, pyrite stability: Kullerud, G., 2.
Texas, eastern: Brown, W. F.
United States, resources: Carr, M. E. S.
INDEX

IRON—Continued
West Virginia, Hardy County, micaceous hematite prospect: Arkle, T., Jr., 2.
Wisconsin, Ironwood iron-formation, origin: Huber, N. K.
ISLAND ARCS. See also Orogeny; Tectonics.
Primary and secondary, continental growth: Wilson, John T., 2.
ISOPACH MAPS. See Maps, Isopach.
ISOThY.
Phase-transition concept: Kennedy, G. C., 2.
Quebec, St. Lawrence River valley, control of stream courses: Ritchot, G.
ISOTOPES. See also Elements; Geochemistry; Geologic time; Radioactivity; Technique, Geologic age determination.
Carbon-13 to carbon-12 ratio, freshwater vs. marine carbonates: Clayton, R. N.
Carbon-14, geochemistry in freshwater systems: Broecker, W. S., 3.
Chlorine-36, ground water, streams, and rain: Schaeffer, O. A., 2.
Helium, distribution in Carbo iron meteorite: Hoffman, J. H.
Lead, age determination, tables: Steff, L. R., 1.
Manganese nodules, Atlantic and Pacific Oceans: Chow, T. J., 2.
Montana, Butte area, ore and country rock: Murthy, V. R., 2, 3.
Ore-genesis clue: Cannon, E. S., Jr.
Sea water and marine sediments: Chow, T. J., 1.
Separation and migration, cause of anomalous ages: Boyle, R. W., 1.
Lead-lead ratio, Missouri, southeastern, lead district: Kulp, J. L., 3.
Nevada, Steamboat Springs area, water origin: White, D. E.
Oxygen, mineral deposits, origin indicator and exploration guide: White, D. E.
Oxytocin, application to paleotemperatures and petrology: Epstein, S., 1.
Ratios in glacial ice: Epstein, S., 2.
Radioactive circulation: Arnold, J. R.
Radioactive disequilibrium, uranium series: Rosholt, J. N., Jr., 2.
Silicic, abundance variations: Tilley, D.
Sulfur, distribution in ore bodies: Wanless, R. K.
Economic applications: Jensen, M. L., 2.
New Brunswick, Heath Steele deposits, origin: Dechow, E. W. C.

ISOTOPES—Continued
Sulfur—Continued
Ratios in hydrothermal deposits: Jensen, M. L., 1.
JADE, California, New Idria serpentinite body inclusions, jadeite, origin: Coleman, R. G., 3.
JAMAICA. See also West Indies.
Excursion, Buff Bay, and Low Layton volcanic series: Robinson, E.
Central inlier: Williams, J. B. E., 2.
Dallas and Cane River Falls areas: Zans, V. A., 4.
Kingston to Bowden, Miocene: Chubb, L. J., 6.
Radioactivity, Milk River Bath mineral spring: Vincenz, S. A., 2.
Economic geology.
Geologic maps.
Central inlier, Cretaceous: Williams, J. B. E., 1.
Western: Williams, J. B. E., 2.
General: Jamaica G. S.; Salas, G. P., 1.
North-central: Sweeting, M. M.
Ground water.
Karb limestone, north-central: Sweeting, M. M.
Queen of Spain's Valley, springs, sinkholes and faults: Zans, V. A., 5.
White Limestone formation, hydrology: Versey, H. R., 3.
Historical geology.
Buff Bay-Hope Bay area, Miocene: Robinson, E.
Central inlier, Cretaceous: Williams, J. B. E., 1.
Karst area, Eocene-Miocene: Sweeting, M. M.
Kingston to Bowden, Miocene: Chubb, L. J., 6.
Richmond beds, Cretaceous or Eocene, age and nomenclature: Chubb, L. J., 4.
Wagwater group, Eocene (?), age problem: Versey, H. R., 1.
Mineralogy.
Bauxite deposits, ilmenite alteration products: Hartman, J. A.
JAMAICA—Continued

Paleontology.
Bryozoans, Bowden formation, Miocene: Lagaaj, R.
Kingston to Bowden, Miocene: Chubb, L. J., 6.
Rolled fossils, Cretaceous or Eocene, criterion of formation age: Chubb, L. J., 4.
Sunderland and Maldon inliers, Cretaceous: Williams, J. B. E., 1.

Petrology.
Karst limestones, north-central: Sweeting, M. M.
Phosphatic band underlying bauxite deposits: Eyles, V. A.

Physical geology.
Central inlier: Williams, J. B. E., 1.
Anticline: Williams, J. B. E., 2.
Earthquake, 3/1/57: Versey, H. R., 2.

Physiographic geology.
Cane River, diversion by natural tunnel: Zans, V. A., 4.

Kams.
Connecticut, New Britain quadrangle: Simpson, H. E.
Maine, Poland quadrangle: Hanley, J. B.
Massachusetts, Wilmington quadrangle: Castle, R. O.

Journal. See also Mesozoic; Paleontology, Jurassic.

Nechako River area, Takla and Hazelton groups: Tipper, H. W.
Southeastern, eucopeaque: Frebold, H. W. L., 1.
Whitesail Lake area: Duffell, S., 1.

KANSAS.
Aeromagnetic profiles, Morris-Wabaunsee Counties: Agocs, W. B., 3.
Nebraska border: Agocs, W. B., 2.
Western: King, E. R., 1.
Autoradiographs of Permian shales: Irvine, R.
Engineering geology, highway, earth-resistivity investigations: Crumpton, C. F.
Shallow geophysical prospecting: Wantland, D.
Hutchinson salt member of Wellington formation, Permian: Kuistad, R. O.
Lead-zinc district: Hambleton, W. W., 2.
Pratts County area, local problems: Brewer, J. E.
Salina basin, Greenleaf gravity anomaly: Lyons, P. L.
Mining geology, Lyons salt mine, rock-salt flowage: Dellwig, L. F.
Radioactivity survey, Rose dome: Har tenberger, R. A.
Seismic surveys, central uplift: Koester, E. A.
Data interpretation: Glover, R. H.
Dunes oil pool: Rupnik, J. J.
Engel oil pool: Care, J. L.
Fall Creek oil pool: Bass, B. L.
Koelsch Southeast oil pool: Beebe, B. W., 3.
Law Southeast oil pool: Winchell, R. L.
Linseborg oil pool: Brewer, R. R., Jr.
Windom oil pool: Smith, M. W.
Thermoluminescence, Ervin Creek and Plattsmouth limestones, relation to trace elements: Angino, E. E., 2.

Economic geology.
Cement materials: Runnels, R. T.
Coal, germanium content, spectrographic analysis: Schlescher, J. A., 1.
Mulky coal, resources, eastern: Schoewe, W. H., 1.
Construction materials, Marion County: Byrne, F. E.
Nemaha County: Mudge, M. R., 1.
Pottawatomie County: Scott, G. R., 1.
Wabaunsee County: Mudge, M. R., 2.
Lend, Pleasanton area: Schoewe, W. H., 2.
Mineral resources, Clay County: Walters, K. L.
Cloud County: Bayne, C. K.
Oil and gas, Abilene anticline area, possibilities: Shenkel, C. W., Jr.
Anadarko basin: Beebe, B. W., 1; Buchanan, R. S.
Mississippian: Beebe, B. W., 2.
Mississippian, southeastern: Merriam, D. F., 2.
Southwestern: Veroda, V. J.
Sedgwick basin fields: Goebel, E. D., 2.
Mississippian, eastern: Goebel, E. D., 1.
Northern: Monahan, R.

Geologic maps.
Clay County, surficial: Walters, K. L.
Cloud County, surficial: Bayne, C. K.
Kansas River valley, Wamego to Topeka, surficial: Beck, H. V.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

KANSAS—Continued

Historical geology—Continued

Nemaha County, Pennsylvanian-Permian, Quaternary: Mudge, M. R., 1.

Noxie-Cottage Grove sandstones, Pennsylvanian, south-central: Schulte, G. S.

Paleozoic, pre-Des Moines series: Huffman, G. G., 3.

Pennsylvanian, Lower, western: MeManus, D. A.

Southeastern: Davis, J. C.

Pennsylvanian-Permian, northeastern, correlation: Merriam, D. F., 3.

Plattsburg limestone, Pennsylvanian, Neodesha-Fredonia area: Harbaugh, J. W., 2.

Pottawatomie County, Pennsylvanian-Permian, Pleistocene: Scott, G. R., 1.


Speiser formation, Permian, paleogeography and Wolfcamp series correlations: Botton, N., 3d, 1.

Stanton limestone, Pennsylvanian, northeastern: Ball, S. M.

Wabaunsee County, Pennsylvanian-Permian, Quaternary: Mudge, M. R., 2.

White Cloud shale, Pennsylvanian, channel sandstone, Topeka area: Mendola, H. A.

Mineralogy.

Opal, massive, Kimball member of Ogallala formation: Franks, P. C., 1.

Ogallala formation, origin: Swineford, A., 2.

Pectolite, Woodson County, Hills Pond peridotite: Franks, P. C., 3.

Paleontology.


Bird, condor, Rexroad fauna, Pliocene: Tordoff, H. B.

Bowmanitean cone, Cherokee shale, Pennsylvanian: Mamay, S. H., 2.


Calamitean stem, Cabaniss group, Pennsylvanian, West Mineral area: Cridland, A. A.

Cat, Rexroad formation, Pliocene: Stephens, J. J., 1.

Cordaitean stem, Cherokee shale, Pennsylvanian, West Mineral area: Baxter, R. W., 2.

Crustaceans, conchostracan, Ninnescah formation, Permian: Tasch, P., 3.
KAOLIN. See also Ceramic materials; Clay.
Mexico: Esquivel Morales, J.
Puerto Rico, Carolina clay deposit: Cadilla, J. F., 2.
United States, southeastern, Cretaceous, detrital origin: Goodell, H. G.
KAOLINITE. See Clay minerals.
KARST. See also Sinkholes.
Canada, eastern, development of features: Corbel, J., 1.
North-central: Sweeting, M. M.
KENTUCKY.
Bibliography, Cumberland County: Jillson, W. R., 2.
Floyd County: Jillson, W. R., 1.
Wayne County: Jillson, W. R., 3.
Excursion, Cumberland River valley, Cumberland County, by boat: Jillson, W. R., 2.
Economeic geology.
Barite-fluorite, John Burdette deposit: Earl, K. M.
Fluorite, Big Four fault system: Hardin, G. C., Jr.
Physical and chemical environments: Nackowski, M. P., 2.
Oil and gas, Breathitt County, map: Nosow, E., 1.
Cumberland County, early wells and fields: Jillson, W. R., 2.
Larue County, map: Crawford, T. J., 2.
Muhlenberg County, map: Rose, W. D., Jr.
Silurian shallow pools, central: Barnes, J. M., Jr.
Taylor County, map: Crawford, T. J., 2.
Silica sand, Calloway and Carlisle Counties: Mcgrain, P., 2.
Silica sandstone and conglomerate, Elkhorn City area: Mcgrain, P., 1.
Geologic maps.
Big Four fault system, Crittenden County: Hardin, G. C., Jr.
Historical geology.
Cincinnati arch, Fairview-McMillan formational contact, Ordovician: Hyde, D. E.
Silurian-Devonian, south-central: Nosow, E., 2.
Paleontology.
Conodonta, Eden formation, Ordovician, Cincinnati, Ohio, region: Sweet, W. C., 2.
KENTUCKY—Continued
Paleontology—Continued
Fusulindos, Illinois basin, Early Pennsylvanian: Thompson, M. L.
Golconda formation, Mississippian: Rodriguez, J.
Ostracodes, Morgantown area, Early Pennsylvanian: Thompson, M. L.
Pollen, Eocene, exine ultrastructure: Ehrlich, H. G.
Radiolarians, Huron member of Ohio shale, Devonian: Foreman, H. P.
Petrology.
Silurian-Devonian, south-central: Nosow, E., 2.
Physical geology.
Big Four fault system: Hardin, G. C., Jr.
Cincinnati arch: Hyde, D. E.
Cumberland County, Cumberland River valley: Jillson, W. R., 2.
Fluorite district, deformation stages: Nackowski, M. P., 2.
John Burdette barite-fluorite deposit, faults: Earl, K. M.
Maysville area, landslides: Jillson, W. R., 5.
Physiographic geology.
Cumberland County, Cumberland River valley: Jillson, W. R., 2.
LABRADOR. See also Newfoundland.
Areas described.
Seal Lake area: Mann, E. L.
Economic geology.
Iron, Redmond area: Blais, R. A.
Wabush Lake district: Knowles, D. M.; Macdonald, R. D.; Moss, A. E.
Geologic maps.
Redmond area: Blais, R. A.
Snegamook Lake area: Canada G. S., 10.
Wabush Lake district: Knowles, D. M.
Historical geology.
Pleistocene, late Wisconsin, central: Henderson, Eric P., 1.
Redmond area, Precambrian and Cenozoic: Blais, R. A.
Snegamook Lake area: Canada G. S., 10.
Wabush Lake district, iron-formation, Precambrian: Knowles, D. M.
Paleontology.
Petrology.
Redmond area: Blais, R. A.
Snegamook Lake area: Canada G. S., 10.
Wabush Lake district, iron-formation, Precambrian: Knowles, D. M.
Physical geology.
Redmond area: Blais, R. A.
Snegamook Lake area: Canada G. S., 10.
Wabush Lake district: Knowles, D. M.
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LABRADOR—Continued

Physiographic geology.

Glacial drainage channels, regional slope of ice sheet: Ives, J. D.
Knob Lake area, nivation hollows, formation: Henderson, Eric P., 1.

LACCOLITHS. See also Intrusions.

Montana, South Moccasin Mts.: Miller, Richard N.

LAKES. See also Glacial lakes.

Point Barrow area, oriented: Carlson, P. R.
Deposits, amino-acid distribution: Swain, F. M., Jr., 2.
Florida, Lake Istokpoga and Lake Placid, water levels, relation to ground water: Kohout, F. A., 1.
North-central peninsula, origin: Pirkle, E. C., Jr.
Oriented, origin, Alaska, northern: Carson, C. E.; Rex, R. W.
Texas, Sabine Lake area, estuarine: Kane, H. E.
Spirit Lake, drowned forests, radiocarbon ages: Lawrence, D. B.

LAKES, EXTINCT. See also Glacial lakes.

Lake Manix, California: Danehy, E. A. Molluscan ecology, Pliocene: DeRoche, J. A. A.
United States, Great Basin, saline deposition: Kerr, P. F., 3.
Great Basin, salt chronology, Quaternary: Broecker, W. S., 4.
Western, distribution: Feth, J. H.

LANDSLIDES.

Appalachian Plateaus province: Baker, Robert F., 2.
California, Chaos Jumbles, avalanche deposit, dating by tree rings: Heath, J. P.
Los Angeles, Pacific Palisades area, map: McGill, J. T., 1.
Kentucky, Maysville area: Jilson, W. R., 5.
Montana, Madison Canyon: Hadley, J. B., 1.
Olistostromes intercalated in normal sediments: Bucher, W. H., 1.

LANDSLIDES—Continued

Open-pit mines: Wilson, S. D.
Pennsylvania, Fort Pitt tunnel, north portal area: Ackenheil, A. C.
Quebec, Matie River valley, banded sediments, stability tests: Pryer, R. W. J.

LATERITE. See also Soils; Weathering.

Cuba, Nicaro nickel ores, mineralogy: Fisher, R. B.
Puerto Rico, east-central: Briggs, R. P.

LAVA. See also Igneous rocks; Magmas and magmatic differentiation.

Alaska, Umnak-Bogoslof Islands: Byers, F. M., Jr.
California, Lava Beds National Monument, caves: Knox, R. G.
Northern, Lovejoy formation, Eocene, basalt: Durrell, C., 1.
Jamaica, Hope Bay area, pillow lavas and volcanic neck: Robinson, E.
Magnetization: Runcorn, S. K.
Mexico, Islas Revillagigedo, Clarion and Socorro, genesis: Bryan, W. B., Jr.
Michigan, Portage Lake series, amygdaline zones: Stolber, R. E.
Minnesota, Cook County, Keweenawan flows: Grout, F. F.
Nevada, Black Rock Summit basalt flow: Vitaliano, C. J.
New Mexico, Carrizozo flow: Allen, J. E.
Union County, late Cenozoic flows: Baldwin, B.
Quaternary, age criteria: Clements, T. D., 1.
Thermoremanent magnetization: Verhoogen, J.
Utah, southwestern, flows in valleys, inverted relief: Threet, R. L., 2.

LEAD. See also Galena; Isotopes; Sulfides.
Arizona, G oogle mine: Bideaux, R. A.
British Columbia, Salmo area: Antoch, P.
Idaho, Gem monzonite stocks area: Crosby, G. M.
Illinois, Jo Daviess County, crevice deposits: Bradbury, J. C., 2.
Isotopes, ordinary cf. anomalous, origin: Stanton, R. L., 2.
INDEX

CONTENTS

LEAD—Continued
Isotopic composition, manganese nodules, Atlantic and Pacific Oceans: Chow, T. J., 2.
Sea water and marine sediments: Chow, T. J., 1.
Kansas, Pleasanton area: Schoewe, W. H., 2.
Mississippi Valley, upper: Heyl, A. V., Jr., 1.
Mississippi Valley type deposits, origin: Behre, C. H., Jr., 1; Ohle, E. L., Jr.
Missouri, Bonne Terre mine, origin, and age of source: Kulp, J. L., 3.
New Mexico, Magdalena mining district: Titley, S. R., 2.
Nova Scotia, northern mainland, stream sediments, map: Canada G. S., 52.
Origin, impossibility of lateral secretion from black shales: Barnes, H. L., 1.
Radiogenic, age determination, tables: Stieff, L. R., 1.
Igneous rocks, age determination: Gottfried, D.; Jaffe, H. W.
Sulfide deposits, conformable and orthomagmatic cf. vein: Stanton, R. L., 2.
Trace, content in potassium feldspars, relation to ore deposits: Slawson, W. F.
Utah, East Tintic district, Chief Oxide area: Lovering, T. S., 2.
Wisconsin, southwestern: Heyl, A. V., Jr., 1.
LEXICONS. See Geologic names, lexicons, catalogs, glossaries.
LIFE, ORIGIN. See Paleontology, General.
LIGNITE. See also Coal.
Chemical constituents, determination: O'Neill, R. L.
Cuba: Brodermann y Vignler, J.
Idaho, Goose Creek district, uraniumous: Mapel, W. J., 1.
Marine, origin: Cansola, A. J., 1.
Long Pine Hills, uraniumous: Denson, N. M., 2.
North Dakota, southwestern, uraniumous: Denson, N. M., 1.
South Dakota, Harding-Perkins Counties, uraniumous: Denson, N. M., 1.
Murchison quadrangle: Curtiss, R. E.; Surum quadrangle: Bollin, E. J.
United States, western, uraniumous: Denson, N. M., 1.
Vanadium ores, deposition, reducing agent, experimental: Pommer, A. M.

LIMESTONE. See also Carbonate rocks; Construction materials.
California, Fremont Peak area: Bowen, O. E., Jr.
Standard quadrangle: Hart, E. W.
Canada, eastern, rate of erosion, karst development: Corbel, J., 1.
Clay minerals, leaching of silica, experimental: Carroll, D., 4.
Detrital, cross-lamination: Harbaugh, J. W., 1.
Diagenetic sequence of calcite deposition: Waldschmidt, W. A.
Facies, stratigraphic traps: Edle, R. W., 3.
Fine-grained, internal friction at ultrasonic frequencies, experimental: Peselnick, L.
Illinois, southern: Lamar, J. B.
Jamaica, erosion, bauxite formation: Hose, H. R.
North-central, karst area: Sweeting, M. M.
Kansas, Neodesha-Fredonia area, Plattsburg limestone, marine bank origin: Harbaugh, J. W., 2.
Wabamunsee County, construction: Mudge, M. E., 2.
Mexico, Yucatan Peninsula, clay mineralogy: Aguilara Herrera, N.
Nevada, northeastern, Pennsylvanian, cyclic sedimentation, mechanical: Dott, R. H., Jr., 1.
Oklahoma, Mississippian, depositional environments: Curtis, D. M.
Conestoga limestone, Hanover area, low-grade metamorphic, calcite petrofabrics: Nickelsen, R. P.
Eastern: Gray, C. A.
Pseudobreccias, microfabrics: Bathurst, R. G. C.
Puerto Rico: Cadilla, J. F., 1.
Recrystallization: Folk, R. L., 2.
Reefs, diagenesis: Fischer, A. G.
Texas, central, Cretaceous, middle: Baylor Geol. Soc.
Texture, classification, key to deposition depth: Wanless, H. R., 1.
Thermoluminescence, pressure effects: Angino, E. E., 4.
Pressure effects, relation to geologic age: Angino, E. E., 3.
Utah, central: Utah Geol. Soc.
Vermont, Burchards limestone, mineralogy and origin: Zen, E-an, 3.
Virginia, dolomitic, structure study from enlarged photographs: Cooper, B. N., 1.
LIMESTONE—Continued
Virginia—Continued
Mosheim formation, Strasburg area, petrography: Sherwood, W. C.
West Indies, shorelines, solution pits: Warthin, A. S., Jr.
West Virginia, Wood County deep well, Ordovician, chemical and physical properties: Robertson, E. C.

LIMESTONE—Continued
Virginia—Continued
LIMONITE.
Pennsylvania, Gatesburg formation, clay-limonite deposits, electrical investigation: Gross, G. W., 1.

LINEAMENTS. See also Faults and faulting; Fracturing; Jointing.
North America, Cordilleran region, relation to mineral districts: Wisser, E. H.
United States, southwestern, intersections and ore districts: Mayo, E. B., 1.

LITHOFACIES MAPS. See Maps, Miscellaneous.

LITHOLOGY.
Alberta, Elkton member of Turner Valley formation, Mississippian: Thomas, G. E.

LITHOLOGY—Continued
Deep-water troughs, lithotopes: Crook, K. A. W., 1.
Florida, land-peatbble phosphate district, drill-core data: Catheart, J. B.
West-central, Cenozoic, residual vs. depositional origin: Ketner, K. B.
Middle Tertiary: Carr, W. J.
Kansas, Dakota group, Cretaceous, Cheyenne County, detailed description of core: Merriam, D. F., 4.
Wabaunsee County, Pennsylvania-Permian, Quaternary: Mudge, M. R., 2.
New York, Chemung County, Cambrian-Devonian, deep well: Wiggins, J. W.
Oklahoma, north-central, Mississippian, correlation with Kansas: McDuffie, R. H.
Ontario, London area, Wisconsin glacial stage: Friends Pleistocene Geology Eastern Sec.
Puerto Rico, upper Tertiary sections: Mitchell, R. C.
Sedimentary rocks, analysis: McNeil, R. P.
Texas, central, Edwards limestone: Nelson, H. F.
United States, Anadarko basin, northern, Morrow series: Abels, T. A.
West Virginia, Wood County deep well: Woodward, H. P., 2.

LITHOSTRATIGRAPHY, nomenclature: Alvarez, M., Jr., 1.

LOESS. See also Glacial geology.
Indiana, Fayette-Union Counties, Wisconsin moraines as source: Ulrich, H. P.
Iowa, southeastern, geologic and engineering properties: Hansen, J. A., Jr.
Western, Pleistocene: Daniels, R. B.
Oregon, Portland area, origin and parent materials: Thelsen, A. A., 2.
Saskatchewan, Swift Current area, Wisconsin stage: Christiansen, E. A.
United States, Middle West, Pleistocene: Heinzelin, J. de.

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Geophysical investigations, Washington oil and gas field: Clayton, N.
Guidebook, southern: Russell, R. J., 2.

Economic geology.
Natural gas, Thornwell field: Hardin, F. R.
Oil and gas, Anahuac formation, southern: Goheen, H. C.

LIQUID INCLUSIONS. See also Geologic thermometry.
Composition, geologic applications: Ames, L. L., Jr., 3.
Geothermometry, H2O-CO2 filling temperatures: Smith, F. G., 2.
Halite, synthetic, vacuole disappearance, geothermometer: McCulloch, D. S.
Ore-forming fluids, composition: Barton, P. B., Jr., 2; Roedder, E. W., 3.

LITHOFACIES MAPS. See Maps, Miscellaneous.

LITHIUM. See also Elements.
Quebec, Presseac - La Motte - Lacorne batholiths, geochemistry, relation to spodumene pegmatites: Siroonian, H. A.

LITHIUM—Continued
LITHIUM—Continued

LITHOFACIES MAPS. See Maps, Miscellaneous.

LITHOLOGY.
Alberta, Elkton member of Turner Valley formation, Mississippian: Thomas, G. E.
LOUISIANA—Continued

**Economic geology—Continued**

Avery Island salt dome: Bates, F. W.
Evangeline-St. Landry Parishes: Varvaro, G. G.
Grandison area: Oakes, R. L.
Map: Coignet, G. O.
Washington field: Clayton, N.
Petroleum, Bay Ste. Elaine field: Schneider, S. J.
Miocene sediments, southern: Limes, L. L.

**Geologic maps.**

Sabine Lake area: Gulf Coast Assoc. Geol. Soc.; Kane, H. E.

**Historical geology.**

Anahuac formation, Oligocene or Miocene, southern: Goheen, H. C.
Bossier Parish, Eocene-Pleistocene: Jones, D. E.
Chenier plain, postglacial shoreline stages: Gould, H. R., 2.
Continental-shelf sediments, Quaternary: Fisk, H. N., 2.
Evangeline-St. Landry Parishes, Eocene-Recent: Varvaro, G. G.
Grandison area, Miocene-Recent: Oakes, R. L.
Miocene, southern: Limes, L. L.
Miocene-Pleistocene, composite thicknesses, southern: Crouch, R. W.
Mississippi delta, development, cf. prehistoric settlements: McIntire, W. G.
Quaternary, southern: Russell, R. J., 2.
Sabine Lake area, Quaternary: Kane, H. E.

**Paleontology.**

Chenier plain, Recent, faunal zones: Byrne, J. V.
Foraminifera, Anahuac formation, Oligocene or Miocene, list: Goheen, H. C.
Oligocene-Miocene, catalog: Butler, E. A. M.
Post-Oligocene composite thicknesses from regional zones, southern: Crouch, R. W.
Foraminiferal assemblages, Mississippi delta, ecology: Lankford, R. R.; Shepard, F. P., 2.
Sabine Lake area, Quaternary, marine-lacustrine biofacies: Kane, H. E.

**Petrology.**

Anahuac formation, Oligocene or Miocene, southern: Goheen, H. C.
Chenier plain, Recent facies, cf. shoe-string sands: Byrne, J. V.
Gulf coast, Recent beach sands: Hsu, K. J., 1.

**Physiographic geology.**

Chenier plain, postglacial shorelines: Gould, H. R., 2.
Continental-shelf sediments, Quaternary: Fisk, H. N., 2.
Evangeline-St. Landry Parishes: Varvaro, G. G.
Mississippi delta: Schneider, S. J.
Mississippi delta region, Quaternary: Russell, R. J., 3.
Sabine Lake area: Kane, H. E.
Salt-marsh development: Russell, R. J., 3.
Shoreline retreat, hurricane-induced, southwestern: Morgan, J. P.

**Luminescence, quartz, synthetic, red:** Claffy, E. W.

**Magmas and magmatic differentiation.**

Alaska, Semisopochnol Island: Coats, R. R., 2.
Union Bay area, ultramafic intrusive complex, successive injections: Ruckmick, J. C.
Arkansas, Magnet Cove area: Scull, B. J., 3.
Basaltic, role of oxygen pressure in crystallization: Osborn, E. F.
California, Amboy Crater, basaltic: Parker, R. B., 1.
Eureka Peak, zoned gabbro pegmatites: Lovering, J. K.
Southern California batholith, trace elements: Sen, N.
Carbonatite, synthetic, low-temperature: Wyllie, P. J., 2.
Crystallization, textural features: Goodspeed, G. E., 1.
MAGMAS AND MAGMATIC DIFFERENTIATION—Continued

Feldspars, alkalie, and ore associations:
Kuebler, F. J., 2.

Gas phase, composition from equilibrium calculations:
Krauskopf, K. B., 1.

Granites:
Whitfield, J. M., 2.

Uranium and thorium distribution:
Whitfield, J. M., 1.

Granitic plutons, role in emplacement:
Buddington, A. F.

Greenland, Skærgaard intrusion:
Shimazu, Y.

Skærgaard intrusion, silicates, trace elements uptake:
Williams, R. J. P.

Uranium distribution:
Hamilton, E. I.

Ubekendt Ejland, picritic sill, sinking olivine:
Bailey, E. B.

Werner Bjerge massif:
Bearth, P.

Heat-pressure reactions in tectonic deformation:
Bennington, K. O.

Hydrothermal solutions, sulfur-isotope ratios:
Jensen, M. L., 1.

Interfacial free energy in crystal grains:
DeVore, G. W., 2.

Meteorite, achondrite, mineral composition, position in primary body:
Lovering, J. F., 3.

Mexico, Islas Revillagigedo, Clarion and Socorro, lavas:
Bryan, W. B., Jr.

Michigan, Lake Mary quadrangle, Precambrian intrusions:
Bayley, R. W., 1.

West Kiernan sill, Iron County, differentiated metagabbro:
Bayley, R. W., 2.

Minnesota, Duluth gabbro complex, distribution of elements:
Snyder, J. L.

Mississippi Valley, upper, lead-zinc district:
Heyl, A. V., Jr., 1.

Nevada, Black Rock Summit basalt flow:
Vitaliano, C. J.

Origin, stress-relief hypothesis:
Uffen, R. J.

Pegmatite-metallization association:
Lutton, R. J., 1.

Quebec, Preissac-La Motte-Lacorne batholiths and pegmatites:
Siroonan, H. A.

Rhode Island, Bradford area, granodiorite dike, magmatic sorting vs. gravity settling:
Hall, B. A.

Rhythmic layering, Skærgaard and Willow Lake types:
Poldervaart, A., 2.

Silica and cation concentration, thermodynamic implications:
Ruotsala, A. P.

Temperature of intrusion, melting point:
Jaeger, J. C.

MAGNETISM. See also Geomagnetism.

MAGNETITE. See also Iron.

Nevada, Pershing-Churchill Counties:
Sheppard, E. P.

New York, Ausable Forks district, origin:
Collins, L. G.

Ausable Forks district, source, host rock:
Hagner, A. F., 2.

Lake Sanford district, titaniferous, genesis:
Gillson, J. L., 1.

Oxidation:
Basta, E. Z.

Pennsylvania, Lancaster County, glassy-appearing, contact of serpentinized ultramafic rock and quartz pegmatite:
Lapham, D. M., 3.

MAINE.

Aeromagnetic surveys, Augusta-Sidney area:
Wing, L. A., 2.

Gardiner area:
Wing, L. A., 2.

Penobscot-Piscataquis Counties:
Wing, L. A., 1.

Bibliography, 1836-1958:
Maine Geological Survey.

Engineering geology, highway-location studies, aerial-photograph analysis:
Stoeckeler, E. G.

Terrain analysis, field sampling, central:
Strahler, A. N., 2.

Areas described.

Sebago Lake State Park, popular account:
Bloom, A. L., 2.

Skowhegan quadrangle:
Borns, H. W., Jr.

Economic geology.

Clay, lightweight aggregate, Sandy River area, potential:
Caldwell, D. W.

Mineral deposits, list:
Morrill, P., 3.

Mineral resources, Lewiston area, map and bibliography:
Maine Geological Survey.

Portland-Bath area, map and bibliography:
Maine Geological Survey.

Sand and gravel, Poland quadrangle:
Hanley, J. B.

Sulfides, Gardiner area, possibilities:
Wing, L. A., 2.
INDEX

MAINE—Continued

Geologic maps.
Index: Boardman, L., 2.
Isles of Shoals: Fowler-Billings, K.
Poland quadrangle, surficial: Hanley, J. B.
Sandy River area, glacial: Caldwell, D. W.

Historical geology.
Anson quadrangle, Silurian (?): Cariani, A. R.
Isles of Shoals: Fowler-Billings, K.
Kennebago Lake quadrangle, Silurian (?): Willard, R. J., 2.
Quaternary, southwestern: Bloom, A. L., 1.
Sandy River area, glacial: Caldwell, D. W.
Wells-Kennebunk Beaches, intertidal tree stumps, radiocarbon ages: Hussey, A. M., 2d.

Mineralogy.
Amblygonite, Newry pegmatite, crystal structure: Baur, W. H.
Collecting localities: Morrill, P., 3.
Quartz crystals, Old Spec Mtn. quadrangle, collecting: Shaub, B. M., 2.

Paleontology.
Quaternary, southwestern: Bloom, A. L., 1.
Yarmouth area, Pleistocene: Wentworth, R. H.

Petrology.
Anson quadrangle, metamorphic rocks: Cariani, A. R.
Isles of Shoals: Fowler-Billings, K.
Kennebago Lake quadrangle, metamorphic rocks: Willard, R. J., 2.
Peg Claims spodumene pegmatites: Sundell, H. W.
Rangeley area, metadorlite stock: Willard, R. J., 3.
Skowhegan quadrangle: Borns, H. W., Jr.

Physical geology.
Crustal warping, Quaternary, southwestern: Bloom, A. L., 1.
MAMMALIA—Continued


Evolution: Romer, A. S., 2.

From reptiles, transition criteria:

Olson, E. C.


Hippotigris simplicidens, Pleistocene, Nebraska: Howe, J. A.

Hypsodont teeth, evolution: White, T. E.

Illinois, Pleistocene, list and bibliography: Bader, R. S., 2.

Insectivora, pantolestid: Gazin, C. L., 2.


Mammoths, extinction by Datil drought, southwestern United States: Antevs, E. V.

Pleistocene, Michigan, Eaton Rapids area: Potts, R.

Mammuthus, Pleistocene(?), Arkansas, Garland area: Fay, G. E.


Nevada, Smith Valley fauna, Pliocene: Macdonald, J. Reid.


New Mexico, San Juan Basin, Paleocene type area: Simpson, G. G., 2.

Nimravus, Oligocene-Miocene: Toohey, L. M.

North America, nonmarine, “ages”: Savage, D. E.

Nothitherium shastense, Cenozoic, Arizona, Rampart Cave, pollen studies of dung: Martin, P. Schultz.


Peromyscus polionotus, Pleistocene, Florida, Vero Beach, not Reithrodonotus: Bader, R. S., 1.

Pliotazidea nevadensis, Pliocene, Oklahoma, Ogallala formation, Harper County: Kitts, D. B., 1.

Pomatoliphas inaequalis, Miocene, Florida, Bartow area: Kellogg, E.

Popular account: Barnett, L.


MAMMALIA—Continued


West Virginia, record of finds: Weimer, B. R.


Microtine, Pliocene-Pleistocene local faunas, Idaho-Wyoming: Hibbard, C. W.

Scenopagus megaleni, Eocene, Wyoming, Bridger formation: McKeena, M. C.

Sirenia, Cenozoic, review: Reinhart, R. H.

South Dakota, Mission area, popular: ZeiIner, J. C., 1.


Wyoming, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, P. O.

Yukon, Old Crow River area, Pleistocene: Geist, O. W.

MAN, FOSSIL. See also Artifacts.

Arizona, Lehner site, artifacts with mammals: Haury, E. W.

California, San Diego area, Pleistocene dating, evidence: Carter, G. F.

Evolution: Howells, W. W.


Origin of concept: Daniel, G. E.

Great Lakes region, fossil-beach sites, Aqua-Plano points: Quimby, G. I.

Iowa, western, Pleistocene sites: Frankforter, W. D.

Massachusetts, Bull Brook site, radiocarbon dates: Eyers, D. S.

North America, Columbia Intermontane province: Daugherty, R. D., 1.

Western: Daugherty, R. D., 1.

Origin, popular account: Pfeiffer, J.


Texas, Midland discovery, Pleistocene: Wendorf, F.


Wisconsin, Pleistocene: Black, R. F., 2.

MANGANESE.

Geochemistry in weathering zone: Williamson, D. R., 2.

Mexico, Chihuahua: Ayub M., A. R.

Minnesota, Cuyuna iron range, Crow Wing County: Helsing, L. F.

Nevada: Trengove, R. R.

Nodules, deep-sea, occurrence and mining economics: Mero, J. L., 1.

MANGANESI-Continued
Nodules-Continued
Metabolic precipitation of trace elements: Graham, J. W., 2.
Ore minerals, descriptions: Ramdohr, P.
Oregon, Blue Mts.: Appling, R. N., Jr.
Oxides, origin: Hewett, D. F., 2.
Virginia, Shenandoah Valley, residual concentrate: Hack, J. T., 3.

MANITOBA.
Aeromagnetic maps, 726, Gimby Lake area: Canada G. S., 13.
727, Samson Lake area: Canada G. S., 13.
728, Morand Lake area: Canada G. S., 13.
729, Cisby Lake area: Canada G. S., 13.
730, Sprott Lake area: Canada G. S., 13.
731, Nicklin Lake area: Canada G. S., 13.
732, Bain Lake area: Canada G. S., 13.

Bibliography, fuels and industrial minerals: Mills, B. A.
Post-Cambrian: Mills, B. A.
Precambrian: Barry, G. S., 1.

Areas described.
Northern Indian Lake area: Canada G. S., 29.

Economic geology.
Fuels, bibliography: Mills, B. A.
Gold, Elbow-Hemling Lakes area: McGlynn, J. C.
Gypsum-anhydrite deposits: Bannatyne, B. B.
Industrial minerals, bibliography: Mills, B. A.
Mineral resources, possibilities, northern: Godard, J. D.
Oil and gas, map, western: Canada G. S., 2.

Pegmatites, Bernie Lake area, possibilities: Hutchinson, R. W.
Petroleum, Mississippian, southwestern: McCabe, H. R.
Ordovician-Silurian reservoir possibilities, southern: Andrichuk, J. M., 1.
Sulfides, Elbow-Hemling Lakes area: McGlynn, J. C.
Island Lake area: Quinn, H. A.

Geologic maps.
Brandon area, bedrock and surficial: Halstead, E. C.
Elbow Lake area: McGlynn, J. C.
Hemling Lake area: McGlynn, J. C.
Island Lake area, sketch: Quinn, H. A.
Knee Lake area, bedrock and surficial: Barry, G. S., 2.

MANITOBA-Continued
Geologic maps-Continued
Northern Indian Lake area: Canada G. S., 29.
Oxford House area, bedrock and surficial: Barry, G. S., 2.

Ground water.
Brandon area: Halstead, E. C.

Historical geology.
Amaranth evaporite, Jurassic: Bannatyne, B. B.
Brandon area, Jurassic-Pliocene: Halstead, E. C.
Cambrian-Silurian, southwestern: Porter, J. W.
Elbow-Hemling Lakes area, Precambrian: McGlynn, J. C.
Island Lake series, Precambrian: Quinn, H. A.
Mississippian, southwestern: McCabe, H. R.
Ordovician, revised sequence, southern: Sinclair, G. W., 1.
Ordovician-Silurian, southern: Andrichuk, J. M., 1.
Oxford House-Knee Lake area, Precambrian: Barry, G. S., 2.
Precambrian crystalline rocks, K-A ages, northern: Moore, J. M., Jr.


Mineralogy.
Montary pegmatite, Bernie Lake area: Hutchinson, R. W.

Paleontology.
Conodonts, Shamattawa limestone, Ordovician, northern: Ethington, R. L., 2.
Manitoba group, Devonian, zones: McCammon, H. M.
Plants, Quaternary, postglacial development: Love, D.

Petrology.
Elbow-Hemling Lakes area, Precambrian: McGlynn, J. C.
Island Lake series, Precambrian: Quinn, H. A.
Ledge Lake area, Precambrian: Heywood, W. W.
Mineral resources, relation, northern: Godard, J. D.
Mississippian, southwestern: McCabe, H. R.
Montary pegmatite, Bernie Lake area: Hutchinson, R. W.
Northern Indian Lake area: Canada G. S., 29.
Ordovician-Silurian, southern: Andrichuk, J. M., 1.
Oxford House-Knee Lake area, Precambrian: Barry, G. S., 2.

Physical geology.
Elbow-Hemling Lakes area, folds and faults: McGlynn, J. C.
Island Lake series, Precambrian: Quinn, H. A.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

MANITOBA—Continued

Physical geology—Continued

Mineral resources, relation, northern: Godard, J. D.
Mississippian regional tectonics and salt collapse, southwestern: McCabe, H. R.
Oxford House-Knee Lake area: Barry, G. S., 2.

Physiographic geology.

Brandon area: Halstead, E. C.

Maps (excluding Geologic maps, which see). See also Cartography; Technique, Mapping.

Aeromagnetic.

Alberta, Lethbridge to British Columbia, adjacent to 49th parallel: Canada G. S., 14.
British Columbia, Pacific coast to Alberta, adjacent to 49th parallel: Canada G. S., 14.
Canada, index: Canada G. S., 15.
Colorado, Lisbon Valley area:Byerly, P. E.
Manitoba, Bain Lake area: Canada G. S., 13.
Clisby Lake area, 729: Canada G. S., 13.
Gimly Lake area, 726: Canada G. S., 13.
Morand Lake area, 728: Canada G. S., 13.
Nelkin Lake area, 731: Canada G. S., 13.
Samson Lake area, 727: Canada G. S., 13.
Sproat Lake area, 730: Canada G. S., 13.
Michigan, Iron River-Crystal Falls district: James, H. L., 1.
New Brunswick, Blackville area, 757: Canada G. S., 13.
Boiestown area, 756: Canada G. S., 13.
Chipman area, 754: Canada G. S., 13.
Fredericton area, 751: Canada G. S., 13.
Fredericton Junction area, 750: Canada G. S., 13.
Grand Lake area, 752: Canada G. S., 13.
Minto area, 753: Canada G. S., 13.
Newcastle area, 758: Canada G. S., 13.
Salmon River Road area, 755: Canada G. S., 13.
New Jersey, Lambertville and Stockton quadrangles: Bromery, R. W., 14.

MAPS—Continued

Aeromagnetic—Continued

New York, Loon Lake quadrangle and part of Chateaugay quadrangle: Balsley, J. R., Jr., 3.
Oswegatchie quadrangle: Balsley, J. R., Jr., 4.
Santa Clara quadrangle and part of St. Regis quadrangle: Balsley, J. R., Jr., 2.
Tupper Lake quadrangle: Balsley, J. R., Jr., 5.
Northwest Territories, Boyd Lake area: Canada G. S., 9.
Buffalo Lake areas, 736–38: Canada G. S., 13.
Copp Lake areas, 735, 739: Canada G. S., 13.
Deschaime Lake area, 743: Canada G. S., 13.
Hawkes Lake area, 742: Canada G. S., 13.
Higgins Lake area, 746: Canada G. S., 13.
Klewi River area, 747: Canada G. S., 13.
Le Grand Detour area, 748: Canada G. S., 13.
Lobstick Creek area, 745: Canada G. S., 13.
Needle Lake area, 744: Canada G. S., 13.
Salt River area, 733: Canada G. S., 13.
Sass River area, 740: Canada G. S., 13.
Tethul River area, 734: Canada G. S., 13.
Wholdala Lake East area: Canada G. S., 11.
Ontario, Bristol Township: Ferguson, S. A.
Buckingham quadrangle: Bromery, R. W., 13.
Conestoga quadrangle: Bromery, R. W., 16.
East Greenville quadrangle: Bromery, R. W., 6.
Elverson quadrangle: Bromery, R. W., 19.
Lambertville and Stockton quadrangles: Bromery, R. W., 14.
Malvern quadrangle: Bromery, R. W., 2.
Media quadrangle: Bromery, R. W., 5.
Milford Square quadrangle: Bromery, R. W., 7.
Morgantown quadrangle: Bromery, R. W., 18.
Norristown quadrangle: Bromery, R. W., 2.
INDEX

MAPS—Continued

Aeromagnetic—Continued

Pennsylvania—Continued

Perklemeno1ville quadrangle: Bromery, R. W., 9.
Phoenixville quadrangle: Bromery, R. W., 10.
Quakertown quadrangle: Bromery, R. W., 12.
Quarryville quadrangle: Bromery, R. W., 17.
Safe Harbor quadrangle: Bromery, R. W., 15.
Sassamansville quadrangle: Bromery, R. W., 8.
Valley Forge quadrangle: Bromery, R. W., 1.
West Chester quadrangle: Bromery, R. W., 4.

South Carolina, Mullins quadrangle, South Carolina bays: Agocs, W. B., 1.

Utah, Lisbon Valley area: Byerly, P. E.

Oklahoma, Ouachita province, gravity: Howell, J. V., 1.

South Dakota, Corson-Dewey-Ziebach Counties, magnetometer: Petsch, B. C., 3.

Texas, Mustang Hill laccolith, gravity: Greenwood, R.

Stamford area, seismic: Van Slied, D. C.

United States, midcontinent, gravity anomalies: Lyons, P. L.

West Indies, Antigua, Belmont barite quarry area, resistivity: Martin-Kaye, P. H. A.

Wisconsin, Baraboo syncline region, gravity: Hinze, W. J., 1.

Ground water.

California, Avens-McKittrick area: Wood, P. R.

Long Beach-Santa Ana area: Poland, J. F., 2.


Santa Ynez River basin: Wilson, H. D., Jr.

Stanslaus-Merced Counties: Davis, S. N.

Torrance-Santa Monica area: Poland, J. F., 1.


Ruskin area: Peck, H. M.

Idaho, Big Wood River-Silver Creek area: Smith, Rex O.

Illinois, Chicago region: Suter, M.

Kansas, Clay County: Walters, K. L.

Cloud County: Bayne, C. K.

Kansas River valley, Wamego to Topeka: Beck, H. V.

Mitchell County: Hodson, W. G.

Maryland, Beaverdam Creek basin: Rasmussen, W. C., 1.

Massachusetts, East Providence quadrangle: Allen, W. B., 2.

Montana, Bitterroot Valley: McMurtrey, B. G.

Nebraska, Big Blue River basin above Crete: Johnson, C. B.

Clay County: Keesch, C. F., 1.

Niobrara River basin: Newport, T. G.

Platte River basin, lower: Keesch, C. F., 2.

New Jersey, Cape May County: Gill, H. E.
MAPS—Continued

Ground water—Continued

New Mexico, Hueco Bolson: Knowles, D. B.
New York, Chemung County: Wetterhall, W. S.
Ohio, buried valleys: Cummins, J. W.
Madison County: Norris, S. E., 1.
Rhode Island, Crompton quadrangle: Allen, W. B., 1.
East Providence quadrangle: Allen, W. B., 2.
Hoe Valley quadrangle: Bierschenk, W. H., 1.
Narragansett Pier quadrangle: Hahn, G. W., 2.
Slocum quadrangle: Hahn, C. W., 1.
Narragansett Pier quadrangle: Hahn, G. W., 2.
Slocum quadrangle: Hahn, C. W., 1.
Wickford quadrangle: Johnson, K. E.
South Dakota, Ponca Creek basin: Newport, T. G.
Texas, Bexar County: Arnow, T.
Hueco Bolson: Knowles, D. B.
Medina County: Holt, C. L. R., Jr.
Wyoming, Riverton irrigation project: Morris, D. A.

Isopach.

Alberta, Elk Point group, Middle Devonian: Belyea, H. R.
Fort Mackay area, McMurray sands: Carriggy, M. A., 2.
Peace River area, Triassic: Hunt, A. D.
South-central, Mississippian: Penner, D. G.
Southern, Lower Cretaceous: Glaister, R. P.
Southern plains, Middle Cambrian: Hees, H. van.
Winterburn-Wabamun groups, Devonian: Sutterlin, G. S.
Appalachian basin, Pennsylvanian-Pennsylvanian: Arkle, T., Jr., 1.
Arkansas, northern, pre-Atoka, Mississippian: Frezon, B. E.
British Columbia, Peace River area, Triassic: Hunt, A. D.
California, Searles Lake salt body: Hayes, D. V.
Canada, west Canadian basin, Paleozoic: Sikabonyl, L. A.
Colorado, northwestern, Upper Cretaceous: Hale, L. A.
Colorado Plateau, Carboniferous and Cretaceous: Peterson, J. A.
Continental shelf and slope, northeastern, sediments: Drake, C. L.
Florida, Tampa limestone, Mississippian: Carr, W. J.
Illinois, Chicago region: Suter, M.
Cooks Mills area, Mississippian formations: Whiting, L. L.
Kansas, Hutchinson salt member of Wellington formation, Pennsylvanian: Kulpstad, R. O.
Neodesha-Fredonia area, Plattsburg limestone and Vinas shale, Pennsylvanian: Harbaugh, J. W., 2.

MAPS—Continued

Isopach—Continued

Kansan—Continued

Northeastern, Douglas-Pee Dee groups, Pennsylvanian, sandstone isoliths: Sanders, D. T.
South-central, Noxie-Cottage Grove sandstones, Pennsylvanian: Schulte, G. S.
Southeastern, Mississippian: Merrimack, D. F., 2.
Kentucky, eastern, Upper Mississippian formations: Wilpolt, B. H.
Louisiana, Erath member of Anahuac formation, Oligocene or Miocene: Goheen, H. C.
Manitoba, southern, Ordovician-Silurian: Andrichuk, J. M., 1.
Southwestern, Mississippian: McBride, H. R.
Michigan, glacial drift: Akers, J.
Lower Peninsula, northern, Salina salt, Silurian: Landes, K. K., 1.
Michigan basin, Middle Devonian: Briggs, L. I., Jr.
Central and eastern, Mississippian-Pennsylvanian: Willis, R. F.
Red Creek oil field: Lowe, H. R.
Stensvad oil field, Mississippian-Jurassic: Stagg, J. O.
Wolf Springs-Delahia area, Alaska Bench-Amadan formations, Mississippian-Pennsylvanian: Ramsey, R. D.
New Mexico, northeastern: Krisle, J. E.
Southeastern, pre-Simpson formations, Cambrian-Ordovician: Barnes, V. E., 1.
Tucumcari basin: Krisle, J. E.
West-central, Pennsylvanian: Kotlowski, F. E., 3; Wengert, S. A., 1.
North America, salt basins: Kerr, P. F., 4.
Oklahoma, eastern, Cambrian-Pennsylvanian: Berrett, H.
Harper County: Jordan, L., 3.
Northwestern, Ordovician-Pennsylvanian: Bolter, M. E.
Southern, pre-Pennsylvanian: Maxwell, R. W.
Southwestern, Cambrian-Middle Pennsylvanian, groups and formations: McDaniel, G. A.
INDEX

MAPS—Continued

Isopach—Continued

Oklahoma—Continued

Woods County, Silurian-Pennsylvanian: Bowles, J. P. F.

Saskatchewan, Quill Lakes-Cu'Appelle area, Dawson Bay formation, Devonian: Lane, D. M.

Three Forks-Baiken sequence, Devonian-Mississippian: Kents, P.

Tennessee, central, Wells Creek dolomite, Ordovician: Smith, O. E.

Texas, Delaware-Val Verde basins, Paleozoic formations: Vertrees, C. D.

Three Forks-Bakken sequence, Devonian-Mississippian: Kents, P.

Tennessee, central, Wells Creek dolomite, Ordovician: Smith, O. E.

United States, Anadarko basin, northern, Morrow series: Abels, T. A.


Phosphoria formation, Permian: McKelvey, V. E., 1.

Greenland, Werner Bjerge massif: Beart, P.

Southeastern, salt wash member, Jurassic: Johnson, H. S., Jr., 2.

Virginia, southwestern, Upper Mississippian formations: Wilpolt, R. H.

West Virginia, southern, Mississippian formations and Devonian shales: Haught, O. L., 3.

Southern, Upper Mississippian formations: Wilpolt, R. H.

Williston basin, Mississippian-Pennsylvanian: Willis, R. P.

Northern, Cambrian-Silurian: Porter, J. W.


Minnelusa formation, Pennsylvanian-Permian: Foster, D. L.

Yukon, northern: Martin, L. J., 1.

Mineral

Alaska, Juneau quadrangle: Latham, E. H.

MAPS—Continued

Mineral—Continued

Arkansas, Ouachita Mts.: Scull, B. J., 1.

British Columbia, Salmo area, lead-zinc: Fyles, J. T.

California, Lake Elsinore quadrangle: Engle, R. L. H.

Mojave Desert, western, collecting: Berkozolz, M. F.


Iron: Canada G. S., 4.

Molybdenum: Canada G. S., 3.

Tungsten: Little, H. W.

Colorado, clay, by counties: Van Sant, J. N.

Iron: Harrer, C. M.

Colorado Plateau, uranium: Finch, W. L., 2.

Greenland, Werner Bjerge massif: Beart, P.


Southern limestone areas: Lamar, J. E.

Kansas, Wabanssee County, construction materials: Mudge, M. R., 2.

Maine: Mudge, M. R., 2.

Northern, metallogenic provinces, sulfophile trace elements: Schmid, E. George.

Mississippi Valley, upper, lead-zinc: Heyl, A. V., Jr., 1.

New Brunswick: Smith, J. C.


New Mexico: Northrop, S. A.


New York, resources: Luedke, E. M.

Nova Scotia, Renfrew gold district: Stevenson, I. M.

Oklahoma, Ouachita Mts.: Scull, B. J., 1.

Saskatchewan, Amisk-Hanson Lakes area: Beck, L. S.

Northern, Precambrian: Beck, L. S.

Tennessee: Hardeman, W. D.

Texas, Terlingua mercury district: Yates, R. G.

United States, aluminum silicates: Grametbaur, A. B.

Iron: Carr, M. E. S.

Southwestern, metallogenic provinces, sulfophile trace elements: Burnham, C. W., 2.
Maps—Continued

Mineral—Continued

United States—Continued

Uranium, epigenetic deposits: Finch, W. I., 1.
Green River-Henry Mtn. districts, uranium: Johnson, H. S., Jr., 2.
Thomas Range fluorite district: Staats, M. H.
Virginia: Gooch, E. O.

Miscellaneous—Continued

Cross-strata dip bearings, Kansas, Ottawa County, Dakota sandstone: Franks, P. C., 2.
Facies, Utah-Wyoming, Park City interval: Cheney, T. M.
Fracture patterns, Montana-Wyoming, Beartooth Mts.: Spencer, E. W.
Alberta, Lake Athabasca area, southern, and Kagalaska Island: Fraser, G. D., 2.
Arkansas, Arkansas Valley basin, southwestern, photomosaic: Fort Smith Geol. Soc.
Washington County, southwestern: Quinn, J. H., 2.
Jackson, K. C., 2.
British Columbia, Salmo lead-zinc area: Fyles, J. T.
Colorado, southwestern: Byerly, P. E.
Gulf of Mexico, continental shelf: Atwater, G. L., 1.
Kansas: Kansas Geol. Soc., 2.
Mississippi Valley, upper: Heyl, A. V., Jr., 1.
Montana, Granite County, southeastern: Poulter, G. J.
New Mexico, Lucero region: Wengerd, S. A., 1.
Ocate area, photogeology: Bogart, L. E.
Oklahoma, Love-Carter Counties, pre-Aktokan: Reed, B. K.
Pennsylvania, southwestern: Dutcher, R. R.
Utah, Slab Canyon anticline: Lewis, D. W.
Southeastern: Byerly, P. E.
Wasatch Mts., faults: Baker, A. A.
St. Johnsbury quadrangle: Hall, L. M.
Wisconsin, southwestern, lead-zinc district: Heyl, A. V., Jr., 1.

Maps—Continued

Geologic structure—Continued

Tongue River area, Bighorn Mts., joints: Osterwald, F. W., 2.
Illinois, south-central and southwestern: Leighton, M. M.
Michigan, Lower Peninsula, northern: Zambrage, J. H., 2.
Minnesota, Cook County: Grout, F. F.
Ohio, Madison County: Norris, S. E., 1.
Lithofacies, Alberta, Nisku formation, Devonian: Hargreaves, G. E.
Alberta, southern, Lower Cretaceous: Glaister, R. P.
Winterburn-Wabamun groups, Devonian: Sutterlin, P. G.
Arkansas, northern, pre-Atoka: Freson, S. E.
Kansas, western, Kearny formation, Pennsylvanian: McManus, D. A.
Manitoba, southern, Ordovician-Silurian: Andrichuk, J. M., 1.
Southwestern, Mississippian: McCabe, H. R.
Michigan, Michigan basin, Middle Devonian: Briggs, L. I., Jr.
Texas, Frio formation, Oligocene-Miocene, upper gulf coast: Houston Geol. Soc.
United States, Anadarko basin, northern, Morrow series: Abels, T. A.
Triassic intervals: McKee, E. D.
Utah, southeastern, Salt Wash member, Jurassic: Johnson, H. S., Jr., 2.
Lithologic and distribution, United States, eastern, Upper Triassic: McKee, E. D.
Radioactivity, United States, northern Great Plains, Pierre shale: Kepferle, B. C.
Salinity, Williston basin, Cambrian-Silurian, formation fluids: Porter, J. W.

Oil and gas—Continued

Alberta: Canada G. S., 1.
Arizona: Stipp, T. F.
British Columbia, northeastern: Canada G. S., 1.
Kansas: Hambleton, W. W., 1.
Southwestern, Mississippian: Veroda, V. J.
Kentucky, Breathitt County: Nosow, E., 1.
Larue County: Crawford, T. J., 1.
Maps—Continued
Photogeologic—Continued
Kentucky—Continued
Muhlenberg County: Rose, W. D., Jr.
Taylor County: Crawford, T. J., 2.
Louisiana: Colignet, G. O.
Manitoba, western: Canada G. S., 2.
Mexico: Petróleo Interamericano.
Mississippi: Mellen, F. F.
New Mexico, northeastern, shows:
Foster, R. W., 2.
New York, eastern and central, gas wells and deep wells: Kreidler, W. L.
Oklahoma, Harper County: Jordan, L., 8.
Southern, oil fields: Ardmore Geol. Soc.
Pennsylvania, northeastern, gas wells and deep wells: Kreidler, W. L.
Saskatchewan: Canada G. S., 2.
South Dakota, test holes: Agnew, A. F., 3.
Texas, Cochran-Hockley Counties:
Phifer, R. L., 1.
Fredericksburg fields: Sandridge, J. R.
Kont County: Phifer, R. L., 2.
Northern, Strawn fields: Dickinson, R.
Stuart City gas field: Montgomery, P. A., Jr.
West Virginia, Doddridge-Harrison Counties: Haught, O. L., 2.
Southern: Haught, O. L., 3.

Paleogeographic.
British Honduras, Pliocene-Recent:
Wright, A. C. S.
Colorado, Cretaceous, Lower: Haun, J. D., 1.
Sangre de Cristo Mts., Pennsylvanian-Permian: Bolyard, D. W.
Colorado Plateau, Paleozoic-Pleistocene:
Brigham Young Univ. Dept. Geology.
Mexico, Jurassie, Lower to Cretaceous:
Erben, H. K., 1.
Michigan, Michigan basin, Middle Devonian:
Briggs, L. L., Jr.
Minnesota, epigene seas, Cambrian-Devonian, Cretaceous:
Ahiquist, G. R., 4.

Photogeologic.
Arizona, Hurricane Cliffs—2 NW quadrangle: Pomeroy, J. S.
Colorado, Coach Creek quadrangles:
Hackman, R. J., 1, 2.

INDEX

Maps—Continued
Photogeologic—Continued
Colorado—Continued
Yellow Jacket quadrangle: Hackman, R. J., 3.
New Mexico, Ocate area, structure:
Bogart, L. B.
Utah, Coach Creek quadrangles:
Hackman, R. J., 1, 2.
Wyoming, Crooks Creek quadrangles:
Flat Top Mtn. NE quadrangle: Olson, A. B.

Physiographic.
Alaska, Big Delta area: Lindholm, G. F.
Cook Inlet area, upper, diagram:
Miller, R. D., 1.
Matanuska Valley: Stump, R. W.
Arizona: Wilson, Eldred D., 4.
Southeastern, pediments: Tuan, Y.-F.
Atlantic Ocean, floor:
Heezen, B. C., 2.
Hudson submarine canyon:
Heezen, B. C., 2.
California, Los Angeles, Pacific Palisades area, landslides:
McGill, J. T., 1.
San Joaquin Valley, units:
Davis, G. H., 1.
Coastal landforms, world:
McGill, J. T., 2.
Lempa-Jiboa Rios coastal area:
Labrador, central, glacial:
Henderson, Eric F., 1.
Landform, preparation:
Raisz, E. J.
Louisiana, chenier plain:
Byrne, J. V.; Gould, H. R., 2.
Sabine Lake area, entrenched valleys, Pleistocene:
Gulf Coast Assoc. Geol. Soc.
Mexico: Raisz, E. J.
Arrecife Alacran, Banco de Campeche:
Kornicker, L. S., 1.
Michigan, Red Cedar River basin, glacial features and drainage:
Stillwell, H. D.
Montana, Glacier National Park:
Ross, C. P., 1.
New Mexico, northeastern:
Foster, R. W., 2.
Sacramento Mts., major features:
Motts, W. S., 1.
North Dakota, provinces:
Powell, J. E.
### Maps—Continued

#### Physiographic—Continued

Northwest Territories, Arctic Archipelago: Fortier, Y. O.

Great Slave and Trout River areas, glacial: Douglas, R. J. W., 1.


King William Island-Adelaide Peninsula: Fraser, J. K., 1.

Ohio, glacial features, Wisconsin stage: Goldthwait, R. P., 1.

Ontario, Lindsay-Peterborough area, glacial features: Canada G. S., 6.


Quebec, central, glacial: Henderson, Eric P., 1.

Tennessee, Central Basin, regions: DeSelim, H. R.

Dyea mining quadrangle: Schreurs, R. L.

Texas, Sabine Lake area, entrenched valleys, Pleistocene: Gulf Coast Assoc. Geol. Soc.

Shorelines, gulf and bay: LeBlanc, R. J.

United States, east of Rocky Mts., glacial: Flint, R. F.

Provinces: Shimer, J. A.

Utah: Brigham Young Univ. Dept. Geology.

San Juan Canyon area: Cooley, M. E., 2.

Wasatch-Uinta Mts. junction, geomorphic elements: Thrret, R. L., 1.


Wyoming, Green River basin: Van Couvering, M.

Wasatch-Uinta Mts. junction, geomorphic elements: Thrret, R. L., 1.

#### Structure contour—Continued

Alaska, Cape Simpson area: Robinson, F. M., 3.

Square Lake anticline, Cretaceous: Collins, F. R.

Wolf Creek anticline, Cretaceous: Collins, F. R.

Alberta, Belshill Lake oil field, Lower Cretaceous formations: Rudolph, J. C.

McMurray area: Carrigy, M. A., 1.


Paria Plateau NE quadrangle: Peterson, R. G., 1.

California, Buena Vista oil and gas field: Borkovitch, G. J.

Canfield Ranch oil and gas field: Matthews, J. F., Jr.


Little Cone quadrangle: Bueb, A. L., 2.


Mojave SW quadrangle, Mancos shale base, Cretaceous: Houser, F. N., 2.

Sentinel Peak NE quadrangle: Ekren, E. B., 3.

Gulf Coastal Plain, southern, Cretaceous-Quaternary: Williamson, J. D. M.

Illinois, Chicago region: Suter, M.

Cook's Mills area, Mississippian formations: Whiting, L. L.

Cumberland-Coles-Douglas Counties, Pennsylvanian coals and pre-Pennsylvanian erosion surface: Clegg, K. E.

Indiana, south-central, Devonian and Mississippian: Melhorn, W. N., 2.

Kansas: Jewett, J. M.

Abilene anticline area: Shenkel, C. W., Jr.

Lansing group, Pennsylvanian: Merrim, D. F., 1.

South-central, Iola limestone, Pennsylvanian: Schulte, G. S.

Southeastern, Mississippian: Merrim, D. F., 2.

Kentucky, eastern, Upper Mississippian formations: Wilpoit, R. H.

Louisiana, Erath member of Anahuac formation, Oligocene or Miocene: Goheen, H. C.

Southern, post-Oligocene foraminiferal zones: Crouch, R. W.

Manitoba, southwestern, Mississippian: McCabe, H. R.

Missouri, Precambrian: Grenia, J. D.


Black Hills: Mapel, W. J., 3.

Central, Amaden dolomite, Pennsylvanian: Tod, D. F.

Red Creek oil field: Lowe, H. R.

Sweetgrass arch, southern, Madison formation, Mississippian: Gribil, E. A., Jr.

Nebraska, Clay County, Cretaceous and base of Pleistocene: Keech, C. F., 1.

New Jersey, Cape May County, southern, Kirkwood formation, Miocene, and base of Pleistocene: Gill, H. E.

INDEX

MAPS—Continued
Structure contour—Continued

North Dakota, Antelope oil field: Folson, C. B., Jr.
Northern, and adjacent areas, Madison group, Mississippian: Fish, A. R.
Square Buttes coal field, Hagel coal bed, Tertiary: Johnson, W. D., Jr.
Ohio, bedrock surface: Cummins, J. W.
Square Buttes coal field, Hagel coal bed, Tertiary: Johnson, W. D., Jr.
North Dakota, Antelope oil field:
Folson, C. B., Jr.
Northern, and adjacent areas, Madison group, Mississippian: Fish, A. R.
Square Buttes coal field, Hagel coal bed, Tertiary: Johnson, W. D., Jr.
Madison County, bedrock and Newburg zone, Silurian (?): Norris, S. E., 1.
Oklahoma, Cambrian-Ordovician: Bercutt, H.
Creek County, Woodford shale: Oakes, M. C.
Garvin County, Deese group, Pennsylvania: Gunter, C. E.
Harper County: Jordan, L., 3.
Northwest Butner oil field area:
Duck, J. H., Jr.
Northwestern, Ordovician-Pennsylvanian: Boler, M. E.
Southern, oil fields: Ardmore Geol. Soc.
Woods County, Ordovician-Pennsylvania: Bowles, J. P. F.
Ontario, southwestern, Precambrian surface: Sanford, B. V.
Saskatchewan, Quill Lakes-Qu'Appelle area, Dawson Bay formation, Devonian: Lane, D. M.
South Carolina, Coastal Plain, pre-Cretaceous surface, generalized: Siple, G. E., 1.
South Dakota, north-central: Petsch, B. C., 3.
Tennessee, Dyersburg quadrangle, Eocene bedrock: Schreurs, R. L.
Delaware basin, Delaware lime: Kuhn, P. J.
Devils River uplift: Flawn, P. T., 2.
Horseshoe atoll, reef limestone top, Pennsylvania-Pennsylvanian: Burnside, R. J., 1.
Karnes County area, Jackson group, Eocene: Eargle, D. H., 1.
Kelly anticline, Georgetown limestone, Cretaceous: West Texas Geol. Soc.
Kent County: Phifer, R. L., 2.
Medina County, base of Grayson shale, Cretaceous: Holt, C. L. R., Jr.
Pandale anticline: Vinson, M. C.
Pheasant-Francitas area, Frio formation, Oligocene: Walters, J. E.
Rasberry oil field: Swanson, R. L.

