

THE GEOLOGICAL SURVEY OF WYOMING

Gary B. Glass, State Geologist

BULLETIN 64

BIBLIOGRAPHY OF WYOMING GEOLOGY

1960 - 1969

by

Charlotte Tancin



Laramie, Wyoming

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PREFACE

This is the fifth in a series of bibliographies of Wyoming geology published by the Geological Survey of Wyoming. The previous four are Bulletin 17, *Bibliography and index of Wyoming geology, 1823-1916*, by Gladys G. Bovee, 1918 (reprinted 1969); Bulletin 53, *Bibliography of Wyoming geology, 1917-1945*, by Max L. Troyer, 1969; Bulletin 57, *Bibliography of Wyoming geology, 1945-1949*, by Jane M. Love, 1973; and Bulletin 62, *Bibliography of Wyoming geology, 1950-1959*, by Helen L. Nace, 1979.

The Geological Survey of Wyoming has also published two specialized bibliographies containing additional references: Bulletin 58, *Bibliography of Wyoming coal*, by Gary B. Glass and Richard W. Jones, 1974, and Bulletin 61, *Bibliography and index of Wyoming uranium through 1973*, by Carlisle E. Banks, David Copeland, and W. Dan Hausel, 1981.

A listing from GEOREF, the data base of the American Geological Institute, formed the basis for this bibliography. Additional entries, not found in GEOREF, are also included.

Our bibliographic style is similar to that of the previous bibliographies in the series. Authors and subauthors are arranged alphabetically, and their entries with citations are listed chronologically. In the index, headings are not classified under major divisions as in the previous bibliographies; rather, all headings and subheadings are arranged alphabetically. The only exceptions are the paleontological subheadings, which are arranged according to paleontological convention.

As compiler of the bibliography I am indebted to various members of the staff of the Geological Survey of Wyoming, in particular to David Copeland, Editor, for his constant attention and patience, as well as for overall guidance in such a meticulous endeavor, and to Michelle Richardson, who typed and retyped arranged and rearranged the bibliography and index as was necessitated by the continual addition of items previously missed. I also owe thanks to the librarians at the University of Wyoming, especially at the Geology Library. Specifically, Jo Battisti was most helpful. I gratefully acknowledge assistance given by members of the University of Wyoming geology faculty.

Charlotte Tancin



SERIALS AND OTHER CITED SOURCES

Abs. - Abstract or Abstracts Ann. - Annual
 Bull. - Bulletin Conf. - Conference Jour. - Journal
 Mem. - Memoir Mon. - Monograph
 Rept. - Report Trans. - Transactions Univ. - University

Akademiia Nauk SSR, Izvestiya, Geological Series [USSR]
 American Institute of Mining and Metallurgical Engineers [A.I.M.E.]
 Alberta Society of Petroleum Geologists, International Symposium
 American Antiquity
 American Association of Petroleum Geologists
 Rocky Mountain Section, Geological Record
 American Chemical Society
 American Conference on Coal Science
 American Geophysical Union [in 1969 became EOS]
 American Journal of Botany
 American Journal of Science
 American Mineralogist
 American Midland Naturalist
 American Museum of Natural History
 American Museum Novitates
 Archiv fuer Hydrobiologie [Germany]
 Arizona Geological Society, Digest
 Association of American Geographers, Annals
 Association of Engineering Geologists
 Balneological Society of Japan
 Billings Geological Society, Annual Field Conference
 Biological Society of Washington
 Biuletyn Peryglacjalny [Poland]
 Breviora [Museum of Comparative Zoology, Harvard College]
 Brigham Young University, Geology Studies
 Bulletin of Canadian Petroleum Geology
 Bulletin Volcanologique [International Volcanological Association]
 California University, Publications in Geological Sciences
 Canadian Institute of Mining and Metallurgy, Lakehead Branch, Institute of Lake
 Superior Geology
 Canadian Journal of Earth Science
 Canadian Journal of Physics
 Canadian Journal of Soil Science
 Carnegie Museum, Annals
 Chemical Engineering News Magazine

Clay Minerals Bulletin [with vol. 6, 1965, become Clay Minerals]
 Clays and Clay Minerals
 Clays and Clay Minerals, National Conference Proceedings
 Coal
 Coal Age
 Coal Science - American Conference on Coal Science: see American Chemical Society
 Colorado School of Mines
 Mineral Industries Bulletin
 Quarterly
 Colorado Scientific Society
 Colorado University Studies, Series in Earth Sciences
 Colorado-Wyoming Academy of Science Journal
 Compass [The Compass of Sigma Gamma Epsilon]
 Contributions to Mineralogy and Petrology
 Copeia [American Society of Ichthyologists and Herpetologists]
 Denver Research Institute, University of Denver
 Dissertation Abstracts [- 1966]
 Dissertation Abstracts, sections A and B [1966 - July 1969]
 Dissertation Abstracts International, sections A and B [July 1969 -]
 Earth Science [Midwest Federation of Mineralogical Societies]
 Earth Science Bulletin [Wyoming Geological Association]
 Earth and Planetary Science Letters
 Economic Geology
 Eiszeitalter und Gegenwart [Deutsche Quartauvereinigung] [Germany]
 EOS, American Geophysical Union, Transactions [beginning v. 50, 1969]
 Explorers Journal
 Fieldiana - Geology (Field Museum of Natural History)
 Florida Academy of Science, Quarterly Journal
 Geochimica et Cosmochimica Acta
 Geochemistry [with 1964 vol. became Geochemistry International]
 Geochemistry International
 Geologiska Foreningen i Stockholm, Forhandlingar [Sweden]
 Geological Magazine
 Geological Society of America
 Special Paper
 Geophysical Journal: see Royal Astronomical Society
 Geophysics
 Geotimes
 Gosudarstvennoe Izdatel'stvo Literatury V. Ablasti Stomnoi Nuaki i Tekhniki
 [U.S.S.R.] [State Published House of Literature in the area of Atomic Science
 and Technique]
 Grand Teton Natural History Association
 Harvard University, Museum of Comparative Zoology, Bulletin
 Herpetologica [Herpetologists League]
 Hokkaido University, Faculty of Science Journal [Japan]
 In Wyoming [Casper]
 Intermountain Association of Petroleum Geologists, Annual Field Conference
 International Association of Quaternary Research, Congress

International Association of Science
Hydrology Bulletin
Hydrology Publications
International Association of Volcanology and Chemistry of the Earth's Interior,
Symposium
International Clay Conference
International Congress on Electron Microscopy
International Geological Congress
International Geology Review
International Series of Monographs in Earth Science [McGraw-Hill]
International Volcanology Association [Italy]
Iowa Academy of Science
Israel Program of Science Translation [Jerusalem]
Japan Academy [Tokyo]
Journal of Chemical and Engineering Data
Journal of Geological Education
Journal of Geology
Journal of Geophysical Research
Journal of Mammalogy
Journal of Paleontology
Journal of Petroleum Technology
Journal of Sedimentary Petrology
Kansas Geological Survey, Computer Contribution
Kansas University, Paleontological Contribution
Log Analyst
Michigan Academy of Science, Arts and Letters, Papers
Michigan Basin Geological Society
Michigan University, Museum of Paleontology, Contributions
Micropaleontology
Mineralogical Magazine [London]
Mineralogist [Mentone, California]
Mines Magazine
Mining Congress Journal
Mining Engineering
Mining World
University of Minnesota, Department of Geology
Missouri Academy of Science, Annual Meeting
Montana Bureau of Mines and Geology, Special Publication
Montana Geology Society, Annual Conference
Mountain Geologist [Rocky Mountain Association of Geologists]
National Academy of Sciences, National Research Council, Nuclear Science Series
National Geographic Society
National Geographic Magazine
Research Reports
National Parks Magazine
National Speleological Society
Natural History
Nature

Nature and Science
 Nebraska Academy of Science, Annual Meeting
 New Mexico Geological Society, Annual Field Conference
 New York Academy of Science, Annals
 New York State Museum of Science, Service Memoir
 Norsk Polarinstitut, Arbok [Norway]
 Northern Ohio Geological Society
 Northwest Science
 Novitates [American Museum of Natural History]
 Nucleonics
 Ohio Journal of Science
 Oil and Gas Journal
 Oklahoma Geology Notes
 Oxford University, Department of Geology and Mineralogy
 Volcanological Association Meeting
 Ozark Mountain Gem and Mineral Society
 Pacific Power and Light Company, Portland
 Pacific Science Congress
 Paleontological Society
 Peabody Museum: see Yale University
 Photogrammetric Engineering
 Pollen et Spores [Museum National d'Histoire Naturelle, Laboratoire de Palynologie]
 [France]
 Porto Alegre, Brazil, [Universidade do Rio Grande do Sul, Escola de Geologia,
 Boletim] [Brazil]
 Poitiers, Faculté des Sciences, Université Institut de Géologie et d'Antropologie
 Préhistorique, Travaux [France]
 Postilla [Yale Peabody Museum of Natural History]
 Radiocarbon
 Rocks and Minerals
 Rocky Mountain Association of Geologists, Annual Field Conference
 Rocky Mountain Coal Institute
 Rocky Mountain Oil Reporter
 Royal Astronomical Society, Geophysical Journal
 Royal Society, London, Philosophical Transactions
 Science [American Association for the Advancement of Science]
 Scientific American
 Science Council of Japan, Division Meeting [Tokyo]
 Sedimentology
 Seismological Society of America, Division Meeting, Pacific Science Congress
 Shale Shaker
 Smithsonian Institution
 Miscellaneous Collection
 Contributions to Paleobiology
 Society of Economic Paleontologists and Mineralogists, Special Publication
 Society of Professional Well Log Analysts, Annual Symposium
 Soil Science
 Soil Science Society of America

South Dakota Academy of Science
 Southern California Academy of Science
 Soviet Journal of Atomic Energy [USSR]
 Tebiwa [Idaho State University, Pocatello, Museum]
 Tulsa Geological Society Digest
 United Nations, Economic Commission for Asia and the Far East, Mineral Resources
 Development Series, Symposium
 United States Army Corps of Engineers
 United States Army Materiel Command, Cold Regions Research and Engineering Labor-
 atories, Research Report
 United States Atomic Energy Commission - reports variously designated
 Brook Haven National Laboratories (BNL)
 Grand Junction Colorado (GJO)
 New York Operation (NYO)
 Raw Material Exploration (RME)
 Technical Information Division (TID)
 United States Bureau of Mines
 Information Circular
 Laramie Petroleum Research Center
 Preliminary Report
 Report of Investigations
 United States Bureau of Reclamation, Engineering Geology Branch, Geology Report
 United States Congress, Senate Documents
 United States Department of Agriculture
 Soil Conservation Service, Miscellaneous Publication
 United States Geological Survey
 Circular
 Geologic Quadrangle Map (GQ)
 Geophysical Investigations Map (GP)
 Hydrological Investigations Atlas (HA)
 Mineral Investigations Field Studies Map (MF)
 Mineral Investigations Resource Map (MR)
 Miscellaneous Geological Investigations Map (I)
 Oil and Gas Investigations Map (OM)
 Open File Map
 Open File Report
 Professional Paper
 Trace Element Investigations (TEI)
 Water-Supply Paper
 United States National Aeronautics and Space Administration, Manned Spacecraft Cen-
 ter, Earth Resources Aircraft Program, Annual Station Review
 United States National Bureau of Standards, Special Publication
 United States National Museum
 United States Office of Naval Research and Air Force Cambridge Research Laboratories
 University of Michigan, Willow Run Laboratories, Symposium on Remote Sensing of the
 Environment
 University of Minnesota, Annual Mining Symposium
 University of Wyoming
 Agricultural Experiment Station, Research Journal

College of Commerce and Industry, Division of Business and Economic Research
Contributions to Geology (Geology Department)
Natural Resources Research Institute, Information Circular
Publications
Utah Geological and Mineralogical Survey
Utah Geological Society, Guidebook
Geology of Utah
Water Resources Research
Wayne State University
National Science Foundation Summer Conference, Guidebook
National Science Foundation Summer Field Course, Guidebook
Wisconsin State University, Superior, Geology Department, Technical Session Abstracts
Annual Institute of Lake Superior Geology
World Oil
World Petroleum Congress
Wyoming Commissioner of Public Lands
Wyoming Department of Economic Planning and Development
Wyoming Geological Association
Annual Field Conference Guidebook
Earth Science Bulletin
Highway Geology of Wyoming
Technical Studies Committee
Wyoming Geological Association and Billings Geological Society, Joint Field Conference
Wyoming Geological Survey
Biennial Report
Information Circular
Preliminary Report
Report of Investigations
Wyoming Highway Department
Wyoming State Inspector of Mines, Rock Springs Office
Wyoming Natural Resource Board
and State Water Planning Program
Wyoming Oil and Gas Conservation Commission
Wyoming State Oil and Gas Supervisor
Yellowstone Nature Notes
Yale University, Peabody Museum of Natural History
Zietschrift fuer geomorphologie [Germany]

B I B L I O G R A P H Y





ADAMSON, R.D.

1967, Tertiary Wind River Formation - uranium resources and geology [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1898-1899.

ADLER, H.H.

1. 1961, Some possible geologic relationships in the formation of uranium (235) from curium (247): Econ. Geol., v. 56, no. 4, p. 689-694.
2. 1963, Concepts of genesis of sandstone-type uranium ore deposits: Econ. Geol., v. 58, p. 839-852.
3. 1964, The conceptual uranium ore roll and its significance in uranium exploration: Econ. Geol., v. 59, no. 11, p. 46-53.
4. and Sharp, B.J., 1967, Uranium ore rolls - occurrence, genesis, and physical and chemical characteristics: Utah Geol. Soc. Guidebook, Geol. Utah no. 21, Uranium Districts of Southeast Utah, p. 53-77.

AFFLECK, J.

and Hodgson, R.A., 1965, Magnetic expressions of crustal tectonics [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 3, p. 332-333.

AGOGINO, G.A.

and Galloway, E., 1963, The skulls from Torrington, Wyoming - A re-evaluation: Am. Antiquity, v. 29, no. 1, p. 106-109.

ALBANESE, J.P.

1969, Resume of Wyoming archeology: Earth Sci. Bull., v. 2, no. 2, p. 17-25.

ALBEE, H.F.

1. and Jobin, D.A., and Schroeder, M.L., 1967, Northwesterly extension of the Darby thrust in the Snake River Range, Wyoming and Idaho: U.S. Geol. Survey, Prof. Paper 575-D, p. D1-D3.
2. 1968, Geologic map of the Munger Mountain quadrangle, Teton and Lincoln Counties, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-705, scale 1:24,000.

ALLEN, A.E., JR.

1. and Trotter, J.F., 1963, Minnelusa surface correlation section: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, unbound plate.
2. 1967, Environments of deposition in the Minnelusa and their interpretation from gamma sonic logs [abs.]: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, and Wyoming, p. 91-94.

ALLISON, M.D.

1966, Physical stratigraphy, middle Ordovician Harding and Lander Sandstone, Wyoming: Mtn. Geologist, v. 3, no. 3, p. 115-124.

ALPHA, J.W.

1967, Behavior of cation saturated Wyoming bentonite under low temperature and pressure: MS thesis, Univ. Cincinnati.

AMSBURY, D.L.

1967, Summary of oil developments in the Reno area, Johnson County, Wyoming: Mtn. Geologist, v. 4, no. 1, p. 3-7.

ANDERMAN, G.G.

and Ackman, E.J., 1963, Guidebook to the geology of the Northern Denver Basin and adjacent uplifts: Rocky Mountain Assoc. Geol., 14th Ann. Field Conf., Colorado, Wyoming, Nebraska and South Dakota - Denver, p. 170-175.

ANDERSON, D.C.

1. 1969, Lucky Mc Mine, in Case studies of surface mining - Internat. Surface Mining Conf., 2nd, Minneapolis, Minn., 1968, Proc.: New York, A.I.M.E., p. 275-286.
2. 1969, Uranium deposits of the Gas Hills: Univ. Wyoming, Contr. Geol., v. 8,

ANDERSON, D.M.

and Hoekstra, P., 1965, Migration and crystallization of interlamellar water during freezing and thawing of Wyoming bentonite: U.S. Army, Materiel Command, Cold Regions Research and Eng. Labs., Research Rept. 192, 17 p.

ANDERSON, E.

1. 1967, *Equus conversidens* from Wyoming: Jour. Mammalogy, v. 48, no. 4, p. 660-663.
2. 1968, The Carnivora in Fauna of the Little Box Elder cave, Converse County, Wyoming: Univ. Colorado Studies, Ser. Earth Sci., no. 6, p. 1-59.

ANDERSON, J.E.

1967, Stratigraphy and depositional environments of part of the Cretaceous Mesaverde Formation, north of Sinclair, Wyoming: MS thesis, Univ. Wyoming.

ANDERSON, J.S.

1968, Solution mining of uranium: Mining Cong. Jour., v. 54, no. 1, p. 20-23, 26.

ANDERSON P.C.

and Gardner, P.M., Whitehead, E.V., Anders, D.E., and Robinson, W.E., 1969, The isolation of steranes from Green River oil shales: Geochim. et Cosmochim. Acta, v. 33, no. 10, p. 1304-1307.

ANDREW, S.G.

1965, The Rock Springs uplift, a history of mineral exploration and exploitation: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 230-233.

ANTWEILER, J.C.

1. 1965, Application of geochemical prospecting techniques to exploration for gold [abs.]: Mining Eng., v. 17, no. 8, p. 50.
2. and Love, J.D., 1967, Gold-bearing sedimentary rocks in northwest Wyoming - a preliminary report: U.S. Geol. Survey, Circ. 541, 12 p.
3. 1969, Changes in composition and physical characteristics of gold particles in ancient conglomerates of northwest Wyoming in relation to source areas: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section], p. 1-2.

APPLEMAN, D.E.

1963, X-ray crystallography of wegscheiderite ($\text{Na}_2\text{CO}_3 \cdot 3\text{NaHCO}_3$): Am. Mineralogist, v. 48, no. 3-4, p. 404-406.

ARAKI, T.

and Noguchi, K., 1969, Vanadium and molybdenum contents in hot spring waters in Yellowstone National Park: Balneol. Soc. Jap., Jour., v. 20, no. 2, p. 109-117 [Japanese with English summary].

ARMBRUSTMACHER, T.J.

1966, Mafic dikes of the Clear Creek drainage area, eastern Bighorn Mountains, Wyoming: PhD dissert., Univ. Iowa; and [abs.] 1066: Dissert. Abs., pt. B., v. 27 no. 5, p. 1508B.

ARMSTRONG, F.C.

and Oriel, S.S., 1964, Tectonic development of Idaho-Wyoming thrust belt [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1878; and in full, 1965: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 11, p. 1847-1866.

ARNOLD, H.O.

and Bell, W.G., and Gosar, A.J., 1960, 3rd day's trip - Junction of Grey's River and Little Grey's River to Green River Lakes by way of Snake River Canyon, Hoback Canyon, and Cora-Green River Lakes Road: Wyo. Geol. Assoc., 15th Ann. Field

Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas,
p. 271-280.

ARRO, E.

1969, Waltman Field: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium
on Tertiary Rocks of Wyoming, p. 105-110.

ASQUITH, D.O.

1. 1965, Mesaverde and "Almy" production, Birch Creek unit, Sublette County,
Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull. v. 49, no. 9, p.
1576-1577.

2. 1966, Geology of Late Cretaceous Mesaverde and Paleocene Fort Union oil
production, Birch Creek unit, Sublette County, Wyoming: Am. Assoc. Petroleum
Geologists, Bull., v. 50, no. 10, p. 2176-2184.

ASQUITH, G.B.

1968, Origin of large kaolinite crystals in the lower Almond Formation in
southeast Wyoming: Jour. Sed. Petrology, v. 38, no. 3, p. 948-949.

AUFFENBERG, W.

1961, A new genus of fossil salamander from North America: Am. Midland
Naturalist, v. 66, no. 2, p. 456-465.

BABCOCK, G.B.

and Picard, M.D., 1969, Stratigraphy of the Spearfish Formation (Permian-Triassic), north Black Hills region [abs.]: Geol. Soc. America, Abs., pt. 5 [Rocky Mountain Section], p. 2-3.

BAILEY, R.V.

1. 1965, Applied geology in the Shirley Basin uranium district, Wyoming: Univ. Wyoming, Contr. Geology, v. 4, no. 1, p. 27-35; and 1968: Report on Wyoming Governor's Conf. on Uranium, Casper, Wyoming; and 1969: Mines Mag., v. 59, no. 1, p. 12, 14-16.
2. 1969, Uranium deposits in the Great Divide Basin-Crooks Gap area, Fremont and Sweetwater Counties, Wyoming, in Wyoming Uranium Issue: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1, p. 105-120; errata: *ibid.*, pt. 2, p. 198-199.

BAKER, D.R.

1962, The Newcastle Formation in Weston County, Wyoming -- a nonmarine (alluvial) plain deposit: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks, Wyoming and Adjacent Areas, p. 148-162.

BAKER, G.

1965, An environmental study of the Morrison Formation (Jurassic) Freezeout Hills-Como Bluff area, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

BAKER, R.G.

1. 1969, Pollen and plant macrofossils from late Pinedale (later Pleistocene) and Recent sediments in an abandoned lagoon of Yellowstone Lake, Wyoming: PhD dissert., Univ. Colorado.
2. 1969, Pollen and seed diagrams from an abandoned lagoon on the southeast arm of Yellowstone Lake, Wyoming [abs.]: Geol. Soc. America, Abs., pt. 5 [Rocky Mountain Section], p. 4-5.

BARLOW, J.A., JR.

1. 1961, Almond Formation and lower Lewis Shale, east flank of Rock Springs uplift, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 113-115.
2. and Haun, J.D., 1965, Stratigraphic accumulation of oil in Salt Creek Field, Natrona County, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1574.
3. and Miller, D.N., Jr., and Haun, J.D., 1965, Stratigraphy and petroleum potential of latest Cretaceous rocks, Bighorn Basin, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 1, p. 116-117.
4. and Haun, J.D., 1966, Regional stratigraphy of Frontier Formation and relation to Salt Creek field, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 10, p. 2185-2196.
5. editor, 1969, Water resources investigations in Wyoming: Wyoming Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 207-210.

BARNES, C.W.

1967, Basement response to the Laramide orogeny at Coad Mountain, Wyoming [abs.]: in Guidebook of Defiance-Zuni Mt., Taylor region, Arizona and New Mexico: New Mexico Geol. Soc., 18th Ann. Field Conf., 1967, Socorro, New Mexico, New Mexico Bur. Mines and Mineral Resources, p. 225; and in full, and Houston, R.S., 1969: Univ. Wyoming, Contr. Geology, v. 8, no. 1, p. 37-41.

BARNES, J.W.

1969, Future uranium requirements [Governor's Uranium Conf., Casper, Wyoming]: Mines Mag., v. 59, no. 1, p. 20, 22-24.

BARNHART, W.R.

1969, The early history of Carbon County, Wyoming: MA thesis, Univ. Wyoming.

BARRETT, W.J.

and Hubley, M.D., 1969, The Madden gas field, Fremont County, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 115-120.

BARRUS, R.B.

1968, The bedrock geology of southeastern Alpine Lake quadrangle, Wind River Mountains, Wyoming: MS thesis, Univ. Washington.

BARWIN, J.R.

1961, Stratigraphy of the Mesaverde Formation in the southeastern part of the Wind River Basin, Fremont and Natrona Counties, Wyoming: MS thesis, Univ. Wyoming; and in 1961: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous rocks, Wyoming and Adjacent Areas, p. 171-179.

BASSETT, W.A.

1. 1961, Potassium-argon of Devils Tower, Wyoming: Science, v. 134, no. 3487, p. 1373.
2. and Giletti, B.J., 1963, Precambrian ages in the Wind River Mountains, Wyoming: Geol. Soc. America, Bull., v. 74, no. 2, p. 209-212.

BATES, T.F.

and O'Neil, R.L., 1960, Investigation of the mineralogy, petrography, and paleobotany of uranium-bearing lignites: U.S. Atomic Energy Comm., NYO-7949, 50 p.

BAY, K.W.

1969, Stratigraphy of Eocene sedimentary rocks in the Lysite Mountain area, Hot Springs, Fremont and Washakie Counties, Wyoming: PhD dissert., Univ. Wyoming.

BAYLEY, R.W.

1. 1960, Precambrian taconite deposits near Atlantic City, Fremont County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 222-225.
2. and Janes, W.W., 1961, Geochemical surveying for gold veins in the Atlantic district, Wyoming: U.S. Geol. Survey, Prof. Paper 424-D, p. D332-D333.
3. 1963, A preliminary report on the Precambrian iron deposits near Atlantic City, Wyoming: U.S. Geol. Survey, Prof. Paper 1142-C, p. C1-C23.
4. 1963, Geology and iron deposits of Atlantic district, Fremont County, Wyoming [abs.]: Mining Eng., v. 15, no. 8, p. 53.
5. 1965, Geologic map of the Atlantic City quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad, Map GQ-459, scale 1:24,000.
6. 1965, Geologic map of the Louis Lake quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad, Map GQ-461, scale 1:24,000.
7. 1965, Geologic map of the Miners Delight quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad, Map GQ-460, scale 1:24,000.
8. 1965, Geologic map of the South Pass City quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad, Map GQ-458, scale 1:24,000.
9. 1968, Geologic map of the Bradley Peak quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad, Map GQ-773, scale 1:24,000.
10. 1968, Ore deposits of the Atlantic City district, Fremont County, Wyoming: A.I.M.E., Ore deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 389-604.

BEALL, J.V.

1966, Phosphate rock in the United States: Mining Eng., v. 18, no. 10, Phosphate and Potash - Minerals to Feed the World, p. 80-99.

BEHKEN, F.H.

1969, Late Permian conodonts from Wyoming and Nevada: MS thesis, Univ. Wisconsin.

BEHRENDT, J.C.

1. and Thiel, E., 1963, A gravity and magnetic survey of the Uinta Mountains: Jour. Geophys. Research, v. 68, no. 3, p. 857-868.
2. and Tibbetts, B.L., and Love, J.D., 1965, A seismic and gravity study in Grand Teton National Park and vicinity [abs.]: Am. Geophys. Union, Trans., v. 46, no. 1, p. 155, and in [abs.] 1966: Geol. Soc. America, Spec. Paper 87, p. 273-274.
3. and Tibbetts, B.L., Bonini, W.E., and Lavin, P.M., 1968, A geophysical study in Grand Teton National Park and vicinity, Teton County, Wyoming: U.S. Geol. Survey, Prof. Paper 516-E, p. E1-E23.

BEIKMAN, H.M.

- 1962, Geology of the Powder River Basin, Wyoming and Montana, with references to subsurface disposal of radioactive wastes: U.S. Geol. Survey, TEI-823, 85 p.

BELL, K.G.

1. 1960, Uranium and other trace elements in petroleum and rock asphalts: U.S. Geol. Survey, Prof. Paper 356-B, p. 45-64.
2. 1963, Uranium in carbonate rocks: U.S. Geol. Survey, Prof. Paper 474-A, p. A1-A29.

BELL, L.H.

- 1968, Stratigraphy and depositional history of the Cambrian Flathead Sandstone, north Park County, Wyoming: MS thesis, Univ. Wyoming.

BENNETT, P.T.

- and Knight, D.K., 1960, Inspection of lower slide, Gros Ventre River, Wyoming: Omaha, Nebraska, U.S. Army Corps Engineers, Madison River, Montana, Report on Flood Emergency, Madison River Slide, v. 2, App. 7, p. VII-1 - VII-4.

BENSON, A.L.

1. 1965, Devonian stratigraphy in western Wyoming and surrounding area: PhD dissert., Ohio State Univ.
2. 1966, Devonian stratigraphy in western Wyoming and adjacent areas: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 12, p. 2566-2603.

BENTLEY, R.D.

1. 1968, Structural geology and geologic history of Cloverleaf Lakes area, Beartooth Mountains, Montana-Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 406-407.
2. 1968, Regional distribution of amphibolites in the southeastern Beartooth Mountains, Montana and Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 14-15.
3. 1969, Geologic evolution of the Beartooth Mountains, Montana and Wyoming: pt. 9, Cloverleaf Lakes area: PhD dissert., Columbia Univ.

BERG, R.R.

1. and Wasson, E.B., 1960, Structure of the Wind River Mountains, Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1824.
2. 1961, Laramide tectonics of the Wind River Mountains: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 70-80.
3. 1961, Laramide sediments along Wind River thrust, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 3, p. 416; and in full 1963: Am. Assoc. Petroleum Geologists, Mem. 2, p. 220-230.
4. 1962, Mountain flank thrusting in Rocky Mountain foreland, Wyoming and Colorado: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 11, p. 2019-2032.
5. 1963, Powder River's Minnelusa play: Oil and Gas Jour., v. 61, no. 22, p. 168-173, 175-176.
6. 1965, Geology of Minnelusa oil in northeast Powder River Basin, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 1, p. 118.
7. and Romberg, F.E., 1966, Gravity profile across the Wind River Mountains, Wyoming: Geol. Soc. America, Bull., v. 71, no. 6, p. 647-655.

8. and Tenney, C.S., 1966, Geology of lower Permian Minnelusa oil fields, Powder River Basin, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 3, pt. 1, p. 605; and in full 1967: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 5, p. 705-709.
 9. 1968, Point-bar origin of Fall River Sandstone reservoirs, northeastern Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 52, no. 11, pt. 1, p. 2116-2122.
- BERGENDAHL, M.H.
- and Davis, R.E., and Izett, G.A., 1961, Geology and mineral deposits of the Carille quadrangle, Crook County, Wyoming: U.S. Geol. Survey, Bull. 1082-J, p. 613-706.
- BERGER, R.
- and Libby, W.F., 1968, UCLA radiocarbon dates VIII: Radiocarbon, v. 10, no. 2, p. 402-416.
- BERGMAN, D.W.
- 1960, Areal geologic and structural interpretation map of an area in Sublette County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 85-86.
- BERRY, D.W.
1. 1960, Geology and ground-water resources of the Rawlins area, Carbon County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1458, 74 p.
 2. and Littleton, R.T., 1961, Geology and ground-water resources of the Owl Creek area, Hot Springs County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1519, 58 p.
- BICKFORD, M.E.
- and Wetherill, G.W., 1965, Compilation of Precambrian data for North America: Nat'l Acad. Sci., Nat'l Research Council Nuclear Sci. Ser. Rept. 41 (NAS-NRC Pub. 1276), Geochronology of North America, p. 1-181.
- BIGGS, C.A.
- 1962, Devonian stratigraphy of the Bighorn Canyon area: Billings Geol. Soc., 12th Ann. Field Conf. Guidebook, Float trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 41-46.
- BIGGS, P.
- and Espach, R.H., 1960, Petroleum and natural gas fields in Wyoming: U.S. Bur. Mines, Bull. 582, 538 p.
- BILLINGS GEOLOGICAL SOCIETY
- 1962, Float trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, Billings, Montana: Billings Geol. Soc., 12th Ann. Field Conf. Guidebook, 1961, 70 p.
- BIRTILL, J.W.
- and Whiteway, F.E., 1965, The application of phased arrays to the analysis of seismic body waves: Royal Soc. London, Philos. Trans., ser. A, v. 258, no. 1091, p. 421-493.
- BISHOP, D.T.
- 1964, Progressive metamorphism in the Seminoe Mountains, Carbon County, Wyoming: MS thesis, Univ. Wyoming.
- BISHOP, G.A.
- 1965, The paleontology and stratigraphy of the Upper Cretaceous upper Pierre Shale on Cedar Creek anticline, southeastern Montana: South Dakota Acad. Sci., Proc. 1965, v. 44, p. 91-96.
- BISHOP AND SPURLOCK (consulting engineers, Lander)
- 1962, Report on water resources in the Wind River Basin: Wyoming Nat. Resource Board, 6 p.

BLACK, C.C.

1. 1960, A second record of the fossil rodent *Palustrinus* Wood, Wyoming: *Breviora*, no. 131, 3 p.
2. 1961, New rodents from the early Miocene deposits of Sixty-Six Mountain, Wyoming: *Breviora*, no. 146, 7 p.
3. and Dawson, M.R., 1966, Paleontology and geology of the Badwater Creek area, central Wyoming — pt. 1, History of field work and geological setting: *Carnegie Mus., Annals*, v. 38, art. 13, p. 297-308.
4. 1967, Middle and Late Eocene mammal communities — a major discrepancy: *Science*, v. 156, no. 3771, p. 63-64.
5. 1969, Fossil vertebrates from the late Eocene and Oligocene, Badwater Creek area, Wyoming, and some regional correlations: *Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming*, p. 43-47.

BLACK, R.A.

and Roller, J.C., 1961, Relation between gravity and structure of part of the western flank of the Black Hills, South Dakota and Wyoming: *U.S. Geol. Survey, Prof. Paper 424-C*, art. 243, p. C260-C262.

BLACKSTONE, D.L., JR.

1. 1963, New data concerning the Seminoe thrust, Wyoming [abs.]: *Geol. Soc. America, Spec. Paper 73*, p. 77.
2. 1965, Development of Laramide structure in Laramie Basin, Wyoming [abs.]: *Am. Assoc. Petroleum Geologists, Bull.*, v. 49, no. 1, p. 115.
3. 1965, Gravity thrusting in the Bradley Peak-Seminoe Dam quadrangles, Carbon County, Wyoming, and the relationship to the Seminoe iron deposits: *Wyo. Geol. Survey, Prelim. Rept. 6*, 13 p.
4. 1966, Pliocene vulcanism, southern Absaroka Mountains, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 5, no. 1, p. 21-30.
5. 1966, Some relationships of Precambrian and Laramide structure, Laramie Basin, Wyoming [abs.]: *Geol. Soc. America, Spec. Paper 87*, p. 275.
6. 1969, Biennial report of the State Geologist for 1967-1969: *Wyo. Geol. Survey*, 11 p.
7. 1969, Structural geology of the Rex Lake quadrangle, Laramie Basin, Wyoming: *Wyo. Geol. Survey, Prelim. Rept. 11*, 17 p.

BLANK, H.R., JR.

1969, Geophysical investigations in Yellowstone National Park — progress report [abs.]: *Geol. Soc. America, Spec. Paper 121*, p. 588.

BLASDEL, E.S.

1969, Geology of the Granite Creek Area, Gros Ventre Mountains, Wyoming: MS thesis, Univ. Michigan.

BLATT, H.

1966, Diagenesis of sandstones — processes and problems: *Wyo. Geol. Assoc., 20th Ann. Conf., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains*, p. 63-65.

BOECKERMAN, R.F.

and Bayless, J.C.; Keenman, K.A.; and Oesterling, W.A., 1960, Geologic map of the southwest Jackson quadrangle: *Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas*, unbound plate.

BOGERT, J.R.

1963, Production begins at Stauffer's Big Island trona mine: *Mining World*, v. 25, no. 1, p. 12-15, 1963.

BOLES, J.R.

1. 1968, Zeolites and authigenic feldspar along a part of the Beaver Rim, Fremont County, Wyoming: MS thesis, Univ. Wyoming.

2. and Surdam, R.C., 1969, Authigenic minerals of the Wagon Bed Formation [abs.]: Geol. Soc. America, Spec. Paper 121, p. 30-31.
- BOLMER, R.L.
- and Biggs, P., 1965, Mineral resources and their potential on Indian lands, Wind River Indian Reservation, Fremont and Hot Springs Counties, Wyoming: U.S. Bur. Mines, Prelim. Rept. 159, 103 p.
- BOLYARD, D.W.
1. and McGregor, A.A., 1965, Stratigraphy and petroleum potential of Lower Cretaceous Inyan Kara Group in northeastern Wyoming, southeastern Montana, and western South Dakota [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1575; and in full, 1966: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 10, p. 2221-2244.
 2. and McGregor, A.A., 1966, Big fields seen in Rockies: Oil and Gas Jour., v. 64, no. 13, p. 242-249.
- BONINI, W.E.
1. 1965, Gravity surveys in the northwestern United States: Am. Geophys. Union, Trans., v. 46, no. 3, p. 563-569.
 2. 1969, Gravity studies on Montana, Wyoming, and Washington: EOS [Am. Geophys. Union, Trans.], v. 50, no. 10, p. 531-533.
- BOOY, E.C.
- 1969, Mineralogy and physical properties of clays involved in certain cordilleran landslides [abs.]: Dissert. Abs. Int., sec. B, v. 30, no. 2, p. 706B-707B.
- BOSTICK, N.H.
- and Lange, A.L., Farquhar, R.P., and Derman, I.H., 1968, Resource evaluation and geologic data processing systems for sedimentary host rocks of uranium ore - final report: U.S. Atomic Energy Comm., GJO-115-1, 382 p.
- BOTHNER, W.A.
1. 1967, Petrology, structural geometry, and economic geology of the Cooney Hills, Platte County, Wyoming: PhD dissert., Univ. Wyoming.
 2. 1969, Preliminary gravity study of the Precambrian Sherman Granite, Albany and Laramie Counties, Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 2, p. 172-176.
- BOWER, R.R.
- 1964, Stratigraphy of Red Peak Formation, Alcova Limestone, and Crow Mountain member of Popo Agie Formation (Triassic) of central Wyoming [abs.]: Dissert. Abs., v. 25, no. 6, p. 3512; and in full, 1965: PhD dissert., Univ. Wyoming.
- BOWES, D.R.
- and Skinner, W.R., 1969, Geochemical comparison of the Stillwater complex and alpine-type ultrabasic complexes, Beartooth Mountains, Montana and Wyoming: Geol. Mag., v. 106, no. 5, p. 477-483.
- BOWLES, C.G.
1. 1960, Solution breccias in the upper part of the Minnelusa Sandstone, South Dakota and Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 20-32.
 2. and Braddock, W.A., 1963, Solution breccias of the Minnelusa Formation in the Black Hills, South Dakota, and Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C91-C95.
 3. 1967, Present day ground water, a possible guide to uranium exploration in the southern Black Hills of South Dakota and Wyoming: U.S. Geol. Survey, Open File Rept., 24 p.
 4. 1968, Theory of uranium deposition from artesian water in the Edgemont district, southern Black Hills: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, and Wyoming, p. 124-130.

BOYD, D.W.

1. 1960, Fossil plants in the Triassic Chugwater Formation [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 2032.
2. and Ore, H.T., 1963, A Wyoming specimen of *Dendrophycus*: Univ. Wyoming, Contr. Geology, v. 2, no. 1 [S.H. Knight Issue], p. 63-68.
3. and Ore, H.T., 1963, Patterned cones in Permo-Triassic redbeds of Wyoming and adjacent areas: Jour. Sed. Petrology, v. 33, no. 2, p. 438-451.
4. 1966, Lamination deformed by burrowers in Flathead Sandstone (Middle Cambrian) of central Wyoming: Univ. Wyoming, Contr. Geology, v. 5, no. 1, p. 45-53.
5. and Newell, N.D., 1968, Hinge grades in the evolution of crassatellacean bivalves as revealed by Permian genera: Am. Mus. Nat. History, Novitates no. 2328, 52 p.
6. and Newell, N.D., 1969, Postmortem history of a Permian pelecypod assemblage from Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 3, p. 708.

BOYD, F.R.

- 1961, Welded tuffs and flows in the rhyolite plateau of Yellowstone Park, Wyoming: Geol. Soc. America, Bull., v. 72, no. 3, p. 387-426.

BOYD, J.B.

- 1969, Cooper Reservoir Field: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 111-114.

BOYD, R.G.

- and McKee, R.E., 1963, Timber Creek Field: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 154-157.

BOYLE, T.L.

- 1963, Airborne radiometric surveying - office and field techniques: U.S. Atomic Energy Comm., RME-129 (revised), 28 p.

BRADDOCK, W.A.

1. and Bowles, C.G., 1963, Calcitization of dolomite by calcium sulfate solutions in the Minnelusa Formation, Black Hills, South Dakota, and Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C96-C99.
2. 1963, Geology of the Jewel Cave SE quadrangle, Custer County, South Dakota: U.S. Geol. Survey, Bull. 1063-G, 52 p.

BRADLEY, W.H.

1. 1961, Geologic map of a part of southwestern Wyoming and adjacent states: U.S. Geol. Survey, Misc. Geol. Inv. Map I-322, scale 1:250,000.
2. 1962, Chloroplast in *Spirogyra* from the Green River Formation of Wyoming: Am. Jour. Sci., v. 260, no. 6, p. 455-459.
3. and Fahey, J.J., 1962, Occurrence of stevensite in the Green River Formation of Wyoming: Am. Mineralogist, v. 47, no. 7-8, p. 996-998.
4. 1963, Continental Divide - split: Geotimes, v. 8, no. 3, p. 26.
5. 1964, Aquatic fungi from the Green River Formation of Wyoming: Am. Jour. Sci., v. 262, no. 3, p. 413-416.
6. 1964, Geology of Green River Formation and associated Eocene rocks in southwestern Wyoming and adjacent parts of Colorado and Utah: U.S. Geol. Survey, Prof. Paper 496-A, p. A1-A86.
7. 1964, Lazurite, talc, and chlorite in the Green River Formation of Wyoming: Am. Mineralogist, v. 49, no. 5-6, p. 778-781.
8. 1966, Paleolimnology of the trona beds in the Green River Formation of Wyoming: Cleveland, Ohio, Northern Ohio Geol. Soc., Symposium on Salt, 2d, v. 1, Geology, Geochemistry, Mining, p. 160-164.

9. 1967, Two aquatic fungi (Chytridiales) of Eocene age from the Green River Formation of Wyoming: *Am. Jour. Botany*, v. 54, no. 5, pt. 1, p. 577-582.
 10. and Eugster, H.P., 1969, Geochemistry and paleolimnology of the trona deposits and associated authigenic minerals of the Green River Formation of Wyoming: U.S. Geol. Survey, Prof. Paper 496-B, 71 p.
- BRAGDON, F.F.
- 1965, Geology of the Fish Springs creek and adjacent area, Lincoln and Sublette Counties, Wyoming: MS thesis, Univ. Wyoming.
- BRANSON, C.C.
1. 1964, Morrison fresh-water fauna in Wyoming: *Oklahoma Geology Notes*, v. 24, no. 10, p. 238-243.
 2. 1966, Fresh-water ostracode genus *Theriosynoeum*: *Oklahoma Geology Notes*, v. 26, no. 4, p. 87-96.
- BREDEHOEFT, J.D.
- 1964, Variation of permeability in the Tensleep Sandstone in the Bighorn Basin, Wyoming, as interpreted from core analyses and geophysical logs: U.S. Geol. Survey, Prof. Paper 501-D, p. D166-D170.
- BROBST, D.A.
1. 1961, Geology of the Dewey quadrangle, Wyoming - South Dakota: U.S. Geol. Survey, Bull. 1063-B, p. 13-60.
 2. and Epstein, J.B., 1963, Geology of the Fanny Peak quadrangle, Wyoming - South Dakota: U.S. Geol. Survey, Bull. 1063-I, p. 323-377.
- BRODKORB, P.
- 1965, New taxa of fossil birds: *Florida Acad. Sci., Quart. Jour.*, v. 28, no. 2, p. 197-198.
- BROPHY, G.P.
- 1969, White Mountain metamorphics and the Heart Mountain detachment fault [abs.]: *Geol. Soc. America, Spec. Paper 121*, p. 339-340.
- BROWN, A.
- 1961, Geologic investigations of radioactive deposits - a bibliography of U.S. Geological Survey publications on the geology of radioactive deposits: U.S. Geol. Survey, TEI-777, 86 p.
- BROWN, C.W.
- 1961, Cenozoic stratigraphy and structural geology, northeast Yellowstone National Park, Wyoming and Montana: *Geol. Soc. America, Bull.*, v. 72, no. 8, p. 1173-1193.
- BROWN, R.W.
- 1962, Paleocene flora of the Rocky Mountains and Great Plains: U.S. Geol. Survey, Prof. Paper 375, 119 p.
- BROWN, T.E.
- 1964, Cation exchange reactions on size-fractionated montmorillonites [abs.]: *Dissert. Abs.*, v. 24, no. 7, p. 2867.
- BRUNET, M.
- 1967, Contribution a la connaissance des genres *Dinictis* et *Hoplophoneus* (Carnivora-Felidae) [The genera *Dinictis* and *Hoplophoneus*, Carnivora, Felidae] [French with English summary]: *Poitiers, Fac. Sci., Inst. Geol., Trav.* v. 8, p. 3-37.
- BRUSH, G.S.
- 1968, Plant spores from the lower Devonian of Wyoming [abs.]: *Geol. Soc. America, Spec. Paper 101*, p. 28.

- BRYDON, J.E.
and Kodama, H., 1966, The nature of aluminum hydroxide-montmorillonite complexes: Am. Mineralogist, v. 51, no. 5-6, p. 875-889.
- BUDO, S.
1965, Hydrologic-system analysis of the Wind River Formation (Eocene) with special reference to underground mining in the Shirley Basin area, Wyoming: MS thesis, Univ. Arizona.
- BUFLER, R.T.
1967, The Browns Park Formation and its relationship to the late Tertiary geologic history of the Elkhead region, northwestern Colorado-south central Wyoming [abs.]: Dissert. Abs., pt. B, v. 28, no. 4, p. 1573B; and in full 1967: PhD dissert., Univ. California.
- BULLOCK, J.M.
1. 1964, Gypsum deposits in the northwestern part of the Big Horn [sic] Basin, Park County, Wyoming: MS thesis, Univ. Wyoming.
2. and Wilson, W.H., 1969, Gypsum deposits in the Cody area, Park County, Wyoming: Wyo. Geol. Survey, Prelim Rept. 9, 12 p.
- BURGER, J.A.
1. 1960, Mesaverde Group in adjoining areas of Utah, Colorado, and Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Rocky Mtn. Sec., Geol. Record 1960, p. 163; and 1960: Am. Assoc. Petroleum Geologists, Bull., v. 44, no. 6, p. 954; and 1966: Dissert. Abs., Sec. B, Sci. and Eng., v. 27, no. 3, p. 856B-857B.
2. 1965, Cyclic sedimentation in the Rock Springs Formation, Mesaverde Group, on the Rock Springs uplift, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 53-63.
- BURGESS, J.D.C.
1961, *Chaetetes* in the type section of the Tensleep Formation, Tensleep Canyon, Washakie County, Wyoming: Jour. Paleontology, v. 35, no. 6, p. 1222-1223.
- BURRITT, E.C.
1962, A groundwater study of part of the southern Laramie Basin, Albany County, Wyoming: MA thesis, Univ. Wyoming.
- BURTON, G.
1961, Patrick Draw area, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Area, p. 276-279.
- BUTLER, A.P., JR.
1. and Finch, W.I., and Twenhofel, W.S., 1962, Epigenetic uranium in the United States, exclusive of Alaska and Hawaii: U.S. Geol. Survey, Mineral Inv. Res. Map MR-21, scale 1:3,168,000.
2. 1967, Uranium reserves and progress in exploration and development: U.S. Geol. Survey, Circ. 547, 8 p.
3. 1969, Ground water as related to the origin and search for uranium deposits in sandstone: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1, [Wyoming Uranium Issue] p. 81-86.
- BUTLER, J.R.
1. 1966, Geologic evolution of the Beartooth Mountains, Montana and Wyoming - pt. 6, Cathedral Peak area, Montana: Geol. Soc. America, Bull., v. 77, no. 1, p. 45-64.
2. 1969, Origin of Precambrian granitic gneiss in the Beartooth Mountains, Wyoming: Geol. Soc. America, Mem. 115, Igneous and Metamorphic Geology (Arie Poldervaart v.), p. 73-101.

BUTLER, T.A.

1965, Republic mines and vicinity, New World mining district, Montana and Wyoming: MS thesis, Univ. Idaho.



CAMERON ENGINEERS (Denver)

1. 1969, Review and forecast, Wyoming mineral industries: book I, summary: Wyoming Nat. Resource Board and State Water Planning Program, 220 p.
2. 1969, Review and forecast, Wyoming mineral industries: book II, mineral fuels: Wyoming Nat. Resource Board and State Water Planning Program, 360 p. [Petroleum and natural gas; coal; oil shale; uranium]
3. 1969, Review and forecast, Wyoming mineral industries: book III, non-fuel minerals: Wyoming Nat. Resource Board and State Water Planning Program, 516 p. [bentonite, cement, gypsum, iron ore, phosphate, sulfur, trona, minor minerals; appendix on Gypsum Deposits of Wyoming by Robert V. Bailey; appendix on Elemental Sulfur Deposits of Wyoming by Robert V. Bailey; appendix on Bentonite Deposits of Wyoming by Robert V. Bailey; appendix on Copper Deposits of Wyoming by Robert V. Bailey]

CAMPAU, D.

and Lynn, J., 1963, North-south cross section, southern Saskatchewan - Black Hills: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, map.

CAMPBELL, C.V.

1962, Depositional environments of Phosphoria Formation (Permian) in southeastern Bighorn Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 4, p. 478-503.

CAMPBELL, D.

and Gamberg, G., 1962, Exit log - Cody to Thermopolis, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 331-333.

CAMPBELL, J.A.

1963, Permo-Triassic red beds, northern Denver Basin: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 105-110.

CANNON, R.S., JR.

and Bayley, R.W., Stern, T.W., and Pierce, A.P., 1966, Ancient rocks and ores in south-central Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 279.

CARINI, G.F.

1965, Regional petrographic and paleontologic analysis of the Triassic Alcova limestone member in central Wyoming [abs.]: Dissert. Abs., v. 25, no. 7, p. 4078-4079.

CARL, J.D.

1962, An investigation of the minor element content of potash feldspar from pegmatites, Haystack Range, Wyoming [abs.]: Dissert. Abs., v. 22, no. 10, p. 3603; and in full, 1962: Econ. Geology, v. 57, no. 7, p. 1095-1115.

CARLTON, J.L., JR.

(State Oil and Gas Supervisor) 1966, Oil and gas fields of Wyoming: secondary recovery fields; fields under spacing order; operating gas plants: Wyoming Oil and Gas Cons. Comm., Casper, 27 p.

CARMICHAEL, I.S.E.

1967, The mineralogy and petrology of the volcanic rocks from the Leucite Hills, Wyoming: Contr. Mineralogy and Petrology, v. 15, no. 1, p. 24-66.

CARTER, D.A.

1963, Sunrise Iron Mine, Wyoming: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 264-266.

CASE, J.E.

and Keefer, W.R., 1966, Regional gravity survey, Wind River Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 550-C, p. C120-C128.

CASELLA, C.J.

1. 1963, Geologic evolution of the Beartooth Mountains, Montana and Wyoming - pt. 5, The Line Creek area [abs.]: Dissert. Abs., v. 24, no. 2, p. 696.
2. 1964, Geologic evolution of the Beartooth Mountains, Montana and Wyoming - pt. 4, Relationship between Precambrian and Laramide structures in the Line Creek area: Geol. Soc. America, Bull., v. 75, no. 10, p. 969-986.
3. 1968, Sylvan Pass intrusive center, Absaroka volcano plateau, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 411.
4. 1969, A review of the Precambrian geology of the eastern Beartooth Mountains, Montana and Wyoming: Geol. Soc. America, Mem. 115, Igneous and Metamorphic Geology (Arie Poldervaart v.), p. 53-71.

CASTRO, E.J.

- 1962, A subsurface study of the Tipton Member of the Green River Formation west of the Rock Springs uplift: MS thesis, Univ. Wyoming.

CATANZARO, E.J.

- 1967, Correlation of some Precambrian rocks and metamorphic events in parts of Wyoming and Montana: Mtn. Geologist, v. 4, no. 1, p. 9-21.

CHADEAYNE, D.

- 1966, The geology of the Pass Creek Ridge, Saint Mary's and Cedar Ridge anticlines, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

CHADWICK, R.A.

1. 1965, Geology of the Gallatin Range and Yellowstone Valley, north of Yellowstone National Park: Wayne State Univ., Montana-Wyoming-Idaho-National Science Foundation, Summer Conf. Guidebook, Structures and Origin of Volcanic Rocks, 1965, p. 41-43.
2. 1968, Geologic and paleomagnetic relationships in the Gallatin Range and adjacent Yellowstone Valley: Wayne State Univ., National Science Foundation Summer Field Course Guidebook, Structures and Origin of Volcanic Rocks, Montana-Wyoming-Idaho, [revised; originally published 1965], p. 45-48.
3. 1969, Structural and chemical relationships in the Absaroka-Gallatin volcanic province, Wyoming-Montana [abs.]: Geol. Soc. America, Spec. Paper 121, p. 50-51.

CHEN AND ASSOCIATES, INC.

- 1967, Investigation of ground subsidence at Rock Springs Camp: prepared for Mountain Fuel Supply Company, Rock Springs.

CHENEY, E.S.

1. and Jensen, M.L., 1963, Bearing of stable isotopic geology on the origin of the Gas Hills, Wyoming, uranium district [abs.]: Mining Eng., v. 15, no. 11, p. 60.
2. and Jensen, M.L., 1964, Stable carbon isotopes of calcite in the Gas Hills, Wyoming, uranium district [abs.]: Geol. Soc. America, Spec. Paper 76, p. 31-32.
3. 1964, Stable isotopic geology of the Gas Hills uranium district, Wyoming: PhD dissert., Yale Univ.; and with Jensen, M.L., 1966: Econ. Geology, v. 61, no. 1, p. 44-71.
4. and Jensen, M.L., 1965, Stable carbon isotopic composition of biogenic carbonates: Geochim. et. Cosmochim. Acta. v. 29, no. 12, p. 1331-1346.
5. 1966, Bearing of stable sulfur and carbon isotopes on the formation of uranium ore rolls in Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 32-33.

CHILDS, O.E.

- 1965, The status of the oil shale problem: Colorado School Mines, Quart., v. 60, no. 3, p. 1-6.

CHISHOLM, W.A.

1. 1963, Effect of climate and source area location on Browns Park Formation petrology [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 47, no. 2, p. 353.

2. 1963, The petrology of Upper Jurassic and Lower Cretaceous strata of the western interior: Wyoming Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 71-86.

CHRISTIANSEN, R.L.

and Blank, H.R., Jr., 1969, Volcanic evolution of the Yellowstone rhyolite plateau and eastern Snake River plain, U.S.A.: Internat. Assoc. Volcanol. Chem. Earth's Interior, Oxford, Univ., Dept. Geol. Mineral., Symposium on Volcanoes and their Roots, Oxford, 1969, Vol. Abs., p. 220-221.

CHRONIC, J.

1. and Ferris, C.S., Jr., 1961, Early Paleozoic outlier in southeastern Wyoming: Rocky Mountain Assoc. Geologists, 12th Field Conf. Guidebook, Symposium on Lower and Middle Paleozoic Rocks of Colorado, p. 143-146.

2. and Ferris, C.S., Jr., 1962, Lower Paleozoic outlier in southeastern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 86.

3. and Ferris, C.S., Jr., and Clinton, S., Jr., 1963, Two early Paleozoic outliers in the southern Laramie Range, Wyoming: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 23-26.

4. and McCallum, M.E., and Ferris, C.S., Jr., 1966, Lower Paleozoic rocks in diatremes in southern Wyoming and northern Colorado [abs.]: Geol. Soc. America, Spec. Paper 87, p. 280-281; and in full with Egger, D.H., 1969: Geol. Soc. America, Bull., v. 80, no. 1, p. 149-156.

CHYBA, R.

1961, Bentonite [abs.]: South Dakota Acad. Sci., Proc., v. 40, p. 248.

CLARK, D.L.

and Ethington, R.L., 1962, Survey of Permian conodonts in western North America: Brigham Young Univ., Geology Studies, v. 9, pt. 2, p. 102-114.

CLARK, J.S.