MAPS—Continued
Structure contour—Continued

Texas—Continued
Scurry-Kent-Borden-Garza Counties, Pennsylvanian-Permian formations: Stafford, P. T.
Winkler County: Garza, S.
United States, Anadarko basin, northern, top of Morrow series: Abels, T. A.
Midcontinent, Mississippian: Moore, C.
Utah, Aneth area, Upper Pennsylvanian:
Piche, M. D., 2.
West Portal-Soldier Summit area, Flaggstaff limestone, Eocene: Walton, P. T.
Virginia, southwestern, Upper Mississippian formations: Wilpolt, R. H.
West Virginia, Doddridge-Harrison Counties, Greenbrier limestone, Mississippian: Haught, O. L., 2.
Southern, Berea sandstone, Mississippian:
Piche, M. D., 3.
Upper Mississippian formations: Wilpolt, R. H.
Williston basin, northern, Cambrian-Silurian: Porter, J. W.
Southern, Piper formation, Jurassic:
Sandberg, D. T.
Wisconsin, southwestern, lead-zinc district: Heyl, A. V., Jr., 1.
Black Hills: Mapel, W. J., 3.

Tectonic
Arizona: Wilson, Eldred D., 4.
Jerome area: Wilson, Eldred D., 4.
Mohave County, northwestern: Wilson, Eldred D., 4.
Tombstone area: Wilson, Eldred D., 4.
Arkansas, Ouachita Mts.: Miser, H. D.
British Columbia, Cordilleran, paleotectonic:
White, W. Harrison.
Vernon area: Jones, A. G.
Colorado Plateau, Paradox basin: Jones, R. W.
Mexico, Rio Grande embayment: South Texas Geol. Soc.
Saltillo area, Coahuila, Parras basin: Weldle, A. E.
Sierra Madre Oriental, Torreón to Monterrey: South Texas Geol. Soc.
Montana, northwestern: McMannis, W. J.
Western: Poulter, G. J.
New Mexico, northeastern: Panhandle Geol. Soc., 2.
North America, Cordilleran region:
Wisser, E. H.
Sketch: Thom, W. T., Jr.
MAPS—Continued

Tectonie—Continued

Oklahoma, Ouachita Mts.: Miser, H. D.
Texas, northern: Russell, H. A.
Trans-Pecos segment of Ouachita structural belt: Flawn, P. T., 2.
United States, Ouachita structural belt, Alabama-Texas: Flawn, P. T., 1.

Southwestern, lineaments: Mayo, E. B., 1.
Triassic, paleotectonic: McKee, E. D.
Utah, central: Proctor, P. D., 2.
Daggett County: Ritzma, H. R., 2.
Green River-Henry Mts. districts: Johnson, H. S., Jr., 2.
Ulta Basin: Van Couvering, M.
Vermont, St. Johnsbury quadrangle: Hall, L. M.
Yukon, northern: Martin, L. J., 1.

MARYLAND—Continued

Paleontology.
Mollusks, Miocene: Oleksysyn, J.
Pelecypods, Chesapeake Bay, Miocene, cf. Europe: Mongin, D.
Spores and pollen, Potomac group, Cretaceous, nonmarine, formations, validity: Penny, J. S.
Trilobites, Conococheague-Frederick-Grove limestones, Cambrian: Rasetti, F. R. D.

Petrology.
Marcellus shale, Cumberland area, carbonate concretions, origin: Norwood, E. M., Jr.
Potomac River Gorge below Great Falls, crystalline rocks: Reed, J. C., Jr.
Wilmington complex, petrography and origin: Ward, R. F.

Physical geology.
Watts Branch, Montgomery County, erosion of cohesive bank: Wolfman, M. G., 1.
Wilmington complex, foliation and lineation: Ward, R. F.

Physiographic geology.
Beaverdam Creek basin: Rasmussen, W. C., 1.

MASSACHUSETTS.
Engineering geology, glacial and bedrock: Currier, L. W.
Seismic studies, Buzzards Bay: Bunce, E. T.

Areas described.
Wilmington to Charles River buried-valley area: Chute, N. E.

Economio geology.
Sand and gravel, Wilmington quadrangle: Castle, R. O.

Geologic maps.
Mystic Lakes-Fresh Pond buried-valley area: Chute, N. E.
Sheburne Falls quadrangle, surficial: Segerstrom, K.
Wilmington quadrangle, surficial: Castle, R. O.

Ground water.
Blackstone and Ipswich drainage basins, supply problems: Upson, J. E., 2d.

East Providence quadrangle, map: Allen, W. B., 2.
Sheburne Falls quadrangle: Segerstrom, K.

Historical geology.
Boston Basin, Recent changes of level: Barghoorn, E. S.
Cape Cod, Barnstable Marsh, pollen analyses, postglacial climate, age, sea-level changes: Butler, P.
MASSECHUSETTS—Continued

Historical geology—Continued
Fresh Pond buried-valley area, glacial: Chute, N. E.
Martha’s Vineyard, late Pleistocene pollen sequence: Ogden, J. G., 3d.
Provincetown area, Quaternary, geomorphic: Smith, H. T. U.
Shelburne Falls quadrangle, Quaternary: Segerstrom, K.
Wilmington quadrangle, Pleistocene: Castle, R. O.

Paleontology.
Man, Bull Brook site, radiocarbon dates: Byers, D. S.
Pollen profiles, Martha’s Vineyard, late Pleistocene: Ogden, J. G., 3d.

Petrology.
Narragansett intermontane basin, Pennsylvanian: Towe, K. M.
Salem area, granite-syenite complex, crystallization history: Toulmin, P., 3d.

Physiographic geology.
Barnstable Marsh: Redfield, A. e., 2.
Cape Cod, outer beaches, storm effects: Zelgier, J. M., 2.
Provincetown area, dunes: Smith, H. T. U.

Shelburne Falls quadrangle: Segerstrom, K.

MEANDERS.
Crossbedding: Wright, M. D.
Mississippi Valley, lower, environments of deposition: Kolb, C. R.

MERCURY.
California, origin of deposits, relation to froth veins including oil: Bailey, E. H., 2.

Cinnabar and metacinnabar, origin, stability relations: Dickson, F. W.

Resources: Bailey, E. H., 1.
Schuetteite, origin: Bailey, E. H., 3.
Texas, Terlingua district: Nackowski, M. P., 1.

Mesozoic. See also Cretaceous; Jurassic; Paleontology, Mesozoic; Triassic.

British Columbia, Atlin area: Attken, J. D., 1.
Central: Tipper, H. W.

Nechako River area, Takla and Hazelton groups: Tipper, H. W.

California, Soda Mts., northeastern: Grose, L. T.

Mexico, Saltilla-Galeana area, Coahilla-Nuevo León: South Texas Geol. Soc.

New Mexico, northeastern, nomenclature revision: Griggs, R. L.

Union County: Baldwin, B.

Yukon, south-central, tectonics: Wheeler, J. O.

Metallic Minerals. See also Sulfides; the more important minerals.


Mexico, Guanajuato district, mineralization: González Reyna, J., 2.

Northern, metallogenic provinces, sulfophile trace elements: Burnham, C. W., 2.

Mineralogy: Cameron, E. N.

Ore and gangue, stability relations, thermochemical data: Holland, H. D.

Ore-forming fluid, sulfide solubility in aqueous solutions: Czamanske, G. K.

Prospecting, techniques, review: Hoy, R. B.

Translocation by podzolation: Cate, R. B., Jr.

United States, Basin and Range province, porphyry relations: Stringham, B. F., 1.

Southwestern, metallogenic provinces, sulfophile trace elements: Burnham, C. W., 2.


Metals. See also Elements.

Exploration, lake-bottom sampling through ice: Read, W. F.

Meteorites, chondritic, metallic particles, mineralogy: Urey, H. C., 1.

Natural compounds in hypogene deposits: Butler, B. S.

Nova Scotia, northern mainland, stream sediments, heavy, map: Canada G. S., 57.

Provinces and ores, classification, possible origin: Sullivan, C. J., 1.

Questions answered: Pearl, R. M.

Metamorphic Rocks. See also Rock descriptions; the more common rocks.


California, Crestmore area, magnesian limestones, progressive metamorphism: Burnham, C. W., 1.


Soda Mts., roof pendants: Grose, L. T.

Valley Ford area, glauconephinite, schists: Bloxam, T. W.

Colorado, Hall Valley area, Front Range, Precambrian sedimentary, unconformable series: Walthstrom, E. E.

Connecticut, Roxbury quadrangle: Gates, R. M.

Cuba, Sierra de Trinidad: Hill, P. A.

Delaware, Wilmington complex: Ward, R. F.

Elements, geochemical distribution: Green, J. 1.
METAMORPHIC ROCKS—Continued
Granofels, definition: Goldsmith, R.
Greenland, Nathorst Land: Zweifel, H.
Guatemala, Antillean Cordillera core, regional albitization: Ljunggren, A. M.
Idaho, Gem monzonite stocks area: Crosby, G. M.
Orofino area, kyanite-garnet gedritic and associated rocks: Hietanen, A. M.
Manitoba, Elbow-Heming Lakes area, Precambrian: McGlynn, J. C.
Island Lake series, Precambrian: Quinn, H. A.
Oxford House-Knee Lake area, Precambrian: Barry, G. S., 2.
Maryland, Potomac River Gorge below Great Falls: Reed, J. C., Jr.
Metasomatic, textural features: Goodspeed, G. E., 1.
Mexico, Las Truchas iron district, Michoacan: Mapes Vázquez, E.
Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.
New Mexico, Big Burro Mts., northern: Hewitt, C. H.
New York, Adirondack region, magnetic oxide assemblages, relation to lithology and magnetism: Balsley, J. R., Jr., 1.
Southeastern, stratigraphic relations: Prucha, J. J.
Newfoundland, Fleur de Lys area: Canada G. S., 42.
Raleigh area: Geol. Soc. America Southeastern Sec., 1.
Northwest Territories, Baffin Island, Cumberland Sound area: Canada G. S., 7.
Ontario, Cardiff-Faraday Townships: Hewitt, D. F.
Southeastern, emplacement of granitic plutons: Saha, A. K., 2.
Pennsylvania, Bucks County: Freedman, J.
Conestoga limestone, Hanover area, low-grade, calcite petrofabrics: Nickelsen, R. P.
Quebec, Haseur-Drulliettes area: Deland, A. N.
La Grande-Lac Bienville area: Canada G. S., 23.
Mt. Wright area: Canada G. S., 33.
Quebec and Gaspe groups, Cambrian-Devonian, Weedon Lake area: Duquette, G.
Questions answered: Pearl, R. M.
Reactions and facies: Fyfe, W. S., 1.

METAMORPHISM. See also Granitization; Hydrothermal alteration.
Appalachians, southern, major events, absolute ages: Long, L. E., 2.
Arkansas, Ouachita Mts.: Miser, H. D.
Basalt-eclogite transformation, Mohorovičić discontinuity: Lovering, J. F., 2.
Base-metals deposits, relations to surrounding shales: Barnes, H. L., 2.
British Columbia, Atlin area: Altken, J. D., 1.
Salmo lead-zinc area: Fyles, J. T.
California, Valley Ford area, glauconization of eclogites and graywackes: Bloxam, T. W.
Colorado, Hall Valley area, Front Range, Precambrian: Wahlstrom, E. E.
Connecticut, Roxbury quadrangle: Gates, R. M.
Contact, temperatures outside intrusive sheet: Jaeger, J. C.
Delaware, Wilmington complex: Ward, R. F.
Georgia, Culloden area, metadolerites, coronas: Hurst, V. J., 2.
Graves Mtn.: Hurst, V. J., 1.
Heat-pressure reactions in metamorphic differentiation: Bennington, K. O.
Idaho, Elk City region: Ried, R. R., 1.
Interfacial free energy in crystallization: DeVore, G. W., 2.
Italbrine, origin: Park, C. F., Jr.
INDEX  

METAMORPHISM—Continued  

Labrador, Wabush Lake district, iron-formation: Knowles, D. M.  
Mexico, Naica mining district, Chihuahua: Stone, J. G., 2d.  
Michigan, Iron County, regional, effects on West Kiaman sill: Bayley, R. W., 2.  
Lake Mary quadrangle, Precambrian, contact and regional: Bayley, R. W., 1.  
New Mexico, Valles Mts., Pliocene sediments, fusion by andesite intrusion: Bailey, R. A.  
Newfoundland, eastern, Gander Lake group: Jenness, S. E., 2.  
Northwest Territories, Yellowknife district: Boyle, R. W., 2.  
Oklahoma, Ouachita Mts.: Miser, H. D.  
Ontario, Kalladar area, granite pebbles in conglomerate: Walton, M. S., Jr.  
Wanapitei and Crocan Lake areas, kyanite: Pearson, W. J., 2.  
Quebec, Wabush Lake district, iron-formation: Knowles, D. M.  
Reactions and facies: Frye, W. S., 1.  
Regional, mesozonal and epizonal standard mineral norms: Bartb, T. F. w.  
Rhode Island, Carolina-Quonocot quadrangles: Moore, G. E., Jr.  
Providence quadrangle: Quinn, A. W.  
Utah, Little Cottonwood stock, zones: Burge, D. L.  
Vermont, Elizabeth copper mine, alteration stages: Howard, P. F.  
St. Johnsbury quadrangle: Hall, L. M.  
Washington, Shuksan belt, facies: Miach, P. H.  

METASOMATISM. See also Granitization; Hydrothermal alteration.  
California, Crestmore area, magnesian limestones, progressive: Burnham, C. W., 1.  
East Shasta copper-zinc district, albitionization: Albers, J. P.  
Hydrothermal alteration: Schwartz, G. M., 2.  
Interfacial free energy in crystallization: DeVore, G. W., 2.  
Minnesota, Biwabik iron-formation, Eastern Mesabi district: Gunderson, J. R. N., 1, 2.  
Montana, Boulder batholith, perthite origin by replacement of plagioclase: Robertson, F. S.  
Ontario, Nemetosenda alkaline complex: Temple, A. K.  
Ottawa area, iron deposits, Eh-pH data: Machamer, J. F.  

METASOMATISM—Continued  
Processes, local phase equilibrium: Thompson, J. B., Jr., 1.  
Utah, Mineral Range pluton, inclusions: Condle, K. C.  
Vermont, Elizabeth copper mine, diffusion: Howard, P. F.  
METEOR CRATERS. See Craters.  
METEORITES. See also Tektites.  
Achondrite, remanent magnetism and mineral composition, position in primary body: Lovering, J. F., 3.  
Ages, alpha- and beta-decay rates: Dicke, R. H.  
Argon-39 and tritium: Fireman, E. L.  
California, Goose Lake iron: Ferry, P.  
Miocene dust: Skolnick, H., 3.  
Carbon iron, cosmic-ray potassium age: Marshall, R. R.  
Chemistry and mineralogy, reduction hypothesis, origin from disrupted planet: Ringwood, A. E., 5.  
Metal particles, mineragraphy: Urey, H. C., 1.  
Composition and age methods: Belser, A., 2.  
Elements, abundances: Suess, H. E.  
Geochemical distribution: Green, J., 1.  
Heavy: Reed, G. W., Jr., 2.  
General: Urey, H. C., 2.  
Georgia, Waycross area, questionable, unusual composition: Holland, W. A., Jr.  
Iron, helium-3 and -4 distribution in Carbo meteorite: Hoffman, J. H.  
Metallography, aerodynamic heating effects: Maringer, R. E., 2.  
Phase equilibria, system Fe-Ni-S: Clark, S. P., Jr., 2.  
Potassium-40, cosmogenic: Honda, M.  
New Mexico, Grant iron, Widmanstätten structure: Maringer, R. E., 1.  
Meteoritic dust, Jurassic: Erskine, W. S.  
Temperature-pressure estimates within parent body: Lovering, J. F., 1.  
Questions answered: Pearl, R. M.  
Radioactivation analysis, cosmic abundances and age: Reed, G. W., Jr., 1.  
South Dakota, McMurchle aerolite: Martin, H.
METEORITES—Continued

Stone, bismuth-thallium-mercury content, neutron-activation analysis: Ehmann, W. D.

Rubidium-strontium ages: Gast, P. W., 3.

Thorium content, neutron-activation analysis: Bate, G. L.

Surfacial pitting, airflow patterns: Williams, D. T.

Tolson collection, Cleveland Museum of Natural History: Snow, D.

Trollite nodules, element abundances: Nichiporuk, W.

MEXICO

Bibliography, Islas Revillagigedo: Richards, A. F., 2.

Southern: Maldonado-Koerdell, M., 2.

Engineering geology, Rio Papolapanz basin, Oaxaca-Veracruz, hydraul. works: Lesser-Jones, H.

Geochemical investigation, Parral district, Chihuahua, base-metals distribution: Barnes, H. L., 2.


Saltillo-Galeana area, Coahuila-Nuevo León: South Texas Geol. Soc.

Sediment survey, Faja de Oro, northeast extension, Veracruz: Rockwell, D. W.


Areas described.

Chihuahua, manganese areas: Ayub M., A. R.

Desert areas: Blázquez López, L.

Islas Revillagigedo: Richards, A. F., 2.

Pinacate craters, Sonora, individual craters: Jahns, R. H., 2.

Economic geology.

Bauxite, Acultzingo-Zongollac area, Puebla-Veracruz: Mooser, F., 2, 3.

Possibilities: Salas, G. P., 1.

San Juan Bautista Taxtepec area, Oaxaca: Ledesma Guerrero, O.

Temascal area, Oaxaca: Mayer Pérez Rul, F.

Tulumancingo, Hidalgo, to Nezaux, Puebla, laterite: Pérez Siliceo, R.

Coal, Sabinas region, Coahuila: Robeck, R. C.

Iron, Las Truchas district, Michoacán: Mapes Vázquez, E.

Manganese, Chihuahua: Ayub M., A. R.

Mercury: Bailey, E. H., 1.

Metalliferous minerals, Guanajuato district, mineralisation: González Reyna, J., 2.

Metallogenic provinces, definition by sulphophile trace elements, northern: Burnham, C. W., 2.

Mineral resources, Sabinas region, Coahuila: Robeck, R. C.

MEXICO—Continued

Economic geology—Continued

Nonmetallic minerals: Esquivel Morales, J.

Selected areas: Salas, G. P., 2.

Oil and gas, Frío-Anahue formation, northeastern: Yazguirre, L. A.

Map: Petróleo Interamericano.

Petroleum, Angostura and Casa Blanca fields, Veracruz: Benavides García, L.

Faja de Oro, Veracruz, seismic exploration: Rockwell, D. W.


Macuspana basin, Tabasco, possibilities: Hernández Herrera, S.

Origin and migration, sedimentary basins: López Ramos, E.

Rodolfo Ogarrio field, Tabasco: Pérez Rincón, H.

Silver-lead, Cretaceous horizons, northeastern: Sánchez Mejorada, P.

Sulfides, Nacala mining district, Chihuahua, origin: Stone, J. G., 2d.

Santa Barbara district, Chihuahua, veins: Scott, J. B.


Uranium, exploration, handbook: Antúnez Echeagaray, F.

Geologic maps.

Chihuahua, manganese areas, generalized: Ayub M., A. R.

Coahuila marginal folded belt, Monterrey-Carcaña area, Nuevo León: South Texas Geol. Soc.

Cuernavaca area, Morelos, sketch: Bauman, C. F., Jr.

Galeana-Iturbide area, Nuevo León: South Texas Geol. Soc.

Huetamo de Núñez region, Michoacán: Pantoya Alor, J.

Las Truchas iron district, Michoacán: Mapes Vázquez, E.


Paredón-La Popa area, Coahuila: South Texas Geol. Soc.

Pinacate craters, Sonora, individual craters: Jahns, R. H., 2.

Sabinas region, Coahuila: Robeck, R. C.

Saltillo area, Coahuila, Parras basin: Weldie, A. E.

Sierra del Fraile, Arroyo Potrero Chico, Nuevo León: Murray, G. E., 1.

Sierra Madre Oriental, Torreón to Monterrey: South Texas Geol. Soc.

Southeastern: Contreras Velásquez, H.

Southern: Salas, G. P., 1.

Ground water.

Desert areas: Blázquez López, L.
MEXICO—Continued

Historical geology—Continued

Pathé area, Hidalgo, geothermal-energy field, steam wells: Anda, L. F. de.

Selected areas: Salas, G. P., 2.

Angostura and Casa Blanca oil fields, Saltillo-Galeana area, Coahuilla-Nuevo Sabinas Rodolfo Rio Punta Cabras, Baja California, Paleozoic, northeastern: Flawn, Morelos and vicinity, Macuspana basin, Tabasco, Necoxtla formation, Cretaceous, Jurassic-Pleistocene, by Difunta group, Cretaceous-Tertiary(?), Las Truchas iron district, La Puebla area, Puebla, Huetamo de Erben, H. K., 2.

Selected areas: Basin Angostura and Casa Blanca oil fields, Chiapas, central, Pathe Cretaceous-Tertiary, eastern: Lopez Rubio, J. M.

Cretaceous-Tertiary, eastern: Lopez Rubio, J. M.


Huetamo de Núñez region, Michoacán, Jurassic-Quaternary: Pantoja Alor, J.


Jurassic, biostratigraphic correlations, eastern and south-central: Erben, H. K., 2.

Lower to Callovian, paleogeography: Erben, H. K., 1.

Jurassic-Pleistocene, by tectonic units: Contreras Velásquez, H.

La Peña formation, Cretaceous, Nuevo León: Obregón de la Parra, J., 2.

Las Truchas iron district, Michoacán, Cretaceous-Quaternary: Mapes Vázquez, E.

Macuspana basin, Tabasco, Tertiary, subsurface: Hernández Herrera, S.

Morelos and vicinity, Paleozoic-Tertiary: Fries, C., Jr.

Necoxtlá formation, Cretaceous, Vera cruz, age from microfossils: Thalmann, H. E., 2.

Paleozoic, northeastern: Flawn, P. T., 3.

Puebla area, Puebla, Pleistocene section: Armenta, J.

Punta Cabras, Baja California, Pleistocene marine terrace platform: Addicott, W. O.

Río Papaloapan basin, Oaxaca-Veracruz, Cretaceous-Pleistocene: Lesser-Jones, H.

Rodolfo Ogarrio oil field, Tabasco, Michoacán: Pérez Riley, H.

Sabinas region, Coahuila, Jurassic-Quaternary: Robeck, R. C.

Saltillo-Galeana area, Coahuila-Nuevo León, Mesozoic: South Texas Geol. Soc.

MEXICO—Continued

Historical geology—Continued

Index 469

Salinas region, Coahuila, Jurassic-Quaternary: Robeck, R. C.

Saltillo-Galeana area, Coahuila-Nuevo León, Mesozoic: South Texas Geol. Soc.

Sedimentary basins, petroleum origin and migration: López Ramos, E.

Selected areas: Salas, G. P., 2.

Sierra del Fraille, Nuevo León, Jurassic-Cretaceous, intrusive gyspum: Murray, G. E., 1.

Sonora, northern, formation names, catalog: Pye, W. D., 3.

Tampico-Misantla basin, Danian, base of Paleocene, foraminiferal correlations: Obregón de la Parra, J., 1.

Temazcal area, Oaxaca, Cretaceous-Pleistocene: Mayer Pérez Rul, F.


Veracruz basin and Isthmus of Tehuantepec salt basin, Cretaceous-Quaternary: Rios Macbeth, F.

Yucatán, Eocene outcrops, age from Foraminifera: Bonet, F.

Yucatan Peninsula, Cretaceous-Ceno zano: Sansores Manzanilla, E.

Eocene, relation to Greater Antilles: Butterlin, J. A.

Mineralogy.

Bauxite and other clays, thermal analy sis: Schmitter, E.

Manganese, Chihuahua: Ayub M., A. R.

Naica mining district, Chihuahua: Stone, J. G., 2d.

Radioactive minerals, handbook: Antúnez Echegaray, F.

San Rafael sulfur mine, San Luis Potosí: González Reyna, J., 1.

Santa Barbara district, Chihuahua, veins: Scott, J. B.

Yucatan Peninsula, clays from soils and limestone: Agullera Herrera, N.

Paelontology.

Baja California, northwestern, Pliocene: Hertlein, L. G., 1.


Coral reefs, Gulf of California, Pliocene-Recent: Squires, D. F., 2.

Foraminifera, Coskinolina, Yucatán, Eocene index fossil: Bonet, F.

La Peña formation, Cretaceous, Nuevo León: Obregón de la Parra, J., 2.

Macuspana basin, Tabasco, Tertiary subsurface, lists: Hernández Herrera, S.

Necoxtlá formation, Cretaceous, Vera cruz: Thalmann, H. E., 2.

Tampico-Misantla basin, Danian, base of Paleocene, correlations: Obregón de la Parra, J., 1.

Tampico-Tuxpan basin, Late Cretaceous: Eternod Olvera, Y.

<table>
<thead>
<tr>
<th>Mexico—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Paleontology—Continued</strong></td>
</tr>
<tr>
<td>Gastropods, Baja California, northwestern, Pliocene: Hertlein, L. G., 1.</td>
</tr>
<tr>
<td>Insects, Chiapas, Miocene amber: Wille, A.; Wygodzinsky, P.</td>
</tr>
<tr>
<td>Punta Cabras, Baja California, late Pleistocene: Addicott, W. O.</td>
</tr>
<tr>
<td>Jurassic, faunal zones, eastern and south-central: Erben, H. K., 2.</td>
</tr>
<tr>
<td>Nannoconus, Cretaceous, eastern: Trejo, M.</td>
</tr>
<tr>
<td>Ostracodes, Bahia Todos Santos, Baja California, ecology: Benson, R. H., 2.</td>
</tr>
<tr>
<td>Rudistids, Cuemavaca area, Morelos, Cretaceous: Bauman, C. F., Jr.</td>
</tr>
<tr>
<td>Selected areas: Salas, G. P., 2.</td>
</tr>
<tr>
<td><strong>Petrology.</strong></td>
</tr>
<tr>
<td>Arperos granite intrusion, ore mineralization of Guanajuato district: Gonzalez Reyna, J., 2.</td>
</tr>
<tr>
<td>Arrecife Alacran, Banco de Campeche, sediments: Kornicker, L. S., 1.</td>
</tr>
<tr>
<td>Chapala beds, Pliocene(-Pleistocene), Lake Chapala, Jalisco: Clemens, T. D., 2.</td>
</tr>
<tr>
<td>Ciudad Victoria area, Tamaulipas, Huizachal group: Mixon, R. B.</td>
</tr>
<tr>
<td>Guanajuato mining district: Gonzalez Reyna, J., 2.</td>
</tr>
<tr>
<td>Rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 2.</td>
</tr>
<tr>
<td>Islas Revillagigedo, Clarion and Socorro, lavas, genesis: Bryan, W. B., Jr.</td>
</tr>
<tr>
<td>Las Truchas iron district, Michoacan: Mapes Vazquez, E.</td>
</tr>
<tr>
<td>Nalea mining district, Chihuahua: Stone, J. G., 2d.</td>
</tr>
<tr>
<td>Pinacate volcanic field, Sonora: Jahns, R. H., 2.</td>
</tr>
<tr>
<td>San Rafael sulfur mine, San Luis Potosi: Gonzalez Reyna, J., 1.</td>
</tr>
<tr>
<td>Santa Barbara district, Chihuahua: Scott, J. B.</td>
</tr>
<tr>
<td>Topia mining district, Durango, altered andesites, pore sizes: Lemish, J.</td>
</tr>
<tr>
<td>Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.</td>
</tr>
<tr>
<td><strong>Physical geology.</strong></td>
</tr>
<tr>
<td>Arrecife Alacran, Banco de Campeche, origin and development: Kornicker, L. S., 1.</td>
</tr>
<tr>
<td>Baja California, coastal lagoons, sedi­mentation: Phleger, F. B., Jr.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mexico—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical geology—Continued</strong></td>
</tr>
<tr>
<td>Basin of Mexico, Cenozoic volcanic cycles: Mooser, F., 1.</td>
</tr>
<tr>
<td>Chihuapas, central: Chubb, L. J., 2.</td>
</tr>
<tr>
<td>Ciudad Victoria area, Tamaulipas: Miron, R. B.</td>
</tr>
<tr>
<td>Huizachal-Peregrina antclinalorium: Carrillo Bravo, J.</td>
</tr>
<tr>
<td>Clarion fracture zone: Mooser, F., 4.</td>
</tr>
<tr>
<td>Earthquake, Guerrero coast, 7/28/57, damage, relation to soil conditions: Duke, C. M.</td>
</tr>
<tr>
<td>Eastern: Lopes Rubio, J. M.</td>
</tr>
<tr>
<td>Faja de Oro, northeast extension, Veracruz, subsurface reef, seismic survey: Rockwell, D. W.</td>
</tr>
<tr>
<td>Huetamo de Narias region, Michoacan: Pantoja Alor, J.</td>
</tr>
<tr>
<td>Isthmus of Tehuantepec salt basin, domes: Contreras Velazquez, H.</td>
</tr>
<tr>
<td>Macuspana basin, Tabasco, subsurface: Hernandez Herrera, S.</td>
</tr>
<tr>
<td>Main features and tectonic history: Cserna, Z. de.</td>
</tr>
<tr>
<td>Morelos and vicinity: Fries, C., Jr.</td>
</tr>
<tr>
<td>Nalca mining district, Chihuahua: Stone, J. G., 2d.</td>
</tr>
<tr>
<td>Physiographic provinces: Ralsz, E. J.</td>
</tr>
<tr>
<td>Pinacate craters, Sonora: Galbraith, F. W., 3d, 2; Jahns, R. H., 2.</td>
</tr>
<tr>
<td>Rio Grande embayment, tectonic map: South Texas Geol. Soc.</td>
</tr>
<tr>
<td>Rodolfo Ogarrto oil field, Tabasco, salt-dome structure: Perez Rincón, H.</td>
</tr>
<tr>
<td>Sabinas region, Coahulia: Robeck, R. C.</td>
</tr>
<tr>
<td>Saltillo area, Coahulia, Parras basin, tectonics: Weidle, A. E.</td>
</tr>
<tr>
<td>Saltillo-Galesana area, Coahulita-Nuevo Leon: South Texas Geol. Soc.</td>
</tr>
<tr>
<td>San Andres Tuxtla area, Veracruz, laccolith and volcanism: Rios Macbeth, F.</td>
</tr>
<tr>
<td>San Rafael sulfur mine, San Luis Potosi, faulting: Gonzalez Reyna, J., 1.</td>
</tr>
<tr>
<td>Santa Barbara district, Chihuahua: Scott, J. B.</td>
</tr>
<tr>
<td>Sierra del Fraile, Nuevo Leon, intrusive gypsum in folds: Murray, G. E., 1.</td>
</tr>
<tr>
<td>Tectonic units, southeastern: Contreras Velazquez, H.</td>
</tr>
<tr>
<td>Tectonics, Paleozoic, northeastern: Flawn, P. T., 3.</td>
</tr>
<tr>
<td>Veracruz basin and Isthmus of Tehuantepec salt basin, tectonics and volcanism: Rios Macbeth, F.</td>
</tr>
<tr>
<td>Volcanic zones, glaciers: Lorenzo, J. L.</td>
</tr>
<tr>
<td>Volcanism: Mooser, F., 4.</td>
</tr>
</tbody>
</table>
INDEX

MEXICO—Continued

Physical geology—Continued

Yucatan Peninsula: Sansores Manzanilla, E.
Zacatecas district, rhyolitic intrusive complex replacing red conglomerate: Schulze, G., 1.

Physiographic geology.

Acultzingo-Zongolica area, Puebla-Vera-cruz: Mooser, F., 3.
Baja California, coastal lagoons, evolution: Phleger, F. B., 1.
Chiapas, central, karst: Chubb, L. J., 2.
Desert areas: Blasquez L6pez, L.
Eastern: López Rubio, J. M.
Glaciers: Lorenzo, J. L.
Landform map: Raisz, E. J.
Morelos and vicinity: Fries, C., Jr.
Provinces: Raisz, E. J.
Punta Cabras, Baja California, Pleistocene marine terrace platform: Addicott, W. O.
Río Papaloapan basin, Oaxaca-Vera-cruz: Lesser-Jones, H.
Shell dunes, Sonora, northwest shore: Ives, R. L.
Southeastern: Contreras VelAzquez, H.
Yucatan Peninsula: Sansorea Manzanilla, E.

Mica. See also Clay minerals.

Biotite, phase relations of end member: Wones, D. R.
Potassium determination, neutron activation: Winchester, J. W., 1.
Crystal structure: Bradley, W. F.
Formation from feldspars: DeVore, G. W., 1.
Group, experimental studies: Yoder, H. S., Jr.
Properties, effect of solid solubility: Crowley, M. S., 2.
Hardness, synthetic cf. natural: Bloss, F. D., 1.
Muscovite, weathering sequence, experimental: Bronson, R. D.
North Carolina, Ore Knob copper deposit, country rock, biotite alteration: Brown, H. S.
Spruce Pine district, R. B. Phillips mine, muscovite: Amos, D. H.
Quebec, Grenville gneiss, biotite, spectrochemical analyses: Kretz, R. A.
Utah, Ophir Hill mine, sericite-phlogopite alteration sequence: Weintraub, J.
Vermiculite-illite clays, weathering, potassium release mechanism: Mehra, O. P.
Weathering experiments: Garrels, R. M., 7.

MICHIGAN—Continued

Geochemical investigation, Ironwood iron-formation: Huber, N. K.
Glacial drift, thickness map: Akers, J.
Magnetic surveys, Lake Mary quadrangle: Bayley, R. W., 1.

Economic geology.

Copper, Keweenaw Peninsula, amygdaloidal: Stober, R. E.
White Pine deposit: White, W. S.
Industrial minerals, Mackinac Straits region and northern Lower Peninsula: Landes, K. K., 1.
Iron, Greenwood mine, specularite-magnagnetite: Broderick, A. T.
Lake Mary quadrangle: Bayley, R. W., 1.
Oil and gas, Mackinac Straits region and northern Lower Peninsula, possibilities: Landes, K. K., 1.
Silurian possibilities, southwestern: Els, G. D., 1.

Geologic maps.

Iron River-Crystal Falls district: James, H. L., 1.
Lake Mary quadrangle: Bayley, R. W., 1.
Luce County, surficial and bedrock: Vanliler, K. E.
Mackinac Straits region: Landes, K. K., 1; Michigan Basin Geol. Soc., 1.
Schoolcraft County, surficial and bedrock: Sinclair, W. C.
Upper Peninsula, surficial: Martin, H. M. M.
West Kiernan slil, Iron County: Bayley, R. W., 2.

Ground water.

Holland area: Deutsch, M.
Luce County: Vanliler, K. E.
Red Cedar River basin, bedrock sources, well-log data: Humphrys, C. R.
Schoolcraft County: Sinclair, W. C.

Historical geology.

Ironwood iron-formation, Precambrian, Gogebic range: Huber, N. K.
Bretz, J. H., 2.
Bretz, J. H., 2.
Lake Mary quadrangle, Precambrian-Cambrian: Bayley, R. W., 1.
Lake Superior area, Precambrian-Cambrian: Hamblin, W. K.
Upper Cambrian correlation: Driscoll, E. G.
Lower Peninsula, northern, Silurian-Devonian, subsurface: Landes, K. K., 1.
Luce County, lower Paleozoic and Quaternary: Vanliler, K. E.
Mackinac Bridge area, Silurian-Devonian, Quaternary: Melhorn, W. N., 1.

Michigan engineering geology, Mackinac Bridge area: Melhorn, W. N., 1.
Mackinac bridge-site borings: Robb, J. C.
**Michigan—Continued**

**Historical geology—Continued**

Mackinac Straits region, Quaternary:
Shelden, F. D.; Zumberge, J. H., 2.
Silurian-Devonian:
Ehlers, G. M., 1.
Silurian-Devonian and Pleistocene:
Landes, K. K., 1.
Michigan basin, Middle Devonian, phases:
Briggs, L. I., Jr.
Red Cedar River basin, Mississippian-Permian, cross sections:
Humphreys, C. R.
Schoolcraft County, Cambrian-Silurian, Pleistocene, aquifers:
Sinclair, W. C.
White Pine copper deposit:
White, W. S.

**Mineralogy.**

Collecting guide: Hardenberg, H. J.
Ironwood iron-formation, origin:
Huber, N. K.
Portage Lake lava series, amygdale zones:
Stolber, R. E.

**Paleontology.**

Brachiopods, Traverse group, Devonian:
Imbre, J., 2.
Corals, auroroid, Traverse group, Devonian:
Watkins, J. L., 2.
Mammoth, Eaton Rapids area, Pleistocene:
Potts, R.

**Petrology.**

Ironwood iron-formation, origin:
Huber, N. K.
Ishpeming-Negaunee area, Precambrian basalts:
Mathias, D. L., Jr.
Lake Mary quadrangle, Precambrian:
Bayley, R. W., 1.
Lake Superior area, Munising sandstone, heavy minerals:
Driscoll, E. G.
Luce County: Vanlier, K. E.
Mackinac breccia, origin:
Landes, K. K., 1.
Mackinac Bridge area:
Melhorn, W. N., 1.
Michigan basin, Middle Devonian, phases:
Briggs, L. I., Jr.
Portage Lake lava series, amygdale zones:
Stolber, R. E.
Rogers City-Dundee formation, Devonian-Mississippian:
Achauer, C. W.
West Kierman sill, Iron County, differentiated metagabbro:
Bayley, R. W., 2.

**Physical geology.**

Earthquake, 8/9/47, effect of Illinois basin on surface waves:
Espinoza, A. F.
Ishpeming-Negaunee area:
Mathias, D. L., Jr.
Lake Mary quadrangle:
Bayley, R. W., 1.
Luce County: Vanlier, K. E.

**Michigan—Continued**

**Physical geology—Continued**

Mackinac Bridge area, collapse breccia:
Melhorn, W. N., 1.
Mackinac Straits region and subsurface northern Lower Peninsula:
Landes, K. K., 1.
White Pine copper deposit:
White, W. S.

**Physiography.**

Holland area:
Deutsch, M.
Mackinac Straits region:
Landes, K. K., 1; Shelden, F. D.
Terraces:
Zumberge, J. H., 2.
Red Cedar River basin, glacial features and drainage:
Stillwell, H. D.
Upper Peninsula, glacial, map:
Martin, H. M.
Wayne County, preglacial drainage pattern:
Mozola, A. J.

**MicroPaleontology.** See also Conodonts; Foraminifera; Ostracoda; Paleobotany; Protozoa.

Alaska, Square Lake and Wolf Creek areas, Cretaceous, test wells:
Collins, F. R.
Titaluk and Knifeblade areas, Cretaceous, test wells:
Robinson, F. M., 1.
Charophyta, identification lists, game-tangential constants:
Wood, R. D.

Charophyta, identification lists, game-tangential constants:
Wood, R. D.

Florida-Georgia, Ordovician-Silurian black shales, sargassoid assemblage:
Schopf, J. M., 2.

Halti, Late Cretaceous, planktonic:
Ayala Castañares, A.

History:
Howe, H. V.
Holothurian sclerites, statistical analysis:
Hampton, J. S.

Hystrichospheridae, Devonian, Ontario, Decew area:
Deuffy, J.

History and recovery technique:
Tyman, E. J., 2.

Montana, Sappington formation, Devonian-Mississippian:
Achauer, C. W.

Nonnocomous, Cretaceous, Mexico, eastern:
Trejo, M.

Petroleum exploration:
Hoffmeister, W. S.

**Military geology.**

Desert-terrain analogs, mapping:
Van Lopik, J. R.

Landslides, treatment in theater of operations:
Baker, Robert F., 1.

Terrain analysis:
U.S. Dept. Army.

Dominant features, measurements:
Thompson, W. F.

Field sampling:
Strahler, A. N., 2.

Predictive methods, history:
Wood, W. F.
<table>
<thead>
<tr>
<th>MINERAGROPHY.</th>
<th>MINERAL DEPOSITS—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>General: Cameron, E. N.</td>
<td>Alaska—Continued</td>
</tr>
<tr>
<td>Meteorites, chondritic, metal particles:</td>
<td>Chichagof Island, northwestern:</td>
</tr>
<tr>
<td>Pyrite, optical anisotropism: Stanton, R. L., 1.</td>
<td>Glacier Bay, Reid Inlet area, gold:</td>
</tr>
<tr>
<td>Glove mine, wulfenite:</td>
<td>Prince of Wales Island, Bokan Mtn. area,</td>
</tr>
<tr>
<td>Connecticut, western, localities:</td>
<td>Seward Peninsula, Bar Mtn. area, tin:</td>
</tr>
<tr>
<td>New Jersey: Wilkerson, A. S.</td>
<td>Alberta, Peace River area, iron: Kidd, D. J.</td>
</tr>
<tr>
<td>Ohio, Clay Center area, celestite and fluorite:</td>
<td>Cameron area, uranium, recent redistribution: Austin, S. E.</td>
</tr>
<tr>
<td>Flint Ridge area, flint deposits: Pagnumec, J. W.</td>
<td>Dripping Spring quartzite, uranium: Granger, H. C.</td>
</tr>
<tr>
<td>Oregon, agates: Birdsell, L. C.</td>
<td>Esperanza mine, East Sierrita area:</td>
</tr>
<tr>
<td>Missouri, Moselle mine No. 10: Lasmanis, R.</td>
<td>San Xavier mine, silver-lead-zinc: Irvin, G. W.</td>
</tr>
<tr>
<td>Montana, crystals: Navrattl, G. J.</td>
<td>Yuma-Maricopa-Phoenix-Graham Counties,</td>
</tr>
<tr>
<td>New York, southeastern, localities:</td>
<td>Base metals, origin, lateral secretion from black shales, impossibility: Barnes, H. L., 2.</td>
</tr>
<tr>
<td>west Chester area, brucite and deweylite:</td>
<td>Beryllium, origin: Warner, L. A.</td>
</tr>
<tr>
<td>Utah, Clay Canyon, phosphate minerals: Hamilton, H. V.</td>
<td></td>
</tr>
<tr>
<td>Vermont, localities, list: Morrill, P., 1.</td>
<td>Salmo area, lead-zinc: Fyles, J. T.</td>
</tr>
<tr>
<td>Virginia, Amelia Courthouse area: Cusick, A.</td>
<td>Torbrit silver mine, origin: Campbell, F. A.</td>
</tr>
<tr>
<td>MINERAL DEPOSITS. See also Economic geology.</td>
<td>Vernon area: Jones, A. G.</td>
</tr>
<tr>
<td>Alabama, Limestone County, phosphate, origin:</td>
<td>California, Kramer borate deposit, mineral relations and origin: Christ, C. L., 3.</td>
</tr>
<tr>
<td></td>
<td>Selenium content: Hawley, J. E.</td>
</tr>
<tr>
<td></td>
<td>Tungsten: Little, H. W.</td>
</tr>
<tr>
<td></td>
<td>Western, iron: Gravenor, C. P., 1.</td>
</tr>
<tr>
<td></td>
<td>Cinnabar and metacinnabar, origin, stability relations: Dickson, F. W.</td>
</tr>
</tbody>
</table>
### Mineral Deposits—Continued

**Colorado, Chicago Creek area**: Harrison, J. E.

- Cochetopa district, Los Ochos area, uranium, origin: Malan, R. C.
- Front Range belt, hydrothermal-alteration patterns and ore types: González-Bonorino, F.
- Relation to Precambrian structures: Sims, P. K.
- Garo uranium-vanadium-copper deposit: Wilmarth, V. R., 1.
- Gilman district, sulfides, depth, origin: Lovering, T. G., 1.
- Iron: Harrer, C. M.
- J. J. uranium-vanadium mine: Elston, D. P.
- Peanut uranium-vanadium mine: Roach, C. H.
- Riffe and Garfield vanadium mines: Botinelly, T.
- Colorado Plateau, uranium, cf. New Mexico, Grants area: Truesdell, A. H.
- Uranium, sedimentary, origin: Stewart, J. H., 1.
- Stratigraphic control: Cadigan, R. A.
- Uranium-lead, origin, isotopic data, new hypothesis: Miller, D. S., 1.
- Uranium-vanadium: Garrels, R. M., 2.
- Sandstone-type deposits, genesis: Garrels, R. M., 5.
- Uranium-vanadium-copper, Triassic rocks: Finch, W. L., 2.
- Conglomerate reefs, ancient, Blind River, Ontario, cf. Witwatersrand, uranium, origin, hypotheses: Davidson, C. F.
- Copper, porphyry deposits, hydrothermal origin: Burnham, C. W., 3.
- Copper-iron, phase assemblages: McKenzie, H. E.
- Cuba, Nicaro nickel ores: Fisher, R. B.
- Origin: Schneider, Harras.
- Statistical analysis of mineralized regions: Bates, R. C.
- Geochronological patterns: Jolliffe, A. W.
- Haiti, bauxite, origin: Salas, G. P., 1.
- Hawai'i, Haku bauxite area, Maui, gibbsite amygdules, origin: Sherman, G. D.

### Mineral Deposits—Continued


- Hydrothermal and replacement, genetic meaning of terms: Amstutz, G. C., 2.
- Idaho, Lucky Friday mine, Coeur d'Alene district, silver-lead: Felchel, W. T.
- Stanley Cave, uranium, origin: Kern, B. F.
- Illinois, Jo Daviess County, lead-zinc crevice deposits, origin: Bradbury, J. C., 2.
- Southern, barite: Bradbury, J. C., 1.
- Iron and sulfur deposition, mineralizing solutions: Butler, B. S.
- Kentucky, Big Four fault system, Crittenden County, fluorite: Hardin, G. C., Jr.
- John Burdette deposit, barite-fluorite: Earl, K. M.
- Labrador, Redmond area, rubble iron ores, origin: Blais, R. A.
- Wabush Lake district, iron, origin: Knowles, D. M.
- Lineament tectonics and geochemistry: Erickson, E. C., 1.
- Maine, list: Morrill, P., 3.
- Manitoba, Elbow-Heming Lakes area, gold and sulfides: McGlynn, J. C.
- Gypsum-anhydrite: Rannanayke, B. E.
- Montgomery pegmatite, Bernie Lake area: Hutchinson, R. W.
- Maryland, chromitite, early mines: Pearce, N. R.
- Mexico, Chihuahua, manganese: Ayub M., A. R.
- Guanajuato district, metallic: González Reyna, J., 2.
- Las Truchas district, Michoacán, iron, origin: Mapes Vázquez, E.
- Nacita district, Chihuahua, origin: Stone, J. G., 2d.
- Nonmetallic: Esquivel Morales, J.
- Northeastern, silver-lead replacement, Cretaceous horizons: Sánchez Mejorada, P.
- San Rafael mine, San Luis Potosí, sulfur, origin: González Reyna, J., 1.
- Santa Barbara district, Chihuahua, sulfides: Scott, J. B.
### MINERAL DEPOSITS—Continued

**Michigan, Greenwood mine, specularite-magnetite, origin:** Broderick, A. T.

**Lake Mary quadrangle, iron:** Bayley, R. W., 1.

**Portage Lake lava series, copper, amygdaloidal, origin:** Stoiber, R. E.

**White Pine copper deposit:** White, W. S.

**Minnesota, Cuyuna district, North range, iron:** Schmidt, R. George.

**Lake Mary quadrangle, iron:** Bayley, R. W., 1.

**Portage Lake lava series, copper, amygdaloidal, origin:** Stoiber, R. E.

**White Pine copper deposit:** White, W. S.

**Cuyuna iron range, Crow Wing County, manganiferous iron:** Heising, L. F.

**Mississippi Valley, upper, lead-zinc, origin:** Heyl, A. V., Jr., 1.

**Mississippi Valley type, origin:** Behre, C. H., Jr., 1; Ohle, E. L., Jr.

**Missouri, Bonne Terre mine, lead, origin:** Kulp, J. L., 3.

**Montana, fluorite, petrologic provinces:** Ackerman, W. C., 1.

**Helena area, metallic, origin:** Sahinen, U. M., 1.

**Libby vermiculite deposit, origin:** Bassett, W. A., 1.

**Lincoln County, western:** Johns, W. M.

**South Moccasin Mts.:** Miller, Richard N.

**Sweetgrass Hills, narsarsukite, origin:** Stewart, D. B.

**Nevada, Candelaria mining district, silver:** Page, B. M., 1.

**Liberty mine, copper:** Fournier, R. O.

**Manganese:** Trengove, R. R.

**New Brunswick, Bathurst-Newcastle area, sulfides, origin:** Etranton, R. L., 3.

**Gypsum, origin:** Sund, J. O.

**Juniper Prospect area, sulfides:** Ward, S. H., 1.

**New Hampshire, list:** Morrill, P., 2.

**New Jersey, Franklin area:** Albanese, J. S.

**New Mexico, Black Hawk district, Alhambra mine, uranium-nickel-silver-cobalt:** Gillerman, E.

**Grants area, uranium, cf. Colorado Plateau:** Truesdell, A. H.

**Harding pegmatite, beryl, origin:** Jahns, R. H., 3.

**Lincoln County, possibilities:** Griswold, G. B.

**Lone Star deposit, sulfides, origin:** Lustig, L. K.

**Magdalena mining district, origin:** Tittley, S. R., 2.

**Peloncillo Mts., pyrometasomatic, origin:** Elston, W. E., 2.

**Tungsten:** Dale, V. B., 2.

### MINERAL DEPOSITS—Continued

**New York, Ausable Forks district, magnetite, origin:** Collins, L. G.; Hagner, A. F., 2.

**Lake Sanford district, titaniferous magnetite, origin:** Gillson, J. L., 1.

**Phillips mine—Camp Smith area:** Klemle, H., 1.

**Summitville and Ellenville, sulfides, origin:** Friedman, J. D., 2.

**Newfoundland, St. George’s Bay area, evaporites, origin:** McKillop, J. H.

**Nicaragua, Murra area, gold-silver:** Glidice, D. del, 1.

**North America, Cordilleran districts, relation to regional structure:** Wisser, E. H.

**North Carolina, Holcombe Branch and Democrat dunes:** Ray, J. A.

**Ore Knob deposit, sulfides:** Kerstein, D. S., Jr.

**Pyrophylite:** Stuckey, J. L., 1.

**Western, quartz, crystalline, origin:** Mertle, J. B., Jr., 2.

**Northwest Territories, Yellowknife district, gold, origin:** Boyle, R. W., 2.

**Nova Scotia, Chisholm Brook and Black Brook prospects, copper-uranium, supergene:** Brummer, J. J.

**Mindamar mine, sulfides, banding, origin:** Watson, K. D.

**Popular account:** Campbell, G. G.

**Shubenacadie-Kennetcook area:** Stevenson, I. M.

**Ontario, Bancroft area, uranium, origin:** Hewitt, D. F.

**Boston-Pacaud Townships, iron, copper-gold:** Lawton, K. D.

**Bristol Township, gold possibilities:** Ferguson, S. A.

**Cobalt district, colloidal deposition:** Angino, E. E., 1.

**Falconbridge Township, Sudbury district, nickel-copper:** Thomson, J. E., 1.

**McKim mine, Sudbury district:** Clarke, A. M.

**Manitouwadge area:** Timms, P. D.

**Ottawa area, iron, metasomatic, Eh-pH data:** Machamer, J. F.

**Samreid Lake iron deposit, origin:** Friedman, G. M., 3.

**Sudbury district, nickel:** Falconbridge Nickel Mines Ltd.

**Ore and gangue metals, stability relations, thermochemical data:** Holland, H. D.

**Ore reserves, estimation:** Patterson, J. A.
MINERAL DEPOSITS—Continued
Ore-forming fluid, sulfide solubility in aqueous solutions: Czamanske, G. K.
Granite district, gold: Koch, G. S., Jr.
Origin: Riley, C. M., Jr.
Colloidal deposition: Angino, E. E., 1.
Heavy-metals transport at low temperatures: Barton, P. B., Jr., 2.
Heavy-metals transport by magmatic gas phase: Krauskopf, K. B., 1.
Hydrothermal alteration processes: Schwartz, G. M., 2.
Lead-isotope studies: Cannon, R. S., Jr.
Oxygen-isotope variation: Engel, A. E. J.
Stable-isotope research, applications: James, H. L., 2.
Syngenetic: Amstutz, G. C., 3.
Time criteria: Amstutz, G. C., 3.
Trace-element distribution: Bethke, P. M.
Pennsylvania, chromite, early mines: Pearre, N. C.
Cornwall mines, iron: Gray, C., 1.
Friedensville ore body, zinc: Gray, C., 1.
Puerto Rico, nickel-cobalt-iron: Heldenreich, W. L.
Quebec, Abitibi district: Archibald, G. M.
Chibougamau area, copper-gold, sulfides: Precambrian.
Pancamp-Hauy area, nickel-copper and gold: Holmes, S. W.
Gaspé Peninsula, Copper Mtn.—Needle Mtn. area, copper: Ford, R. E.
Hazeur-Druillettes area, sulfide: DeLand, A. N.
Madeleine River area: McGerrigle, H. W.
Mattagami Lake area: Latulippe, M.
Wabush Lake district, iron, origin: Knowles, D. M.
Rocky Mts., Rocky Mtn. Trench, northern: Bronlund, E.
Schuttetite, origin: Bailey, E. H., 3.
Sulfides, banding, origin: Watson, K. D.
Origin, symposium: Gill, J. E., 1.
Origin, source-bed concept: Knight, C. L.
Sulfur-isotope studies: Jensen, M. L., 2.

MINERAL DEPOSITS—Continued
Tennessee, Cleveland area: Swingle, G. D.
Eastern, sulfides: Maher, S. W.
Terminology: Stringham, B. F., 1.
Texas, Palangana salt dome, uranium, origin: Weeks, A. D., 3.
Terlingua district, mercury, origin: Yates, R. G.
United States, beryllium, nonpegmatitic: Warner, L. A.
Southwestern, tectonic control of ore districts: Mayo, E. B., 1.
Uranium, west of Colorado Plateau: Davis, D. L.
Uranium, sandstone-type, theories of origin: Garrels, R. M., 1.
Utah, Cedar Mtn. area, uranium: Johnson, H. S., Jr., 1.
Clifton district—Gold Hill area: Wilson, S. R.
Green River-Henry Mtn. districts, uranium: Johnson, H. S., Jr., 2.
Happy Jack uranium mine: Trites, A. F., Jr.
Mercier-Ophir mining districts, copper—silver—lead—zinc:
Proctor, P. D., 4.
Monument Valley, uranium-vanadium channel deposits: Lewis, R. Q., Sr., 1.
Park City district, sulfides: Wilson, Clark L.
Rainy Day uranium mine, Circle Cliffs area, localization of ore:
Davidson, E. S., 2.
Sheeprock Mts.: Cohenour, R. E.
Thomas Range, uraniferous fluorite deposits: Staats, M. H.
White Canyon area, Shinrump conglomerate, uranium: Johnson, H. S., Jr., 3.
Vanadium, origin, reduction by wood and lignite, experimental: Pommer, A. M.
Vermont, list: Morrill, P., 1.
Virginia, southwestern, quartz, crystalline, origin: Mertle, J. B., Jr., 2.
Stony Point area, gossans derived from siderite, not sulfides: Tazelaar, J. F.
Wyoming: Osterwald, F. W., 1.
Miller Hill area, uranium, origin: Vine, J. D., 2.
Uranium in Tertiary sandstones, origin, relation to natural gas:
Grutt, E. W., Jr.

MINERAL DESCRIPTIONS. See also Mineralogy.
Abernathyite, structure: Ross, M., 2.
Adularia, moonstone, Virginia: Slankankas, J., 2.
Agate and chalcedony, North Carolina, origin: Conley, J. F., 1.
MINERAL DESCRIPTIONS—Continued

Analcite, structure: Saha, P., 1.
Andalusite, viridinite, New Mexico: Hedin-
rich, E. W., 2.
Antigorite, chromian, Pennsylvania: Glass, J. J.
Arizonite, reaccredited: Karkhanavala, M. D., 3.
Baddeleyite, structure and twinning: McCullough, J. D.
Bandylite, structure: Ross, V. F., 2.
Barboisite, structure: Lindberg, M. L.
Bassanite, Oklahoma: Huang, W. W. T., 3.
Synthetic and natural: Jansen, G. J.
Borate minerals: Clark, J. R., 2.
Brandtite, New Jersey: Gaines, R. V., 2.
Braunite (?), Wisconsin: Heyl, A. V., Jr., 2.
Brucite, Pennsylvania: Thomas, C. A.
Carmellite, structure: Rosensweig, A.
Carnellite, crystal chemistry: Barton, P. B., Jr., 1.
Celenite, Virgilia: Pharr, R. F.
Cerussite, Connecticut: Januzzi, R. E., 2.
Chabazite, calcium, activated, struc-
ture: Smith, J. V., 5.
Chevronite: Bonatti, S.
Chlorite group, Arizona: Williams, S. A.
Chlorozonite: Seki, Y.
Coffinite, synthetic: Fuchs, L. H.
Cuprorivaite, natural analogue of Egyptian blue: Pabst, A., 4.
Danburite, structure: Johansson, G. P.
Delrotite, Colorado: Thompson, M. E.
Egonite is sterevtite: Mrose, M. E., 2.
Epidote group: Seki, Y.
Erlonite, Nevada, hexagonal, not ortho-
rhomblie: Deffeyes, K. S., 1.
Euclase: Mrose, M. E., 1.
Eucolite, Texas: Huang, W. W. T., 1.
Feldspar, perthite, orthoclase and mi-
icrocline: Smith, J. V., 3.
Ferrosilite, Colorado Plateau: Cole-
man, R. G., 2.
Persinite, Montana: Hess, H. D.
Galena, replacing uraninite, Montana: Shulhof, W. P.
Gastunite: Honea, R. M.
Geikieite, California: Wise, W. S., 1.
Ghassoulite is hectorite: Faust, G. T.
Gillespite and copper analogues, struc-
Gowerite, California: Erd, R. C.
Greenland, Julianehaab district, neph-
elle line syenite minerals: Dang, M.
Grountite, New York: Segeler, C. G.
Grunerite: Ghose, S., 1.
Gypsum, Georgia, efflorescent: Gardner, C.

MINERAL DESCRIPTIONS—Continued

Halweelite, California: McBurney, T. C.
Halotrichite, magnesian, Ohio: Brant, Russell A., 1.
Hanbuhte is stevensite and pectolite:
Faust, G. T.
Hemipentahydrate of sodium carbonate is trona: Pabst, A., 2.
Hlaingerite, structural types and origin:
Whelan, J. A.
Holmium sulfite, structure: Vogt, T.
Hydrocalumite: Butlter, F. G.
Inyoite, structure: Clark, J. R., 1.
Isostannite, structure: Kocky, F. L., Jr.
Jarosite, Wyoming: Mitchell, R. S.
Kerinite, structure: Ross, V. F., 1.
Kolbeckite: Mrose, M. E., 2.
Lazulite, structure: Lindberg, M. L. L.
Leucite: Gubelin, E. J.
Ludwigite, California: Chesterman, C. W., 2.
Lusonite-famatinite: Gaines, R. V., 1.
Magnesite, Saskatchewan, crystals: Fer-
guson, R. B., 2; Rapson, J. E.
Manganese ore minerals: Ramdohr, P.
Meta-autunite, Washington: Volborth, A.
Millrite, Wisconsin: Heyl, A. V., Jr., 2.
Monasite: Molloy, M. W., 1; William-
don, D. B.
Nickel minerals, Mississippil Valley:
Heyl, A. V., Jr., 2.
Nickel-iron, native, Quebec: Nickel, E. H.
Olivine, penetration twin: Brothers, R. N., 1.
Opal, Kansas: Swineford, A., 2.
Pectolite, Kansas: Franks, P. C., 3.
Pegmatitic minerals, compromise
growth surfaces: Haynes, V.
Perrierite: Bonatti, S.
Phosphate minerals, Utah: Hamilton, H. V.
Pistacite: Seki, Y.
Proberite, structure: Clark, J. R., 2.
Proteusstatite, structure: Smith, J. V., 2.
Roemerite, California, structure: Van Loan, P. R., 2.
Ruby, refraction-absorption-biabsorp-
Sabugalite, synthetic and natural, struc-
ture: Magin, G. B., Jr.
Schroeckingerite and dehydrolad produc-
t, structure: Smith, D. K., Jr.
Scorzalite, structure: Lindberg, M. L. L.
MINERAL DESCRIPTIONS—Continued
Selenite, birefringence, dispersion and temperature coefficient: Jeppe­
sen, M. A.
Sphalerite, structure: Bridgley, G. W., 2; Frei ​
Sphene, Ontario: Heinrich, E. W., 1.
Stannite, structure: Kourky, F. L., Jr.
Sterrettite: Mrose, M. E., 2.
Stevensite, defect structure: Faust, G. T.
Strontianite, Virginia: Phill­
Talcite, structure: Clark, J. R., 2.
Tarmor, Michigan, new polytypes: Evans, H. T., Jr.
Tilleyite, synthetic cf. natural: Harker, R. I.
Titanomaghemite, origin: Basta, E. Z.
Trona: Pabst, A., 2.
Ulexite, structure: Clark, J. R., 2.
Umohoite, Arizona, fine-grained: Hamil­
Utah, structure: Kamb, S. R.
Väyrynenite: Mrose, M. E., 1.
Vanadium minerals, Colorado Plateau, structure: Ross, M., 1.
Vardicite, Utah: Hamilton, H. V.
Veatchite: Clark, J. R., 4.
Violarite, Wisconsin: Heyl, A. V., Jr., 2.
Wulfenite, Connecticut: Januzzi, R.
Wurtzite, Missouri, new polytypes: Evans, H. T., Jr.
Zinc and cadmium sulfides, structure: Smith, F. G., 1.
Zoisite: Seki, Y.
MINERAL MAPS. See Maps, Mineral.
MINERAL RESOURCES. See also Artificial
Amphiboles, compositions, graphical representation: Smith, J. V., 1.
Apatite, fossil and recent teeth, unit­
Beryllium minerals: Warner, L. A.
Beryllium phosphates, väyrynenite and euclase: Mrose, M. E., 1.
Borate minerals, high-low hydration se­
Borax-tincalconte-kernite, equilibrium relations, experimental cf. nat­
Carroll, D., 5.
Clay and other minerals, ion exchange: Carroll, D., 5.
Clay minerals, structure, composition, origin: Grim, C. L., 3.
Clays and clay minerals, conference: Swineford, A., 1.
Coal and related minerals, identification by infrared spectra: Tuden­
Cinnabar and metacinnabar, origin, sta­
Clay minerals, chemical classification system: Phillips, W. R.
Clay and other minerals, ion exchange: Carroll, D., 5.
Clay minerals, structure, composition, origin: Grim, C. L., 3.
Clays and clay minerals, conference: Swineford, A., 1.
COMMUNICATIONS: Smith, F. G., 1.
MINERALOGY. For areal, see subheading Mineralogy under the states and countries. See also Artificial
MINERAL WATERS. See Ground water; Springs; Thermal waters.
MINERALOGY. For areal, see subheading Mineralogy under the states and countries. See also Artificial
MINERAL RESOURCES—Continued
Mississippi: Mellen, P. F.
New York, bibliography and map: Luedke, E. M.
Nonfuel: Carlisle, D.
Pennsylvania, Bucks County: Gault, H. R.
Saskatchewan, northern, Precambrian: Beck, L. S.
South Carolina, Sumter County, by physiographic divisions: John­
South Dakota: Miller, R. Harlan.
Strontium: Schreck, A. E.
Tennessee, Cleveland area: Swingle, G. D.
Map: Hardeman, W. D.
Textbook: Riley, C. M., 1.
MINERAL RESOURCES—Continued
Mississippi: Mellen, P. F.
New York, bibliography and map: Luedke, E. M.
Nonfuel: Carlisle, D.
Pennsylvania, Bucks County: Gault, H. R.
Saskatchewan, northern, Precambrian: Beck, L. S.
South Carolina, Sumter County, by physiographic divisions: John­
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Strontium: Schreck, A. E.
Tennessee, Cleveland area: Swingle, G. D.
Map: Hardeman, W. D.
Textbook: Riley, C. M., 1.
MINERAL RESOURCES—Continued
Mississippi: Mellen, P. F.
New York, bibliography and map: Luedke, E. M.
Nonfuel: Carlisle, D.
Pennsylvania, Bucks County: Gault, H. R.
Saskatchewan, northern, Precambrian: Beck, L. S.
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Strontium: Schreck, A. E.
Tennessee, Cleveland area: Swingle, G. D.
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MINERAL RESOURCES—Continued
Mississippi: Mellen, P. F.
New York, bibliography and map: Luedke, E. M.
Nonfuel: Carlisle, D.
Pennsylvania, Bucks County: Gault, H. R.
Saskatchewan, northern, Precambrian: Beck, L. S.
South Carolina, Sumter County, by physiographic divisions: John­
South Dakota: Miller, R. Harlan.
Strontium: Schreck, A. E.
Tennessee, Cleveland area: Swingle, G. D.
Map: Hardeman, W. D.
Textbook: Riley, C. M., 1.
MINERAL RESOURCES—Continued
Mississippi: Mellen, P. F.
New York, bibliography and map: Luedke, E. M.
Nonfuel: Carlisle, D.
Pennsylvania, Bucks County: Gault, H. R.
Saskatchewan, northern, Precambrian: Beck, L. S.
South Carolina, Sumter County, by physiographic divisions: John­
South Dakota: Miller, R. Harlan.
Strontium: Schreck, A. E.
Tennessee, Cleveland area: Swingle, G. D.
Map: Hardeman, W. D.
Textbook: Riley, C. M., 1.
MINERALOGY—Continued

Colorless minerals, thin sections, zoning detection, orthorhombic and uniaxial: Sahama, T. G.