1. and Turner, R.C., 1965, Extraction of exchangeable cations and distribution constants for ion exchange: Soil Sci. Soc. America, Proc., v. 29, no. 3, p. 271-274.

2. and Nichol, W.E., 1968, Estimation of the inorganic and organic Ph-dependent cation exchange capacity of the B horizons of podzolic and brunisolic soils: Canadian Jour. Soil Sci., v. 48, no. 1, p. 53-63.

3. and Nichol, W.E., 1968, Reactions of iron hydrous oxide with Wyoming bentonite: Canadian Jour. Soil Sci., v. 48, no. 2, p. 173-183.

4. and Ross, G.J., 1969, Reaction of mixed magnesium-aluminum and calcium-aluminum hydroxides with Wyoming bentonite: Canadian Jour. Earth Sci., v. 6, no. 1, p. 47-53.

CLARK, R.T.

1967, Water uses in the North Platte River Basin of Wyoming: Agricultural Experiment Station, Research Jour. 4, Univ. Wyoming, 62 p.

CLAUSEN, E.N.

1. 1969, Piping, slope development and field sampling studies of Wyoming badlands: PhD dissert., Univ. Wyoming.

2. 1969, Pseudokarst features in Wyoming badlands; the Madden caves [abs.]: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section], p. 15.

CLEMENS, W.A., JR.

1. 1960, Stratigraphy of the type Lance Formation [Wyoming]: Internat. Geol. Cong., 21st Copenhagen, Rept., pt. 5, p. 7-13.

2. 1964, Fossil mammals of the type Lance Formation, Wyoming - Pt. 1, Introduction and Multituberculata: California Univ., Pubs. Geol. Sci., v. 48, 105 p.

3. 1966, Fossil mammals of the type Lance Formation, Wyoming - Pt. 2, Marsupialia: California Univ., Pubs. Geol. Sci., v. 62, 122 p.

COBBAN, W.A.

1. 1963, Occurrence of the Late Cretaceous ammonite *Hoplitoplacenticeras* in Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C60-C62.
2. and Scott, G.R., 1964, Multinodose scaphitid cephalopods from the lower part of the Pierre Shale and equivalent rocks in the conterminous United States: U.S. Geol. Survey, Prof. Paper 483-E, p. E1-E13.
3. and Jeletzky, J.A., 1965, A new scaphite from the Campanian rocks of the western interior of North America: Jour. Paleontology, v. 39, no. 5, p. 794-801.

COCHRANE, W.H.

- 1962, Wyoming's Wheatland-Glendo basin: Rocky Mtn. Oil Reporter, v. 17, no. 6, p. 13-15.

CODY, R.D.

- 1962, Foraminifera from one section of the Late Cretaceous Steele Shale, Mesaverde Group, and Lewis Shale, Carbon County, Wyoming: MA thesis, Univ. Wyoming

COE, A.V.R.

- 1967, Pitchfork oil field, Park County, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 10, p. 2115-2121.

COFFMAN, J.S.

- and Service, A.L., 1967, An evaluation of the western phosphate industry and its resources (in five parts) - Pt. 4, Wyoming and Utah: U.S. Bur. Mines, Rept. Inv. 6934, 158 p.

COHENOUR, R.E.

1. 1960, Resume of Precambrian geology in the vicinity of the Overthrust Belt of western Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 90-97.
2. 1964, Fossil hydrocarbons of the Tri-State basins: Brigham Young University, Salt Lake Center Continuing Education, Salt Lake City, Utah, 1st Intermountain Symposium on Fossil Hydrocarbons, Proc., p. 281-304.

COHLMAYER, S.H.

- and Henderson, A.S., and Morgan, R.C., 1962, The story of Atlantic City: Univ. Minnesota, Minnesota Univ. Center Continuation Study, 23rd Ann. Mining Symposium, Duluth, Recent Advances in Mining....of Iron Ore, p. 133-138.

COLBERT, E.H.

- 1961, The Triassic reptile, *Poposaurus*: Fieldiana - Geology, v. 14, no. 4, p. 59-78.

COLEMAN, R.G.

1. and Erd, R.C., 1961, Hydrozircon from the Wind River Formation, Wyoming: U.S. Geol. Survey, Prof. Paper 424-C, art. 256, p. C297-C300.
2. and Ross, D.R., and Meyrowitz, R., 1966, Zellerite and metazellerite, new uranyl carbonates: Am. Mineralogist, v. 51, no. 11-12, p. 1567-1578.

COLLINSON, D.W.

1. and Runcorn, S.K., 1960, Polar wandering and continental drift: evidence from paleomagnetic observations in the United States: Geol. Soc. America, Bull., v. 71, no. 7, p. 915-958.
2. 1965, Origin of remanent magnetization and initial susceptibility of certain red sandstones: Royal Astron. Soc., Geophys. Jour., v. 9, no. 2-3, p. 203-217.

COLSON, C.T.

- 1969, Stratigraphy and production of the Tertiary formations in the Sand Wash and Washakie Basin: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 212-128.

CONDIE, K.C.

1. 1967, Composition of the ancient North American crust: Science, v. 155, no. 3675, p. 1013-1015.

2. 1967, Geochemistry of early Precambrian graywackes from Wyoming: *Geochim. et Cosmochim. Acta.*, v. 31, no. 11, p. 2135-2149.
3. 1967, Petrologic reconnaissance of the Precambrian rocks in Wind River Canyon, central Owl Creek Mountains, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 6, no. 2, p. 123-129.
4. and Barsky, C.K., 1969, Na, K, Ca, Rb, Sr, and Ba in Precambrian tholeiitic diabase dikes from Wyoming [abs.]: *Geol. Soc. America, Spec. Paper* 121, p. 60-61.
5. and Potts, M.J., 1969, Calc-alkaline volcanism and the thickness of the early Precambrian crust in North America: *Canadian Jour. Earth Science*, v. 6, no. 5, p. 1179-1184.
6. and Barsky, C.K., and Mueller, P.A., 1969, Geochemistry of Precambrian diabase dikes from Wyoming: *Geochim. et Cosmochim. Acta.*, v. 33, no. 11, p. 1371-1388.
7. 1969, Geologic evolution of the Precambrian rocks in northern Utah and adjacent areas: *Utah Geol. and Mineralog. Survey, Bull.* 82, *Guidebook of Northern Utah*, p. 71-95.
8. and Heimlich, R.A., 1969, Interpretation of Precambrian K/Ar biotite dates in the Bighorn Mountains, Wyoming: *Earth Planet. Science Letter*, v. 6, no. 3, p. 209-212.
9. 1969, Petrology and geochemistry of the Laramie batholith and related metamorphic rocks of Precambrian age, eastern Wyoming: *Geol. Soc. America, Bull.* v. 80, no. 1, p. 57-82.
10. 1969, Petrology and geochemistry of the Laramie batholith and related metamorphic rocks of Precambrian age, eastern Wyoming - Reply to discussion by S.B. Smithson and D.S. Hodge: *Geol. Soc. America, Bull.*, v. 80, no. 11, p. 2385-2386.
11. and Leech, A.P., and Baadsgaard, H., 1969, Potassium-argon ages of Precambrian mafic dikes in Wyoming: *Geol. Soc. America, Bull.*, v. 80, no. 5, p. 899-905.

CONSALUS, C.G.

- 1967, The Kemmerer Coal Company's Sorensen mine operations: *Rocky Mtn. Coal Inst., Proc.*, 63rd Regular Mtg., p. 38-42.

COOK, N.S., JR.

- 1963, Photogeology of the Chugwater area, Wyoming: *Rocky Mtn. Assoc. Geologists*, 14th Ann. Field Conf. Guidebook, *Geology of the Northern Denver Basin and Adjacent Uplifts*, p. 184-187.

COOK, P.J.

- 1969, The petrology and geochemistry of the Meade Member of the Phosphoria Formation (Permian) (southeast Idaho, western Wyoming, northeast Utah): PhD dissert., Colorado Univ.; and [abs.] 1969: *Dissert. Abs. Int.*, sec. B, v. 30, no. 2, p. 707B.

COPEN, J.D.

- 1964, Developments in Wyoming and Idaho in 1963: *Am. Assoc. Petroleum Geologists, Bull.*, v. 48, no. 6, p. 965-969.

COULSON, R.

- 1960, Open pit operations in the Gas Hills area of Wyoming: *Mining Cong. Jour.*, v. 46, no. 11, p. 54-56.

COURDIN, J.L.

1. 1969, Petrology of the Fort Union Formation (Upper Cretaceous and Paleocene), Wind River Basin, Wyoming: MS thesis, Columbia Univ.
2. and Hubert, J.F., 1969, Sedimentology and mineralogical differentiation of sandstones in the Fort Union Formation (Paleocene), Wind River Basin, Wyoming: *Wyo. Geol. Assoc.*, 21st Ann. Field Conf. Guidebook, *Symposium on Tertiary Rocks of Wyoming*, p. 29-37.

COX, E.R.

1970, Preliminary report on remote sensing in water-resources studies in Yellowstone National Park, Wyoming: U.S. Nat. Aeronautics and Space Admin., Manned Spacecraft Center, Earth Resources Aircraft Program, 2d Ann., Status Review, Houston, Texas, 1969 - v. 3, Hydrology and Oceanography, p. 45-1 - 45-9.

CRACRAFT, J.

1968, A review of the Bathornithidae (Aves, Gruiformes), with remarks on the relationships of the suborder Cariamae: *Am. Mus. Novitates*, no. 2326, 46 p.

CRAMER, J.L.

1963, Cross-trails to history: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 267-277.

CRAMER, L.W.

1. 1962, A statistical analysis of jointing in the Sheep Mountain - Jelm Mountain area, Albany County, Wyoming: MA thesis, Univ. Wyoming.
2. 1963, Pedestal rocks in the Laramie Range, Albany County, Wyoming: Univ. Wyoming, *Contr. Geology*, v. 2, no. 1, [S.H. Knight Issue], p. 55-57.

CRANDALL, D.L.

1962, Upper Snake River Basin, Idaho, Wyoming, surface and underground water - when combined, a new water supply for the future: Colorado School Mines, Quart. v. 57, no. 4, Western Resources Conf. 1962, Mineral and Energy - Problems, Practices, and Goals, pt. 1, p. 113-130.

CRAWFORD, J.G.

and Davis, C.E., 1962, Some Cretaceous water of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 257-267.

CREW, M.E.

1969, Wyoming uranium review: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 169-172.

CRONBLE, J.M.

1969, Geology of South Baggs-West Side Canal gas field, Carbon County, Wyoming and Moffatt County, Colorado: MS thesis, Colorado School of Mines; and in [abs.] 1969: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 129-137.

CROSBY, G.W.

1. 1967, High-angle dips at erosional edge of overthrust faults: *Bull. Canadian Petroleum Geology*, v. 15, no. 3, p. 219-229.
2. 1967, Isostasy and overthrusting in western Wyoming [abs.]: *Am. Assoc. Petroleum Geologists, Bull.* v. 51, no. 9, p. 1900.
3. 1968, Vertical movements and isostasy in western Wyoming Overthrust Belt: *Am. Assoc. Petroleum Geologists, Bull.*, v. 52, no. 10, Rocky Mountains- Breaking Barrier Boundaries, p. 2000-2015.
4. 1969, Radial movements in the western Wyoming salient of the Cordilleran overthrust belt: *Geol. Soc. America, Bull.*, v. 80, no. 6, p. 1061-1077.
5. 1969, Strike-slip faulting during late-stage folding [abs.]: *Geol. Soc. America, Spec. Paper* 121, p. 64-65.
6. 1969, Vertical movements and overthrusting at the eastern edge of the Great Basin [abs.]: *Geol. Soc. America, Abs.* 1969, pt. 5, [Rocky Mountain Section], p. 19.

CROWSON, C.W.

1. and Lawson, D.E., 1963, Second day. Part II. Alzada to Government Canyon to Belle Fourche: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 191-192.

2. and Lawson, D.E., 1963, Third day. Part I. Campgrounds to Beulah: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 196-198.

CULBERTSON, W.C.

1. 1961, Stratigraphy of the Wilkins Peak Member of the Green River Formation, Firehole Basin quadrangle, Wyoming: U.S. Geol. Survey, Prof. Paper 424-D, art. 348, p. D170-D173.
2. 1962, Laney Shale Member and Tower Sandstone Lenticle of the Green River Formation, Green River area, Wyoming: U.S. Geol. Survey, Prof. Paper 450-C, p. C54-C57.
3. 1964, Oil shale resources and stratigraphy of the Green River Formation in Wyoming: Mtn. Geologist, v. 1, no. 3, p. 181.
4. 1965, Tongues of the Green River and Wasatch Formations in the southeastern part of the Green River Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 525-D, p. D139-D143; and in 1965: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 151-155.
5. 1966, Trona in the Green River Basin of Wyoming [abs.]: Mining Eng., v. 18, no. 12, p. 52.
6. 1966, Trona in the Wilkins Peak Member of the Green River Formation, southwestern Wyoming: U.S. Geol. Survey, Prof. Paper 550-B, p. B159-B164.
7. and Dyni, J.R., and Brobst, D.A., 1967, Eocene Green River Formation - multiple mineral resources [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1900.
8. 1969, Facies changes in the Eocene rocks in the southeastern part of the Green River Basin, Wyoming: Intermountain Assoc. Petroleum Geologists and Utah Geol. Soc., 16th Ann. Field Conf., Geologic Guidebook of the Uinta Mountains, Utah's Maverick Range, p. 205-211.
9. 1969, Oil shale in the Green River Formation, Green River Basin, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 191-195.

CULLER, R.C.

1961, Hydrology of the upper Cheyenne River basin: U.S. Geol. Survey, Water-Supply Paper 1531, pl. 7, 1:500,000

CUNNINGHAM, F.F.

1969, The Crow Tors, Laramie Mountains, Wyoming, USA: Z. Geomorphol., v. 13, no. 1, p. 56-74.

CUPPELS, N.P.

1. 1962, Geologic environment of an oxidized uranium deposit in the Black Hills, South Dakota: U.S. Geol. Survey, Bull. 1063-C, 23 p.
2. 1963, Geology of the Clifton quadrangle, Wyoming and South Dakota: U.S. Geol. Survey, Bull. 1063-H, p. 271-321.

CUPPS, C.Q.

and Fry, J. and Zaffarano, R.F., 1964, Areal variation in reservoir oil characteristics, Newcastle Sandstone, Greater Clareton area, Wyoming: U.S. Bur. Mines, Rept. Inv. 6389, 34 p.

CURREY, D.R.

1965, The Keystone gold-copper prospect area, Albany County, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 3, 12 p.

CURRY, W.H. III

1. 1961, Stratigraphy and paleogeography of upper Jurassic and Lower Cretaceous rocks of central Wyoming - environmental reconstruction of fluvial and shallow marine environments on a stable shelf [abs.]: Dissert. Abs., v. 21, no. 10, p. 3055-3056.

2. 1962, Depositional environments in central Wyoming during the Early Cretaceous: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 118-123.
3. 1969, Synthetic electric logs in subsurface mapping: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 93-98.

CURTIS, B.F.

1963, Jurassic stratigraphic relationships in the north Denver Basin: Rocky Mtn. Assoc. of Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 111-118.

CYGAN, N.E.

1. 1963, Cambrian and Ordovician conodonts from the Bighorn Mountains, Wyoming [abs]: Dissert. Abs., v. 23, no. 11, p. 4312.
2. and Koucky, F.L., 1963, Cambrian and Ordovician rocks of the east flank of the Bighorn Mountains, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 26-37.

DAHILL, M.P.

1. 1968, Iron Creek oil field: Earth Sci. Bull., v. 1, no. 2, p. 17-23.
2. 1969, Third day of field conference - Casper-Orpha-Glenrock-Casper: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 226-232.

DAMON, P.E

- and Haynes, C.V., and Long, A., 1964, Arizona radiocarbon dates V: Radiocarbon, v. 6, p. 91-107.

DANA, G.F. (PETE)

1. 1961, Underground water report of the Eden Valley - Farson area, Sweetwater, Sublette, and Fremont Counties, Wyoming, 11 p. (typewritten); and 1962, supplement, 8 p. (typewritten). [map A, water well data map; map B, geologic map; sample log cross section; electric log cross section; 4 sheets, map scale 1" = 2 mi.] [on file at the State Library, Cheyenne, Wyoming].
2. 1962, Groundwater reconnaissance study of the State of Wyoming: Wyoming Nat. Resource Board, 377 p. [Introduction; part 1, Denver-Julesburg Basin report; part 2, Laramie-Hanna-Shirley Basin report; part 3, Washakie - Red Desert Basin report; part 4, Green River Basin report; part 5, Wind River Basin report; part 6, Bighorn Basin report; part 7, Powder River Basin report; general conclusions and recommendations].

DAVIDSON, P.S.

- 1966, The stratigraphy of the Upper Cretaceous Lewis Formation of the Laramie and Carbon Basins, Albany and Carbon Counties, Wyoming: MS thesis, Univ. Wyoming.

DAVIS, J.C.

1. 1963, Geology of the Clay Spur bentonite district, Crook and Weston Counties, Wyoming: MS thesis, Univ. Wyoming.
2. 1963, Origin of the Mowry Shale: Univ. Wyoming, Contr. Geology, v. 2, no. 2, p. 135-146.
3. 1965, Bentonite deposits of the Clay Spur district, Crook and Weston Counties, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 4, 11 p.
4. 1967, Absence of detectable trends in the rate of bentonite occurrences in the Mowry Shale (Cretaceous) of Wyoming: Kansas Geol. Survey, Computer Contr. 18, Computer Application in the Earth Sciences - Colloquium on Time-series Analysis, p. 73-75.
5. 1967, Application of response-surface analysis to sedimentary petrology: Kansas Geol. Survey, Computer Contr. 12, Computer Applications in the Earth Sciences - Colloquium on Trend Analysis, p. 57-62.
6. 1967, Petrology of the Mowry Shale (Lower Cretaceous), Wyoming, Colorado, Montana, west South Dakota, and Utah: PhD dissert., Univ. Wyoming.
7. 1969, Distribution of hydrocarbons in three dimensions: Kansas Geol. Survey, Computer Contr. 40, Symposium on Computer Applications in Petroleum Exploration, p. 34-40.

DAVIS, J.F.

- 1969, Uranium deposits of the Powder River Basin: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1, [Wyoming Uranium Issue], p. 131-141.

DAVIS, J.R.

1. 1963, The "Mesaverde" Formation of the Kindt Basin, Carbon County, Wyoming: MA thesis, Univ. Wyoming.
2. 1967, Stratigraphy and depositional history of upper Meaverde Formation (Cretaceous) of southeastern Wyoming, v. 1, - text, v. 2 - measured stratigraphic sections: PhD dissert., Univ. Wyoming.

DAVIS, P.N.

- 1965, Palynology and stratigraphy of the Lower Cretaceous rocks of northern Wyoming: PhD dissert., Univ. Oklahoma; and in [abs.] 1965: Dissert. Abs., v. 26, no. 4, p. 2132.

DAVIS, R.E.

and Izett, G.A., 1962, Geology and uranium deposits of the Strawberry Hill quadrangle, Crook County, Wyoming: U.S. Geol. Survey, Bull. 1127, 87 p.

DAWSON, M.R.

1. 1962, A sciuravid rodent from the middle Eocene of Wyoming: Am. Mus. Novitates, no. 2075, 5 p.
2. 1965, Oreolagus and other lagomorpha (Mammalia) from the Miocene of Colorado, Wyoming, and Oregon: Colorado Univ. Studies, Ser. Earth Sci. no. 1, 36 p.

DEAL, D.E.

1963, Role of wasps in the erosion of the Pennsylvanian Casper Sandstone along Sand Creek, southeastern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 82.

DEAN, B.G.

1960, Selected annotated bibliography of the geology of uranium-bearing veins in the United States: U.S. Geol. Survey, Bull. 1059-G, 144 p.

DEARDORFF, D.L.

1963, Eocene salt in the Green River Basin, Wyoming: Northern Ohio Geol. Soc., Symposium on Salt, p. 176-195.

DECOSTA, J.

1968, The history of the Chydorid (Cladocera) community of a small lake in the Wind River Mountains, Wyoming, USA [with German abs.]: Archiv Hydrobiologie, v. 64, no. 4, p. 400-425.

DEKOSTER, G.R.

1962, Petrology of carbonate rocks in the Goose Egg Formation, eastern Bighorn Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 86-87.

DELEVORYAS, T.

1960, Investigations of North American cycadeoids — trunks from Wyoming: Am. Jour. Botany, v. 47, no. 9, p. 778-786.

DELONG, J.M.

1960, Stratigraphic nomenclature chart for western Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 89.

DEMENT'YEV, V.S.

and Syromyatnikov, N.G., 1968, Conditions of formation of a sorption barrier to the migration of uranium in an oxidizing environment: Geochem. Intl., v. 5, no. 2, p. 394-400, [translated from Geokhimiya, 1968, no. 4, p. 459-465].

DEMPSEY, W.J.

1. and Stuart, D.J., 1962, Aeromagnetic map of south central Fremont County, Wyoming: U.S. Geol. Survey, Geophys. Inv. Map GP-393, scale 1:125,000.
2. and Stuart, D.J., 1963, Aeromagnetic map of the northeastern part of the Wind River Indian Reservation, Wyoming: U.S. Geol. Survey, Geophys. Inv. Map GP-400, scale 1:62,500.

DENAULT, K.

1967, Geology and distribution of copper, lead and zinc in streams and soil, Broadway mine area, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

DENCE, M.R.

and Short, N.M., 1968, Current investigations of meteorite impact structures in the Canadian Shield [abs.]: Wisconsin State Univ., Superior, 14th Ann. Inst. Lake Superior Geology, Tech. Session Abs., p. 46-47.

DENISON, R.H.

1. 1962, A reconstruction of the shield of the arthrodire, *Bryantolepis brachycephalus* (Bryant): *Fieldiana - Geology*, v. 14, no. 6, p. 99-104.
2. 1966, *Cardipeltis*, an Early Devonian agnathan of the order Heterostraci: *Fieldiana - Geology*, v. 16, no. 4, p. 89-116.
3. 1967, Ordovician vertebrates from western United States: *Fieldiana - Geology*, v. 16, no. 6, p. 131-192.
4. 1968, Early Devonian lungfishes from Wyoming, Utah, and Idaho: *Fieldiana - Geology*, v. 17, no. 4, p. 353-413.
5. 1968, The evolutionary significance of the earliest known lungfish, *Urano-lophus*: Stockholm, 4th Nobel Symposium, 1967, Current Problems of Lower Vertebrate Phylogeny, New York, Interscience, p. 247-257.

DENSON, N.M.

1. and Bergendahl, M.H., 1961, Middle and upper Tertiary rocks of southeastern Wyoming and adjoining areas: U.S. Geol. Survey, Prof. Paper 424-C, art. 209, p. C168-C172.
2. and Richmond, G.M., Haynes, C.V., Irwin, H.T., Irwin-Williams, C., Agogino, G.A., de la Montagne, J.M., and Love, J.D., 1965, Late Tertiary history of the mountains, pt B: Internat. Assoc. Quaternary Research, 7th Cong., U.S.A., in Guidebook for Field Conference E, Northern and Middle Rocky Mountains, Nebraska Acad. Sci., p. 14-27.
3. 1965, Miocene and Pliocene rocks of central Wyoming: U.S. Geol. Survey, Bull. 1224-A, Changes in Stratigraphic Nomenclature by the U.S. Geological Survey, 1964, p. A70-A74.
4. and Zeller, H.D., and Stephens, E.V., 1965, South Pass Formation on the southwest flank of Wind River Mountains, Wyoming: U.S. Geol. Survey, Bull. 1224-A, Changes in Stratigraphic Nomenclature by the U.S. Geological Survey, 1964, p. A27-A29.
5. and Gill, J.R., 1965, Uranium-bearing lignite and carbonaceous shale in the southwestern part of the Williston Basin: U.S. Geol. Survey, Prof. Paper 463, 75 p.
6. 1969, Distribution of nonopaque heavy minerals in Miocene and Pliocene rocks of central Wyoming and parts of adjacent states: U.S. Geol. Survey, Prof. Paper 650-C, p. 25-32.
7. and Harshman, E.N., 1969, Map showing areal distribution of Tertiary rocks, Bates Hole-Shirley Basin area, south-central Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-570, scale 1:125,000.
8. and Pippingos, G.N., 1969, Stratigraphic implications of heavy-mineral studies of Paleocene and Eocene rocks of Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 9-18.

DESAUTELS, P.E.

- 1967, The morphology of mckelveyite: *Am. Mineralogist*, v. 52, no. 5-6, p. 860-864.

DEVORE, G.W.

1. and Kramer, K.F., and Pollard, C.O., 1968, Differential compressibilities as a possible explanation of nonuniform compressive strains during rock cooling [abs.]: *Geol. Soc. America, Spec. Paper 115*, p. 47-48.
2. 1969, Preferred orientation of microcline and hornblende in shear strain [abs.]: *Geol. Soc. America, Spec. Paper 121*, p. 74.

DICKEY, M.L.

- 1962, Upper Cretaceous and Cenozoic history of the Green Mountain - Whiskey Peak area, Fremont County, Wyoming: MS thesis, Univ. Wyoming.

DIEM, K.L.

- 1967, Some aspects of substrate influence on the physioecology of dependent plant and animal populations [abs.]: *Geol. Soc. America, Spec. Paper 90*, Relation of Geology and Trace Elements to Nutrition, p. 9.

DIMITROFF, P.B.

1968, Structural geology of Foote Creek anticline and adjacent area, Carbon and Albany Counties, Wyoming: MS thesis, Univ. Wyoming.

DIXON, J.R.

1. 1964, Carbonate petrography of lower and middle Paleozoic sediments, west flank, Teton Mountains, Idaho-Wyoming: MS thesis, Texas Tech. Univ.
2. and Reeves, C.C., Jr., 1965, Representative carbonate petrography of some lower and middle Paleozoic rocks, west flank, Teton Mountains, Wyoming: Jour. Sed. Petrology, v. 35, no. 3, p. 704-721.

DONALDSON, A.C.

1966, Deltaic sands and sandstones: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Symposium on Recently Developed Geologic Principles and Sedimentation of Permo-Pennsylvanian of the Rocky Mountains, p. 31-62.

DONDANVILLE, R.F.

1963, The Fall River Formation, northwestern Black Hills - lithology and geologic history: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 87-99.

DONNELL, J.R.

1. 1964, Geology and oil-shale resources of the Green River Formation: Colorado School Mines, Quart., v. 59, no. 3, First Symposium on Oil Shale, p. 153-163; and in 1965: Mtn. Geologist, v. 2, no. 3, p. 95-102.
2. and Culbertson, W.C., and Cashion, W.B., 1967, Oil shale in the Green River Formation: 7th World Petroleum Cong., Mexico, 1967, Proc., v. 3, Drilling and Production, Elsevier, p. 699-702.

DONNER, D.L.

and Whaite, R.H., 1969, Investigation of subsidence in Rock Springs, Sweetwater County, Wyoming: U.S. Bureau of Mines, Rept., Denver.

DOOLEY, J.R., JR.

1. and Hathaway, J.C., 1961, Two occurrences of thorium-bearing minerals with rhabdophane-like structure: U.S. Geol. Survey, Prof. Paper 424-C, art. 271, p. C399-C341.
2. and Tatsumoto, M., and Rosholt, J.N., 1964, Radioactive disequilibrium studies of roll features, Shirley Basin, Wyoming: Econ. Geology, v. 59, no. 4, p. 586-595.

DORF, E.

1. 1960, Tertiary fossil forests of Yellowstone National Park, Wyoming: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 253-260.
2. 1964, The petrified forests of Yellowstone Park: Sci. American, v. 210, no. 4, p. 106-112.

DOROSHENKO, J.

1962, Precambrian relationships of the Bighorn and Beartooth Mountains: Billings Geol. Soc., 12th Ann. Field Conf. Guidebook, Float Trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 58-66.

DORR, J.A., JR.

1. 1966, Wind-polished stones - two similar sites: Michigan Acad. Sci., Arts and Letters, Papers 1965, v. 51, p. 265-273.
2. 1969, Mammalian and other fossils, early Eocene Pass Peak Formation, central western Wyoming: Michigan Univ., Mus. Paleontology, Contr., v. 22, no. 16, p. 207-219.

DORT, W., JR.

1. 1966, Rapid reconnaissance of heat-flow patterns in snow-covered thermal areas: Jour. Geophys. Research, v. 71, no. 18, p. 4439-4440.
2. and Hogan, A.W., and Reynolds, G.W., Jr., 1969, Initial periodicity of new geyser, Yellowstone National Park: Jour. Geophys. Research, v. 74, no. 17, p. 4206-4208.

DOUGLASS, W.B., JR.

and Blazzard, T.R., 1961, Facies relationships of the Blair, Rock Springs and Ericson Formations of the Rock Springs uplift and Washakie Basin: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 81-86.

DOW, V.T.

1. 1961, Magnetite and ilmenite resources, Iron Mountain area, Albany County, Wyoming: U.S. Bur. Mines, Inf. Circ. 8037, 133 p.
2. and Batty, J.V., 1961, Reconnaissance of titaniferous sandstone deposits of Utah, Wyoming, New Mexico, and Colorado: U.S. Bur. Mines, Rept. Inv. 5860, 52 p.

DREIER, J.E.

1967, Economic geology of the Sunlight mineralized region, Park County, Wyoming: MS thesis, Univ. Wyoming.

DRESSER, H.W.

1961, A field study of the Jurassic "lower Sundance" beds in southeastern Wyoming [abs.]: Univ. Wyoming, Pub., v. 25, no. 1-5, p. 60-62.

DROSTE, J.B.

1967, Clay mineral formation in mud pots, Yellowstone Park, Wyoming: Clays and Clay minerals - 15th Clay Minerals Conf., 1966, Proc., Pergamon [Internat. Ser. Mons. Earth Sci.], p. 409-422.

DROULLARD, E.K.

1963, Tectonics of the southeast flank of the Hartville uplift, Wyoming: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 176-178.

DUELL, G.A.

1969, Pacific Power and Light's coal operations, Converse County, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 155-160.

DUGUID, J.O.

1. 1967, A cross section of the alluvium and bedrock at the Laramie River in Laramie, Wyoming: Univ. Wyoming, Contr. Geology, v. 6, no. 2, p. 119-121.
2. and Lamb, D.R., 1967, Investigation of pavement performance in relation to geology: Univ. Wyoming, Contr. Geology, v. 6, no. 1, p. 1-4.
3. 1968, Refraction determination of water table depth and alluvium thickness: Geophysics, v. 33, no. 3, p. 481-488.

DUHLING, W.H., JR.

1969, Oxide facies iron formation in the Owl Creek Mountains, northeastern Fremont County, Wyoming: MS thesis, Univ. Wyoming.

DUKE, W.

1965, Turonian (Cretaceous) stratigraphy and micropaleontology, Cumberland Gap, Wyoming - Woodside, Utah: MS thesis, Univ. Colorado.

DUNNEWALD, J.B.

1969, Big Piney-LaBarge Tertiary oil and gas field: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 139-143.

DUNRUD, C.R.

1. 1962, Volcanic and sedimentary rocks of the Jack Creek area, Park County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 88.
2. 1962, Volcanic rocks of the Jack Creek area, southeastern Absaroka Range, Park County, Wyoming: MS thesis, Univ. Wyoming.

DUTRO, J.T., JR.

and Sando, W.J., 1963, Age of certain post-Madison rocks in southwestern Montana and western Wyoming: U.S. Geol. Survey, Prof. Paper 475-B, p. B93-B94.



EARDLEY, A.J.

1. 1960, Igneous and tectonic provinces of western United States: 21st Internat. Geol. Cong., Copenhagen, 1960, Rept., pt. 13, p. 18-27.
2. 1960, Phases of orogeny in the deformed belt of southwestern Montana and adjacent areas of Idaho and Wyoming: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone — Earthquake Area, p. 86-91.
3. 1960, Phases of orogeny in the fold belt of western Wyoming and south-eastern Idaho: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Over-thrust Belt of Southwestern Wyoming and Adjacent Areas, p. 37-40.
4. 1967, Idaho-Wyoming fold and thrust belt — its divisions and an analysis of its origin: Intermountain Assoc. Petroleum Geologists, 15th Ann. Field Conf. Guidebook, Anatomy of the Western Phosphate Field, p. 35-44.

EARL, J.H.

- and Dahm, J.N., 1961, Case history — Desert Springs gas field, Sweetwater County, Wyoming: Geophysics, v. 26, no. 6, p. 673-681.

EATON, G.M.

- 1960, Geology of the central portion of Como Bluff Anticline, Albany County, Wyoming: MA thesis, Univ. Wyoming.

EATON, J.P.

- and Pitt, A.M., and Munson, R.D., 1968, Background seismicity in the Yellowstone-Hebgen Lake region [abs.]: Geol. Soc. America, Spec. Paper 101, p. 302-303.

EATON, T.H., JR.

- 1965, A new Wyoming phytosaur: Kansas Univ., Paleont. Contr., paper 2, 6 p.

EBENS, R.J.

1. 1963, Petrography of the Eocene Tower sandstone lenses at Green River, Sweetwater County, Wyoming: MA thesis, Univ. Wyoming.
2. 1965, Tower Sandstone lenses at Green River, Wyoming: Univ. Wyoming, Contr. Geology v. 3, no. 2, p. 75-79.
3. 1966, Petrography of lenses of Tower Sandstone (Eocene) at Green River, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 282-283.
4. and Smithson, S.B., 1966, Petrography of Precambrian rocks from a 3.05-kilometer-deep borehole, Wind River Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 5, no. 1, p. 31-38.
5. 1966, Stratigraphy and petrography of Miocene volcanic sedimentary rocks in southeastern Wyoming and north-central Colorado: PhD dissert., Univ. Wyoming.

ECKELMANN, F.D.

- 1963, Zircon paragenesis in Precambrian crystalline rocks of the Teton Range, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 143.

ECKHOFF, J.G.

- and Rhoades, R.E., Good, L.W., Gary, L.O., and Shobe, W.E., 1961, 2nd day's trip — Rawlins area and Rawlins to Riverton via Muddy Gap: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 342-345.

EDMISTEN, N.

- 1962, Mississippian Madison Group in the Bighorn Canyon area: Billings Geol. Soc., 12th Ann. Field Conf., Float trip — Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 36-40.

EDWARDS, S.M.

- 1965, Permo-Pennsylvanian oil traps of western Powder River Basin, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1573.

EGGLER, D.H.

1. 1967, Gravity survey of the Livermore - Tie Siding area, Colorado-Wyoming: Mtn. Geologist, v. 4, no. 3, p. 109-114.
2. 1967, Structure and petrology of the Virginia Dale Ring-Dike Complex (Laramie County), Colorado-Wyoming Front Range: PhD dissert., Univ. Colorado; and in [abs.] 1969: Dissert. Abs., pt. B, v. 28, no. 11, p. 4622B.
3. and Larson, E.E., 1968, Paleomagnetic study of dated Precambrian rocks of the Front Range, Colorado-Wyoming: Royal Astron. Soc., Geophys. Jour. v. 14, no. 5, p. 497-504.
4. and Larson, E.E., 1968, Relationship of topography to bedrock type - examples of the use of geophysical and petrographic methods in geomorphology [abs.]: Geol. Soc. America, Spec. Paper 115, p. 54.
5. 1968, Virginia Dale Precambrian ring-dike complex, Colorado-Wyoming: Geol. Soc. America, Bull., v. 49, no. 11, p. 1545-1563.
6. and Larson, E.E., and Bradley, W.C., 1969, Granites, gneisses, and the Sherman erosion surface, southern Laramie Range, Colorado-Wyoming: Am. Jour. Sci., v. 267, no. 4, p. 510-522.

EICHER, D.L.

1. 1960, Stratigraphy and micropaleontology of the Thermopolis Shale, Wyoming: Yale Univ., Peabody Mus. Nat. History, Bull. 15, 126 p.
2. 1962, Biostratigraphy of the Thermopolis, Muddy and Shell Creek Formations: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 72-93.
3. 1965, Cretaceous tintinnids from the western interior of the United States: Micropaleontology, v. 11, no. 4, p. 449-456.
4. 1965, Foraminifera and biostratigraphy of the Graneros Shale: Jour. Paleontology, v. 39, no. 5, p. 875-909.
5. 1967, Foraminifera from Belle Fourche Shale and equivalents, Wyoming and Montana: Jour. Paleontology, v. 41, no. 1, p. 167-188.

ELLERBY, R.S.

- 1962, Geology of the Dry Creek - Willow Creek area, Fremont County, Wyoming: MA thesis, Univ. Wyoming.

ELLIOTT, D.H.

- 1960, Reconnaissance photogeology - Cokeville NE quadrangle: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 42-43.

ELLIS, A.J.

- 1969, Geochemistry in volcanic hydrothermal areas; in Khitarov, N.I., ed., Problems of geochemistry: Israel Program Sci. Transl. p. 176-189.

ELLIS, C.H.

- 1963, Micropaleontology of the Mowry Shale, Newcastle Formation, and equivalent stratigraphic units: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 149-155.

EMMETT, W.W.

- and Leopold, L.B., 1965, Downstream pattern of riverbed [sic] scour and fill: Federal Inter-Agency Sedimentation Conf., 1963, Proc., Symposium 2 - Sediment in Streams, U.S. Dept. Agriculture, Misc. Pub. 970, p. 399-409.

ENGINEERING AND MINING JOURNAL

- 1965, U.S. Steel's Atlantic City Ore mine first taconite producer in the west: Eng. Mining Jour., v. 166, no. 3, p. 73-92.

ENYERT, R.L.

- and Madsen, R.A., 1962, Early Cretaceous oil and gas fields of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 303-308.

ERICKSON, J.W.

1964, Introduction to the Wind River Basin: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 248-256.

ESTES, R.

1. 1960, Change of name for a Cretaceous chimaeroid: Jour. Paleontology, v. 34, no. 5, p. 1054.
2. 1961, Change of name for a Cretaceous chimaeroid slightly revised: Jour. Paleontology, v. 35, no. 5, p. 1087.
3. 1964, Fossil vertebrates from the Late Cretaceous Lance Formation, eastern Wyoming: California Univ., Pubs. Geol. Sci., v. 49, 180 p.
4. 1965, A new fossil salamander from Montana and Wyoming: Copeia 1965, no. 1, p. 90-95.
5. 1965, Notes on some Paleocene lizards: Copeia 1965, no. 1, p. 104-106.
6. 1969, A new fossil discoglossid frog from Montana and Wyoming: Breviora, no. 328, 7 p.
7. 1969, The fossil record of amphiumid salamanders: Breviora, no. 322, 11 p.
8. 1969, Two new Late Cretaceous fishes from Montana and Wyoming: Breviora, no. 335, 15 p.

ETHINGTON, R.L.

and Furnish, W.M., Jr., and Wingert, J.R., 1961, Upper Devonian conodonts from Bighorn Mountains, Wyoming: Jour. Paleontology, v. 35, no. 4, p. 759-768.

EVANS, H.T., JR.

and Mrose, M.E., 1960, A crystal chemical study of the vanadium oxide minerals haggite and doloresite: Am. Mineralogist, v. 45, no. 11-12, p. 1144-1166.

EVERETT, F.D.

1963, Mining practices at four uranium properties in the Gas Hills, Wyoming: U.S. Bur. Mines, Inf. Circ IC-8151, 83 p.

EVSEVA, L.S.

1. and Perelman, A.I., 1962, Geochemistry of uranium in the zone of hypergenesis, translated excerpts by R.T. Schwisberger: Gosudarstvennoe Izdatel'stvo Literatury V. Oblasti Atomnoi Nauki i Tekhniki, Moscow, 238 p.
2. and Ivanov, K.E., and Kochetkov, V.I., 1962, Some laws of the formation of epigenetic uranium ores in sandstones, derived from experimental and radiochemical data: Soviet Jour. Atomic Energy [translated from Atomnaya Energiya, v. 14, no. 5, p. 474-481] p. 492-498.

EYER, J.A.

1. 1965, Stratigraphy and micropaleontology of the Gannett Group of western Wyoming and southeastern Idaho [abs.]: Dissert. Abs., v. 25, no. 10, p. 5860.
2. 1969, Gannett Group of western Wyoming and southeastern Idaho: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 7, p. 1368-1390.

FAHEY, J.J.

1. and Ross, M., and Axelrod, J.M., 1960, Loughlinite, a new hydrous sodium magnesium silicate: *Am. Mineralogist*, v. 45, no. 3-4, p. 270-281.
2. 1962, Saline minerals of the Green River Formation: U.S. Geol. Survey, Prof. Paper 405, 50 p.
3. and Yorks, K.P., and Appleman, D.E., 1962, Wegscheiderite, a new saline mineral from the Green River Formation, Wyoming [abs.]: *Geol. Soc. America, Spec. Paper* 68, p. 173; and in full 1963: *Am. Mineralogist*, v. 48, no. 3-4, p. 400-403.

FALVEY, A.E.

1969, Mineral resources of the Tongue River Basin, Big Horn, Custer, Powder River, and Rosebud Counties, Montana, and Johnson and Sheridan Counties, Wyoming: U.S. Bur. Mines, Prelim. Rept. 175, Missouri River Basin Study, 16 p.

FANSHAW, J.R.

1960, Significance of interruptions to hydrodynamics in Northern Rocky Mountain Province, U.S.A.: 21st Internat. Geol. Cong., Copenhagen, 1960, Rept., pt. 11, p. 7-18.

FAURE, G.

and Hurley, P.M., Fairbairn, H.W., and Pinson W.H., 1963, Estimate of the isotopic composition of strontium in rocks of the Precambrian basement, Canada [abs.]: *Geol. Soc. America, Spec. Paper* 73, p. 150-151.

FENTON, M.D.

1. and Voorhies, M.R., 1965, Pleistocene convolutions near city springs of Laramie, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 4, no. 2, p. 81-84.
2. and Faure, G., 1969, The strontium isotopic composition of the Laramie Range syenite, Wyoming, and its bearing on petrogenesis [abs.]: *Geol. Soc. America, Abs.* 1969, pt. 6, [North-central Section], p. 15-16.

FERRELL, R.E., JR.

1965, Paleoenvironment significance of clay minerals in the (Lower Cretaceous) Shell Creek Shale, Muddy Sandstone, and Thermopolis Shale on the east flank of the Bighorn Mountains, Wyoming: MS thesis, Univ. Illinois.

FERRIS, C.S., JR.

1. and Krueger, H.W., 1964, New radiogenic dates on igneous rocks from the southern Laramie Range, Wyoming: *Geol. Soc. America, Bull.*, v. 75, no. 10, p. 1051-1054.
2. 1964, Petrology and structure of the Precambrian rocks southeast of Encampment, Wyoming: PhD dissert., Univ. Wyoming; and in [abs.] 1965: *Univ. Wyoming, Pubs.*, v. 31, no. 3, p. 93.
3. 1966, Structural analysis of the Precambrian rocks southeast of Encampment, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 5, no. 1, p. 13-19.
4. 1968, Tertiary faults with reversed movements near Copper Mountain, central Wyoming: *Univ. Wyoming, Contr. Geology*, v. 7, no. 2, p. 117-128.

FERTL, W.

1. and Jessen, F.W., 1968, Cation equilibria studies on fractionated natural clays: *Clays and Clay Minerals*, v. 16, no. 4, p. 313-318.
2. and Jessen, F.W., 1969, Cation replacement studies on heteroionic bentonitic clay fractions using specific ion glass electrodes: *Clays and Clay Minerals*, v. 17, no. 1, p. 1-8.

FESTER, J.I.

and Robinson, W.E., 1966, Oxygen functional groups in Green River oil-shale kerogen and trona acids, Chapter 2: *Coal Science - Am. Conf. Coal Science*, University Park, Pa., 1964, *Am. Chemical Soc. [Adv. Chemistry Ser. 55]*, p. 22-31.

FIDLAR, M.M

1. 1962, Baxter Basin gas fields, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 282-283.
2. 1962, Church Buttes gas field, Sweetwater and Uinta Counties, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 280-281.

FIELD, C.W.

- 1966, Sulfur isotopic method for discriminating between sulfates of hypogene and supergene origin: Econ. Geology, v. 61, no. 8, p. 1428-1435.

FIELDS, E.D.

- 1963, Precambrian rocks of the Halleck Canyon area, Albany County, Wyoming: MS thesis, Univ. Wyoming.

FIELDS, R.W.

- and Kuenzi, W.D., 1963, Stratigraphy and vertebrate paleontology in the Jefferson Valley, Montana [abs.]: Geol. Soc. America, Spec. Paper 73, p. 152.

FINCH, W.I.

- 1967, Geology of epigenetic uranium deposits in sandstone in the U.S.: U.S. Geol. Survey, Prof. Paper 538, 121 p.

FINKS, R.M.

- and Yochelson, E.L., and Sheldon, R.P., 1961, Stratigraphic implications of a Permian sponge occurrence in the Park City Formation of western Wyoming: Jour. Paleontology, v. 35, no. 3, p. 564-568.

FIRST NATIONAL CITY BANK

- 1969, A nuclear energy report: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 175-181.

FISCHER, W.A.

1. 1960, Earthquake effects at Yellowstone: Nat'l Parks Mag., v. 34, no. 159, p. 10-13.
2. 1960, Yellowstone's living geology, earthquakes and mountains - highlights of Yellowstone geology with an interpretation of the 1959 earthquakes and their effects in Yellowstone National Park: Yellowstone Nature Notes, 1959-1960, v. 33, Special Issue, 62 p.

FISHER, F.S.

1. 1965, Genesis of recent gypsum in the Stinkingwater mining region, Park County, Wyoming: Univ. Wyoming, Contr. Geology, v. 4, no. 2, p. 45-49.
2. 1966, An unusual occurrence of recent gypsum, Park County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 283-284.
3. 1966, Tertiary intrusive rocks and mineralization in the Stinkingwater mining region, Park County, Wyoming: PhD dissert., Univ. Wyoming.
4. 1967, Geology of the Stinkingwater mining region, Park Co., Wyoming - pt. 1, General geology and petrology of Tertiary intrusive rocks: Univ. Wyoming, Contr. Geology, v. 6, no. 1, p. 71-86.
5. and Ketner, K.B., 1968, Late Tertiary syncline in the southern Absaroka Mountains, Wyoming: U.S. Geol. Survey, Prof. Paper 600-B, p. B144-B147.
6. and Ketner, K.B., 1969, Late Tertiary syncline and regional deformation in the southern Absaroka Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 598-599.
7. 1969, Tertiary mineralization in the Stinkingwater mining region, Park County, Wyoming; a preliminary report [abs.]: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section] p. 23.

FISHER, J.H.

1963, Tensleep Sandstone of the eastern Bighorn Mountains, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 54-60.

FISK, E.P.

1967, Geology and groundwater resources of a portion of the Great Divide Basin, Carbon and Sweetwater Counties, Wyoming: MS thesis, Univ. South. California.

FLANAGAN, P.E.

1968, The nuclear industry in Wyoming - 1968: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 109-113.

FLINN, D.J.

1960, Mineralogy of the South Dakota-Wyoming bentonites [abs.]: South Dakota Acad. Sci., Proc. 1959, v. 38, p. 71.

FOOSE, R.M.

1. 1960, Secondary structures associated with vertical uplift in the Beartooth Mountains, Montana: 21st Internat. Geol. Cong., Copenhagen, 1960, Rept., pt. 18, p. 53-61.
2. and Wise, D.U., and Garbarini, G.S., 1961, Structural geology of the Beartooth Mountains, Montana and Wyoming: Geol. Soc. America, Bull., v. 72, no. 8, p. 1143-1172.

FOSTER, D.I.

1965, Trapping mechanisms of selected fields, Cherokee Ridge, Wyoming and Colorado [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1576.

FOSTER, N.H.

1. 1964, Faunal zonation and stratigraphy of the Mississippian Madison Group, Wyoming and Montana [abs.]: Dissert. Abs., v. 25, no. 3, p. 1843-1844.
2. and Goodwin, P.E., and Fisher, R.E., 1969, Seismic evidence for high-angle flank faulting, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 100-101.

FOURNIER, R.O.

1. and White, D.E., and Truesdell, A.H., 1968, Discharge of thermal water and heat from Upper, Midway, and Lower Geyser Basins, Yellowstone Park [abs.]: Geol. Soc. America, Spec. Paper 115, p. 70.
2. 1969, Old Faithful - a physical model: Science, v. 163, no. 3864, p. 304-305.
3. and Truesdell, A.H., White, D.E., and Muffler, L.J.P., 1969, Some results of recent U.S. Geological Survey studies of thermal waters in Yellowstone National Park, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 600.

FOUTZ, D.R.

1966, Stratigraphy of the Mississippian System in northeastern Utah and adjacent states: PhD dissert., Washington State Univ.

FOX W.T.

1967, FORTRAN IV program for vector trend analyses of directional data: Kansas Geol. Survey, Computer Contr. 11, 36 p.

FRIEDMAN, I.

1. 1966, Isotopic variations during the deposition of travertine at Mammoth Hot Springs [abs.]: Am. Geophys. Union, Trans., v. 47, no. 1, p. 203-204.
2. and Gleason, J.D., and Jurceka, F.J., 1969, Some investigations of the deposition of travertine from Hot Springs [abs.]: Geol. Soc. America, Spec. Paper 121, p. 600-601.

FRITTS, P.J.

1969, Some late Cretaceous coccoliths of Colorado and eastern Wyoming: PhD dissert., Univ. Colorado; and in [abs.] 1969: Dissert. Abs., pt. B, v. 30, no. 6, p. 2830B-2831B.

FROIDEVAUX, C.

1967, Geology of the Hoback Peak area in the Overthrust Belt, Lincoln and Sublette Counties, Wyoming: MS thesis, Univ. Wyoming.

FRONDEL, J.W.

and Fleischer, M., and Jones, R.S., 1967, Glossary of uranium- and thorium-bearing minerals, [4th ed.]: U.S. Geol. Survey, Bull. 1250, 69 p.

FRUCHEY, R.A.

1962, Overthrusting in Mt. Thompson and adjacent areas, Sublette and Lincoln Counties, Wyoming: MS thesis, Univ. Wyoming.

FUKTOMI, T.

1960, On the hot springs in Yellowstone [Wyoming] and Lassen [California] volcanic areas, U.S.A.: Balneol. Soc. Japan Jour., v. 11, no. 4, p. 55-56 [in Japanese].

FUNKHOUSER, J.W.

1961, Pollen of the genus *Aquilapollenites*: Micropaleontology, v. 7, no. 2, p. 195-198.

FURER, L.C.

1. 1962, Overthrusting in the Thompson Pass area, Lincoln and Sublette Counties, Wyoming: MA thesis, Univ. Wyoming.
2. 1967, Sedimentary petrology and regional stratigraphy of the non-marine Upper Jurassic-Lower Cretaceous rocks of western Wyoming and southeastern Idaho [abs.]: Dissert. Abs., pt. B., v. 28, no. 2, p. 741B; and in full 1967: PhD dissert., Univ. Wyoming.

FURLONG, R.B.

1. 1965, Significance of the clay minerals in the Gypsum Spring and lower Sundance Formations (Jurassic), eastern flank of the Bighorn Mountains, Wyoming: MS thesis, Univ. Illinois.
2. 1968, Clay minerals in the Gypsum Springs and lower Sundance Formations, eastern Bighorn Mountains: Earth Sci. Bull., v. 1, no. 3, p. 5-16.

GABLEMAN, J.W.

and Krusiewski, S.V., 1964, Zonal distribution of uranium deposits in Wyoming, U.S.A.: 22nd Internat. Geol. Congress, New Delhi, 1964, Rept., pt. V, Genetic Problems of Ores, p. 661-672.

GALLAGHER, J.

1965, Fold mechanics in the Wind River Basin, Wyoming: MS thesis, Univ. Missouri.

GARD, T.M.

1969, Tectonics of the Badwater uplift area, central Wyoming: PhD dissert., Pennsylvania State Univ.

GARDNER, H.J.

1964, The Alcova Limestone Member (Triassic) of the Chugwater Formation, Freeze-out Mountains, Wyoming: MA thesis, Univ. Wyoming.

GARDNER, L.S.

1961, Preliminary geologic map, columnar sections and trench sections of the Irwin quadrangle, Caribou and Bonneville Counties, Idaho, and Lincoln and Teton Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:62,500.

GARRISON, R.E.

1961, Post-Niobrara-pre-Eocene oil and gas fields of Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 310-314.

GASSAWAY, J.D.

and Smith R.E., 1969, Manganese-54 retention on Wyoming bentonite and Fithian illite clays in artificial sea water [abs.]: EOS [Am. Geophys. Union, Trans.], v. 50, no. 4, p. 349.

GAST, R.G.

and Vanbladel, R., and Deshpande, K.B., 1969, Standard heats and entropies of exchange for alkali metal cations on Wyoming bentonite: Soil Sci. Soc. America, Proc., v. 33, no. 5, p. 661-664.

GATES, D.M.

1961, Winter thermal radiation studies in Yellowstone Park: Science, v. 134, no. 3471, p. 32-35.

GAZIN, C.L.

1. 1961, New sciuravid rodents from the lower Eocene Knight Formation of western Wyoming: Biol. Soc. Washington, Proc., v. 74, art. 21, p. 193-194.

2. 1961, Occurrences of Paleocene Mammalia in Tertiary basins of Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 47-52.

3. 1962, A further study of the lower Eocene mammalian faunas of southwestern Wyoming: Smithsonian Misc. Colln., v. 144, no. 1, [Pub. 4474], 98 p.

4. 1965, A study of the Early Tertiary condylarthran mammal *Meniscotherium*: Smithsonian Misc. Colln., v. 149, no. 2, pub. 4605, 98 p.

5. 1965, An endocranial cast of the Bridger middle Eocene primate, *Smilodectes gracilis*: Smithsonian Misc. Colln., v. 149, no. 3, pub. 4616, 14 p.

6. 1965, Early Eocene mammalian faunas and their environment in the vicinity of the Rock Springs uplift, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 171-180.

7. 1968, A study of the Eocene condylarthran mammal *Hyopsodus*: Smithsonian Misc. Colln., v. 153, no. 4, [Pub. 4744], 90 p.

8. 1969, A new occurrence of Paleocene mammals in the Evanston Formation, southwestern Wyoming: Smithsonian Contr. Paleobiology, no. 2, 17 p.

GEIS, F., JR.

1968, Old Faithful — a physical model: *Science*, v. 160, no. 3831, p. 989-990.

GERHARD, W.F.

1. and Gosar, A.J., Smith, V., Smart, R.R., Larsen, S., and Boetcher, J., 1960, 1st day's trip — Part 1, Kemmerer to Elko, Wyoming; Part 2, Kemmerer to Big Piney, Wyoming: *Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas*, p. 256-265.

2. and Smith, V., Smart, R.R., Larsen, S., and Boetcher, J., 1960, 2nd day's trip — Snider Basin Ranger Station to Junction of Grey's River and Little Grey's River: *Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas*, p. 267-270.

GERMANOV, A.I.

and Panteleyev, V.M., 1967, Behavior of organic matter in the groundwater during infiltrational epigenesis: *Internat. Geol. Rev.*, v. 10, no. 7, p. 826-832.

GERMANOV, A.N.

1960, Main genetic features of some infiltration-type hydrothermal uranium deposits: *Acad. Nauk SSSR, Izvestiya, Geological Series*, no. 8, Aug., p. 60-71, [translation issued Sept., 1961].

GETZ, R.C.

1966, Jointing and stratigraphy on Elkhorn Peak, Whitewood, South Dakota and Green Mountain, Sundance, Wyoming: MS thesis, South Dakota School of Mines and Technology.