Crystal surfaces, compositional adjustments: DeVore, G. W., 3.

Crystals, color centers: Gordon, R. B.

Crystal-structure studies, history: Evans, H. T., Jr., 1.


Elementary account: Jahns, R. H., 1.

Feldspars, potassium, optical properties, transformation: Fritzen, D. K.


Field geology, relations to composition and structure: Hewlett, C. G.

Field identification: Fritzen, D. K.

Fayalite, olivine-spinel inversion: Wentorf, R. H., Jr.


Fundamentals, for engineers: Treffethen, J. M.

Gemology for the rockbound: Parsons, C. J.


Green River formation, mineral assemblages, reactions: Milton, C., 1.

Hydrated minerals, differential thermal analysis: Hight, R. P.

Hydrothermal alteration: Schwartz, G. M., 2.

Identification tables, for engineers: Treffethen, J. M.

Ilemonite, high-temperature: Karthanavala, M. D., 2.

Titanium-bearing beach sands: Balsley, S. W.


Luzonite-famatinite, species: Gaines, R. V., 1.

Magnetite-maghemite, intermediate minerals: Basta, E. Z.

Manganese ore minerals, descriptions: Ramdohr, P.

Metamorphic reactions and facies: Fyfe, W. S., 1.

Micas, synthetic and natural, hardness: Bloss, F. D., 1.

Minerals, heats of solution of grain sizes: Cumberlidge, J. T.

Transformations in up-pressure direction by grinding: Dachille, F., 4.

MINERALOGY—Continued

Olivines, forsteritic, optic axial angles, discrepancies: Wyllie, P. J., 1.

Olivine-spinel inversion: Dachille, F., 1.

Optical, teaching, isogyrometer: Travis, R. B.


Perrierite and chevkinite, cf. epidotes: Bonatti, S.

Petrographic, textbook: Moorhouse, W. W.

Phosphate deposits, nomenclature: Lund, E. H., 1.

Popular account: Ball, H. W.

Pyrite, optical anisotropism: Stanton, R. L., 1.

Stability limits: Kullerud, G., 2.


Quartz, directional grinding hardness: Denning, R. M., 1.

Questions answered: Pearl, R. M.

Rutille-anatase-brookite, magnetic susceptibility: Pankey, T.

Saline minerals: Kerr, P. F., 3.

Selenium minerals: Kerr, P. F., 3.

Titanium-bearing minerals, list: Luttrell, G. W.

Serpentines, distinguishing, infrared-absorption data: Brindley, G. W., 1.

Siderite, spontaneous oxidation of powdered sample: Schaller, W. T.


Sphalerite, magnetic: Spokes, B. M.

System Cu-Fe-S-O, assemblages: McKinstry, H. E.

Textbook: Berry, L. G.; Kraus, E. H.

Thermochemical reactions, popular: Foster, Wilfrid R.

Titanium, bauxite deposits: Hartman, J. A.

Titanomagnetite-titanomaghemite: Basta, E. Z.

Twin symmetry, complete twin: Curles, H.

Uranyl vanadate, crystal chemistry: Barton, P. B., Jr., 1.

Wolframite, magnetic susceptibility, relation to composition: Spokes, B. M.

Zirconium: Frondel, C.

MINING GEOLOGY. See also Rock bursts.

Kansas, Lyons salt mine, rock-salt flowage: Dellwig, L. F.

Manganese nodules, deep-sea, economics: Mero, J. L., 1.
MINING GEOLOGY—Continued

Open-pit mines, slide prevention: Wilson, S. D.

Rock failure, strength and elastic properties: Wuerker, R. G.

Time-dependent deformation, laboratory tests: Hardy, H. R., Jr.


Rock stresses, coal mines: Spindler, G. R.

Utah, Sunnyside coal mines, rock bursts: Peperakis, J.

MINNESOTA.

Amino acids in peat, Cedar Creek Bog: Swain, F. M., Jr., 1.


Economic geology.

Cook County: Grout, F. F.


Iron, Cook County, titaniferous magnetite: Grout, F. F.

Cuyuna district, North range: Schmidt, R. George.

Cuyuna range, Crow Wing County: Helsing, L. F.

Manganese, Cuyuna iron range, Crow Wing County: Reising, L. F.

Marl: Schwartz, G. M., 1.

Geologic maps.

Cook County, shorelines, lava flows: Grout, F. F.

Whole County and townships: Grout, F. F.

Cuyuna district, North range: Schmidt, R. George.

Ground water.


Lyon County, Pleistocene meltwater channels: Schneider, R.

Historical geology.


Cedar Creek Bog, late Pleistocene: Swain, F. M., Jr., 1.

Cook County, Precambrian and Quaternary: Grout, F. F.

Cretaceous: Sloan, R. E., 2.

Cuyuna district, North range, Precambrian: Schmidt, R. George.

Franconia formation, Cambrian, K-A ages: Goldich, S. S., 1.


International border region, Precambrian: Yardley, D. H., 3.

Pleistocene, Wisconsin glaciation sequence: Arneman, H. F.

Pleistocene rivers: Ahlquist, G. R., 3.

Precambrian, early, orogenies, absolute ages: Goldich, S. S., 4.

Sioux quartzite, Precambrian, K-A ages: Goldich, S. S., 1.

MINNESOTA—Continued

Mineralogy.

Biwabik iron-formation, Eastern Mesabi district: Gundersen, J. R. N., 1.

Eastern Mesabi district, metasomatic veins: Gundersen, J. R. N., 2.

Cook County, Duluth gabbro complex: Grout, F. F.

Cuyuna iron range, Crow Wing County, manganiferous ores: Helsing, L. F.

Duluth gabbro complex, distribution of elements: Snyder, J. L.

feldspars, potassium-argon ages, A^2 value: Signer, P.

Iron silicate minerals, Cuyuna district: Blake, R. L.

Paleontology.

Graptolite, Stewartville dolomite, Ordovician: Sloan, R. E., 1.

Pollen, Pleistocene, Wisconsin substages: Wright, H. E., Jr.

Petrology.

Biwabik iron-formation, Eastern Mesabi district: Gundersen, J. R. N., 1.

Eastern Mesabi district, metasomatic veins: Gundersen, J. R. N., 2.

Magnetite-bearing taconites: Gundersen, J. R. N., 3.

Cook County: Grout, F. F.

Cuyuna district, North range: Schmidt, R. George.

Cuyuna iron range, Crow Wing County, manganiferous ores: Helsing, L. F.

Duluth gabbro complex, distribution of elements: Snyder, J. L.

Marl, rapid chemical analysis: Goldich, S. S., 2.

Openwork gravel deposits, origin, stream valleys, northern: Branden, G. E., 1.

Wisconsin-age tills, bedrock sources: Arneman, H. F.

Physical geology.

Carlton County, Thomson formation: Mattson, L. A.

Cook County: Grout, F. F.

Cuyuna district, North range: Schmidt, R. George.

Volcanism, Precambrian-Ordovician, popular account: Ahlquist, G. R., 1.

Physiographic geology.

Cook County: Grout, F. F.


Lake Superior, north shore, Pleistocene beaches: Farrand, W. R.

Lyon County, Pleistocene meltwater channels: Schneider, R.

MISSISSIPPI.

Guidebook, Upper Cretaceous, northeastern: Miss. Geol. Soc.
MISSISSIPPI—Continued

Economic geology.
Mineral resources: Mellen, F. F.
Oil and gas, Black Warrior basin: Welch, S. W.

Historical geology.
Black Warrior basin, northern, Devonian-Pennsylvanian: Welch, S. W.
Cretaceous, Upper, subsurface: Brauning, J., 1.

Physical geology.
Jackson dome: Lang, J. W.

MISSISSIPPI EMBAYMENT. See also Gulf Coastal Plain.
Northern, Cretaceous, sedimentary petrology: Pryor, W. A.

MISSISSIPPI RIVER. See Rivers.

MISSISSIPPI VALLEY.
Conodonts, Devonian - Mississippian, stratigraphic distribution and abundance, upper: Collinson, C. W., 2.
Engineering geology, alluvial deposition and soil formation: Kolb, C. R.
Lead-zinc district, upper: Heyl, A. V., Jr., 1.
Nickel minerals, lead-zinc district, upper: Heyl, A. V., Jr., 2.
Ore deposits, Mississippian Valley type: Behre, C. H., Jr., 1; Ohle, E. L., Jr.
Sediments, depositional types, lower: Kolb, C. R.
Tectonic history and regional structure, upper: Heyl, A. V., Jr., 1.

MISSISSIPPIAN. See also Carboniferous;
Paleontology, Mississippian; Palaeozoic.
Alabama, Black Warrior basin, northern: Welch, S. W.
Alberta, Peace River area, nomenclature and type sections: Halbertsma, H. L.
Plains, erosion surface, seismic study: Blundun, G. J.
Rundle group, Crowsnest Pass section, correlation of fault slices: Nelson, S. J., 1.
South-central: Penner, D. G.
Southern, cyclic sedimentation: Ing, L. V.
Arizona, southern: Thomas, G. C.
Arkansas, northern: Frezon, S. E.
Washington County, southwestern: Jackson, K. C., 2.
British Columbia, Peace River area, nomenclature and type sections: Halbertsma, H. L.
Clay petrology, change in middle: Weaver, C. Edward.
Indiana, Mt. Carmel fault region: Melhorn, W. N., 2.

MISSISSIPPIAN—Continued

Kansas, eastern: Goebel, E. D., 1.
Southeastern: Merriam, D. F., 2.
Kentucky, eastern, Upper: Wilpolt, R. H.
Manitoba, southwestern: McCabe, H. R.
Mississippi, Black Warrior basin, northern: Welch, S. W.
Montana, South Moccasin Mts.: Miller, Richard N.
New Mexico, Sangre de Cristo Mts., limestone boulder conglomerates: Sutherland, P. K., 2.
North Dakota, northwestern, Madison group, facies and nomenclature: Anderson, S. B.
Nova Scotia, Shubenacadie-Kennetcook area: Stevenson, I. M.
Ohio, northern, Cuyahoga formation, correlation with Shenango sandstone, northwestern Pennsylvania: Szmiuc, E. J.
Oklahoma: Curtis, D. M.
Anadarko basin, southeastern: Brann, J. C.
Arbuckle Mts., north and south flanks, correlation: Champlin, S. C.
Boktukola syncline area: Shelburne, O. B., Jr., 2.
McAlester basin: Lynch, B. W.
North-central, divisions, correlation with Kansas by lithology: McDuffie, R. H.
Northern: Jordan, L., 1.
Ouachita Mts.: Harlton, B. H.
Osark uplift flanks: Huffman, G. G., 1.
Woods County: Bowles, J. P. F.
Saskatchewan, west-central, Lower: Kents, P.
United States, Cordilleran region, sedimentation, silica source: Bissell, H. J., 5.
Midcontinent: Branson, C. C., 3.
Boundaries and subdivisions: Branson, C. C., 4.
Symposium: Moore, C. A.
Utah, Manning Canyon shale, Pennsylvanian boundary: Moyle, R. W.
Mt. Nebo-Salt Creek area: Johnson, K. D.
Needle Range: Gould, W. J.
Uinta Mts., Pennsylvanian boundary: Sadick, W., 1.
Wasatch and Uinta Mts.: Crittenden, M. D., Jr.
Virginia, southwestern, Upper: Wilpolt, R. H.
West Virginia, southeastern, Bluefield group: Manspeizer, W.
Southern, Upper: Wilpolt, R. H.
MISSISSIPPIAN—Continued
Williston basin: McCabe, H. R.
Limestones, rhythmic sedimentation, clastic marker beds: Cumming, A. D.
Mission Canyon formation, isopach and lithofacies studies: Hansen, A. R.
Northern: Fish, A. R.

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Economic geology
- Industrial rocks and minerals, possibilities: Beveridge, T. R.
- Iron, sedimentary and hydrothermal, southeastern: Hayes, W. C., Jr.
- Lead, Bonne Terre mine, origin, and age of source: Kulp, J. L., 3.

Geologic maps
- Precambrian rock types, paleogeologic: Green, J. D.

Historical geology
- Cambrian-Mississippian, correlation by insoluble residues: McCracken, E.
- Columbia-Hannibal area, Pennsylvanian, post-Cheltenham: Searight, T. K., 1, 2.
- Des Moines series, Pennsylvanian: Searight, W. V., 1.
- Precambrian, K-A ages: Allen, V. T., 2.
- Ralphord Cave, Mississippian limestones: Delke, H. G., 1.

Mineralogy
- Lindley soil, X-ray studies: Brydon, J. E., 1.
- Moselle mine No. 10, collecting: Lassman, B.
- Wurtzite, Joplin area, new polytypes: Evans, H. T., Jr., 3.

Paleontology
- Crinoid, Louisiana formation, Mississippian: Koenig, J. W., 2.
- Scolocodonts, Late Devonian-Early Mississippian, central: Sylvester, R. K.

Petrology
- Insoluble residues, correlation: McCracken, E.

Physical geology
- Columbia-Hannibal area, Pennsylvanian, post-Cheltenham: Searight, T. K., 1, 2.
- Des Moines series, Pennsylvanian: Searight, W. V., 1.

MISSOURI—Continued
Physical geology—Continued
- Devils Icebox Cave, ceiling channel, origin: Delke, R. G., 2.
- Precambrian, structure contour map: Grenia, J. D.
- Ralphord Cave: Delke, R. G., 1.

Physiographic geology
- Cedar Creek, Boone County, entrenched meanders: Delke, R. G., 1.

MOLLUSCA. See also Cephalopoda; Gastropoda; Paleocypoda.
- California, Bay Point formation, Pleistocene, list: Valentine, J. W., 1.
- Huntington Beach Mesa, Pleistocene, list: Valentine, J. W., 3.
- San Diego area, late Pleistocene: Emerson, W. K., 1.
- San Francisco peninsula, western, Pliocene-early Pleistocene: Glen, W.
- Helminthochiton concinnus, Pennsylvanian, Illinois, Mason Creek area: Richardson, E. S., Jr., 1.
- Monoplacophora, classification, relation to primitive gastropods: Knight, J. B.
- Neopilia, modern: Clarke, A. H., Jr., North Carolina, Trent formation, Miocene, paleoecology, cf. Recent: Smith, A. B.
- Ohio, Humboldt area, Pleistocene, distribution and ecology: Reynolds, M. B.
- Newell Lake deposit, Pleistocene: Zimmerman, J. A.
- Pleistocene lakes, ecology: LaRoque, J. A. A.
- Polyplophora: Smith, Allyn G.
- Quebec, Quaternary, Champlain Sea, littoral, temperature indicators: Elson, J. A.
- Shells, Recent, and fossil, trace-element concentrations, controls: Turekian, K. K., 2.
- Texas, Laguna Madre-coastal bays, modern biofacies, cf. late Cenozoic: Parker, R. H.
- Virginia, Yorktown formation, Miocene, York-James peninsula, list: McLean, J. D., Jr.

MOLYBDENUM
- Arizona, Tucson area, pegmatitic: Lutton, R. J., 1.
- Canada, map: Canada G. S., 3.

MONAZITE. See also Heavy minerals; Rare earths; Thorium.
- Alteration: Molloy, M. W., 1.
- Georgia Culloden area, in pegmatites: Fortson, C. W., Jr., 2.
- New Jersey, Chester area, comparative study: Molloy, M. W., 1.
- North Carolina, Piedmont placers: Overstreet, W. C.
**INDEX**

**MONTANA—Continued**

Geologic maps—Continued

Bitterroot Valley, surficial: McMurtrey, R. G.

Black Hills: Mapel, W. J., 3.


Ekalaka Hills: Gill, J. R., 2.

Flint Creek Range, northwest flank: McGill, G. E.

Helena area: Sahinen, U. M., 1.

Lewistown area: Gardner, L. S., 1.

Lincoln County, southwestern: Johns, W. M.

Little Rocky Mtn. area: Knechtel, M. M.

Marlas River area, lower: Smith, J. F., Jr.

Sixteenmile area: Robinson, G. D., 1.

Smoke Creek-Medicine Lake area: Whorf, I. J., 1.

South Moccasin Mts.: Miller, Richard N.

Yaak River quadrangle, south half: Johns, W. M.

Ground water.

Bitterroot Valley: Konieski, R. L., 1; McMurtrey, R. G.

Geographic divisions: Groff, S. L., 2.

Historical geology.

Amsden formation, Pennsylvanian, Wolf Springs-Delphia area: Ramsey, R. D.


Belt series, Precambrian, Glacier National Park: Ross, C. P., 1.

Western: Leischner, L. M., 1.

Big Snowy group, Carboniferous, revised, central: Gardner, L. S., 2.

Mississippian, Rocky Mtn. front area: Blake, O. D.

Bitterroot Valley, Cenozoic, aquifers: McMurtrey, R. G.

Colorado group, Cretaceous, Sweetgrass arch: Cobban, W. A., 2.

Cretaceous, Lower, north-central: Glaiser, R. P.

Cut Bank area, Jurassic-Cretaceous boundary: Weimer, R. J., 2.

Drummond area, Precambrian-Cambrian contact: Maxwell, John C.

Elkhorn Mts. volcanic field, Cretaceous: Kleeper, M. R.

Flint Creek Range, northwest flank: McGill, G. E.

Garnet Range, Cambrian: Kauffman, M. E., 2.

Paleozoic: Kauffman, M. E., 1.

Hebgen Lake area: U.S. Coast and Geod. Survey.

Helena area, Precambrian-Paleozoic: Sahinen, U. M., 1.

Lewistown area: Gardner, L. S., 1.

Lincoln County, Precambrian and Ceno-

zolic: Johns, W. M.

Little Rocky Mtn. area: Knechtel, M. M.

**MONAZITE—Continued**

Ontario, Elliot Lake area, high uranium ratio: Roscoe, S. M.

South Carolina, Piedmont placers: Overstreet, W. C.

**MONTANA.**

Dip-needle traverses, Sweetgrass County: Randall, J. A.


Sawtooth Mts.-Disturbed belt area: Billings Geol. Soc.

Western: Geol. Soc. America Rocky Mt. Sec.

Isotopic study, Butte area, ore and country rock, lead: Murthy, V. R., 2, 3.

Areas described.

Birney-Broadus coal field: Warren, W. C.

Bitterroot Valley: Konieski, R. L., 1.

Melrose area: Theodosia, S. D.

Nimrod area: Montgomery, J. K.

Economic geology.

Coal, Birney-Broadus field: Warren, W. C.

Flint Creek Range, northwest flank: McGill, G. E.

Fluorite, deposits: Ackerman, W. C., 1.

Lignite, uraniferous, Ekalaka Hills: Gill, J. R., 2.


Lincoln County, western: Johns, W. M.


Mineral deposits, South Moccasin Mts.: Miller, Richard N.


Marias River area, lower: Smith, J. F., Jr.

Missoula area: Parker, R. C.

Natural gas, Rocky Mts., disturbed belt: Hurley, G. W.

OIl and gas, Porcupine dome, possibilities: Model, R. M.

Sweetgrass arch, southern: Gribli, E. A., Jr.


Delphia field: Williams, J. F.

East Poplar field, hydrodynamics: Murray, G. H., Jr.

Mission Canyon bioherms, possibilities: Lewis, P. J.

Red Creek field: Lowe, H. R.

Stensvad field: Staggs, J. O.

Wolf Springs-Delphia area, Amsden formation: Ramsey, R. D.

Sodium sulfate, Smoke Creek-Medicine Lake area: Whorf, I. J., 1.

Vermiculite, Libby deposit, origin: Basset, W. A., I.

Geologic maps.

Birney-Broadus coal field: Warren, W. C.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

MONTANA—Continued

Historical geology—Continued

Marias River area, Cretaceous and Quaternary: Smith, J. F., Jr.
Maurice formation, Cambrian, southern: Brown, C. William.
Mesozoic-Cenozoic, western: Honkala, F. S.
Mississippian - Pennsylvanian, central and eastern: Willis, R. P.
Nimrod-Drummond area, Paleozoic: Tidyman, T.
Pierre shale, Cretaceous, Black Hills area: Robinson, C. S.
Pleistocene, western: Montagne, J. M. de la.
Precambrian, western, K-A ages: Hayden, R. J.
Precambrian - Cambrian unconformity, northern: Campbell, A. B.
Sappington formation, Devonian-Mississippian: Achauer, C. W.
Sixteenmile area, Robinson, G. D., 1.
Slye limestone, Precambrian, isotopic ages: Goldich, S. S., 1.
Smoke Creek-Medicine Lake area, Cenozoic: Witkind, I. J., 1.
South Moccasin Mts., Cambrian-Recent: Miller, Richard N.
Sun River Canyon area, stratigraphic chart: Mudge, M. R., 3.
Tyler formation, Mississippian, central: Todd, D. F.

Mineralogy.

Collecting localities: Navratil, G. J.
Feldspars, Boulder bolithith, perthite, origin by replacement of plagioclase: Robertson, F. S.
Fersmite, Ravalli County: Rees, H. D.
Galena, Boulder bolithith, replacing uraninite: Shulhof, W. P.
Narsarsukite, Sweetgrass Hills: Stewart, D. B.

Paleontology.

Algae, Belt series, Precambrian, Glacier National Park: Ross, C. P., 1.
Lodgepole formation, Mississippian, Big Snowy Mts.: Johnson, J. Harlan, 1.
Bryozoans, Amaden formation, Pennsylvanian: Perry, T. G., 3.
Coral(?), Silver Hills formation, Cambrian: Fritz, M. A., 1.
Doughlass Creek basin, Oligocene biota, paleoecology: Konizzeki, R. L., 2.
Garnet Range, Cambrian: Kauffman, M. E., 2.
Insect, Alder area, Oligocene: Carpenter, F. M.; Pierce, W. D., 1.
Mississippian - Pennsylvanian, central and eastern, lists: Willis, R. P.
Pierre shale, Cretaceous, Black Hills area, lists: Robinson, C. S.

Plant, Ruby River basin, Oligocene: Becker, H. F.
Sappington sandstone, Devonian-Mississippian, microfossils: Achauer, C. W.
Sponges, Sappington sandstone, Mississippian, southwestern: Gutschick, R. C., 3.

Petrology.

Belt series, lower, Precambrian, western: Leischner, L. M., 1.
Big Snowy group, central: Gardner, L. S., 2.
Bitterroot Range, anorthosite bodies in metamorphic rocks: Anderson, Roy E., 2.
Boulder bolithith, perthite origin: Robertson, F. S.
Browne Lake area: Hutchinson, R. M., 3.
Colorado group, Cretaceous, Sweetgrass arch: Cobban, W. A., 2.
Ekalaka Hills lignite field: Gill, J. R., 2.
Elkhorn Mts. volcanic field, Cretaceous: Kiepper, M. R.
Fluorite deposits, petrologic provinces: Ackerman, W. C., 1.
Igneous and metamorphic rocks, western: Anderson, Roy E., 1.
Lincoln County, western: Johns, W. M.
Little Rocky Mtn. area: Knechtel, M. M.
Maurice formation, dolomitization, southern: Brown, C. William.
Mission Canyon bioherms, facies: Lewis, P. J.
Mississippian-Pennsylvanian, central and eastern: Willis, R. P.
Orbicular gneiss, Beartooth Mts., Lonesome Mtn. area: Leveson, D. J.
Pierre shale, Cretaceous, Black Hills area: Robinson, C. S.
Shonkite-granite porphryy series, Yogo Peak, textural features: Goodspeed, G. E., 1.
South Moccasin Mts. laccoliths: Miller, Richard N.
Sweetgrass Hills, narsarsukite origin: Stewart, D. B.
Wallace formation, argillite, scapolitaion: Ackerman, W. C., 2.

Physical geology.

Beartooth Mts., fracture patterns: Spencer, E. W.
Big Snowy uplift, Mississippian tectonics: Todd, D. F.
Browne Lake area: Hutchinson, R. M., 3.
MONTANA—Continued

Physical geology—Continued
Bumpy land, formation by freezing, cf. orogeny: Green, J. R.
Cathedral Peak area: Butler, James R.
Drummond area, Precambrian-Cambrian contact: Maxwell, John C.
Elkhorn Mts. volcanic field, Cretaceous: Kiepper, M. R.
Flathead Range, faults: Woodward, Lee A.
Flint Creek Range, northwest flank: McGill, G. E.
Granite County, southeastern: Poulter, G. J.
Gravelly Range, northern: Hadley, J. B., 2.
Hebgen Lake area: U. S. Coast and Geod. Survey
Hebgen Lake earthquake, 8/17/59: U. S. Coast and Geod. Survey; Witkind, I. J., 1.
Idaho and Boulder batholiths: Anderson, Roy E., 1.
Lewis overthrust: Ross, C. P., 1.
Lincoln County, western: Johns, W. M.
Line Creek area: Casella, C. J.
Madison-Canyon landslide: Hadley, J. B., 1.
Marias River area, lower: Smith, J. F., Jr.
Melrose area: Theodosia, S. D.
Porcupine dome: Model, R. M.
Rocky Mts., Disturbed belt, thrusting: Hurley, G. W.
Sixteenmile area: Robinson, G. D., 1.
South Moccasin Mts., structural blocks, intrusion and domal uplift: Miller, Richard N.
Sun River Canyon area: Mudge, M. R., 3.
Tectonic features, western: McMannis, W. J.

Physiographic geology.
Beartooth Mts., fracture patterns, expression on aerial photographs: Spencer, E. W.
Belt area, sinkhole not meteor crater: Green, J. R.
Bitterroot Valley, origin: McMurtrey, R. G.
Glacial, western: Montagne, J. M. de la.
Glacial Lake Musselshell, spillways: Colton, R. B.
Glacialiation, southwestern: Hall, W. B.
Glacier National Park: Ross, C. P., 1.
Lincoln County, western: Johns, W. M.
Marias River area, lower: Smith, J. F., Jr.
Smoke Creek-Medicine Lake area: Witkind, I. J., 1.

Moraines. See also Glacial geology.
Alaska, Anchorage area: Miller, R. D., 1.

MOUNTAIN BUILDING. See Orogeny.

Moraines—Continued
Canada, western, ice-disintegration, classification: Gravenor, C. P., 3.
Canadian Shield, eastern, pre-Pleistocene tropical weathering evidence: Brochu, M., 1.
Greenland, Thule area, patterned ground, experimental formation of natural: Corte, A. E.
Michigan, Schoolcraft County: Sinclair, W. C.
Upper Peninsula, map: Martin, H. M.

New Jersey, Newark area: Jumikis, A. R.
Pennsylvania, northwestern: Sheppe, V. C., 2.
Quebec, central: Henderson, Eric P., 1.
Monts Notre-Dame: Brochu, M., 3.
Saskatchewan, Swift Current area, Wisconsin stage: Christiansen, E. A.

Mounds.
Indiana, Lake County, muck mound, growth and cause: Bushnell, T. M.
Washington, central, Manastash mounds, origin: Knatz, M. R.

MOUNTAIN BUILDING. See Orogeny.

Mud balls, Trinidad, coastal: Kugler, H. G.

Mudflows.
Oregon, Mt. Hood, buried forests, radiocarbon ages: Lawrence, D. B.
Washington, Mt. Rainier, Osceola mudflow, Buckley quadrangle: Crandell, D. R.

MUSKEG, measurement of bearing strength, relation to drainage: Radforth, N. W., 1.

Natural bridges.

Natural gas. See also Maps, Oil and gas: Oil and gas fields.
Alaska, Arctic slope, possibilities: Burnside, R. J., 2.
Alberta, East Calgary field: Mason, A. D. M.

Edmonton reef chain, stratigraphic traps: Herbaly, E. L.
Map: Canada G. S., 1.

Provost field: Renaud, J. E.
Rocky Mts., foothills, entrapment: Fox, F. G.

Wimborne field: Brennan, P. F.

Appalachian basin: Woodward, H. P., 1.
Arizona: Stipp, T. F.
NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.

NATIONAL GAS—Continued
Arkansas, Aetna field: Planalp, R. N.
Cecil field: Mock, F. W.
McAlester - Arkansas Valley basin, fields: Brooks, R. P., Jr.
Northern, pre-Atoka rocks: Frezon, S. E.
Ouachita province, possibilities: Howell, J. V., 1.
Washburn anticline: Bartlett, C. S., Jr.
White Oak field: Clark, Joseph M.
INDEX

NATURAL GAS—Continued

Oklahoma—Continued
Northwest Butner oil field area:
Duck, J. H., Jr.

Ouachita province, possibilities: Howell, J. V., 1.
Pawnee County: Greig, P. B., Jr.
Southwest Enville field: Reeves, C. C., Jr., 2.

Ontario, southwestern, offshore Silurian reefs: Fournier, F. L.

Oregon, carbon dioxide springs:

Pennsylvania, Boone Mtn. and Rockton-Benezette trends:
Brown, W. R., Sd.
Northeastern, maps and well records:
Kreidler, W. L.
Radioactive, transport in porous media:

Sakakura, A. Y.

Reserves: Scarlett, C. A.

Rocky Mtn. area, sedimentary basins:
Van Couvering, M.

Saskatchewan, map: Canada G. S., 2.

Texas, Anadarko basin, northwestern:
Beebe, B. W., 1.
Anadarko basin, northwestern, Mississippian:
Beebe, B. W., 2.
Brown-Bassett field: Vinson, M. C.
Caplen field: Parker, H.
Cochran-Hockley Counties:
Phifer, R. L., 1.
East Texas basin, salt domes: Kruszkopf, H. H., Jr.
Edwards limestone fields:

Sandidge, J. R.

Fashing field: Pinkley, G. R.
Hitchecock field: Reiter, J. O.
Slocum salt dome: Read, J. L., Jr.
Southwestern: McClain, O. G.
Stuart City field: Montgomery, P. A., Jr.

Texas Panhandle field, radon and helium, source: Sakakura, A. Y.
Yoakum field: Hoyt, W. V.

United States, Anadarko basin, western border, possibilities:

Wheeler, R. R.

Mississippian:

Clinton, R. P.

Utah, Naval Oil-Shale Reserve No. 2, possibilities: Cashon, W. B., Jr.


Washington, Green River area, possibilities:
Anderson, J. D.

Ocean City anticline, possibilities:

Wurden, P. H.

West Virginia, Devonian shale: Haught, O. L., 1.
Southern: Haught, O. L., 3.
Whip Cove field and Sleepy Creek prospect: Appalachian Geol. Soc.

NATURAL GAS—Continued

Williston basin, southern: Sandberg, D. T.

Wyoming, Denver basin, Mesaverde group: Noble, C. J.

Desert Springs field: Dahm, J. N.; Earl, J. H.

Vermilion Creek basin: Reese, D. L.

Yukon, Mackenzie River area, lower, possibilities: Rainier, P. W.

NAUTIOIDEA. See Cephalopoda.

NEBRASKA.

Bibliography, ground water: Newport, T. G.
Economic geology.

Oil and gas, Central Nebraska basin, possibilities: Reed, E. C.

Salina basin, possibilities: Tapp, S. C.

Willson Ranch field: Boardman, A. C.

Petroleum, southwestern: Monahan, R.

Geologic maps.

Clay County, Cretaceous: Keech, C. F., 1.

Ground water.

Bibliography: Newport, T. G.

Big Blue River basin above Crete:

Johnson, C. R.

Clay County: Keech, C. F., 1.

Logs of test holes, Gooey County:
Smith, F. A.

Howard County: Smith, F. A.

Wheeler County: Smith, F. A.

Loup River drainage basin: Snegockl, R. T.

Niobrara River basin: Tapp, S. C.

Platte River basin, lower:
Keech, C. F., 2.

Historical geology.

Big Blue River basin above Crete, Cretaceous-Quaternary:

Johnson, C. R.

Clay County, Cretaceous-Quaternary:
Keech, C. F., 1.

Loup River drainage basin, Cretaceous-Quaternary:
Snegockl, R. T.

Niobrara River basin, Cretaceous-Quaternary:
Tapp, S. C.

Oligocene-Miocene, faunal correlations:

Toohey, L. M.

Platte River basin, lower, Cenozoic:

Keech, C. F., 2.

Salina basin: Tapp, S. C.

Mineralogy.

Fulgurite, iron:

Riley, C. M., 2.

Paleontology.

Horses, Pleistocene:

Howe, J. A.

Rhinoceros, Kimball formation, Pliocene:

Tanner, L. G.

Rodents, Niobrara River fauna, Miocene:

Ho1fme1ster, D. F.

Petrology.

Black siltstones, Pennsylvanian cyclothems, eastern:

Payton, C. E.

Sharon Springs member of Pierre shale, uraniferous:

Kepferle, R. C.

Physical geology.

Salina basin: Tapp, S. C.
Nevada.

Aeromagnetic and gravimetric surveys, Pershing - Churchill Counties, magnetite: Sheppard, E. P.

Gravity study, Hazen to Austin: Thompson, G. A., 1.

Isotope study, Steamboat Springs area, water origin: White, D. E.

Nuclear explosions, underground, hydrologic effects: Clebsch, A., Jr.

Underground, mantle constitution: Berg, J. W., Jr.

Rainier Mesa: Johnson, Gerald W., 1, 3.

Effects on tuff: Wilmarth, V. R., 2.

Economic geology.

Beryllium, nonpegmatitic, possibilities: Warner, L. A.

Copper, Liberty mine, mineralization: Fournier, R. O.

Gold-silver, Comstock lode, mineralization: Gianella, V. P., 2.

Iron, Pershing-Churchill Counties, magnetite: Sheppard, E. P.

Lead, trace, in potassium feldspars, relation to ore deposits: Slawson, W. F.

Manganese: Trengove, R. R.

Petroleum, Paleozoic, eastern: Johnson, E. G.

Silver, Candelaria mining district: Page, B. M., 1.

Geologic maps.

Buffalo Mtn. quadrangle: Wallace, R. E.

Candelaria mining district: Page, B. M., 1.

Goose Creek district: Mapel, W. J., 1.

Lone Mtn.: Lovejoy, D. W.

Shoshone Range, breccia pipes: Gates, O.

Union district, pre-Tertiary: Silberling, N. J.

Ground water.

Nuclear explosions, underground, contamination studies: Higgins, G. H.

Nuclear test site, Oak Spring formation, perched water tables: Clebsch, A., Jr.

Historical geology.

Basin and Range province: Steele, G.

Candelaria mining district, Orдовician, Tertiary-Quaternary: Page, B. M., 1.

Carlin area, Cenozoic volcanic-sedimentary sequence: Regnier, J. P. M.

Comstock lode, Triassic (?)-Pliocene: Gianella, V. P., 2.

Goose Creek district, Cenozoic: Mapel, W. J., 1.

Lone Mtn., lower Paleozoic thrust-slice facies, and Cenozoic: Lovejoy, D. W.

Mt. Velma quadrangle: Coash, J. R.

Nevada—Continued

Historical geology—Continued

Orдовician, Lower and Middle, eastern and central: Lowell, J. Diller.

Pahranagat Range, Devonian, section: Reso, A., 1.

Gulmette formation, Devonian, reefs: Reso, A., 2.

Pennsylvania-Permian, southeastern: Brill, K. G., Jr.

Ruby Mts.-East Humboldt Range, Precambrian-Tertiary: Snelson, S.

Shoshone Range, Tertiary volcanism: Gates, O.

Silver Island Range, Paleozoic and Tertiary: Schaeffer, F. E., Jr.

Snake Range and Kern Mts.: Nelson, R. B.

Triassic, Upper, and Jurassic, Lower, southern, correlated with Utah, southwestern: Wilson, R. F., 2.

Triassic-Pliocene, sedimentary-volcanic groups, eastern: Harris, H. D.

Union district, pre-Tertiary: Silberling, N. J.


Mineralogy.

Chert, Humboldt River, north fork: Kirchmayer, M.

Erlonite, Jersey Valley: Deffeyes, K. S., 1.

Saline deposits: Kerr, P. F., 3.

Union district: Silberling, N. J.

Paleontology.

Ammonoids, Luning formation, Triassic: Silberling, N. J.

Big trees forest, Sierra Nevada, Cenozoic evolution: Axelrod, D. L., 1.


Diatoms, Fallon area, Miocene-Pliocene: Okuno, H.


Lee Canyon area, Mississippian-Permian, list: Rich, M.

Lone Mtn., Orдовician-Devonian, lists: Lovejoy, D. W.

Mammals, Smith Valley fauna, Pliocene: Macdonald, J. Reid.

Sponges, Orдовician, eastern: Rigby, J. K., 9.

Trilobite, phacopid, Eureka district, Devonian: Jones, W. P.

Union district, pre-Tertiary: Silberling, N. J.

Petroleum.

Black Rock Summit basalt flow: Vitaliano, C. J.

Candelaria mining district: Page, B. M., 1.

Carlin area, Cenozoic volcanic-sedimentary sequence: Regnier, J. P. M.
INDEX 489

NEVADA—Continued

Petrology—Continued

Goose Creek district: Mapel, W. J., 1.
Inyo batholith, Pelliser granite, non-metamorphic origin: Emerson, D. O., 2.
Lone Mtn., Nannie’s Peak intrusive, and tuffs: Lovejoy, D. W.
Oak Spring formation, Tertiary: Keller, G. V., 5.
Pennsylvania limestone, northeastern: Dott, R. H., Jr., 1.
Shoshone Range, breccia pipes: Gates, O.
Union district, pre-Tertiary: Sliberling, N. J.

Physical geology.

Bare Mtn., faults: Cornwall, H. R.
Basin and Range structure, Hazen to Austin, gravity study: Thompson, G. A., 1.
Paleozoic tectonic and sedimentary influences: Steele, G.
Candelaria mining district: Page, B. M., 1.
Diamond Mts., central: Larson, E. R.
Earthquakes, list, western: Wood, H. O.
Wonder district, 1903, evidence: Slemmons, D. B.
Gold King fault: Slemmons, D. B.
Goose Creek district: Mapel, W. J., 1.
Humboldt River, north fork, chert masses, deformation: Kirchner, M.
Lincoln County, southeastern, thrust faults: Tschanz, C. M.
Lone Mtn., thrusts: Lovejoy, D. W.
Mt. Velma quadrangle: Coash, J. R.
Pennsylvania limestone, cyclic sedimentation, northeastern: Dott, R. H., Jr., 1.
Rainier Mesa, underground nuclear explosions: Johnson, Gerald W., 3.
Ruby Mts.-East Humboldt Range, thrusts and orogeny: Snelson, S.
Sevier arch, tectonics, eastern: Harris, H. D.
Shoshone Range, breccia pipes: Gates, O.
Snake Range and Kern Mts.: Nelson, R. B.
Stillwater Range, tectonics: Page, B. M., 2.
Union district, Silberling, N. J.

Physiographic geology.

White Mts., slope retreat by gullying: Beaty, C. B., 1.

NEW BRUNSWICK—Continued

Aeromagnetic maps, 750, Fredericton area: Canada G. S., 13.
751, Fredericton area: Canada G. S., 13.

NEW BRUNSWICK—Continued

Aeromagnetic maps—Continued

752, Grand Lake area: Canada G. S., 13.
753, Minto area: Canada G. S., 13.
754, Chipman area: Canada G. S., 13.
755, Salmon River Road area: Canada G. S., 13.
756, Bolesstown area: Canada G. S., 13.
757, Blackville area: Canada G. S., 13.
758, Newcastle area: Canada G. S., 13.

Exploration, Juniper Prospect area, case history: Ward, S. H., 1.

Areas described.

Napadogan area: Canada G. S., 19.

Economic geology.

Gypsum, origin: Sund, J. O.
Lead-zinc-copper, Brunswick and Nigadoo deposits, formation temperatures, sphalerites, iron content: Kallikoski, J. O. K.
Possibilities: Smith, J. C.
Sulfides, Bathurst-Newcastle area, origin: Tupper, W. M.
Heath Steele deposits, origin, sulfur isotopes: Dechow, E. W. C.
Origin: Benson, David G.
Woodstock-Fredericton area: Canada G. S., 60.

Geologic maps.

Aroostook area, surficial: Canada G. S., 58.
Grand Falls area, surficial: Canada G. S., 50.
Musquash area: Canada G. S., 12.
Napadogan area: Canada G. S., 10.
Woodstock-Fredericton area: Canada G. S., 60.

Historical geology.

Musquash area, Precambrian-Triassic: Canada G. S., 12.
Woodstock-Fredericton area, Ordovician-Carboniferous: Canada G. S., 60.

Mineralogy.

Albite, chessboard twinning, origin: Starkey, J.
Brunswick Mining and Smelting ore bodies: Stanton, R. L., 3.
Heavy minerals, sand and gravel deposits: McLeod, C. R.
Sulfide deposits: Benson, David G.

Petrology.

Brunswick Mining and Smelting ore bodies: Stanton, R. L., 3.
Musquash area: Canada G. S., 12.
Woodstock-Fredericton area: Canada G. S., 60.

Physiographic geology.

Aroostook area, glacial: Canada G. S., 58.
Grand Falls area, glacial: Canada G. S., 50.
NEW ENGLAND.
Clay minerals, deposition environments: Allen, V. T., 1.
New Hampshire and Vermont rock sequences, Paleozoic: Green, J. C.

NEW HAMPSHIRE.
Economic geology.
Lightweight aggregate: Stewart, G. W.
Mineral deposits, lists: Morrill, P., 2.
Geologic maps.
Isles of Shoals: Fowler-Billings, K.
Monroe area: Hall, L. M.
Historical geology.
Isles of Shoals: Fowler-Billings, K.
Monroe area, Ordovician (?) : Hall, L. M.
Mineralogy.
Collecting localities: Morrill, P., 2.
Petrology.
Isles of Shoals: Fowler-Billings, K.

NEW JERSEY.
Aeromagnetic map, Lambertville and Stockton quadrangles: Bromery, R. W., 14.
Engineering geology, Newark area, glacial soils: Jumikis, A. R.
Spruce Run dam site and reservoir: Widmer, K., 4.
Economic geology.
Titanium, ilmenite sand deposits, southern: Johnson, M. E.
Geologic maps.
Ground water.
Cape May County: Gill, H. E.
Monmouth County, well logs: Jablonski, L. A.
Northeastern: Geraghty, J. J.
Passaic River, Essex-Morris Counties, buried valley: Bouin, W. E.
Triassic rocks, jointing, relation to movement: Widmer, K., 2.
Historical geology.
Cape May County, Miocene and Pleistocene: Gill, H. E.
Coastal Plain, Upper Cretaceous-lower Tertiary: Olson, R. K.
Newark basin, Upper Triassic, correlation: Bock, W., 3.
Precambrian Highlands, isotopic ages: Long, L. E., 1.
Raritan formation, Cretaceous: Richards, H. G., 1.
Schoharie formation, Devonian, redefined: Johnson, J. H.
Tertiary, lower: Adams, J. K.

NEW JERSEY—Continued
Mineralogy.
Brandtite, Sterling Hill mine: Gaines, R. V., 2.
Catalog: Wilkerson, A. S.
Franklin area: Albanese, J. S.
Heavy minerals, ilmenite sands, southern: Johnson, M. E.
Ilmenite, alteration mechanism, sand cf. parent rock: Lynd, L. E.
Zincite, gem, Franklin-Sterling area: Trumper, L. C.

Paleontology.
Fishes, Newark basin, Triassic: Bock, W., 3.
Foraminifera, Late Cretaceous-early Tertiary, zones: Olsson, R. K.

Petrology.
Beach sediments, sphericity, quartz grains: Blatt, H.
Cranberry Lake area, saprolite, postglacial origin: Minard, J. P.
Green Pond conglomerate, pressolved quartz grains: Thomson, A. F.
Tertiary, lower: Adams, J. K.
Physical geology.
Spruce Run dam site and reservoir: Widmer, K., 4.

Physiographic geography.
Hackensack Meadows, pre-Pleistocene valleys: Widmer, K., 2.
Newark area, glacial: Jumikis, A. R.

NEW MEXICO.
Bibliography, northeastern: Smith, G. W.
Gamma-ray logs, radon effects, Grants uranium area: Tanner, A. B.
Geochemical studies, cores, Cambrian-Ordovician, pre-Simpson, Lea County: Barnes, V. E., 2.
Hanover district, base-metals district: Barnes, V. E., 2.
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Sangre de Cristo Mts., southern: Panhandle Geol. Soc.
Silver City-Santa Rita-Hurley area, popular: Schilling, J. H.
Paleomagnetism, late Cenozoic basalts, varied orientations: Baldwin, B.
Photogeologic study, Ocate area: Bogart, L. E.
Thermoluminescence, Cambrian-Ordovician carbonate rocks, pre-Simpson, Lea County: Barnes, V. E., 2.
NEW MEXICO—Continued

Trace elements, Central district, sulfides: Rose, A. W.

Areas described.

Jarilla Mts.: Reynolds, C. B.

Economic geology.

Beryl, Harding pegmatite: Jahns, R. H., 3.

Beryllium, nonpegmatitic, Wind Mtn. area, possibilities: Warner, L. A.

Carbon dioxide gas: Anderson, E. C.


Copper-zine, Hanover district: BarnE,s, U. L., 2.


Lead-zinc, Magdalena mining district: Titley, S. R., 2.

Mineral deposits, Big Burro Mts.: Hew· itt, C. H.

Lincoln County, possibilities: Griswold, G. B.

Lordsburg quadrangle: Flege, R. F., Jr.

Mineral resources, Union County: Baldwin, B.

Nickel-cobalt-silver, Black Hawk district, Alhambra mine: Gillerman, E.

Oil and gas, exploration, Sacramento Mtn. area: Dunn, D. A.


Possibilities, northeastern: Foster, R. W., 2.

Tucumcari basin, possibilities: Krs1le, J. E.

Petroleum, Delaware basin: Kuhn, P. J.

Delaware basin, traps: Dodge, C. E.

Empire field, Abo reef: Podpechan, F. W.

Horseshoe Canyon field: Knight, W. V.

Pennsylvanian possibilities, southwestern: Kottlowski, F. E., 4.

San Juan Basin, Pennsylvanian possibilities: Wengerd, S. A., 2.


Potash, Carlsbad district: Jones, C. L., 1.

Tungsten: Dale, V. B., 2.

Uranium, Black Hawk district, Alhambra mine: Gillerman, E.


Grants area, origin: Colman, H. C.

Tolito limestone deposits cf. Colorado Plateau sandstone deposits: Truesdell, A. H.

Geologic maps.

Ash Creek area: Hewitt, C. H.

Big Burro Mts.-Redrock area: Hewitt, C. H.

Catron County, northern, Cenozoic: Willard, M. E.

Last Chance Canyon area: Hayes, P. T.
NEW MEXICO—Continued

Historical geography—Continued

Laborcita formation, Permian, Sacramento Mts.: Otte, C., Jr., 2.
La Ventana Mesa area, Cretaceous: Bachman, G. O., 2.
Lincoln County: Griswold, G. B.
Madera formation, Pennsylvanian: Perkins, R. D., 1.
Magdalena mining district: Titley, S., 2.
Mesozoic, nomenclature revision, northeastern: Griggs, R. L.
West-central and southern: Armstrong, A. K., 2.
Mississippian—Pleistocene, formation names, lexicon, northwestern and central: Lochman-Balk, C., 2.
Montoya group, Ordovician, trans-Pecos area: Howe, H. J.
Paleozoic, southwestern: Kottlowski, F. E., 4.
Pennsylvanian, west-central: Kottlowski, F. E., 3.
Plains of San Augustin, Pleistocene climates: Clisby, K. H.
Pleocene-Pleistocene: Foreman, F.
Pre-Simpson formations, Cambrian-Ordovician, correlation, color: Barnes, V. E., 4.
Sacramento Mts., northern, Pennsylvanian-Quaternary: Otte, C., Jr., 1.
Permian: Clark, T.
Precambrian, outcrops and well logs, identification: Foster, R. W., 1.
West escarpment, Ordovician-Permian: Pray, L. C.
San Andres limestone, Permian, Last Chance Canyon area: Hayes, P. T.
San Andres Mts., Precambrian-Tertiary: Kottlowski, F. E., 2.
San Juan Basin, Cretaceous-Paleocene boundary facies: Anderson, R. Y.
Paleocene type area, age and nomenclature: Simpson, G. G., 2.
Permian: Kelley, V. C., 2.
Sangre de Cristo Mts., Mississippian limestone boulder conglomerates: Sutherland, P. K., 2.
Southern: Panhandle Geol. Soc., 2.

NEW MEXICO—Continued

Biological geography—Continued

Silurian-Devonian, southwestern: Pye, W. D., 2.
Sunshine Valley area: Winograd, I. J.
Tres Hermanos sandstone member of Mancos shale, Cretaceous: Dane, C. H.
Triassic, west-central: Cooley, M. E., 1.
Tucumcari basin: Krisle, J. E.
Union County: Baldwin, B.
Zuni Mts., Jurassic: Smith, C. T., 2.

Mineralogy.

Andalusite, viridine, Klawa Mtn.: Heinrich, E. W., 2.
Eilenburger group, Lea County, cores, thin-section study: Folk, R. L., 3.
General: Northrop, S. A.
Lone Star sulfide deposit: Lustig, L. K.
Meteorite, Grant iron, Widmanstätten structure: Maringer, R. E., 1.
Meteoritic dust, Todilto gypsum, Jurassic: Erskine, W. S.
Selenium, native, Grants area: Sun, M.-S., 1.

Palontology.

Corals, Montoya group, Ordovician, Mud Springs Mts.: Hill, D.
Cycadeoids, Mesaverde formation, Cretaceous: Delevoryas, T.
Fresnal group, Pennsylvanian, La Luz anticline, zones: Cline, L. M., 3.
Lea and Eddy Counties, Ordovician, presimpson, well cores: Cloud, P. E., Jr., 2.
Montoya group, Ordovician, trans-Pecos area, lists: Howe, H. J.
Pollen, Plains of San Augustin, Pleocene-Pleistocene: Foreman, F.
San Juan Basin, Cretaceous-Paleocene boundary facies: Anderson, R. Y.
Spores, Sandia formation, Pennsylvanian: Carter, T. L.

Petrology.

Big Burro Mts., northern: Hewitt, C. H.
Bishops Lodge member, Mioence playav deposit: Boyer, W. W.
Cambrian—Ordovician, pre—Simpson, southeastern: Barnes, V. E., 1.
Canadian River sediments, composition and texture: Pollack, J. M.
Capitan limestone, origin, gypsum alteration: Moore, G. W., 2.
Carlsbad potash district, dikes: Jones, C. L., 2.
Carrizo lava flow: Allen, J. E.
Catron County, Tertiary volcanic rocks: Willard, M. E.
Chetoh country, Cenozoic: Howell, P. W.
INDEX

NEW MEXICO—Continued

PETROLOGY—Continued

Cochiti mining district, argillization: Bundy, W. M.
Des Moines quadrangle, late Cenozoic volcanic rocks: Baldwin, B.
Ellenburger group, Lea County, cores, thin-section study: Folk, R. L., 3.
Hueco Bolson, Lea County, thin-section study: Folk, R. L., 3.
Laguna area, sandstone pipes: Schlee, J. S.
Lordsburg quadrangle: Flege, R. F., Jr.
Madera formation, Pennsylvanian: Perkins, R. D., 1.
Montoya group, Ordovician, trans-Pecos area: Howe, H. J.
Plains of San Augustin, Pliocene, pluvial lake sediments: Foreman, F.
San Andres limestone, Permian: Chance Canyon area: Hayes, P. T.
Sangre de Cristo Mts., Mississippian limestone boulder conglomerates: Sutherland, P. K., 2.
Sacramento Mts.: Clark, T. E.
Structural units, west-central: Fitzsimmons, J. P.

NEW MEXICO—Continued

PHYSICAL GEOLOGY—Continued

Lincoln County: Griswold, G. B.
Lordsburg quadrangle: Flege, R. F., Jr.
Magdalena mining district: Tittley, S. R., 2.
Ocate area, photozoology: Bogart, L. E.; Brown, H. C., 3d.
Sacramento Mts.: Clark, T. E.
Northern: Otte, C., Jr., 1.
West escarpment: Pray, L. C.
Sand Canyon area: Bachman, G. O., 1.
Structural units, west-central: Fitzsimmons, J. P.

NEW YORK.
Aeromagnetic map, Loon Lake quadrangle and part of Chateaugay quadrangle: Balsley, J. R., Jr., 3.
Oswegeatchie quadrangle: Balsley, J. R., Jr., 4.
Santa Clara quadrangle and part of St. Regis quadrangle: Balsley, J. R., Jr., 2.
Tupper Lake quadrangle: Balsley, J. R., Jr., 5.
Bibliography, mineral resources: Luedke, E. M.
Engineering geology, New York City water-supply system: Fluhr, T. W.
Geological investigations, Ulster County, history: Friedman, J. D., 1.
Geophysical investigations, Adirondack area, magnetic-oxide assemblages, relation to lithology and magnetism: Balsley, J. R., Jr., 1.
Guidebook, Cayuga Lake basin: N. Y. State Geol. Assoc.
Seismic studies, Long Island, onshore and offshore: Blak, M.
Tappan Zee Bridge area: Worzel, J. L., 3.
NEW YORK—Continued

Economic geology.
Iron, Ausable Forks magnetite district, origin: Collins, L. G.
Ausable Forks magnetite district, source, host rock: Hagner, A., Jr.
Mineral resources, bibliography and map: Luedke, E. M.
Natural gas, eastern and central, maps and well records: Kreidler, W. L.
Petroleum, Chippewa sand, reservoir properties: Stanonis, F. L.
Sulfides, Summitville and Ellenville ore bodies, origin, isotope ratios: Friedman, J. D., 2.
Geologic maps.
Loon Lake quadrangle and part of Chateaugay quadrangle: Balsley, J. R., Jr., 3.
Nicholville quadrangle: Postel, A. W.
Oswegatchie quadrangle: Balsley, J. R., Jr., 4.
Phillips mine-Camp Smith area: Klemic, H., 1.
Rockland County: Perlmutter, N. M., 1.
Pallisades: Thompson, H. D.
Santa Clara quadrangle and part of St. Regis quadrangle: Balsley, J. R., Jr., 2.
Southeastern, metamorphic area: Prucha, J. J.
Tupper Lake quadrangle: Balsley, J. R., Jr., 5.
Ground water.
Chemung County: Wetterhall, W. S.
Drainage basins, geomorphology and hydrology: Coates, D. R., 1.
Long Island, south shore: Perlmutter, N. M., 2.
Southwestern, salt-water encroachment: Perlmutter, N. M., 2.
Nassau County, northwestern: Swarzenski, W. V., 2.
New York City area: Geraghty, J. J.
Rockland County: Perlmutter, N. M., 1.
Suffolk County: Hoffman, J. F., Jr.
Historical geology.
Cambrian - Devonian, south-central: Harding, R. W.
Cayuga Lake basin: N. Y. State Geol. Assoc.
Chazy series, Ordovician, Champlain Valley: Oxley, P.

NEW YORK—Continued

Historical geology—Continued
Chemung County, Cambrian-Devonian, deep well, lithology and correlation: Wiggins, J. W.
Devonian, Upper, correlation revision, western: de Witt, W., Jr.
Devonian-Mississippian boundary, Oswego-Knapp formations, Penn-York embayment: Holland, F. D., Jr., 3.
Finger Lakes region, glacial till, depth of leaching, relation to age: Merriitt, R. S.
Long Island: Charlier, R. H., 1.
South shore, Cretaceous and Quaternary aquifers: Perlmutter, N. M., 3.
Southwestern, Cretaceous and Quaternary aquifers: Perlmutter, N. M., 2.
Lowerre quartzite, stratigraphic position, southeastern: Norton, M. F., 2.
Manhattan Prong and Precambrian Highlands, isotope ages: Long, L. E., 1.
Nassau County, northwestern, Cretaceous and Pliocene aquifers: Swarzenski, W. V., 2.
New York City group, metamorphic rocks, age(?), southeastern: Prucha, J. J.
Rockland County, Triassic, Quaternary: Perlmutter, N. M., 1.
Schoharie formation, Devonian, redefined: Johnsen, J. H.
Taconic region, central, Cambrian-Ordovician: Potter, D. B.
Thorn Hill and Granville quadrangles, Cambrian-Ordovician: Theokritoff, G., 1.
Ulster County, Paleozoic, influence on geologic thought: Friedman, J. D., 1.
Washington County, northern, Taconic sequence, Cambrian: Theokritoff, G., 2.

Mineralogy.
Collecting, southeastern: Janusz, R. M., 1.
Groutite, Talcville area: Segeler, C. G.
Heavy minerals, Long Island, north cf. south shores, size and weight analyses: Charlier, R. H., 1.
Jordanite, Balmat area: Brown, J. S., 1.
Mineral resources, bibliography and map: Luedke, E. M.
Phillips mine-Camp Smith area: Klemic, H., 1.
Paleontology.

Brachiopods, *Ambocoelia*, Devonian, type species description: Vevers, J. J.

Highland Mills area, Early Devonian: Boucot, A. J., S.

Cayuga Lake basin, Devonian, lists: N.Y. State Geol. Assoc.

Chazy series, Ordovician, Champlain Valley: Oxley, P.


Graptolites, Deepkill shale, Ordovician, zones: Berry, W. B. N., 2.

Taconic area, Cambrian-Ordovician: Berry, W. B. N., 1.


Ostracodes, Centerfield limestone, Devonian: Kesling, R. V.

State Museum collection, catalog: Kilfoyle, C. F.

Worms, Silurian, facies: Lippitt, J. L., Jr.

Areas described.

Baie Verte area: Canada G. S., 18.

Burgeo-Ramea area: Canada G. S., 48.


Carboniferous, southwestern: Baird, D. M., 3; McKillop, J. H.

Nippers Harbour area: Canada G. S., 22.

Geologic maps.

Baie Verte area: Canada G. S., 18.

Burgeo-Ramea area: Canada G. S., 48.

Flat Bay gypsum area: McKillop, J. H.

Flat Bay and Fishelea River gypsum area: Baird, D. M., 3.

Fleur de Lys area: Canada G. S., 42.


Marion Lake area: Canada G. S., 43.

Mt. Wright area: Duffell, S., 2.

Historical geology.

Baie Verte group, Ordovician, Burlington Peninsula, relation to geologic groups: Neale, E. R. W., 2.


Fogo Island area, Ordovician (?)-Devonian (?): Baird, D. M., 1.

Nippers Harbour area, Ordovician-Devonian: Canada G. S., 22.

Mineralogy.

Chromite, magnetite association, Shoal Pond deposit: Jenness, S. E., 1.
NEWFOUNDLAND—Continued

*Petroleum.*

Burgeo-Ramea area: Canada G., 48.
Fleur de Lys area: Canada G., 42.
Gander Lake group, Ordovician, metamorphism, eastern: Jenness, S. E., 2.
Martin Lake area: Canada G., 43.
Mt. Wright area: Duffell, S., 2.
Nippes Harbour area: Canada G., 22.

*Physical geology.*

Burgeo-Ramea area: Canada G., 48.
St. George's Bay gypsum deposits: McKaylop, J. H.

*Physiographic geology.*


NICARAGUA. See also Central America.

Electrical resistivity prospecting, Potosí area, Rivas, ground water: Zoppis Bracci, L., 1.

*Econometric geology.*

Clay, Las Madraza-Poza del Padre area: Bengoechea, A. J.
Gold-silver, Murra area: Glidicte, D. del, 1.
Gypsum, Santa Rosa del Peñón area: Zoppis Bracci, L., 2.

*Geologic maps.*

Santa Rosa del Peñón area: Zoppis Bracci, L., 2.

*Ground water.*

Potosí area, Rivas, electrical prospecting: Zoppis Bracci, L., 1.

*Historical geology.*

Santa Rosa del Peñón area, Tertiary: Zoppis Bracci, L., 2.

*Petroleum.*

Santa Rosa del Peñón area, gypsum deposits: Zoppis Bracci, L., 2.

*Physical geology.*

Santa Rosa del Peñón area: Zoppis Bracci, L., 2.
Thermal waters, potential source of electrical energy: Glidicte, D. del, 2.
Volcanism, relation to tectonics: Glidicte, D. del, 2.

*NICKEL.*

Geochemical and biogeochemical prospecting, tests: Miller, C. Parker.
Ontario, Sudbury district: Falconbridge Nickel Mines Ltd.
Sudbury district, Falconbridge Township: Thomson, J. E., 1.
Puerto Rico, Isterite: Heldenreich, W. L.
Native nickel-iron, Eastern Townships, serpentine rock: Nickel, E. H.
Saskatchewan, northern, Precambrian: Beck, L. S.

NIOBNIUM, Colorado, Powderhorn area: Grogan, R. M.

NOBLES.

California, Calico Mts., fossils, silica: Kirkby, R. A., 8.
Southwestern, fossiliferous: Pierce, W. D., 2.
Manganese, deep-sea, occurrence and mining economics: Mero, J. L., 1.
Metabolite precipitation of trace elements: Graham, J. W., 2.

*NOMENCLATURE. See also Definitions; Geologic formations; Geologic names, lexicons, catalogs, glossaries.*

Alberta, Peace River area, Upper Mississippian-Pennsylvanian: Halbertsma, H. L.
Anthozoa, Eusoga, Late Devonian: Watkins, J. L., 1
*Synaptophyllum, Devonian: McLaren, D. J., 1.

Beaverhill Lake formation, Devonian, Alberta: Fong, G.
Big Snowy group, Carboniferous, Montana, revised: Gardner, L. S., 2.
Brachiooapa: Cooper, G. A., 1.
Rynchonelloidea, Tertiary and Recent: Cooper, G. A., 2.
British Columbia, Peace River area, Upper Mississippian-Pennsylvanian: Halbertsma, H. L.

Bryozoa, Polypora: Burkle, L. H., 2.
*Trematopora, Silurian: Boardman, R. S.

carpedolith, stone layer in soil: Parizek, E. J., 1.
Cephalopoda, Ammonoides, Triassic, British Columbia: McLearn, F. H.
Coal petrology, proposed international glossary: Cady, Gilbert H.
Conodonts, homonyms: Fay, R. O., 2.
Mississippian, Ouachita Mts., Oklahoma-Arkansas: Ellis, M. K., 1.

Cuba, stratigraphic lexicon: Bermúdez y Hernández, P. J.

Faults: Crowell, J. C., 2; Hill, M. L.
Foraminifera: Hoefker, J., 2; Thalmann, H. E., 1, 3.
Fusulina: Stewart, W. J.
Globigerinidae, natural taxonomy: Hoefker, J., 1.
Globotruncanidae: Bronnimann, P.
*Hedbergia* and *Hedbergella*: Bronnimann, P.
Index: Thalmann, H. E., 4.
Lepidocyclinidae, Eocene-Miocene: Grimsdale, T. F.
*Tetutolaria: McLean, J. D., Jr.

INDEX

NOMENCLATURE—Continued
Granofels, metamorphic rock: Goldsmith, R.
Limestones, marine: Folk, R. L., 2.
Lithotopes, deep-water troughs: Crook, K. A. W., 1.
Madison group, Mississippian, North Dakota: Anderson, S. B.
Mammalia, Sirenia and Desmostylia, new order: Reinhart, R. H.
Mexico, Ciudad Victoria region, Tamaulipas, Paleozoic: Carrillo Bravo, J.
New Mexico, northeastern, Mesozoic revision: Griggs, R. L.
San Juan Basin, Paleocene, type area: Simpson, G. G., 2.
Oklahoma, Mississippian, Ouachita Mts.: Harlton, B. H.
Ostracoda, Parapachitidae, new family: Scott, H. W.
Pelecypoda, late Paleozoic: Branson, C. C., 7.
Pennsylvania, Devonian, Upper: Miller, J. T.
Phosphate minerals: Lund, E. H., 1.
Phosphoria-Park City-Shedhorn formations, western United States: McKelvey, V. E., 1.
Plants, cycadeoid genera, Cretaceous: Delevoryas, T.
Paleocene, Greenland: Koch, B. E.
Spenceriosporites, Pennsylvanian: Felix, C. J.
Quaternary, post-Valders time: Cooper, W. S.
Radiolaria, Nassellaria, genera: Burma, B. H.
Replacement, genetic meaning: Amstutz, G. C., 2.
Richmond beds, Cretaceous or Eocene, Jamaca: Chubb, L. J., 4.
Rock-stratigraphic units, larger than group: Rodgers, J., 2.
Salt-dome breccia: Kerr, P. F., 1.
Spores, Wilsonites: Kosanke, R. M.
Stratigraphic, kinds of units, precise terminology: Hedberg, H. D., 1.
Lithostratigraphic units: Alvarez, M., Jr., 1.
Traditional vs. modern terms: Storey, T. P., 1.