GIFFIN, C.E.

and Kulp, J.L., 1960, Potassium-argon ages in the Precambrian basement of Colorado: *Geol. Soc. America, Bull.*, v. 71, no. 2, p. 219-222.

GILETTI, B.J.

1. 1960, Rb-Sr and K-A ages of the Precambrian of western Montana and Wyoming [abs.]: *Geol. Soc. America, Bull.*, v. 71, no. 12, pt. 21, p. 1871.

2. and Gast, P.W., 1961, Absolute age of Precambrian rocks in Wyoming and Montana: *New York Acad. Sci., Annals*, v. 91, art. 2, *Geochronology of Rock Systems*, p. 454-458.

3. 1963, K-Ar and Rb-Sr ages from the Precambrian of southwest Montana and northwest Wyoming [abs.]: *Am. Geophys. Union, Trans.*, v. 44, no. 1, p. 110.

4. 1968, Isotopic geochronology of Montana and Wyoming, in E.I. Hamilton and R.M. Farquhar, editors, *Radiometric dating for geologists: New York Interscience*, p. 111-146.

GILKEY, M.M.

and Stoltmeyer, R.B., 1967, Water requirements and uses in Wyoming mineral industries: *U.S. Bur. Mines, Inf. Circ.* 8328, 92 p.

GILL, J.R.

1. and Cobban, W.A., 1962, Red Bird Silty Member of the Pierre Shale, a new stratigraphic unit: *U.S. Geol. Survey, Prof. Paper* 450-B, p. B21-B24.

2. and Cobban, W.A., 1966, Regional unconformity in Late Cretaceous, Wyoming: *U.S. Geol. Survey, Prof. Paper* 550-B, p. B20-B27.

3. and Cobban, W.A., 1966, The Red Bird section of the Upper Cretaceous Pierre Shale in Wyoming, with a section on a new echinoid from the Cretaceous Pierre Shale of eastern Wyoming by Porter M. Kier: *U.S. Geol. Survey, Prof. Paper* 393-A, p. A1-A73.

GIN, T.T.

and Grandy, G.A., and Loer, R.F., 1964, Lithology, mineralogy, and magnetic concentration characteristics of the Atlantic City iron formation [abs.]: *Mining Eng.*, v. 16, no. 12, p. 89.

GINGERICH, P.D.

1969, Markov analysis of cyclic alluvial sediments: Jour. Sed. Petrology, v. 39, no. 1, p. 330-332.

GLIOZZI, J.

1967, Petrology and structure of the Precambrian rocks of the Copper Mountain district Owl Creek Mountains, Fremont County, Wyoming: PhD dissert., Univ. Wyoming.

GODSON, R.H.

and Watkins, J.S., 1968, Seismic resonance investigation of a near-surface cavity in Anchor Reservoir, Wyoming: Assoc. Eng. Geologists, Bull., v. 5, no. 1, p. 27-36.

GOERING, M.W.

and Smith, B.G., 1960, Preliminary geologic interpretation, Amerada Petroleum Corporation No. 1 Chicken Creek Unit, SW Section 30, T.22N., R.117W., Lincoln County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 178-180.

GOOD, J.M.

1964, Relict Wisconsin ice in Yellowstone National Park, Wyoming: Univ. Wyoming, Contr. Geology, v. 3, no. 2, p. 92-93.

GOOD, L.W.

1. 1960, Geology of the Baggs area, Carbon County, Wyoming: MA thesis, Univ. Wyoming.
2. and Gray, L.O., and Shobe, W.E., 1961, Alternate log - Lamont to Jeffrey City via Bairoil and Crooks Gap: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks of Wyoming and Adjacent Areas, p. 346.

GOODELL, H.G.

1962, The stratigraphy and petrology of the Frontier Formation of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 173-210.

GOODWIN, J.H.

1. and Surdam, R.C., 1967, Zeolitization of tuffaceous rocks of the Green River Formation, Wyoming: Science, v. 157, no. 3786, p. 307-308.
2. and Parker, R.B., and Surdam, R.C., 1969, Authigenic silicates in the Tipton Member of the Green River Formation, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 7 [Ann. Meeting] p. 81-82.

GOODWIN, P.W.

1. 1962, Late Cambrian and Early Ordovician conodonts from the Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 183.
2. 1964, Ordovician formations of Wyoming [abs.]: Dissert. Abs., v. 25, no. 2, p. 1149.
3. 1965, Early Ordovician conodonts from Wyoming, Montana, and South Dakota [abs.]: Geol. Soc. America, Spec. Paper 82, p. 75.

GORDON, E.D.

1. and King, N.J., Haynes, G.L., Jr., and Cummings, T.R., 1960, Occurrence and quality of water in the northern Bridger Basin and the adjacent Overthrust Belt, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 226-247.
2. and McCullough, R.A., and Weeks, E.P., 1962, Ground water at Grant Village site, Yellowstone National Park, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1475-F, p. 173-200.

GORMAN, D.R.

1. 1963, A study of the Amsden Formation [abs.]: Dissert. Abs., v. 23, no. 11, p. 4314.

2. 1963, Stratigraphic-sedimentational aspects of the Amsden Formation, Big-horn Mountains, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 67-70.
 3. 1965, The stratigraphy of the Amsden Formation of Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 3, p. 341.
- GOSAR, A.J.
1. 1960, Stratigraphic and structural traps in the Big Piney-LaBarge area, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 44, no. 6, p. 957; and in [abs.] 1960: Am. Assoc. Petroleum Geologists, Rocky Mtn. Sec., Geol. Record, p. 165-166.
 2. and Hopkins, J.C., 1969, Structure and stratigraphy of the southwest portion of the Rock Springs uplift, Sweetwater County, Wyoming: Intermountain Assoc. Geologists and Utah Geol. Soc., 16th Ann. Field Conf., Geologic Guidebook of the Uinta Mountains - Utah's Maverick Range, p. 87-90.
- GOSMAN, R.F.
- 1962, Developments in Wyoming and Idaho in 1961: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 6, p. 969-974.
- GOSSE, R.C.
- 1962, The jade of Wyoming: Rocks and Minerals, v. 37, no. 5-6, p. 280-281.
- GOVERNOR'S URANIUM CONFERENCE
- 1969, Report on Wyoming governor's conference on uranium, Nov. 1, 1968, Casper, Wyoming: Mines Mag., v. 59, no. 1, p. 4-33.
- GRANGER, H.C.
1. 1966, Ferroselite in a roll-type uranium deposit, Powder River Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 550-C, p. C153-C157.
 2. and Warren, C.G., 1969, Unstable sulfur compounds and the origin of roll-type uranium deposits: Econ. Geol., v. 64, p. 160-171.
- GRANT, R.E.
- 1965, Faunas and stratigraphy of the Snowy Range Formation (Upper Cambrian) in southwestern Montana and northwestern Wyoming: Geol. Soc. America, Mem. 96, 171 p.
- GRAS, V.B.
- 1968, Church Buttes gas field, Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 798-802.
- GRAVESON, D.H., JR.
- 1965, Uranium distribution in granites of the Shirley and Pedro Mountains, Carbon County, Wyoming: MS thesis, Univ. Wyoming.
- GREELEY, M.N.
- 1966, Geology of the Esterbrook area, Converse and Albany Counties, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 284-285.
- GREENE, W.D.
1. 1960, A day with the dinosaur hunters, Wyoming: Mineralogist, v. 28, no. 4-5, p. 54-57.
 2. 1960, Wyoming's forests of stone: Mineralogist, v. 28, no. 11-12, p. 222-226.
 3. 1961, Ancient Wyoming: Mineralogist, v. 29, no. 5-6, p. 11-14.
- GREENE-KELLY, R.
- 1964, The specific surface areas of montmorillonites: Clay Minerals Bull., v. 5, no. 31, p. 392-400.

GREY, D.

1962, Summary report of the Medicine Wheel investigation: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 316-317.

GRIES, J.C.

1964, The structure and Cenozoic stratigraphy of the Pass Creek Basin area, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

GRIES, J.P.

1. 1962, Lower Cretaceous stratigraphy of South Dakota and the eastern edge of the Powder River Basin: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 163-172.

2. 1963, Geology of the southern Black Hills: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 189-195.

3. and Cox, E., 1963, Second day, Part III. Belle Fourche to Rainbow Arch to Belle Fourche to campground: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 193-195.

4. 1963, Sinkholes in the Minnekahta Formation, Black Hills: South Dakota Acad. Sci., Proc. 1963, v. 42, p. 76-78.

5. 1968, Second day of field conference: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 227-229.

6. and Crooks, T.J., 1968, Water losses to the Madison (Pahasapa) Limestone, Black Hills, South Dakota: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 209-213.

GRIFFITHS, J.C.

and Singer, D.A., 1969, Size, shape, and arrangement of some uranium ore bodies, final report, pt. 2: U.S. Atomic Energy Comm., GJO-918-2, 38 p.

GRIGGS, D.G.

1966, The "Ferguson" and Parkman Sandstone (Upper Cretaceous) in the Deadhorse-Barber Creek area, Powder River Basin, Wyoming: MS thesis, Univ. Colorado.

GROFF, S.L.

1966, Lake DeSmet, Wyoming: Coal, v. 20, no. 4, p. 19.

GRUTT, E.W., JR.

1969, Uranium exploration in Wyoming and new exploration techniques in Report on Wyoming Governor's Conference on Uranium, Casper, Wyoming, 1968: Mines Mag., v. 59, no. 1, p. 17-19.

GUDIM, C.J.

1966, The Sheep Creek thrust at Cooper Creek, Fremont County, Wyoming: Mtn. Geologist, v. 3, no. 3, p. 125-128.

GUESS, R.H.

and Swirczynski, R.P., 1968, Muddy exploration, 1887-1968: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 41-46.

GUILDAY, J.E.

1. and Hamilton, H.W., and Adam, E.K., 1967, Animal remains from Horned Owl Cave, Albany County, Wyoming: Univ. Wyoming, Contr. Geology, v. 6, no. 2, p. 97-99.

2. 1968, Pleistocene zoogeography of the lemming *Dicrostonyx* (Cricetidae: Rodentia), a reevaluation: Colorado Univ. Studies, Ser. Earth Sci., no. 6, Fauna of the Little Box Elder Cave, Converse County, Wyoming, p. 61-71.

GUILINGER, R.R.

1963, Source of uranium in the Gas Hills area, Wyoming: Econ. Geology, v. 58, no. 2, p. 285-286.

GULBRANDSEN, R.A.

1. 1960, A method of x-ray analysis for determining the ratio of calcite to dolomite in mineral mixtures: U.S. Geol. Survey, Bull. 1111-D, p. 147-152.
2. and Cressman, E.R., 1960, Analcime and albite in altered Jurassic tuff in Idaho and Wyoming: Jour. Geology, v. 68, no. 4, p. 458-464.
3. 1960, Petrology of the Meade Peak phosphatic shale member of the Phosphoria Formation at Coal Canyon, Wyoming: U.S. Geol. Survey, Bull. 1111-C, p. 71-146.
4. 1966, Chemical composition of phosphorites of the Phosphoria Formation: Geochim. Cosmochim. Acta, v. 30, p. 769-778.

GUNTER, B.D.

and Musgrave, B.C., 1966, Gas chromatographic measurements of hydrothermal emanations at Yellowstone National Park: Geochim. et Cosmochim. Acta, v. 30, no. 11, p. 1175-1189.

GUTHRIE, D.A.

1. 1965, The mammals of the Eocene Lysite Member, Wind River Formation of Wyoming [abs.]: Dissert. Abs., v. 26, no. 4, p. 2389.
2. 1966, A new species of dichobunid artiodactyl from the early Eocene of Wyoming: Jour. Mammalogy, v. 47, no. 3, p. 487-490.
3. 1967, *Paeneprolimmocyon*, a new genus of early Eocene limnocyonid (Mammalia, Creodonta): Jour. Paleontology, v. 41, no. 5, p. 1285-1287.
4. 1967, The mammalian fauna of the Lysite Member, Wind River Formation (early Eocene) of Wyoming: Southern California Acad. Sci., Mem., v. 5, 53 p.
5. 1968, The tarsus of early Eocene artiodactyls: Jour. Mammalogy, v. 49, no. 2, p. 297-302.

GUYTON, J.W.

1. 1960, Geology of the Lost Soldier area, Sweetwater, Fremont, and Carbon Counties, Wyoming: MA thesis, Univ. Wyoming.
2. 1962, Late Cretaceous - Early Tertiary history of the Lost Soldier area, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 88-89.
3. 1965, Ancient landslide deposits and gravity slides in Wyoming: PhD dissert., Univ. Wyoming.

GWYNN, T.A.

and Kasper, J., 1963, Billy Creek Field, Johnson County, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 158-167.

HADLEY, R.F.

1. 1960, Recent sedimentation and erosional history of Fivemile Creek, Fremont County, Wyoming: U.S. Geol. Survey, Prof. Paper 352-A, p. 1-16.
2. 1961, Some effects of microclimate on slope morphology and drainage basin development: U.S. Geol. Survey, Prof. Paper 424-B, art. 16, p. B-32-B34.

HAGNER, A.F.

1. 1967, Resume of the geology of the Laramie anorthosite mass - discussion: Mtn. Geologist, v. 4, no. 1, p. 35-36.
2. 1968, The titaniferous magnetite deposit at Iron Mountain, Wyoming: A.I.M.E., Ore deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 665-680.
3. and Reinking, R.L., 1969, Source of the ore-forming materials at Iron Mountain, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 7, [Ann. Meeting] p. 88.

HALE, L.A.

1. 1960, Annotations to accompany Cretaceous correlation chart; Wyoming-Colorado-Utah: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 131-135.
2. 1960, Frontier Formation - Coalville, Utah, and nearby areas of Wyoming and Colorado: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 136-146; and in 1962: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 211-220.
3. 1961, Late Cretaceous (Montanan) stratigraphy, eastern Washakie Basin, Carbon County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 129-137.
4. and VandeGraaff, F., 1965, Correlations of Cretaceous formations in adjoining areas of Wyoming, Utah and Colorado: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 8-9.

HALL, R.D.

1966, Heavy minerals in recent alluvium along the eastern flank of the Front Range, Golden to the Colorado-Wyoming line: MS thesis, Univ. Colorado.

HALLOCK, A.R.

1960, Stratigraphy and correlation of the Mesaverde Group and Fort Union Formation, southern Bridger Basin, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 153-154.

HALVERSON, G.H.

1964, Introduction to the Bighorn Basin: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 104-107.

HAMIL, M.M.

1969, Multiple folding of Precambrian rocks, Copper Mountains, Wyoming: Mo. Acad. Sci., 1969, Ann. Mtg., Mo. Acad. Sci., Trans., v. 3, 105 p.

HAMILTON, H.E.

1964, Stratigraphy and depositional history of the Muddy Formation in the Freeze-out Mountains area, northeastern Carbon County, Wyoming: MS thesis, Univ. Wyoming.

HAMILTON, W.B.

1. 1960, Late Cenozoic tectonics and volcanism of the Yellowstone region, Wyoming,

Idaho, and Montana: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 92-105; and in [abs.] 1960: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1879.

2. 1963, Petrology of rhyolite and basalt, northwestern Yellowstone Plateau: U.S. Geol. Survey, Prof. Paper 475-C, p. C78-C81.

3. 1964, Volcanic rocks of the West Yellowstone and Madison Junction quadrangles, Montana, Wyoming, and Idaho: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 209-221.

HAND, H.D.

1960, Resume of trona activity in the Green River Basin, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 248-250.

HANSEN, W.R.

1. 1961, Geologic map of the Dutch John Mountain and Goslin Mountain quadrangles, Utah-Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-324, scale 1:24,000.

2. 1965, Geology of the Flaming Gorge area, Utah-Colorado-Wyoming: U.S. Geol. Survey, Prof. Paper 490, 196 p.

3. 1969, Tertiary drainage development across the Uinta Mountains, a review [abs.]: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section] p. 30.

HANSON, A.M.

1. 1962, Cambrian system in the Bighorn Canyon area: Billings Geol. Soc., 12th Ann. Field Conf. Guidebook, Float Trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 51-57.

2. 1962, Permo-Triassic of Bighorn Canyon area: Billings Geol. Soc., 12th Ann. Field Conf. Guidebook, Float Trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 27-35.

HANSON, B.V.

1969, Quaternary geology of the Willow Spring archaeological site, southwestern Wyoming: MS thesis, Univ. Wyoming.

HANSON, G.N.

1966, The effect of contact metamorphism on mineral ages in the Snowbank Lake area, Minnesota, and in the Beartooth Mountains, Wyoming [abs.]: Dissert. Abs., v. 26, no. 8, p. 4573.

HARMS, J.C.

and MacKenzie, D.B., and McCubbin, D.G., 1965, Depositional environment of the Fox Hills sandstones near Rock Springs, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 113-139.

HARMSTON, F.K.

1. 1962, A study of the resources, people, and economy of Carbon County, Wyoming: Wyoming Nat. Resource Board, 123 p.

2. and Lund, R.E., 1963, A study of the resources, people, and economy of east-central Wyoming: Wyoming Nat. Resource Board, 111 p.

HARNETT, R.A.

1. 1964, Wyoming history: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 14-17.

2. 1968, Niobrara oil potential: Earth Sci. Bull., v. 1, no. 1, p. 37-48.

HARRER, C.M.

1966, Wyoming iron-ore deposits - description, beneficiation processes, and economics: U.S. Bureau Mines, Inf. Circ. IC-8315, 114 p.

HARRIS, D.V.

1963, Geomorphology of Larimer County, Colorado: Rocky Mountain Assoc. Geol., 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 196-204.

HARRIS, J.F.

and Taylor, C.L. and Walper J.L., 1960, Relation of deformational fractures in sedimentary rocks to regional and local structure: Am. Assoc. Petroleum Geologists, Bull., v. 44, no. 12, p. 1853-1873.

HARRIS, L.E.

1962, Exit log - Greybull to Thermopolis, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 335-337.

HARSHMAN, E.N.

1. 1961, Paleotopographic control of a uranium mineral belt, Shirley Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 424-C, art. 148, p. C4-C6.
2. 1962, Alteration as guide to uranium ore, Shirley Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 450-D, p. D8-D10.
3. 1963, Uranium deposits and related alteration, Shirley Basin, Carbon County, Wyoming [abs.]: Mining Eng., v. 15, no. 8, p. 53; and in full 1968: A.I.M.E., Ore Deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 849-856.
4. 1964, Geologic map of the Bates Creek Reservoir quadrangle, Carbon and Natrona Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
5. 1964, Geologic map of the Chalk Hills quadrangle, Albany and Carbon Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
6. 1964, Geologic map of the Horse Peak quadrangle, Carbon and Natrona Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
7. 1964, Geologic map of the Measel Spring Reservoir quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
8. 1964, Geologic map of the Moss Agate Reservoir quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
9. 1964, Geologic map of the Mud Springs quadrangle, Carbon and Natrona Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
10. 1964, Geologic map of the Squaw Spring quadrangle, Albany, Carbon, Converse, and Natrona Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
11. 1964, Geologic map of the Wild Irish Reservoir quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
12. 1966, Genetic implications of some elements associated with uranium deposits, Shirley Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 550-C, p. C167-C173.
13. 1968, Geologic map of the Shirley Basin area, Albany, Carbon, Converse, and Natrona Counties, Wyoming: U.S. Geol. Survey, Misc. Geol. Invest. Map I-539, scale 1:48,000.
14. 1968, Uranium deposits of Wyoming and South Dakota: A.I.M.E., Ore Deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 815-831.

HARSTON, L.W.

and Heisey, E.L., 1969, Second day of field conference - Casper-Shirley Basin-Casper Mountain-Casper: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 220-225.

HART, O.M.

1968, Uranium in the Black Hills: A.I.M.E., Ore Deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 832-837.

HARTMAN, D.A.

1967, Stratigraphy and structure of the Salt Wells anticline area (Upper Cretaceous), Sweetwater County, Wyoming: MS thesis, Oregon State Univ.

HASKELL, N.L.

1969, The petrography of the Tensleep Formation (Pennsylvanian and lower Permian) along the west flank of the Bighorn Mountains, Big Horn County, Wyoming: MS thesis, Iowa State Univ.

HAUF, C.B.

1963, Overthrusting in the upper Fontenelle - LaBarge Creeks area, Lincoln and Sublette Counties, Wyoming: MS thesis, Univ. Wyoming.

HAUN, J.D.

1. 1961, Stratigraphy of post-Mesaverde Cretaceous rocks, Sand Wash Basin and vicinity, Colorado and Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 116-124.
2. and Barlow, J.A., Jr., 1962, Lower Cretaceous stratigraphy of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 15-22.
3. 1963, Stratigraphy of Dakota Group and relationship to petroleum occurrence, northern Denver Basin: Rocky Mtn. Assoc. Geol., 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 119-134.

HAUSER, G.

and Reckendorf, F., and Smith, D., 1961, Geomorphology and Quaternary history of Shell Valley, Big Horn County, Wyoming: Iowa Acad. Sci., Proc. 1961, v. 68, p. 404-415.

HAWKINS, W.K.

and Gearhart, M., 1968, Use of logging in uranium prospecting: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 131-319; and in 1968: Soc. Prof. Well Log Analysts, 9th Ann. Symposium, New Orleans, Trans., p. T1-T13.

HAY, R.L.

1965, Pattern of silicate authigenesis in the Green River Formation of Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 88.

HAYNES, C.V., JR.

and Grey, D.C., Damon, P.E., and Bennett, R., 1967, Arizona radiocarbon dates VII: Radiocarbon, v. 9, p. 1-14.

HECHT, M.K.

and Estes, R., 1960, Fossil amphibians from Quarry Nine, Wyoming: Postilla, no. 46, 19 p.

HEGNA, E.T.

1968, South Coyote Creek Field, Weston County, Wyoming: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 83-88; and in [abs.] 1969: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 1, p. 218.

HEIMLICH, R.A.

1. 1965, Reconnaissance of the Precambrian core of the Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 89-90.
2. 1968, Geochronologic investigation of the Precambrian rocks, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 91-92.
3. and Banks, P.O., 1968, Radiometric age determinations, Bighorn Mountains, Wyoming: Am. Jour. Sci., v. 266, no. 3, p. 180-192.

4. 1969, Cylindrical columnar joints in Precambrian mafic dikes, Bighorn Mountains, Wyoming: Jour. Geol., v. 77, no. 3, p. 371-374.
 5. 1969, Reconnaissance petrology of Precambrian rocks in the Bighorn Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 1, p. 47-61.
- HEINRICH, E.W.
- 1963, Notes on western mineral occurrences: Am. Mineralogist, v. 48, no. 9-10, p. 1172-1174.
- HEISEY, E.L.
- 1963, Geology of the Prong Creek Field, Crook County, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 133-138.
- HELSLEY, C.E.
- 1963, Significance of intermediate magnetic field orientation in rocks of Triassic age [abs.]: Am. Geophys. Union, Trans., v. 44, no. 1, p. 33-34.
- HEMBREE, C.H.
- and Rainwater, F.H., 1961, Chemical degradation on opposite flanks of the Wind River Range, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1535-E, p. E1-E9.
- HENDERSON, D.K.
- 1962, Geology of the Doty Mountain - Dad area, Carbon County, Wyoming: emphasis on stratigraphy of uppermost Cretaceous rocks: MS thesis, Colorado School of Mines, Golden.
- HENDRICKS, H.E.
- 1969, Fracture patterns in the Precambrian, northwestern Wind River Range, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 661.
- HEPPE, W.C.
1. 1960, A brief summary of the stratigraphy of the Almond and Lewis Formations of the Washakie Basin, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 147-151.
 2. and Dunn, H., 1964, The Green River Basin: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 293-298.
- HEWETT, D.F.
- and Fleischer, M., 1960, Deposits of the manganese oxides: Econ. Geology, v. 55, no. 1, p. 1-55.
- HEWITT, C.H.
- 1966, How geology can help engineer your reservoirs: Oil and Gas Jour., v. 64, no. 46, p. 171-178.
- HEYDENBURG, R.
- 1966, Stratigraphy and depositional environment of the Parkman Sandstone Member, Mesaverde Formation (Cretaceous) near Midwest, Natrona County, Wyoming: MS thesis, Univ. Wyoming.
- HEYLMUN, E.B.
- 1966, Systematic rock joints in parts of Utah, Colorado, and Wyoming, and a hypothesis on their origin: PhD dissert., Univ. Utah; and in [abs.] 1966: Dissert. Abs., Sec. B, Sci. and Eng., v. 27, no. 6, p. 1984B-1985B.
- HICKS, M.E.
- and Woodward, T.C., 1969, Project Thunderbird: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 161-163.

HIGH, L.R., JR.

1. and Picard, M.D., 1965, Sedimentary petrology and origin of analcime-rich Popo Agie Member, Chugwater (Triassic) formation, west-central Wyoming: Jour. Sed. Petrology, v. 35, no. 1, p. 49-70.
2. and Picard, M.D., 1967, Rock units and revised nomenclature, Chugwater Group (Triassic) western Wyoming: Mtn. Geologist, v. 4, no. 2, p. 73-81.
3. and Picard, M.D., 1967, Stratigraphic relations of upper Triassic units, northeastern Utah and Wyoming: Compass, v. 44, no. 2, p. 88-98.
4. and Picard, M.D., 1968, Dendritic surge marks ("Dendrophycus") along modern stream banks: Univ. Wyoming, Contr. Geology, v. 7, no. 1, p. 1-6.
5. and Picard, M.D., 1969, Sedimentary cycles in Green River Formation (Eocene); a modification of Walther's law [abs.]: Geol. Soc. America, Abs., pt. 6, [North-central Section], p. 21.
6. and Picard, M.D., 1969, Stratigraphic relations within upper Chugwater Group (Triassic), Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 5, p. 1091-1104.

HILEMAN, M.E.

1969, Stratigraphy of the Preuss and Stump Formations (Upper Jurassic) of western Wyoming and southeastern Idaho: MS thesis, Univ. Michigan.

HILL, D.P.

1965, The U.S. Geological Survey's gravity program in Washington, Idaho, Montana, and Wyoming: Am. Geophys. Union, Trans., v. 46, no. 1, p. 214-217.

HILL, T.P.

and Werner, M.A., and Horton, M.J., 1967, Chemical composition of sedimentary rocks in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming: U.S. Geol. Survey, Prof. Paper 561, 241 p.

HILLS, F.A.

1. and Gast, P.W., and Houston, R.S., 1965, Chronology of some Precambrian igneous and metamorphic events of the Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 92.
2. and Gast, P.W., Houston, R.S., and Swainbank, I.G., 1968, Precambrian geochronology of the Medicine Bow Mountains, southeastern Wyoming: Geol. Soc. America, Bull., v. 79, no. 12, p. 1757-1783.

HINTON, G.

1968, Recluse oil field: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 73-78.

HINTZE, L.F.

1. 1960, Ordovician stratigraphy in western Montana and adjacent states: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 213-216.
2. 1960, Ordovician tectonics of western Wyoming and vicinity: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 110-115.

HITCH, H.H.

1969, Economic impact of uranium industry in Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 173.

HOARE, R.D.

and Burgess, J.D., 1960, Fauna from the Tensleep Sandstone in Wyoming: Jour. Paleontology, v. 34, no. 4, p. 711-716.

HODGE, D.S.

1. 1963, Polymetamorphism of Precambrian rocks in the southwestern Wind River Mountains, Fremont County, Wyoming: MS thesis, Univ. Wyoming; and with Worl, R.G., [abs.] 1966: Geol. Soc. America, Spec. Paper 87, p. 286.
2. and Worl, R.G., 1965, Multiple metamorphic episodes in Precambrian rocks near South Pass City, Wyoming: Univ. Wyoming, Contr. Geology, v. 4, no. 2, p. 51-57.
3. 1966, Preliminary gravity study of the southern Laramie Mountains - anorthosite areas and adjacent basin: Univ. Wyoming, Contr. Geology, v. 5, no. 1, p. 55-62.
4. 1967, Petrology and structural geometry of Precambrian rocks in the Bluegrass area, Albany County, Wyoming: PhD dissert., Univ. Wyoming.
5. 1968, Kyanite-, and andalusite-, and sillimanite-bearing Precambrian gneisses in the Laramie Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 95-96.
6. and Mayewski, P.A., 1969, Gravity study of the hypersthene syenite in the Laramie anorthosite complex, Wyoming: Geol. Soc. America, Bull., v. 80, no. 4, p. 705-715.
7. 1969, Tectonic environment of coexisting andalusite, kyanite, and sillimanite, Laramie Range, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 138.

HODGSON, R.A.

- 1964, Genetic and geometric relations between structures in basement and overlying sedimentary rocks, with examples from the Colorado Plateau and Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 4, p. 531; and in full 1965: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 7, p. 935-949.

HOEGER, R.L.

- 1962, The effect of hydrodynamics on production in the Miller Creek oil field, Crook County, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 252-256.

HOLMES, R.F.

- 1967, Engineering materials and side-looking radar: Photogramm. Eng., v. 33, no. 7, p. 767-770.

HONDA, S.

- and Muffler, L.J.P., 1969, Hydrothermal alteration in Yellowstone drill hole Y-1, Upper Geyser Basin [abs.]: EOS [Am. Geophys. Union, Trans.], v. 50, no. 4, p. 348.

HOOPER, W.F.

1. 1961, Lower Cretaceous of Casper Arch, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 9, p. 1523-1544.
2. 1962, Lower Cretaceous stratigraphy of the Casper Arch, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 141-147.
3. 1962, Petrography of Lakota Conglomerate, Casper Arch area, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 131-140.

HOPPIN, R.A.

1. 1961, Precambrian rocks and their relationship to Laramide structure along the east flank of the Bighorn Mountains near Buffalo, Wyoming: Geol. Soc. America, Bull., v. 72, no. 3, p. 351-367.

2. and Palmquist, J.C., and Williams, L.O., 1963, Control of Precambrian basement structure of the location of the Tensleep-Beaver Creek fault, Bighorn Mountains, Wyoming [abs.]: Univ. Minnesota, Dept. Geology, 9th Ann. Inst. Lake Superior Geology, p. 5; and in [abs.] 1964: Geol. Soc. America, Spec. Paper 76, p. 83; and in full 1965: Jour. Geology, v. 73, no. 1, p. 189-195.

3. and Palmquist, J.C., 1965, Basement influence on later deformation — the problem, techniques of investigation, and examples from Bighorn Mountains, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 7, p. 993-1003.

4. and Jennings, T.V., 1969, Intersecting Laramide structural trends, Bighorn Mountain region, Wyoming-Montana [abs.]: Geol. Soc. America, Abs. 1969, pt. 7 [Annual Meeting], p. 107.

HORN, G.H.

1963, Geology of the east Thermopolis area, Hot Springs and Washakie Counties, Wyoming: U.S. Geol. Survey, Oil and Gas Inv. Map OM-213 scale 1:48,000

HORR, C.A.

and Myers, A.T., Dunton, P.J., and Hyden, H.J., 1961, Uranium and other metals in crude oils: U.S. Geol. Survey, Bull. 1100, 99 p.

HORSTMAN, A.W.

1966, Correlation of the lower and lower Upper Cretaceous rocks of a part of southwestern Wyoming, Utah and Colorado: PhD dissert., Univ. Colorado; and in [abs.] 1966: Dissert. Abs., pt. B, v. 27, no. 4, p. 1187B.

HOSTETLER, P.B.

and Garrels, R.M., 1962, Transportation and precipitation of uranium and vanadium at low temperatures, with special reference to sandstone-type uranium deposits: Econ. Geol., v. 57, p. 137-167.

HOUSTON, R.S.

1. 1961, The Big Creek pegmatite area, Carbon County, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 1, 11 p.

2. and McCallum, M.E., 1962, Mallen Creek — Nask Fork shear zone, Medicine Bow Mountains, southwestern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 91.

3. 1962, Non-paleontological methods of correlation of rocks of Tertiary age in Wyoming — pt. 1, Heavy elements in bone fragments: Univ. Wyoming, Contr. Geology, v. 1, no. 1, p. 3-5.

4. and Murphy, J.R., 1962, Titaniferous black sandstone deposits of Wyoming: Wyo. Geol. Survey, Bull. 49, 120 p.

5. 1963, Non-paleontological methods of correlation of rocks of Tertiary age in Wyoming — pt. 2, Glass shards: Univ. Wyoming, Contr. Geology, v. 2, no. 1 [S.H. Knight Issue], p. 81-85.

6. and Parker, R.B., 1963, Structural analysis of folded quartzite, Medicine Bow Mountains, Wyoming: Geol. Soc. America, Bull., v. 74, no. 2, p. 197-201.

7. and Toots, H., 1963, Variation in the content of heavy elements in bone fragments of Tertiary age in Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 87.

8. 1964, Non-paleontological methods of correlation of rocks of Tertiary age in Wyoming — pt. 3, The petrographic calendar: Univ. Wyoming, Contr. Geology, v. 3, no. 1, p. 15-26.

9. and Murphy, J.F., 1965, Age and distribution of sedimentary zircon as a guide to provenance: U.S. Geol. Survey, Prof. Paper 525-D, p. D22-D26.

10. 1966, Effect of Laramide deformation on Precambrian structural pattern, Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 287.

11. and Toots, H., and Kelley, J.C., 1966, Iron content of fossil bones of Tertiary age in Wyoming correlated with climatic change: Univ. Wyoming, Contr. Geology, v. 5, no. 2, p. 1-18.
12. and Hills, A., and Gast, P.W., 1966, Regional aspects of structure and age of rocks of the Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 287-288.
13. 1967, Regional Precambrian tectonics and stratigraphy of Rocky Mountains with emphasis on Wyoming province [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1902.
14. and others, 1968, A regional study of rocks of Precambrian age in that part of the Medicine Bow Mountains lying in southeastern Wyoming — with a chapter on the relationship between Precambrian and Laramide structure: Wyo. Geol. Survey, Mem. 1, 167 p.
15. 1969, Aspects of the geologic history of Wyoming related to the formation of uranium deposits: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1, [Wyoming Uranium Issue], p. 67-79.

HOWARD, A.D.

1960, The hydrothermal phenomena of the Yellowstone National Park, Wyoming: Naples, Italy, Internat. Volcanol. Assoc., Catalogues of the Active Volcanoes of the World including Solfatara Fields, pt. 9, p. 61-68.

HOWELL, B.F.

1963, New Cambrian conchostracans from Wyoming and Newfoundland, brachiopods from Vermont, and worm, hydrozoan and problematicum from Newfoundland: Jour. Paleontology, v. 37, no. 1, p. 264-267.

HOYT, J.H.

1. 1960, Stratigraphy of the Pennsylvanian and lower Permian of the northern Denver Basin, northeastern Colorado, southeastern Wyoming, and western Nebraska: PhD dissert., Univ. Wyoming; and in [abs.] 1961: Dissert. Abs., v. 21, no. 10, p. 3057-3058.
2. and Chronic, J., 1962, Atokan fusulinids from the Casper Formation, east flank of the Laramie Mountains, Wyoming: Jour. Paleontology, v. 36, no. 1, p. 161-164.
3. 1962, Pennsylvanian and lower Permian of northern Denver Basin, Colorado, Wyoming, and Nebraska: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 1, p. 46-59.
4. 1963, Permo-Pennsylvanian correlations and isopach studies in the northern Denver Basin: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 63-83.
5. and Weimer, R.J., 1965, The origin and significance of Ophiomorpha (Halemites) in the Cretaceous of the Western Interior: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 203-207.
6. and Henry, V.J., Jr., 1965, Significance of inlet sedimentation in the recognition of ancient barrier islands: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 190-194.

HUBBELL, R.G.

and Wilson, J.M., 1963, Lance Creek Field, Niobrara County, Wyoming: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 248-257.

HUDSON, R.E.

1963, Halverson Ranch Field, Minnelusa production, Campbell County, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 123-124.

HUDSON, R. F.

1. 1965, Structural geology of the Piney Creek thrust area, east flank Bighorn Mountains, Wyoming: PhD dissert., Univ. Idaho; and in [abs.] 1965: Dissert. Abs., v. 26, no. 2, p. 984-985.
2. 1969, Structural geology of the Piney Creek thrust area, Bighorn Mountains, Wyoming: Geol. Soc. America, Bull., v. 80, no. 2, p. 283-296.

HUSAIN, F.

- 1963, Stratigraphic type oil pools in the Minnelusa Formation of northeastern Wyoming: MS thesis, Univ. Wyoming.

HUSTED, W. M.

- 1968, Archeological sites in loess regions of the Missouri drainage basin - pt. 1, The probable age of the altithermal on the western plains: Internat. Assoc. Quaternary Research 7th Cong., proc., v. 12, Loess and Related Eolian Deposits of the World, p. 101-106.

HYDEN, H. J.

1. 1963, Geologic map of the Cooper Cove and Dutton Creek oil fields and vicinity, Albany and Carbon Counties, Wyoming: U.S. Geol. Survey, Open File Map, 1:24,000.
2. and McAndrews, H., and Tschudy, R.H., 1965, The Foote Creek and Dutton Creek Formations, two new formations in the north part of the Laramie Basin, Wyoming: U.S. Geol. Survey, Bull. 1194-K, p. K1-K12.
3. 1965, Geologic map of the Rock River quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-472, scale 1:24,000.
4. 1966, Geologic map of the Bengough Hills quadrangle, Albany and Carbon Counties, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-579, scale 1:24,000.
5. 1966, Geologic map of the McFadden quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-533, scale 1:24,000.
6. 1966, Geologic map of the Pierce Reservoir quadrangle, Albany and Carbon Counties, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-510, scale 1:24,000.
7. and King, J.S., and Houston, R.S., 1967, Geologic map of the Arlington quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-643, scale 1:24,000.
8. and McAndrews, H., 1967, Geologic map of the T L Ranch quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-637, scale 1:24,000.
9. and Houston, R.S., and King, J.S., 1968, Geologic map of the White Rock Canyon quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-789, scale 1:24,000.

IIJIMA, A.

and Hay, R.L., 1968, Analcime composition in tuffs of the Green River Formation of Wyoming: *Am. Mineralogist*, v. 53, no. 1-2, p. 184-200.

IMLAY, R.W.

1967, Twin Creek Limestone (Jurassic) in the western interior of the United States: *U.S. Geol. Survey, Prof. Paper* 540, 105 p.

IRWIN, C.

and Irwin, H., and Agogino, G., 1962, Wyoming muck tells of battle - ice age man vs. mammoth: *Natl. Geog. Mag.*, v. 121, no. 6, p. 828-836.

IVERSON, E.C.

1969, Coal mining laws of the State of Wyoming - revised 1969: *State Inspec. Mines Office, Rock Springs*, 64 p.

IZETT, G.A.

1. and Mapel, W.J., and Pillmore, C.L., 1960, Early Cretaceous folding on the west flank of the Black Hills, Wyoming [abs.]: *Geol. Soc. America, Bull.*, v. 71, no. 12, pt. 2, p. 2036.

2. and Pillmore, C.L., and Mapel, W.J., 1961, Evidence of Early Cretaceous folding in the Black Hills, Wyoming: *U.S. Geol. Survey, Prof. Paper* 424-B, art. 66, p. B156-B158.

3. 1963, Geologic map of the Storm Hill quadrangle, Crook County, Wyoming: *U.S. Geol. Survey, Misc. Geol. Inv. Map* I-372, scale 1:24,000.

4. 1969, Petrography and chemistry of some Miocene ash beds in Colorado, Nebraska, and Wyoming [abs.]: *Geol. Soc. America, Abs.* 1969, pt. 5, [Rocky Mountain Section] p. 35-36.

JACKA, A.D.

1. 1963, Role of barrier islands in the production of Late Cretaceous depositional cycles, Rock Springs uplift, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 176-177.
2. 1965, Depositional dynamics of the Almond Formation, Rock Springs uplift, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 81-100.

JACOBY, P.

1968, Revegetation studies on coal spoil piles in southern Wyoming: MS thesis, Univ. Wyoming.

JAFFE, F.C.

1. 1961, Phosphate rock in the western United States: Colorado School Mines, Mineral Industries Bull., v. 4, no. 5, 11 p.
2. 1962, Oil shale — pt. 2, Geology and mineralogy of the oil shales of the Green River Formation, Colorado, Utah, and Wyoming: Colorado School Mines, Mineral Industries Bull., v. 5, no. 3, 15 p.

JENKINS, F.A., JR.

1969, Occlusion in Docodon (Mammalia, Docodontia): Postilla, no. 139, 24 p.

JENNINGS, T.V.

1967, Structural analysis of the northern Bighorn Mountains, Wyoming: PhD dissert., Univ. Iowa; and in [abs.] 1968: Dissert. Abs., pt. B, v. 28, no. 7, p. 2901B.

JEPSEN, G.L.

1. 1966, Early Eocene bat from Wyoming: Science, v. 154, no. 3754, p. 1333-1339.
2. 1967, Notable geobiologic moments: Geotimes, v. 12, no. 6, p. 16-18.
3. and Woodburne, M.O., 1969, Paleocene Hydracothere from Polecat Bench Formation, Wyoming: Science, v. 164, no. 3879, p. 543-547.

JOBIN, D.A.

1965, Preliminary geologic map of the Palisades Peak quadrangle, Bonneville County, Idaho, and Teton County, Wyoming: U.S. Geol. Survey, Open File Map, 65-80, scale 1:24,000.

JOHNSON, F.O.

1962, Groundwater geology of central Niobrara County, Wyoming: MS thesis, Univ. Wyoming.

JOHNSON, G.D.

and Garside, L.J., and Warner, A.J., 1967, A study of the structure and associated features of Sheep Mountain anticline, Big Horn County, Wyoming: Iowa Acad. Sci., Proc. 1965, v. 72, p. 332-342; and in 1968: Earth Sci. Bull., v. 1, no. 2, p. 25-29.

JOHNSON, H.C.

1963, Western gem hunters atlas (3rd ed.): Susanville, California, H.C. Johnson.

JOHNSTON, R.H.

and Smithson, S.B., 1966, Geology of the Leucite Hills, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 289.

JONES, B.

1. 1960, Using electric-log evaluation in exploration for Rocky Mountain petroleum traps: Oil and Gas Jour., pt. 1, v. 58, no. 29, p. 142-145; and in 1960: Oil and Gas Jour., pt. 2, v. 58, no. 30, p. 294-298.

2. 1962, Advancements in exploration technique using log derived data factors: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 268-272.
3. 1967, Case histories of subsurface log data exploration patterns in eastern Powder River Basin, Wyoming: Soc. Prof. Well Log Analysts, 8th Ann. Symposium, Denver, Trans., p. E1-E16.
4. 1968, The use of Rw and Sh Log-derived values in oil and gas exploration programs: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 101-105.

JOPLIN, G.A.

- 1965, The problem of the potash-rich basaltic rocks: Mineralog. Mag., v. 34, no. 268, p. 266-275.

JORGENSEN, P.

- 1968, Infrared study of water adsorbed on Wyoming bentonite: Geol. Foren. Stockholm, Forh., v. 90, pt. 2, no. 533, p. 213-220.

JUDGE, O.W.

- 1961, Fitzgerald gambles and wins — a new name: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks of Wyoming and Adjacent Areas, p. 329-333.

KAARSBERG, J.T.

1961, Diagrammatic section illustrating stratigraphic position of oil and gas producing intervals of Paleocene rocks in important fields, northern Green River Basin, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks of Wyoming and Adjacent Areas, p. 314.

KASHIRTSEVA, M.F.

1. 1964, Mineral and geochemical zonation of infiltration uranium ores: Soviet Geology, no. 10, p. 51-65; and in 1967: Internat. Geol. Rev., v. 9, no. 1, p. 100-109.
2. 1967, Methods for study of epigenetic alterations in loose sedimentary rocks: Internat. Geol. Rev., v. 9, no. 10, p. 1275-1283.
3. 1969, Effect of material composition of rocks on formation of epigenetic uranium concentrations: Internat. Geol. Rev., v. 11, no. 5, p. 530-538.

KATICH, P.J. JR.

1962, Pre-Niobrara Cretaceous megafaunal zones: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 23-27.

KAUFFMAN, E.G.

1969, Evidence for sea-level origin of the upper Pinyon Conglomerate, northwestern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 609.

KEEFER, W.R.

1. 1960, Magnitude of crustal movement and deposition during latest Cretaceous and early Tertiary time in the Wind River Basin, central Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1901.
2. 1960, Progressive growth of anticlines during Late Cretaceous and Paleocene time in central Wyoming: U.S. Geol. Survey, Prof. Paper 400-B, art. 105, p. B233-B236.
3. 1961, The Meeteetse, Lance, and Fort Union Formations, southern Wind River Basin, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 180-186.
4. 1961, Waltman Shale and Shotgun Members of Fort Union Formation (Paleocene) in Wind River Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 8, p. 1310-1323.
5. 1963, Karst topography in the Gros Ventre Mountains, northwestern Wyoming: U.S. Geol. Survey, Prof. Paper 475-B, p. B129-B130.
6. and Love, J.D., 1963, Laramide vertical movements in central Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 1, [S.H. Knight Issue], p. 47-54.
7. 1964, Geologic history of Wind River Basin, central Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1875; and in full 1965: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 11, p. 1878-1892.
8. and Troyer, M.L., 1964, Geology of the Shotgun Butte area, Fremont County, Wyoming: U.S. Geol. Survey, Bull. 1157, 123 p.
9. 1964, Preliminary report on the structure of the southeast Gros Ventre Mountains, Wyoming: U.S. Geol. Survey, Prof. Paper 501-D, p. D22-D27.
10. 1965, Stratigraphy and geologic history of the uppermost Cretaceous, Paleocene, and lower Eocene rocks in the Wind River Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 495-A, p. A1-A77.
11. and VanLieu, J.A., 1966, Paleozoic formations in the Wind River Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 495-B, p. B1-B60.
12. 1969, General stratigraphy and depositional history of the Fort Union, Indian Meadows, and Wind River Formations, Wind River Basin, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 19-28.
13. 1969, Geology of petroleum in Wind River Basin, central Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 9, p. 1839-1865.

14. and Love, J.D., 1969, Structure of pre-volcanic sedimentary rocks in south-central Yellowstone National Park and adjacent regions, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 609-610.

KEENAN, J.E.

- 1964, Common gemstones of Wyoming: in Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 9-12.

KEITH, R.E.

1. 1961, 1st day's trip - Rock Springs to Rawlins via Green River, Linwood, Clay Basin, Ericson Gap and Point of Rocks, adapted from 1955 guidebook logs by Rathbone, J., Lockride, J., Smith, R.M., Rapp, H.E., and Walther, R.C.: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks of Wyoming and Adjacent Areas, p. 334-341.
2. 1965, Geology of the Rock Springs uplift, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, map, scale 1:250,000.
3. 1965, Rock Springs and Blair Formations on and adjacent to the Rock Springs uplift, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 42-53.

KELLEY, V.C.

- 1969, Westward overturning near the Absaroka thrust, Uinta County, Wyoming, [abs.]: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section] p. 38-39.

KELLUM, L.B.

1. 1962, Upper Cretaceous Mollusca from Niobrara County, Wyoming: Michigan Acad. Sci., Arts, and Letters, Papers 1961, v. 47, p. 37-81.
2. 1964, *Inoceramus cobbani*, new name for *Inoceramus radiatus* Kellum, 1962: Jour. Paleontology, v. 38, no. 5, p. 1006.

KELLY, F.J.

- 1962, Technological and economic problems of rare-earth-metal and thorium resources in Colorado, New Mexico, and Wyoming: U.S. Bur. Mines, Inf. Circ. 8124, 38 p.

KETNER, K.B.

- and Keefer, W.R., Fisher, F.S., Smith, D.L., and Raabe, R.G., 1966, Mineral resources of the Stratified Primitive Area, Wyoming: U.S. Geol. Survey, Bull. 1230-E, p. E1-E56.

KHOLODOV, V.N.

- and Lisitsin, A.K., Komarova, G.V., and Kondrat'yeva, I.A., 1961, Epigene zoning of uranium mineralization in petroliferous carbonate rocks: Acad. Nauk SSSR, Izvestiya, Series Geology, no. 11, p. 43-56.

KIER, P.M.

- 1966, A new echinoid from the Cretaceous Pierre Shale of eastern Wyoming: U.S. Geol. Survey, Prof. Paper 393-A, The Red Bird section of the Upper Cretaceous Pierre Shale in Wyoming, p. A62-A65.

KILBOURNE, D.E.

1. 1967, Paleomagnetic properties of Late Cretaceous sediments [abs.]: Am. Geophys. Union, Trans., v. 48, no. 1, p. 83.
2. 1967, Remanent magnetic properties of the Mesaverde Group (Upper Cretaceous), southwestern Wyoming and northeastern Utah: PhD dissert., Univ. Arizona; and in [abs.] 1967: Dissert. Abs., pt. B, v. 27, No. 12, pt. 1, p. 4447B.
3. 1969, Paleomagnetism of some rocks from the Mesaverde Group, southwestern Wyoming and northeastern Utah: Geol. Soc. America, Bull., v. 80, no. 10, p. 2069-2073.

KILBURN, C.

1964, Ground water in the upper part of the Teton Valley, Teton Counties, Idaho and Wyoming: U.S. Geol. Survey, Water-Supply Paper 1789, 60 p.

KING, A.E.

1969, Rules and regulations promulgated under the Open Cut Land Reclamation Act: Wyoming Commissioner Public Lands, Cheyenne, 24 p.

KING, D.L., SR.

1967, San Francisco Chemical Co. - Crawford Mountain-Leefe area, Utah and Wyoming: Intermountain Assoc. Geologists, 15th Ann. Field Conf., Anatomy of the Western Phosphate Field, p. 203-209.

KING, J.R.

1961, Geology of the Boswell Creek area, Albany County, Wyoming: MA thesis, Univ. Wyoming.

KING, J.S.

1. 1963, Petrology and structure of the Precambrian and post-Mississippian rocks of the northeastern Medicine Bow Mountains, Carbon County, Wyoming: PhD dissert., Univ. Wyoming; and in [abs.] 1963: Univ. Wyoming, Pubs., v. 28, no. 3, p. 88-89.
2. 1964, Cooper Hill - a gravity slide in the northeastern Medicine Bow Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 3, no. 1, p. 33-37.
3. and Parker, R.B., 1966, The interpretation of folded transposition layering near Twin Mountains, Laramie Range, Wyoming: Univ. Wyoming, Contr. Geology, v. 5, no. 1, p. 63-68.
4. 1966, Metamorphosed igneous intrusions of the southwestern Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 291.
5. and Parker, R.B., 1968, Folded transposition layering in the southern Laramie Range, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 405.

KING, J.W.

and Austin, S.R., 1966, Some characteristics of roll-type uranium deposits at Gas Hills, Wyoming: Mining Eng., v. 18, no. 5, p. 73-80.

KING, N.J.

1961, An example of channel aggradation induced by flood control: U.S. Geol. Survey, Prof. Paper 424-B, art. 15, p. B29-B32.

KING, R.R.

and Loud, E.S., Mead, M.C., Jussen, U.M., and Conant, G.D., 1965, Bibliography of North America geology, 1950-1959, pt. 1, (v. 1-2), Bibliography: pt. 2 (v. 1,2), Index: U.S. Geol. Survey, Bull. 1195, 4025 p.

KISLING, D.C.

1962, Geology of the Antelope Ridge area, Fremont and Hot Springs Counties, Wyoming: MS thesis, Univ. Wyoming.

KIVER, E.P.

1968, Geomorphology and glacial geology of the southern Medicine Bow Mountains, Colorado and Wyoming: PhD dissert., Univ. Wyoming.

KLAPPER, G.

1963, Upper Devonian and lower Mississippian conodont zones in Montana, Wyoming, and South Dakota [abs.]: Dissert. Abs., v. 23, no. 8, p. 2875; and in full 1966: Kansas Univ., Paleont. Contr., paper 3, 43 p.

KLEMENT, K.W.

1963, Occurrence of Dictyocha (silicoflagellates) in the Upper Cretaceous of Wyoming and Colorado: Jour. Paleontology, v. 37, no. 1, p. 268-270.

KLUGMAN, M.A.

1. 1960, Laramie anorthosite, Wyoming: Rocky Mtn. Assoc. Geologists, Guide to the Geology of Colorado, p. 223-227; and in [abs.] 1960: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1906.
2. 1966, Resume of the geology of the Laramie anorthosite mass: Mtn. Geologists, v. 3, no. 2, p. 75-84.
3. 1967, Reply to 1967, discussion by A.F. Hagner of "Resume of the geology of the Laramie anorthosite mass," 1966: Mtn. Geologist, v. 4, no. 1, p. 36.
4. 1969, The geology and origin of the Laramie anorthosite mass, Albany County, Wyoming [abs.]: N.Y. State Mus. Sci., Serv. Mem. no. 18, p. 369.

KNECHTEL, M.M.

and Patterson, S.H., 1962, Bentonite deposits of the northern Black Hills district, Wyoming, Montana, and South Dakota: U.S. Geol. Survey, Bull. 1082-M, p. 893-1030.

KNIGHT, S.H.

1. 1960, Cross-lamination and local deformation in the Casper Sandstone, southeast Wyoming, in Weimer, R.J., and Haun, J.D., editors, Guide to the geology of Colorado: Geol. Soc. America, Rocky Mtn. Assoc. Geologists, and Colorado Scientific Soc., p. 228-229.
2. 1960, Relief map of portions of western Wyoming, southeastern Idaho and northeastern Utah: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 11.
3. 1961, The Late Cretaceous-Tertiary history of the northern portion of the Hanna Basin, Carbon County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 155-164.
4. and Keefer, D.K., 1966, Preliminary report on the Precambrian stromatolites in the Nash Formation, Medicine Bow Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 5, no. 1, p. 1-11.
5. 1968, Precambrian stromatolites, bioherms and reefs in the lower half of the Nash Formation, Medicine Bow Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 7, no. 2, p. 73-116.

KNUDTSON, L.G.

1966, Possible oil traps in the northern portion of the Denver Basin (Nebraska, South Dakota, Wyoming): MS thesis, Univ. Indiana.

KOCH, D.L.

1962, *Isocrinus* from the Jurassic of Wyoming: Jour. Paleontology, v. 36, no. 6, p. 1313-1318.

KOCH, W.J.

1965, Stream capture near Jackson, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 335.

KOENIG, K.J.

1960, Bridger Formation in the Bridger Basin, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 163-168.

KOONS, C.B.

and Jamieson, G.W., and Gehman, H.M., 1963, Vanadium-nickel ratios of oil seeps and crude oils in the Wind River Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 188.

KOPP, R.S.

1. 1965, Evaluation of beryl-bearing pegmatites of the Copper Mountain mining district, Fremont County, Wyoming: Compass, v. 43, no. 1, p. 21-29.
2. 1965, Reconnaissance geology of metamorphic structures of the Copper Mountain mining district, Fremont County, Wyoming: Compass, v. 43, no. 1, p. 6-20.

KORNFELD, J.A.

1. 1960, Rocky Mountain four-basin report, Wyoming — pt. 1: World Oil, v. 151, no. 7, p. 99-104.
2. 1963, Wyoming - hottest area in the Rocky Mountains: World Oil, v. 156, no. 5, p. 140-142, 144, 146.

KOUCKY, F.L., JR.

1. and Cygan, N.E., and Rhodes, F.H.T., 1961, Conodonts from the eastern flank of the central part of the Bighorn Mountains, Wyoming: Jour. Paleontology, v. 35, no. 4, p. 877-879.
2. and Rhodes, F.H.T., 1963, The Devonian rocks of the east flank of the Bighorn Mountains, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 38-40.
3. and Cygan, N.E., 1963, Paleozoic rocks exposed along U.S. Highway 14 on the east flank of the Bighorn Mountains, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 17-25.
4. and Rhodes, F.H.T., and Hu, C.H., 1968, Upper Cambrian - Lower Ordovician conodont sequences of the Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 123-124.