NOMENCLATURE—Continued
Strawn series, Pennsylvanian, Texas, history: Roberts, E. D.
Terraces, binomial: Howard, A. D.
Trilobita, Proitostracace, Cambrian, suppressed species: Shaw, A. B.
Trilobitormorpha: Harrington, H. J.
Turbidites, load deformation, terms: Sullwold, H. H., Jr.
Utah, Wasatch and Uinta Mts., Triassic: Scott, W. F.
Vermont, eastern, middle Paleozoic, revision: Murthy, V. R., 1.
Washta group, Cretaceous, Oklahoma-Texas, history: Curtis, N. M., Jr., 3.
Worms, Slurian genera: Howell, B. F.
Wyoming, Fossil basin, Tertiary, lower: Tracey, J. L., Jr.
Wasatch and Uinta Mts., Triassic: Scott, W. F.
NONMETALLIC MINERALS. See Ceramic materials; Construction materials; Industrial minerals.
NORTH AMERICA:
Bibliography: King, R. R.
Electromagnetic studies, Lake Superior iron ranges: Frischknecht, F. C.
Geophysical investigations, continental shelf and slope, northeastern, geosynclines: Drake, C. L.
Lexicon, geologic names, index: Wilson, Drudl.
Paleomagnetism, relation to paleoclimates and crustal-shift theory: Opdyke, N. D.
Economic geology.
Mineral deposits, Cordilleran districts, relation to regional structure: Wisser, E. H.
Strontium: Schreck, A. E.
Geologic maps.
Granitic plutons, examples: Buddington, A. F.
Historical geology.
Cenozoic time scale, K-A ages, west coast: Evernden, J. F., 3.
Columbia Intermontane province, Quaternary: Daugherty, R. D., 1.
Cordilleran granitic intrusions, ages: Baadsgaard, H., 3.
Geologic names, index to lexicon: Wilson, Drudl.
Great Lakes, basins: Hough, J. L., 2.
Igneous rocks, lead-alpha ages: Jaffe, H. W.
Lake Superior region, Precambrian, three-fold division, orogenies: Goldich, S. S., 3.
Precambrian, upper, paleomagnetism: Du Bola, P. M., 2.
Land-mammal "ages": Savage, D. E.
Major unconformities: Sloss, L. L., 2.
NORTH AMERICA—Continued

BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

North America—Continued

Historical geology—Continued

Pacific coast, northern, Quaternary, peat radiocarbon dates: Heusser, C. J.

Palaeoclimates, Cenozoic: Dorf, E., I.

Paleowind directions, relation to paleomagnetism and crustal-shift theory: Odpke, N. D.

Pleistocene stages, single-glaciation concept: Lougee, R. J.

Quaternary pollen sequences, radiocarbon dates, correlations, northeastern: Deevey, E. E., S., Jr., 1.

Mineralogy.

Gemstones: Sinkankas, J., 1.

Hisingerite, iron ranges, relation to ore: Whelan, J. A.

Paleontology.

Birds, Pleistocene: Wetmore, A., 1.


Rhynchonellida, Tertiary and Recent: Cooper, G. A., 1.

Charophytes and nonmarine ostracodes, stratigraphic distribution, western interior: Peck, R. E.

Corals, Synaphyllum, Devonian, revision: McLaren, D. J., 1.

Foraminifera, larger, Paleocene-Eocene, zones, southern: Cole, W. S.

Lepidocyclinidae, Eocene-Miocene: Grimsdale, T. F.


Petroleum.

Pleistocene gumbotil and interglacial clays, petrographic study of weathering: Lougee, R. J.

Physical geology.

Cordilleran region, tectonics, relation to mineral districts: Wisser, E. H.

Granite emplacement, plutons classified by crustal zones: Buddington, A. F.


Orogenic belts, western, change in southwest margin of continent, Belt age: Cardley, A. J., 5.

Salt basins: Kerr, P. F., 4.

Tectonic evolution: King, P. B.

Tectonic history, western: Laudon, L. E.

Tectonic map, sketch: Thom, W. T., Jr.

Physiographic geology.

Columbia Intermontane province: Daugherty, R. D., 1.


Periglacial features, relation to Pleistocene climate: Brunnschweller, D. H.

Pleistocene glaciation, position of ice centers, distribution of relict crustaceans in proglacial lakes: Ricker, K. E.

North Carolina.

Gravity studies, Coastal Plain and Piedmont: Forner, L. A.

Durham-Sanford Triassic basin: Zablocki, F. S.


Areas described.

Albemarle quadrangle: Conley, J. F., 2.

Flag Pond quadrangle: Shekarchi, E.

Economic geology.

Holcombe Branch and Democrat dunesites: Ray, J. A.

Mica, muscovite, Spruce Pine district, R. B. Phillips mine: Amos, D. H.

Pyrophyllite: Stuckey, J. L., 1.

Quartz, crystalline, western: Mertle, J. B., Jr., 2.

Sulfides, Ore Knob deposit, fault control: Kerstein, D. S., Jr.

Uranium-thorium, Piedmont, monazite placers, possibilities: Overstreet, W. C.

Geological maps.

Albemarle quadrangle: Carolina Geol. Soc.
NORTH CAROLINA—Continued

Geologic maps—Continued
Denton quadrangle: Carolina Geol. Soc.
Isenhour quarry, Cabarrus County: Bell, H., 3d.
Raleigh area: Geol. Soc. America Southeastern Sec., 1.

Ground water.
Greenville area, by formations and counties: Brown, P. M.
Triassic basins, origin of water system: LeGrand, H. E., 2.

Historical geology.
Black Creek and Pee Dee formations, Cretaceous, lithologic vs. faunal division: Brett, C. E.
Coastal Plain, Cretaceous-Quaternary: Ferenczi, I.
Fayetteville area, Cretaceous, basal: Geol. Soc. America Southeastern Sec., 2.
Greenville area, Cretaceous-Quaternary: Brown, P. M.
McDowell County, Precambrian limestone: Conrad, S. G.
Pleistocene, coastal: Du Bar, J. R.
Stokes-Surry-Yadkin-Forsyth Counties, metasedimentary rocks: Stuckey, J. L., 2.

Mineralogy.
Agate and chalcedony, in Triassic rocks, Creedmoor area, origin: Conley, J. F., 1.
Clay minerals, Carolina bays, southeastern: Ingram, R. L.
Holcombe Branch and Democrat dunes: Ray, J. A.
Pyrophyllite deposits, assemblages: Zen, E-an, 6.
Quartz, crystalline, western: Mertle, J. B., Jr., 2.

Paleontology.
Black Creek and Pee Dee formations, Cretaceous, paleoecologic and faunal analyses: Brett, C. E.

INDEX 499

NORTH CAROLINA—Continued

Paleontology—Continued
Foraminifera and ostracodes, Greenville area, Cretaceous-Miocene, lists from well cores: Brown, P. M.
Pee Dee formation, Cretaceous, Kinston area: Morehead, M. B.
Mollusks, Trent formation, Miocene, paleoecology: Smith, A. B.

Petrology.
Albemarle-Denton quadrangles, metamorphic rocks: Carolina Geol. Soc.
Beaufort Inlet, bottom sediments, size and mode: Batten, R. W.
Crabtree Creek area: Fortson, C. W., Jr., 3.
Fayetteville area, Cretaceous, basal: Geol. Soc. America Southeastern Sec., 2.
Flag Pond quadrangle: Shekarchi, E.
Mt. Airy granite, origin, residual stress: Lowry, W. D., 1.
Ore Knob copper deposit, country rock, biotite alteration: Brown, Henry S.
Raleigh area, metamorphic facies: Geol. Soc. America Southeastern Sec., 1.
Wake County, granite pluton: Dumas, E. M.

Physical geology.
Albemarle-Denton quadrangles, regional folding: Carolina Geol. Soc.
Charlotte belt dikes, Concord area, relations: Bell, H., 3d.
Coastal Plain, regional structure: Ferenczi, I.
Crabtree Creek area: Fortson, C. W., Jr., 3.
Grandfather Mtn. area, overthrust: Bryant, B. H.
McDowell County, limestone, Precambrian, fault: Conrad, S. G.
Mt. Airy granite, expansion domes and shear cones: Lowry, W. D., 1.
Ore Knob copper deposit, fault control: Kerstein, D. S., Jr.
Spruce Pine district, pegmatites, deformation: Lesure, F. G.
Stokes-Surry-Yadkin-Forsyth Counties, metasedimentary rocks: Stuckey, J. L., 2.

NORTH DAKOTA.

Economic geology.
Alumina, clay, potential source, western: Hansen, M.
Coal, Square Buttes field: Johnson, W. D., Jr.
Lignite, uraniferous, southwestern: Moore, G. W., 1; Zeller, H. D.
NORTH DAKOTA—Continued

Economic geology—Continued

Petroleum, Antelope field, Sanish and Madison reservoirs: Folsom, C. B., Jr.

Madison group, Mississippian, possibilities, northwestern: Anderson, S. B.

North Tioga field, hydrodynamics: Murray, G. H., Jr.

Well summaries: N. Dak. G. S.

Sodium sulfate, Grenora area: Witkind, I. J., 1.

Geologic maps.

Bullion Butte area: Moore, G. W., 1.

Chalky Butte area: Moore, G. W., 1.

Grenora area: Witkind, I. J., 1.

Medicine Pole area, sketch: Denson, N. M., 2.

Pre-Triassic paleogeologic, northern, and adjacent areas: Fish, A. R.

Sentinel Butte area: Moore, G. W., 1.

Square Buttes coal field: Johnson, W. D., Jr.

Ground water.

Westhope area: Powell, J. E.

Historical geology.

Antelope oil field, Devonian-Mississippian: Folsom, C. B., Jr.

Cenozoic, southwestern: Moore, G. W., 1.

Grenora area, Cenozoic: Witkind, I. J., 1.

Jurassic-Cretaceous boundary, subsurface: Hansen, D. E.

Madison group, Mississippian, facies and nomenclature, northwestern: Anderson, S. B.

Mississippian-Pennsylvanian, western: Willis, R. P.


Square Buttes coal field, Cenozoic: Johnson, W. D., Jr.

Mineralogy.

Golden Valley formation, Eocene, kaolin clay deposits, origin: Freas, D. H.

Paleontology.

Crabs, Cannonball formation, Paleocene: Holland, F. D., Jr., 1.

Mississippian-Pennsylvanian, lists, western: Willis, R. P.

Petrology.

Jurassic-Cretaceous boundary, subsurface: Hansen, D. E.

Medicine Pole Hills area, cores: Zeller, H. D.

Mississippian-Pennsylvanian, western: Willis, R. P.

Physiographic geology.

Grenora area: Witkind, I. J., 1.

Warwick-Tokio area, drumlins and streamline forms: Aronow, S.

Westhope area: Powell, J. E.

NORTHWEST TERRITORIES. See also Arctic America.

Aeromagnetic maps, 733, Salt River area: Canada G. S., 13.

734, Tethul River area: Canada G. S., 13.

735, Copp Lake South area: Canada G. S., 13.

736-38, Buffalo Lake areas: Canada G. S., 13.

739, Copp Lake North area: Canada G. S., 13.

740, Sass River area: Canada G. S., 13.


742, Hawkes Lake area: Canada G. S., 13.

743, Deschaine Lake area: Canada G. S., 13.

744, Needle Lake area: Canada G. S., 13.

745, Lobstick Creek area: Canada G. S., 13.

746, Higgins Lake area: Canada G. S., 13.

747, Kiewa River area: Canada G. S., 13.

748, Le Grand Detour area: Canada G. S., 13.

Boyd Lake area: Canada G. S., 9.

Wholdaia Lake East area: Canada G. S., 11.

Aeromagnetic survey, Arctic Archipelago: Gregory, A. F.

Geochemical Investigation, Yellowknife district, gold-bearing volatiles: Boyle, R. W., 2.

Geophysical investigations, Gilman Glacier and Mt. Oxford icecap: Weber, J. R.

Mackenzie River, seismic: Meador, J. G.

Helicopter reconnaissance, Arctic Archipelago, Operation Franklin: Canada G. S., 64.

Barren ground, Operations Keewatin, Baker, Thelon: Canada G. S., 64.

Operation Mackenzie: Canada G. S., 64.

Areas described.

Baffin Island, Cape Dorset area: Canada G. S., 38.

Foque Peninsula, eastern: Canada G. S., 31.

Lake Harbour area: Canada G. S., 27.

Foque Basin area, northern: Canada G. S., 17.

Fury and Hecla Strait area: Canada G. S., 16.


Southwestern: Canada G. S., 64.

Nonacho Lake area: Canada G. S., 37.
NORTHWEST TERRITORIES—Continued

Areas described—Continued

Penylan Lake—Firedrake Lake area: Canada G. S., 35.
Wholdaia Lake West area: Canada G. S., 36.

Economic geology.

Cornwallis and Little Cornwallis Islands: Thorsteinsson, R., 1.
Gold, Yellowknife district: Boyle, R. W., 2.
Great Slave and Trout River areas:
Douglas, R. J. W., 1.
Oil and gas, Mackenzie River area, lower, possibilities: Martin, L. J., 2; Rainier, P. W.
Queen Elizabeth Islands, possibilities: Baltrusaitis, E. J.; Bateman, J. D.

Geologic maps.

Axel Heiberg and Stor Islands: Canada G. S., 59.
Baffin Island, Brodeur Peninsula: Canada G. S., 45.
Cape Dorset area: Canada G. S., 38.
Cumberland Sound area: Canada G. S., 7.
Foxe Peninsula, eastern: Canada G. S., 31.

Lake Harbour area: Canada G. S., 27.

Bathurst Islands group: Canada G. S., 44.

Cornwallis and Little Cornwallis Islands: Thorsteinsson, R., 1.
Devon Island: Canada G. S., 46.
Ellef Ringnes Island: Saint-Onge, D.
Ellef Ringnes-Amund Ringnes-Cornwall-Lougheed Islands: Canada G. S., 40.

Ellesmere Island, southern: Canada G. S., 47.

Fort Liard area: Douglas, R. J. W., 2.

Fury and Hecla Strait area: Canada G. S., 16.

Graham and North Kent Islands: Canada G. S., 47.

Great Slave area: Douglas, R. J. W., 1.


King William Island—Adelaide Peninsula: Fraser, J. K., 1.


Mackenzie River area, lower: Martin, L. J., 2.

Norman Wells area, Devonian: Storey, T. P., 3.

Queen Elizabeth area, Devonian: Storey, T. P., 3.

Shubenacadie-Kennetcook area, lists: Stevenson, I. M.

Spores, Ellesmere Island, Ocko Bay area, Devonian: Chaloner, W. G.

Spores and pollen, Mackenzie River delta area, Pleistocene, buried peat: Terasmae, J., 1.

Petrology.

Abitau Lake area, gneisses, pseudomigmatitic: Harry, W. T.
### North-West Territories—Continued

#### Petrology—Continued
- **Baffin Island, Cumberland Sound area:** Canada G. S., 7.
- **Foxe Peninsula, eastern:** Canada G. S., 31.
- **Lake Harbour area:** Canada G. S., 27.
- **Foxe Basin area, northern:** Canada G. S., 17.
- **Mackenzie District, northwestern:** Martin, L. J., 1.
- **Mesa Lake area:** Canada G. S., 56.
- **Nonacho Lake area:** Canada G. S., 37.
- **Penylan Lake—Firedrake Lake area:** Canada G. S., 35.
- **Wholdaia Lake West area:** Canada G. S., 36.
- **Yellowknife district:** Boyle, R. W., 2.

#### Physical geology.
- **Arctic Archipelago:** Fortier, Y. O.
- **Regional structure:** Gregory, A. F.
- **Tectonic history:** Thorsteinsson, R., 3.
- **Baffin Island, Cumberland Sound area:** Canada G. S., 7.
- **Bathurst Island, intersecting fold belts:** McNair, A. H.
- **Cornwallis and Little Cornwallis Islands:** Thorsteinsson, R., 1.
- **Diapiric structure, Hay River canyon:** DeWit, R.
- **Ellef Ringnes Island, Isachsen piercement dome:** Saint-Onge, D.
- **Ellesmere Island, Gilman Glacier:** Hattersley-Smith, G.
- **Fort Liard—La Biche areas:** Douglas, R. J. W., 2.
- **Giant Yellowknife mine, schist zones:** Brown, C. E. G.
- **Great Slave and Trout River areas:** Douglas, R. J. W., 1.
- **Innuittian region:** Corbel, J., 2.
- **King William Island—Adelaide Peninsula:** Fraser, J. K., 1.
- **Mackenzie delta region:** Merril, C. L.
- **NovA Scotia.
- **Geochemical investigations, northern mainland, stream sediments, heavy metals, maps:** Canada G. S., 51–53, 57.
- **Helicopter reconnaissance, Cape Breton Island, northern plateau:** Canada G. S., 64.
- **Areas described:**
  - Chedabucto Bay area: Canada G. S., 30.
- **Economic geology.
  - Coal, Cumberland County, western:** Copeland, M. J.
  - Copper, northern mainland, stream sediments, map: Canada G. S., 53.
  - Supergene, northern, possibilities: Brummer, J. J.
  - Core-drill logs, minerals and structure: Gondge, M. G.
  - Gold, Shubenacadie-Kennetcook area: Stevenson, I. M.
  - Heavy metals, northern mainland, stream sediments, map: Canada G. S., 57.
  - Lead, northern mainland, stream sediments, map: Canada G. S., 52.
  - Mineral deposits, popular account: Campbell, G. G.
  - Mineral resources, Shubenacadie-Kennetcook area: Stevenson, I. M.
  - Uranium, supergene, northern, possibilities: Brummer, J. J.
  - Zinc, northern mainland, stream sediments, map: Canada G. S., 51.
- **Geologic maps.
  - Chedabucto Bay area: Canada G. S., 30.
  - Cumberland County, western: Copeland, M. J.
  - Kennetcook area: Stevenson, I. M.
- **Historical geology.
  - Annapolis Valley, central:** Hickox, C. F., Jr., 2.
  - Blomidon formation, Triassic: Klein, G. deV., 1.
  - Cumberland County, western, Pennsylvanian: Copeland, M. J.
  - Ordovician-Triassic, popular account: Campbell, G. G.
  - Pictou County, Silurian: Macie, R. H.
  - Pictou formation, Pennsylvanian, copper-uranium deposits, northern: Brummer, J. J.
INDEX

NOVA SCOTIA—Continued

Historical geology—Continued

Shubenacadie-Kennetcook area, Ordovician (?)-Cretaceous: Stevenson, I. M.
Triassic: Klein, G. deV., 2.

Mineralogy.

Dikeland soils, red and gray layers: Brydon, J. E., 3.
Heavy minerals, sand and gravel deposits: McLeod, C. R.

Paleontology.

Cape George, Ordovician-Silurian: Boucot, A. J., 6.
Scheuchzer, C. F., Jr., 1.
Reptiles, Wolfville sandstone, Triassic: Minas Basin, correlation: Baird, D.
Petrology.

Chedabucto Bay area: Canada G. S., 30.
Cumberland coal basin, western: Copeland, M. J.
Mindar sulfide ore body, banding: Watson, K. D.
Shubenacadie-Kennetcook area: Stevenson, I. M.

Physical geology.

Blomidon formation, Triassic: Klein, G. deV., 1.
Cumberland coal basin, western: Copeland, M. J.
Popular account: Campbell, G. G.
Ventifacts, Annapolis Valley, recent formation: Hickox, C. F., Jr., 1.

Physiographic geology.

Annapolis Valley, esker delta, ventifact formation: Hickox, C. F., Jr., 1.
Shubenacadie-Kennetcook area: Stevenson, I. M.

NUCLEAR EXPLOSIONS.

Mineral-resource development: Johnson, Gerald W., 3.
Nevada, Rainier Mesa, underground: Johnson, Gerald W., 1, 2; Wilmarth, V. R., 2.
Underground, ground-water contamination studies: Higgins, G. H.
Petroleum-recovery possibilities: Anderson, C. C.


OCEANS—Continued

Deep-water troughs, lithotopes: Crook, K. A. W., 1.
Elements, geochemical distribution: Green, J., 1.
Floor, sedimentation, geochemistry and geologic record: Arrhenius, G. O. S.
Water and sediments: Chow, T. J., 1.
Manganese nodules, metabolic precipitation of trace elements: Graham, J. W., 2.
Mobile belts, tectonic history: Weeks, L. G.
Phosphorus-nitrogen ratio, variation: Redfield, A. C., 1.

OHIO.

Engineering geology, Lake Erie shoreline, Perry Township Park, bluff erosion: Chieruzzi, R.
Excursion, Columbus-Galena-Gahanna area: Ohio Acad. Sci. Geology Sec.
Geochemical studies, coal mine discharge waters: Brant, Russell A., 2.

Geologic maps.

Hocking and Scioto Valleys, glacial, sketch: Kempton, J. P.

Ground water.

Buried valleys: Cummins, J. W.
Minford silt, effect on quality: Norris, S. E., 2.
Franklin County, Pleistocene aquifer, effect of buried valleys: Norris, S. E., 3.

Historical geology.

Beach City area, Lower Pennsylvania cyclothems: Gray, H. H.
Cincinnati arch, Fairview-McMillan formational contact, Ordovician: Hyde, D. E.
Cuyahoga formation, Mississippian, northern, correlation with Shenango sandstone, northwestern Pennsylvania: Szmul, E. J.
Hocking and Scioto Valleys, glacial-outwash terraces, pre-Illinoian-Wisconsin: Kempton, J. P.
Madison County, Ordovician-Devonian, Quaternary: Norris, S. E., 1.
Ohio Valley terraces, East Liverpool area, pre-Illinoian Pleistocene: Leslau, H. D., 3.
Ohio—Continued

Bibliography of North America, 1959

historical geology—Continued

Pleistocene, glacial lakes, northern:

Forsyth, J. L.
Wisconsin stage; Goldthwait R. P., 1.
Pleistocene drift, leached zones, paleosol theory, southwestern:

Gooding, A. M., 2.

Warnock Terrace, McMahon Creek, early Pleistocene, paleosols:

Lessig, H. D., 2.

Mineralogy.

Celestite and fluorite, Clay Center area:

Howard, C. L. H.
Clay minerals, preglacial limestone soil, central:

Summerson, C. H., 2.

Clay-mineral assemblage of pre-Devonian weathered surface:

Summerson, C. H., 1.

Halotrichite, magnesian, Vinton County, origin from mine waters:

Brant, Russell A., 1.

Paleontology.

Conodonts, Eden formation, Ordovician, Cincinnati region:

Sweet, W. C., 2.

Cuyahoga formation, Mississippian, northern:

Szum, E. J.

Forests, Pleistocene, western:

Burns, G. W.

Mollusks, Humboldt area, Pleistocene:

Burns, G. W.

Newell Lake deposit, Pleistocene:

Zimmerman, J. A.

Radiolarian, Huron member of Ohio shale, Devonian:

Foreman, H. P.

Reptile, Linton area, Pennsylvanian:

Peabody, F. E., 2.

petrology.

Flint, Flint Ridge area:

Gahagan, J. W.

Physical geology.

Cincinnati arch:

Hyde, D. E.

Physiographic geology.

Beach ridges, Pleistocene, northern:

Forsyth, J. L.

Buried valleys, contour map:

Cummins, J. W.

Franklin County, glacial deposits and buried valleys:

Norris, S. E., 3.

Glaciation, Wisconsin stage, cf. modern glaciers:

Goldthwait, R. P., 1.

Hocking and Scioto Valleys, glacial-outwash terraces, pre-Illinoian—Wisconsin:

Kempton, J. P.

Lake Erie shoreline:

Pincus, H. J., 2.

Perry Township Park, bluff erosion:

Chieruzzi, R.

Little Mill Creek drainage basin, Coshocton County, quantitative geomorphology, relation to stream flow:

Morisawa, M. E., 1.

Ohio Valley terraces, East Liverpool area, pre-Illinoian Pleistocene:

Lessig, H. D., 3.

Ohio—Continued

Physiographic geology—Continued

Warnock Terrace, McMahon Creek, early Pleistocene, paleosols:

Lessig, H. D., 2.

OIL. See Petroleum.

Oil AND gas fields.

Aetna gas field, Arkansas:

Planalp, R. N.

Aliso Canyon oil field, California:

Ingram, W. L.

Altus oil field, Oklahoma:

Ryniker, C.

Aneth area, Utah:

Picard, M. D., 2.

Antelope oil field, North Dakota:

Folson, C. E., Jr.

Avery Island field, Louisiana:

Bates, F. W.

Bay Ste. Elaine oil field, Louisiana:

Schneider, S. J.

Bellino oil field, California:

Sullivan, J. C.

Bellshill Lake oil field, Alberta:

Edle, R. W., 2; Rudolph, J. C.

Big Mineral oil field, Texas:

Bradfield, H. H., 1.

Booneville gas field, Arkansas:

Bartlett, C. S., Jr.

Boude Creek gas field, California:

Bruce, D. D., 2.

Brooks Ranch oil field, Wyoming:

Buskala, M. A.

Brown-Bassett gas field, Texas:

Vinson, M. C.

Buck Peak oil field, Colorado:

Cummins, K. F.

Buena Vista field, California:

Borkovich, G. J.

Canfield Ranch field, California:

Matthews, J. F., Jr.

Capen field, Texas:

Parker, H.

Carter-Knox oil field, Oklahoma:

Reedy, H. J.

Cecil gas field, Arkansas:

Mock, F. W.

Chowchilla gas field, California:

Hunter, G. W.

Cliff field, Colorado:

Sever, C. L.

Compton Landing gas field, California:

Bruce, D. D., 1.

Delphia oil field, Montana:

Williams, J. F.

Desert Springs gas field, Wyoming:

Dahm, J. N.; Earl, J. H.

Divide Creek gas field, Colorado:

Berry, G. W.

Drumheller oil field, Alberta:

Roop, M. R.

East Calgary gas field, Alberta:

Mason, A. D. M.

East Gosford oil field, California:

Horton, R. E.

Empire oil field, New Mexico:

Podpeck, F. W.

Fashing field, Texas:

Pinkley, G. R.

Fillmore oil field, California:

Schultz, C. H.

Fremont gas pool, Illinois:

Meents, W. F.
INDEX

OIL AND GAS FIELDS—Continued

Gill Ranch gas field, California: Loken, L. P.

Gragg gas field, Arkansas: Bartlett, C. S., Jr.

Handy oil field, Texas: Bradfield, H. H., 1.

High Island oil field, Texas: Barnes, C. W.

Hitchcock field, Texas: Reiter, J. O.

Horseshoe Canyon oil field, New Mexico: Knight, W. V.

Jackpot oil field, Texas: Warren, E. M.

Jasmin oil field, California: Hiuza, A. G.

Johe Ranch gas area, California: Land, P. E.

Jumpingpound gas pool, Alberta: Fox, P. G.


Light gas field, Oklahoma: Barby, R. G.


Maddux Ranch gas area, California: Land, P. E.

Midway-Sunset oil field, Thirty-five anticline, California: Zuberti, J. L.

Milroy oil field, Oklahoma: Schweers, F. P.

Muskogee oil field, Oklahoma: Riggs, C. H.

New Windsor oil field, Colorado: Hold, J. W.

North Buffalo field, Oklahoma: Kornfeld, J. A.

North Craig oil field, Colorado: Greer, W. J., Jr.

North Douglas Creek gas field, Colorado: Tutten, W. D., 2.

North McWillie oil field, Oklahoma: Bado, J. T.

North Maclll oil field, Oklahoma: Gabring, R. R.

North Teton field, California: LeRoy, W. H.

North Whitter Heights area, California: Hunter, W. J., Jr.

Northwest Butner oil field, Oklahoma: Duck, J. H., Jr.

Oak Canyon field, California: Ybarra, R. A.

Olive field, California: Gaede, V. F.

Pincher Creek gas pool, Alberta: Fox, F. G.

Pitman oil pool, Kentucky: Jllison, W. R., 4.

Powell Park gas field, Colorado: Tutten, W. D., 1.

Princeton gas field, California: Bruce, D. D., 3.

Provo gas field, Alberta: Renaud, J. E.

Puckett oil field, Texas: Hester, R. J.

Rasberry oil field, Texas: Swanson, R. L.

OIL AND GAS FIELDS—Continued

Red Creek oil field, Montana: Lowe, H. R.

Rodolfo Ogarro oil field, Mexico: Pérez Rincón, H.

Sage Creek oil field, Wyoming: Elmer, N. C.

Sandusky oil field, Texas: Bradfield, H. H., 1.

Savannah Creek gas pool, Alberta: Fox, F. G.

Sherman oil field, Texas: Bradfield, H. H., 1.

South Bosque oil field, Texas: Mason, C. B.

South Mt. oil field, Bridge pool, California: Hall, Edward A.

South Palaeon oil field, Oklahoma: Atkinson, Walter E.

Southwest Ardmore oil field, Oklahoma: Hale, G. C.

Southwest Enville gas field, Oklahoma: Reeves, C. C., Jr., 2.

Stenevad oil field, Montana: Staggs, J. O.

Stuart City gas field, Texas: Montgomery, P. A., Jr.

Sunniland oil field, Florida: Puri, H. S., J.

Swan Hills oil pool, Alberta: Hemphill, C. R.

Tapia oil field, California: Dosch, M. W.

Tejon Ranch oil field, Sisson pool, California: Ivanhoe, L. F., Jr.

Texas, northern, Strawn series reservoirs: Dickinson, R.

Thompson Lake oil field, Alberta: Edle, R. W., 2.

Thornwell gas field, Louisiana: Hardin, F. R.

Turner Valley pool, Alberta: Fox, F. G.

Turtle Bay oil field, Texas: Akkerman, R. P.

Washington field, Louisiana: Clayton, N.

Wayne oil field, Alberta: Erickson, R. H.

West Brock oil field, Oklahoma: Walker, K. F.

West Drumheller oil field, Alberta: Roop, M. R.

West Frederick oil field, Oklahoma: Markley, L. C.

Weyburn oil field, Saskatchewan: Catin, A. K.

Whip Cove gas field, West Virginia: Appalachian Geol. Soc.

White Mesa oil field, Utah: Picard, M. D., 3.

White Oak gas field, Arkansas: Clark, Joseph M.

Willson Ranch field, Nebraska: Boardman, A. C.

Wimborne field, Alberta: Brennan, P. F.

Wintergarden field, Texas: Corpus Christi Geol. Soc.

Yoakum gas field, Texas: Hoyt, W. V.

OIL AND GAS MAPS. See Maps, Oil and gas.
Oil sands. See also Bituminous rocks and sands; Petroleum.
Alberta, Athabasca sands: Ellison, A. H.
Athabasca sands, organic components: Nagy, B. S., 2.
McMurray formation, mineralogy: Carrigy, M. A., 1.
Oklahoma, Dutcher sands, Muskogee field: Riggs, C. H.
Texas, Strawn series: conference: A.I.M.E. North Texas Sec.

Oil shale. See also Bituminous rocks and sands; Petroleum; Shale.
Colorado, Niobrara formation: McAuslan, E. R.
Nuclear explosions, underground, effects: Anderson, C. C.; Johnson, Gerald W., 2.
Wyoming, Niobrara formation: McAuslan, E. R.

Guidebook, Ouachita Mts.: Cline, L. M., 1.
Sesame study, Wichita Mtn. area, Precambrian, layering: Wildes, M. B.
Symposium, Ouachita Mts.: Cline, L. M., 1.
Petroleum geology, southern: Ardmore Geol. Soc.

Areas described.
North Buffalo oil and gas field: Kornfeld, J. A.
Roman Nose State Park: Fay, R. O., 1.

Economic geology.
Natural gas, Custer County: Jordan, L., 3.
Light field, Morrow series: Barby, B. G.
Southwest Enville field: Reeves, C. C., Jr., 2.
Oil and gas, Anadarko basin, northern shelf: Buchanan, R. S.; Hayden, A. C.
Anadarko basin, northwestern: Beebe, B. W., 1.
Northwestern, Mississippian: Beebe, B. W., 2.
Sycamore formation: Braun, J. C.
Beaver County: Parker, Richard L.
Creek County: Oakes, M. C.
Harper County: Jordan, L., 3.
McAlester-Arkansas Valley basin, fields: Brooks, R. P., Jr.
Mississippian: Clinton, R. P.
North Buffalo field: Kornfeld, J. A.
Northwest Butner field area: Duck, J. H., Jr.
OKLAHOMA—Continued

Historical geology.

Altus oil field, Pennsylvanian-Permian: Ryninger, C.

Anadarko basin, north flank, Ellis-Harper Counties, type log: Clausing, R. G.

Northwestern, Paleozoic: Beebe, B. W., 1.

Southeastern, Devonian-Mississippian: Braun, J. C.

Arbuckle Mts., north and south flanks, Mississippian: Champlin, S. C.

Arbuckle and Ouachita Mts., Cambrian-Mississippian, correlation: Ham, W. E.

Cambrian-Silurian, graptolite correlation: Decker, C. E.

Ardmore basin, Paleozoic and Cretaceous exposures: Tomlinson, C. W., 1.

Pennsylvanian: Jacobsen, C. L., 2.

Tomlinson, C. W., 2.

Atoka formation, Pennsylvanian, McAlester basin: Scull, B. J., 2.

McAlester basin, north side: Blythe, J. G.

Beaver County, Pennsylvanian-lower Permian: Parker, Richard L.

Blaine formation, Permian, evaporites, Elk City oil field, underground storage well: Jordan, L., 2.

Boktukola syncline area, Mississippian-Pennsylvanian: Shelburne, O. B., Jr., 2.

Cabaniss-Arpelar area, Pennsylvanian: Govett, R. W.

Cambrian-Pennsylvanian, isopachous-paleoecologic study, southwestern: McDaniel, G. A.

South-central: Reed, B. K.


Caney shale, Mississippian, type section: Elias, M. K., 2.

Carter-Knox oil field, Paleozoic: Reedy, H. J.

Creek County, Ordovician-Pennsylvanian: Oakes, M. C.

Deese group, Pennsylvanian, Garvin County, subsurface: Gunter, C. E.


Harper County, Ordovician-Pennsylvanian: Jordan, L., 3.

Permian-Recent: Myers, A. J.

Hugoton embayment: Jacobsen, C. L., 1.

McAlester basin, Mississippian: Lynch, B. W.

Medicine Springs area, Pennsylvanian: Johnson, R. H., Jr.

Mississippian, divisions, north-central, correlation with Kansas by lithology: McDuffie, R. H.

Northern: Jordan, L., 1.

Mineralogy.

Ardmore basin, Pennsylvanian sandstones: Jacobsen, C. L., 1.

Bassanite, Comanche County, drill cores: Huang, W. W. T., 3.

Heavy minerals, Ardmore basin, Pennsylvanian sandstones: Jacobsen, C. L., 1.

Quarts, Ouachita Mts.: Miser, H. D.

Paleontology.

OKLAHOMA—Continued

Paleontology—Continued

Alligator, Laverne formation, Pliocene: Woodburne, M. O.

Ammonoids, goniatite, Mississippian, earliest description: Branson, C. C., 2.

Goniatites, Caney shale, Mississippian, Pittsburg County: Branson, C. C., 10.

Atoka formation, Pennsylvanian, McAlester basin, north side: Blythe, J. G.

Badger, Ogallala formation, Pliocene, Harper County: Kitts, D. B., 1.

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Pawnee County: Greig, P. B., Jr.

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Petrology.

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OKLAHOMA—Continued

Petrology—Continued

Atoka formation, Pennsylvanian, McAlester basin, north side: Blythe, J. G.

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Canadian River sediments, composition and texture: Pollack, J. M.

Creek County: Oakes, M. C.

Granophyres, Wichita lopolith, chemistry: Hamilton, W. B., 2.

Hunton group, Silurian-Devonian: Oxley, M. L.

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Physical geology.

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Eastern: Bercutt, H.
OKLAHOMA—Continued

Physical geology—Continued
Garvin County, Pennsylvanian subsurface: Gunter, C. E.
Mcalester basin, Mississippian: Lynch, B. W.
North side: Blythe, J. G.
Medicine Springs area: Johnson, R. H., Jr.
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Thrust faults: Tomlinson, C. W., 1.
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Pawnee County: Greig, P. B., Jr.
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Southwestern: McDaniel, G. A.
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Physiographic geology.
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Harper County: Myers, A. J.

Oligocene. See Tertiary.

ONTARIO—Continued

Areas described.
Carroll Lake area, east half: Canada G. S., 25.
Deer Lake area, east half: Canada G. S., 26.
Dungannon-Mayo Townships: James, W.
Echo Lake area: Canada G. S., 49.
Quetico Provincial Park area: Meen, V. B.
Westport area: Canada G. S., 54.

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Samreld Lake sulhide deposit: Fried­man, G. M., S.
Mineral deposits, Cardiff-Faraday Townships: Hewitt, D. F.
Cobalt district, colloidal deposition: Angio, E. E., 1.
Natural gas, offshore Silurian reefs, southwestern: Fourneril, F. L.
Nickel, Sudbury district: Falconbridge Nickel Mines Ltd.
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Well logs: Ontario Fuel Bd.
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Geologic maps.
Bancroft area, generalized: Hewitt, D. F.
Boston-Pacaud Townships: Lawton, K. D.
Bristol Township: Ferguson, S. A.
ONTARIO—Continued

Geologic maps—Continued

Cambrian, subsurface, southwestern: Sanford, B. V.
Cardiff-Faraday Townships: Hewitt, D. F.
Carroll Lake area, east half: Canada G. S., 25.
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Bristol Township: Ferguson, S. A.
Cardiff-Faraday Townships: Hewitt, D. F.
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Eco Lake area: Canada G. S., 49.
Falconbridge Township, Sudbury district: Thomson, J. E., 1.
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Matinenda formation, Precambrian: Pienaar, P. J.
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Quetico Provincial Park area: Meen, V. B.
ONTARIO—Continued

Petrology—Continued

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Westport area: Canada G. S., 54.

Precambrian: Wynne-Edwards, H. R.


Physical geology.

Boston-Pacaud Townships: Lawton, K. D.

Bristol Township: Ferguson, S. A.

Cambrian, subsurface, southwestern: Sanford, B. V.

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Deer Lake area, plutons: Helmich, R. A.

Falconbridge Township, Sudbury district: Thomson, J. E., 1.


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Precambrian diastrophism:

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Physiographic geology.

Bristol Township, glacial: Ferguson, S. A.

Hamilton area, glacial: Karrow, P. F.

Lake Superior, Pleistocene beaches: Farrand, W. B.
ORDOVICIAN—Continued
Vermont—Continued
Rutland area, marble belt: Bain, G. W.
Taconic Range, north end: Zen, Ean. 1.
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Coos Bay area: Baldwin, E. M., 1, 2.
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Picture Gorge to Portland, highway strip maps: Wilkinson, W. D., 5.

Oregon—Continued
Historical geology—Continued
Granite plutons, Jurassic, eastern: Tauben-eyed, W. H.
Mt. Hood, mudflow and glacial advances, burled forests, radiocarbon ages: Lawrence, D. B.
Myrtle group, Jurassic-Cretaceous, southwestern: Imlay, R. W., 5.
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Mineralogy.
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Bauxite deposits, ilmenite alteration products: Hartman, J. A.
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Petrology.
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Myrtle group, Jurassic-Cretaceous, southwestern: Imlay, R. W., 5.
Volcanic rocks, Miocene, relation to deformation, eastern: Thayer, T. P.
OREGON—Continued

Petrology—Continued


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See also Diastrophism; Tectonics.

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OROGENY—Continued

Montana—Continued

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Ostracoda—Continued
Quasiliitidae and Alaneliidae, Devonian, New York, Centerfield limestone: Kesling, R. V.
Quebec, St. Lawrence Lowlands, Ordovician: Carter, G. F. E.
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Pacific Ocean. See also Oceans; Submarine geology.
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Paleobotany—Continued
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Indiana—Continued

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<table>
<thead>
<tr>
<th>Paleontology—Continued</th>
<th>Paleontology—Continued</th>
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</thead>
<tbody>
<tr>
<td><strong>Ordovician—Continued</strong></td>
<td><strong>Pennsylvaniaian—Continued</strong></td>
</tr>
<tr>
<td>Montoya group, trans-Pecos area, lists: Howe, H. J.</td>
<td>Paper coal, matted plant cuticle: Guennel, G. K.</td>
</tr>
<tr>
<td>Pre-Simpson, well cores: Cloud, P. E., Jr., 2.</td>
<td>Plants, coal ball, Booneville area: Phillips, T. L.</td>
</tr>
<tr>
<td>United States, conodonts, Cincinnati series, midcontinent: Sweet, W. C., 3.</td>
<td>Southwestern: Canright, J. E.</td>
</tr>
<tr>
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<td>Calamitean stem, <em>Cabaniopsis</em> group, West Mineral area: Cridland, A. A.</td>
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<td>West Virginia, Wood County deep well, lists: Frouty, C. E., 2.</td>
<td>Plants, coal balls, Cherokee County: Phillips, T. L.</td>
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<tr>
<td><strong>Pennsylvaniaian</strong></td>
<td><strong>Paleozoic</strong></td>
</tr>
<tr>
<td>Brachiopods, type-species descriptions, late: Vevers, J. J.</td>
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<td>Kentucky, Pitman oil pool, lists: Jilson, W. R., 4.</td>
<td>Ostracodes, Morgantown area, Early: Thompson, M. L.</td>
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<td>Texas, Delaware and Val Verde basins, cores and cuttings: Williams, H. L.</td>
<td>Ohio, reptile, Linton area: Peabody, F. E., 2.</td>
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<td>Utah, central, lists: Utah Geol. Soc.</td>
<td>Atoka formation, McAlester basin, north side: Blythe, J. G.</td>
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<td><strong>Pennsylvaniaian</strong></td>
<td>Conularids: Strimple, H. L., 3.</td>
</tr>
<tr>
<td>Fusulinids, southern, Early: Thompson, M. L.</td>
<td>South Dakota, conodonts and fusulinids, Minnelusa formation, Black Hills: Jennings, T. V.</td>
</tr>
<tr>
<td>Invertebrates, Mason Creek area: Richardson, E. S., Jr., 1, 2.</td>
<td>Spores and pollen, catalog: Kremp, G. O. W., 1, 2.</td>
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<td>Fusulinids, Marble Falls limestone: King, W. Edward.</td>
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<td>Strawn series, upper, central: Stewart, W. J.</td>
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<td>Ferns, <em>Pseudopteris</em>, central: Morgan, Eleanor J.</td>
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<td>Ostracodes, checklist and distribution: Echols, D. A. J.</td>
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</table>
### Paleontology—Continued

#### Pennsylvanian—Continued

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Louisiana, Foraminifera, Anahau formation, list : Goheen, H. C.

Foraminifera, Oligocene-Miocene, catalog : Butler, E. A. M.


Mollusks, Miocene : Oleksyshyn, J.

Pelecypods, Chesapeake Bay, Miocene, cf. Europe : Mongin, D.

Mexico, Baja California, northwestern, Pliocene : Hertlein, L. G., 1.

Coral reefs, Gulf of California, Pliocene : Squires, D. F., 2.

Bibliography of North American Geology, 1959
PALEONTOLOGY—Continued

Tertiary—Continued

South Dakota, prairie dog, Valentine formation, Mio­cene-Pliocene, Roosevelt Lake: Green, M.
Texas, Foraminifera, Midway group, Paleocene: Kellough, G. R.
Midway group, Paleocene, Tehuacana Creek area: Kellough, G. R.
Trinidad, fishes: Carter, E. M.
United States, echinoids, eastern: Cooke, C. W.
Plants, problematica, western: Brown, Roland W., 2.
Utah, bird, recurvirostrid, Colton formation, Eocene: Hardy, J. W.
Vertebrates, Uinta Mtn. area basins: Gazin, C. L., 1.
Virginia, Foraminifera, Yorktown formation, York-James peninsula: McLean, J. D., Jr.
Echinoids, Chesapeake Bay, Miocene, cf. Europe: Mongin, D.
West Indies, Foraminifera, Acervulina, St. Bartholomew, Eocene, cf. Indo-Pacific region: Hanzawa, S.
Wyoming, amphibians, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, P. O.
Crocodilian, Green River formation, Eocene: Mook, C. C., 1.
Mammals and reptiles, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, P. O.
Vertebrates, Uinta Mtn. area basins: Gazin, C. L., 1.

Triassic.

British Columbia, ammonoids, Peace River area, nomenclature: McLearn, F. H.
Greenland, plants, Scoresby Sound, cf. Sweden: Lundblad, B.
Nevada, ammonoids, Luning formation: Silberling, N. J.
Union district: Silberling, N. J.
New Jersey, fishes, Newark basin: Bock, W., 3.
Nova Scotia, reptiles, Wolfville sandstone, Minas Basin: Baird, D.

PALEOSOLS. See Soils.

PALEOTEMPERATURES. See also Paleo­climatology.

Arctic Ocean, Quaternary: Ault, W. U., 3.
Atlantic Ocean, midequatorial, late Quaternary: Wiseman, J. D. H.
British Columbia, southwestern, Quaternary: Wagner, F. J., 8.
Caribbean Sea, Beata Ridge area, Pleistocene, deep-sea core, carbonate content unrelated: Yalkovsky, R., 1.
Oxygen-isotope analyses, carbonate and phosphate shells: Buchsbaum, R.
Pleistocene, foraminiferal colling direction, isothermal guide: Ericson, D. B., 1.
Tertiary-Pleistocene: Durham, J. W., 1.

PALEOZOIC. See also the periods; Paleontology, Paleozoic.

Alaska, correlations: Dutro, J. T., Jr.
Appalachians, southern, major metamorphic events, absolute ages: Long, L. E., 2.
British Columbia, Atlin area: Atiken, J. D., 1.
California, Soda Mts., northeastern: Grose, L. T.
Canada, west Canadian basin, tectonics and sedimentation: Sikabonyi, L. A.
Canadian Shield, outliers: Liberty, B. A.
Coal measures, stratigraphic classification: Wanless, H. R., 2.
Kansas, Abilene anticline area: Shenkel, C. W., Jr.
Anadarko basin, northwestern: Beebe, B. W., 1.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

PALEOZOIC—Continued

Mexico, Ciudad Victoria region, Tamaulipas; Carrillo Bravo, J.
Northeastern, tectonics: Flawn, P. T., 3.
Montana, Garnet Range: Kauffman, M. E., 1.
Nimrod-Drummond area: Tidyman, T.
Nevada, Lone Mtn., Ordovician-Divonian facies, thrust slices: Lovejoy, D. W.
New Mexico, Sacramento Mts., west escarpment: Pray, C. T.
Nova Scotia, Shubenacadie-Kennetcook area: Stevenson, I. M.
Oklahoma, Anadarko basin, northwestern: Beebe, B. W., 1.
Eastern, isopachous studies: Bercutt, H.
Northwestern, isopachous studies: Boler, M. E.
South Palaeozoic field: Atkinson, Walter E.
Southwestern, Cambrian-Middle Pennsylvanian, isopachous-paleogeologic study: McDaniel, G. A.
Quebec, Squateck area, west half: Lesspérance, P.-J.
Weedon Lake area, Quebec and Gaspé groups, Cambrian-Devonian: Duquette, G.
Saskatchewan, Athabasca formation, Cambrian (?) or Devonian (?), relation to Precambrian: Gussow, W. C., 1.
Texas, Anadarko basin, northwestern: Beebe, B. W., 1.
Central and western: Wilson, J. L.
Time scale, revision: Kulp, J. L., 1.
Revisions needed, absolute ages: Faul, H., 2.
United States, Hugoton embayment-Amariillo uplift, pre-Des Moines series: Worden, J. A.
Midcontinent: Huffman, G. G., 3.
Utah, central, Upper Devonian regional unconformity: Rigby, J. K., 5.
Stansbury Mts., southern: Telchert, J. A.
Vermont, eastern, structural correlation, middle; Murthy, V. R., 1.
West Virginia, Wood County deep well: Woodward, H. F., 2.
Williston basin, limestones, rhythmic sedimentation, clastic marker beds: Cumming, A. D.

PANAMA. See also Central America.


PARAGENESIS. See also Economic geology; Mineral deposits; Petrogenesis.
California, Crestmore area, contact-metamorphic mineral assemblages: Burnham, C. W., 1.
Idaho, Orofino area, kyanite-garnet gedrite, gedrite: Hietanen, A. M.
Metamorphic rocks: Fyfe, W. S., 1.

PATTERNED GROUND. See also Permafrost.
Greenland, Thule area, experimental formation, cf. natural moraine: Corte, A. E.
Photointerpretation: Thorén, R.
Washington, central, origin: Kaatz, M. R.

PEAT. See also Bogs; Paleobotany; Pollen analysis.
Amino-acid distribution: Swain, F. M., Jr., 2.
Canada, Maritime Provinces, chemical composition: Smith, D. G.
Formation, microbiological processes, coal origin: Rogoff, M. H.
Minnesota, Cedar Creek Bog, amino acids: Swain, F. M., Jr., 1.
Musk, measurement of bearing strength, relation to drainage: Radforth, N. W., 1.
Northwest Territories, Mackenzie River delta area, Pleistocene: Teramae, J., 1.
Virginia, Dismal Swamp, amino acids: Swain, F. M., Jr., 1.

PEBBLES.
Forms, beach cf. stream: Lenke-Chevitch, P.
Illinois, Wabash Valley, Wisconsin outwash sediments, lithology: McCammon, R. B.
Indiana, Wabash Valley, Wisconsin outwash sediments, lithology: McCammon, R. B.
Pennsylvania, Montoursville gravel pit, sampling: Griffiths, J. C., 2.
Texas, Marathon basin, Haymond boulder beds, source: Hall, W. Ellis.

PEDIMENTS, Arizona, southeastern, descriptions, types, and origin: Tuan, Y.-F.

PEDEOLOGY. See Solla.

PEGMATITES.
Arizona, Tucson area, copper-molybdenum: Lutton, R. J., 1.
California, Eureka Peak, zoned gabbro: Lovering, J. K.
Colorado, Storm Mtn., Precambrian: Boos, M. F.
Georgia, Culloden area, monazite-bearing: Fortson, J. W., Jr., 2.
Maine, Peg Claim pegmatites, spodumene-bearing: Sundellus, H. W.
<table>
<thead>
<tr>
<th>PELOPTERA. See also Mollusca.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aucella</em>, Jurassic-Cretaceous, speci-</td>
</tr>
<tr>
<td>a: Imlay, R. W., 1.</td>
</tr>
<tr>
<td><em>British Columbia, Nelson-Salmo area</em>,</td>
</tr>
<tr>
<td>Jurassic: Frebold, H. W. L., 1.</td>
</tr>
<tr>
<td><em>Cerastoderma chancelorensis</em>, Miocene,</td>
</tr>
<tr>
<td>Maryland: Oleaysyhosn, J.</td>
</tr>
<tr>
<td><em>Dosinia</em>, Tertiary, distribution of sub-</td>
</tr>
<tr>
<td>genera: Durham, J. W., 2.</td>
</tr>
<tr>
<td><em>Dosinia (Dosinidia)</em>, Oligocene, Calif-</td>
</tr>
<tr>
<td>ornia, Kirkers sandstone, Mt. Diablo:</td>
</tr>
<tr>
<td>Durham, J. W., 2.</td>
</tr>
<tr>
<td><em>Inoceramus labiatus</em>, Greenhorn forma-</td>
</tr>
<tr>
<td>tion, Cretaceous, paleoecology: Stevenson, R. Evans, 6.</td>
</tr>
<tr>
<td><em>Leiopteria</em>, Devonian, Ontario, Arkona</td>
</tr>
<tr>
<td>*Maryland, Chesapeake Bay, Miocene, cf.</td>
</tr>
<tr>
<td>Europe: Mongin, D.</td>
</tr>
<tr>
<td>Nomenclature, late Paleozoic: Branson,</td>
</tr>
<tr>
<td>C. C. 7.</td>
</tr>
<tr>
<td><em>Oregon, Oligocene-Pliocene (?)</em>, Shu-</td>
</tr>
<tr>
<td>mar's types: Trumbull, E., J.</td>
</tr>
<tr>
<td><em>Palaeocreasia devonica</em>, Devonian, not</td>
</tr>
<tr>
<td>barnacle: Ladd, H. S., 2.</td>
</tr>
<tr>
<td><em>Radiolites</em>, Cretaceous, Mexico, Morelos:</td>
</tr>
<tr>
<td>Bauman, C. F., Jr.</td>
</tr>
<tr>
<td>Shell transport, partially submersed, ex-</td>
</tr>
<tr>
<td>periments: Kornicker, L.</td>
</tr>
<tr>
<td><em>Sphaeridae, Pliocene-Pleistocene</em>, Vir-</td>
</tr>
<tr>
<td>ginia, Chesapeake Bay, Miocene, cf.</td>
</tr>
<tr>
<td>Europe: Mongin, D.</td>
</tr>
<tr>
<td><em>Yoldia (Yoldiella) keenae</em>, late Quater-</td>
</tr>
<tr>
<td>nary, British Columbia, Sunny-</td>
</tr>
<tr>
<td>side formation: Wagner, F. J. E.</td>
</tr>
<tr>
<td>PENNSYLVANIA—Continued</td>
</tr>
<tr>
<td>Aeromagnetic maps—Continued</td>
</tr>
<tr>
<td>Buckingham - Lambertville - Stockton quadrangles, interpretation: Soc-</td>
</tr>
<tr>
<td>low, A. A., 14.</td>
</tr>
<tr>
<td>Conestoga quadrangle: Bromery, R. W., 16.</td>
</tr>
<tr>
<td>East Greenville quadrangle: Bromery, R. W., 6.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 7.</td>
</tr>
<tr>
<td>Elverson quadrangle: Bromery, R. W., 19.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 10.</td>
</tr>
<tr>
<td>Lambertville and Stockton quadrangles: Bromery, R. W., 14.</td>
</tr>
<tr>
<td>Malvern quadrangle: Bromery, R. W., 3.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 4.</td>
</tr>
<tr>
<td>Media quadrangle: Bromery, R. W., 5.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 6.</td>
</tr>
<tr>
<td>Milford Square quadrangle: Bromery, R. W., 7.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 8.</td>
</tr>
<tr>
<td>Morgantown quadrangle: Bromery, R. W., 18.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 10.</td>
</tr>
<tr>
<td>Norristown quadrangle: Bromery, R. W., 2.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 3.</td>
</tr>
<tr>
<td>Perkiomenville quadrangle: Bromery, R. W., 9.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 10.</td>
</tr>
<tr>
<td>Phoenixville quadrangle: Bromery, R. W., 10.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 11.</td>
</tr>
<tr>
<td>Quakertown quadrangle: Bromery, R. W., 12.</td>
</tr>
<tr>
<td>Quarryville quadrangle: Bromery, R. W., 17.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 17.</td>
</tr>
<tr>
<td>Safe Harbor quadrangle: Bromery, R. W., 15.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 15.</td>
</tr>
<tr>
<td>Sassamansville quadrangle: Bromery, R. W., 8.</td>
</tr>
<tr>
<td>Valley Forge quadrangle: Bromery, R. W., 1.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 2.</td>
</tr>
<tr>
<td>West Chester quadrangle: Bromery, R. W., 4.</td>
</tr>
<tr>
<td>Interpretation: Soclow, A. A., 5.</td>
</tr>
<tr>
<td>Aeromagentic survey, Doylestown area,</td>
</tr>
<tr>
<td>Triassic basin: Zietz, I., 3.</td>
</tr>
<tr>
<td>Martic line, Wissahickon and Anti-</td>
</tr>
<tr>
<td>tietam schists: Griscom, A.</td>
</tr>
<tr>
<td>Reading Prong: Bromery, R. W., 20.</td>
</tr>
<tr>
<td>Catalog, deep-well samples and geo-</td>
</tr>
<tr>
<td>physical logs: Wagner, Walter E., 2.</td>
</tr>
<tr>
<td>Dip-needle traverses, Gladwyns area</td>
</tr>
<tr>
<td>and Lancaster County: Randall, J. A.</td>
</tr>
</tbody>
</table>
Pennsylvania—Continued

Electrical investigation, Gatesburg formation, clay-ilmenite deposits, self-potential cf. resistivity: Gross, G. W., 1, 2.

Engineering geology, Allegheny Plateau, bedrock faulting in river valleys: Ferguson, H. F.

Fort Pitt tunnel, north portal area, landslides: Ackenhell, A. C.

Pennsylvania Turnpike, subsurface exploration, evaluation of machines: Shurig, D. G.

Pittsburgh area, field trip: Philbrick, S. S.

Geologic literature, history: Cramer, H. R., 1.


Areas described.

Allensville quadrangle, reconnaissance: Dort, W., Jr., 1.

Economic geology.


Chromite, early mines: Pearre, N. C.

Clay, high-alumina, Mercer clay, prospecting: Williams, E. G., 2.

Coal, bituminous, western: Deasy, G. F.

Upper Freeport coal: Koppe, E. F., 1.

Construction materials, Bucks County: Gault, H. R.

Industrial minerals, Bucks County: Gault, H. R.

Iron, Cornwall mines: Gray, C., 1.

Limestone, Allensville area: Gray, C., 1.


Mineral resources, Bucks County: Gault, H. R.

Natural gas, Boone Mtn. and Rockton-Benezette trends: Brown, W. B., 3d.

Northeastern, maps and well records: Kreidler, W. L.

Oil and gas, Titusville area: Pa. Geologists.

Well summaries, Mercer County: Wagner, Walter R., 1.


Sand and gravel, Bucks County: Gault, H. R.

Northwestern: Shepps, V. C., 2.

Slate, Slatedale quarry: Gray, C., 1.

Uranium, copper association, hydrothermal origin: Brummer, J. J.

Zinc, Friedensville ore body: Gray, C., 1.

Geologic maps.

Allensville quadrangle, reconnaissance: Dort, W., Jr., 1.

Boyertown quadrangle, Precambrian and Hardyston formation, Cambrian: Buckwalter, T. V., Jr.

Pennsylvania—Continued

Geologic maps—Continued

Buckingham Mtn., formational boundaries problem: Wherry, E. T.

Bucks County: Willard, B., 1.

Central: Arndt, H. H.

Glacial, northwestern: Pa. Geologists; Shepps, V. C., 1, 2.

Sinking Valley: Moeba, N. N.

Somerset County, southern: Dutcher, R. R.

Wilmington complex: Ward, R. F.

Triassic formations, southeastern: Bock, W., 2.

Historical geology.


Boyertown quadrangle, Precambrian-Triassic: Buckwalter, T. V., Jr.

Bucks County, Cambrian-Ordovician: Willard, B., 2.

Pleistocene: Peltier, L. C., 1.

Summary: Willard, B., 3.

Cambrian-Pennsylvanian, central: Arndt, H. H.

Carbon County, uranium deposits, lead-isotope age: Stern, T. W., 2.

Corry area, kame complex, radiocarbon age: Droste, J. B., 3.

Devonian, Upper, nomenclature: Miller, J. T.

Devonian-Mississippian boundary, Oswayo-Knapp formations, Penn-York embayment: Holland, F. D., Jr., 3.

Mineral deposits areas, eastern: Gray, C., 1.

Newark basin, Upper Triassic, correlation: Bock, W., 3.

Newark group, Triassic, Bucks County: McLaughlin, D. B.

Orbisonia quadrangle, Devonian: Dobkins, D. A.

Paleozoic, lower, effect of paleostructural elements: Prouty, C. E., 3.


Pennsylvanian, paleogeographic mapping, western: Williams, E. G., 1.

Western: Dutcher, R. R.

Quaternary, northwestern: Shepps, V. C., 2.

Scholarie formation, Devonian, redefined: Johnsen, J. H.

Sinking Valley, Cambrian-Silurian, thrust relations: Moeba, N. N.

Mineralogy.

Antigorite, chromian, Wood's mine: Glass, J. J.

Barite, Fort Littleton area, origin: Socolow, A. A., 1.
INDEX

PENNSYLVANIA—Continued

Mineralogy—Continued

Brucite and deweyllte, West Chester area, collecting: Thomas, C. A.
Clinopyroxenes, Piedmont region, igneous origin: Norton, D. A.
Collecting localities: Lapham, D. M., 1.
Magnette, glassy-appearing, Lancaster County, contact of serpentinized ultramafic rock and quartz pegmatite: Lapham, D. M., 3.
Mineral deposits areas, eastern: Gray, C., 1.
Wilmington complex: Ward, R. F.

Paleontology.

Algae, Bucks County, Cambrian, Upper: Willard, B., 2.
Brachiopods, Oswayo-Knapp formations, Devonian-Mississippian, Penn-York embayment: Holland, F. D., Jr., 3.
Fishes, Monroe County, Silurian: Beethoven, J. R., 1.
Newark basin, Triassic: Rockwell, A. A., 1.
Pebble sampling, Montoursville gravel pit: Griffiths, J. C., 2.
Quartzites, modal analyses, central: Wood, G. V.
Wisconsin-age till, northwestern: Stepps, V. C., 2.

Physical geology.

Anthracte region: Wood, G. H., Jr.
Appalachian front, faulting, central: Dort, W., Jr., 2.
Boytown quadrangle: Buckwalter, T. V., Jr.
Bucks County, crystalline rock areas: Freedman, J.
Paleozoic areas: Willard, B., 2.
Triassic area: McLaughlin, D. B.
Central: Arndt, H. H.
Doylestown area, Triassic basin, faults: Zietz, L., 3.
Edison fault: Bock, W., 1.
Fort Littleton barite area: Socelow, A. A., 1.
Grahamite dikes, Pittsburgh coal, Washington County: Koppe, E. F., 2.
Harrisburg axis: Frouty, E. C., 1.
Mineral deposits areas, eastern: Gray, C., 1.
Nappe, Berks-Lebanon Counties: Gray, C., 2.
Paleostructural elements, influence on lower Paleozoic stratigraphy: Prouty, C. E., 3.
Sinking Valley, thrusting: Moes, N. N.
Wernerville-Reading area: Frouty, C. E., 1.
Western: Dutcher, R. R.
Wilmington complex, foliation and lineation: Ward, R. F.

Physiographic geology.

Bucks County, Pleistocene terraces: Peltier, L. C., 1.
Glacial features, northwestern: Pa. Geologists; Shepps, V. C., 1, 2.
Salt Run drainage basin, Cameron County, longitudinal stream profiles, quantitative analysis: Broce, A. J., 1.

PENNSYLVANIAN. See also Carboniferous;
Paleontology, Pennsylvanian;
Paleozoic.

Alberta, Peace River area, nomenclature and type sections: Halbertsma, H. L.
Arizona, Naco group, limestone textures, key to deposition depth: Wanless, H. R., 1.
Southeastern: Havenor, K. C.
Arkansas, Arkansas Valley, Atoka formation: Scull, B. J., 2.
Boston Mts.: Quin, J. H., 2.
Northern, pre-Atoka: Freson, S. E.
Washington County, southwestern: Jackson, K. C., 2.
British Columbia, Peace River area, nomenclature and type sections: Halbertsma, H. L.
Colorado, northwestern: Hallgarth, W. E.

Sangre de Cristo Mts.: Bolyard, D. W.
Pennsylvania—Continued

Colorado Plateau, Paradox basin, tectonics: Fetzner, R. W.


Indiana, Cool City quadrangle: Kottlowski, P. E., 1.

Kansas: Kansas Geol. Soc., 2.

Douglas-Pedee groups, channel sandstones: Sanders, D. T.


Nemaha County: Mudge, M. R., 1.

Missouri, Columbia-Hannibal area, post-Cheltenham: Searight, T. K., 1, 2.

Montana, central and eastern: Willis, R. P.

New Mexico, Lucero region: Wengerd, S. A., 1.


San Andres Mts.: Kottlowski, F. E., 2.

Sangre de Cristo Mts. and Raton basin: Earl, T. K., 1, 2.

Des Moines series: Searight, W. V., 1.

Montana, central and eastern: Willis, R. P.

New Mexico, Lucero region: Wengerd, S. A., 1.

Pennsylvania, western: Dutcher, R. R.

Rhode Island, Narragansett basin: Towe, K. M.

Providence quadrangle: Quin, A. W.

Tennessee: Luther, E. T.

Northeastern, Indian Bluff and Graves Gap groups: Wilson, C. W., Jr.

Texas, Grayson County: Bradfield, H. H., 1.

Horseshoe atoll: Burnside, R. J., 1.

Northern, Strawn series, conference: A.I.M.E. North Texas Sec.


United States, Anadarko basin, northern, Morrow series: Abels, T. A.

Cordilleran region, sedimentation, silicic source: Sissell, H. J., 5.

Forest City basin, Missouri-Iowa-Kansas-Nebraska, pre-Marmaton: Searight, W. V., 2.

Midcontinent, cyclic sedimentation: Moore, R. C.

Utah, Aneth area, Upper: Picard, M. D., 2.

Manding Canyon shale, Mississippian boundary: Moyle, R. W.

Oquirrh Mts., southern: Bissell, H. J., B.

PERMAFROST. \* See also Patterned ground.

Alaska, Chena area: Williams, J. Ropes, 3.

Fairbanks (D–1) quadrangle: Williams, J. Ropes, 1.

Glennallen area, engineering studies: Nichols, Donald R., 1.

Point Barrow area: Carlson, P. R.


Canada: thermal characteristics and terrain factors: Legget, R. F.

Frost heaving of soil, experimental, thermal and hydraulic factors: Higaishi, A.


Thule area, seismic studies: Röthlisberger, H., 2.

Ice-wedge polygons, thermal and mechanical origin: Lachenbruch, A. H.

Photointerpretation: Thorén, R.

Physical properties, arid climates, cf. moist: Davies, W. E., 2.

Yukon, Mayo area: Boyle, R. W., 3.

PERMEABILITY. \* See also Porosity.

Alberta, McMurray sands, grain-size analysis: Carrigy, M. A., 2.

Colorado Plateau, uranium deposition control: Garrels, R. M., 2.

Fluid flow in compressible strata: Scheidegger, A. E., 1.
PERMEABILITY—Continued
Idaho, Snake River basalt, aquifer tests: Walton, W. C.
West Virginia, Wood County deep well, Cambrian-Devonian dolomite cores: Marsden, S. S., Jr.

PERMIAN. See also Paleontology, Permian; Paleozoic.
Alberta, Peace River area, nomenclature and type sections: Halbertsma, H. L.
British Columbia, Peace River area, nomenclature and type sections: Halbertsma, H. L.
Vernon area: Jones, A. G.
Climatic zonation, marine zoogeography: Stehli, F. G.

PETROFABRICS. See also Lineation.
Calcilutite mosaics: Bathurst, R. G. C.
Utah, Northern, cf. central Wyoming Petroleum reservoirs: Cheney, T. M.
Wyoming, Western, cf. central petroleum reservoirs: Cheney, T. M.

PETROGENESIS. See also Paragenesis; Petrology.
Contamination-reaction rules: Rosenfeld, J. L.
New Mexico, Big Burro Mts., northern: Hewitt, C. H.
Lordsburg quadrangle, volcanic rocks: Fiege, R. F., Jr.
PETROGRAPHY. *See also Petrology; Technique, Petrographic.*

Carbonate rocks, marine: Folk, R. L., 2.
Metamorphic rocks, standard mineral zones, classification: Barth, T. F. W.
Sandstones, Pennsylvanian: Siever, R., 1.
Spheroidal structures, classification: Sabourin, R. J. E.
Textbook: Moorhouse, W. W.
Titanium-bearing beach sands, limenite alteration: Bailey, S. W.

PETROLEUM. *See also Bituminous rocks and sands; Hydrocarbons; Oil and gas fields; Oil sands; Oil shale; Technique, Petroleum.*

Rocky Mt., foothills, entrapment: Fox, F. G.

PETROLEUM—Continued

California—Continued

Oak Canyon field: Ybarra, R. A.
Olive field: Gaede, V. F.
Tapia field: Dosch, M. W.
Canada, Arctic areas, possibilities: Allen, A. R.
Eastern, fields and possibilities: Rolliff, W. A.
Northwestern, possibilities: Lang, A. H.
Trace-metals content: Baker, B. L.

Petroleum—Continued

Cliff field: Sever, C. L.

Dakar basin, Mesaverde group: Nolte, C. J.
New Windsor field: Rold, J. W.
Northwestern, Niobrara formation: Haskett, G. I.
Possibilities: Bond, B. C.
Raton basin, possibilities: Clair, J. R.
San Juan Basin, Pennsylvanian possibilities: Wengerd, S. A., 2.
Paradox-San Juan basins: Peterson, J. A.

Cuba, Santa Clara area, accumulation in serpentine: Wassall, H. W., 5d, 1.
El Salvador, Carolina area, seepage from volcanic rock: Hazzard, J. C.
Engineering analysis, geologic data, use: Campbell, J. M.
Evaporites, primary, role in accumulation: Storey, L. L., 1.
Exploration, electrical: Caswell, C. A.
Geologic interpretation problems: Guzmán Jiménez, E. J.
Microfossils: Hoffmeister, W. S.
Reservoir sands, elongate lenticular types: Busch, D. A.
Seismic correlation: Woods, J. P.
Stratigraphic traps, program: Matsu, R. M.

Florida, Cretaceous and Recent summit conglomerates, potential traps: Banks, J. E.
Sunniland field: Purl, H. S., 1.
Flow in compressible strata: Scheldegger, A. E., 1.
Formation evaluation, logging devices and program: Kirby, J. E., Jr.
Fracture reservoirs, origin: Kelley, V. C., 1.
Geology, future: Conselman, F. B., 2.
History: Dickey, P. A., 2.
North America, history: Owen, E. W.
Textbook: Landes, K. K., 2.

Geomorphologic reconnaissance in areas of low relief: Lattman, L. H., 1.
INDEX

PETROLEUM—Continued

Gulf Coastal Plain, eastern: Braunstein, J., 2.
Salt domes, stratigraphic traps, area-uplift factor: Halbouty, M. T.
Gulf of Mexico, continental shelf: Atwater, G. L., 1.
Habitat, topographic highs during deposition: Scholten, R.
History, 1839-1959: Oil and Gas Journ., 1.
Honduras, possibilities: Mills, R. A.
Illinois, Cooks Mills area, Spar Mtn. sandstone: Whiting, L. L.
Indiana, south-central: Melhorn, W. N., 2.
Kansas: Hambleton, W. W., 1.
Abilene anticline area, possibilities: Shenkel, C. W., Jr.
Anadarko basin: Beebe, B. W., 1.
Mississippian: Beebe, B. W., 2.
Eastern, Mississippian: Goebel, E. D., 1.
Northwestern: Monahan, R.
Sedgwick basin fields: Goebel, E. D., 2.
Southeastern, Mississippian: Merriman, D. F., 2.
Southwestern, Mississippian: Veroda, V. J.
Western, fields: Kansas, Geol. Soc., 1.
Kentucky, central, Silurian shallow pools: Barnes, J. M., Jr.
Louisiana, Avery Island salt dome: Bates, F. W.
Bay Ste. Elaine field: Schneider, S. J.
Evangeline-St. Landry Parishes: Varvaro, G. G.
Grandison area: Oakes, B. L.
Map: Colignet, G. O.
Southern, Anahuac formation: Goheen, H. C.
Miocene sediments: Limes, L. L.
Salt domes, relation to growth of dome: Atwater, G. L., 2.
Manitoba, bibliography: Mills, B. A.
Southwestern, Mississippian: McCabe, H. R.
Western, map: Canada G. S., 2.
Mexico, Angostura and Casa Blanca fields, Veracruz: Benavides Garcia, L.
Macuspana basin, Tabasco, possibilities: Hernandez Herrera, S.
Map: Petroleo Interamericano.
Northeastern, Frio-Anahuac formations: Yzaguirre, L. A.
Origin and migration, sedimentary basins: Lopez Ramos, E.
Rodolfo Ogarrio field, Tabasco: Perez Rincön, H.

PETROLEUM—Continued

Michigan, Mackinac Straits region and northern Lower Peninsula, possibilities: Landes, K. K., 1.
South-central, possibilities: Ells, G. D., 2.
Southwestern, Silurian possibilities: Ells, G. D., 1.
Migration, mechanisms: Hill, G. A.
Migration and alteration, trace-metal evidence: Hodgson, G. W., 1.
Delphia field: Williams, J. F.
Lewistown area, possibilities: Gardner, L. S., 1.
Red Creek field: Lowe, H. R.
Stensvad field: Staggs, J. O.
Sweetgrass arch, southern: Gribi, E. A., Jr.
Nebraska, Salina basin, possibilities: Tapp, S. C.
Southwestern: Monahan, R.
Wilson Ranch field: Boardman, A. C.
Nevada, eastern, Paleozoic: Johnson, E. G.
New Mexico, Delaware basin: Kuhn, P. J.
Delaware basin, traps: Dodge, C. F.
Empire field, Abo reef: Podpechan, F. W.
Horseshoe Canyon field: Knight, W. Y.
Northeastern, possibilities: Foster, R. W., 2.
Sacramento Mtn. area, exploration: Dunn, D. A.
San Juan Basin, Pennsylvanian possibilities: Wengerd, S. A., 2.
Pennsylvanian possibilities: Kottlowski, F. E., 4.
New York, south-central, possibilities: Harding, R. W.
North Dakota, Antelope field, Sanish and Madison reservoirs: Folsom, C. B., Jr.
Occurrence, misleading evidence: Arnold, R.
Ohio, deep possibilities: Shearron, G. G., 2.
**PETROLEUM—Continued**

**Oklahoma, Altus field:** Ryniker, C.

**Anadarko basin, carbonate reservoirs:** Bado, J. T.

**Northern shelf:** Hayden, A. C.

**Northwestern:** Beebe, B. W., 1.

**Mississippian:** Beebe, B. W., 2.

**Stratigraphic traps:** Pate, J. D.

**Beaver County:** Parker, Richard L.

**Carter-Knox field:** Reedy, H. J.

**Creek County:** Oakes, M. C.

**Mississippi:** Jordan, L., 3.

**Hunton group:** Oxley, M. L.

**McAlester-Arkansas Valley basin:** Brooks, R. P., Jr.

**North McWillie field:** Bado, J. T.

**North Madill field:** Gahring, R. R.

**Northwest Butner field area:** Duck, J. H., Jr.

**Ontario, southwestern, lower Paleozoic reservoirs:** Corden, B. B.

**Origin:** Brooks, B. T., 1; Kidwell, A. L.

**Chemical aspects:** Hanson, William E.

**Chlorophyll, primary degradation to pheophytins:** Hodgson, G. W., 2.

**Composition changes, chemical aspects:** Brooks, B. T., 2.

**Hydrocarbon accumulation, natural solubilizers in waters:** Baker, E. G.

**Water as selective agent:** Meinschein, W. G.

**Sea-water effect on liquid hydrocarbons:** Chillingar, G. V.

**Thermodynamic approach:** Cieslewicz, W. J.

**Upwelling marine waters:** McKelvey, V. E., 2.

**Pennsylvania, northwestern:** Pa. Geologists.

**Questions answered:** Pearl, R. M.

**Recovery by underground nuclear explosions:** Anderson, C. C.

**Reserves:** Scarlett, C. A.

**PETROLEUM—Continued**

**Reservoirs, high pressures in fluid-filled porous rocks, causes, hydrocarbon-water relations:** Hubbert, M. K.

**Rocky Mtn. area, sedimentary basins:** Van Couvering, M.

**Rocky Mts., Lower Cretaceous:** Haun, J. D., 2.

**Sedimentary controls, conference:** Am. Assoc. Petroleum Geologists.

**Saskatchewan, central, Devonian reef possibilities:** Edle, R. W., 1.

**Map:** Canada G. S., 2.

**Souris Valley area, exploration:** Staut, P.

**Trace-metal content, migration:** Hodgson, G. W., 1.

**Weyburn field:** Chatin, A. K.

**Source beds vs. reservoirs, identification by chemical analysis:** Philipp, G. T.

**Stratigraphic traps, boundary determination, spontaneous-potential curve:** Gryenberg, J.

**Texas, Anadarko basin, northwestern:** Beebe, B. W., 1.

**Anadarko basin, northwestern, Mississippian:** Beebe, B. W., 2.

**Brazoria County:** Cantrell, R. B.

**Caplen field:** Parker, H.

**Cochran-Hockey Counties:** Phifer, R. L., 1.

**Delaware basin:** Kuhn, P. J.

**East Texas basin, salt domes:** Krusekopf, H. H., Jr.

**Edwards limestone fields:** Sandidge, J. R.

**Fashing field:** Pinkley, G. R.

**Grayson County:** Bradfield, H. H., 1.

**High Island salt dome:** Barnes, C. W.

**Hitchcock field:** Reiter, J. O.

**Horseshoe at o t o l l Borden-Howard Counties:** Burnside, R. J., 1.

**Scurry-Kent Counties:** Stafford, P. T.

**Jackpot field:** Warren, E. M.

**Kent County:** Phifer, R. L., 2.

**Mitchell County:** Phifer, R. L., 3.

**Muenster arch area, Paleozoic:** Bradfield, H. H., 2.

**Northern, Permian:** Wayland, J. R.

**Strawn series reservoirs:** Dickinson, R.

**Permian basin, eastern shelf, fields:** Conselman, F. B., 1.

**Puckett field:** Hester, R. J.

**Rasberry field:** Swanson, R. L.

**Scurry County:** Phifer, R. L., 4.

**Slocum salt dome:** Read, J. L., Jr.

**South Bosque field:** Mason, C. B.

**Southwestern:** McClain, O. G.

**Turtle Bay field:** Akkerman, R. P.
**PETROLEUM—Continued**

United States, Anadarko basin, western border, possibilities: Wheeler, R. R.

Mississippian: Clinton, R. P.

Utah, Aneth area fields: Picard, M. D., 2.

Naval Oil-Shale Reserve No. 2, possibilities: CashIon, W. B., Jr.

White Mesa field: Picard, M. D., 3.


Washington, Green River area, possibilities: Anderson, J. Q.

Ocean City anticline, possibilities: Wurden, F. H.

Well-logging methods: Doll, H.-G.

West Virginia, southern: Haught, O. L., 3.

Williston basin, hydrodynamics in reservoirs: Murray, G. H., Jr.

Southern: Sandberg, D. T.

Stratigraphic traps, Cambrian-Silurian: Porter, J. W.

Wyoming, Bighorn Basin, Tensleep sandstone: Wurden, F. H.

Well logging methods: Doll, H.-G.

Washington, Green River area, possibilities: Anderson, J. Q.

Ocean City anticline, possibilities: Wurden, F. H.

Washington, Green River area, hydrodynamics in reservoirs: Murray, G. H., Jr.

Southern: Sandberg, D. T.

Stratigraphic traps, Cambrian-Silurian: Porter, J. W.

Wyoming, Bighorn Basin, Tensleep sandstone: Wurden, F. H.

Ocean City anticline, possibilities: Wurden, F. H.

Well-logging methods: Doll, H.-G.

Washington, Green River area, possibilities: Anderson, J. Q.

Ocean City anticline, possibilities: Wurden, F. H.

Washington, Green River area, hydrodynamics in reservoirs: Murray, G. H., Jr.

Southern: Sandberg, D. T.

Stratigraphic traps, Cambrian-Silurian: Porter, J. W.

Wyoming, Bighorn Basin, Tensleep sandstone: Wurden, F. H.

Ocean City anticline, possibilities: Wurden, F. H.

Well-logging methods: Doll, H.-G.

Washington, Green River area, possibilities: Anderson, J. Q.

Ocean City anticline, possibilities: Wurden, F. H.

Washington, Green River area, hydrodynamics in reservoirs: Murray, G. H., Jr.

Southern: Sandberg, D. T.

Stratigraphic traps, Cambrian-Silurian: Porter, J. W.

Wyoming, Bighorn Basin, Tensleep sandstone: Wurden, F. H.

Ocean City anticline, possibilities: Wurden, F. H.

Well-logging methods: Doll, H.-G.
PHOSPHATE—Continued
West Indies, Leeward Islands, by islands: Martin-Kaye, P. H. A.

PHOTOLOGIC MAPS. See Maps, Photogeology.

PHOTOLOGY. See also Aerial photographs; Technique, Photogeology.

Alberta, Lake Athabasca area: Godfrey, J. D.

Arizona and adjoining areas, rocket photograph, interpretation: Mitcham, T. W.

Arkansas, Arkansas Valley basin, southwestern, photomosaic: Fort Smith Geol. Soc.

Canada, northern, petroleum exploration: Brechtel, F. C.


Exploration planning, role: Hogg, N.


History: Landen, D.

Maine, highway location: Stoeckeler, E. G.

Mapping techniques: Kent, B. H.

Microfeatures: Belcher, D. J., 3.

New Mexico, Ocate area: Brown, H. G., 3d.

Ocate area, structure: Bogart, L. E.

Rocket photographs, high-altitude, showing major structural zones: Mitcham, T. W.

Structural geomorphology: Melton, F. A.

Textbook: Lueder, D. R.

Wyoming, Flat Top Mtn. NE quadrangle: Olson, A. B.

PHYSICAL GEOLOGY. For areal, see subheading Physical geology under the states and countries. See also Geomorphology; Maps, Physiographic.

Atlantic Ocean, regions and provinces: Heezen, B. C., 2.

Coastal landforms, classification, applicability to maps: McGill, J. T., 2.

Relief description, development-of-surface method: Zaboraki, B.

River channels, stability of form: Shults, S., 1.


Textbook, earth science: Fletcher, Gustav L.

Physical geography: Finch, V. C.

PHYSIOGRAPHIC MAPS. See Maps, Physiographic.

PIECES.

Archeogonaspis van Ingen, Silurian, Pennsylvania-New Jersey: Beerbower, J. R., 1.

Barbados, Eocene-Miocene: Casier, E. M.

California, Calico Mts., Miocene, eggs: Pierce, W. D., 3.

Dipnol, Late Devonian, Greenland, eastern: Lehman, J.-P.

Evolution: Romer, A. S., 2.

Holocentrites ovalis, Oligocene, Florida, Marianna limestone: Dunkle, D. H.

New Jersey, Newark basin, Triassic: Bock, W., 3.

Pennsylvania, Lockatong formation, Triassic: Bock, W., 1.

Newark basin, Triassic: Bock, W., 3.

Poecilolepis, vertebrates, gonopodial suspension: Álvarez del Villar, J.
**PILOCITOPSIS maldonadoi**, Quaternary, El Salvador, Zanjón de Tatzalimí diatomite beds: Álvarez del Villar, J.

**Trinidad, Late Cretaceous-Tertiary:** Casier, E. M.

**Tursioidae**, Triassic, United States, Newark basin: Bock, W., 3.

**United States, Newark basin, Triassic:** Bock, W., 3.

**PISOLITES, deposits in oil-field settling tanks:** Kemp, A. H.

**PITCHBLende. See Uranium.**

**PLACERS.**


North Carolina-South Carolina, Piedmont, monazite: Overstreet, W. C.

**PLANTS, FOSSIL.** See Paleobotany.

**PLAYAS.**

Borate minerals, primary high hydrates: Muesstng, S. J.

New Mexico, Bishops Lodge member of Tesuque formation, Miocene: Boyer, W. W.

**POLLEN ANALYSIS. See also Paleobotany.**

Arizona, Rampart Cave, sloth dung, Cenozoic: Martín, P. Schultz.

**Massachusetts, Cape Cod, Barnstable Marsh, postglacial climate, age, sea-level changes:** Butler, P.

Martha's Vineyard, late Pleistocene: Ogden, J. G., 3d.

Minnesota, Pleistocene, Wisconsin substages: Wright, H. E., Jr.

New Mexico, Plains of San Augustín, Pleistocene: Cislas, K. H.

**North America, northeastern, Quaternary, radiocarbon dates, correlations:** Deevey, E. S., Jr., 1.

**Stratigraphic tool, petroleum exploration:** Perkins, R. D., 2.

United States, eastern, late Pleistocene climate, fossil cf. modern pollen: Leopold, E. B., 2.

Washington, Puget Sound lowland, pre-Wisconsin interglacial; Leopold, E. B., 1.

**POpular and elementary geology.**

**Adventures in geology:** May, J.

**Agates:** Smith, I.

**Amber:** Heubusch, C. A., 1.

**Arizona, Canyon Diablo crater:** Heald, W. F., 1.

**California, Calico Mts., silica fossils in nodules:** Kirkby, R. A., 8.

**Insects, Mojave Desert, Miocene:** Kirkby, R. A., 1.

**San Andreas fault:** Gems & Minerals.

**Colorada, ground water:** Bittinger, M. W.


**Dinosaurs:** Andrews, R. C.; Colbert, E. H., 2; Darling, Lois; Gels, D.; Holstmaer, E.; Jepsen, G. L.

**Earth, history:** Gamow, G. A.; Hurley, P. M., 1.

**Physical properties and origin:** Beiser, A., 1.

**Earth and life, origin:** Pfeiffer, J.

**Earth's crust:** Battin, D. E., 1; Woollard, G. P., 1.

**Elephants, evolution:** Carrington, R.

**Feldspar:** Tilden, P. M., 1.

**Florida, mammals, Cenozoic:** Olsen, S. J., 1.

**Fossil collecting:** Collinson, C. W., 1; Okulitch, V. J., 1.

**Fossils, invertebrate:** Perry, T. G., 1.

**Gemology for the rockhound:** Parsons, C. J.

**Gems and gem materials:** Lee, E.

**Geochronology and geologic methods:** Solow, H.

**Geodes:** Smith, I.

**Geology:** Baird, D. M., 2.

**Primer:** Orr, C. E.

**Geomorphology:** Dury, G. H.

**Glaciation, continental:** Lauber, P.

**Continental, relics:** Tilden, P. M., 2.

**Ground water:** Widmer, K., 1.

**Illinois, fossil guide:** Shaver, R. H., 1.

**Pleistocene:** Perry, T. G., 4.

**International Geophysical Year:** Chapman, S.

**Iowa, Le Grand area, echinoderms, Mississippian:** Harnack, C.

**Life on earth, evolution:** MacNeil, M. G.

**Maine, Desert of Maine:** Sutherland, P.

**Isles of Shoals:** Fowler-Bllings, K.

**Sebago Lake State Park:** Bloom, A. L., 2.

**Man, evolution:** Howells, W. W.

**Mineral collecting, guide:** Fritzzen, D. K.

**Mineral kingdom, questions answered:** Pearl, R. M.

**Mineralogy, thermochronological reactions:** Foster, M. J.

**Minerals, guide:** Randolph, E. O.

**Minerals and rocks:** Ball, H. W.

**Minnesota, glacial lakes:** Ahlquist, G. R., 2.

**Volcanism, Precambrian-Ordovician:** Ahlquist, G. R., 1.

**New Hampshire, Isles of Shoals:** Fowler-Bllings, K.

**New Mexico, Silver City-Santa Rita-Hurley area, guidebook:** Schilling, J. H.
Popular and Elementary Geology—Con.
New York, Long Island: Bailey, P.
Nova Scotia, mineral deposits: Campbell, G. G.
Ontario, Quetico Provincial Park area: Meen, V. B.
John Day formation, Oligocene-Miocene: Brown, M. D.
Paleogeographic mapping: Williams, E. G., 1.
Paleontology and stratigraphy, ecological aspects: Ladd, H. S., 1.
Prehistoric animals: Barnett, L.
Prospecting manual: Anthony, L. M.
Reptiles, evolution: Darling, Lois.
Reptiles and mammals, ancient: Fenton, C. L.
Rocks, primer: Syrocki, B. J.; White, A. T.
Primer: Podendorf, 1.
South Dakota, Mission area, mammals: Zettner, J. C., 1.
Submarine geology: Shepard, F. P., 1.
Tektites, origin, theories: Dake, H. C., 1.
Utah, Camp Maple Dell area: Rigby, J. K., 3.
Vertebrates, structure: Fox, W.
Virginia, Lebanon area, geologic history: Cameron, C. C.
Volcanoes: Wilson, B. H.
Washington, fossils: Livingston, V. E., Jr.
Porifera.
Hexactinellids, Permian, Texas: Finks, R. M., 1.
Precambrian-Silurian, North America: Rigby, J. K., 10.
Scaphiomanon, Mississippian, Montana, southwestern, Sappington sandstone: Gutschick, R. C., 3.
Utah, Manning Canyon shale, Mississippian-Pennsylvanian: Rigby, J. K., 6.
Porosity. See also Permeability.
Alberta, Elkton member of Turner Valley formation, Mississippian: Thomas, G. E.
Swan Hills member, Devonian, selective solution: Beard, D. E.
Fluid flow in compressible strata: Scheldegger, A. E., 1.
Porosity—Continued
Fluid-filled rocks, high pressures, application to overthrust mechanics: Hubbert, M. K.
Gamma-ray-neutron log: MacFarlane, R. M.
Mexico, Topia mining district, Durango, altered andesites, pore sizes: Lemish, J.
Sonic logging: Lovan, T. E.
Texas, Crane trend, Radoll method: Barret, W. M.
Southwestern, Anacacho limestone, secondary: Harvill, L. L.
Stamford area, reef, false seismic high: Van Siclen, D. C.
West Virginia, Oriskany sandstone, interstitial, origin: Wilcox, F. B.
Wood County deep well, Cambrian-Devonian dolomite cores: Ma­
den, S. S., Jr.
Porphyry. See Copper; Igneous rocks.
Potash, New Mexico, Carlshbad district: Jones, C. L., 1.
Precambrian. See also Paleontology, Precambrian.
Alberta, central and foothills areas, subsurface: Garland, G. D., 2.
Appalachians, southern, major metamorphic events, absolute ages: Long, L. E., 2.
Southeastern: Lance, J. F., 1.
British Columbia, Ice River complex, sedimentary contact, age revision: Gussow, W. C., 2.
Vernon area: Jones, A. G.
California, Death Valley region: Was­serburg, G. J.
Colorado, basement, orogenies, K-A ages: Giffen, C. E.
Big Thompson Canyon area: Hudson, B. D.
Chicago Creek area: Harrison, J. E.
Hall Valley area, Front Range, unconformable series: Wahlstrom, E. E.
Wet Mts., southern: Boyer, R. E., 1.
Idaho, North Fork quadrangle: Anderson, A. L.
Kansas, geophysical investigations: Hamilton, W. W., 1.
Labrador, Slegamook Lake area: Can­da G. S., 10.
Lake Superior region, Keweenawan forma­tions, paleomagnetism: Du Bois, P. M., 2.
Manitoba, bibliography: Barry, G. S., 1.
Elbow-Heming Lakes area: McGlynn, J. C.
Island Lake series: Quinn, H. A.
Precambrian—Continued

Manitoba—Continued

Ledge Lake area: Heywood, W. W.

Oxford House-Knee Lake area: Barry, G. S., 2.


Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Minnesota, Cook County: Grout, F. F.

Cuyuna district, N o r t h range: Schmidt, R. George.

Early orogenies, absolute ages: Goldich, S. S., 4.


Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

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Minnesota, Cook County: Grout, F. F.

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Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

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Early orogenies, absolute ages: Goldich, S. S., 4.


Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Minnesota, Cook County: Grout, F. F.

Cuyuna district, N o r t h range: Schmidt, R. George.

Early orogenies, absolute ages: Goldich, S. S., 4.


Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Minnesota, Cook County: Grout, F. F.

Cuyuna district, N o r t h range: Schmidt, R. George.

Early orogenies, absolute ages: Goldich, S. S., 4.


Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Michigan, Lake Mary quadrangle: Bayley, R. W., 1.

Minnesota, Cook County: Grout, F. F.

Cuyuna district, N o r t h range: Schmidt, R. George.

Early orogenies, absolute ages: Goldich, S. S., 4.


PUERTO RICO—Continued

Guidebook, central and western: Navarro de Haydon, R.
Laterization, east-central: Briggs, R. P.
Solls, senile: Hardy, F.

Economic geology.
Clay, Carolina deposit: Cadilla, J. F., 2.
Construction materials: Cadilla, J. F., 1.
Limestone: Cadilla, J. F., 1.
Marble: Cadilla, J. F., 1.
Nickel-cobalt-iron, laterite: Heidenreich, W. L.
Silica sand: Vázquez, L.
Southeastern: Hildebrand, F. A.

Geologic maps.
Carolina clay deposit, Quaternary: Cadilla, J. F., 2.
Mayagüez area: Navarro de Haydon, R.
San Juan area: Kaye, C. A., 1.

Historical geology.
Carolina area, Cenozoic: Cadilla, J. F., 2.
Central and western: Navarro de Haydon, R.
Coastal areas, Quaternary: Kaye, C. A., 2.
Cretaceous, Upper, eastern: Berryhill, H. L., Jr., 1.
Cretaceous-Tertiary, southwestern: Mattson, P. H.
Isla Mona, Miocene-Recent: Kaye, C. A., 3.
San Juan area, Cretaceous-Recent: Kaye, C. A., 1.
Tertiary: Cadilla, J. F., 1.
Middle, northwestern: Gordon, W. A.

Mineralogy.

Paleontology.
Foraminifera, larger, San Sebastian formation, Oligocene, correlations: Sachs, K. N., Jr.
San Juan area, Cretaceous-Recent: Kaye, C. A., 1.

 Petrology.
Beachrock and eolianite: Kaye, C. A., 2.
Carolina clay, composition and origin: Cadilla, J. F., 2.
Hydrothermally altered rocks, southeastern: Hildebrand, F. A.
Lithology of upper Tertiary sections: Mitchell, R. C.
San Juan area: Kaye, C. A., 1.
Utuado area, intrusions: Kaye, C. A., 4.

Physical geology.
Coastal areas, Quaternary warping and faulting: Kaye, C. A., 2.
Cretaceous rocks, sedimentation and structures: Berryhill, H. L., Jr., 1.
QUARTZ—Continued
North Carolina, western, crystalline: Mertie, J. B., Jr., 2.
Oklahoma, Quartzita veins: Miser, H. D.
Petrofabric diagrams, schmitteffekt, misinterpretation: Jones, K. A., 1.
Pressure solution of grains, factors and effects: Thomson, A. F.
Red-luminescing, synthetic: Claffy, E. W.
Sand grains, shape, relation to crystallographic axes: Lucas, E. L.
Stability in soils: Raeside, J. D.
Virginia, Craigsville area, smoky phan­
toms in crystals: Cross, W., 2d, 1.
Southwestern, crystalline: Mertie, J.
B., Jr., 2.
X-ray determination, quantitative, distortion by grinding: Brindley, G. W., 4.

QUARTZITE.
Deformation lamellae in quartz grains, relation to large-scale folding: Christie, J. M.
Georgia, Lamar County, possible river-channel deposit: Adams, A. A.
New Mexico, Kluava Mtn., aluminous: Heinrich, E. W., 2.
Pennsylvania, central, modal analyses: Wood, G. V.
Three-dimensional fabric analysis, photometric: Martinez, J. D.

QUATERNARY. See also Cenozoic; Glacial geology; Paleontology, Quaternary.
Alaska, Anchorage area: Miller, R. D., 1.
Big Delta quadrangle, western: Williams, J. Ropes, 2.
Fairbanks (D–1) quadrangle: Williams, J. Ropes, 2.
Semisopochni Island: Coats, R. R., 2.
Alberta, northern, glacial lake deposits: Taylor, R. S.
Sturgeon Lake area: Henderson, Eric P., 2.
Arctic Ocean, continental shelf-central basin: Bushnell, V. C.
British Columbia, southwestern: Wagner, F. J. E.

California—Continued
California, Camp Irwin area: Kunkel, F. F.
Eureka area: Evenson, R. E.
San Diego area, Pleistocene dating, fossil-man evidence: Carter, G. F.
San Joaquin Valley, continental de­
posits, aquifers: Davis, G. H., 1.
Stanislaus-Merced Counties, Pleisto­
cene: Davis, S. N.
Torrance-Santa Monica are, aquifers: Poland, J. F., 1.
Canada, Arctic region, Pleistocene: Craig, B. G., 2.
Connecticut, New Britain quadrangle: Simpson, H. E.
Crustal depression by ice masses, and postglacial uplift: Fischer, L.
Florida, type localities: Puri, H. S., 2.
Glacial ages, crustal shifting, theory: Hapgood, C. H.
Great Lakes region, late Pleistocene lake stages: Bretz, J. H., 2.
Gulf Coastal Plain, north-central, Recent sediments: Gulf Coast Assoc. Geol. Soc.
Idaho, North Fork quadrangle: Anderson, A. L.
Chicago region: Suter, M.
Indiana, southeastern, Pleistocene drift, leached zones, palaeosol theory: Gooding, A. M., 2.
Iowa, glacial substages: Rueb, R. V., 2.
Western, Pleistocene loess deposits: Daniels, R. B.
Kansas, Cloud County: Bayne, C. K.
Kansas River valley, Wamego to To­peka: Beck, H. V.
Mitchell County: Hodson, W. G.
Nemaha County: Mudge, M. R., 1.
Pottawatomie County: Scott, G. R., 1.
Wabannee County: Mudge, M. R., 2.
Louisiana, chenier plain, postglacial shoreline stages: Gould, H. R., 2.
Southern: Russell, R. J., 2.
Maine, Poland quadrangle: Hanley, J. B.
Sandy River area, Pleistocene: Caldwell, D. W.
Manitoba, Brandon area: Halstead, E. C.
Massachusetts, Martha’s Vineyard, late Pleistocene pollen sequence: Og­
den, J. G., 3d.
Sherburne Falls quadrangle: Segrestrom, K.
Michigan, Mackinac River buried chan­nels: Melhorn, W. N., 1.
Mackinac Straits region: Shelden, F. D.; Zumberger, J. H., 2.
Schoolcraft County: Sinclair, W. C.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

QUATERNARY—Continued

Minnesota, Pleistocene rivers: Ahlquist, G. R., 3.
Montana, Marias River area: Smith, J. F., Jr.
Smoke Creek-Medicine Lake area: Witkind, I. J., 1.
Nebraska, Big Blue River basin above Crete: Johnson, C. R.
Clay County, Pleistocene: Keech, C. F., 1.
Clay County, Pleistocene: Keech, C. F., 1.
Platte River basin: Keech, C. F., 2.
New Mexico, Plains of San Augustin, Pleistocene: Clisby, K. H.
New York, Long Island: Charlier, R. H., 1.
Rockland County, aquifers: Perlmutter, N. M., 1.
North America, northeastern, pollen sequences, radiocarbon dates, correlations: Deevey, E. S., Jr., 1.
North Dakota, Grenora area: Witkind, I. J., 1.
Square Buttes coal field: Johnson, W. D., Jr.
Ohio, Hocking and Scioto Valleys, outwash terraces, pre-Illinoian-Wisconsin: Kempton, J. P.
Ohio Valley terraces, East Liverpool area, pre-Illinoian Pleistocene: Lessig, H. D., 3.
Southwestern, Pleistocene drift, leached zones, paleosol theory: Gooding, A. M., 2.
Warnock Terrace, McMahon Creek, early Pleistocene, paleosols: Lessig, H. D., 2.
Wisconsin stage: Goldthwait, R. P., 1.
Oklahoma, Canadian River, Pleistocene: Fuy, B. O., 3.
Harper County: Myers, A. J.
Oregon: Baldwin, E. M., 1; Wilkinson, W. D., 1.
Northwestern: Shepps, V. C., 2.
Pleistocene, climates, deep-sea cores: Ewing, W. M., 1.
Correlations, carbonate leaching in tills: Dreimanis, A., 2.
Late, radiocarbon dating, correlation: Broecker, W. S., 7; Karlstrom, T. N. V., 2.
Nonmarine sediments, lithologic classification: Wayne, W. J.
Pluvial stages: Ewing, W. M., 1.
Radiocarbon dating: Vries, H. de.
Stages, single-glaciation concept: Lougee, R. J.

QUATERNARY—Continued

Puerto Rico, coastal areas, changes of level: Kaye, C. A., 2.
Quebec, Grondines area: Canada G. S., 62.
Mt. Tremblant area, Pleistocene chronology and climate: Laverdière, C.
St. Lawrence Lowlands, Champlain Sea episode, late Pleistocene: Terasmae, J., 3.
Saskatchewan, Swift Current area, Wisconsin stage: Christiansen, E. A.
Terminology, post-Valders time: Cooper, W. S.
Texas, gulf coast, geomorphology: LeBlanc, R. J.
Midland fossil-man site, Pleistocene: Wendorf, F.
Rio Grande valley, Hudesoph County, early Pleistocene age of basin fill, fauna: Strain, W. S.
Middle West, Pleistocene: Helzeln, J. de.
Volcanic rocks, age criteria: Clements, T. D., 1.
Washington, Buckley quadrangle: Cran dell, D. R.
Columbia Basin, glacial history: Daugherty, R. D., 1.
Upper Baker dam area: Stearn, H. T.
West Virginia, Ohio Valley terraces, Globe Hill, pre-Wisconsin Pleistocene: Lessig, H. D., 1.
Wisconsin, Baraboo district, Pleistocene landforms: Thwaites, F. T.

QUEBEC.

Engineering geology, Moisie River valley, banded sediments, stability tests: Fryer, R. W. J.
Geophysical investigation, Mattagami area: Jenney, C. P.
Helicopter reconnaissance, Sakami Lake area, Operation Fort George: Canada G. S., 64.
Paleomagnetism, Allard Lake ilmenite deposits: Carmichael, C. M.; Hargraves, R. B., 1, 2.

Areas described.

Causapscal area, east half: Stearn, C. W.
Céloron—Carqueville area: Ross, S. H.
Chaste—Mazarin area: Tiphane, M.
Gaillard—Lorrain area: Laurin, A. F. J.
La Grande—LaC Bienville area: Canada G. S., 23.
Lake Albian iron district: Quirke, T. Jr., 1.
Leaf Bay area: Sauvé, P.
Leaf Lake area: Béard, J.
INDEX

QUEBEC—Continued

Areas described—Continued

Lyonne area: Bray, J.-G.
Marion Lake area: Canada G. S., 43.
Montbray Township, northeast quarter: Hogg, W. A., 1.
Mt. Logan area: Mattinson, C. R.
Mt. Wright area: Canada G. S., 33;
Duffell, S., 2; Murphy, D. L.
Perche-Potou area: Marleau, R.-A., 1.
Rohault area: Gilbert, J. E. J.
Vermette Lake area: Moyer, P. T., Jr.

Economic geology.

Brongniart-Lescure area: Lyall, H. B., 1.
Copper, Chibougamau area: Precambrian.
Gaspé Peninsula, Copper Mtn.-Needle Mtn. area: Ford, R. E.
Copper-gold-silver, Rohault area: Gilbert, J. E. J.
Copper-zinc, Mattagami Lake area: Latulippe, M.
Gold, Chibougamau area: Precambrian.
Fancamp-Haury area: Holmes, S. W.
Gold-silver-copper, Margry-Prévert area: Remick, J. H., 3d.
Iron, Pepler Lake area, possibilities: Phillips, L. S.
Wabush Lake district: Knowles, D. M.
La Motte Township: Leuner, W. R.
La Trappe-Hudon area: Berrangé, J. P.
Lithium, Pressiac-La Motte-Lacorne region, origin: Siroonian, H. A.
Matawin-Mékinac area, possibilities: Rondot, J.
Mineral deposits, Abitibi district: Archibald, G. M.
Madeleine River area: McGerrigle, H. W.
Nickel-copper, Deception River area, upper: DeMontigny, P.-A.
Fancamp-Haury area: Holmes, S. W.
Plessis-Lartigue area, possibilities: Lachance, L.
Richard-Gravier area: Carbonneau, C.
Roy Township, southeast quarter: Gaucher, E. H. S.
Selenium in sulphides: Hawley, J. E.
Squateck area, west half: Lespérance, P.-J.
Sulphides, Chibougamau area: Precambrian.
Cross Lake area: Beall, G. H.
East Sullivan deposit: Assad, R. J.
Fledmont Township, southeast quarter: Van Loan, P. R., 1.
Hazeur-Druillettes area: Deland, A. N.
Quevis area: Imbault, P. E.
Titaniferous iron, St.- Hippolyte area: McGerrigle, J. I.

QUEBEC—Continued

Economic geology—Continued


Geologic maps.

Aguanish area: McPhee, D. S.
Brongniart-Lescure area: Lyall, H. B., 1.
Causapscal area, east half: Stearn, C. W.
Céloron-Carqueville area: Ross, S. H.
Chaste-Mazarin area: Tiphane, M.
Cross Lake area: Beall, G. H.
Deception River area, upper: DeMontigny, P.-A.
Dollier-Charron area: Neale, E. B. W., 1.
Eau Jaune Lake and Muscooko Lake sulphide deposits: Holmes, S. W.
Fancamp-Haury area: Holmes, S. W.
Fledmont Township, southeast quarter: Van Loan, P. R., 1.
Gaillard-Lorrain area: Laurin, A. F. J.
Ganache area: Deland, A. N.
Gradie-Machault area: Deland, A. N.
Grondines area, surficial: Canada G. S., 62.
Hazeur-Druillettes area: Deland, A. N.
La Grande–Lac Bienville area: Canada G. S., 23.
La Motte Township, west half: Leuner, W. R.
La Trappe-Hudon area: Berrangé, J. P.
Leaf Bay area: Sauvé, P.
Leaf Lake area: Bérard, J.
Litchfield-Leslie area: Kretz, R. A.
Lyonne area: Bray, J.-G.
Madeleine River area: McGerrigle, H. W.
Maiarle area: Wilson, M. E.
Margry-Prévert area: Remick, J. H., 3d.
Marion Lake area: Canada G. S., 43.
Matawin-Mékinac area: Rondot, J.
Montbray Township, northeast quarter: Hogg, W. A., 1.
Mt. Wright area: Canada G. S., 33;
Murphy, D. L.
Noranda area: Wilson, M. E.
Pepper Lake area: Phillips, L. S.
Percé-Potou area: Marleau, R.-A., 1.
Plessis-Lartigue area: Lachance, L.
Povungnituk Range: Bergeron, R.
Quevis area: Imbault, P. E.
Richard-Gravier area: Carbonneau, C.
Rohault area: Gilbert, J. E. J.
Rouyn-Beauchastel area: Wilson, M. E.
Roy Township, southeast quarter: Gaucher, E. H. S.
St.-Hippolyte area: McGerrigle, J. I.
Southern: Béland, J. R.
Squateck area, west half: Lespérance, P.-J.
Surprise Lake area: Deland, A. N.
Vermette Lake area: Moyer, P. T., Jr.
Wabush Lake district: Knowles, D. M.
Yamaska area, surficial: Canada G. S., 63.
### BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

**QUEBEC—Continued**

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- Brongniart-Lescure area: Lyall, H. B., 1.
- Causapscal area, east half, Silurian-Devonian: Stearn, C. W.
- Cross Lake area, Precambrian: Beall, G. H., 2.
- Gaspe Peninsula, eastern, Silurian-Lower Devonian: Cumming, L. M.
- Gastonguay-Mourier area, Ordovician-Devonian: Skidmore, W. B.
- Grondines area, Quaternary: Canada G. S., 62.
- Hazeur-Druillettes area, Keewatin-Grenville relations: Deland, A. N.
- Lake Albian iron district: Quirke, T. T., Jr., 1.
- Precambrian: Quirke, T. T., Jr., 2.
- Madeleine River area, Ordovician-Devonian: McGerrigle, H. W.
- Mt. Tremblant area, Pleistocene chronology and climate: Laverdière, C.
- Pleistocene, late Wisconsin, central: Henderson, Eric P., 1.
- Povungnituk Range: Bergeron, R.
- Quebec and Gaspe groups, Cambrian-Devonian, Weedon Lake area: Duquette, G.
- Richard-Gravier area, Silurian-Devonian: Carbonneau, C.
- Rohault area, Keewatin-Grenville relations: Gilbert, J. E. J.
- St. Lawrence Lowlands, Pleistocene, Champlain Sea episode: Tasma, J. E., 2.
- Squateck area, west half, Paleozoic: Lespérance, P.-J.
- Trenton group, Ordovician, St. Lawrence Lowlands: Clark, T. H.
- Wabush Lake district, iron-formation, Precambrian: Knowles, D. M.

#### Mineralogy.

- Fancamp-Hauy area, ore deposits: Holmes, S. W.
- Grunerite: Ghose, S., 1.
- Hemoilmenite, Allard Lake: Carmichael, C. M.
- Lac Tio ilmenite deposit: Hargraves, R. B., 1.
- Litchfield-Leslie area, coexisting mineral assemblages in gneiss: Kretz, R. A.
- Nickel-iron, native, Eastern Townships, serpentine rock: Nickel, E. H.
- Richard-Gravier area: Carbonneau, C.
- Roy Township, southeast quarter: Gaucher, E. H. S.

---

### QUEBEC—Continued

#### Mineralogy—Continued

- Temiscamie iron-formation, Precambrian, Lake Albian district: Quirke, T. T., Jr., 2.
- Madeleine River area, Ordovician-Devonian, lists: McGerrigle, H. W.
- Mollusks, littoral, Champlain Sea, Quaternary, temperature indicators: Elson, J. A.
- Ostracodes, St. Lawrence Lowlands, Ordovician: Carter, G. F. E.
- Plant microfossils, Tar Point area, Devonian: Radforth, N. W., 2.
- Richard-Gravier area, Devonian, lists: Carbonneau, C.

#### Petrology.

- Aguanish area: McPhee, D. S.
- Brongniart-Lescure area: Lyall, H. B., 1.
- Céloron-Carqueville area: Ross, S. H.
- Chaste-Mazarin area: Pimente, M.
- Cross Lake area: Beall, G. H.
- Deception River area, upper: De Montigny, P.-A.
- Dore Lake complex, Precambrian: Al­lard, G. O.
- Fancamp-Hauy area: Holmes, S. W.
- Fiedmont Township, southeast quarter: Van Loan, F. R., 1.
- Gaillard-Lorrain area, Precambrian: Laurin, A. F. J.
- Hazeur-Druillettes area, Keewatin- and Grenville-type rocks: Deland, A. N.
- La Grande—Lac Bicouille area: Canada G. S., 23.
- La Motte Township: Leuner, W. R.
- La Trappe-Hudon area: Berrangé, J. P.
- Leaf Bay area: Sauvé, P.
- Leaf Lake area, Precambrian: Bédard, J.
- Litchfield-Leslie area, Grenville gneiss: Kretz, R. A.
- Lyonne area: Bray, J.-G.
- McLaughlin-Booth area: Lyall, H. B., 2.
- Magdalen Islands, sands, grain size and shape, sequence of processes: Du­mont, B.
- Unconsolidated deposits: Hamelin, L. E.
- Marry-Prévert area: Remick, J. H., 3d.
- Marion Lake area: Canada G. S., 48.
- Matawin-Mekinac area: Rondot, J.
INDEX

QUEBEC—Continued

Petrology—Continued

Monts Notre-Dame, glacial deposits:
Brochu, M., 3.
Mt. Wright area: Canada G. S., 33;
Duffell, S., 2; Murphy, D. L.
Peppler Lake area: Phillips, L. S.
Perche-Potton area, Precambrian: Marleau, R. A., 1.
Plessis-Lartigue area: Lachance, L.
Povungnituk Range: Bergeron, R.
Queylus area: Imbault, P. E.
Rohault area: Gilbert, J. E. J.
Roy Township, southeast quarter:
Gaucher, E. H. S.
St.-Hippolyte area: McGerrigle, J. I.
St. Lawrence River valley, isostatic control of stream courses: Ritchot, G.
Southern: Béland, J. R.
Wabush Lake district: Knowles, D. M.
Weedon Lake area: Duquette, G.

Physical geology.

Aguanish area: McPhee, D. S.
Appalachian orthoconylene, tectonics, southern: Cady, W. M.
Berry Mtn. syncline: Carbonneau, C.
Brongniart-Lescure area: Lyall, H. B., 1.
Causapscal area, east half: Stearn, C. W.
Céloron-Carqueville area: Ross, S. H.
Cross Lake area: Beall, G. H.
Deception River area, upper: De Montigny, P.-A.
Fancamp-Hauy area: Holmes, S. W.
Fledmont Township, southeast quarter:
Van Loan, P. R., 1.
Gaspé Peninsula, Copper Mtn.-Needle Mtn. area: Ford, R. E.
Eastern: Cumming, L. M.
Gastonguay-Mourier area: Skidmore, W. B.
Hazeur-Druillettes area: Keewatin-Grenville relations: Deland, A. N.
La Grande-Lac Bienville area: Canada G. S., 23.
Lake St. John region, terraces and depressions: Derruaux, M.
Madeleine River area: McGerrigle, H. W.
Mt. Tremblant area, glacial: Lavrièdre, C.
Richard-Gravier area: Carbonneau, C.
St. Lawrence River valley, glacial:
Ritchot, G.

QUICKSILVER. See Mercury.

Radioactive minerals. See also Mineral descriptions; Thorium; Uranium.
Abernathyite, crystal structure: Ross, M., 2.
Branerite, synthesis: Kaiman, S., 1.
Carnotite and other uranyl vanadates, crystal chemistry: Barton, F. G., Jr., 1.
Coffinite, synthetic: Fuchs, L. H.
Colorado, Chicago Creek area: Harrison, J. E.
Exploration, scintillation counters: Vaughn, W. W., 1.
Gastunite: Honea, R. M.
Greenland, Julianaehaeb district: Bondam, J.

Questions answered: Pearl, R. M.
Radioactive Minerals—Continued

Sabugalite, synthesis: Magin, G. B., Jr.
Schröeckingerite, structure: Smith, D. K., Jr.
Umoholite, Arizona, fine-grained: Hamilton, P.-K.
Utah, Marysvale area, X-ray study: Kamhi, S. R.

Radioactive-waste disposal.
Acid aluminum nitrates into salagufers: Roedder, E. W., 1.
South Carolina, Savannah River plant: Reichert, S. O.

Radioactivity. See also Isotopes.
Alberta, Banff area, thermal springs: Haites, T. B., 1.
Arizona, Cameron area, recent uranium redistribution: Austin, S. R.
Earth, degassing constant, argon-40 and helium economy: Turekian, K. K., 1.
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Jamaica, Milk River Bath mineral spring, radon: Vincenz, S. A., 1.
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Meteorites, iron, cosmogenic potassium-40: Honda, M.
Radioactivation analysis, cosmic abundances and age: Reed, G. W., Jr., 1.
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Ontario, Griffith Township, pegmatite dikes: Heinrich, E. W., 1.
Petroleum-associated, surface anomalies: Crews, W. D.
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Radiocarbon dating. See also Geologic time; Technique, Geologic age determination.

Age lists: Crane, H. R.; Devey, E. S., Jr., 2; Olson, E. A.; Shutler, D., Jr.
Recent, radiocarbon-distribution study: Broecker, W. S., 1, 5.

Radiocarbon Dating—Continued

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Isotopic-ratio fluctuations, recent atmospheres: Broecker, W. S., 5.
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Cape Cod, Barnstable Marsh peat, postglacial: Butler, P.
Methods, equilibrium cf. non-equilibrium: Cook, M. A.
North America, northeastern, Quaternary pollen sequences: Devey, E. S., Jr., 1.
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Pennsylvania, Corry area kame complex: Droste, J. B., 3.
Pleistocene, chronology: Vries, H. de.
Late, correlation: Broecker, W. S., 7;
Karlstrom, T. N. V., 2.
Texas, Midland fossil-man site: Wendbls, F.
Variations in atmospheric concentrations, Recent plant samples: Broecker, W. S., 6.
Wood content, climatic factor: Whittaker, W. W.

Radiolaria.
Haiti, Late Cretaceous: Ayala Castañares, A.
Kentucky, Huron member of Ohio shale, Devonian: Foreman, H. P.
Nassellina, nomenclature of genera: Burma, B. H.
Ohio, Huron member of Ohio shale, Devonian: Foreman, H. P.
Pacific Ocean, tropical, Oligocene-Miocene, correlation with West Indies: Riedel, W. R., 2.
Theocampe and related genera, nomenclature: Burma, B. H.

Rare Earths. See also Heavy minerals; Monazite.
New Jersey, Scrub Oaks iron mine, radioactive: Klemic, H., 2.
Sources: Williamson, D. R., 1.

Red Beds.
Colorado, Minturn formation, marine, origin: Walker, T. R.
Colorado Plateau, Hoskinini member of Moenkopi formation: Stewart, J. H., 2.
Magnetization of sediments: Runcorn, S. K.
INDEX 547

REEFS. See also Bioherms.
Alberta, southern, dolomitization: Illing, L. V.
Swan Hills member of Beaverhill Lake formation, Devonian: Fong, G. Atolls: Wiens, H. J.
British Honduras, continental shelf, cay formation: Vermeer, D. E.
Evaporite relationships, petroleum accumulation: Sloss, L. L., 1.
Florida, summit conglomerates, future oil traps: Banks, J. E.
General: Newell, N. D., 1.
Indiana, Wabash area, Silurian microfacies: Carozzi, A. V., 1.
Jamaica, Recent, development: Zans, V. A., 6.
Kansas, southeastern, Plattsburg limestone, Pennsylvanian: Davis, J. C.
Lexar formation: Fischer, A. G.
Mexico, Arrecife Alacran, Banco de Campeche: Kornicker, L. S., 1.
Faja de Oro, northeast extension, Veracruz, seismic survey: Rockwell, D. W.
Gulf of California: Squires, D. F., 2.
Nevada, Pahranagat Range, Guilmette formation, Devonian: Reso, A., 2.
New York, Champlain Valley, Chazy series, Ordovician: Oxley, P.
Ontario, Formosa reef, Detroit River group, Devonian: Fagerstrom, J. A.
Southwestern, Silurian, pinnacle: Corden, B. B.
Saskatchewan, central, Middle Devonian: Edie, R. W., 1.
Tennessee, Maynardville limestone: Oder, C. R. L.
Texas, Brasoria County, Oligocene-Miocene, on piercement structures: Cantrell, R. B.
Central, Cretaceous, middle: Baylor Geol. Soc.
Horseshoe atoll: Burnside, R. J., 1; Stafford, P. T.
Stamford area, Pennsylvanian, silicic spar: Van Siclen, D. C.
Utah, White Mesa oil field, biostromal complex: Pecord, M. D., 3.
Vermont, Champlain Valley, Chazy series, Ordovician: Oxley, P.
West Indies: Newell, N. D., 1.

REPTILIA. See also Bioherms.
Alberta, southern, dolomitization: Illing, L. V.
Swan Hills member of Beaverhill Lake formation, Devonian: Fong, G. Atolls: Wiens, H. J.
British Honduras, continental shelf, cay formation: Vermeer, D. E.
Evaporite relationships, petroleum accumulation: Sloss, L. L., 1.
Florida, summit conglomerates, future oil traps: Banks, J. E.
General: Newell, N. D., 1.
Indiana, Wabash area, Silurian microfacies: Carozzi, A. V., 1.
Jamaica, Recent, development: Zans, V. A., 6.
Kansas, southeastern, Plattsburg limestone, Pennsylvanian: Davis, J. C.
Lexar formation: Fischer, A. G.
Mexico, Arrecife Alacran, Banco de Campeche: Kornicker, L. S., 1.
Faja de Oro, northeast extension, Veracruz, seismic survey: Rockwell, D. W.
Gulf of California: Squires, D. F., 2.
Nevada, Pahranagat Range, Guilmette formation, Devonian: Reso, A., 2.
New York, Champlain Valley, Chazy series, Ordovician: Oxley, P.
Ontario, Formosa reef, Detroit River group, Devonian: Fagerstrom, J. A.
Southwestern, Silurian, pinnacle: Corden, B. B.
Saskatchewan, central, Middle Devonian: Edie, R. W., 1.
Tennessee, Maynardville limestone: Oder, C. R. L.
Texas, Brasoria County, Oligocene-Miocene, on piercement structures: Cantrell, R. B.
Central, Cretaceous, middle: Baylor Geol. Soc.
Horseshoe atoll: Burnside, R. J., 1; Stafford, P. T.
Stamford area, Pennsylvanian, silicic spar: Van Siclen, D. C.
Utah, White Mesa oil field, biostromal complex: Pecord, M. D., 3.
Vermont, Champlain Valley, Chazy series, Ordovician: Oxley, P.
West Indies: Newell, N. D., 1.

REPTILIA—Continued
Crocodilus moreletti barnumbrowni, Pleistocene, Guatemala: Mook, C. C., 2.
Elementary account: Fenton, C. L.
Eosaurus copei, Pennsylvanian, Ohio, Linton area: Peabody, F. E., 2.
Evolution: Romer, A. S., 2.
Elementary account: Darling, Lela. Mammalian characters, criteria: Olson, E. C.
Middle ear, pelycosaur tympanum: Hotton, N., 3d, 2.
Nasal cavities: Parsons, T. S.
Nova Scotia, Wolfville sandstone, Triassic, Minas Basin, correlation: Baird, D.
Pelycosaurs, tympanum, evolution of middle ear: Hotton, N., 3d, 2.
Popular account: Barnett, L.
Terrapene, Pleistocene, Florida: Auffenberg, W., 1.
Tetrapods, Triassic, extinction: Colbert, E. H., 1.
Texas, Friesenhahn Cave, Pleistocene: Mecham, J. S.
Wyoming, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, P. O.

RESEARCH. See also Experimental investigations; Geochemistry; Geophysics.
Geochemistry: Abelson, P. H., 1.
Selsmology, need for fundamental research: U. S. Dept. State.
Submarine, equipment and techniques: Benson, R. H., 1.
Utah, Library of Samples for Geologic Research, facilities: Crawford, A. L.
Virginia, sediments, Polytechnic Institute program, Rapahannock and York River basins: Nelson, B. W., 1.

RHODE ISLAND.
Economic geology.
Providence quadrangle: Quinn, A. W.

Geologic maps.
Carolina-Quonochontaug quadrangles, bedrock: Moore, G. E., Jr.
Providence quadrangle, bedrock: Quinn, A. W.
Rivers—Continued
Colorado River, geologic history: Lovejoy, E. M. P.
Marlas River, lower, Montana, Quaternary history: Smith, J. F., Jr.
Mississippi River, lower, environments of deposition: Kolb, C. R.
Pennsylvania, interbasin systems: Friedman, S. A.

Road Logs. See Excursions; Guidebooks.
Road Materials. See Construction materials.

Rockbursts. See also Mining geology.
Breciation in Intrusions: Gates, O.
Symposium: Splidler, G. R.

Rock Descriptions. See also Igneous rocks; Metamorphic rocks; Petrology; Sedimentary rocks; the more common rocks.
Analcitic olivine basalt, Texas, Mustang Hill laccolith: Greenwood, R.
Appalachians, southern, metamorphic complex, thin sections: Long, L. E., 2.
Connecticut, bedrock map units: Rodgers, J., 1.
Cuba, Sierra de Trinidad, metamorphic: Hill, P. A.
Delaware, Wilmington complex: Ward, R. F.
Diorite and monzonite porphyries, Utah, Henry Mts.: Engel, C. G.
Kyanite-garnet gedrite, Idaho: Hietanen, A. M.
Mica schist, Kansas: Franks, P. C., 3.
Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.
Quartz diorite complex, Washington, Entiat Mts.: Crowder, D. F.
Ultramafic intrusive complex, Alaska, Union Bay area: Ruckmick, J. C.
Rock glaciers, Alaska, Alaska Range: Wahrhaftig, C. A.

Rocky Mountains.
Symposium, Rocky Mt. Trench: Holland, S. S.

Economic Geology.
Mineral deposits, Rocky Mtn. Trench, northern: Bronlund, E.
Oil and gas, sedimentary basins: Van Couvering, M.

Rhode Island—Continued
Ground water.
Blackstone and Pawcatuck drainage basins, supply problems: Upson, J. E., 2d.
Crompton quadrangle, map: Allen, W. B., 1.
East Providence quadrangle, map: Allen, W. B., 2.
Hope Valley quadrangle, map: Bierschenk, W. H., 1.
Narragansett Pier quadrangle, map: Hahn, G. W., 2.
Providence quadrangle: Bierschenk, W. H., 2.
Slocum quadrangle, map: Hahn, G. W., 1.
Wickford quadrangle, map: Johnson, K. E.

Historical Geology.
Narragansett intermontane basin, Pennsylvania: Towe, K. M.
Providence quadrangle, Precambrian—Pennsylvania: Quinn, A. W.
Quaternary aquifers: Bierschenk, W. H., 2.

Petroleum.
Bradford area, granodiorite dike, magnetic sorting vs. gravity settling: Hall, B. A.
Carolina—Quonochontaug quadrangles: Moore, G. E., Jr.
Narragansett intermontane basin, Pennsylvania: Towe, K. M.
Providence quadrangle: Quinn, A. W.
Quaternary aquifers: Bierschenk, W. H., 2.

Physical Geology.
Carolina—Quonochontaug quadrangles: Moore, G. E., Jr.
Providence quadrangle: Quinn, A. W.
Slocum quadrangle: Power, W. R., Jr.
Ripple Marks. See also Sedimentary structures.
Florida, Carrabelle area, nearshore: Vause, J. E., Jr.
Oklahoma, Wewoka Creek, parallel to current direction: Chenoweth, P. A., 2.

Rivers. See also Drainage changes; Drainage patterns; Streams.
Canadian River, New Mexico—Oklahoma—Texas, sediments, composition and texture: Pollack, J. M.
Oklahoma: Fay, R. O., 3.
Erosion and deposition, Pliocene—Recent: Kitts, D. B., 2.
**ROCKY MOUNTAINS—Continued**

**Historical geology.**
- Cretaceous, Lower: Haun, J. D., 2.

**Physical geology.**
- Tectonic history: Charlesworth, H. A. K.
- Cenozoic uplift, temperature increase at depth: Mackin, J. H.
- Southern: Leech, G. B.

**Sedimentary basins:**
- Tectonic history: Charlesworth, H. A. K.
- Cenozoic uplift, temperature increase at depth: Mackin, J. H.
- Southern: Leech, G. B.

**SALT DOMES.**
- Breccia shale: Kerr, P. F., 1.
- General: Hanna, M. A.
- Gulf Coastal Plain: Clark, G. C.
- Growth rate, relation to local unconformities: Sovinsky, V. N.
- Stratigraphic traps, area-uplift factor: Halbouty, M. T.
- Gulf of Mexico, continental shelf: Atwater, G. L., 1.
- Rocky Mtn. Trench: Armstrong, J. E.
- Southern: Leech, G. B.

**SALT DOMES—Continued**
- Gulf of Mexico, continental shelf: Atwater, G. L., 1.
- Rocky Mtn. Trench: Armstrong, J. E.
- Southern: Leech, G. B.

**SALT DOMES.**
- Breccia shale: Kerr, P. F., 1.
- General: Hanna, M. A.
- Gulf Coastal Plain: Clark, G. C.
- Growth rate, relation to local unconformities: Sovinsky, V. N.
- Stratigraphic traps, area-uplift factor: Halbouty, M. T.
- Gulf of Mexico, continental shelf: Atwater, G. L., 1.
- Rocky Mtn. Trench: Armstrong, J. E.
- Southern: Leech, G. B.

**SALTs.**
- North Dakota, Grenora area, sodium sulfate: Witkind, I. J., 1.
- Ohio, Vinton County, halotrichite, magnesium, origin from mine waters: Brant, Russell A., 1.
- Texas, Grand Saline salt dome, features of salt body: Muehberger, W. R.
- United States, Great Basin, deposition: Kerr, P. F., 3.
- Utah, anticlines, tectonics: Jones⁶, R. W.
- West Virginia, Slurian, Upper: Ludlum, J. C.

**SALVADOR, EL.** See El Salvador.

**SAND.** See also Construction materials; Heavy minerals; Industrial minerals; Silica.

**SAND DUNES.** See Dunes.

**INDEX 549**

<table>
<thead>
<tr>
<th>ROCKY MOUNTAINS—Continued</th>
<th>SALTS—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cretaceous, Lower: Haun, J. D., 2.</td>
<td>Ohio, Vinton County, halotrichite, magnesium, origin from mine waters: Brant, Russell A., 1.</td>
</tr>
<tr>
<td>Tectonic history: Charlesworth, H. A. K.</td>
<td>Utah, anticlines, tectonics: Jones⁶, R. W.</td>
</tr>
<tr>
<td>Cenozoic uplift, temperature increase at depth: Mackin, J. H.</td>
<td>West Virginia, Slurian, Upper: Ludlum, J. C.</td>
</tr>
<tr>
<td>Rocky Mtn. Trench: Henderson, G. G. L., 2.</td>
<td>SAND. See also Construction materials; Heavy minerals; Industrial minerals; Silica.</td>
</tr>
<tr>
<td>Southern: Leech, G. B.</td>
<td>Abrasion, stream action, experimental: Kuenen, P. H.</td>
</tr>
<tr>
<td>Sedimentary basins: Van Couvering, M.</td>
<td>Arkansas, Wilcox formation, heavy minerals and grain-size distribution: Jones, E. L.</td>
</tr>
<tr>
<td>Southern: Leech, G. B.</td>
<td>Feldspar staining: Hayes, J. R.</td>
</tr>
<tr>
<td>SALT DOMES.</td>
<td>Grains, sphericity determination, stereophotomicrography: Goodman, R. E.</td>
</tr>
<tr>
<td>General: Hanna, M. A.</td>
<td>Intertidal cf. dune deposits, mechanical composition: Harris, Stuart A.</td>
</tr>
<tr>
<td>Gulf Coastal Plain: Clark, G. C.</td>
<td>Littoral drift, bypassing coastal inlets: Bruun, P.</td>
</tr>
<tr>
<td>Growth rate, relation to local unconformities: Sovinsky, V. N.</td>
<td>Mineralogic analysis: Dell, C. I., 1.</td>
</tr>
<tr>
<td>Gulf of Mexico, continental shelf: Atwater, G. L., 1.</td>
<td>Ontario, southern, fine fraction of glacial deposits, mineralogy: Dell, C. I., 2.</td>
</tr>
<tr>
<td>Pinnacles, origin: Goediche, T. R. E.</td>
<td>Puerto Rico, silica: Vázquez, L.</td>
</tr>
<tr>
<td>Louisiana, Avery Island: Bates, P. W.</td>
<td>Quartz grains, classification of environment by surface wear: Schneider, H. E.</td>
</tr>
<tr>
<td>Bay St. Elaine oil field: Schneider, S. J.</td>
<td>Quebec, Magdalen Islands, grain size and shape, sequence of processes: Dumont, B.</td>
</tr>
<tr>
<td>Texas, Brazoria County, northwestern: Cantrell, R. B.</td>
<td>SAND DUNES. See Dunes.</td>
</tr>
<tr>
<td>East Texas basin: Kruscekopf, H. H., Jr.</td>
<td></td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

SANDSTONE—Continued

West Virginia, Oriskany sandstone, interstitial porosity, origin: Wilcox, F. B.

Tuscarrora sandstone, cementation: Heald, M. T., 2.

SASKATCHEWAN.

Bibliography: Kupch, W. O., 1.

Engineering geology, South Saskatchewan River Dam, Bearpaw shale problems: Ringlein, A. S.

Geochemical study, petroleum relocation, trace-metal evidence: Hodgson, G. W., 1.

Gravity survey, Deep Bay crater: Innes, M. J. S.

Seismic investigations, Avonlea area: Sawatsky, H. B.

Souris Valley, Mississippian oil fields: Parry, D. H.

Areas described.

Milliken Lake area: Canada G. S., 61.

Uranium City area: Canada G. S., 20.

Wapus Bay area: Cheesman, R. L.

Economic geology.

Clut Lakes area, possibilities: Colborne, G. L.

Copper-nickel, Precambrian, northern: Beck, L. S.

Copper-zinc, northern: Byers, A. R., 2.

Gold-tungsten, Precambrian, northern: Beck, L. S.

Industrial minerals: Carlson, E. Y.


Lead-zinc, Precambrian, northern: Beck, L. S.

Metallic minerals, Trout Lake area: Morris, A.

Mineral resources, Forbes Lake area: Pearson, W. J., 1.

Nonradioactive, Precambrian, northern: Beck, L. S.

Oil and gas, map: Canada G. S., 2.

Otter Lake area, possibilities: Padgham, W. A.

Petroleum, Devonian reef possibilities, central: Edie, R. W., 1.

Midale trend: Edie, R. W., 3.

Sulfides, Brabant Lake area, possibilities: Kirkland, S. J. T.