KOVATS, J.A.

1. 1969, The condition of surface mine reclamation in Wyoming: Rept. to the State of Wyoming, Wyoming Dept. Economic Planning and Development, Cheyenne, 10 p.
2. 1970, Surface mining and reclamation in Wyoming: M.A. thesis, Dept. Geography, Univ. Wyoming.

KRANZLER, I.

- and Curry, W.H., III, Balster, C.A., and Slocum, R.C., 1969, Oil and gas developments in northern Rockies in 1968: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 6, p. 1285-1292.

KRUEGER, M.L.

1. 1960, Occurrence of natural gas in the western part of Green River Basin: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 194-209.
2. 1968, Occurrence of natural gas in Green River Basin, Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rock of Mesozoic Age, p. 780-797.

KRUSHENSKY, R.D.

1. 1960, Geology of the volcanic features of the Hurricane Mesa area, Park County, Wyoming [abs.]: Dissert. Abs., v. 21, no. 4, p. 849-850.
2. 1962, Volcanic features of the Hurricane Mesa area, Park County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 214.
3. 1964, Origin of volcanic breccias, northern Absaroka Range, Wyoming-Montana [abs.]: Geol. Soc. America, Spec. Paper 76, p. 96.

KULIK, J.W.

1. 1964, Stratigraphy of the Deadwood Formation, Black Hills, South Dakota and Wyoming [abs.]: Geol. Soc. America, Spec. Paper 76, p. 280.
2. 1968, Transgressive-regressive cycles in the Deadwood Formation, Black Hills, South Dakota and Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 391.

KVENVOLDEN, K.A.

- 1966, Saturated fatty acids and normal paraffin hydrocarbons in Lower Cretaceous sediments [abs.]: Geol. Soc. America, Spec. Paper 87, p. 92.

LACKEY, C.

1960, Facts concerning the early development of the Dry Piney oil field: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 31-35.

LACKEY, L.L.

1. 1965, Petrography of metavolcanic and igneous rocks of Precambrian age in the Huston Park area, Sierra Madre, Wyoming: MS thesis, Univ. Wyoming.
2. 1966, Precambrian metamorphic and plutonic rocks in the Sierra Madre, Carbon County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 292.

LAMB, D.R.

and Johnson, R.B., 1963, Analysis of percussion cones: Jour. Sed. Petrology, v. 33, no. 4, p. 938-943.

LAND, C.S.

and Baptist, O.C., 1965, Effect of hydration of montmorillonite on the permeability to gas of water-sensitive reservoir rocks: Jour. Petroleum Tech., v. 17, no. 10, p. 1213-1218.

LANDAU, D.

1966, Structural geology of the northern Shirley Mountains, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

LANDER, W.S.

and others, 1961, Carbonizing properties of Wyoming coals: U.S. Bur. Mines, Rept. Inv. 5731, 74 p.

LANGFORD, R.H.

1964, The chemical quality of the ground water: U.S. Geol. Survey, Water-Supply Paper 1698, Ground-water Resources and Geology of Northern and Western Crook County, Wyoming, p. 52-77.

LARSEN, J.H.

1964, Hanna, Laramie and Shirley Basins: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 206-209.

LARSEN, L.H.

1. and Poldervaart, A., and Kirchmayer, M., 1963, Structure of the Lonesome Mountain area, Beartooth Mountains, Montana and Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 194-195.
2. and Poldervaart, A., and Kirchmayer, M., 1966, Geologic evolution of the Beartooth Mountains, Montana and Wyoming, pt. 7, Structural homogeneity of gneisses in the Lonesome Mountain area: Geol. Soc. America, Bull., v. 77, no. 11, p. 1277-1291.

LARSEN, V.E.

1961, A brief survey of the western phosphate industry: Tebiwa, v. 4, no. 1, p. 33-35.

LAW, L.K.

and Delaurier, J., and Anderson, F., and Whitham, K., 1963, Investigations during 1962, of the alert anomaly in geomagnetic variations: Canadian Jour. Physics, v. 41, no. 11, p. 1868-1882.

LAW, R.D.

1963, Petroleum and coal tar research at the Natural Resources Research Institute to 1961: Natural Resources Research Inst., Inf. Circ. no. 22, Univ. Wyoming, 34 p.

LAWRENCE, J.C.

1. 1962, Wasatch and Green River Formations of the Cumberland Gap area, Lincoln and Uinta Counties, Wyoming: MA thesis, Univ. Wyoming.

2. 1963, Origin of the Wasatch Formation, Cumberland Gap area, Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 2, p. 151-158.

3. 1965, Wasatch and Green River Formations of the southwestern part of the Green River Basin: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 181-187.

LAWSON, D.E.

1. and Crowson, C.W., 1961, Geology of the Arch unit and adjacent areas, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf., Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 280-289.

2. 1962, Geology of the Grieve Field, Natrona County, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf., Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 284-292.

3. and Smith, J.R., 1965, Pennsylvanian and Permian influence on Tensleep oil traps [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1572-1573.

4. and Smith, J.R., 1966, Pennsylvanian and Permian influence on Tensleep oil accumulation, Bighorn Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 10, p. 2197-2220.

LEFFINGWELL, H.A.

1. 1962, Uppermost Cretaceous and lower Paleocene spore-pollen assemblages in the type area of the Lance Formation, Wyoming [abs.]: Pollen et Spores, v. 4, no. 2, p. 360-361.

2. 1968, Spore-pollen assemblages of the upper Lance and the Fort Union Formations from the type Lance area, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 121.

LEONARD, R.A.

and Low, P.F., 1964, Effect of gelation on the properties of water in clay systems: Clays and Clay Minerals, 12th Nat'l Conf., 1963, Proc., p. 311-325.

LEOPOLD, L.B.

and Emmett, W.W., 1965, Vigil Network sites — a sample of data for permanent filling: Internat. Assoc. Sci., Hydrology Bull., v. 10, no. 3, p. 12-21.

LEVENE, H.D.

1968, Economics of coal as an energy source in the Black Hills: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 143-146.

LEVESON, D.J.

1960, Orbicular rocks of the Lonesome Mountain area, Beartooth Mountains, Montana, and Wyoming [abs.]: Dissert. Abs., v. 21, no. 4, p. 840; and in full 1963: Geol. Soc. America, Bull., v. 74, no. 8, p. 1015-1040.

LEWIS, J.L.

1. 1961, The stratigraphy and depositional history of the Almond Formation in the Great Divide Basin, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 87-95.

2. 1965, Measured surface sections of the Almond Formation on the east flank of the Rock Springs uplift, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 101-111.

LEWIS, R.J.G.

and Phinney, R.A., 1969, Magnetotelluric studies of a thermal area [abs.]: EOS [Am. Geophys. Union, Trans.], v. 50, no. 4, p. 137.

LINDSEY, D.A.

1969, Source of conglomerate in the Harebell and Pinyon Formation of north-west Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section] p. 45.

LISITSIN, A.K.

1. 1962, Form of occurrence of uranium in ground waters and conditions of its precipitation as UO_2 : Geochemistry, no. 9, p. 876-884 [a translation of Geokhimiya, published by the Geochemical Society].
2. and Kuznetsova, E.C., 1967, Role of microorganisms in development of geochemical reduction barriers where limonitization bedded zones wedge-out: Internat. Geol. Rev., v. 9, no. 9, p. 1180-1191.

LITCHFORD, R.F., JR.

1966, Structural geology and stratigraphy of a part of the Overthrust Belt near Wyoming Peak, Lincoln and Sublette Counties, Wyoming: MS thesis, Univ. Wyoming.

LITTLEFIELD, E.W.

1969, [Comments, Governor's Uranium Conference, Casper, Wyoming]: Mines Mag., v. 59, no. 1, p. 27.

LOCHMAN-BALK, C.

1. 1960, The Cambrian section of western Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 98-108.
2. and Hu, C.H., 1960, Upper Cambrian faunas from the northwest Wind River Mountains, Wyoming; pt. 1: Jour. Paleontology, v. 34, no. 5, p. 793-834 and pt. 2, 1961: Jour. Paleontology, v. 35, no. 1, p. 125-146; and pt. 3, 1962: Jour. Paleontology, v. 36, no. 1, p. 1-28.

LOCKRIDGE, J.

and Smith, V.M., 1960, Exit road log, Farson to Lander: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 282-283, revised by Kilbourne, D.E., from 1955, Wyo. Geol. Assoc., 10th Ann. Field Conf. Guidebook, p. 232-233.

LOHMAN, K.E.

and Andrews, G.W., 1968, Late Eocene nonmarine diatoms from the Beaver Divide area, Fremont County, Wyoming: U.S. Geol. Survey, Prof. Paper 593-E, p. E1-E26.

LONG, A.

1965, Smithsonian Institution radiocarbon measurements II: Radiocarbon, v. 7, p. 245-256.

LONG, G.I.W.

1960, Afton anticline, Lincoln County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 187-188.

LOVE, C.

1968, Structural geology of the Cache thrust area, Teton County, Wyoming: MS thesis, Univ. Montana.

LOVE, J.D.

1. 1960, Cenozoic sedimentation and crustal movement in Wyoming: Am. Jour. Sci., v. 258-A [Bradley Volume], p. 204-214.
2. 1961, Definition of Green River, Great Divide, and Washakie Basins, southwestern Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 10, p. 1749-1755.
3. 1961, Reconnaissance study of Quaternary faults in and south of Yellowstone National Park, Wyoming: Geol. Soc. America, Bull., v. 72, no. 12, p. 1749-1764.
4. and McGrew, P.O., and Thomas, H.D., 1961, Relationship of latest Cretaceous and Tertiary deposition and deformation to oil and gas occurrences in Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 3, p. 415; and in full 1963: Am. Assoc. Petroleum Geologists, Mem. 2, Backbone of the Americas, p. 196-208.
5. 1961, Split Rock Formation (Miocene) and Moonstone Formation (Pliocene) in central Wyoming: U.S. Geol. Survey, Bull. 1121-I, p. 11-139.

6. 1961, Vanadium and associated elements in the Phosphoria Formation in the Afton area, western Wyoming: U.S. Geol. Survey, Prof. Paper 424-C, art. 250, p. C279-C282; and in 1967: Intermountain Assoc. Geologists, 15th Ann. Field Conf., Anatomy of the Western Phosphate Field, p. 115-118.
7. and Blackmon, P.D., 1962, Alunite on Aspen Mountain, southwestern Wyoming: U.S. Geol. Survey, Prof. Paper 450-D, p. D11-D15.
8. and Taylor, D.W., 1962, Faulted Pleistocene strata near Jackson, northwestern Wyoming: U.S. Geol. Survey, Prof. Paper 450-D, p. D136-D139.
9. 1963, Large uraniferous springs and associated uranium minerals, Shirley Mountains, Carbon County, Wyoming - a preliminary report: U.S. Geol. Survey, Open File Rept.
10. 1964, Uraniferous phosphatic lake beds of Eocene age in intermontane basins of Wyoming and Utah: U.S. Geol. Survey, Prof. Paper 474-E, p. E1-E66.
11. and Keefer, W.R., 1965, Contrasting tectonics of crustal blocks in central and northwestern Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 1, p. 114.
12. and de la Montagne, J.M., Richmond, G.M., and Good, J.M., 1965, Relation of Quaternary tectonics and volcanism to glaciation, pt. D: Internat. Assoc. Quaternary Research, 7th Cong., U.S.A., Guidebook for Field Conf., E., Northern and Middle Rocky Mountains, p. 37-52.
13. and Reed, J.C., Jr., 1968, Creation of the Teton landscape - the geologic story of the Grand Teton National Park: Grand Teton Nat. History Assoc., 12 p.
14. 1968, Stratigraphy and structure - a summary: U.S. Geol. Survey, Prof. Paper 516-E, A Geophysical Study of Grand Teton National Park and Vicinity, Teton County, Wyoming, p. E3-E12.
15. and Keefer, W.R., 1969, Basin Creek uplift and Heart Lake Conglomerate, southern Yellowstone National Park, Wyoming: U.S. Geol. Survey, Prof. Paper 650-D, p. 122-130.
16. 1969, Late Cretaceous and Cenozoic sedimentation and tectonism, southern Yellowstone - Jackson Hole area, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 611-612.
17. and Keefer, W.R., 1969, Type locality of Darby Formation, western Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 1, p. 167-170.

LOWRY, M.E.

1. and Cummings, T.R., 1966, Ground-water resources of Sheridan County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1807, 77 p.
2. 1966, The White River Formation as an aquifer in southeastern Wyoming and adjacent parts of Nebraska and Colorado: U.S. Geol. Survey, Prof. Paper 550-D, p. D217-D222.
3. and Crist, M.A., and Tilstra, J.R., 1967, Geology and ground-water resources of Laramie County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1834, 71 p.

LUEBKE, L.O.

- 1965, Oligocene stratigraphy of the Lance Creek area, Wyoming: Compass, v. 42, no. 2, p. 52-62.

LUGN, A.L.

- 1968, The origin of loesses and their relation to the Great Plains in North America: Internat. Assoc. Quaternary Research, 7th Cong., Boulder, Colorado, Loess and Related Eolian Deposits of the World, p. 139-182.

LUJAN, L.E.

- 1966, Revegetation of strip-mined areas in southwestern Wyoming: MS thesis, College of Agriculture, Univ. Wyoming.

LUND, R.E.

- 1962, A study of the resources, people and economy of southwestern Wyoming: Wyoming Natural Resource Board, Cheyenne, 112 p.

LYNCH, M.J.

1969, Geology of the Bull Lake area, Fremont County, Wyoming: MS thesis,
Columbia Univ.



MABEY, D.R.

1964, Regional gravity and magnetic anomalies in southeastern Idaho and western Wyoming [abs.]: Geol. Soc. America, Spec. Paper 76, p. 212.

McANDREWS, H.

1. 1963, Geologic map of the Riddle Cut quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-263, scale 1:24,000.
2. 1964, Geologic map of the Big Judson quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-390, scale 1:24,000.
3. 1964, Geologic map of the Cooper Lake South quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-391, scale 1:24,000.
4. 1965, Geologic map of the Bosler quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-509, scale 1:24,000.
5. 1965, Geologic map of the Cooper Lake North quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-430, scale 1:24,000.
6. 1966, Geologic map of the Lake Ione quadrangle, Albany County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-508, scale 1:24,000.

MCATEE, J.L., JR.

and Cheng, F.S., 1967, Difference in apparent interstratification of an organo-montmorillonite dispersed in various organic solvents, pt. 1, X-ray diffraction study: Am. Mineralogist, v. 52, no. 9-10, p. 1386-1398.

McAUSLAN, E.

1961, The Overland Trail in Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks of Wyoming and Adjacent Areas, p. 324-328.

McCALEB, J.A.

1. and Willingham, R.W., 1967, Influence of geologic heterogeneities on secondary recovery from Permian Phosphoria reservoir, Cottonwood Creek field, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 10, p. 2122-2132.
2. and Wayhan, D.A., 1969, Geological reservoir analysis, Madison Formation, Elk Basin Field, Wyoming-Montana [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 3, p. 731.
3. and Wayhan, D.A., 1969, Geologic reservoir analysis, Mississippian Madison Formation, Elk Basin Field, Wyoming-Montana: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 10, pt. 1, p. 2094-2113.

McCALLUM, M.E.

1. 1962, Glaciation of Libby Creek Canyon, east flank of Medicine Bow Mountains, southeastern Wyoming: Univ. Wyoming, Contr. Geology, v. 1, no. 1, p. 21-29; and in [abs.] 1962: Geol. Soc. America, Spec. Paper 68, p. 93-94.
2. 1964, Cataclastic migmatites of the Medicine Bow Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 3, no. 2, p. 78-88.
3. 1964, Petrology and structure of the Precambrian and post-Mississippian rocks of the east-central portion of the Medicine Bow Mountains, Albany and Carbon Counties Wyoming: PhD dissert., Univ. Wyoming; and in [abs.] 1965: Univ. Wyoming, Pub., v. 31, no. 3, p. 114-115.
4. 1965, Dedolomitized marble lenses in shear-zone tectonites, Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 129-130.
5. 1968, Amphibolites of east-central Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 101, p. 409.
6. 1968, Cenozoic history of the east-central Medicine Bow Mountains, Wyoming: Mtn. Geologist, v. 5, no. 2, p. 69-81.
7. 1968, The Centennial Ridge gold-platinum district, Albany County, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 7, 13 p.
8. and Orback, C.J., 1968, The New Rambler copper-gold-platinum district, Albany and Carbon Counties, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 8, 12 p.
9. and Eggler, D.H., 1969, Preliminary report on mineralogy of kimberlitic diatremes in the northern Front Range, Colorado-Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 192.

McCASLIN, J.C.

1960, Green River Basin turns up rare Mesaverde oil, Wyoming: Oil and Gas Jour., v. 58, no. 34, p. 127.

McCUBBIN, D.G.

and Brady, M.J., 1969, Depositional environment of the Almond reservoirs, Patrick Draw Field, Wyoming: Mtn. Geologist, v. 6, no. 1, p. 3-23.

McGEE, D.A.

1969, Atomic energy in America [Governor's Uranium Conference, Casper, Wyoming]: Mines Mag., v. 59, no. 1, p. 6, 8, 10.

M'GONIGLE, J.W.

1969, Boundary of the Late Precambrian craton and Paleozoic Wyoming Shelf in southwestern Montana [abs.]: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section], p. 53.

McGOOKEY, D.P.

and Miller, D.N., Jr., 1960, Facts concerning the early development of the Dry Piney oil field, Wyoming, and confusion of the same with the surrounding area — taken from a geological report by Lackey, C., 1921: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 31-35.

McGREEVY, L.J.

1. and Gordon, E.D., 1964, Groundwater east of Jackson Lake, Grand Teton National Park, Wyoming: U.S. Geol. Survey, Circ. 494, 27 p.
2. and Hodson, W.G., and Rucker, S.J., IV, 1969, Ground-water resources of the Wind River Indian Reservation, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1576-I, p. 11-1145.

McGREW, A.R.

1965, Stratigraphy and mineralogy of the Blue Point Member of the Wiggins Formation (Oligocene), southeast Absaroka Range, Park County, Wyoming: MS thesis, Univ. Wyoming.

McGREW, L.W.

1. 1962, Structure of Cenozoic rocks along the northwestern margin of the Julesburg Basin, southeastern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 94.
2. 1963, Geology of the Fort Laramie area, Platte and Goshen Counties, Wyoming: U.S. Geol. Survey, Bull. 1141-F, p. F1-F39.
3. 1967, Geologic map of the Antelope Gap quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-619, scale 1:24,000.
4. 1967, Geologic map of the Bordeaux quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-620, scale 1:24,000.
5. 1967, Geologic map of the Casebrier Hills quadrangle, Goshen County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-621, scale 1:24,000.
6. 1967, Geologic map of the Ferguson Corner quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-622, scale 1:24,000.
7. 1967, Geologic map of the Natwick quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-624, scale 1:24,000.
8. 1967, Geologic map of the Natwick SW quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-623, scale 1:24,000.
9. 1967, Geologic map of the Richeau Hills quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-625, scale 1:24,000.
10. 1967, Geologic map of the Squaw Rock quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-626, scale 1:24,000.
11. 1967, Geologic map of the Wheatland quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-627, scale 1:24,000.
12. 1967, Geologic map of the Wheatland NE quadrangle, Platte County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-628, scale 1:24,000.

McGREW, P.O.

1. and Roehler, H.W., 1960, Correlation of Tertiary units in southwestern Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 156-158.
2. 1961, The Rawlins mammoth: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 315-317.
3. and Patterson, B., 1962, A picrodontid insectivore(?) from the Paleocene of Wyoming: *Breviora*, no. 175, 9 p.
4. 1963, Environmental significance of sharks in the Shotgun fauna, Paleocene of Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 1, [S.H. Knight Issue], p. 39-41.

McIVER, R.D.

- 1962, The crude oils of Wyoming - product of depositional environment and alteration: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 248-251.

McKENNA, M.C.

1. 1961, On the shoulder girdle of the mammalian subclass Allotheria: *Am. Mus. Novitates*, no. 2066, p. 1-27.
2. and Robinson, P., and Taylor, D.W., 1962, Notes on Eocene Mammalia and Mollusca from Tabernacle Butte, Wyoming: *Am. Mus. Novitates*, no. 2102, 33 p.
3. 1964, Mining for fossils in Wyoming: *Nature and Sci.*, v. 1, no. 16, p. 10-11.

MACKENZIE, D.B.

1. and Poole, D.M., 1962, Provenance of Dakota Group sandstones of the Western Interior: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 62-71.
2. 1963, Dakota Group on west flank of Denver Basin: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 135-148.

MACKENZIE, F.T.

- and Ryan, J.D., 1962, Cloverly-Lakota and Fall River paleocurrents in the Wyoming Rockies: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 44-61.

MACKENZIE, R.C.

- 1963, Retention of exchangeable ions by montmorillonite: *Internat. Clay Conf., Stockholm, Proc.*, v. 1 (*Internat. Ser. Mons. Earth Sci.*, v. 14), p. 183-192.

MACLACHLAN, J.

- and Bieber, A., 1963, Permian and Pennsylvanian geology of the Hartville uplift - Alliance Basin - Chadron Arch area: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 84-94.

McLELLAN, R.C.

- 1968, Stratigraphy of Chugwater Group (Triassic), east side of Bighorn Mountains, Wyoming and Montana: MS thesis, Univ. Nebraska.

McLERRAN, J.H.

- and Morgan, J.O., 1965, Thermal mapping of Yellowstone National Park: U.S. Office Naval Research and Air Force Cambridge Research Labs, 3rd Symposium on Remote Sensing of Environment, 1964, Proc., p. 517-530.

McMINN, P.M.

- 1963, Borie Field: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 234-235.

MACOMBER, R.W.

- 1968, Articulate (Ordovician) brachiopods of the upper Bighorn Formation (Johnson

and Sheridan Counties), Wyoming: PhD dissert., Univ. Idaho; and in [abs.] 1968: Dissert. Abs., pt. B, v. 29, no. 2, p. 660B.

MADDOCK, T., JR.

1960, Erosion control of Five Mile Creek, Wyoming: Internat. Assoc. Sci., Hydrology Pub. 53, p. 170-181.

MALAHOFF, A.

and Moberly, R., Jr., 1968, Effects of structure on the gravity field of Wyoming: Geophysics, v. 33, no. 5, p. 781-804.

MALLORY, W.W.

1. 1963, Pathfinder uplift of Pennsylvanian age in southern Wyoming: U.S. Geol. Survey, Prof. Paper 450-E, p. E57-E60; and in 1966: Mtn. Geologist, v. 3, no. 3, p. 129-132.

2. 1967, Pennsylvanian and associated rocks in Wyoming: U.S. Geol. Survey, Prof. Paper 554-G, p. G1-G31.

MANN, C.J.

1961, Pennsylvanian stratigraphy of southwestern Wyoming, northwestern Colorado and northeastern Utah [abs.]: Dissert. Abs., v. 22, no. 2, p. 540.

MANNION, L.E.

1969, The trona deposits of southwest Wyoming: Intermountain Assoc. Geologists and Utah Geol. Soc., 16th Ann. Field Conf., Geologic Guidebook of the Uinta Mountains, Utah's Maverick Range, p. 195-204.

MANUM, S.

1966, *Ginkgo spitsbergensis* n. sp. from the Paleocene of Spitsbergen and a discussion of certain Tertiary species of *Ginkgo* from Europe and North America: Norsk Polarinst. Arb., 1965, p. 49-58.

MAPEL, W.J.

1. 1961, Geology and coal resources of the Buffalo - Lake DeSmet area, Johnson and Sheridan Counties, Wyoming: U.S. Geol. Survey, Bull. 1078, 148 p.

2. and Pillmore, C.L., 1962, Stream directions in the Lakota Formation (Cretaceous) in the northern Black Hills, Wyoming and South Dakota: U.S. Geol. Survey, Prof. Paper 450-B, p. B35-B37.

3. and Pillmore, C.L., 1963, Geology of the Inyan Kara Mountain quadrangle, Crook and Weston Counties, Wyoming: U.S. Geol. Survey, Bull. 1121-M, p. M1-M56.

4. and Pillmore, C.L., 1963, Geology of the Newcastle area, Weston County, Wyoming: U.S. Geol. Survey, Bull. 1141-N, p. N1-N85.

5. and Pillmore, C.L., 1963, Stratigraphic sections and correlations of beds in the Inyan Kara Group and Morrison Formation, north end of the Black Hills, Crook County, Wyoming and Butte County, South Dakota: U.S. Geol. Survey, open file, 95 p.

6. and Pillmore, C.L., 1964, Geology of the Upton quadrangle, Crook and Weston Counties, Wyoming: U.S. Geol. Survey, Bull. 1181-J, p. J1-J54.

7. and Chisholm, W.A., and Bergenback, R.E., 1964, Nonopaque heavy minerals in sandstone of Jurassic and Cretaceous age in the Black Hills, Wyoming and South Dakota: U.S. Geol. Survey, Bull. 1161-C, p. C1-C59.

MARLER, G.D.

1. 1960, The 1959 Hebgen Lake, Montana, earthquake alters Yellowstone's hot springs: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 61-66.

2. 1964, Effects of the Hebgen Lake earthquake of August 17, 1959, on the hot springs of the Firehole Geyser Basins, Yellowstone National Park: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 185-197.

3. 1964, Seasonal changes in groundwater in relation to hot springs activity: Am. Jour. Sci., v. 262, no. 5, p. 674-685.

MARSELL, R.E.

1969, Landscapes of the north slopes of the Uinta Mountains: Intermountain Assoc. Geologists and Utah Geol. Soc., 16th Ann. Field Conf., Geologic Guidebook of the Uinta Mountains, Utah's Maverick Range, p. 1-15.

MARTIN, C.A.

1964, Denver Basin [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1880-1881; and in full, 1965: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 11, p. 1908-1925.

MARTIN, W.B.

and Shaughnessy, J., 1969, Project Wagon Wheel: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 145-152.

MASTERS, C.D.

1968, Geology of natural gas occurrence in Tertiary and Late Cretaceous rocks of Sand Wash Basin, Colorado and Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 866-877.

MASTERSON, J.A.

1961, Developments in Wyoming and Idaho in 1960: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 6, p. 926-931.

MASURSKY, H.

1962, Uranium-bearing coal in the eastern part of the Red Desert area, Wyoming: U.S. Geol. Survey, Bull. 1099-B, p. B1-B152.

MAUGHAN, E.K.

1. 1960, Pennsylvanian and Permian strata in southern Wyoming and northern Colorado, in Weimer, R.J., and Haun, J.D., editors, Guide to the Geology of Colorado: Geol. Soc. America, Rocky Mtn. Assoc. Geologists and Colorado Scientific Soc., p. 34-42.
2. 1963, Mississippian rocks in the Laramie Range, Wyoming, and adjacent areas: U.S. Geol. Survey, Prof. Paper 475-C, p. C23-C27; and in 1963: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 36-40.
3. and Wilson, R.F., 1963, Permian and Pennsylvanian strata in southern Wyoming and northern Colorado: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 95-104.
4. 1964, The Goose Egg Formation in the Laramie Range and adjacent parts of southeastern Wyoming: U.S. Geol. Survey, Prof. Paper 501-B, p. B53-B60.
5. 1965, Freezeout and Evaporite Members of the Goose Egg Formation in eastern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 338.
6. 1966, Environment of deposition of Permian salt in the Williston and Alliance Basins: Northern Ohio Geol. Soc., 2nd Symposium on Salt, v. 1, Geology, Geochemistry, Mining, p. 35-47.
7. 1967, Eastern Wyoming, eastern Montana, and the Dakotas: U.S. Geol. Survey, Prof. Paper 515, Paleotectonic Investigations of the Permian System in the United States, Chapter G, p. 125-152.

MAX, M.D.

1965, Gypsum deposits in the northeastern part of the Bighorn Basin, Big Horn County, Wyoming: MS thesis, Univ. Wyoming.