Uranium, Uranium City area: Canada G. S., 20.

Wapus Bay area, possibilities: Cheesman, R. L.

Geologic maps.

Athabasca formation, lower Paleozoic, distribution: Gussow, W. C., 1.

...
SASKATCHEWAN—Continued

**Geologic maps—Continued**

Battleford area, surficial: Canada G. S., 41.
Brabant Lake area: Kirkland, S. J. T.
Index map: Kupsch, W. O., 1.
Martin Lake series, Precambrian, type area: Gussow, W. C., 1.
Milliken Lake area: Canada G. S., 61.
Precambrian mineral deposits, northern: Beck, L. S.
Swift Current area, glacial: Christiansen, E. A.
Uranium City area: Canada G. S., 20.
Wapus Bay area: Cheesman, R. L.

**Historical geology.**

Athabasca formation, early Paleozoic age, relation to Precambrian: Gussow, W. C., 1.
Avonlea area: Sawatzky, H. B.
Battleford area, Pleistocene: Canada G. S., 41.
Claybank area, Upper Cretaceous: Byers, A. R., 1.
Dawson Bay formation, Devonian, Quill Lakes-Qu’Appelle area: Lane, D. M.
Devonian marine cycles, Middle, central: Edle, R. W., 1.
Martin Lake series, Precambrian, type area: Gussow, W. C., 1.
Souris Valley area, Mississippian oil trend: Stauff, P.
Swift Current area, Cretaceous-Quaternary: Christiansen, E. A.
Three Forks-Bakken sequence, Devonian-Mississippian, west-central: Kents, P.
Weyburn oil field, Mississippian: Chetin, A. K.

**Mineralogy.**

Bearpaw shale: Forman, S. A.
Brabant Lake area: Kirkland, S. J. T.
Magnesite crystals, Paleozoic drill core: Ferguson, R. B., 2; Rapson, J. E.
Microclines, Precambrian: Smith, J. R.
Oliver Lake area: Shklanka, R.
Precambrian deposits, northern, nonradioactive minerals inventory: Beck, L. S.
Soils, postglacial lacustrine: Rice, H. M.

**Paleontology.**

Algae, Mississippian, southwestern: Johnson, J. Harlan, 1.

**Physical geology.**

Avonlea area, faulting: Haites, T. B., 2.
Subsurface structural evolution: Sawatzky, H. B.
Beaverlodge area, Precambrian tectonic history: Chamberlain, J. A.
Brabant Lake area: Kirkland, S. J. T.
Claybank area, subglacial drag structures: Byers, A. R., 1.
Civet Lakes area: Colborne, G. L.
Milliken Lake area: Canada G. S., 61.
Oliver Lake area: Shklanka, R.
Precambrian mineral deposits, northern: Beck, L. S.
Uranium City area: Canada G. S., 20.
Wapus Bay area: Pyke, M. W.

**Physiographic geology.**

Battleford area, glacial: Canada G. S., 41.
Swift Current area, glacial: Christiansen, E. A.

**SCARPS,** Colorado Plateau, morphology, Pleistocene climate effects: An­ hert, F. O.

**SCHIST.**

California, Valley Ford area, glaucophane: Bloxam, T. W.
Cuba, Sierra de Trinidad: Hill, P. A.
Glaucophane facies, origin, glaucophane stability: Ernst, W. G.
SCHIST—Continued
Northwest Territories, Giant Yellowknife mine, zone structure:
Brown, C. E. G.
Quebec, Dolller-Charron area: Neale, E. R. W., 1.

SCHOLECODONTS.
Missouri, central, Late Devonian-Early Mississippian: Sylvester, R. K.

Morphological terms, definitions: Sylvester, R. K.

SEDIMENTARY FACIES. See Facies.

SEDIMENTARY PETROLOGY.
Alberta, Bearpaw formation, Cretaceous, clay minerals in shale, marine-nonmarine differences: Byrne, P. J. S.

British Columbia, northeastern, Paleozoic, textures: Eccles, J. K.

Caledonite mosaics: Bathurst, R. G. C.


Clay minerals in sediments and rocks: Weaver, C. Edward.

Clay-mineral-carbonate systems, phase relations, marine sediments and rocks: Zen, E-an, 2.

Colorado Plateau, Permian-Jurassic:
Stewart, J. H., 1.

Cuba, Gulf of Batabano, carbonate grain types: Daetwyler, C. C.

Deep-sea sediments, consolidation and lithification: Hamilton, E. L.

Deep-water troughs, lithotopes: Crook, K. A. W., 1.

Drill cuttings, composite interpretive logs: Maher, J. C.

Grain-size analysis, sieve and thin-section correlation: Friedman, G. M., 1.

Heavy-mineral regional analyses: Andel, T. H. van.

Limestone, pseudobrecclas, microfabrics: Bathurst, R. G. C.

Texture in thin sections, key to deposition depth: Wanless, H. R., 1.

Louisiana, Mississippi delta, modern sand-silt-clay relations: Shepard, F. P., 2.

Mississippi embayment, northern, Cretaceous: Pryor, W. A.

New Mexico, Lea County, Ellenburger group, cores, thin-section study: Folk, R. L., 3.

White Sands National Monument, gypsum sand, origin: Jicha, H. L., Jr.

Oklahoma, Jackfork group, Pennsylvanian, sandstones: Moretti, F. J.

Pebble forms, beach cf. stream: Lenk-Chevitch, P.

Quartz grains, pressure solution, factors and effects: Thomson, A. F.

SEDIMENTARY PETROLOGY—Continued
Quartz sand grains, shape, relation to crystallographic axes: Lucas, E. L.

Quebec, Magdalen Islands, sands, grain size and shape, sequence of processes: Dumont, B.

Rounding index, detrital particles, application to all sizes: Brochu, M., 2.

Sands, intertidal cf. dune, mechanical composition: Harris, Stuart A.

Sandstones, chemical composition, tectonic classification: Middleton, G. V.

Pennsylvania, silica cement: Siever, R., 1.

Statistical analysis: Charlier, R. H., 2.

Regression: Krumbein, W. C., 2.

Texas, Ellenburger group, cores, thin-section study: Folk, R. L., 3.

Texture parameters, anisotropy in thin-section directions, size-orientation-packing analyses: Kahn, J. S.

Utah, central, North Horn formation, Cretaceous-Paleocene, differentiation by heavy minerals: Lee, K.-Y., 2.

SEDIMENTARY ROCKS. See also Carbonate rocks; Limestone; Petrology; Rock descriptions; Sandstone; Sedimentary petrology; Shale.

Absolute-age determinations: Kulp, J. L., 1.


Argillaceous, consolidation, mechanics, cause of high fluid pressures: Rubey, W. W.

Marine cf. nonmarine diagenesis: Keller, W. D., 3.

Mineral composition-particle orientation-interparticle adhesion relations: Kaarsberg, E. A.

Bituminous, carbohydrates: Palacas, J. G.

Chert, diagenesis: Kirchmayer, M.

Classification, megascopie: Alvarez, M., Jr., 2.

Clastic, grain size, lognormal distribution: Rogers, J. J. W., 3.

Clay petrology: Weaver, C. Edward.

Colorado Plateau, stratigraphic control of uranium ores: Cadigan, R. A.

Elements, geochemical distribution:
Green, J., 1.

Facies, textural data, multiple-regression analysis: Lippitt, L.

Failure characteristics, laboratory studies: Robinson, L. H., Jr.

Formation contacts, classification:
Winder, C. G.

Fractures, origin: Kelley, V. C., 1.

Geochemical indicators, marine cf. freshwater: Keith, M. L.
SEDIMENTARY ROCKS—Continued

Intrusive sheet, temperatures in wet country rock, movement of pore-water vapor: Jaeger, J. C.

Jamaica, phosphatic band underlying bauxite deposits: Eyles, V. A.

Labrador, Redmond area, rubble iron ores, origin: Blais, R. A.

Lithologic analysis: McNeal, R. P.

Mineral-composition calculation from chemical analyses: Imbrie, J., 3.

Ohio, Pennsylvanian cyclothems: Gray, H. H.

Labrador, Redmond area, rubble iron ores, origin: Blais, R. A.

Ontario, Cobalt series, Precambrian, soda-rich composition of argillites, origin: Pettijohn, F. J.

Timiskaming region: Wilson, M. E.

Organic substances, geochemistry: Abelzon, P. H., 2.

Pennsylvanian underclay, depth of burial, determination: Altschaeff, A. G.

Quebec, Timiskaming region: Wilson, M. E.

Lithologic analysis: McNeal, R. P.

Mineral-composition calculation from chemical analyses: Imbrie, J., 3.

Ohio, Pennsylvanian cyclothems: Gray, H. H.

Ontario, Cobalt series, Precambrian, soda-rich composition of argillites, origin: Pettijohn, F. J.

Timiskaming region: Wilson, M. E.

Organic substances, geochemistry: Abelzon, P. H., 2.

Pennsylvanian underclay, depth of burial, determination: Altschaeff, A. G.

Quebec, Timiskaming region: Wilson, M. E.

Questions answered: Pearl, R. M.


Tennessee, Indian Bluff and Graves Gap groups, differential compaction: Wilson, C. W., Jr.


Uranium deposits, peneconcordant: Finch, W. I., 3.

Utah, Manning Canyon shale, Mississippian-Pennsylvanian: Moyle, R. W.

Zeolites, diagenesis: Deffeyes, K. S., 2.

SEDIMENTARY STRUCTURES. See also Cross-bedding; Ripple marks; Stylolites.

Beds, top and bottom, criteria: Muller, S. W.

Colorado Plateau, uranium deposition control: Garrels, R. M., 2.

Directional, plotting, symbols: Sanders, J. E.

Festoon solids in stream channels, uranium-ore localization: Roach, C. H.


Limestone, detrital, cross-stratification: Harbaugh, J. W., 1.

Louisiana, southern, shales, salt-dome breccia: Kerr, P. F., 1.


Maryland, Marcellus shale, Cumberland area, carbonate concretions, origin: Norwood, E. M., Jr.

Nebraska, Humboldt River, north fork, chert masses: Kirchmayer, M.

New York, western, Devonian, Upper, current-oriented: Colton, G. W.

Northwest Territories, diapiric, Hay River canyon: DeWit, R.

SEDIMENTARY STRUCTURES—Continued


Oklahoma, Ardmore basin, Pennsylvanian sandstones, slumping: Jacobsen, C. L., 1.


Styloolites, formation, clay role: Nitecki, M. H.

Sandstone: Heald, M. T., 1.

Solution-pressure origin: Brown, W. W. M.

Trinidad, coastal, armored mud balls, origin: Kugler, H. G.

Turbidites, load deformation, nomenclature: Sullwold, H. H., Jr.

Utah, Shinarump conglomerate, possible eddy markings: Rigby, J. K., 7.

Ute formation, columnar, contemporaneous deformation: Hardy, C. T.

Virginia, slumping, Mississippian formations: Thomas, W. Andrew.

West Virginia, slumping, Mississippian formations: Thomas, W. Andrew.

Tuscarora sandstone, cementation: Heald, M. T., 2.

SEDIMENTATION.

Alberta, Winterburn-Wabamun groups, Devonian: Sutterlin, P. G.

Argillaceous rocks, consolidation, mechanics, cause of high fluid pressures: Rubey, W. W.


Basins, nonfolded, statistical analysis of thicknesses: Fairbridge, R. W.

Beach sands, grain-size distributions, hydraulic equivalence: McIntyre, D. D.


California, Los Angeles basin, early Pliocene: Correy, B. L.

San Francisco area, ocean beaches, wave-pattern control: Trask, P. D., 1.

San Pedro and Santa Monica submarine basins, turbidity currents: Gorskine, D. S.

Coastal inlets, bypassing of littoral drift sand: Bruun, P.


Cyclic, differential subsidence in basin as cause: Imbrie, J., 1.

Factors: Krynine, P. D.


Erosion-deposition processes as phases of continual transfer: Wilson, John A., 3.
SEDIMENTATION—Continued

Evaporite deposition, early stages: Zen, E-an, 4.

Geomorphic landscape development:
Rolf, B. N., 2.
Illinois, lakes, Springfield Plain, statistical study, watershed factors:
Stall, J. B.
Spar Mtn. formation, Mississippian, cf. Bahama Banks and Florida Bay: Whiting, L. L.
Iowa, Missouri River flood plain: Glenn, J. L.

Kansas, Dakota sandstone, Cretaceous, source, cross-strata dip bearings:
Franks, P. C., 2.
Limestone, texture as key to deposition depth, cyclic: Wanless, H. R., 1.
Louisiana, chenier plain, development:
Gould, H. R., 2.
Chenier plain, facies, cf. shoestring sands: Byrne, J. V.

Hurricane modification: Morgan, J. P.

Mississippi delta: Welder, F. A. Soluble-silica precipitation: Bien, G. S.-N.
Southern, post-Oligocene composite thicknesses: Crouch, R. W.
Quaternary: Russell, R. J., 2.

Massachusetts, Provincetown area:
Smith, H. T. U.

Mexico, Baja California, coastal lagoons: Phleger, F. B., Jr.

Michigan, Ironwood iron-formation, primary environment: Huber, N. K.

Massachusetts, Provincetown area:
Briggs, L. L., Jr.

Mississippi Valley, lower, environments of deposition: Kolb, C. R.

Nevada, northeastern, Pennsylvanian limestones, cyclic, mechanical:
Dott, R. H., Jr., 1.

New Mexico, Frenzel group, Pennsylvanian, cyclic, La Luz antiline:
Cline, L. M., 3.

Newark group, Triassic: McLaughlin, D. B.

Ocean floor, geochemistry and geologic record:
Arroh, G. O. S.

Oceanic abysses: Heezen, B. C., 3.

Oklahoma, Atoka formation, Pennsylvanian, McAlester basin, north side:
Blythe, J. G.

Pelagic, siliceous skeletal remains:
Riedel, W. R., 1.

Petroleum, synchronous topographic highs:
Scholten, R.

Red beds, marine, origin:
Walker, T. R.

Sand movement, irradiated-quartz tracer, beach and nearshore:
Iman, D. L.

SEDIMENTATION—Continued

Shell transport, partially submersed, experiments: Kornicker, L. S., 2.

South Carolina, Charleston Harbor area, littoral drift: Nelhuis, J.

Stratification, criterion for environmental interpretation: Jacka, A. D.

Tectonic and climatic control: Carozzi, A. V., 3.

Texas, gulf coast, Quaternary:

LeBlanc, R. J.

Padre Island—Laguna Madre Flats area:
Fisk, H. N., 1.

United States, Anadarko basin, northern, Early Pennsylvanian: Abels, T. A.

Cordilleran region, Mississippian—Pennsylvanian:
Bissell, H. J., 5.

Great Basin, saline deposition:
Kerr, P. F., 3.

Midcontinent, Pennsylvanian—Permain cyclothems:

Moore, R. C.

Triassic:

McKee, E. D.

Virginia, Rappahannock and York River basins, Polytechnic Institute research program:
Nelson, B. W., 1.

Washington, Lake Washington, control by convection currents:
Gould, H. R., 1.

Wisconsin, Ironwood iron-formation, primary environment:
Huber, N. K.

SEDIMENTS (unconsolidated). See also Clay; Gravel; Loess; Marl; Sand; Till; Volcanic ash.

Alaska, Big Delta and Fairbanks areas, sltt:
Lindholm, G. F.

Continental shelf, Arctic:
Shumway, G.
Fairbanks (D-1) quadrangle, alluvial:
Williams, J. Ropes, 1.
Matanuska Valley, sltt, properties and occurrence:
Stump, R. W.

Point Barrow area, analyses and engineering properties:
Carlson, P. R.

Shallow-water marine:
Werner, M. A.

Arctic Ocean, Prince of Wales Strait and Amundsen Gulf, grain size and composition:
Bader, R. G., 1.

Arizona, San Xavier Indian Reservation, Cenozoic alluvium:

Bathyal and abyssal, depositional environments:
Carr, D. D.

California, Alameda Creek:
Inderbitzen, A. L.

Camp Irwin area, alluvial:
Kunkel, R.

Continental shelf, recent:
Everett, R.

Pigeon Point shelf:
Moore, D. G.

Santa Catalina Island, submarine:
McGlasson, R. H.
SEDIMENTS (unconsolidated)—Continued
California—Continued
Santa Monica Bay, grain size, correlation with foraminiferal abundance: Reiter, M.
Clastic, nontransported, lognormal size distribution: McEwen, M. C.
Clay petrology: Weaver, C. Edward.
Core sampler, portable, for lake deposits: Smith, A. J.
Cuba, Gulf of Batabano, carbonate grain types: Daetwyler, C. C.
Deep-sea, correlation, Foraminifera tests, pore concentration: Wiles, W. W.
Clay petrology: Weaver, C. Edward.
Core sampler, portable, for lake deposits: Smith, A. J.
Cuba, Gulf of Batabano, carbonate grain types: Daetwyler, C. C.
Deep-sea, correlation, Foraminifera tests, pore concentration: Wiles, W. W.
Cuba, Gulf of Batabano, carbonate grain types: Daetwyler, C. C.
Deep-sea, correlation, Foraminifera tests, pore concentration: Wiles, W. W.

SEDIMENTS (unconsolidated)—Continued
New York, Long Island, beach sands, north shore cf. south: Charlier, R. H., 1, 3.
North Carolina, Beaufort Inlet, bottom, size and mode: Batten, R. W.
Organic compounds, chromatographic-type accumulation, experimental: Nagy, B. S., 1.
Organism-abundance distribution patterns: Kornicker, L. S., 4.
Pacific Ocean, germanium content and clay-mineral origin: El Wardani, S. A.
Northeastern, Quaternary: Nayudu, Y. R.
Pelagic, siliceous skeletal remains: Riedel, W. R., 1.
Petroleum source, selective hydrocarbon accumulation: Baker, E. G.; Meinschein, W. G.
Quebec, Magdalen Islands: Hamelin, L. E.
Rounding index, detrital particles, application to all sizes: Brochu, M., 2.
Scree, size and shape gradients of fragments: Griffiths, J. C., 1.
Silt-sized particles, photoextinction measurement: Simmons, G.
Size-distribution analysis, zigzag curves: Tanner, W. F., Jr., 5.
Sphericity, quartz grains, genetic-type and grain-size role: Blatt, H.
Statistical analysis, regression: Krumbein, W. C., 2.
Strength, clay-sand-water mixtures, effect of grain size: Trask, P. D., 2.
Texas, gulf coast, Recent beach sands: Hsu, K. J., 1.
Midland fossil-man site, Judkins and Monahans sands, Pleistocene: Wendorf, F.
uranium distribution in marine calcareous material: Tatsumoto, M.
Virginia, Rappahannock and York River basins, Polytechnic Institute research program: Nelson, B. W., 1.
York River basin streams, clay minerals, reflection of source area: Brown, C. Q.

SEISMOLOGY. See also Earthquakes; Technique, Seismologic.
Bibliography: Smith, W. E. T.
California, Dalton Canyon and Isabella fused-quartz extensometers, long-period strain measurements: Benioff, V. H.
Los Angeles basin, regionalization: Richter, C. F., 1.
Regionalization: Richter, C. F., 1.
SEISMOLOGY—Continued
Crustal and mantle structure, G waves and Love waves: Press, F.
Earthquake intensity, distribution analysis: Neumann, F., 3.
Earth's interior: Gutenberg, B., 2.
Structure, evidence: Bullen, K. E.
Earth's mantle, low-velocity zone: Takeuchi, H.
Rayleigh-wave dispersion: Dorman, H. J.
Fault stress and displacement conditions, types: Knopoff, L., 2.
General: Oliver, J. E., 1.
Microseisms: Gutenberg, B., 1.
Magnetostriiction and electrostriction in polarized rock layers: Shneiderov, A. J.
Nevada, Rainier Mesa nuclear explosions, mantle constitution: Berg, J. W., Jr.
Nuclear explosions, travel times: Carder, D. S.
Nuclear explosions and earthquakes, detection and distinction, research need: U.S. Dept. State.
Pacific Ocean, northern, Love-wave dispersion, crustal structure: DeNoyer, J. M.
Regionalization: Richter, C. F., 1.
Research, fundamental, need: U.S. Dept. State.
Seismograms, interpretation, principles: Neumann, F., 1.
Surface waves near point source, field experiments: Kuo, J. T. F.
Surface-wave dispersion, ocean basins: Oliver, J. E., 2.
Subcontinent and suboceanic velocities: Landsman, M. G.
United States, regionalization: Richter, C. F., 1.
Utah, Promontory Point and Lakeside quarry blasts, mantle constitution: Berg, J. W., Jr.
Waves, description: Neumann, F., 1.

Serpentine.
Chrysotile, morphology and bulk density: Bates, T. F., 1.
Cuba, Santa Clara area, origin and relation to oil: Wassall, H. W., 3d, 1.
Sierra de Trinidad, serpentinization: Hill, P. A.
Magnesium-aluminum, synthesis: Gillery, F. H., 1.
Minerals, infrared-absorption data: Brindley, G. W., 1.

Shale. See also Oil shale.
Alaska, Kings River–Sutton and Lawing areas, bloating: Eckhart, R. A.
Alberta, Bearpaw formation, clay minerals, marine-nonmarine differences: Byrne, P. J. S.
Bituminous, chemical constituents, determination: O'Neil, R. L.

SHALE—Continued
Black, base-metals lateral secretion to form ore deposits, impossibility: Barnes, H. L., 2.
 Constituents, geochemical environments: Strahl, E. O.
 Chattanooga shale, organic matter, ozonolysis: Leonard, J. T.
 Clay minerals, diagenesis: Keller, W., 3.
 Illinois, southern: Lamar, J. E.
 Iowa, black slatesstones, Pennsylvanian cyclothem: Payton, C. E.
 Louisiana, southern, salt-dome breccias: Kerr, P. F., 1.
 Valentine salt dome, diapirc: Atwater, G. L., 2.
 Mineral composition—particle orientation—interparticle adhesion relations: Kaarberg, E. A.
 Saskatchewan, Bearpaw formation, mineralogy: Forman, S. A.
 South Dakota, Sharon Springs member of Pierre shale, uraniferous: Kepferle, R. C.
 Utah, Naval Oil–Shale Reserve No. 2: Cashlon, W. B., Jr.

SHORELINES. See also Beaches; Changes of level; Glacial lakes; Terraces.
Alaska, St. Lawrence Island, cuspat e spits: Fisher, R. L.
British Honduras, Pliocene–Recent changes: Wright, A. C. S.
California, Newport Bay marshes: Stevenson, R. Everett, 2.
San Francisco area, ocean beaches, wave-pattern control: Trask, P. D., 1.
San Francisco Bay, east side, former features, map: Radbruch, D. H.
Classification, worldwide, applicability to maps: McGll, J. T., 2.
Coastal inlets, bypassing of littoral drift sand: Bruun, P.
INDEX 557

SHORELINES—Continued
Gulf Coastal Plain, northern: Russell, R. J., 1.
Honduras, northeastern, lagoons: Helbig, K. M.
Lagoons, paired cuspatc spits: Fisher, R. L.
Louisiana, chenier plain, postglacial stages: Gould, H. R., 2.
...Continued

SILICA—Continued
Kansas, Kimball member of Ogallala formation, massive opal, origin: Franks, P. C., 1.
Ogallala formation, opal, origin: Swineford, A., 2.
...Continued

SILICATE ROCKS. See also Igneous rocks.
Chlorine determination, rapid method: Peck, L. C.
...Continued
SILICATES—Continued
Differentiation under stress: Bennington, K. O.
Epidote group, composition and structure: Seki, Y.
Equations of state and polymorphism at high pressures: Clark, S. P., Jr., 1.
Glauconite, stability: Ernst, W. G.
Grossularite-pyrope series, hydrothermal studies: Chinner, G. A.
Hisingerite, relation to iron ore: Whelan, J. A.
Infrared spectra, structural formulas of layer lattices: Stubican, V., 1.
Layer, structure studies: Bassett, W. A., 2; Bradley, W. F.
Melt systems: Roedder, E. W., 2.
Mg-cordierite, stability: Schreyer, W. F.
Montlecillite and akermanite, stability curves: Walter, L. S., 1.
Mullite, Al$_2$O$_3$SiO$_2$ diagram: Aramaki, S., 3.
Mullites and sillimanite, X-ray data: Aramaki, S., 2.
Nitrogen and fixed ammonium in crystal lattice: Stevenson, F. J.
Olivine-spinel inversion, fayalite: Ringwood, A. E., 2.
Geophysical implications: Dachille, F., 3.
Tobermorite, dehydration: Taylor, H. F. W.
United States, bibliography and map, aluminum: Grametbaur, A. B.
SILICIFICATION, Colorado Plateau, Chine formation: Abdel-Gawad, A. M.
SILTS. See also Intrusions.
Michigan, Lake Mary quadrangle, Precambrian: Bayley, R. W., 1.
West Kiernan sill, Iron County, differentiated metagabbro: Bayley, R. W., 2.
New York, Rockland County, Palsades: Thompson, H. D.
SILT. See Sediments.
SILURIAN. See also Paleontology, Silurian; Paleozoic.
Kentucky, south-central: Nosow, E., 2.
Manitoba, southern: Andrichuk, J. M., 1.
SILURIAN—Continued
Michigan, Mackinac Straits region:
Ehlers, G. M., 1.
Mackinac Straits region and subsurface northern Lower Peninsula:
Landes, K. K., 1.
Northwest Territories, Cornwallis and Little Cornwallis Islands:
Thorstenson, R., 1.
Nova Scotia, Pictou County: Maehl, R. H.
Pennsylvania, central: Arnot, H. H.
Quebec, Gaspé Peninsula, eastern: Cumming, L. M.
Madeleine River area: McGerrigle, H. W.
Richard-Gravel area: Carbonneau, C.
Utah, Thomas Range fluorite district: Staatz, M. H.
Vermont, St. Johnsbury quadrangle, age: Hall, L. M.
West Virginia, salt beds in Cayugan limestones: Ludium, J. C.
Northern: Porter, J. W.
SILVER.
British Columbia, Torbrit mine: Campbell, F. A.
Nevada, Candelaria mining district: Page, B. M., 1.
Nicaragua, Murra area: Giudice, D. del, 1.
Ontario, Cobalt camp, Christopher mine: Mason, J.
SINKHOLES. See also Karst.
New Mexico, Sacramento Mts., east side: Motts, W. S., 1.
SNOW.
Greenland, high-density, petrofabrics: Fuchs, A.
SOILS. See also Laterite; Weathering.
Alberta, postglacial lacustrine, mineralogy: Rice, H. M.
British Columbia, Vancouver Island, chlorite and verniculite: Theisen, A. A., 1.
Calcite and dolomite, quantitative manometric determination: Skinner, S. L. M.
California, central: Kelley, F. R.
San Diego area, Pleistocene dating, fossil-man evidence: Carter, G. F.
Canada, Maritime Provinces, mineralogy, relation to underlying rocks: Brydon, J. E., 2.
Clay formation, factors: Barshad, I.
INDEX

559

SOILS—Continued

Clay minerals, analyses, vermiculite-chlorite-kaolinite differentiation: Dixon, J. B.

Structure, composition, origin: Grim, R. E.

Clay-mineral distribution, relation to formation factors: Jackson, M. L.

Clay-water systems, mineral phase of water, effect on mechanical properties: Rosenqvist, I. T.

Costa Rica, senile: Hardy, F.

Engineering, strength of clay-sand-water mixtures, effect of grain size: Trask, P. D., 2.

Frost heaving, experimental, thermal and hydraulic factors: Higatshi, A.

Genesis studies, mineralogic techniques: White, J. E.

Georgia, Piedmont area, stone layers, origin: Parizek, E. J., 1.

Great Lakes region, glacial-lake clays, geotechnical properties: Wu, T. H.

Illinois, Sangamon paleosols, till profiles cf. outwash, heavy minerals: Brophy, J. A.

Index minerals, stability: Raeside, J. D.

Indiana, Fayette-Union Counties, Wisconsin moraines as source of loess: Ulrich, H. P.

Southeastern, Pleistocene drift, leached zones, paleosol theory: Gooding, A. M., 2.

Tillist silt loam, mineral composition and genesis: Bailey, G. W.

Ion exchange: Carroll, D., 5.

Iowa, northwestern, Yarmouth paleosol, dating: Steece, F. V., 3.

Quaternary, paleosol substrates: Ruhe, R. V., 2.

Kansas, northeastern, Kansan drift border, stone layers: Parizek, E. J., 2.


Yucatan Peninsula, clay mineralogy: Agullera Herrera, N.

Minnesota, Ely district, heavy metals, geochemical distribution: Yardley, D. H., 1.

Mississippi Valley, lower, depositional types: Kolb, C. R.

Missouri, Lindley soil, mineralogy, X-ray studies: Brydon, J. E., 1.


Nova Scotia, dikeland, red and gray layers, mineralogy and chemistry: Brydon, J. E., 3.

Ohio, central, preglacial, limestone weathering: Summerson, C. H., 2.

Ohio Valley terraces, East Liverpool area, pre-Illinoian Pleistocene: Lessig, H. D., 3.

SOILS—Continued

Ohio—Continued

Southwestern, Pleistocene drift, leached zones, paleosol theory: Gooding, A. M., 2.

Warnock Terrace, McMahon Creek, early Pleistocene, paleosols: Lessig, H. D., 2.

Ontario, Kingston area, engineering properties: Hughes, G. T.

Pedology-geology interrelations: Moss, H. C.

Podsolization, translocation of metals: Cate, R. B., Jr.

Puerto Rico, senile: Hardy, F.

Saskatchewan, postglacial lacustrine, mineralogy: Rice, H. M.

South Carolina, Charleston area, Pleistocene: Malde, H. E., 1.

Stone layers, origin: Ruhe, R. V., 1.

Tennessee, Cleveland area, residuum, criteria in mapping bedrock: Swingle, G. D.

Underclays, origin: Huddle, J. W.


Virginia, Middle River drainage basin, mineralogy: Carroll, D., 2.

West Virginia, Ohio Valley terraces, Globe Hill, pre-wisconsin Pleistocene, paleosols: Lessig, H. D., 1.

SOUTH CAROLINA.

Aeromagnetic survey, Mullins quadrangle, Carolina bays: Agocs, W. B., 1.

Aeroradioactivity survey, Augusta, Georgia, area: Schmidt, R. Gordon.

Geochemical study, Charleston area, marl-phosphatic rock relationships: Malde, H. E., 1.

Geological Survey, history: Johnson, H. S., Jr., 5.

Guidebook, Coastal Plain: Siple, G. E., 1.

Magnetite low, Beaufort area: Burdick, G. A., 2.

Radioactive waste disposal, Savannah River plant: Reichert, S. O.

Economic geology.

Alumina, Piedmont residual soils, possibilities: Council, R. J.

Gold, La drum mine: Smith, L. L.

Mineral resources, Sumter County, by physiographic divisions: Johnson, H. S., Jr., 4.

Phosphate, Charleston area: Malde, H. E., 1.

Uranium-thorium. Piedmont, monazite placers, possibilities: Overstreet, W. C.

Geologic maps.

Coastal Plain, generalized: Siple, G. E., 1.

Ladson quadrangle: Malde, H. E., 1.
South Carolina—Continued

Ground water.
Savannah, Georgia, area: Counts, H. B.

Historical geology.
Charleston area, Cenozoic: Malde, H. E., 1.
Coastal Plain, Cretaceous-Quaternary: Siple, G. E., 1.
Coastal regions, Pleistocene: Du Bar, J. R.
Quaternary: Ziegler, J. M., 1.

Mineralogy.
Heavy minerals, Coastal Plain, distribution: Siple, G. E., 2.
Hornblende, beach sands, distribution, relation to heavy minerals: Neiheisel, J.

Paleontology.
Charleston area, Cenozoic, lists: Malde, H. E., 1.

Petroleum.
Charleston area: Malde, H. E., 1.

Physical geology.
Charleston Harbor area, sedimentation, littoral drift: Neiheisel, J.
Cheraw area, antclinal warp, basal Cretaceous, origin: Heron, S. D., Jr.
Coastal Plain: Siple, G. E., 1.

Physiographic geology.
Sumter County, divisions: Johnson, H. S., Jr., 4.

South Dakota.

Bibliography, ground water: Newport, T. G.
Magnetometer map, Corson-Dewey-Ziebach Counties: Petsch, B. C., 3.
Magnetometer survey, Harding-Perkins Counties: Petsch, B. C., 4.

Areas described.
Camp Crook and Midland No. 4 quadrangles: Schulte, J. J.
Chester quadrangle: Tipton, M. J., 1.
Dallas quadrangle: Stevenson, R. Evans, 4.
Dell Rapids quadrangle: Tipton, M. J., 2.
Hartford quadrangle: Steece, F. V., 1.
Ladner quadrangle: Petsch, B. C., 1.
McIntosh quadrangle: Stevenson, R. Evans, 1.
McLaughlin quadrangle: Stevenson, R. Evans, 2.
Martin quadrangle: Collins, S. G., 1.
Miscol quadrangle: Stevenson, R. Evans, 5.
Mouth of Bull Creek quadrangle: Petsch, B. C., 2.
Murchison quadrangle: Curtiss, R. E.
Okreek quadrangle: Sevon, W. D.
Ralph quadrangle: Stevenson, R. Evans, 3.
Sioux Falls quadrangle: Steece, F. V., 2.
Sorum quadrangle: Bolin, E. J.

South Dakota—Continued

Areas described—Continued

Economic geology.
Beryl, Beecher No. 3—Black Diamond pegmatite: Redden, J. A., 1.
Camp Crook and Midland No. 4 quadrangles: Schulte, J. J.
Ladner quadrangle: Petsch, B. C., 1.
Lignite, Murchison quadrangle: Curtiss, R. E.
Sorum quadrangle: Bolin, E. J.

Uraniferous, Harding-Perkins Counties: Denson, N. M., 2; Zeller, H. D.

McIntosh quadrangle: Stevenson, R. Evans, 1.
McLaughlin quadrangle: Stevenson, R. Evans, 2.

Mineral resources: Miller, R. Harlan.
Miscol quadrangle: Stevenson, R. Evans, 5.

Mouth of Bull Creek quadrangle: Petsch, B. C., 2.

Natural gas, Dakota formation, central: Gries, J. P.

Oil and gas, test holes, map: Agnew, A. F., 3.

Ralph quadrangle: Stevenson, R. Evans, 3.

Uranium, Black Hills, southern, silica-cemented sandstone, possible guide: Post, E. V., 7.


Willett and Midland No. 1 quadrangles: Erickson, H. D.

Geologic maps.

Beecher No. 3—Black Diamond pegmatite: Redden, J. A., 1.
Camp Crook and Midland No. 4 quadrangles: Schulte, J. J.

Cascade Springs quadrangles: Post, E. V., 1-6.

Cave Hills—Table Mtn. area: Denson, N. M., 2.

Chester quadrangle: Tipton, M. J., 1.

Dallas quadrangle: Stevenson, R. Evans, 4.

Dell Rapids quadrangle: Tipton, M. J., 2.

Hartford quadrangle: Steece, F. V., 1.

Ladner quadrangle: Petsch, B. C., 1.

McIntosh quadrangle: Stevenson, R. Evans, 1.

McLaughlin quadrangle: Stevenson, R. Evans, 2.

Martin quadrangle: Collins, S. G., 1.

Miscol quadrangle: Stevenson, R. Evans, 5.

Mouth of Bull Creek quadrangle: Petsch, B. C., 2.

Murchison quadrangle: Curtiss, R. E.

Okreek quadrangle: Sevon, W. D.

Ralph quadrangle: Stevenson, R. Evans, 3.

Sioux Falls quadrangle: Steece, F. V., 2.

Sorum quadrangle: Bolin, E. J.
INDEX 561

SOUTH DAKOTA—Continued

Geologic maps—Continued

Murchison quadrangle: Curtiss, R. E.
Okreek quadrangle: Sevon, W. D.
Ralph quadrangle: Stevenson, R. Evans, 3.
Sioux Falls quadrangle: Steece, F. V., 2.
Slim Buttes area: Denson, N. M., 2.
Sorum quadrangle: Bolin, E. J.
Willett and Midland No. 1 quadrangles: Erickson, H. D.

Ground water.

Bibliography: Newport, T. G.
Dakota formation, artesian, central: Gries, J. P.
Harding-Perkins Counties, uranium deposition in carbonaceous material: Denson, N. M., 2.
Ponca Creek basin: Newport, T. G.

Historical geology.

Big Bend dam site area, Pleistocene terraces: Coogan, A. H.
Black Hills, west flank, Jurassic-Cretaceous, west flank: Mapel, W. J., 2.
Camp Crook and Midland No. 4 quadrangles, Cretaceous-Tertiary: Schulte, J. J.
Dakota formation, Cretaceous, correlation: Gries, J. P.
Dallas quadrangle, Cretaceous-Pliocene: Stevenson, R. Evans, 4.
Harding-Perkins Counties, Cretaceous-Miocene: Denson, N. M., 2.
Ladner quadrangle, Cretaceous-Paleocene: Petch, B. C., 1.
McIntosh quadrangle, Cretaceous-Paleocene: Stevenson, R. Evans, 1.
McLaughlin quadrangle, Cretaceous and Pleistocene: Stevenson, R. Evans, 2.
Martin quadrangle, Miocene-Recent: Collins, S. G., 1.
Mendenhall area, Cenozoic: Gill, J. R., 1.
Minnelusa formation, Pennsylvanian-Pennysylvanian: Jennings, T. V.
Mincel quadrangle, Cretaceous and Quaternary: Stevenson, R. Evans, 5.
Mouth of Bull Creek quadrangle, Cretaceous-Paleocene: Petch, B. C., 2.
Okreek quadrangle, Cretaceous-Pliocene: Sevon, W. D.
Oligocene-Miocene, faunal correlations: Toohooey, L. M.
Ponca Creek basin, Cretaceous-Quaternary: Newport, T. G.
Ralph quadrangle, Cretaceous-Paleocene: Stevenson, R. Evans, 3.

SOUTH DAKOTA—Continued

Historical geology—Continued

Sharon Springs member of Pierre shale, uraniumiferous: Kepferle, R. C.
Sorum quadrangle, Cretaceous-Oligocene: Bolin, E. J.
Willett and Midland No. 1 quadrangles, Cretaceous-Paleocene: Erickson, H. D.

Mineralogy.

Badlands National Monument, channel sandstones, Scenic member of Brule formation, source: Ritter, J. R.; Seefeldt, D. R.
Black Hills, collecting: Sorensen, F. C.
Southern, metamorphic rocks: Toor, J. A., 2.
Meteorites, McMurchie aerolite: Martin, H.

Paleontology.

Black Hills, collecting: Sorensen, F. C.
Condons and fusulinids, Minnelusa formation, Pennsylvanian-Pennsylvanian: Jennings, T. V.
Pelecypod, Tancredia, Timber Lake member of Fox Hills formation, Cretaceous, paleoecology: Skogstrom, H. C., Jr.
Prairie dog, Valiente formation, Miocene-Pliocene, Roosevelt Lake: Green, M.

Petrology.

Badlands National Monument, channel sandstones, Scenic member of Brule formation, source: Ritter, J. R.; Seefeldt, D. R.
Bar H area, Slim Buttes, cores: Zeller, H. D.
Beecher No. 3-Black Diamond pegmatite: Redden, J. A., 1.
Big Bend dam site area, Pleistocene terraces: Coogan, A. H.
Southern, metamorphic rocks: Redden, J. A., 2.
Dallas quadrangle: Stevenson, R. Evans, 4.
Hartford quadrangle, glacial till: Steece, F. V., 1.
Lodgepole area and Johnson outlier, cores: Zeller, H. D.
Mendenhall area, cores: Gill, J. R., 1.
Ogallala group, Pliocene: Taft, W. H.
SOUTH DAKOTA—Continued

Petrology—Continued


Prairie Hills, Wisconsin drift: Lee, K.-Y., 3.

Sharon Springs member of Pierre shale, uraniferous: Kepferle, R. C.

Stoix Falls quadrangle, glacial till: Steece, F. V., 2.

Physical geology.

Willett and Midland No. 1 quadrangles: Erickson, H. D.

South Dakota-Continued

Physiographic geology.

Big Bend dam site area, Pleistocene terraces: Coogan, A. H.

Chester quadrangle, glacial: Tipton, M. J., 1.

Dell Rapids quadrangle, glacial: Tipton, M. J., 2.

SPECTROCHEMICAL ANALYSIS. See also Analyses; Experimental investigations; Geochemistry.

Cores, Cambrian-Ordovician, pre-Simpson, Texas-New Mexico: Barnes, V. E., 2.

Grenville gneiss, Quebec, garnet, biotite, hornblende: Kretz, R. A.

Vanadium-calcium spectral line coincidence, effect on vanadium data: Shaw, D. M.

Volcanic rocks, Utah, Mt. Belknap series, Marysvale area: Molloy, M. W., 2.

X-ray, internal-standard methods: Adler, I.

SPECTROGRAPHIC ANALYSIS. See also Analyses; Experimental investigations; Geochemistry; X-ray investigations.

Beryllium, nonpegmatitic: Warner, L. A.


Rhenium-uranium association, Arizona, Suu Valley mine: Petersen, R. G., 3.

Shales, uraniferous, South Dakota-Nebraska: Kepferle, R. C.

Trace elements, rocks and minerals, matrix correction: Hower, J., Jr.


SPELEOLOGY. See Caves.

SPELEOTHERMS. See Caves; Stalactites and stalagmites.

SPHALERITE. See also Sulfides; Zinc.

Colorado, Gilman district, depth, origin: Lovering, T. G., 1.


SPHALERITE—Continued


New Brunswick, Brunswick and Nigadoo deposits, iron content: Kaliokoski, J. O. K.

Solubility in water at high temperatures: Ellis, A. J., 4.

SPITS.

Alaska, St. Lawrence Island, cuspatc: Fisher, R. L.

Paired cuspatc, in lagoons: Fisher, R. L.

SPONGIAE. See Archaeocyatha; Porifera.

SPRINGS. See also Artesian waters and wells; Ground water; Thermal waters.

Alabama, Calhoun County: Warman, J. C.

Alberta, Banff area, radioactive thermal: Halte, T. B., 1.

California, Aqua de Ney, chemical character of water: Schuch, J. P.

Jamaica, Milk River Bath, radioactivity: Vincenz, S. A., 2.

Oregon, carbon dioxide: Wagner, N. S.

Tennessee, Cleveland area: Swingle, G. D.

Utah, Lake Mts., thermal, halloysite alteration zone: Ames, L. L., Jr., 1.

Virginia, Tide Spring, ebbing and flowing cycle: Brent, W. B., 2.

STALACTITES AND STALAGMITES. See also Caves.

Holocrystalline, structure and origin: Halliday, L. R., 1.

Monocrystalline calcite: Quinlan, J. F., Jr., 2.

Types and formation: Quinlan, J. F., Jr., 1.

STATISTICS.

Basins, nonfolded, thickness and structural mobility: Fairbridge, R. W.

Cross-strata dip bearings, Kansas, Ottawa County, Dakota sandstone: Franks, P. C., 2.

Facies, textural data, multiple-regression analysis: Lippitt, L.

Geochemical data, multiple distribution of mineralization: Tennant, C. B.

Geomorphology, profile analysis, departure from Gaussian distribution: Tanner, W. F., Jr., 2.

Holothurian sclerites, analysis: Hampson, J. S.

Lognormal distribution of elements, abundance estimation: Đurović, S.

Pebble sampling, Pennsylvania, Montoursville gravel pit: Griffiths, J. C., 2.

Pyroxenes, regressions of physical constants on composition: Winchell, H.
STATISTICS—Continued
Sediments, analysis: Charlier, R. H., 2.
Regression analysis: Krumbeln, W. C., 2.
Trilobites, *Etriahis*, Cambrian, Utah, biometric study: Bright, R. C.
*Proiostracus*, Cambrian, Greenland, suppressed species: Shaw, A. B.
Uranium exploration, analysis of mineralized regions: Bates, R. C.

STOCKS. See also Intrusions.
Quebec, Pancamp-Hauy area: Holmes, S. W.

STRATIGRAPHY. See also Historical geology; Technique, *Stratigraphic*.
Beds, top and bottom, criteria: Muller, S. W.
Classification, kinds of units, need for distinction: Hedberg, H. D., 1.
Unified system, space and space-time: Wheeler, H. E., 2.
Classification and correlation, symposium: Bell, W. C., 2.
Coal beds as units: Hedberg, H. D., 2.
Correlation, meaning and criteria: Rodgers, J., 3.
Cuba, lexicon: Bermúdez y Hernández, P. J.
Cycles, factors: Krynine, P. D.
Cyclothsms, origin, theories: Lowman, P. D., Jr.
Ecological aspects, popular account: Ladd, H. S., 1.
Fossils as lithologic constituents in defining rock units: McLaren, D. J., 2.
Lithostratigraphic units, nomenclature and classification: Alvarez, M., Jr., 1.
Lithotopes, deep-water troughs, nomenclature: Crook, K. A. W., 1.
Midcontinent sedimentary basin, composite interpretive logging: Maher, J. C.
Nomenclature, rock units, larger than group: Rodgers, J., 2.
Nonsequential marker beds, separation of para-time-rock units: Cumming, A. D.

STRATIGRAPHY—Continued
Sedimentary contacts, classification: Winder, C. G.
Stratification, criterion for environmental interpretation: Jacks, A. D.
Time-stratigraphic units, abuse of isochronous concept: Bell, W. C., 2.
Type sections, evaluation: Wilson, John A., 2.
Vertebrate faunas as biostratigraphic units: Wilson, John A., 2.

STREAMS. See also Drainage changes.
Arkansas, Arkansas River: Quinn, J. H., 1.
British Columbia, Trutch Creek: Barton, R. H.
Jamaica, Cane River, diversion by tunnel: Zans, V. A., 4.
Virginia, Blue Ridge Upland, New River and Roanoke River basins: Dietrich, R. V.

STREAM CAPTURE. See also Drainage changes.
Anastomosing channel patterns, climate interpretation: Garner, H. F.
Bed load and entrenchment: Quinn, J. H., 3.
Braiding, mechanisms, time-lapse photography: Fahnestock, R. K.
Channels, size and shape controls in sand, experimental: Wolman, M. G., 2.
Crossbedding, origin, meandering and braided: Wright, M. E.
Drainage basins, hypsometric analysis: Strahler, A. N., 1.
Erosion, analytical model: Culling, W. E. H.
Erosion factors, cohesive bank: Wolman, M. G., 1.
Flow around bends, erosion and deposition: Braden, G. E., 2.
Sediment load and bed configuration, effects on friction factor, experimental: Vanoni, V. A.
Talweg stability, curved channels: Shulits, S., 2.
United States, landscapes: Shimer, J. A.
Utah, White Canyon area, Shinarump braided channel system, uranium-ores: Johnson, H. S., Jr., 3.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

STREAMS—Continued
STROMATOLITIDa, Utah, Guilmette limestone, Devonian: Gould, F. D.
STRONTIUM. See also Elements.
Resources: Schreck, A. E.

STUDY AND TEACHING—Continued
Earth and space science, teaching guide: Moss, J. H.
Field mapping, basic courses, inexpensive compass and clinometer: Norton, M. F., 1.
Field-work aids, construction: Crosby, G. W., 1.
Geologic training, student's responsibility: Wilson, James A.
Geology, linguistic background: Holland, F. D., Jr., 2.
Stochastic terms, definitions: Brown, B. W.
Geology curriculum, undergraduate majors: Proctor, P. D., 5.
Geology-geophysics students in colleges, survey, scholarships: Henderson, B. C.
Historical geology, Bryn Mawr College: Dryden, A. L., Jr., 2.
Lafayette College: Beerbower, J. R., 2.
Rensselaer Polytechnic Institute: LaFleur, R. G.

STUDY AND TEACHING—Continued
Marine geology, needed course: Yalkovsky, R., 2.
Mineralogy, laboratory manual of crystallography: Tunell, G.
Optical, isogyrometer: Travis, R. B.
Recent developments: Langenheim, R. L., Jr., 2.
Pennsylvania public schools, earth and space science, teaching guide: Moss, J. H.
Physical geology, laboratory manual: Ireland, H. A., 1; Zumberge, J. H., 1.
Student report writing, need for improvement: Agnew, A. F., 2.
University level, major problems of teacher: Behre, C. H., Jr., 2.
University of Illinois Summer Institutes, teacher reactions: Hagner, A. F., 1.

STYLOLITES.
Origin, clay role: Nitecki, M. H.
Solution-pressure mechanism: Brown, W. W. M.
Clay role: Weyl, P. K., 2.
Sandstones, permeable, clay-coated: Heald, M. T., 1.
Vertical, fault origin, dolomitic limestone, Virginia: Cooper, B. N., 1.
SUBMARINE GEOLOGY—Continued

Sediments, analysis, methods: Barnes, Harold.

Deep-sea, thickness and consolidation, seismic surveys: Hamilton, E. L.

Slides, resemblance to tillite: Dott, R. H., Jr., 2.

Subaerial exposure evidence on ocean floor: Landes, K. K., 3.

Texas, Yoakum area, Wilcox intraformational canyon, Eocene: Hoyt, W. V.

Topographic highs synchronous with petroleumiferous sedimentation: Scholten, R.

Unconformities, ocean-current scour: Heezen, B. C., 4.

Turbidite sequences: Crook, K. A., 2.

SUBSIDENCE. See also Changes of level.

California, Fresno County, compaction of alluvial-fan deposits: Bull, W. B.

Long Beach Harbor area: Berbower, R. F.

San Joaquin Valley: Small, J. B.

Consolidation tests: Gibbs, H. J.

Colorado, Creede caldera: Steven, A. T.

Georgia, Savannah area, decline in artesian head: Davis, G. H., 2.

Louisiana, Mississippi delta, recent: Welder, F. A.

Pacific atolls, reef thickness: Wiens, H. J.

Subaerial exposure evidence on ocean floor: Landes, K. K., 3.

Texas, Galveston-Houston area: Small, J. B.

Gulf coast, upper, ground-water withdrawal: Winslow, A. G.

SULFIDES. See also Galena; Lead; Metallic minerals; Pyrite; Sphalerite; Zinc.

Alabama, Coastal Plain, pyrite and marcasite, origin: Pallister, H. D.

Canada, ore bodies, metal ratios: Wilson, H. D.

Selenium content: Hawley, J. E.


Chalcopyrite and sphalerite, trace elements, geographic distribution, metallogenic provinces: Burnham, C. W., 2.

Colorado, Gilman district, depth, origin: Lovering, T. G., 1.


Conformable and orthomagmatic deposits cf. vein: Stanton, R. L., 2.

Copper, experimental investigations, high temperature: Melkie, B. K.

Crystal structure, galena-gratoniite intergrowth: Hellner, E. E.
SULFIDES—Continued
Electrochemistry of self-potential in ore bodies: Sato, M., 1.
Electromagnetic prospecting: Salt, D. J.
Massive deposits, banding, origin: Watson, K. D.
Symposium: Gill, J. E., 1.
Mexico, Nalca mining district, Chihuahua: Stone, J. G., 2d.
Santa Barbara district, Chihuahua, veins: Scott, J. B.
Mississippi Valley, upper, lead-zinc district: Heyl, A. V., Jr., 1.
Mississippi type deposits, hydrothermal origin: Behre, C. H., Jr., 1.
New Brunswick, Bathurst-Newcastle area, origin: Tupper, W. I.
Brunswick Mining and Smelting ore bodies: Stanton, R. L., 3.
Heath Steele deposits, origin, sulfur isotopes: Dechow, E. W. C.
Origin: Benson, David G.
New Mexico, Lone Star deposit: Lustig, L. K.
New York, Summitville and Ellenville ore bodies, origin, isotope ratios: Friedman, J. D., 2.
North Carolina, Ore Knob deposit: Kerstein, D. S., Jr.
Northwest Territories, Yellowknife area, isotope distribution: Wanless, R. K.
Nova Scotia, Mindamar mine, banding, origin: Watson, K. D.
Ontario, Falconbridge Township, Sudbury district: Thomson, J. E., 1.
Gripp Lake area: Langford, F. F.
McKim mine, Sudbury district: Clarke, A. M.
Manitouwadge area: Timms, P. D.
Samreid Lake area: Friedman, G. M., 3.
Ore genesis, heavy-metals transport at low temperatures: Barton, P. B., Jr., 2.
Source-bed concept: Knight, C. L.
Origin, experimental studies: MacDougall, J. F.
Oxidation, electrochemical study: Sato, M., 2.
Pyrite-vanadite phase relations: Clark, L. A.
Pyrrohite-pyrite equilibrium: Arnold, R. G.
Quebec, Chibougamau area: Precambrian.
East Sullivan deposit: Assad, R. J.
Hazard—Continued
Hazeur-Druillettes area: Deland, A. N.
Mattagami Lake area: Latulippe, M.
Rapid-cooling experiments: Lyon, R. J. P., 2.
Saskatchewan, northern, with pegmatites: Byers, A. R., 2.
Solid diffusion and volatility: Gill, J. E., 2.
Solubility in water, determination: Reilly, B. H.
High temperatures: Ellis, A. J., 4.
Transport of ore metals: Csamanske, G. K.
Systems, $\text{Ag}_2\text{S}–\text{Bi}_2\text{S}_3–\text{PbS}$: Van Hook, H. J.
Chemical potential of sulfur, determination, electrurn-tarnish method: Barton, P. B., Jr., 3.
$\text{Fe-S}$, pyrite stability: Kullerud, G., 2.
Geologic thermometers: Kullerud, G., 1.
Ni-As-S: Yund, R. A.
Ni-S: Kullerud, G., 3.
Tennessee, eastern: Maher, S. W.
Utah, Park City mining district: Wilson, Clark L.
Vermont, Elizabeth copper mine: Howard, P. F.
Zinc and cadmium, structure: Smith, F. G., 1.
SULFUR.
Alberta, Panther dome area, hydrogen sulfide, possibilities: Hunt, C. W., 2.
Isotope ratios, variations in hydrothermal ore deposits: Jensen, M. L., 1.
Isotopic fractionation in geochemical processes: Ault, W. U., 1.
Isotopic geochemistry: Ault, W. U., 2.
Mexico, San Rafael mine, San Luis Potosi, origin: González Reyna, J., 1.
Mineralizing solutions, ore deposition: Butler, B. S.
SURVEYS.
Canada Geological Survey, helicopter operations: Canada G. S., 64.
South Carolina Geological Survey, history: Johnson, H. S., Jr., 5.
U. S. Geological Survey, history, advancement of geology in public service: Nolan, T. B.
Reports and maps in open files: Weld, B. A.
SYMPOSIUMS.
Arkansas, Ouachita Mts.: Cline, L. M., 1.
Canadian exploration techniques: Huston, C. C.
Clays and clay minerals, conference: Swineford, A., 1.
**SYMPOSIA—Continued**


Kansas, geophysical investigations: Hambleton, W. W., 1.

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Quebec, Berry Mtn.: Carbonneau, C.

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SYNTHETIC MINERALS. See Artificial minerals.

SYSTEMS. See also Artificial minerals.

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Albite, low- and high-temperature: Fer­guson, R. B., 1.

Albite-nepheline-water: Saha, P., 2.


Al₂O₃–H₂O, high temperatures and pres­sures: Kennedy, G. C., 1.

Amphiboles, hydrothermal investiga­tions: Boyd, F. R., 1.

Analcite-jadeite phase boundary: Fyfe, W. S., 2.

BaO–2SiO₂–2BaO–3SiO₂: Roth, R. S., 2.

Ca₂Al₂(SiO₄)₆–Gd₂Fe₄(FeO₄)₆: Geller, S., 4.

Ca₂Al₂(SiO₄)₆–Y₂Fe₄(FeO₄)₆: Geller, S., 4.

**SYSTEMS—Continued**


CaCO₃–MgCO₃–FeCO₃, join CaMg­(CO₃)₂–CaFe(CO₃)₂: Rosenberg, P. E.

CaCO₃–MgCO₃–MnCO₃: Goldsmith, J. R., 2.

Calcite-dolomite in sea water: Kramer, J. R.

CaO–Al₂O₃–SiO₂, mullite-cordierite boundary: Aramaki, S., 1.

CaO–CO₂–H₂O: Wyllie, P. J., 2, 3.

Calcite-portlandite join: Wyllie, P. J., 6.

CaO–FeO–Fe₃O₄–SiO₂: Phillips, B.


CaO–MgO–Al₂O₃–SiO₂, grossularite-pyrope join: Chinner, G. A.

CaO–SiO₂–H₂O: Dent Glasser, L. S.

CaO–V₂O₅–H₂O: Marvin, R. F.

Carbonates: Goldsmith, J. R., 1.

Clay minerals-carbonates, relations in marine sediments and rocks: Zen, E-an, 2.

Clays and ceramic materials: Searle, A. B.

CO₂–H₂O, solubility at high tempera­tures: Ellis, A. J., 1.

Crystallization, interfacial free energy: DeVore, G. W., 2.

Cu–Fe–S–O: McKinstry, H. E.

Cu₂S–FeS₂: MacDougall, J. F.

Cu₂S–FeS: MacDougall, J. F.

Fe–Ni–S, iron meteorites, phase equilib­ria: Clark, S. P., Jr., 2.

Fe–S, pyrite stability: Kullerud, G., 2.

Fe₃O₄–H₂O, redox reactions in meta­morphism: Eugster, H. P., 1.

Fe₂O₃–Fe₃O₄–SiO₂: Ringwood, A. E., 3.

Olivine-spinel inversion: Ringwood, A. E., 2.

Fe₂O₃–Fe₃O₄–SiO₂, oxygen pressure in crystallization of magma: Osborn, E. F.

Fe₂O₃–Fe₅O₈–O₂: Basta, E. Z.

Fe₂O₃–H₂O, hematite-goethite boundary: Schmalz, R. F.

Fe₂O₃–TiO₂, subsolidus: Karkhanavala, M. D., 1.

Fe₂O₃–γ–Fe₂O₄: Basta, E. Z.

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Forsterite-diopside-silica-albite, join protoenstatite-diopside–albite: Schairer, J. F.

Ge₂O₅–SiO₂: Dachille, F., 3.

Gneiss, coexisting mineral phases: Kretz, R. A.

Granite-water-carbon dioxide, melting: Wyllie, P. J., 5.

Green River formation, mineral assem­blages, reactions: Milton, C., 1.

Ilmenite-hematite, spin arrangement: Shirane, G.
SYSTEMS—Continued
Iron oxide-Cr₂O₃-SiO₂: Muan, A., 3.
Iron oxide-titanium oxide: Mac Chesney, J. B., 1, 2.
Kaolinite-mullite: Brindley, G. W., 3.
K₂O-Al₂O₃-SiO₂:H₂O: Hemley, J. J.
K₂O+Na₂O-Al₂O₃-SiO₂:H₂O: Hurst, V. J., 1.
Lime-alumina-silica-water, zeolites: Buckner, D. A.
Manganese oxide-silica: Muan, A., 1, 2.
Metamorphic, reactions and facies formation: Fyfe, W. S., 1.
Mg₂GeO₄-Mg₂SiO₄: Dachille, F., 1, 3; Ringwood, A. E., 3.
MgO-Al₂O₃-SiO₂, mullite-corundum boundary: Aramaki, S., 1.
MgO-FeO-Fe₂O₃-SiO₂, oxygen pressure in crystallization of magma: Osborn, E. F.
MgO-GeO₂, cf. silicate system: Robbins, C. R.
Mn₈A₅(SiO₄)₈-Y₈Fe₂(FeO₄)₈: Geller, S., 4.
Mn-0-OH: Klingsberg, C.
NaCl-H₂O: Walter, L. S., 3.
NaR₃CO₃-NaHC₂O₃-CO₂-H₂O: Ellis, A. J., 2.
Na₂O-Al₂O₃-SiO₂, role of beta alumina: Pablo-Galan, L. de.
Na₃P₂O₅-CaCO₃-H₂O: Ames, L. L., Jr., 2.
Ni-As-S: Yund, R. A.
Ni₂GeO₄-Mg₂SiO₄: Ringwood, A. E., 1.
Ni-S: Kullerud, G., 3.
Ore solutions, temperature-fugacity relations of O, S, and CO₂: Hol­land, H. D.
Pyrrhotite-pyrite: Arnold, R. G.
Quartz-caliche-water, oxygen-isotope ratio: Epstein, S., 1.
Silica-structure phases: Dachille, F., 2.
Silicate, solid, intergranular diffusion, iron in forsterite: Naughton, J. J.
Silicates, differentiation under stress: Bennington, K. O.
Melt systems: Roedder, E. W., 2.
SiO₂-H₂O: Kennedy, G. C., 3.
Sulfide, chemical potential of sulfur, determination, electron-tarnish method: Barton, P. B., Jr., 3.
Sulfides, geologic thermometers: Kul­lerud, G., 1.
ThO₂-SiO₂: Harris, L. A.
Uranium-vanadum: Galrels, R. M., 2.
ZnS-FeS-MnS: Skinner, B. J., 2.
ZnS-H₂S-H₂O: Barnes, L. H., 3.

TECHNIQUE—Continued
Apparatus—Continued
Autoclave in spectrometer diffraction unit: Droste, J. B., 2.
Beryllometer: Brownell, G. M.
Calibration sights for X-ray powder camera: Donnay, G.
Calorimeter, portable, measuring heat flow in steaming ground: Bense­man, R. F.
Compass and clinometer, inexpensive, for basic courses: Norton, M. F., 1.
Continuous velocity logger: Hammond, J. W.
Core sampler, portable, for lake deposits: Smith, A. J.
Detonation gun for marine seismic exploration: McDonal, F. J.
Differential thermal analysis, sample holder-external thermocouple: Fitch, J. L.
Dipmeter-log strike and dip calculator: Braun, T. H.
Electric logging tool on drill stem: Chaney, P. E.
Electromagnetic exploration, 1000 frame: Koffman, A. A.
Elutriating tube, mineral separation by specific gravity: Frost, I. C.
Field-work aids, construction: Crosby, G. W., 1.
Fluorescent X-ray spectrographic probe: Thatcher, J. W.
Graphic locator: Varnes, D. J.
Isogysrometer: Travis, R. B.
Jacob staff: Robinson, G. D., 2.
Mineral phosphorescence, machine for observation: Mullings, W. M.
Multiple pipetting device, rock analysis: Shapiro, L.
Neutron detector, beryllium, laboratory: Cantwell, J. T.
Gamma-ray, beryllium exploration: Moyd, L. S.
Ore microscope and microphotometer: Cameron, E. N.
Photomultiplier photometer for quartz-grain orientation: Pierson, A. L., 3d.
Refractive-index determination, high-dispersion media, direct-reading charts to eliminate Hartmann Nets: Watkins, J. S., Jr.
Universal-stage accessory: Wilcox, Ray E., 2.
Rock compass: Bidgood, D. E. T.
Sample splitter, microscopic material: Skolnick, H., 2.
Slotted cone, laboratory use: Flana­gan, F. J.
Scintillation counters: Vaughn, W. W., 1.
Drill-core scanner: Vaughn, W. W., 2.
INDEX 569

TECHNIQUE—Continued

Apparatus—Continued

Seismic cross-section plotter, resolved time in steeply dipping areas: Oil and Gas Jour., 3.

Seismographs, fused-quartz extensometers: Benioff, V. H.

Refraction, portable: Stam, J. C.

Sound-reflection profiler, continuous, marine: Officer, C. B., Jr., 2.

Spindle stage, indexes of refraction, determination: Wilcox, Ray E., 3.

Subbottom depth recorder: Beckmann, W. C.

Thermoluminescence measurement:

Lewis, D. R.


Time-lapse camera, slow-acting geologic processes: Miller, R. D., 2.

Ultrasonic appliances, fossil recovery and sediment disaggregation:

Lints, J., Jr.

Wolfe goniometer, polarizing adapter:

Wolfe, C. W., 1.

X-ray microscopy and photomicrography, for Foraminifera:

Hooper, K.

Geochemical

Biottite, potassium determination, neutron activation: Winchester, J. W., 1.

Bituminous shale and lignite, determination of elements: O'Neill, R. L.

Calcite and dolomite, quantitative manometric determination, soils and limestones: Skinner, S. I. M.

Calcium, in phosphate, carbonate, silicate rocks, flame-photometric:

Kramer, H.

Carbonate rocks, calcium and magnesium, automatic spectrophotometric titration: Malmstadt, H. V.

Chattanooga shale, organic matter, ozonolysis: Leonard, J. T.

Chlorine determination, silicate rocks:

Peck, L. C.

Chromite analysis, rapid:

Dinnin, J. I.

Cobalt, neutron-activation analysis:

Carr, M. H.

Colorimetric standards, plastic:

Hawkins, D. B., 1.

Copper, field determination, rubeanic acid:

Warren, H. V., 1.

Readily extractable from intrusive rocks:

Warren, H. V., 3.

Trace, in soil:

Canney, F. C., 2.

Copper-lead-zinc prospecting, laboratory methods:

Gilbert, M. A.

Element abundance, estimating, earth's crust:

Fleischer, M., 2.

Germanium, in coal, spectrographic analysis:

Schleicher, J. A., 1.

In coal ash, spectrographic and wet chemical methods:

Corey, R. C.

TECHNIQUE—Continued

Geochemical—Continued

Heavy-metal exploration, lake-bottom sampling through ice:

Read, W. E.

Hydrous minerals, dissociation pressures, measurement by thermistors:

Wayman, C. H.

Marl, rapid analysis:

Goldich, S. S., 2.

Meteorites, radioactivation analysis:

Reed, G. W., Jr., 1.

Stone, radiochemical, neutron activation:

Bate, G. J. L.; Ehmann, W. D.

Minerals, analysis:

Mexico Com. Fomento Min.

Minerals for dating, separation, asymmetric vibrators:

Paul, H., 1.

Oil-field brines, iodides and bromides, spectrophotometric:

Collins, A. G., 1.

Potassium determination:

Collins, A. G., 2.

Oxygen-isotope ratio, application to paleotemperatures and petrology:

Epstein, S., 1.

Potassium and argon liberation from minerals:

Osima, M.

Prospecting:


Popular account:

Solow, H.

Sedimentary rocks, calculation of mineral composition:

Imbrie, J., 3.

Selenium, X-ray spectroscopic analysis:

Sun, M.-S., 2.

Silicate systems, phase-diagram determination:

Reed, E. W., 2.

Sulfide exploration, Yukon:

Chisholm, E. O.

Sulfide systems, chemical potential of sulfur, determination, electromanganese method:

Barton, P. B., Jr., 3.

Trace-element analysis, neutron activation:

Winchester, J. W., 2.

Tungsten, exploration, fusion method:

Mukherjee, N. R.

Heavy-mineral concentrates:

Theobald, P. K., Jr., 1.

Uranium, trace, colorimetric:

Selim, H. J.

Traces in zircon, fluorimetric:

Cutitta, F.

Vanadium-zirconium spectral line coincidence, effect on vanadium data:

Shaw, D. M.
TECHNIQUE—Continued

Geologic age determination.
Beryllium-10: Merrill, J. R.
Igneous rocks, radiogenic lead: Gottfried, D.
Lead isotopes, tables for calculation: Steff, L. R., 1.
Lichenometry, Recent glacier retreat: Besche, R. E.
Methods, reliability evaluation: Tilton, G. R.
Obsidian artifacts, hydration rates: Friedman, I. I.
Liberation from minerals: Ozima, M.
Radioactive and other methods, evaluation: Cook, M. A.
Radiocarbon dating: Vries, H. de.
Radiocarbon-distribution study, isotopic ratio fluctuations: Broecker, W. S., 5.
Sedimentary rocks, absolute ages: Kulp, J. L., 1.
Silicates, argon content by neutron activation: Armstrong, R. L.
Till, carbonate-leaching depth: Dremans, A., 2.
Tree-ring dating, avalanche deposits: Heath, J. P.
Uranium-lead ages, discordant, evaluation: Steff, L. R., 2.
X-ray fluorescence spectroscopy, Rb-Sr ratio: Herzog, L. F., 2d.
Zircon, lead loss during fusion: Silver, L. T.

Geophysical.
Acoustic logs, full spectrum, porosity guide: Thurber, C. H.
Airborne gravity meter: Lundberg, H. T. F.
Beryllium exploration, scintillation counter: Brownell, G. M.
Borehole logging, Lake Superior region: Zalocki, C. J.
Clay prospecting, electrical, self-potential cf. resistivity: Gross, G. W., 1, 2.
Crustal studies, seismic: Richards, T. C., 1.
Electrical, subsurface stratigraphic control: Caswell, C. A.
Electrical resistivity, directional: Keller, G. V., 3.
Subsurface brine concentrations, Kansas: O'Connor, R. E.
Gamma-ray emission of hydrocarbons: Walker, R. Y., Jr.
Gamma-ray logs cf. caliper logs: Bunker, C. M.
Glacial-ice thickness, gravity and seismic: Weber, J. R.
Glacier thickness and properties, electrical resistivity: Keller, G. V., 6.

TECHNIQUE—Continued

Geophysical—Continued
Gravity measurements at sea, continuous from surface ship: Worzel, J. L., 2.
Ground-water exploration: Ackerman, E. A.; Todd, D. K.
Resistivity: Zopfis Bracel, L., 1.
Heat-flow measurement at sea, rapid, proposed: Bullard, E. C.
Heat-flow measurement in steaming ground: Benseman, R. F.
Iron exploration, gravity: Ilzne, W. J., 2.
Log interpretation, charts: Schlumberger Well Surveying Corp.
Neutron logging: Youmans, A. H.
Oil-well logging: Doll, H.-G.
Radioactive minerals, scintillation counters: Vaughn, W. W., 1.
Radioactivity surveying, surface anomalies: Crews, W. D.
Resistivity logs, ForRox-Guard, discrimination of thin beds: Walker, T.
Sedimentary cross-section plotter, resolved time in steeply dipping areas: Oil and Gas Jour., 3.
Sediment determination of reflection and refraction points, three-dimensional, nomographic: Ohlovich, V. A.
Sediment surveying, interpretation problems, Kansas: Glover, R. H.
Marine, detonation gun: McDonal, F. J.
Mexico, Faja de Oro: Rockwell, D. W.
Shallow structures: Rose, R. B.
Sediment velocity interpretation, shale-porous limestone reef: Van Steen, D. C.
Seismogram, stratigraphic: Savit, C. H.
Seismograph, refraction, portable: Stam, J. C.
Sonic logs: Tixier, M. P.
Porosity guide: Curry, M. E.
Sound-reflection profiler, continuous, marine: Officer, C. B., Jr., 2.
Subbottom depth recorder: Beckmann, W. C.
Submarine fractures, displacement measurement: Vacquier, V.
Sulphide exploration, induced polarization: Halof, P. G.
Sulfides, massive, electromagnetic exploration: Salt, D. J.
Thermal-conductivity measurement, deep-sea sediments, needle probe: Von Herzen, R., 2.
Uraniferous cores, electrical properties: Keller, G. V., 1, 2.
Velocity logging, continuous: Hammond, J. W.
Index 571

Technique—Continued

Geophysical—Continued

Water saturation in petroleum reservoirs, sonic and resistivity: Burton, R. P.

Mapping.

Desert-terrain analogs: Van Lopik, J. R.

Drainage basins, hypsometric analysis: Strahler, A. N., Jr.

Formation contacts, locating by dip needle: Randall, J. A.

Graphie locator: Varne, D. J.

Helicopter reconnaissance, Canada: Canada G. S., 64.

Landform maps: Raisz, E. J.

Morphological: Savigear, R. A. G.

Paleogeographic, popular account: Williams, E. G., Jr.

Photogrammetric: Kent, B. H.

Shorelines, terrestrial photogrammetry: Pincon, H. J., Jr.

Mineral exploration.

Alteration minerals, quantitative: Lyon, R. J. P., 3.

Alteration zones, chlorite identification by infrared spectra: Tuddenham, W. M.

Anomalous structure: Aho, A. E., 1.

Beryllium, neutron detector, gammaray: Moyd, L. S.

Scintillation counter: Brownell, G. M.

Canada, symposium: Huston, C. C.


Copper, field determination, rubeanic acid: Warren, H. V., 1.

Readily extractable from intrusive rocks: Warren, H. V., 3.

Traces in soil: Canney, F. C., 1.

Copper-lead-zinc, geochemical, laboratory methods: Gilbert, M. A.

Dithizone colorimetry, use of mineral turpentine: Hill, V. G.

Electromagnetic, loop-frame apparatus: Koffman, A. A.

Fluorescence, drill-core study: Riecker, R. E.


Popular account: Solow, R. E.

Smelter contamination: Canney, F. C., 1.

Geophysical: Slichter, L. B., 1, 2.

Graphite, spectrochemical analysis of soil: Dennen, W. H.

Heavy metals, lake-bottom sampling through ice: Read, W. F.


Lead, trace content in potassium feldspars: Rawson, W. F.

Lead-zinc, resistivity survey, Missouri, Racine-Spurgeon area: Chester, J. W.
**BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959**

**TECHNIQUE—Continued**

**Mineralogic—Continued**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay-mineral studies, X-ray diffractometer, wide-range alignment</td>
<td>Kitts, J. A.</td>
</tr>
<tr>
<td>Crystallographic orientation of synthetic boules</td>
<td>Wolfe, C. W., L.</td>
</tr>
<tr>
<td>Crystal-structure models, polyhedral construction</td>
<td>Zoltai, T., L.</td>
</tr>
<tr>
<td>Differential thermal analysis</td>
<td>Smith, D. S., L.</td>
</tr>
<tr>
<td>Feldspar, K2O determination, X-ray emission, flame photometer</td>
<td>Emerson, D. O., C.</td>
</tr>
<tr>
<td>Fluorescent X-ray spectrographic probe</td>
<td>Thatcher, J. W.</td>
</tr>
<tr>
<td>Formic acid for rock etching, popular account</td>
<td>Kirkby, R. A., J.</td>
</tr>
<tr>
<td>Heavy-liquid separation of minerals, new diluent</td>
<td>Meyrowitz, R.</td>
</tr>
<tr>
<td>Lattice constants from Weissenberg patterns</td>
<td>Christ, C. L., A.; Pabst, A., L.</td>
</tr>
<tr>
<td>Montmorillonite expansibility tests, polar liquids, solvating ability</td>
<td>Johns, W. D., C.</td>
</tr>
<tr>
<td>Nuclear emulsion, radioactivity detection, laboratory</td>
<td>Hamilton, E. I.</td>
</tr>
<tr>
<td>Olivines, forsteritic, optic axial angles, discrepancies</td>
<td>Wyllie, P. J., L.</td>
</tr>
<tr>
<td>Optical textbook</td>
<td>Kerr, P. F., L.</td>
</tr>
<tr>
<td>Ore microscopy</td>
<td>Cameron, E. N.</td>
</tr>
<tr>
<td>Ore minerals, microscopic study with transmitted infrared</td>
<td>Mahrholz, W. E., L.</td>
</tr>
<tr>
<td>Phosphorescence excluding fluorescence, observation apparatus</td>
<td>Mullings, W. M.</td>
</tr>
<tr>
<td>Plagioclase identification, fusion</td>
<td>Dawson, C. R.</td>
</tr>
<tr>
<td>Pyrite, polishing method, minimum deformation</td>
<td>Stanton, R. L., L.</td>
</tr>
<tr>
<td>Pyroxene crystals, oriented-inclusion identification</td>
<td>Bown, M. G.</td>
</tr>
<tr>
<td>Quartz, directional grinding hardness, peripheral grinding</td>
<td>Denning, R. M., L.</td>
</tr>
<tr>
<td>Refractive-index determination, high-dispersion media, direct-reading charts to eliminate Hartmann Nets</td>
<td>Watkins, J. S., R.</td>
</tr>
<tr>
<td>Spindle stage</td>
<td>Wilcox, R. E., L.</td>
</tr>
<tr>
<td>Three principal, universal stage</td>
<td>Wilcox, R. E., L.</td>
</tr>
<tr>
<td>Sand and silt analysis</td>
<td>Dell, C. I., L.</td>
</tr>
<tr>
<td>Selenite, birefringence measurements</td>
<td>Jeppesen, M. A.</td>
</tr>
<tr>
<td>Soil-genesis studies</td>
<td>White, J. L.</td>
</tr>
<tr>
<td>Soils, X-ray methods</td>
<td>Brydon, J. E., L.</td>
</tr>
<tr>
<td>Specific-gravity determination, minute grains, microscope titling</td>
<td>Shaub, B. M., L.</td>
</tr>
<tr>
<td>Specific-gravity separation of minerals, elutriating tube</td>
<td>Frost, L. C.</td>
</tr>
<tr>
<td>Sulfide inclusions, minute, electron-probe analysis</td>
<td>Birks, L. S., R.</td>
</tr>
<tr>
<td>Sulfides, solubility in water, determination</td>
<td>Kelly, B. H.</td>
</tr>
<tr>
<td>Vanadium minerals, electron diffraction</td>
<td>Ross, M., L.</td>
</tr>
<tr>
<td>X-ray fluorescence analysis</td>
<td>Wood, R. E., L.</td>
</tr>
<tr>
<td>X-ray studies, indexing powder lines, sine table</td>
<td>Donnay, J. D. H., L.</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td>Coastal development, evidence from prehistoric settlements</td>
<td>McIntyre, W. G.</td>
</tr>
<tr>
<td>Engineering geology, highway cuts, subsurface exploration, evaluation of machines</td>
<td>Shurig, D. G.</td>
</tr>
<tr>
<td>Seismic refraction, shallow</td>
<td>Rose, R. B.</td>
</tr>
<tr>
<td>Faults, net-slip determination</td>
<td>Crowell, J. C., L.</td>
</tr>
<tr>
<td>Folds, nonparallel, classification, delineation, and measurement</td>
<td>Mertie, J. B., R.</td>
</tr>
<tr>
<td>Formation water, chloride determination</td>
<td>Swarzenski, W. V., L.</td>
</tr>
<tr>
<td>Gas analysis, radon and helium in natural gas</td>
<td>Sakakura, A. Y.</td>
</tr>
<tr>
<td>Geologic structures, analysis, vertical displacement of homogeneous rock layer</td>
<td>Sanford, A. R.</td>
</tr>
<tr>
<td>Geomorphology, desert-terrain analogs, mapping</td>
<td>Van Lopik, J. R.</td>
</tr>
<tr>
<td>Profile analysis, departure from Gaussian distribution</td>
<td>Tanner, W. E., R.</td>
</tr>
<tr>
<td>Ground-water exploration</td>
<td>Ackerman, E. A.</td>
</tr>
<tr>
<td>Hypsometric analysis, drainage basins</td>
<td>Strahler, A. N., L.</td>
</tr>
<tr>
<td>Ice-tunnel deformation, grid measurement</td>
<td>Butkovich, T. R., L.</td>
</tr>
<tr>
<td>Muskeg, measurement of bearing strength, relation to drainage</td>
<td>Radforth, N. W., L.</td>
</tr>
<tr>
<td>Oriented rock specimens, collection by rock compass</td>
<td>Bidgood, D. E. T.</td>
</tr>
<tr>
<td>Relief description, development of surface</td>
<td>Zaborski, B.</td>
</tr>
<tr>
<td>Sand-movement tracing</td>
<td>Inman, D. L.</td>
</tr>
<tr>
<td>Spherical trigonometry and stereographic net, geologic applications</td>
<td>Higgs, D. V., L.</td>
</tr>
<tr>
<td>Submarine geology, diving</td>
<td>Tanner, W. F., R.</td>
</tr>
<tr>
<td>Subsurface structures, three-dimensional determination of seismic reflection and refraction points, nongraphic</td>
<td>Olovich, V. A.</td>
</tr>
<tr>
<td>Terrain analysis, dominant features, measurement</td>
<td>Thompson, W. F.</td>
</tr>
<tr>
<td>Elevation distribution, zigzag curves</td>
<td>Tanner, W. F., R.</td>
</tr>
<tr>
<td>Trend-surface analysis, contour maps</td>
<td>Krumbein, W. C., L.</td>
</tr>
</tbody>
</table>
INDEX

TECHNIQUE—Continued

Miscellaneous—Continued
Volume estimates from contours: Hughes, R. J., Jr.
Well cuttings, examination: Castillo Tejero, C.

Paleontologic.
Conodonts, study and sketching: Elias, M. K., 1.
Echinoderm calcite, crystallographic orientation: Raup, D. M., 1.
Foraminifera, thin-section grinding: Morkhoven, F. P. C. M. van.
X-ray absorption, applied to statistical studies: Hooper, K.

Formic acid for rock etching, popular account: Kirkby, R. A., 2.

Fossil recovery and cleaning, ultrasonic appliances: Lintz, J., Jr.
Fossil remains in harvester ant mounds: Galbreath, E. C.

Microfossils, acid-insoluble, preparation methods: Funkhouser, J. W.
Insoluble, recovery: Tynan, E. J., 2.
Scales for measurement from photomicrographs: Pocock, S. A. J.
Microscope-stage scales, coordinate conversion: Pierce, R. LeRoy.

Mollusks, Pleistocene limnology: Larocque, J. A. A.

Petrographic.
Fabric diagrams, schnitteffekt in quartz, misinterpretation: Jones, K. A., 1.
Fluorescent X-ray spectrographic probe: Thatcher, J. W.
Grain-size analysis, slate and thin-section correlation: Friedman, G. M., 1.
Igneous rocks, acidic, rapid analysis, infrared spectrophotometer: Lyon, R. J. P., 1.
Limestones, dolomitic, structure study from enlarged photographs: Cooper, B. N., 1.
Macropoint counting, gratticule on photographic plate: Fitch, F. J.
Marl, chemical analysis: Schwartz, G. M., 1.
Metallographic specimens, mounting in clear, cold-setting plastic: Gencro, N. J.
Metamorphic rocks, classification, standard mineral norms: Barth, T. F. W.
Modal analysis, correction for Holmes effect: Cahn, J. W.
Plagioclase Identification, fusion: Dawson, K. R.
Sample splitter, slotted cone, laboratory use: Flanagan, F. J.
Sand, feldspar staining: Hayes, J. R.
Sand and silt, mineralogic analysis: Dell, C. I., 1.
Sand-grain sphericity determination, stereophotomicrography: Goodman, R. E.
Sandstone, disaggregating, hydrofluoric acid: Manley, F. H., Jr.
Grain-size distribution, visual estimates: Swann, D. H.
Quartz-grain orientation, photomultiplier photometer: Pierson, A. L., 3d.

Scree, size and shape of gradents of fragments: Griffiths, J. C., 1.
Sedimentary rocks, clastic, lognormal grain-size distribution: Rogers, J. J. W., 3.
Mineral-composition calculation from chemical analyses: Imbrie, J., 3.
Sediments, detrital, rounding index, application to all sizes: Brochu, M., 2.

Heavy-mineral separation: Fessen den, F. W.
Marine, physical and chemical analysis: Barnes, Harold.
Size-distribution analysis, zigzag curves: Tanner, W. F., Jr., 5.
Statistical, regression analysis: Krumbeln, W. C., 2.
<table>
<thead>
<tr>
<th>Technique—Continued</th>
<th>Petroleum exploration—Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrographic—Continued</td>
<td>Structural analysis and interpretation:</td>
</tr>
<tr>
<td>Silt-sized particles, photoextinction: Simmons, G.</td>
<td>Badgley, P. C.</td>
</tr>
<tr>
<td>Stream sands, tributary, heavy-mineral study, statistical: Carroll, D., 1.</td>
<td>Textbook, correspondence school: Walker, A. W.</td>
</tr>
<tr>
<td>Thin-section photography, low magnification: Atchley, F. W.</td>
<td>Unorthodox methods: Cook, J. C.</td>
</tr>
<tr>
<td>Uriferous rocks, radiographic: Grace, J. D.</td>
<td>Velocity logging, continuous: Bryant, H. L.; Hammond, J. W.</td>
</tr>
<tr>
<td>Petroleum exploration.</td>
<td>Water saturation in reservoirs, sonic and resistivity: Burton, R. P.</td>
</tr>
<tr>
<td>Acoustic logs, full spectrum, porosity guide: Thurber, C. H.</td>
<td>Well cuttings, examination: Castillo Tejero, C.</td>
</tr>
<tr>
<td>Clay sedimentology: Rolfe, B. N., 1.</td>
<td>Well logging: Doll, H.-G.</td>
</tr>
<tr>
<td>Cores, detailed study in reservoir evaluation: Nesbitt, J.</td>
<td>Photogeologic.</td>
</tr>
<tr>
<td>Electrical, subsurface stratigraphic control: Caswell, C. A.</td>
<td>Photographic.</td>
</tr>
<tr>
<td>Gamma ray-neutron log, porosity: MacFarlane, R. M.</td>
<td>Autoradiography, shales: Irvine, R.</td>
</tr>
<tr>
<td>Log interpretation, charts: Schlumberger Well Surveying Corp.</td>
<td>Thin sections, low magnification, enlarged: Atchley, F. W.</td>
</tr>
<tr>
<td>Logging methods: Campbell, J. M.</td>
<td>Seismologic.</td>
</tr>
<tr>
<td>Marine-seep detection, methane gas in water: Dunlap, H. F.</td>
<td>Fused-quartz extensometers, long-period strain measurements: Benoff, V. H.</td>
</tr>
<tr>
<td>Radioactivity surveying, surface anomalies: Crews, W. D.</td>
<td>Carbonates, fresh-water vs. marine, carbon-13 to carbon-12 ratio: Clayton, R. N.</td>
</tr>
<tr>
<td>Radiometric anomalies: Sikka, D. B.</td>
<td>Correlation, coal beds, petrographic and palynological: Deul, M.</td>
</tr>
<tr>
<td>Radon, porosity boundaries: Barrett, W. M.</td>
<td>Insoluble residues: McCracken, E.</td>
</tr>
<tr>
<td>Reservoir sands, elongate lenticular types: Busch, D. A.</td>
<td>Ogallala formation, Miocene-Pliocene, Texas with Nebraska: Frye, J. C., 3.</td>
</tr>
<tr>
<td>Mexico, Paja de Oro: Rockwell, D. W.</td>
<td>Volcanic rocks, layered, criteria: Cook, E. F.</td>
</tr>
<tr>
<td>Stratigraphic: Savit, C. H.</td>
<td>Dip-log computer chart: Swift, G.</td>
</tr>
<tr>
<td>Synthetic: Larguler, L. J.</td>
<td>Drill cuttings, composite interpretive logs: Maher, J. C.</td>
</tr>
<tr>
<td>Sonic logs: Tixier, M. P.</td>
<td>Facies, textural data, multiple-regression analysis: Lippitt, L.</td>
</tr>
<tr>
<td>Porosity guide: Curry, M. E.; Lovan, T. E.</td>
<td>Foraminifera, correlation of well cores, cyclic occurrence patterns of species: Hendrix, W. E.</td>
</tr>
<tr>
<td>Source beds vs. reservoirs, identification by chemical analysis: Philipp, G. T.</td>
<td>Formation contacts, locating by dip needle: Randall, J. A.</td>
</tr>
<tr>
<td>Stratigraphic traps, boundary determination, spontaneous-potential curve: Grynberg, J.</td>
<td>Jacob staff: Robinson, G. D., 2.</td>
</tr>
<tr>
<td>Program: Matson, R. M.</td>
<td></td>
</tr>
</tbody>
</table>
INDEX

TECHNIQUE—Continued  

Stratigraphic—Continued  
Structural analysis and interpretation:  
Badgley, P. C.  
Submarine: Benson, R. H., 1.  
Subsurface interpretation, palynology:  
Perkins, R. D., 2.  
TEKTONICS—Continued  
TEKTONICS—Continued  
TECTONIC MAPS. See Maps, Tectonic.  
TECTONICS. See also Faults and faulting; Folding; Orogeny; Physical geology; Structural geology.  
Alaska: Miller, D. J.  
Arctic Ocean floor: Hope, E. R.  
Arizona, Basin and Range province:  
Wilson, Eldred D., 4.  
Basins, evolution mechanics, relation to habitat of oil: Dalimius, K. F.  
British Columbia, Cordillera: White, W. Harrison.  
California, Kern County, 1952 earthquakes: Scheldegger, A. E., 2.  
Canada, west Canadian basin, Paleozoic: Sikabonyi, L. A.  
Caribbean region, island-arc and mountain systems: Hess, Harry H., 2.  
Colorado, Pass Creek area, history: Stoever, E. C., Jr.  
Connecticut: Rodgers, J., 1.  
Continental drainage control: Melton, F. A.  
Cross folding, theoretical and experimental: Bhattacharji, S.  
Fault-plane solutions, statistical analysis: Scheldegger, A. E., S.  
Fractured arcs, contraction theory: Wilson, John T., 2.  
Greenland, Nathorsts Land: Zweifel, H.  
Heat-pressure reactions in magmas and rocks under stress: Bennington, K. O.  
Maine, Kennebago Lake quadrangle, fracture patterns, interpretation: Willard, R. J., 1.  
Mechanism, primary: Bostrom, R. C.  
Mechanism, primary: Bostrom, R. C.  
Mexico: Cserna, J. de.  
Saltillo area, Coahuilla, Parras basin:  
Villa, A. E.  
Saltillo-Galeana area, Coahuila-Nuevo Leon: South Texas Geol. Soc.  
Southeastern: Contreras Velazquez, H.  
Mississippi Valley, upper: Heyl, A. V., Jr., 1.  
Mobile belts, diastrophic-sedimentary polycycles: Weeks, L. G.  
Montana, Beartooth Mts., fracture patterns: Spencer, E. W.  
Big Snowy uplift, Mississippian: Todd, D. F.  
Western: McManns, W. J.  
Nevada, eastern, Sevier arch: Harris, H. D.  
Stillwater Range: Page, B. M., 2.  
NEW Mexico, northeastern; Panhandle Geol. Soc., 2.  
Nicaragua: Giudice, D. del, 2.  
North America, Cordilleran region, relation to mineral districts:  
Wisser, E. H.  
Evolution: King, P. B.  
Western, history: Laudon, L. R.  
Pacific Ocean: Menard, H. W., Jr., 2.  
Circumferential mobile belt: Weeks, L. G.  
Phase-transition concept: Kennedy, G. S., 2.  
Salt anticlines, differential loading origin: Jones, R. W.  
Saskatchewan, Beaverlodge area, Precambrian: Chamberlain, J. A.  
Sedimentation, control: Carozzi, A. V., 3.  
Texas, northern: Russell, H. A.  
United States, Anadarko basin, northern, Early Pennsylvanian: Abels, T. A.  
Midcontinent, major features: Huffman, G. S., 3.  
Ouachita structural belt, Alabama-Texas: Flawn, P. T., 1.  
Southwestern, relation to ore districts: Mayo, E. B., 1.  
Triassic paleotectonic maps: McKee, E. D.  
Western interior, Paleozoic-Mesozoic: Bissell, H. J., 2.  
Western, Sevier arch: Harris, H. D.  
Volcanic belts, Cenozoic, relation to continental drift and total crustal shift: Ma, T. Y. H.  
Wyoming, Beartooth Mts., fracture patterns: Spencer, E. W.  
Beartooth Mts., Gardner Lake area: Harris, R. L., Jr.  
Yukon, south-central, Mesozoic: Wheeler, J. O.  
TSKITES. See also Cosmochemistry; Meteorites.  
Chemical and physical studies: Pinson, W. H., Jr.  
Composition and age methods: Beiser, A., 2.  
Georgia, Dodge and Irwin Counties, composition cf. moldavites and others: Cohen, A. J.  
Localities: Bruce, G. A.  
Magnetic susceptibility, cf. obsidian: Sentile, F. E.  
Origin: Kohman, T. P.  
Comet explosion: Cherry, R. D.  
Lunar: O'Keefe, J. A.
TEKTITES—Continued
Origin—Continued
Theories, popular account: Dake, H. C., Jr.
Radioactivity, cosmic-ray induced \(^{137}\)Cs, \(^{30}\)Be: Cherry, R. D.
TEMPERATURE. See Earth, Temperature; Geologic thermometry; Geothermic gradients; Paleoclimatology; Paleotemperatures.
TENNESSEE.
Aeromagnetic survey, Union County, mica-peridotite body: Johnson, R. W., Jr.
Engineering geology, Hick Creek watershed: Thompson, J. R.
Soils, Cleveland area, residuum, criteria in mapping bedrock: Swingle, G. D.
Areas described.
Flag Pond quadrangle: Shekarchi, E.
Economic geology.
Coal, reserves: Luther, E. T.
Mineral resources, Cleveland area: Swingle, G. D.
Map: Hardeman, W. D.
Oil and gas, well logs, by counties: Milhous, H. C.
Phosphates: Hershey, R. E., 2.
Sulfides, eastern: Maher, S. W.
Geologic maps.
Buffalo Mtn.-Cherokee Mtn. area: Ordway, R. J.
Cleveland area: Swingle, G. D.
Dyersburg quadrangle: Schreurs, R. L.
Ground water.
Cleveland area: Swingle, G. D.
Dyersburg quadrangle: Schreurs, R. L.
Historical geology.
Bentonites, Middle Ordovician, zircon ages, eastern: Edwards, G.
Buffalo Mtn.-Cherokee Mtn. area, Cambrian-Ordovician: Ordway, R. J.
Chattanooga shale, Devonian: Glover, L., 3d.
Cleveland area, Cambrian-Mississippian: Swingle, G. D.
Dyersburg quadrangle, Eocene-Pleistocene: Schreurs, R. L.
Highland Rim, northwestern, Mississippian: Marcher, M. V., 2.
Indian Bluff and Graves Gap groups, Pennsylvanian, northeastern: Wilson, C. W., Jr.
La Vergne quadrangle, Ordovician: Davis, C. J.
Maury formation, Devonian-Mississippian, De Kalb County: Kellberg, J. M., 1.
TENNESSEE—Continued
Historical geology—Continued
Maynardville limestone, Cambrian, zones, reef: Oder, C. E. L.
Pennsylvanian: Luther, E. T.
Sequatchie Valley, Paleozoic: Millic, R. C.
Tuscaloosa gravel, Cretaceous, western, relation to Pascola arch: Stearns, R. G.
Well logs, by counties: Milhous, H. C.
Wells Creek dolomite, Ordovician, central: Smith, O., Jr.
Paleontology.
Invertebrates, caves, age of colonization: Barr, T. C., Jr.
Maury formation, Devonian-Mississippian, De Kalb County: Kellberg, J. M., 1.
Spores, Densosporites, genotype, Pennington coal, Mississippian: Wilson, L. R., 3.
Pennsylvanian: Cropp, F. W., 3d.
Wapiti, Dyer County, Quaternary, well boring: Marcher, M. V., 1.
Petrology.
Chattanooga shale: Glover, L., 3d.
Chepultepec sandstone, source: Cummings, D.
Flag Pond quadrangle: Shekarchi, E.
Highland Rim, northwestern, Mississippian: Marcher, M. V., 2.
Mississippian embayment sands, multiple erosion cycles: Hershey, R. E., 1.
Tuscaloosa gravel, Cretaceous, western, relation to Pascola arch: Stearns, R. G.
Wells Creek dolomite, Ordovician, central: Smith, O., Jr.
Physical geology.
Buffalo Mtn.-Cherokee Mtn. area, thrust blocks: Ordway, R. J.
Cleveland area: Swingle, G. D.
Explosion craters and shatter cones, meteorite-impact origin: Dietz, R. S., 2.
General: Luther, E. T.
Highland Rim, northwestern: Marcher, M. V., 2.
La Vergne quadrangle: Davis, C. J.
Pennsylvanian strata, structural highs: Wilson, C. W., Jr.
Sequatchie Valley fault: Millic, R. C.
Wells Creek structure, core-drill information: Kellberg, J. M., 2.
Physiographic geology.
Central Basin: DeSelm, H. R.
Cleveland area, erosion surfaces: Swingle, G. D.
TERRACES. See also Changes of level; Shorelines.
Matanuska Valley: Stump, R. W.
TERRACES—Continued
Alberta, Sturgeon Lake area: Henderson, E. P., 2.
California, Pigeon Point, bedrock, Pleistocene: Moore, D. G.
San Diego area, Pleistocene, coastal and river: Carter, G. F.
Santa Rosa Island, Pleistocene, radiocarbon ages: Orr, P. C.
Connecticut, New Britain quadrangle, kame-terrace deposits: Simpson, H. E.
Continental shelf and slope: Heezen, B. c., 2.
Indiana, Whitewater drainage basin, upper, Pleistocene: Gooding, A. M., 1.
Kansas River valley, Wamego to Topeka: Beck, H. V.
Louisiana, southern, Quaternary: Russell, R. J., 2.
Massachusetts, Shelburne Falls quadrangle: Segerstrom, K.
Mexico, Punta Cabras, Baja California, Pleistocene marine platform, age and origin: Addicott, W. O.
North Dakota, Square Buttes coal field: Johnson, W. D., Jr.
Ohio, Hocking and Scioto Valleys, glacial outwash, pre-Illinoian-Wisconsin: Kempton, J. P.
Puente Hills, eastern, Fernando group: Durham, D. L.
San Joaquin Valley, continental deposits, ages: Kitts, D. B., 2.
South Dakota, Big Bend dam site area, Pleistocene: Coogan, A. H.
Stream, genetic types, criteria for recognizing: Gooding, A. M., 1.
Inconsistent relation to gradient: Crickmay, C. H.
Texas, McMennan County: Hamilton, D. L.
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Wisconsin, Baraboo district: Thwaites, F. T.

TERTIARY. See also Cenozoic; Paleontology, Tertiary.
Arizona, southern: Wood, P. A.
California, Blairsden quadrangle: Durrell, C., 2.
Cost Ranges, biostratigraphy, lower: Mallory, V. S.
Jackson area, volcanic domes: Rose, R. L., 1.
La Honda-San Gregorio quadrangles: Touring, R. M., 2.
Langley Hill-Waterman Gap area: Cumings, J. C.
Northern, Lovelock formation, Eocene, basalt lava: Durrell, C., 1.
Puente Hills, eastern, Fernando group: Durham, D. L.
San Joaquin Valley, continental deposits, aquifers: Davis, G. H., 1.
Torrance-Santa Monica area, aquifers: Poland, J. F., 1.
Colorado, Chicago Creek area: Harrison, J. E.
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Trinidad-Aguilar area: Harbour, R. L.
Florida, land-pebble phosphate district, drill-core data: Catheart, J. B.
Type localities: Purl, H. S., 2.
West-central: Carr, W. J.; Ketner, K. B.
Greenland, Nügssuaq Peninsula, nonmarine sediments: Koch, B. E.
Western, basalt province, sequence of igneous rocks: Munck, S.
Idaho, Goose Creek district: Mapel, W. J., 1.
North Fork quadrangle: Anderson, A. L.
Jamaica, north-central, karst area, Yellow-White limestone series, Eocene-Miocene: Sweeting, M. M.
Louisiana, southern, Miocene: Limes, L. L.
Southern, post-Oligocene composite thicknesses: Crouch, R. W.
Mexico, eastern: López Rubio, J. M.
Huetamo de Nifiez region, Michoacán: Fantoja Alor, J.
Macuspana basin, Tabasco, subsurface: Hernández Herrera, S.
Rodolfo Ogarrio oil field, Tabasco, Miocene: Pérez Rincón, H.
Southeastern: Contreras Velázquez, H.
Tampico-Misantla basin, Danian, base of Paleocene, foraminiferal correlations: Obrégon de la Parra, J. 1.
TERTIARY—Continued

Mexico—Continued


Nebraska, Oligocene-Miocene, faunal correlations: Toohey, L. M.

Nevada, Goose Creek district: Mapel, W. J., 1.

New Jersey, Coastal Plain, lower: Olson, B. K.

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Oregon: Baldwin, E. M., 1; Wilkinson, W. D., 1.

Eastern, Miocene volcanic rocks, relation to deformation: Thayer, T. P.

Puerto Rico, northwestern, middle: Gordon, W. A.

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Uinta Basin, western, Green River and lower Uinta formations, Eocene: Picard, M. D., 1.

Washington, Cascade Range, Naches-Yakima Rivers area: Stout, M. L.

Dutch Miller Gap area: Ellis, R. C.

Wyoming, Fossil basin, lower: Tracey, J. I., Jr.

Saratoga area, uniferous formations: Stephens, J. G.

TEXAS—Continued

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Symposium, Edwards limestone: Lozo, F. E., 1.

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Economic geology.


Iron, eastern: Brown, W. F.

Mercury, Terlingua district: Yates, R. G.

Natural gas, Brown-Bassett field: Vin­son, M. C.

Stuart City field: Montgomery, P. A., Jr.

Yoakum field: Hoyt, W. V.

Oil and gas, Anadarko basin, northwestern: Beebe, B. W., 1, 2.

Caplen field: Parker, H.


East Texas basin, salt domes: Kruse­kopf, H. H., Jr.

Edwards limestone fields: Sandidge, J. R.

Fashing field: Pinkley, G. R.

Hitchcock field: Reiter, J. O.

Slocum dome: Read, J. L., Jr.

Southwestern: McClain, O. G.

Wintergarden field: Corpus Christi Geol. Soc.

Petroleum, Brazoria County, northwestern: Cantrell, R. B.

Delaware basin: Dodge, C. F.; Kuhn, P. J.

Grayson County: Bradfield, H. H., 1.

High Island salt dome: Barnes, C. W.

Horseshoe atoll, Borden-Howard Counties: Burnside, R. J., 1.

Scurry-Kent Counties: Stafford, P. T.

Jackpot field: Warren, E. M.
INDEX

Texas—Continued

Economic geology—Continued

Petroleum—Continued

Kent County: Phifer, R. L., 2.
Muenster arch area: Bradfield, H. K., 2.
Permian, northern: Wayland, J. R.
Permian basin, eastern-shelf fields: Conselman, F. B., 1.
Puckett field: Heater, R. J.
Rasberry field: Swanson, R. L.
Scruby County: Phifer, R. L., 4.
South Bosque field: Mason, C. B.
Strawn series reservoirs, northern: Dickinson, R.
Turtle Bay field: Akkerman, R. P.
Uranium, Palangana salt dome, origin: Weeks, A. D., 3.
Vermiculite, central: Clabaugh, S. E.

Geologic maps.

Bexar County: Arnow, T.
Cave Peak area: Warner, L. A.
Galveston Island-Bolivar Peninsula area: Gulf Coast Assoc. Geol. Soc.
Lancaster quadrangle: Ingels, J. J. C.
McLennan County, Edwards limestone, Cretaceous, outcrop: Nelson, H. F.
Marathon uplift: West Texas Geol. Soc.
Medina County: Holt, C. L. R., Jr.
Ouachita-Arkuckle junction: Flawn, P. T., 4.
Sabine Lake area: Gulf Coast Assoc. Geol. Soc.; Kane, H. E.
Terlingua mercury district: Yates, R. G.
Van Horn Mts.: Twiss, P. C.
Winkler County, sketch: Garza, S.
Yearlinghead Mtn. area: Clabaugh, S. E.

Ground water.

Bexar County, Edwards and associated limestones: Arnow, T.
General: Lohse, E. A.
Hueco Bolson: Knowles, D. B.
Medina County: Holt, C. L. R., Jr.
Winkler County: Garza, S.

Historical geology.

Anacacho limestone, Cretaceous, southwestern: Harvill, L. L.
Anadarko basin, northwestern, Paleozoic: Beebe, B. W., 1.
Austin chalk, Cretaceous, central: Seewald, K. O.
Bexar County, Cretaceous-Recent: Arnow, T.
Cambrian-Ordovician, pre-Simpson: Barnes, V. E., 1.
Comanche Peak limestone, Cretaceous, central: Caldwell, G. W.

Texas—Continued

Historical geology—Continued

Cretaceous, mid-Comanche, north-central: Loso, F. E., 2.
Middle, central: Baylor Geol. Soc.
Mollusk zonation, techniques: Young, E. P., 3.
Cretaceous-Oligocene, southwestern: McClain, O. G.
Cretaceous-Tertiary, southern: Corpus Christi Geol. Soc.
Delaware basin, Permian: Kuhn, P. J.
Delaware-Val Verde basins, Ordovician-Permian: Vertrees, C. D.
Del Rio clay, Cretaceous, central: Stanford, J. W.
Del Rio marl-Buda limestone contact, Cretaceous, Val Verde basin: Hazzard, R. T.
Devils River uplift and Ouachita structural belt: Flawn, P. T., 2.
Eagle Ford group, Cretaceous, central: Chamness, R. S.
Edwards limestone, Cretaceous, central: Jameson, J. E.; Nelson, H. F.
Ellenburger formation, Ordovician, correlation, insoluble residues: Barnes, V. E., 5.
Foard County, Pleistocene: Dalquest, W. W., 1.
Frio formation, Oligocene, Pheasant-Francitas area: Walters, J. E.
Oligocene-Miocene, upper gulf coast: Houston Geol. Soc.
Galveston area, Recent, changes of level: Bernard, H. A.
Georgetown limestone, Cretaceous, central: Bates, N. A.
Glass Mts., Permian: Ross, C. A.
Goodland formation, Cretaceous, Tarrant County: Beddoes, L. R., Jr.
Grayson County, Cambrian-Cretaceous: Bradfield, H. H., 1.
Gulf coast, Quaternary: LeBlanc, R. J.
Haymond boulder beds, Pennsylvanian(?), Marathon basin: Hall, W. Ellis.
Horseshoe atoll, Borden-Howard Counties, Pennsylvanian-Permian: Burnalde, R. J., 1.
Scurry-Kent Counties, Pennsylvanian-Permian: Stafford, P. T.
Jackson group, Eocene, Karnes County area: Eargle, D. H., 1.
Kiamichi formation, Cretaceous, central: Shelbourne, O. B., Jr., 1.
Lancaster quadrangle, Cretaceous-Quaternary: Ingels, J. J. C.
Medina County, Cretaceous-Pleistocene: Holt, C. L. R., Jr.
Midland fossil-man site, Pleistocene: Wendorf, F.
Midway group, Paleocene, Tehuacana Creek area: Kellough, G. R.
TEXAS—Continued

_Bibliography of North American Geology, 1959_—Continued

**Historical geology—Continued**

Montoya group, Ordovician, trans-Pecos area: Howe, H. J.

Ogallala formation, Miocene-Pliocene: Frye, J. C., S.


Paleozoic, central and western: Wilson, J. L.

Pennsylvanian, Upper, time: correlating units: Brown, L. F., Jr., 2.

Pepper shale, Cretaceous, central: Davis, A. E., 2.

Pre-Simpson formations, Cambrian-Ordovician, correlation, color: Barnes, V. E., 4.

Puckett oil field: Hester, R. J.

Rimrock country, northern, Cenozoic: DeFord, R. K.

Rio Grande valley, Hudspeth County, early Pleistocene age of basin fill, fauna: Strain, W. S.

Sabine Lake area, Quaternary: Kane, H. E.

Strawn series, Pennsylvania, northern: Roberts, E. D.

Northern, conference: A.I.M.E. North Texas Sec.


Terlingua mercury district, Cretaceous-Tertiary: Yates, R. G.

Van Horn Mts., Precambrian and Permian-Tertiary: Twiss, P. C.

Washtia group, Cretaceous, nomenclature, history, Red River area: Curtis, N. M., Jr., 3.

Winkler County: Garza, S.

Yoakum area, Wilcox formation submarine canyon: Hoyt, W. V.

**Mineralogy.**

Chert, Cherokee area: Stone, C. M.


Ellenburger group, cores, thin-section study: Folk, R. L., S.

Eucolite, Hudspeth County: Huang, W. T., 1.

Galveston Island, beach sands, gulf: bay: Rogers, J. J. W., 2.

Heavy minerals, Bastrop County, Eocene sands, source indicators: Folk, R. L., 1.

Terlingua mercury district: Yates, R. G.

**Paleontology.**

Ammonoids, trans-Pecos area, Cretaceous: Young, K. P., 1.

Amphibians and reptiles, Friesenhahn Cave, Pleistocene: Mechem, J. S.

Armadillo, Denton County, Pleistocene: Slaughter, B. H.

Bison, Quaternary: Dalquest, W. W., 2.

TEXAS—Continued

Petrology—Continued
Alpine area, palagonite tuft: Huang, W. T., 2.
Anacacho limestone, asphalt, origin, southwestern: Harvill, L. L.
Bastrop County, Eocene sands, sources: Folk, R. L., 1.
Bexar County: Arnow, T.
Brazoria County, Oligocene-Miocene reefs on piercement structures: Cantrell, R. B.
Brazos River valley, Cretaceous-Tertiary: Soc. Econ. Paleontologists and Mineralogists Gulf Coast Sec., 2.
Cambrian-Ordovician, pre-Simpson: Barnes, V. E., 1.
Canadian River sediments, composition and texture: Pollack, J. M.
Capitan limestone, origin, gyspum alteration: Moore, G. W., 2.
Edwards limestone, central: Nelson, H. F.
Chert, origin: Pittman, J. S., Jr.
Ellenburger group, clay minerals, igneous source: Jonas, E. C., 2.
Cores, thin-section study: Folk, R. L., 3, 4.
Foard County, Pleistocene: Dalquest, W. W., 1.
Frio formation, eastern Gulf coast: Branham, T.
Eastern Gulf coast, Nodosaria sand environments: Mallory, J. A.
Galveston Island, beach sands, Gulf of Mexico: Rogers, J. J. W., 2.
Gulf coast, Recent beach sands: Hsu, K. J., 1.
Horseshoe atoll, Borden-Howard Counties: Burnside, R. J., 1.
Scurry-Kent Counties: Statford, P. T.
Karnes County area, coastal faulting: Eargle, D. H., 1.
Lancaster quadrangle: Ingels, J. J. C.
Mustang Hill laccolith, basalt: Greenwood, R.
Ouachita geosyncline: Goldstein, A., Jr., 1.
Ouachita-Arkabuck junction: Flawn, P. T., 4.
Pandale anticline: Vinson, M. C.
Pearsall—Praetitas area, Oligocene faulting, sedimentation control: Waiters, J. E.
Puckett oil field: Hester, R. J.
Red Mt. area: Boyer, R. E., 2.
Rimrock fault: DeFord, R. K.
Salt domes, East Texas basin: Krusekopf, H. H., Jr.
Slocum salt dome: Read, J. L., Jr.
Southwestern: McClain, O. G.
Tectonic features, northern: Russell, H. A.
Terlingua mercury district: Yates, R. G.

Physical geology.
Anadarko basin, northwestern: Beebe, B. W., 1.
Balcones fault zone, central: Boyd, C. E.
Breckia pipes, Terlingua mercury district: Yates, R. G.
Cambrian-Ordovician, pre-Simpson: Barnes, V. E., 1.
Central-western: Frye, J. C., 3.
Delaware basin, olistostromes: Bucher, W. H., 1.
Delaware-Val Verde basins, tectonics: Vertrees, C. D.
Devils River uplift and Ouachita structural belt: Flawn, P. T., 2.
Pashing oil and gas field: Pinkley, G. R.
Galveston-Houston area, subsidence: Small, J. B.
Grand Saline salt dome: Muehlberger, W. R.
Grayson County: Bradfield, H. H., 1.
Gulf coast, upper, subsidence, groundwater withdrawal: Winslow, A. G.
Horseshoe atoll, Borden-Howard Counties: Burnside, R. J., 1.
Scurry-Kent Counties: Stafford, P. T.
Karnes County area, coastal faulting: Eargle, D. H., 1.
Lancaster quadrangle: Ingels, J. J. C.
Marathon basin, Hammond boulder beds, relation to folds and faults: Hall, W. Ellis.
Medina County: Holt, C. L. R., Jr.
Muenster arch area: Bradfield, H. H., 2.
Mustang Hill laccolith: Greenwood, R.
Ouachita geosyncline: Goldstein, A., Jr., 1.
Ouachita-Arkabuck junction: Flawn, P. T., 4.
Pandale anticline: Vinson, M. C.
Pearsall—Praetitas area, Oligocene faulting, sedimentation control: Waiters, J. E.
Puckett oil field: Hester, R. J.
Red Mt. area: Boyer, R. E., 2.
Rimrock fault: DeFord, R. K.
Salt domes, East Texas basin: Krusekopf, H. H., Jr.
Slocum salt dome: Read, J. L., Jr.
Southwestern: McClain, O. G.
Tectonic features, northern: Russell, H. A.
Terlingua mercury district: Yates, R. G.

Physiographic geology.
Drainage patterns, tectonic control: Melton, F. A.
Galveston area, barrier-island features: Bernard, H. A.
McLennan County: Davis, A. E., 1.
Terraces: Hamilton, D. L.
TEXAS—Continued

Physiographic geology—Continued
Sabine Lake area: Kane, H. E.
Shorelines. See also Study and teaching.
Angular relations of lines and planes,
geologic problems, solutions:
Higgs, D. V., 1.
Clays and ceramic materials, chemistry
and physics: Searle, A. B.
Crystallography: Jong, W. F. de.
Crystal-structure analysis, vector space:
Buerger, M. J.
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Economic geology: Riley, C. M., 1.
Engineering geology: Trefethen, J. M.
Geomorphology, for laymen: Dury, G. H.
Ground-water hydrology: Todd, D. K.
Historical geology, writing, material to
be included: Dryden, A. L., Jr., 2.
Mineralogy: Berry, L. G.; Kraus, E. H.
Optical: Kerr, P. F., 2.
North America, tectonic evolution:
King, P. B.
Paleontology: Stirton, R. A.
Petrography: Moorhouse, W. W.
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school: Walker, A. W.
Petrology geology: Landes, K. K., 2.
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Finch, V. C.
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engineering: Dapples, E. C., 1.
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B., 2.
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ods: Badgley, P. C.
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THERMAL ANALYSIS. See also Analyses; Ex­
perimental investigations.
Bauxitic and other clays, Mexico:
Schmitter, E.
Bentonite, California, Vallecitos area:
Dunn, J. A.
Borax-thiocalcinite-kernite: Glese, R.
F., Jr.
Dakota group, Kansas, detailed core:
Merriam, D. F., 4.
Evaporites: Kopp, O. C.
Galena and clausthalite: Dunne, J. A.
Hard-to-analyze minerals: Smith, D. S.
Hydrated minerals: Hight, R. P.
Sample holder—external thermocouple
for fusible samples: Fitch, J. L.
Shale, metastable alumina polymorph
with structure approaching cor­

THERMAL WATERS. See also Springs.
Alberta, Banff area, radioactive springs:
Haltes, T. B., 1.
El Salvador: Hötting, B.
Mexico, Patéhe area, Hidalgo, geother­
ic-energy field, steam wells:
Anda, L. F. de.
Nicaragua, potential source of electrical
energy: Gudice, D. del, 2.
Ore deposition: Barton, P. B., Jr., 2.
Oregon, Warner Valley, hot springs:
Peterson, N. V., 2.
United States, landscapes: Shimer,
J. A.
Wyoming, Dubois area: Reeves, C. C.,
Jr., 3.

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Calcite, impurity effects: Medlin, W.
L., 1.
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Halite crystals: Halperin, A.
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E. E., 4.
Pressure effects, relation to geologic
Measurement, apparatus: Lewis, D. R.
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E. E., 2.
New Mexico, Cambrian-Ordovician, pre­
Simpon, Lea County: Barnes,
V. E., 3.
Radiation-induced, age-determination
method, investigation: Angino,
E. E., 2.
Suppression by hydrothermal altera­
tion: Lovering, T. G., 1.
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rocks, pre-Simpson: Barnes, V.
E., 3.

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minerals.
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Mtn. area: MacKevett, E. M.,
Jr., 2.
Prince of Wales Island, Ross-Adams
deposit: MacKevett, E. M.,
Jr., 1.
Reconnaissance: Matzko, J. J., 1.
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uranoo thorite: Hutton, C.
O., 1.
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weathering, distribution: Piller,
R., 2.
McKinley Mtn. area: Christman, R.
A., 1.
Colorado Plateau, Mancos shale, distrib­
ution: Piller, R., 1.
Earth's crust: Adams, J. A. S., 1.
Geochemistry: Adams, J. A. S., 1.
Granitic rocks, petrogenetic control:
Whitfield, J. M., 1.
Meteorites, stone, neutron-activation
analysis: Bate, G. L.
INDEX

THORIUM—Continued
North Carolina-South Carolina, Piedmont, monazite placers: Overstreet, W. C.

THRUSTS AND THRUSTING. See also Faults and faulting.
Alberta, Disturbed belt, theories: Choquette, A. L.
Front ranges, Banff area: Usher, J. L.
Moose Mtn. area: Dahlstrom, C. D. A.
Panther dome area: Hunt, C. W., 1.
Rocky Mts., foothills: Fox, F. G.
Arkansas, Ouachita Mts.: Miser, H. D.
California, San Gabriel Mts., Vincent thrust, Pelona schist facies: Ehlig, P. L.
Colorado, Blanca Peak area: Kasabach, H. F.
Huerfano Park-Sangre de Cristo Mts., Laramide revolution: Johnson, Ross B.
Cuba, Santa Clara area, low-angle, serpentine-limestone contacts, trapped oil: Wassail, H. W., 3d, 1.
Mechanics, large overthrusts, pressures in fluid-filled porous solids: Hubbert, M. K.
Montana, Granite County, southeastern: Poulter, G. J.
Lewis overthrust: Ross, C. P., 1.
Rocky Mts., Disturbed belt: Hurley, G. W.
Sixteenmile area: Robinson, G. D., 1.
Nevada, Bare Mtn.: Cornwall, H. R.
Lincoln County, southeastern: Tschanz, C. M.
Lone Mtn.: Lovejoy, D. W.
Ruby Mts.-East Humboldt Range: Snelson, S.
North Carolina, Grandfather Mtn. area: Bryant, B. H.
Pennsylvania, Sinking Valley: Moews, N. N.
Tennessee, Buffalo Mtn.-Cherokee Mtn. area: Ordway, R. J.
Cleveland area: Swingle, G. D.
Sequatchie Valley fault: Millic, R. C.
Utah, Bismark Peak quadrangle: Foster, J. M.
Mt. Nebo-Salt Creek area: Johnson, K. D.
Nebo overthrust: Johnson, K. D.
Needle Range: Gould, W. J.
Pavant Range, southern: Crosby, G. W., 2.

TILL. See also Glacial geology.
Alberta, Sturgeon Lake area: Henderson, E. P., 2.
Canada, western, features and classification: Gravenor, C. P., 3.
Carbonate-leaching depth, correlation: Dreimanis, A., 2.
Connecticut, New Britain quadrangle: Simpson, H. E.
Fabric analysis, rapid macroscopic method: Dreimanis, A., 3.
Fabric-analysis rack: MacClintock, P., 2.
Indiana, Marion County: Harrison, P. W.
Iowa, southeastern, geologic and engineering properties: Hansen, J. A., Jr.
Southern, petrography: Dahl, A. R.
Maine, Poland quadrangle: Hanley, J. B.
Massachusetts, Shelburne Falls quadrangle: Segerstrom, K.
Wilmington quadrangle: Castle, R. O.
Minnesota, Cook County: Grout, F. F.
Petrographic relations to bedrock: Arneman, H. F.
New York, Finger Lakes region, depth of leaching, relation to carbonate content: Merritt, R. S.
North America, Pleistocene gumbotil and interglacial clays, petrographic study of weathering: Lougee, R. J.
Ontario, southern, sand fraction, mineralogy: Deil, C. L., 2.
Pebble alignment, glacial movements: Dreimanis, A., 4.
Pennsylvania, northwestern: Shepps, V. C., 2.
Saskatchewan, Swift Current area, Wisconsin stage: Christiansen, E. A.
United States, Middle West, Pleistocene: Helnzclain, J. de.

TIN
TITANIUM. See also Heavy minerals.
Bauxite deposits, ilmenite alteration products: Hartman, J. A.
New Jersey, southern, ilmenite sand deposits: Johnson, M. E.
Quebec, St.-Hippolyte area: McGerrigle, J. I.
Sand deposits: Gillson, J. L., 2.

TOURMALINE. See Gems and gem materials.

TRACE ELEMENTS. See Elements.

TRACKS AND TRAILS.
Arizona, Bass formation, Precambrian, Grand Canyon, problematic: Alf, R. M., 1.
Elephant, Verde formation, Pliocene-Pleistocene, Montezuma Castle National Monument area: Brady, L. F.
California, mammals, Avawatz formation, Pliocene: Alf, R. M., 2.
Salamanders, Mehrten formation, Pliocene: Peabody, F. E., 1.

TRAVERTINE. See also Carbonate rocks.
Wyoming, Dubois area: Reeves, C. C., Jr., 3.

TRIASSIC. See also Mesozoic; Paleontology, Triassic.
Alberta, Peace River area: Hunt, A. D.
Arizona, east-central, correlation with New Mexico: Cooley, M. E., 1.
British Columbia, Peace River area: Hunt, A. D.
Connecticut: Rodgers, J., 1.
Middletown quadrangle: Lehmann, E. P.
Nevada, Union district: Silberling, N. J.
New Mexico, west-central, correlation with Arizona: Cooley, M. E., 1.
New York, Rockland County, Upper: Perlmuter, N. M., 1.
Nova Scotia: Klein, G. deV., 2.
Newark group, correlation with Connecticut and New Jersey: Baird, D.
Pennsylvania, Bucks County, Newark group: McLaughlin, D. B.
United States, Newark basin, Upper, correlation: Bock, W., 3.
Paleontologic maps: McKee, E. D.
Utah, southeastern: Stewart, J. H., 1.
Wasatch and Uinta Mts.: Scott, W. F.
Wyoming, Wasatch and Uinta Mts.: Scott, W. F.

TRILOBITE—Continued
Eirathia kingii, Cambrian, Utah, Wheeler formation, paleoecology and biometrics: Bright, R. C.
Isotelus, Ordovician, Oklahoma, Viola limestone, Coal County: Amsden, T. W., 1.
Lonchodomas megeheeii, Ordovician, Oklahoma, Bromide formation, Criner Hills: Sutherland, F. K., 1.
Olenellidae, Cambrian: Best, R. V.
Ontogeny: Fritz, M. A., 2.
Phacocephaloid, Devonian, Nevada, Eureka district: Jones, W. P.
Proloiostracus stenuelliformis, Early Cambrian, Greenland, statistical analysis: Shaw, A. B.
Pseudogygites latimarginatus, Ordovician, Ontario, Craigleith formation, meraspis: Fritz, M. A., 2.
Remopleurididae, Trinucleidae, Raphiolophoridae, Edymionilidae, Middle Ordovician, Virginia: Whittington, H. B.
Systematic descriptions: Harrington, H. J.
Virginia, Middle Ordovician, alliied: Whittington, H. B.

TRILOBITOMORPHA.
Arthropleura crista, Pennsylvanian, Illinois, Mazon Creek area: Richardson, E. S., Jr., 2.
Systematic descriptions: Harrington, H. J.

TRINIDAD. See also West Indies.
Armored mud balls, coastal areas: Kugler, H. G.
Cretaceous, Lower, foraminiferal zonation: Bolli, H. M.
Fishes, Late Cretaceous-Tertiary: Casler, E. M.
Foraminifera, planktonic, Cretaceous: Bolli, H. M.

TUFF.
Idaho, Goose Creek district and adjacent states: Mapel, W. J., 1.
Nevada, Oak Spring formation, Tertiary: Keller, G. V., 5.
Rainier Mesa, underground nuclear explosion effects: Wilmarth, V. R., 2.
Texas, Alpine area, palagonite: Huang, W. W. T., 2.
United States, western, ignimbrites: Martin, R. C.
Western, ignimbrites, stratigraphic and structural utility: Cook, E. F.

TUNGSTEN.
Alaska, geochemical exploration, fusion method: Mukherjee, N. R.
TUNGSTEN—Continued

United States. See also the states; Appalachian basin; Appalachians; Atlantic Coastal Plain; Colorado Plateau; Gulf Coastal Plain; Mississippi Valley; Rocky Mountains; Williston basin.

Aerial photograph, high-altitude, Arizona and adjoining areas, interpretation: Mitcham, T. W.

Bibliography, aluminum silicates: Grametbaur, A. B.

Iron-ore reserves: Carr, M. E. S.

Coal-ash studies, germanium concentration: Corey, R. C.

Geochemical investigations, Great Basin, carbon-14 in fresh-water systems: Broecker, W. S., 3.

Phosphoria formation, uranium in phosphorites and black shales, western: Sheldon, R. P.

Selenium in volcanic rocks, western: Davidson, D. F.

Southeastern: Bloss, F. D., 2.

Uraniferous carbonaceous materials, western: Denson, N. M., 1.

Geophysical investigations, Lake Superior iron and copper region: Keller, G. V., 4.


Geophysical logging methods, Lake Superior region: Zablocki, C. J.


Soils, Great Lakes region, glacial-lake clays, geotechnical properties: Wu, T. H.


Economic geology.

Beryllium, nonpegmatitic: Griffitts, W. R.; Warner, L. A.

Coal, stratigraphy and resources, bibliography: Wler, C. E.


Iron resources: Carr, M. E. S.


Mercury: Bailey, E. H., 1.

Metallic minerals, Basin and Range province, porphyry relations: Stringham, B. F., 1.

Metallocenic provinces, definition by sulfophile trace elements, southwestern: Burnham, C. W., 2.

Oil and gas, Anadarko basin, western border, possibilities: Wheeler, R. R.

Mississippian: Clinton, R. P.

Ore deposits, Mississippi Valley type: Behre, C. H., Jr., 1; Ohle, E. L., Jr.

Silicates, aluminum, bibliography and map: Grametbaur, A. B.
**United States—Continued**

**Economic geology—Continued**

Titanium, sand deposits: Gillson, J. L., 2.

Uranium, epigenetic deposits, map: Finch, W. L., 1.

In carbonaceous materials, western: Denson, N. M., 1.

West of Colorado Plateau: Davis, D. L.

Volcanic lightweight aggregates, western: Chesterman, C. W., 1.

**Geologic maps.**

Beryllium-bearing areas: Warner, L. A.

Earliest, history: Wells, J. W.

Glacial, east of Rocky Mts.: Flint, R. F.

Paleogeologic, units overlying Triassic: McKee, E. D.

Units underlying Triassic: McKee, E. D.

**Ground water.**

Alluvial-filled valleys, southwestern: Schwalen, H. C.

Buried-valley aquifers, northern: Miller, D. W.

**Historical geology.**

Cayuga rocks, Silurian, east-central: Alling, H. L.

Cordilleran region, Mississippian-Permian, correlation: Bissell, H. J., 5.

Forest City basin, Missouri-Iowa-Kansas-Nebraska, Pennsylvanian, pre-Marmaton: Searight, W. V., 2.

Great Basin, Pleistocene lake levels, late, radiocarbon dating: Broecker, W. S., 7.

Salt chronology of lakes, Quaternary: Broecker, W. S., 4.

Great Lakes region, late Pleistocene: Bretz, J. H., 2.

Great Plains, northern, Lower Cretaceous: Wulf, G. R.

Hugoton embayment-Amarrillo uplift, pre-Dolomites series: Worden, J. A.

Igneous rocks, lead-alpha ages: Jaffe, H. W.

Lakes, extinct, distribution, western: Feth, J. H.

Midcontinent, Cambrian-Mississippian, insoluble-residues correlation: McCracken, E.

Cambrian - Pennsylvanian: Huffman, G. G., 3.

Devonian - Pennsylvanian: Branson, C. C., 3.

Mississippian, boundaries and subdivisions: Branson, C. C., 4.

Symposium: Moore, C. A.

Pennsylvanian-Permian, cyclic sedimentation: Moore, R. C.

Permian, cyclic sedimentation: Imbrie, J., 1.

**United States—Continued**

**Historical geology—Continued**

Midcontinent to Appalachians, Paleozoic correlation chart: Oil and Gas Jour., 2.

Middle West, Pleistocene: Heinzeln, J. de.

Morrow series, Pennsylvania, Anadarko basin, northern: Abels, T. A.

Ordovician, western: Hinte, L. F., 2.

Pacific coast region, Jurassic: Imlay, R. W., 2.

Paleoclimatology, postglacial, north-central: Just, T. K., 1.

Pennsylvanian, interbasin river systems: Friedman, S. A.

Phosphoria-Park City-Shedhorn formations, Pennsylvanian, western: McKevey, V. E., 1.

Pleistocene, late, climate, fossil cf. modern pollen data: Leopold, E. B., 2.

Rocky Mts., northern, Precambrian, rock and mineral ages: Gast, P. W., 2.


Triassic system, paleotectonic maps: McKee, E. D.

Volcanic rocks, layered, stratigraphic utility, western: Cook, E. F.

Quaternary, age criteria, southwestern: Clements, T. D., 1.

**Mineralogy.**

Collecting localities, midwestern: Zettner, J. C., 2.

Gem granites, collecting: Van Landingham, S. L.

Gems, rare: McIntosh, F. G.

Heavy minerals, Illinois No. 2 coal underclay, eastern Interior basin: Parham, W. E., 2.

Kaolinitic clays, geochemistry, element distribution by size-fractions: McLaughlin, R. J. W.


**Paleontology.**

Algae, Silurian, southwestern: Rezak, R.

Brachipods, Middle Silurian, regional correlation, eastern: Tillman, C. G.

Carnivores, *Nimravus*, Oligocene-Miocene: Toohey, L. M.

Conodonts, Cincinnatian series, Ordovician, midcontinent, zones: Sweet, W. C., 3.

Echinoids, Cenozoic, eastern: Cooke, C. W.

Scutellaster oregonensis, Pliocene, Pacific coast: Durham, J. W., 3.

Ferns, coenopterid, Des Moines series, Pennsylvanian, central: Eggert, D. A., 1.

*Psaronius*, Pennsylvanian, central: Morgan, Eleanor J.
United States—Continued

Paleontology—Continued

Fishes, Newark basin, Triassic: Bock, W., 3.

Inoceramus community, Greenhorn formation, Cretaceous, paleoecology: Stevenson, R. Evans, 6.

Ostracodes, Mississippian - Permain, checklist and distribution: Echols, D. A. J.

Pelecypods, Sphaeriidae, Pliocene-Pleistocene, central: Herrington, H. B.

Plants, Tertiary problematica, western: Brown, Roland W., 2.

Petrology.

Anadarko basin, northern, Morrow series: Abels, T. A.

Cordilleran region, Mississippian-Permain beds, silica source: Bissell, H. J., 5.

Cretaceous kaolin deposits, detrital origin, southeastern: Goodell, H. G.


Igneombrizes, western: Martin, R. C.

Midcontinent, reservoir sands, elongate lenticular types: Busch, D. A.

Porphyry copper deposits, hydrothermal alteration facies, southwestern: Creasy, S. C.

Quartz diorite boundary line, western: Moore, J. G.

Sand, quartz, classification of environment by surface wear: Schneider, H. E.

Sandstones, Pennsylvanian, silica cement, northeastern: Siever, R. E.

Volcanic lightweight aggregates, western: Chesterman, C. W., J.

Physical geology.

Anadarko basin, northern, tectonic Early Pennsylvanian: Abels, T. A.

Earthquakes, eastern cf. western: Wilson, James T.

Selamic regionalization: Richter, C. F., 1.

Hugoton embayment-Amarillo uplift, pre-Des Moines series: Worden, J. A.

Laboratory manual: Ireland, H. A., 1.

Midcontinent, subsurface structural trends: Lyons, P. L.

Tectonic features: Huffman, G. G., 3.

Ouachita geosyncline, sedimentation: Cline, L. M., 2.

Ouachita structural belt, Alabama-Texas: Flawn, P. T., 1.

Paleotectonic maps, Triassic: McKee, E. D.

Semiarid areas, erosion studies, landform analysis: Schumm, S. A.

Structure belts, crossings, ore districts, southwestern: Mayo, E. B., 1.

Tectonic evolution: King, P. B.

United States—Continued

Physical geology—Continued

Tectonic provinces, relations of Florida to Appalachian and Ouachita systems: King, E. R., 2.

Volcanic rocks, layered, structural interpretation, western: Cook, E. F.

Physiographic geology.


Tri-State lead-zinc district, manmade features: Doerr, A. H.

Varied landscapes, geologic story: Shimer, J. A.

Uranium. See also Radioactive minerals.


Reconnaissance: Matzko, J. J., 1.

Arizona, Cameron area, recent redistribution: Austin, S. R.

Dripping Spring quartzite: Granger, H. C.

Bibliography: Solster, P. E.

Canada: Griffith, J. W.

Carbonaceous materials, association: Breger, I. A., 1.

Colorado, Boulder Creek granodiorite, weathering, distribution: Filler, R., 2.

Cochetopa district, Los Ochos mine area: Malan, R. C.


Garo deposit: Wilmarth, V. R., 1.

Peanut mine: Roach, C. H.


Salt Wash member, role of carbonate cement: Archbold, N. L.

Slick Rock district, Salt Wash member, Jurassic: Shawe, D. R.

Uravan district, core studies: Keller, G. V., 1, 2.

Colorado Plateau, Chinle formation: Stewart, J. H., 1.

Geochemistry and mineralogy: Garrels, R. M., 2.

Mancoe shale, distribution: Pillar, R., 1.

Mineralization, uranium-lead age problem: Miller, D. S., 2.


Origin, isotopic data, new hypothesis: Miller, D. S., 1.

Oxidation sequence in ores: Garrels, R. M., 3; Weeks, A. D., 2.


Genesis: Garrels, R. M., 5.

Triassic rocks: Finch, W. L., 2.
Uranium—Continued

Concentration in carbonaceous materials, epigenetic origin: Denson, N. M., 1.

Conglomerate reefs, ancient, origin, hypotheses: Davidson, C. F.

Deposition in marine environments: Sheldon, R. P.

Disintegration products, isotope disequilibrium: Rosholt, J. N., Jr., 2.

Earth's crust: Adams, J. A. S., 1.

Exploration: Antunez Echegaray, F.

Directional-resistivity trends: Keller, G. V., 3.

Statistical analysis of mineralized regions: Bates, R. C.

Florida, land-pebble phosphate district: Cathcart, J. B.

Geochemistry: Adams, J. A. S., 1.


Greenland, Skergaard intrusion, magmatic differentiation: Hamilton, E. I.

Idaho, Fall Creek area, in carbonaceous rocks: Vine, J. D., 1.

Goose Creek district, in lignite: Mapel, W. J., 1.

Stanley area: Kern, B. F.


Uranium City area: Canada G. S., 20.

Sedimentary and igneous deposits, characteristics: Fischer, R. P.

South Dakota, Black Hills, southern, silica-cemented sandstone, possible guide: Post, E. V., 7.

Texas, Palangana salt dome, origin: Weeks, A. D., 3.

Texas, Palangana salt dome, origin: Weeks, A. D., 3.

United States, Chattanooga shale: Glover, L., 3d.

Epigenetic deposits, map: Finch, W. I., 1.

West of Colorado Plateau: Davis, D. L.

Western, in carbonaceous materials: Davidson, C. F.

Phosphoria formation, origin: Sheldon, R. P.

Utah, Big Indian district: Loring, W. B.

New Mexico, Datil-Gallinas-Bear Mts.: Bachman, G. O., 3.


North Carolina, Piedmont, monazite placers: Overstreet, W. C.

North Dakota, southwestern, in lignite: Denson, N. M., 1.

Nova Scotia, northern, supergene, possibilities: Brummer, J. J.

INDEX

URANIUM—Continued
Utah—Continued
Southeastern: Stewart, J. H., 1.
Thompson district, botanical prospecting: Cannon, H. L.
White Canyon area, channel systems, control of deposition: Johnson, H. S., Jr., 3.
Washington, Midnite mine: Sheldon, R. F.

Miller Hill area, ground-water concentration: Vine, J. D., 2.
Red Desert area, in coal: Masursky, H.
Saratoga area: Stephens, J. G.
Tertiary sandstone deposits, origin, relation to natural gas: Grutt, E. W., Jr.

UTAH.
Aeromagnetic and gravity surveys, Lisbon Valley area: Byerly, P. E.
Botanical prospecting, Thompson district, uranium: Cannon, H. L.
Geochemical investigations, Bingham district, trace elements in pyrite: Parry, W.
Radioactive limonite: Lovering, T. G., 2.
Temple Mtn. area, uranium in carbonaceous materials: Breger, I. A., 1.
Geophysical investigation, White Canyon district, directional-resistivity trends: Keller, G. V., 3.
Guidebook, Provo to Bryce Canyon and Zion National Parks: Brigham Young Univ. Dept. Geology.
Southern Oquirrh Mts. to northern Boulter Mts.: Utah Geol. Soc.
Library of Samples for Geologic Research: Crawford, A. L.
Sediment study, Promontory Point and Lakeside quarry blasts, mantle constitution: Berg, J. W., Jr.
Trace elements, Bingham district, sulfides: Rose, A. W.
Well logs, types, Paradox basin, correlation and evaluation uses: Millard, F. S.

Area described.
Cricket Mts.: Hintze, L. F., 3.
Pavant Range, southern: Crosby, G. W., 2.
West Tintic Range: Groff, S. L., 1.

Economic geology.
Bismarck Peak area, possibilities: Foster, J. M.

UTAH—Continued
Economic geology—Continued
Ceramic clay, red, Henefer area: Stringham, B. F., 2.
Fluorite, Juab County: Nackowski, M. P., 1.
Thompson Range district: Staatz, M. H.
Lead, trace, in potassium feldspars, relation to ore deposits: Slawson, W. F.
Lead-Zinc, East Tintic district, Chief Oxide area: Lovering, T. S., 2.
Clifton district—Gold Hill area: Wilson, S. R.
Uranium deposits, Sheeprock Mts.: Cohenour, R. E.
Tintic and East Tintic districts, jasperoid indicators: Duke, D. A.
Mineral resources, Beaver-Millard Counties: Nackowski, M. P., 1.
Oil and gas, Coalville anticline, test wells: Shelley, C. T.
Naval Oil-Shale Reserve No. 2, possibilities: Cashion, W. B., Jr.
Slab Canyon anticline, test well: Lewis, D. W.
Uinta Basin, western, possibilities: Picard, M. D., 1.
Petroleum, Aneth area fields: Picard, M. D., 2.
Phosphoria interval, possibilities, northeastern: Cheney, T. M.
White Mesa field: Picard, M. D., 3.
Silver Lake Flat area: Burge, D. L.
Sulfides, Park City district: Wilson, Clark L.
Uranium, Big Indian district: Loring, W. B.
Cedar Mtn. area: Johnson, H. S., Jr., 1.
Green River—Henry Mtn. districts: Johnson, H. S., Jr., 2.
Happy Jack mine: Trites, A. F., Jr.
Rainy Day mine, Circle Cliffs area: Davidson, E. S., 2.
Southeastern: Stewart, J. H., 1.
Thomas Range fluorite district: Staatz, M. H.
White Canyon area: Johnson, H. S., Jr., 3.
Uranium-vanadium, Monument Valley: Lewis, R. Q., Sr., 1.
Geologic maps.
Bismarck Peak quadrangle: Foster, J. M.
Camp Maple Dell area: Rigby, J. K., 8.
Circle Cliffs 1 NE quadrangle: Davidson, E. S., 1.
Clay Hills quadrangles: Mullen, T. E., 1, 2.
Coach Creek quadrangles, photogeologic: Hackman, R. J., 1, 2.
Coalville area: Shelley, C. T.
**BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959**

**UTAH—Continued**

**Geologic maps—Continued**

<table>
<thead>
<tr>
<th>Area Description</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-op Creek area</td>
<td>Bissell, H. J.</td>
</tr>
<tr>
<td>Crawford Mts., central</td>
<td>Sando, W. J.</td>
</tr>
<tr>
<td>Daggett County</td>
<td>Ritzma, H. R.</td>
</tr>
<tr>
<td>Desert Lake-4 quadrangle</td>
<td>Marshall, C. H.</td>
</tr>
<tr>
<td>Devonian, paleogeologic, central and northeastern</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Elk Ridge quadrangles</td>
<td>Lewis, R. Q.</td>
</tr>
<tr>
<td>Fivemile Pass-northern Boulter Mts. quadrangles</td>
<td>Utah Geol. Soc.</td>
</tr>
<tr>
<td>General</td>
<td>Brigham Young Univ. Dept. Geology</td>
</tr>
<tr>
<td>Goose Creek district</td>
<td>Mapel, W. J.</td>
</tr>
<tr>
<td>House Range</td>
<td>Hintze, L. F.</td>
</tr>
<tr>
<td>Lisbon Valley area</td>
<td>Byerly, P. E.</td>
</tr>
<tr>
<td>Mt. Ellen-4 quadrangle</td>
<td>Hemphill, W. R.</td>
</tr>
<tr>
<td>Mt. Nebo-Salt Creek area</td>
<td>Johnson, K. D.</td>
</tr>
<tr>
<td>Naval Oil-Shale Reserve No. 2</td>
<td>Cashion, W. B., Jr.</td>
</tr>
<tr>
<td>Needle Range</td>
<td>Gould, W. J.</td>
</tr>
<tr>
<td>Northeastern</td>
<td>Eardley, A. J.</td>
</tr>
<tr>
<td>Notom quadrangles</td>
<td>Hemphill, W. R.</td>
</tr>
<tr>
<td>Oquirrh Mts., southern</td>
<td>Utah Geol. Soc.</td>
</tr>
<tr>
<td>Park City mining district</td>
<td>Wilson, R. F.</td>
</tr>
<tr>
<td>Pavant Range, southern</td>
<td>Crosby, G. W.</td>
</tr>
<tr>
<td>Sheeprock Mts.</td>
<td>Cohenour, R. E.</td>
</tr>
<tr>
<td>Silver Lake Flat area</td>
<td>Burge, D. L.</td>
</tr>
<tr>
<td>Spors Mtn.</td>
<td>Staatz, M. H.</td>
</tr>
<tr>
<td>Stansbury Mts., east and west flanks</td>
<td>Davis, B. L.</td>
</tr>
<tr>
<td>Southern</td>
<td>Teichert, J. A.</td>
</tr>
<tr>
<td>Thomas Range fluorite district</td>
<td>Staatz, M. H.</td>
</tr>
<tr>
<td>Washatch-Uinta Mts. transition area</td>
<td>Petroleum Geologists</td>
</tr>
<tr>
<td>Zion National Park</td>
<td>Brigham Young Univ. Dept. Geology</td>
</tr>
</tbody>
</table>

**Ground water.**

<table>
<thead>
<tr>
<th>Formation</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morrison formation</td>
<td>Phoenix, D. A.</td>
</tr>
</tbody>
</table>

**Historical geology.**

<table>
<thead>
<tr>
<th>Area Description</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aneth area, Upper Pennsylvanian</td>
<td>Picard, M. D.</td>
</tr>
<tr>
<td>Big Indian district, Pennsylvanian-Cretaceous</td>
<td>Loring, W. B.</td>
</tr>
<tr>
<td>Bismarck Peak area, Cambrian-Mississippian</td>
<td>Foster, J. M.</td>
</tr>
<tr>
<td>Browns Park formation, Miocene (?)</td>
<td>Kinney, D. M.</td>
</tr>
<tr>
<td>Camp Maple Dell area, for Boy Scouts</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Cedar Mtn. area, Cenozoic, uraniferous formations</td>
<td>Johnson, H. S.</td>
</tr>
<tr>
<td>Chainman formation, Mississippian, faces, western</td>
<td>Sadlick, W.</td>
</tr>
</tbody>
</table>

**UTAH—Continued**

**Historical geology—Continued**

<table>
<thead>
<tr>
<th>Area Description</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coalville area, Cretaceous, Upper</td>
<td>Williams, N. C.</td>
</tr>
<tr>
<td>Cretaceous-Tertiary</td>
<td>Shelley, C. T.</td>
</tr>
<tr>
<td>Confusion Range, Mississippian-Triassic</td>
<td>Hose, R. K.</td>
</tr>
<tr>
<td>Cretaceous, coal beds, cycles</td>
<td>Speker, E. M.</td>
</tr>
<tr>
<td>Upper, intertonguing sediments, northeastern</td>
<td>Hale, L. A.</td>
</tr>
<tr>
<td>Daggett County</td>
<td>Ritzma, H. R.</td>
</tr>
<tr>
<td>Deep Creek Mts.</td>
<td>Nelson, R. B.</td>
</tr>
<tr>
<td>Cambrian-Ordovician</td>
<td>Bick, K. F.</td>
</tr>
<tr>
<td>Devonian, Upper, regional unconformity, central</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Devonian - Mississippian boundary, north-central</td>
<td>Brooks, J. E.</td>
</tr>
<tr>
<td>Diamond Fork anticline, Permian-Oligocene</td>
<td>Neighbor, F.</td>
</tr>
<tr>
<td>Fish Lake Plateau, Jurassic-Quaternary</td>
<td>McGookey, D. P.</td>
</tr>
<tr>
<td>Fivemile Pass-northern Boulter Mtn. area</td>
<td>Utah Geol. Soc.</td>
</tr>
<tr>
<td>Great Basin-Colorado Plateau correlation</td>
<td>Crosby, G. W.</td>
</tr>
<tr>
<td>Great Salt Lake, Pleistocene sediments, core study</td>
<td>Eardley, A. J.</td>
</tr>
<tr>
<td>Green River formation, Eocene, Naval Oil-Shale Reserve No. 2</td>
<td>Cashion, W. B.</td>
</tr>
<tr>
<td>Hermosa formation, Pennsylvanian, Paradox basin, well logs for correlation and evaluation</td>
<td>Millard, F. S.</td>
</tr>
<tr>
<td>House Range, southern, Cambrian-Ordovician, Cenozoic</td>
<td>Powell, D. K.</td>
</tr>
<tr>
<td>Kayenta and Moenave formations, Triassic-Jurassic, Vermilion Cliffs</td>
<td>Wilson, R. F.</td>
</tr>
<tr>
<td>Manning Canyon shale, Mississippian-Pennsylvanian</td>
<td>Moyle, R. W.</td>
</tr>
<tr>
<td>Moenkopi formation, Triassic, salt-anticline region</td>
<td>Shoemaker, E. M.</td>
</tr>
<tr>
<td>Monument Valley, Permian-Jurassic</td>
<td>Lewis, R. Q.</td>
</tr>
<tr>
<td>Mt. Nebo-Salt Creek area, Mississippian-Quaternary</td>
<td>Johnson, K. D.</td>
</tr>
<tr>
<td>Needle Range, Devonian-Permian</td>
<td>Gould, W. J.</td>
</tr>
<tr>
<td>North Strawberry Valley, Pennsylvanian-Jurassic</td>
<td>Bissell, H. J.</td>
</tr>
<tr>
<td>Northern</td>
<td>Eardley, A. J.</td>
</tr>
<tr>
<td>Oquirrh formation and Durst group, Pennsylvanian-Permian, fusuline correlation</td>
<td>Sadlick, W.</td>
</tr>
<tr>
<td>Oquirrh Mts., southern, Cambrian and Devonian</td>
<td>Rigby, J. K.</td>
</tr>
<tr>
<td>Southern, Carboniferous</td>
<td>Bissell, H. J.</td>
</tr>
</tbody>
</table>
INDEX

UTAH—Continued

Historical geology—Continued

Park City mining district, Precambrian-Pennsylvanian: Wilson, Clark L.
Pavant Range, Cambrian-Quaternary: Crosby, G. W., 2.
Pennsylvanian-Pennsylvanian, western: Brill, K. G., Jr.
Pennsylvanian, northern: Cheney, T. M.
Pennsylvanian-Jurassic, southeastern: Stewart, J. H., 1.
Randolph quadrangle, Mississippian-Permian(?): Sando, W. J.
Salt Lake group, Tertiary: Slentz, L. W.
Silver Island Range, Paleozoic and Tertiary: Schaeffer, F. E., Jr.
Silver Lake Flat area, Precambrian-Tertiary: Burge, D. L.
Stansbury Mts., southern, Paleozoic and Quaternary: Telchert, J. A.
Thomas Range fluorspar district, Ordovician-Pleistocene: Staatz, W.
Triassic, Upper, and Jurassic, Lower, southwestern, correlated with Nevada, southern: Wilson, R. F., 2.
Triassic-Pliocene, sedimentary-volcanic groups, western: Harris, H. D.
Uinta Mtn. area basins, Paleocene-Eocene, vertebrate horizons: Gaxin, C. L., 1.
Uinta Mts., Mississippian-Permian boundary: Sadlick, W., 1.
Wasatch Mtn. area, Jurassic: Stokes, W. L.
Wasatch and Uinta Mts., Mississippian: Crittenden, M. D., Jr.
Triassic: Scott, W. F.
Upper Devonian unconformity: Rigby, J. K., 1.
Wendover phase of Antler orogeny, Mississippian, western: Sadlick, W., 3.
West Tintic Range: Groff, S. L., 1.

Mineralogy.

Calcite, cone-in-cone, Wheeler formation, on trilobites: Bright, R. C.
Clifton district-Gold Hill area, mines: Wilson, S. R.
Green River formation, mineral assemblages, relations: Milton, C., 1.
Green River—Henry Mtn. districts: Johnson, H. S., Jr., 2.
Happy Jack uranium mine: Trites, A. F., Jr.
Hornblends, Henry Mts., phenocrysts in porphyries, composition: Engel, C. G.

Mineralogy—Continued

Mercur-Ophir mining district: Proctor, P. D., 4.
Micaceous minerals, Ophir Hill mine, alteration sequence: Weintraub, J.
Monument Valley, uranium-vanadium channel deposits: Lewis, R. Q., Sr., 1.
North Horn formation, Cretaceous-Paleocene, differentiation by heavy minerals, central: Lee, K.-X., 2.
Phosphate minerals, Clay Canyon: Hamilton, E. V.
Saltine deposits: Kerr, P. F., 3.
Silver Lake Flat area: Burge, D. L.
Stansbury Mts., igneous rocks: Davis, B. L.
Umoholte, Marysvale area, X-ray study: Kamhi, S. R.
Variscite, Clay Canyon: Hamilton, H. V.

Paleontology.

Belemnoids, Chainman shale, Mississippian: Flower, R. H., 2.
Bird, recurvirostrid, Colton formation, Eocene: Hardy, J. W.
Bryozoans, fenestrate, Mississippian, central: Burtle, L. H., 3.
Manning Canyon shale, Mississippian, Utah County: Burtle, L. H., 1.
Camp Maple Dell area, for Boy Scouts: Rigby, J. K., 8.
Confusion Range, Mississippian-Triassic: Hose, R. K.
Ely limestone, Pennsylvania, Needle Range: Gould, W. J.
Fusulinids, Oquirrh formation and Durst group, Pennsylvania-Permian, correlations: Sadlick, W., 2.
Gardner dolomite, Mississippian, Bis-mark Peak area: Foster, J. M.
House Range, southern, Cambrian-Ordovician, lists: Powell, D. K.
Manning Canyon shale, Mississippian-Pennsylvanian, paleoecology: Moyles, R. W.
Paleozoic, central, lists: Utah Geol. Soc.
Randolph quadrangle, Mississippian-Pennsylvanian(?), lists: Sando, W. J.
Sheeprock Mts., Cambrian-Tertiary: Cohenour, R. E.
Sponges, Manning Canyon shale, Mississippian-Pennsylvanian: Rigby, J. K., 6.
Ordovician, western: Rigby, J. K., 9.
Stansbury Mts., southern, Paleozoic, lists: Telchert, J. A.
Stromatoporoids, Gullmette limestone, Devonian: Gould, F. D.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

UTAH—Continued

Paleontology—Continued

Trilobite, Wheeler formation, Cambrian, paleoecology and biometry: Bright, R. C.

Vertebrates, Uinta Mtn. area basins, Paleocene-Eocene: Gzain, C. L., 1.

Petrology.

Bismark Peak quadrangle: Foster, J. M.

Camp Maple Dell area, for Boy Scouts: Rigby, J. K., 8.

Confusion Range, Mississippian-Triassic: Hose, R. K.

Crawford Mts. and Laketown area, Bannock dolomite: Sando, W. J.


Goose Creek district: Mapel, W. J., 1.

Great Salt Lake Desert, dolomite bed: Graf, D. L.

Green River-Henry Mtn. districts: Johnson, H. S., Jr., 2.

Grouse Creek pluton: Baker, W. H.

Henry Mts., porphyries, composition: Engel, C. G.

House Range, southern: Powell, D. K.

Iron Springs district iron ores, trace ferrides, cf. Granite Mt.-Desert and Three Peaks areas: Dahl, C. L.

Marysvale area, Mt. Belknap series, volcanic rocks, spectrochemical analysis: Molloy, M. W., 2.


Mineral Range pluton, inclusions: Condie, K. C.


Monument Valley, Shinarump channel deposits: Lewis, R. Q., Sr., 1.

Naval Oil-Shale Reserve No. 2: Cashion, W. B., Jr.

North Horn formation, Cretaceous-Paleocene, differentiation by heavy minerals, central: Lee, K. Y., 2.

Ophir area: Rigby, J. K., 2.

Ophir Hill mine, alteration sequence: Weintraub, J.


Pavant Range, southern: Crosby, G. W., 2.

Permian-Jurassic, southeastern: Stewart, J. H., 1.

Rainy Day uranium mine, Circle Cliffs area: Davidson, E. S., 2.

Sheeprock Mts.: Cohenour, R. E.

Silver Lake Flat area: Burge, D. L.

Stansbury Mts., igneous rocks: Davis, B. L.

Thomas Range fluorite district: Staatz, M. H.

UTAH—Continued

Petrology—Continued

Tintic and East Tintic mining districts, jasperoid and ore deposits: Duke, D. A.

Utah Valley, Great Blue-Manning Canyon formations, shale alteration: Ehlersmann, A. J., 1.

White Canyon area, Shinarump channel sediments, origin: Johnson, H. S., Jr., 3.

White Mesa oil field, biostromal complex: Picard, M. D., 8.

Physical geology.


Aneth area, Upper Pennsylvanian: Picard, M. D., 2.


Bismark Peak quadrangle: Foster, J. M.

Cedar Mtn. area: Johnson, H. S., Jr., 1.

Coalville area: Shelley, C. T.

Deep Creek Range: Nelson, R. B.

Diamond Fork anticline: Neighbor, F.

Fish Lake Plateau: McGookey, D. P.

Fivemile Pass-northern Boulter Mtn. area: Proctor, P. D., 3; Utah Geol. Soc.

Goose Creek district: Mapel, W. J., 1.

Great Salt Lake basin: Slents, L. W.


Grouse Creek pluton: Baker, W. H.

House Range, southern: Powell, D. K.

Hurricane fault and other Laramide reverse faults: Lovejoy, E. M. P.

Lava flows in valleys, inverted relief, southwestern: Threet, R. L., 2.

Lisbon Valley area: Byerly, P. E.

Mercur-Ophir areas, folding and faulting: Rigby, J. K., 3.

Mt. Nebo-Salt Creek area: Johnson, K. D.

Needle Range: Gould, W. J.


Oquirrh Mts., southern: Utah Geol. Soc.

Park City mining district: Wilson, Clark L.

Pavant Range, southern: Crosby, G. W., 2.

Salt anticlines, differential loading origin: Jones, R. W.

Sevier arch, tectonics, western: Harris, H. D.

Sheeprock Mts.: Cohenour, R. E.

Shinarump conglomerate, possible eddy markings: Rigby, J. K., 7.

Silver Lake Flat area: Burge, D. L.

Slab Canyon anticline: Lewis, D. W.

Stansbury Mts.: Davis, B. L.

Southern: Telchert, J. A.

Sunnyside coal mines, rock bursts: Peperakis, J.

Tectonics, central: Proctor, P. D., 2.
INDEX 593

UTAH—Continued

Physical geology—Continued

Thomas Range fluorite district: Staatz, M. H.

Uinta Mts.: Ritzma, H. R., 2.

Ute formation, columnar structures, contemporaneous deformation: Hardy, C. T.


Wasatch Mts., Provo area, faults: Baker, A. A.

West Portal—Soldier Summit area: Walton, P. T.

White Canyon area, Shinarump channels, sedimentation: Johnson, H. S., Jr., 3.

Physiographic geology.

Daggett County: Ritzma, H. R., 2.

Fish Lake Plateau: McGookey, D. P.

Glen and Cataract Canyons: Cooley, M. E., 3.

Oquirrh Mts., southern: Rigby, J. K., 4.

San Juan Canyon: Cooley, M. E., 2.


VALLEYS.

California, San Joaquin Valley: Davis, G. H., 1.

Georgia, coastal, parallel to shoreline, origin: Zelzger, J. M., 1.

Honduras, northeastern: Helbig, K. M.

Massachusetts, Fresh Pond-Mystic Lakes area, buried: Chute, N. E.

Quebec, Hudson Strait shoreline, pre-Pliocene: Robitaille, B.

Slope retreat, unequal rate of erosion: Crickmay, C. H.

South Carolina, coastal, parallel to shoreline, origin: Zelzger, J. M., 1.

Utah, Glen and Cataract Canyons: Cooley, M. E., 3.

San Juan Canyon: Cooley, M. E., 2.


VANADIUM—Continued

Origin of ores, reduction by wood and lignite, experimental: Pommer, A. M.

Redox relations in ores: Garrels, R. M., 2.

Secondary minerals, synthesis, pH control: Marvin, R. F.

Sedimentary and igneous deposit characteristics: Fischer, R. P.

Utah, Monument Valley, channel deposits: Lewis, R. Q., Sr., 1.

Veins.


British Columbia, Turbrit silver mine: Campbell, F. A.

California, vein deposits including oil, mercury deposits, immiscible hydrothermal fluids: Bailey, E. H., 2.

Colorado, Chicago Creek area, multiple-stage: Harrison, J. E.

Front Range mineral belt, hydrothermal-alteration patterns, relation to ore: González-Bonorino, F.

Hydrothermal alteration: Schwartz, G. M., 2.

Mexico, Santa Barbara district, Chihuahua, sulfide: Scott, J. B.

Nevada, Candelaria mining district: Page, B. M., 1.

Ore solutions, temperature-fugacity relations of O, S, and CO2: Holland, H. D.

Oregon, Granite district, gold: Koch, G. S., Jr.

Virginia, Lynchburg gneiss, Fancy Gap area, quartz, in conjugate joints: Richard, B. H.


VERMICULITE. See also Clay minerals.


TEXAS, central: Clabaugh, S. E.

VERMONT.


Economic geology.

Copper, Elizabeth mine: Howard, P. F.

Marble, Rutland area: Bain, G. W.

Mineral deposits, list: Morrill, P., 1.

Geologic maps.

East-central, generalized: Howard, P. F.


St. Johnsbury quadrangle: Hall, L. M.

Historical geology.

Champlain basin, Cambrian-Ordovician: Erwin, R. B.

Champlain Valley, central, Cambrian-Ordovician: Welby, C. W.

Chazy series, Ordovician: Oxley, P.
VERMONT—Continued

Historical geology—Continued

Coxe Mtn. area, Precambrian-Ordovician: Osberg, P. H.
East Barre area, Ordovician-Divonian: Murthy, V. R., 1.
Hortonville formation, age problem, west-central: Zen, E-an, 5.
Island Pond quadrangle: Goodwin, B. K.
Pawlet quadrangle, low Taconic and high Taconic sequences, Cam-

Petrology.

Burchards limestone, X-ray diffraction: Zen, E-an, 3.
Collecting localities: Morrill, P., 1.
Elizabethtown copper mine, alteration zones: Howard, P. F.
St. Johnsbury quadrangle, Ordovi-
cian (?)—Devonian: Hall, L. M.
Vermont Valley and adjoining Taconic Range, Precambrian-Ordovician:
Mineralogy.
Carbonates, Burchards limestone, X-ray diffraction: Zen, E-an, 3.
Collecting localities: Morrill, P., 1.
Elizabethtown copper mine, alteration zones: Howard, P. F.
St. Johnsbury quadrangle, Ordovi-
cian (?)—Devonian: Hall, L. M.
Paleontology.
Chazy series, Ordovician, Champlain Valley: Oxley, P.
Graptolices, Taconic area, Cambrian-Ordovician: Berry, W. B. N., 1.
Petrology.
Burchards limestone, Ordovician, carbonates: Zen, E-an, 3.
Champlain Valley, Chazy series, Ordovician: Oxley, P.
Elizabethtown copper mine, alteration zones: Howard, P. F.
St. Johnsbury quadrangle, Ordovi-
cian (?)—Devonian: Hall, L. M.
Physical geology.
Appalachian orthoecosyncline, tectonics, northern: Cady, W. M.
Champlain basin, Paleozoic: Erwin, R. B.
Champlain Valley, central: Welby, C. W.
Coxe Mtn. area: Osberg, P. H.
Eastern, structural correlation: Murthy, V. R., 1.
Elizabethtown copper mine, folding and faulting: Howard, P. F.
Island Pond quadrangle: Goodwin, B. K.
Virginia—Continued

Economic geology—Continued

Oil and gas, possibilities, southwestern: Wilpolt, R. H.

Quartz, crystalline, southwestern: Mertle, J. B., Jr., 2.

Geologic maps.

Cacapon Mtn. area: Appalachian Geol. Soc.

Califpasture-Middle-North Rivers drainage basins, generalized: Carroll, D., 2.

Floyd County: Dietrich, R. V.

Index: Boardman, L., 3.

Middle River drainage basin: Carroll, D., 2.

Ground water.

Albemarle County, western: Cross, W., 2d, 2.


Tide Spring, ebbing and flowing cycle: Brent, W. B., 2.

Triassic basins, origin of water system: LeGrand, H. E., 2.

Historical geology.


Floyd County: Dietrich, R. V.

Lebanon area, popular account: Cameron, C. C.

Mascot dolomite, Ordovician, old channeled depression, Washington County: Harris, L. P.

Mississippian, Upper, southwestern: Wilpolt, R. H.

Mosheim limestone, Ordovician, basal disconformity: Webb, F., Jr.


Yorktown formation, Miocene, York-James peninsula: McLean, J. D., Jr.

Invertebrates, Huntersville formation, Devonian: Ciaramella, P. S., Jr.

Mollusks, Yorktown formation, Miocene, York-James peninsula, list: McLean, J. D., Jr.

Pelecypods, Chesapeake Bay, Miocene, cf. Europe: Mongin, D.

Trilobites, silicified, Middle Ordovician: Whittington, H. B.

Mineralogy.

Adularia, moonstone, Goochland County: Sinkankas, J., 2.

Amelia Courthouse area, collecting: Cusick, A.

Catoctin formation, Shadwell area, mineral associations: Glannini, W. F.

Celestite and strontianite, Wise County: Pharr, R. F.

Clay minerals, York River tributary basin, Piedmont cf. Coastal Plain sources: Brown, C. Q.

Concretions, Millboro shale: Roberts, C. E.

Floyd County: Dietrich, R. V.

Garnet, Piedmont: Crist, C. W., Jr.

Gossans, Stony Point area, derived from siderite, not sulfides: Tazelaar, J. F.

Heavy minerals, Middle River drainage basin, country rocks and soils, insoluble residues: Carroll, D., 2.

Virginia—Continued

Mineralogy—Continued

Iron oxide pseudomorphs after pyrite metacrysts, Piedmont schists: Peare, R. K.

Quartz crystals, Craigsville area, smoky phantoms: Cross, W., 2d, 1.

Southwestern: Mertle, J. B., Jr., 2.

Titanium minerals, Roseland area: Hillhouse, D. N.

Zircon, Martinsburg shale, Ordovician, bentonite bed: Carroll, D., 3.

Paleontology.

Foraminifera, Aquia formation, Paleocene(?), lists and correlations: Page, R. A., 1.

Yorktown formation, Miocene, York-James peninsula: McLean, J. D., Jr.

Invertebrates, Huntersville formation, Devonian: Ciaramella, P. S., Jr.

Mollusks, Yorktown formation, Miocene, York-James peninsula, list: McLean, J. D., Jr.

Pelecypods, Chesapeake Bay, Miocene, cf. Europe: Mongin, D.

Trilobites, silicified, Middle Ordovician: Whittington, H. B.

Petrology.

Bentonite, Pennsylvanian, southwestern: Nelson, B. W., 2.

Floyd County: Dietrich, R. V.

James River sediments, clay formation: Powers, M. C.

Limestones, dolomitic, structure study from enlarged photographs: Cooper, B. N., 1.

Max Meadows fault breccia: Cooper, B. N., 2.

Middle River drainage basin, country rocks and soils, insoluble residues and heavy minerals: Carroll, D., 2.

Mosheim formation, Strasburg area, petrography: Sherwood, W. C.

Potomac River Gorge below Great Falls, crystalline rocks: Reed, J. C., Jr.

Rappahannock and York River basins, sedimentation studies: Nelson, B. W., 1.

Roseland area, gneiss and anorthosite intrusion: Hillhouse, D. N.

Sandstones, cementation, western: Lowry, W. D., 2.

Stream sands, South River tributaries, heavy minerals, statistical analysis: Carroll, D., 1.

Physical geology.

Basement, definition without ages or rock types: Sears, C. E., Jr., 1.

Blacksburg-Shawsville area, faults: Deaton, J. B.

Breathing Cave: Delke, G. H., 3d.

Floyd County: Dietrich, R. V.

Giles County, sedimentary structures in Mississippian formations: Thomas, W. Andrew.
BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY, 1959

VIRGINIA—Continued

Physical geology—Continued

Lynchburg gneiss, conjugate quartz veins in joints, Fancy Gap area: Richard, B. H.
Pulaski and Max Meadows thrusts, tectonic breccia: Cooper, B. N., 2.
Shenandoah River, meander entrenchment in Martinsburg shale, structural control: Hack, J. T., 1.

Physiographic geology.

Blue Ridge Upland, New River and Roanoke River basins: Dietrich, R. V.
Shenandoah River, North Fork, entrenched meanders: Hack, J. T., 1.
Shenandoah Valley, residual and alluvial deposits: Hack, J. T., 2.

VOLCANIC ASH. See also Pumice; Tuff.

Idaho, Goose Creek district and adjacent states: Mapel, W. J., 1.
Marine cores: Ewing, W. M., 2.
Pacific Ocean, white ash layer, origin: Ewing, W. M., 2.
White ash layer, subbottom reflector: Worzel, J. L., 1.
United States, western, lightweight aggregates: Chesterman, C. W., 1.
Wind distribution and effect of falls: Wilcox, R. E., 1.
Zeolites, sedimentary, diagenesis: Deffeyes, K. S., 2.

VOLCANIC ROCKS. See Igneous rocks.

VOLCANISM.

Delarof and westernmost Andreanof Islands, Cenozoic: Fraser, G. D., 1.
Gareloi Island: Coats, R. R., 1.
Little Sitkin Island, Cenozoic: Snyder, G. L.
Semisopochno Island, late Cenozoic: Coats, R. R., 2.
Umnak-Bogoslof Islands area, Cenozoic: Byers, F. M., Jr.
Hopi Buttes area, diatremes: Callahan, J. T., 1.

VOLCANISM—Continued

Arizona—Continued

San Francisco Mtn. volcanic field, geochronology: Sables, B. E., 1.
Superior-Globe area, dacite sheet, pyroclastic origin: Peterson, D. W.
Cenozoic belts, relation to continental drift and total crustal shift: Ma, T. Y. H.
Colorado, Creede calderas, ash flows: Ratté, J. C.
Contraction theory: Wilson, John T., 2.
Crustal shifting by polar-icecap growth, theory: Hagood, C. H.
Features, development, relation to degassing, cf. Moon: Green, J., 2.
Greenland, east-central, Devonian: Büttler, H.
Western, basalt province, Tertiary: Munck, S.
Idaho, North Fork quadrangle, Tertiary: Anderson, A. L.
Mexico: Mooser, F., 4.
Basin of Mexico, Cenozoic cycles: Mooser, F., 1.
Veracruz basin and Isthmus of Tehuantepec salt basin: Rios Macheth, F.
Minnesota, Precambrian - Ordovician, popular account: Ahlquist, G. H., 1.
Nevada, Shoshone Range, Tertiary breccia pipes: Gates, O.
New Mexico, Union County, late Cenozoic: Baldwin, E. M. ; Wilkinson, W. D., 1.
Nicaragua, relation to tectonics: Gindice, D. del, 2.
Ontario, Sudbury basin, Precambrian glowing avalanches: Thomson, J. E., 2.
Oregon, Cenozoic: Baldwin, E. M., 1 ; Wilkinson, W. D., 1.
Quaternary volcanic rocks, age criteria: Clements, T. D., 1.
United States, landscapes: Shimer, J. A.
Volcanic necks, emplacement: Mc Birney, A. R.
West Indies, Leeward Islands, by islands: Martin-Kaye, P. H. A.
Montserrat, soufrières: Martin-Kaye, P. H. A.
Wyoming, Rattlesnake Hills, Tertiary volcanic field: Carey, B. D., Jr.

VOLCANOES.

Alaska, Copper River basin, mud: Nichols, Donald R., 2.
Mt. Gareloi, Gareloi Island: Coats, R. R., 1.
INDEX

VOLCANOE8—Continued
Alaska—Continued
Okmok, Unnak Island : Byers, F. M., Jr.
Semisopochnoi Island: Coats, R. R., 2.
California, Branscomb mud volcanoes : Pierson, W. F.
Central America, activity : Bullard, F. M.
Hawaii, Haleakala, Maui, age of lava flows : Reber, G.
Mexico, Barcena, Isla San Benedicto : Richards, A. F., 1.
West Indies, St. Vincent, Quaternary deposits : Hay, R. L., 1.
Washington, Engineering geology, Rocky Reach dam site, Columbia River : Swiger, W. F.
Geophysical investigation, Puget Sound area, anomalous crustal structure : Neumann, F., 2.
Prospecting, elementary geology : Anderson, D. Lorraine.
Areas described.
Cascade Range, Naches-Yakima Rivers area : Stout, M. L.
Dutch Miller Gap area : Ellis, R. C.
Finney Peak area : Jones*, R. W.
Glacier Peak quadrangle : Ford, A. B.
Turtle Lake quadrangle : Beecraft, G. E.
Economic geology.
Clay, ceramic, western : Kelly, H. J.
Oil and gas, Green River area, possibilities : Anderson, J. Q.
Ocean City anticline, possibilities : Wurden, F. H.
Uranium, Midnite mine : Sheldon, R. F.
Turtle Lake quadrangle : Beecraft, G. E.
Geologic maps.
Buckley quadrangle : Crandell, D. R.
Cascade Mts., northern, reconnaissance : Crowder, D. F.
Entiat Mts., northern : Crowder, D. F.
Grand Coulee area : Bretz, J H., 1.
Ground water.
Columbia River basalt : Newcomb, R. C.
Historical geology.
Buckley quadrangle, Tertiary-Quaternary : Crandell, D. R.
Cascade Range, Naches-Yakima Rivers area, Tertiary and older : Stout, M. L.
Dutch Miller Gap area : Ellis, R. C.
Finney Peak area : Jones*, R. W.
Mt. Stuart area, pre-Ordovician-Eocene : Pratt, R. M.

WASHINGTON—Continued
Historical geology—Continued
Ocean City area, Eocene-Pliocene : Wurden, E. H.
Precambrian-Cambrian, northeastern: Wets, P. L.
Puget Sound lowland, continental Miocene : Mullineaux, D. R.
Pre-Wisconsin interglacial pollen sequences : Leopold, E. B., 1.
Spiral Lake, drowned forests, radiocarbon ages : Lawrence, D. B.
Turtle Lake quadrangle : Beecraft, G. E.
Upper Baker dam area, Quaternary : Stearns, H. T.
Mineralogy.
Meta-autunite, Daybreak mine : Volborth, A.
Sulfide, iron-copper, Macknaw mine, inclusions in chalcopyrite : Birks, L. S., Jr.
Paleontology.
Archaeocyathids, Colville area, Early Cambrian : Greggs, R. G.
Columbia Basin, Quaternary, list : Daugherty, R. D., 1.
Fusulindae, Permian, northwestern : Danner, W. R.
Man, Pleistocene, Lind Coulee site : Daugherty, R. D., 2.
Popular account : Livingston, V. E., Jr.
Petroleology.
Blue Glacier, ice petrofabrics : Kamb, W. B., 2.
Buckley quadrangle : Crandell, D. R.
Cascade Range, Naches-Yakima Rivers area : Stout, M. L.
Entiat Mts., quartz diorite complex, granitization : Crowder, D. F.
Glacier Peak quadrangle : Ford, A. B.
Midnite uranium mine area : Sheldon, R. F.
Mt. Stuart area, pre-Ordovician—Eocene : Pratt, R. M.
Puget Sound lowland area, Miocene volcanic rocks : Mullineaux, D. R.
Shuksan belt, metamorphic facies, sodic amphiboles : Misch, P. H.
Twin Sisters dunite : Ragan, D. M.
Physical geology.
Buckley quadrangle : Crandell, D. R.
Channeled scablands : Bretz, J H., 1.
Columbia River basin, structural control of ground water : Newcomb, R. C.
Emmons Glacier, advance, time-lapse photography : Miller, R. D., 2.
Stream-braiding mechanics, time-lapse photography : Fahnestock, R. K.
WASHINGTON—Continued

**Physical geology—Continued**

Finney Peak area: Jones *a*, R. W.
Mt. Stuart area: Pratt, R. M.
Spirit Lake, drowned forests, radiocarbon ages: Lawrence, D. B.
Twin Sisters dunite, emplacement: Ragan, D. M.

**Physiographic geology.**

Channeled scablands: Bretz, J. H., 1.
Emmons Glacier, stream braiding, time-lapse photography: Fahnestock, R. K.
Nisqually Glacier, maximum recent advance: Sigafoos, R. S.
Patterned ground, origin, central: Kaatz, M. R.

**WATER.**

See also Ground water.

Natural chemical characteristics: Hem, J. D.
Pressure-volume-temperature relations, experimental: Holser, W. T.

**WATER RESOURCES.** See also Ground water.

Hawaii: Hawaii Water Authority.

**WEATHERING.** See also Erosion; Soils.

Accumulator plants: Lovering, T. S., 1.
Canada, mechanical, freeze-thaw frequencies: Fraser, J. K., 2.
Canadian Shield, eastern, pre-Pleistocene, tropical: Brochu, M., 1.
Chemical, textbook: Keller, W. D., 1.
Clay minerals: Harrison, J. L.
Experimental, hydrothermal conditions, factors: Hawkins, D. B., 2.
Feldspar and mica, experimental: Garrels, R. M., 7.
Feldspars, alteration to micaceous minerals: DeVore, G. W., 1.
Geomorphic landscape development: Rolfe, B. N., 2.
Georgia, Stone Mtn., exfoliation, circular pits: Hopeon, C. A.
Granite, texture and mineralogy: McEwen, M. C.
Illinois, Sangamon paleosols, till profiles cf. outwash, heavy minerals: Brophy, J. A.
Ilmenite, alteration mechanism, sand cf. parent rock: Lynd, L. E.
Ilmenite, to brown leucoxene, experimental: Karkhanavala, M. D., 2.
Itabirite origin: Park, C. F., Jr.
Mica in vermiculite-little clays, potassium release mechanism: Mehra, O. P.

**WEATHERING—Continued**

Minerals, reaction rates with water: Garrels, R. M., 6.
Muscovite, sequence, experimental: Bronson, R. D.
New Jersey, Cranberry Lake area, saprolite, postglacial origin: Minard, J. P.
Ohio, central, preglacial limestone soil: Summerson, C. H., 2.
Oxidation potential, electro-conduction: Sato, M., 1.
Puerto Rico, east-central, laterization: Briggs, R. P.
Soll index minerals, stability: Raeside, J. D.
Soll-genesis studies, mineralogic techniques: White, Joe L.
South Carolina, Charleston area, Pleistocene soils: Malde, H. E., 1.
Till, correlations, carbonate leaching: Drelmantis, A., 2.
Uraniun and vanadium minerals: Garrels, R. M., 2.
Virginia, Blue Ridge Upland, New River and Roanoke River basins: Dietrich, R. V.
West Indies, St. Vincent, volcanic ash deposits: Hay, R. L., 1.

**WELL AND DRILL-HOLE LOGS.** See also Cores; Geologic formations, lists, sections, tables.

Alaska, Anchorage area: Miller, R. D., 1.
Cape Mtn. tin-placer district: Mulligan, J. J., 2.
Oil tests: Miller, D. J.
Test wells, Sentinel Hill and Fish Creek areas, Cretaceous: Robinson, F. M., 2.
Simpson area: Robinson, F. M., 3.
Square Lake and Wolf Creek areas, Cretaceous: Collins, F. R.
Titaluk and Knifeblade areas, Cretaceous: Robinson, F. M., 1.
Alberta, McMurray area, salt wells and wildcat wells: Carrigy, M. A., 1.
Arkansas, Aetna gas field, electric: Planalp, R. N.
White Oak gas field: Clark, Joseph M.
California, Bristol-Cadiz-Danby Dry Lakes, core logs: Bassett, A. M.
Camp Irwin area: Kunkel, F. F.
Searles Lake salt body, cores: Haines, D. V.
Camp Irwin area, salt wells and wildcat wells: Carrigy, M. A., 1.
Idaho, Big Wood River—Silver Creek area: Smith, Rex O.
WELL AND DRILL-HOLE LOGS—Continued
Interpretation, charts: Schlumberger
Well Surveying Corp.

Kansas, Clay County: Walters, K. L.

Cloud County: Bayne, C. K.

Kansas River valley, Wamego to Topeka: Beck, H. V.

Mitchell County: Hodson, W. G.


Kentucky, oil and gas wells: Wilpolt, R. H.


Kentucky, oil and gas wells: Wilpolt, R. H.

Maryland, Beaverdam Creek basin, deep test: Rasmussen, W. C., 1.

Mexico, Las Truchas iron district, Michoacán, drill holes: Mapes Vázquez, E.

Pathé area, Hidalgo, steam well, lithology and geothermal gradient: Anda, L. F., de.

Michigan, Holland area: Deutsch, M.

Mackinac bridge-site borings: Rosenau, J. C.

Schoolcraft County, water wells and test borings: Sinclair, W. C.

Minnesota, Cuyuna iron range, Crow Wing County, manganiferous ores: Heising, L. F.

Nebraska, Big Blue River basin above Crete: Johnson, C. R.

Ground-water test holes, Greeley, Howard, and Wheeler Counties: Smith, F. A.

New Jersey, Monmouth County, water wells: Jablonski, L. A.

New Mexico, Hueco Bolson, water wells: Knowles, D. B.

Lea and Eddy Counties, pre-Simpson: Barnes, V. E., 1.

Sunshine Valley area, water wells and dam-site test holes: Winograd, I. J.

Union County, water wells: Baldwin, B.

Lea County, water wells: Sturman, D. B.

Lea and Eddy Counties, pre-Simpson: Barnes, V. E., 1.

Sunshine Valley area, water wells and dam-site test holes: Winograd, I. J.

Union County, water wells: Baldwin, B.

New York, Chemung County, Cambrian-Devonian, lithology and correlation: Wiggins, J. W.

Chemung County, water wells and test holes: Wetterhall, W. S.

Eastern and central, gas wells and deep wells: Kredlter, W. L.

Nassau County, water wells: N. Y. Water Power and Control Comm.

Long Island Office.

Nicaragua, Las Maderas-Poza del Padre clay deposit: Bongiovanni, A. J.

North Carolina, Greenville area, water wells: Brown, P. M.


Oil-well summaries: N. Dak. G. S.

Westhope area, water wells and test holes: Powell, J. E.

Northwest Territories, Great Slave and Trout River areas: Douglas, R. J. W., 1.
West Indies—Continued

Geologic maps.
Antigua: Martin-Kaye, P. H. A.
Barbuda: Martin-Kaye, P. H. A.
Montserrat: Martin-Kaye, P. H. A.
Nevis, Clarke's-Phillips Estates area: Martin-Kaye, P. H. A.
St. Kitts: Martin-Kaye, P. H. A.

Ground water.
Leeward Islands, by islands: Martin-Kaye, P. H. A.

Historical geology.
Antigua: Martin-Kaye, P. H. A.

Paleontology.
Antigua, Cenozoic: Martin-Kaye, P. H. A.

Mineralogy.
St. Vincent, Soufrière crystal-rich glowing avalanche deposits, 1902: Hay, R. L., 2.

Physical geology.

West Virginia.

Electrical resistivity survey, proposed turnpike, cf. core borings: Whited, C. L.

Guidebook, Cacapon Mtn. area: Appalachian Geol. Soc.

Economic geology.
Alumina, clay, potential source: Tallon, W. A.
Coal, Boone County, Perrin bed: Parkin, B. C.
Construction materials, highways, survey: Seeger, R. W.
Iron, Hardy County, micaceous hematite prospect: Arkle, T. Jr., 2.
Natural gas, Devonian shale: Haught, O. L., 1.
Whip Cove field and Sleepy Creek prospect: Appalachian Geol. Soc.

Geologic maps.
Cacapon Mtn. area: Appalachian Geol. Soc.

Ground water.
Kanawha County: Wilmoth, B. M., Jr.

Historical geology.
Blucfield group, Mississippian, southeastern: Mandl, W.
Devonian shale, not all Devonian: Haught, O. L., 1.

Ohio Valley terraces, Globe Hill, pre-Wisconsin Pleistocene, paleosols: Lessig, H. D., 1.

Ordovician-Permian, southern: Haught, O. L., 3.

Silurian, Upper, salt laminae in limestones: Ludlum, J. C.

Wood County deep well, Precambrian-Pennsylvanian: Woodward, H. P., 2.


Mineralogy.
Wood County deep well: Woodward, H. P., 2.

Paleontology.
Proboscideans, record of finds: Welmer, B. R.

Wood County deep well, Cambrian-Ordovician, list: Prouty, C. E., 2.
INDEX

WEST VIRGINIA—Continued

Petrology.
Coal, Bakerstown seam, germanium distribution: Corey, R. C.
High-volatile bituminous, physical and chemical properties: Ergun, S., 2.
Hernshaw coal, Boone County, petrography: Parks, B. C.
Oriokany sandstone, interstitial porosity, origin: Wilcox, F. B.
Tuscara sandstone, cementation: Heald, M. T., 2.
Wood County deep well: Woodward, H. P., 2.
Precambrian cores: Bass, M. N.

Physical geology.
Doddridge-Harrison Counties, structure contour map, Mississippian: Haught, O. L., 2.
Mercer County, sedimentary structures in Mississippian formations: Thomas, W. Andrew.

Physiographic geology.
Ohio Valley terraces, Globe Hill, pre-Wisconsin Pleistocene, paleosols: Lessig, H. D., 1.

WILLISTON BASIN.

Economic geology.
Oil and gas, southern: Sandberg, D. T.
Petroleum, hydrodynamics in reservoirs: Murray, G. H., Jr.
Mississippian carbonate reservoir rocks, facies effects on fluid migration: Thames, C. B., Jr.
Ordovician-Silurian, northeastern: Pye, W. D., 4.

Geologic maps.
Northern: Porter, J. W.

Historical geology.
Northern: Porter, J. W.
Jurassic, southern: Sandberg, D. T.
Northern: Fish, A. R.
Mission Canyon formation, Mississippian, isopach and lithofacies studies: Hansen, A. R.
Mississippian, correlation: McCabe, H. R.
Mississippian-Pennsylvania: Willis, R. P.
Mississippian-Triassic, northern: Fish, A. R.
Paleozoic limestones, rhythmic sedimentation, clastic marker beds: Cumming, A. D.

Paleontology.
Cambrian-Silurian, northern: Porter, J. W.

WILLISTON BASIN—Continued

Petrology.
Cambrian-Silurian, northern: Porter, J. W.
Mississippian carbonate rocks, facies effects on fluid migration: Thames, C. B., Jr.

Physical geology.
Cambrian-Silurian, northern: Porter, J. W.
Jurassic, structure contour map, southern: Sandberg, D. T.

WIND WORK. See also Dunes; Loess.
Massachusetts, Provincetown area, Quaternary dunes: Smith, H. T. U.
Nova Scotia, Annapolis Valley, ventifacts, recent formation: Hickox, C. E., Jr., 1.
Volcanic ash distribution: Wilcox, Ray E., 1.

WISCONSIN.

Geochemical Investigation, Ironwood iron-formation: Huber, N. K.
Guidebook, glacial geology, west-central: Friends Pleistocene Midwestern.

Geologic maps.
Baraboo syncline: Hinze, W. J., 1.

Ground water.
Lake Michigan area: Bergstrom, R. E.

Historical geology.
Baraboo syncline region, Precambrian-Ordovician: Hinze, W. J., 1.
Ironwood iron-formation, Precambrian, Gogebic range: Huber, N. K.
Lake Superior area, Precambrian-Cambrian: Hamblin, W. K.
Upper Cambrian correlation: Driscoll, E. G.

Mineralogy.

Ironwood iron-formation, origin: Huber, N. K.
Nickel minerals, Linden area: Heyl, A. V., Jr., 2.

Paleontology.
Man, Pleistocene: Black, R. F., 2.

Petrology.
Ironwood iron-formation, origin: Huber, N. K.
Wisconsin—Continued

Petrology—Continued

Lake Superior area, Munising sandstone, heavy minerals: Driscoll, E. G.
Lead-zinc district, southwestern: Heyl, A. V., Jr., 1.

Physical geology.

Baraboo syncline region: Hinze, W. J., 1.
Lead-zinc district, southwestern: Heyl, A. V., Jr., 1.

Physiographic geology.

Baraboo district, landforms, development and classification: Thwaites, F. T.
Glacial, research: Black, R. F., 1.
West-central: Friends Pleistocene Midwestern.
Southwestern: Tri-State Geol. Field Conf.

Worms. See also Conulariida; Scolocodonts.

Howellitubus whitfieldorum, Pennsylvanian, Illinois, Mazon Creek area: Richardson, E. S., Jr., 1.
New York, Silurian, nomenclature: Howell, B. F.
Silurian genera, nomenclature: Howell, B. F.

Wyoming—Continued

Economic geology—Continued

Petroleum—Continued

Powder River basin, Minnelusa formation, possibilities: Foster, D. I.
Sage Creek field: Elmer, N. C.
Uranium, Green River formation, relation to phosphorus: Love, J. D., 1.
Miller Hill area, possibilities: Vine, J. D., 2.
Saratoga area, possibilities: Stephens, J. G.
Tertiary sandstone deposits, origin, relation to natural gas: Grutt, E. W., Jr.

Geologic maps.

Beartooth Mts., Gardner Lake area: Harris, R. L., Jr.
Black Hills: Mapel, W. J., 3.
Elk Mtn.-Tabernacle Butte area, Tertiary: McGrew, P. O.
Flat Top Mtn. NE quadrangle, photogeologic: Olson, A. B.

Lodgepole Creek drainage basin, upper: Bjorklund, L. J.
Miller Hill area: Vine, J. D., 2.
Rawlins area: Barlow, J. A., Jr.
Red Desert area: Masursky, H.
Riverton irrigation project: Morris, D. A.
Saratoga area, Stephens, J. G.

Ground water.

Lodgepole Creek drainage basin, upper: Bjorklund, L. J.
Riverton irrigation project: Morris, D. A.

Historical geology.

Bighorn Basin, Lower Pennsylvanian: Todd, T. W.
Bighorn dolomite, Ordovician, correlations: Stone, G. L.
Precambrian, Rb-Sr and K-A ages: Gast, P. W., 1.
Black Hills, Jurassic-Cretaceous, cross section: Mapel, W. J., 2.
Dubois area: Reeves, C. C., Jr., 1.

Upper Paleozoic and Quaternary: Reeves, C. C., Jr., 3.
Elk Mtn.-Tabernacle Butte area, Tertiary: McGrew, P. O.
INDEX

WYOMING—Continued

HISTORICAL GEOLOGY—Continued

Flat Top Mtn. NE quadrangle, Tertiary: Olson, A. B.

Fossil basin, Tertiary, lower: Tracey, J. I., Jr.

Green River formation, Eocene, revised: Bradley, W. H., 2.


Jurassic-Tertiary, southwestern: Schick, E. B.

Lance formation, Cretaceous, Lance Creek area: Clemens, W. A., Jr.

Maurice formation, Cambrian, northwestern: Brown, C. William.

Mesaverde formation, Cretaceous, facies, east-central: Barwin, J. R.

Mesaverde group, Cretaceous, composite section, southeastern: Bergstrom, J. R.

Miller Hill area: Vine, J. D., 2.

Minnelusa formation, Pennsylvanian-Permian, Powder River basin: Foster, D. I.

Overthrust belt, Mississippian-Tertiary, southwestern: Cochran, K. L.

Permian, central and western: Cheney, T. M.

Pierre shale, Cretaceous, Black Hills area: Robinson, C. S.

Sandstone members, correlation: Scott, G. R., 2.

Rawlins area, Cretaceous, measured section: Barlow, J. A., Jr.

Red Desert area, Quaternary: Masursky, H.

Riverton irrigation project, Cretaceous-Quaternary: Morris, D. A.


Uinta Mtn. area basins, Paleocene-Eocene: Gazin, C. L., 1.

Wasatch and Uinta Mts., Triassic: Scott, W. F.

MINERALOGY.

Beartooth Mts., Gardner Lake area, minerals from gneisses and amphibolites, analyses: Harris, R. L., Jr.

Green River formation, mineral assemblages, relations: Milton, C., 1.

Jarostte, Natrona County: Mitchell, R. S.

Miller Hill uranium area: Vine, J. D., 2.


PALEONTOLOGY.

Amphibians, Elk Mtn.-Tabernacle Butte area, Eocene: McGrew, F. O.

Bison, Allen site, Quaternary: Berman, J. E.


Conodonts, Bighorn dolomite, Ordovician: Stone, G. L.

PETROLOGY.

Absaroka Mts., southern: Wilson, W. Harold.

Beartooth Mts., Gardner Lake area, metamorphic rocks, structures and granitization: Harris, R. L., Jr.

Lonesome Mtn. area, orbicular gneiss: Leveson, D. J.

Big Horn Basin, Lower Pennsylvanian: Todd, T. W.


Precambrian gneissic series: Osterwald, F. W., 1.


Black Hills area, Pierre shale: Robinson, C. S.

Dubois area, thermal water deposits: Reeves, C. C., Jr., 3.

Fremont County, Mesaverde formation, dopplerite: Vine, J. D., 4.

Lodgepole Creek drainage basin, upper: Bjorklund, L. J.

Maurice formation, dolomitization, northwestern: Brown, C. Williams.

Miller Hill area: Vine, J. D., 2.

Rattlesnake Hills, Tertiary volcanic field: Carey, B. D., Jr.

Red Desert area, Eocene coal beds: Masursky, H.

Yellowstone National Park, rhyolite plateau, possible modern lopolith: Hamilton, W. B., 1.

PHYSICAL GEOLOGY.

Absaroka Mts., southern: Wilson, W. Harold.

Atlantic mining district: Bayley, R. W., 3.

Beartooth Mts., fracture patterns: Spencer, E. W.
WYOMING—Continued

Physical geology—Continued

Beartooth Mts.—Continued

Gardner Lake area, foliation and larger structures: Harris, R. L., Jr.


Line Creek area: Casella, C. J.

Miller Hill area: Vine, J. D., 2.

Overthrust belt, geosynclinal area, fluid-pressure hypothesis, western: Rubey, W. W.

Southwestern: Cochran, K. L.

Rattlesnake Hills, Tertiary volcanic field: Carey, B. D., Jr.


Teton Range, structural history: Bradley, C. C.

Yellowstone National Park area, faults, postglacial movement: Love, J. D., 2.

Physiographic geology.

Beartooth Mts., fracture patterns, expression on aerial photographs: Spencer, E. W.

Laramie Range, east flank, geomorphic evolution: Moore, F. E.


XENOLITHS.

California, Bear Ridge basalt flows: Lydon, P. A., 3.

X-RAY INVESTIGATIONS.

Argillaceous sedimentary rocks: Kaarsberg, E. A.

Borate minerals: Clark, J. R., 1-5.

Carbonates, Vermont, Burchards limestone: Zen, E-an, 3.

Clay minerals, alignment of wide-range diffractometer: Kittrick, J. A.

Interlayer mixtures in poorly crystallized clays: Jonas, E. C., 1.

Vanadiferous: Hathaway, J. C., 2.


Dakota group, Kansas, detailed core: Merriam, D. F., 4.

Enstatite polymorphs: Smith, J. V., 4.

Epidote group: Sekl, Y.

Feldspar, perthites: Kuellmer, F. J., 1.

Perthites, orthoclase and microcline: Smith, J. V., 3.

Foraminifera, Recent, mineralogy of tests: Blackmon, P. D.

Gypsum, conversion to hemihydrate: Droste, J. B., 2.

X-RAY INVESTIGATIONS—Continued

Layered sequences, diffraction effects of short-range ordering, experimental: Chayes, F.

Manganese ore minerals, powder patterns: Ramdohr, P.

Mullites and sillimanite: Aramakti, S., 2.

Nepheline syenite minerals, Greenland: Dans, M.


Phosphates, complex: Smith, J. P.


Quartz, quantitative determination, distortion by grinding: Brindley, G. W., 4.

Roemerite, California: Van Loan, P. R., 2.

Schorroekhangite and dehydration product: Smith, D. K., Jr.

Sepiolite: Brindley, G. W., 2; Preslinger, A.

Sulf analysis, spectrometric: Webber, G. R.

Solls, Missouri: Brydon, J. E., 1.

Sulfide and rare earth bearing samples, Alaska, Juneau quadrangle, table: Lathram, E. H.

Ulexite and prehnite: Clark, J. R., 2.

Umohotie, Utah, Marysville area: Kamhi, S. R.

Väyrynenite, relation to euclase: Mrose, M. E., 1.

Vector space in crystal-structure analysis, textbook: Buerger, M. J.

YELLOWSTONE NATIONAL PARK. See Wyoming.

YUKON. See also Arctic America.

Geochemical exploration, Vangorda Creek area, sulfides: Chisholm, E. O.

Geochemical prospecting and oxidation phenomena, Mayo area: Boyle, R. W., 3.

Paleomagnetism, late Tertiary basalts: Du Bots, P. M., 1.

Areas described.

Northern: Martin, L. J., 1.

Economic geology.

Oil and gas, Mackenzie River area, possibilities: Martin, L. J., 2; Rainler, P. W.

Sulfides, Vangorda Creek area, geochemical exploration: Chisholm, E. O.

Geologic maps.

La Biche area: Douglas, R. J. W., 2.

South-central: Wheeler, J. O.

Historical geology.

Fort Liard-La Biche areas, Precambrian-Cretaceous: Douglas, R. J. W., 2.

Granite, Upper Jurassic-Lower Cretaceous, southern: Atken, J. D., 2.

Mackenzie River area, lower: Martin, L. J., 2.

Mesozoic tectonics, south-central: Wheeler, J. O.
YUKON—Continued

**Historical geology—Continued**

Northern: Martin, L. J., 1.

**Paleontology.**

Mammals, Old Crow River area, Pleistocene: Geist, O. W.
Prong Creek area, Silurian: Raasch, G. O.

**Petrology.**

Mesozoic formations, south-central: Wheeler, J. O.
Northern: Martin, L. J., 1.

**Physical geology.**

Coast, Herschel Island to King Point, glacier ice-thrusting: Mackay, J. R.
Fort Liard-La Biche areas: Douglas, R. J. W., 2.
Lineaments, trenchlike: Aho, A. E., 2.
Mesozoic tectonics, south-central: Wheeler, J. O.
Tectonics, northern: Martin, L. J., 1.
Tintina Valley: Aho, A. E., 2.

**Physiographic geology.**

Lineaments, trenchlike: Aho, A. E., 2.
Permafrost, Mayo area: Boyle, R. W., 3.
Tintina Valley: Aho, A. E., 2.

**Zerolites.**

Analcite, synthesis and metamorphic origin: Saha, P., 2.
Crystal structures, adsorptive powers: Breck, D. W.
Lithium, stability: Ruiz-Menacho, C.
Phase relationships, epistilbite synthesis: Buckner, D. A.
Sedimentary, diageneric: Deffeyes, K. S., 2.
Stability: Hoss, H.
Volcanic glass, alteration: DiPiazza, J. J.

**Zinc.** See also Sphalerite; Sulfides.

British Columbia, Salmo area: Fyles, J. T.
Whitesail Lake area: Duffell, S., 1.
Illinois, Jo Daviess County, crevice deposits: Bradbury, J. C., 2.
Mississippi Valley, upper: Heyl, A. V., Jr., 1.
Mississippi Valley type deposits, hydrothermal origin: Behre, C. H., Jr., 1.
Origin: Ohle, E. L., Jr.
New Mexico, Magdalena mining district: Tittley, S. R., 2.
Nova Scotia, northern mainland, stream sediments, map: Canada G. S., 51.
Origin, Impossibility of lateral secretion from black shales: Barnes, H. L., 1.
Saskatchewan, northern, Precambrian: Beck, L. S.
Utah, East Tintic district, Chief Oxide area: Lovering, T. S., 2.
Wisconsin, southwestern: Heyl, A. V., Jr., 1.

**Zircon.**

Age dating, lead loss during fusion: Silver, L. T.
Geochemistry: Frondel, C.
Igneous rocks, lead-alpha age: Gottfried, D.
Stability in soils: Raeside, J. D.
Uranium trace determination, fluorimetric: Cuttitta, F.
Virginia, Martinsburg shale, Ordovician, bentonite bed: Carroll, D., 3.
Wyoming, Beartooth Mts., Gardner Lake area, variations with rock types: Harris, R. L., Jr.

**Zirconium.** mineralogy and geochemistry: Frondel, C.