MAY, B.E.

1961, The Desert Springs Field: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 290-293.

MEADE, R.H.

1963, Factors influencing the pore volume of the fine-grained sediments under low-to-moderate overburden loads: *Sedimentology*, v. 2, no. 3, p. 235-242.

MEARS, B., JR.

1. 1960, Student training for a summer field course: *Jour. Geol. Education*, v. 8, no. 2, p. 44-48.
2. 1962, Stone nets on Medicine Bow Peak, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 1, no. 1, p. 48.
3. 1966, Ice-wedge pseudomorphs in the Laramie Basin, Wyoming [abs.]: *Geol. Soc. America, Spec. Paper* 87, p. 295.

MEEHAN, R.J.

and Grundy, W.D., 1963, Estimation of uranium ore reserves by statistical methods and a digital computer: *U.S. Atomic Energy Comm., RME-146*, 88 p.

MEES, E.C.

1. 1960, Developments in Wyoming and Idaho in 1959: *Am. Assoc. Petroleum Geologists, Bull.*, v. 44, no. 6, p. 865-873.
2. and Copen, J.D., and McGee, J.C., 1961, Table Rock Field, Sweetwater County, Wyoming: *Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas*, p. 294-300.

MEEVES, H.C.

and Harrer, C.M., Salisbury, M.H., Konselman, A.S., and Shannon, S.S., Jr., 1966, Reconnaissance of beryllium-bearing pegmatite deposits in six Western States, Arizona, Colorado, New Mexico, South Dakota, Utah, and Wyoming: *U.S. Bur. Mines, Inf. Circ.* 8298, 34 p.

MELIN, R.E.

1. 1964, Description and origin of uranium deposits in Shirley Basin, Wyoming: *Econ. Geology*, v. 59, no. 5, p. 835-849.
2. 1969, Uranium deposits in Shirley Basin, Wyoming: *Univ. Wyoming, Contr. Geology*, v. 8, no. 2, pt. 1, [Wyoming Uranium Issue], p. 143-149.

MELTON, M.A.

1960, Intravalley variation in slope angles related to microclimate and erosional environment: *Geol. Soc. America, Bull.*, v. 71, no. 12, pt. 2, p. 133-144.

MENZE, R.J.

1967, Producing western bentonite for market, in 28th Ann. Mining Symposium, and AIME, Minnesota Sec., 40th Ann. Mtg., Duluth: Minneapolis, Univ. Minnesota, School Mineral and Metall. Eng., p. 49-52.

MEREWETHER, E.A.

1960, Geologic map of the igneous and metamorphic rocks of Wyoming, showing location of uranium deposits: *U.S. Geol. Survey, Misc. Geol. Inv. Map* I-310, scale 1:500,000.

MERING, J.

and Oberlin, A., 1962, Etude de la montmorillonite par microscopie et microdiffraction electroniques, [summary]: 5th Internat. Cong. Electron Microscopy, Philadelphia, Proc., v. 1, New York, Academic Press, p. 1-2.

MERRIAM, D.F.

1967, Geologic use of the computer: *Wyo. Geol. Assoc., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains*, p. 109-112.

MERRILL, R.D.

1969, Lateral-planation surfaces in the Greybull Valley, Wyoming [abs.]: *Geol. Soc. America, Spec. Paper* 121, p. 405-406.

MERRY, R.D.

1963, Precambrian geology, shear zones, and associated mineral deposits of the Hog Park area, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

MESZOELY, C.A.M.

1967, A new cryptobranchid salamander from the Early Eocene of Wyoming: *Copeia* 1967, no. 2, p. 346-349.

METTLER, D.E.

1. 1966, West Moorcroft Dakota field, Crook County, Wyoming: *Mtn. Geologist*, v. 3, no. 2, p. 89-92.

2. 1968, West Moorcroft and Wood Dakota fields, Crook County, Wyoming: *Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming*, p. 89-94.

MICHAEL, R.H.

1960, Hogsback and Tip Top Units, Sublette and Lincoln Counties, Wyoming: *Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas*, p. 210-216.

MICKELSON, J.C.

and Kulik, J.W., 1963, Pre-Minnelusa stratigraphy of the northern Black Hills: *Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana*, p. 41-44.

MIDDLETON, G.V.

1967, Experimental and field studies on the genesis of sandstones: *Wyo. Geol. Assoc., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains*, p. 23-29.

MIKESH, D.L.

1965, Correlation of Devonian strata in northwestern Wyoming: MS thesis, Univ. Iowa.

MILES, F.V.

and Pedersen, J.A., 1962, Fluid distribution and reservoir characteristics of the Big Piney Mesaverde reservoir, Wyoming: *Jour. Petroleum Tech.*, v. 14, no. 6, p. 608-612.

MILES, O.P., JR.

1963, Kummerfeld Field: *Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana*, p. 125-128.

MILLER, D.N., JR.

1. 1962, Patterns of barrier bar sedimentation and its similarity to Lower Cretaceous Fall River stratigraphy: *Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas*, p. 232-247.

2. 1963, Subsurface aspects of the Fall River Sandstone, northern Black Hills: *Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana*, p. 100-103.

3. 1965, Deposition accompanying Laramide tectonics, Red Desert (Great Divide) Basin, Wyoming [abs.]: *Am. Assoc. Petroleum Geologists, Bull.*, v. 49, no. 3, p. 351.

4. 1965, Recognition and classification of marginal marine environments: *Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift*, p. 209-218.

5. and Barlow, J.A., and Haun, J.D., 1965, Stratigraphy and petroleum potential of latest Cretaceous rocks, Bighorn Basin, Wyoming: *Am. Assoc. Petroleum Geologists, Bull.*, v. 49, no. 3, p. 277-285.

6. 1967, Diagenesis of sedimentary rocks: *Wyo. Geol. Assoc., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains*, p. 17-21.

MILLER, L.D

1. 1966, Location of anomalously hot earth with infrared imagery in Yellowstone National Park: Ann Arbor, Univ. Michigan, Willow Run Labs., 4th Symposium on Remote Sensing of Environment (ONR and AFCL), Proc., p. 751-769.
2. 1969, Steaming and warm ground in Yellowstone National Park; their location, geophysics, vegetation and mapping with aerial multispectral imagery [abs.]: Dissert. Abs. Int., pt. B, v. 30, no. 2, p. 456B-457B.

MILLGATE, M.L.

1965, The Haystack Range, Goshen and Platte Counties, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 5, 9 p.

MILLS, R.K.

1. 1965, Petrography of uranium ore rolls in the Powder River Basin, Wyoming: MS thesis, Univ. Wyoming.
2. 1966, Mineralogical changes between uranium-bearing and barren arkosic sandstones in the Powder River Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 295-296.

MILTON, C.

1. and Fahey, J.J., 1960, Classification and association of the carbonate minerals of the Green River Formation: Am. Jour. Sci., v. 258-A [Bradley Volume], p. 242-246.
2. and Fahey, J.J., 1960, Green River mineralogy-a historical account: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 159-162.
3. and Chao, E.C.-T., Fahey, J.J., and Mrose, M.E., 1960, Silicate mineralogy of the Green River Formation of Wyoming, Utah, and Colorado: Internat. Geol. Cong., 21st, Copenhagen, rept., pt. 21, p. 171-184.
4. 1961, Mineralogy and petrology of the Green River Formation of Wyoming, Utah, and Colorado: New York Acad. Sci. Trans., ser. 2, v. 23, no. 7, p. 561-567; and in [abs.] 1964: Tulsa Geol. Soc. Digest, v. 32, p. 169.
5. and Meyrowitz, R., 1964, Ferroan northupite in the Green River Formation of Wyoming: U.S. Geol. Survey, Prof. Paper 501-B, p. B66-B68.
6. and Ingram, B., Clark, J.R., and Dwornik, E.J., 1965, McKelveyite, a new hydrous sodium barium rare-earth uranium carbonate mineral from the Green River Formation, Wyoming: Am. Mineralogist, v. 50, no. 5-6, p. 593-612.

MINING WORLD

1960, Wyoming's trona trend: Mining World, v. 22, no. 4, April, p. 26.

MIRSKY, A.

1. 1960, Stratigraphy of the nonmarine Upper Jurassic and Lower Cretaceous rocks, southern Bighorn Mountains, Wyoming [abs.]: Dissert. Abs., v. 21, no. 4, p. 850-851; and in full 1962: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 9, p. 1653-1680.
2. 1961, Mechanical analysis and heavy minerals, Morrison and Cloverly Formations, southern Bighorn Mountains, Wyoming: Jour. Sed. Petrology, v. 31, no. 4, p. 571-585.
3. 1962, Stratigraphic sections of Upper Jurassic and Lower Cretaceous rocks in the southern Bighorn Mountains, Wyoming: Wyo. Geol. Survey, Rept. Inv. 8, 33 p.

MITCHELL, N.W.R.

1965, Direct shear tests on thin samples of remolded shales from the Bighorn Mountains, Wyoming: MS thesis, Univ. Illinois.

MITCHELL, S.D.

1968, Geology and occurrence of natural gas in Laramie and Hanna Basins, Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 828-839.

MOBERLY, R.M., JR.

1. 1960, Morrison, Cloverly, and Sykes Mountain Formations, northern Bighorn Basin, Wyoming and Montana: Geol. Soc. America, Bull., v. 71, no. 8, p. 1137-1176.
2. 1962, Lower Cretaceous history of the Bighorn Basin, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 94-101.

MOHL, K.L.

- and Bakken, W.E., 1968, First day of field conference: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 215-225.

MOKADY, R.S.

- and Low, P.F., 1968, Simultaneous transport of water and salt through clays - pt. 1. Transport mechanisms: Soil Sci., v. 105, no. 2, p. 112-131.

MOMPER, J.A.

1. 1963, Nomenclature, lithofacies and genesis of Permo-Pennsylvanian rocks - northern Denver Basin: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 41-67.
2. 1964, Introduction to the Denver Basin and Hartville uplift geology: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 160-164.
3. 1966, Stratigraphic principles applied to the study of the Permian and Pennsylvanian systems in the Denver Basin: Wyo. Geol. Assoc., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains, p. 87-89.

MONTAGNE, J.M. de la

1. 1960, Stratigraphy and structure of the Pick Ranch area, Carbon County, Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 2037-2038.
2. 1963, Geography and provenance for pre-Wisconsin piedmont ice in three valleys adjacent to Yellowstone Park [abs.]: Assoc. Am. Geographers, Annals, v. 53, no. 4, p. 586.
3. 1963, Ice expansion ramparts on south arm of Yellowstone Lake, Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 1 [S.H. Knight Issue], p. 43-46.

MONZON, F.G.

- 1969, A uranium anomaly in the Silver Bell prospect, Sweetwater County, Wyoming: M.S. thesis, Univ. Arizona.

MOOK, C.C.

1. 1960, *Diplocynodon* remains from the Bridger beds of Wyoming: Am. Mus. Novitates, no. 2007, 4 p.
2. 1961, Notes on the skull characters of *Allognathosuchus poluodon*: Am. Mus. Novitates, no. 2072, p. 1-5.
3. 1962, A new species of *Brachyuranochampsia* (Crocodylia) from the Bridger beds of Wyoming: Am. Mus. Novitates, no. 2079, 6 p.

MOORE, D.A.

- 1961, Isopachous map, Fort Union Formation, Bighorn Basin: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 200-204.

MOORE, F.E.

1. 1960, Summary of Cenozoic history, southern Laramie Range, Wyoming and Colorado, in Weimer, R.J., and Haun, J.D., editors, Guide to the Geology of Colorado: Geol. Soc. America, Rocky Mtn. Assoc. Geologists, and Colorado Scientific Soc., p. 217-222.
2. 1963, Tertiary stratigraphy of the High Plains: Rocky Mtn. Assoc. Geologists, 14th Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 162-166.

3. and Mears, B., 1965, The geomorphic development of the southern Laramie Range, Colorado and Wyoming, Trip 13: Internat. Assoc. Quaternary Research, 7th Cong., Guidebook, for One-Day Field Conference, p. 76-80.

MOORE, R.G.

1961, A Paleocene fauna from the Hoback Formation, Wyoming [abs.]: Dissert. Abs., v. 21, no. 8, p. 2249-2250.

MOORE, V.

1968, Dr. Sam Knight — walk around the earth: In Wyoming, v. 2, no. 1, p. 18-19.

MOREY, G.W.

1. and Fournier, R.O., Hemley, J.J., and Rowe, J.J., 1961, Field measurements of silica in water for hot springs and geysers in Yellowstone National Park: U.S. Geol. Survey, Prof. Paper 424-C, p. C333-C336.

2. and Fournier, R.O., Hemley, J., and Rowe, J.J., 1961, Silica in the thermal waters of Yellowstone Park, [abs.]: Jour. Geophys. Research, v. 66, no. 8, p. 2548.

MORGANDO, F.P.

1969, Engineering geological investigation of a subsided area, "D" Street-Connecticut Avenue, Rock Springs, Wyoming, Sweetwater County: Wyo. Highway Dept., Cheyenne.

MORRIS, D.A.

and Babcock, H.M., and Langford, R.H., 1960, Geology and ground-water resources of Platte County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1490, 195 p.

MOSS, J.H.

1. and Bonini, W.E., 1961, Seismic evidence supporting a new interpretation of the Cody terrace near Cody, Wyoming [abs.]: Geol. Soc. America, Bull., v. 72, no. 4, p. 547-556.

2. 1969, The geologic history of Mummy Cave, an early man site in the Absaroka Mountains west of Cody, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 614.

MOUNTJOY, E.W.

1966, Time of thrusting in Idaho-Wyoming thrust belt — discussion of paper by F.C. Armstrong and S.S. Oriel, 1965: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 12, p. 2612-2614.

MOXHAM, R.M.

1960, Airborne radioactivity surveys in geologic exploration: Geophysics, v. 25, no. 2, p. 408-432.

MRAK, V.A.

1968, Uranium deposits in the Eocene sandstones of the Powder River Basin, Wyoming: A.I.M.E., Ore Deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 838-848.

MROSE, M.E.

1. Chao, E.C.-T., Fahey, J.J., and Milton, C., 1961, Norsethite, $\text{BaMg}(\text{CO}_3)_2$ a new mineral from the Green River Formation, Wyoming: Am. Mineralogist, v. 46, no. 3-4, p. 420-429.

2. 1962, X-ray powder data for the saline minerals of the Green River Formation: U.S. Geol. Survey, Prof. Paper 405, Saline Minerals of the Green River Formation, p. 45-50.

MUFFLER, L.J.P.

and White, D.E., Truesdell, A.H., and Fournier, R.O., 1968, Violent late Pleistocene hydrothermal explosions in Yellowstone National Park [abs.]: Geol. Soc. America, Spec. Paper 115, p. 158.

MURPHY, J.F.

and Richmond, G.M., 1965, Geologic map of the Bull Lake West quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-432, scale 1:24,000.

MURPHY, M.T.

and McCormick, A., and Eglinton, G., 1967, Perhydro-beta-carotene in the Green River shale: Science, v. 157, no. 3792, p. 1040-1042.

MURRAY, F.E.

1960, An interpretation of the Hilliard thrust fault, Lincoln and Sublette Counties, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 181-186.

MURRAY, R.C.

1967, Carbonate sedimentation and diagenesis: Wyo. Geol. Assoc., Symposium on Recently Developed Geologic Principles and Sedimentation of the Permo-Pennsylvanian of the Rocky Mountains, p. 7-9.

MURRAY, T.H., JR.

1962, Anorthosite and ilmenite-magnetite deposits of a portion of the Laramie anorthosite, Albany County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 95.

NATURAL RESOURCES RESEARCH INSTITUTE

1966, Bibliography of Wyoming coal (unpub.): Natural Resources Research Inst., Univ. Wyoming.

NAYLOR, R.S.

and Steiger, R.H., and Wasserburg, G.J., 1968, U-Th-Pb and Rb-Sr systematics in a 2.7×10^9 -yr plutonic complex [abs.]: Am. Geophys. Union, Trans., v. 49, no. 1, p. 347-348.

NEASHAM, J.W.

1. 1967, Lithology and stratigraphy of the Willwood Formation (lower Eocene), southwest Big Horn County, Wyoming: MS thesis, Iowa State Univ.
2. and Vondra, C.F., 1968, Stratigraphy of the Willwood Formation, Big Horn County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 161-162.

NELSON, C.M.

1966, Marine Middle Jurassic, eastern Bighorn Mountains, Wyoming and Montana [abs.]: Geol. Soc. America, Spec. Paper 87, p. 296-297.

NELSON, G.C.

1969, A preliminary investigation of Precambrian mafic dikes in the Hesse Mountain-Hazelton Peak area, Bighorn Mountains, Wyoming: Compass, v. 46, no. 4, p. 217-228.

NELSON, M.T.

1965, Geology of a part of the Laramie anorthosite, Albany County, Wyoming: MS thesis, Colorado Sch. Mines.

NELSON, R.S., JR.

1. 1968, The gravels and surfaces west of Buffalo (Johnson County), Wyoming: MS thesis, Univ. Iowa.
2. 1968, Tertiary deposits and morphology, east flank Bighorn Mountains, Wyoming: Earth Sci. Bull., v. 1, no. 4, p. 19-24.

NELSON, W.H.

1. and Pierce, W.G., 1968, Wapiti Formation and Trout Peak Trachyandesite, northwestern Wyoming: U.S. Geol. Survey, Bull. 1254-H, p. H1-H11.
2. 1969, White Mountain, northwestern Wyoming; not a volcanic center [abs.]: Geol. Soc. America, Abs. 1969, pt. 3 [Cordilleran Section], p. 47.

NEWMAN, K.R.

1965, Significance of algae in Waltman Shale Member of Fort Union Formation (Paleocene), Wyoming: Mtn. Geologist, v. 2, no. 2, p. 79-84.

NEWTON, G.B.

1967, Fauna of the Jefferson Formation (upper Devonian), south central Montana and northwest Wyoming: MS thesis, Wayne State Univ.

NICHOLLS, H.R.

and Rinehart, J.S., 1966, A geophysical study of geyser action in Yellowstone National Park [abs.]: Am. Geophys. Union, Trans., v. 47, no. 1, p. 205; and in full 1967: Jour. Geophys. Research, v. 72, no. 19, p. 4651-4663.

NICHOLLS, J.

1. and Carmichael, I.S.E., 1968, Petrology of shoshonite lavas from Yellowstone National Park [abs.]: Geol. Soc. America, Spec. Paper 115, p. 164.
2. and Carmichael, I.S.E., 1969, A commentary on the absarokite-shoshonite-banakitite series of Wyoming, U.S.A.: Schweiz. Mineral. Petrogr. Mitt., v. 49, no. 1, p. 47-64.

NICHOLS, C.E.

1967, Geology of a segment of Deep Creek fault zone southern Bighorn Mountains (Washakie County), Wyoming: PhD dissert., Univ. Wyoming.

NICOLL, G.A.

1963, Geology of the Hutton Lake antiline area, Albany County, Wyoming: MS thesis, Univ. Wyoming.

NIGRINI, A.

1967, Stratigraphy of the Stump Sandstone (Jurassic) of southeastern Idaho and southwestern Wyoming: MS thesis, Northwestern Univ.

NILE, S.W.

1960, The Hebgen Lake, Montana, earthquakes: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 24-30.

NININGER, R.D.

and Gardner, C.I., Searl, M.F., and Kuhn, D.W., 1960, Energy from uranium and coal reserves: U.S. Atomic Energy Comm., TID-8207, 7 p.

NISHITA, H.

and Taylor, P., 1964, Influence of stable Sr and Ca on Sr-90 and Ca-45 in soils and coaly minerals: Soil Sci., v. 98, no. 3, p. 181-186.

NOGUCHI, K.

1. and Nix, J., 1963, Geochemical studies of some geysers in Yellowstone National Park: Japan Acad., Proc., v. 39, no. 6, p. 370-375.

2. and Ueno, S., and Noguchi, K., 1966, Geochemical studies of hot springs in Yellowstone National Park [abs.]: Pacific Sci. Cong., 11th, Tokyo, Proc. v. 3, Solid Earth Physics II, Sci. Council Japan, Div. Mtg., p. 37.

NOLD, J.L.

1966, Precambrian gabbroic dikes and sills in the southern Wind River Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 297.

NOLTE, C.J.

1963, Potential stratigraphic accumulation of oil and gas in the Upper Cretaceous of the Denver Basin: Rocky Mtn. Assoc. Geologists, 14th Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 156-161.

OGG, J.H.

- 1969, Trona - Sweetwater County, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 183-184.

OPDYKE, N.D.

- and Runcorn, S.K., 1960, Wind direction in the western United States in the Late Paleozoic: Geol. Soc. America, Bull., v. 71, no. 7, p. 959-972.

ORBACK, C.J.

- 1960, Geology of the Fox Creek area, Albany County, Wyoming: MA thesis, Univ. Wyoming.

ORE, H.T.

- 1965, Characteristic deposits of rapidly aggrading streams: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 195-201.

ORIEL, S.S.

1. 1961, Tongues of the Wasatch and Green River Formations, Fort Hill area, Wyoming: U.S. Geol. Survey, Prof. Paper 424-B, art. 63, p. B151-B152.
2. and Gazin, C.L., and Tracey, J.T., Jr., 1962, Eocene age of Almy Formation, Wyoming, in its type area: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 10, p. 1936-1937.
3. 1962, Main body of Wasatch Formation near La Barge, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 46, no. 12, p. 2161-2173.
4. 1963, Preliminary geologic map of the Fort Hill quadrangle, Lincoln County, Wyoming: U.S. Geol. Survey, Oil and Gas Inv. Map OM-212, scale 1:48,000.
5. and Armstrong, F.C., 1966, Times of thrusting in the Idaho-Wyoming thrust belt - reply to discussion of 1965 paper by E.W. Mountjoy, 1966: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 12, p. 2614-2621.
6. 1969, Geology of the Fort Hill quadrangle, Lincoln County, Wyoming: U.S. Geol. Survey, Prof. Paper 594-M, p. M1-M40.
7. 1969, Implications of Idaho-Wyoming thrust belt to eastern Great Basin [abs.]: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section], p. 61-62.

OSTERWALD, F.W.

1. and Dean, B.G., 1961, Relation of uranium deposits to tectonic pattern of the central Cordilleran foreland: U.S. Geol. Survey, Bull. 1087-I, 54 p.
2. 1965, Structural control of uranium-bearing deposits and districts in the conterminous United States: U.S. Geol. Survey, Prof. Paper 455-G, 26 p.
3. and Osterwald, D.B., Long, J.S., Jr., and Wilson, W.H., 1966, Mineral resources of Wyoming: Wyoming Geol. Survey, Bull. 50, 287 p.

OSTROM, J.H.

1. 1965, Cretaceous vertebrate faunas of Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 35-41.
2. and McIntosh, J.S., 1966, Marsh's dinosaurs - the collections from Como Bluff: New Haven, Yale Univ. Press, 388 p.

OWEN, L.B.

- 1968, A gravity and magnetic study of an anorthosite complex; southern part of the Laramie Range, Wyoming: MS thesis, Univ. Tennessee.

OZARK MOUNTAIN GEM AND MINERAL SOCIETY

- 1960, Field trip guide, Missouri, Arkansas, Oklahoma, Wyoming, 1959-1960: Ozark Mountain Gem and Mineral Soc. [Pyeatt, B. and Turner, H., chairmen], Springfield, 75 p.

PAAPE, D.W.

1. 1961, Diagrammatic restored section illustrating stratigraphic position of producing intervals of the Fort Union and Lance Formations oil and gas fields, Wind River Basin, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 314.
2. 1961, Tectonics and its influence on Late Cretaceous and Tertiary sedimentation, Wind River Basin, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 187-194.
3. 1968, Geology of Wind River Basin of Wyoming and its relationship to natural gas accumulation: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 760-779.

PAGE, L.R.

- 1960, Source of uranium ore deposits: Rept. of the 21st Session, Internat. Geol. Cong., Copenhagen, pt. XV, Genetic Problems of Uranium and Thorium Deposits, p. 149-164.

PALMQUIST, J.C.

1. 1961, Petroleum and structure of the Horn area, Bighorn Mountains, Wyoming [abs.]: Dissert. Abs., v. 22, no. 5, p. 1584.
2. 1961, Tectonic analysis of some Precambrian rocks, Horn area, Bighorn Mountains, Wyoming [abs.]: Canadian Inst. Mining and Metall., Lakehead Br., Inst. Lake Superior Geology, 7th Ann. Mtg., p. 13.
3. 1965, Influence of Precambrian basement structure on Laramide tectonics, Horn area, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 342.
4. 1967, Structural analysis of the Horn area, Bighorn Mountains, Wyoming: Geol. Soc. America, Bull., v. 78, no. 2, p. 283-298.

PAMPEYAN, E.H.

- and Schroeder, M.L., Schell, E.M., and Cressman, E.R., 1967, Geologic map of the Driggs quadrangle, Bonneville and Teton Counties, Idaho, and Teton County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-300, scale 1:31,680.

PARKER, J.M.

1. 1961, Stratigraphy of the Shannon Member of the Eagle Formation and its relationship to other units in the Montana Group: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 205-218.
2. 1967, Salt solution and subsidence structures, Wyoming, North Dakota, and Montana: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 10, p. 1929-1947.

PARKER, R.B.

1. 1962, Blue quartz from the Wind River Range, Wyoming: Am. Mineralogist, v. 47, no. 9-10, p. 1201-1202.
2. 1962, Precambrian gneisses of the Wind River Range, Wyoming: Univ. Wyoming, Contr. Geology, v. 1, no. 1, p. 13-19.
3. editor, 1969, Wyoming uranium issue: Univ. Wyoming, Contr. Geol., v. 8, no. 2, pt. 1, 85 p.

PARSONS, W.H.

1. 1960, Origin of Tertiary volcanic breccias, Wyoming: 21st Internat. Geol. Cong., Copenhagen, Rept., pt. 13, p. 139-146.
2. and Krushensky, R.D., 1963, Structural relations of the volcanic rocks of the northern Absaroka region, Montana-Wyoming [abs.]: Am. Geophys. Union, Trans., v. 44, no. 1, p. 114.
3. 1965, Tertiary volcanic centers, Sunlight Basin area, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 148-149.

4. 1967, Manner of emplacement of pyroclastic andesitic breccias: *Bull. Volcanol.* v. 30, p. 177-187.
 5. and Miller, C., and Pozy, W., 1969, Structure and remanent magnetism in Eocene volcanic centers, Sunlight Basin, Absaroka Range, Wyoming: *Internat. Assoc. Volcanol., Chem. Earth's Interior, Symposium on Volcanoes and Their Roots*, Oxford, Vol. Abs., p. 71-72.
 6. 1969, Types of intrusives in the Absaroka volcanic province [abs.]: *Geol. Soc. America, Spec. Paper* 121, p. 619-620.
- PATCHETT, J.G.
- 1961, Log interpretation of the Tertiary and Upper Cretaceous of Wyoming and surrounding areas: *Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook*, in *Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas*, p. 60-67.
- PATTERSON, B.
- and McGrew, P.O., 1962, A new arctocyonid from the Paleocene of Wyoming: *Breviora*, no. 174, 10 p.
- PATTERSON, J.R.
- 1961, Ordovician stratigraphy and correlations in North America: *Am. Assoc. Petroleum Geologists, Bull.*, v. 45, no. 8, p. 1364-1377.
- PATTON, C.
- 1968, History of coal mining in Wyoming: A speech at the Governor's Coal Conversion Conf., Gillette, May 24.
- PATTON, F.D.
- 1966, Multiple modes of shear failure in rock and related materials [abs.]: *Dissert. Abs., Sec. B, Sci. and Eng.*, v. 27, no. 2, p. 520B.
- PAULL, R.A.
- 1962, Depositional history of the Muddy Sandstone, Bighorn Basin, Wyoming: *Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium of Early Cretaceous Rocks of Wyoming and Adjacent Areas*, p. 102-117.
- PEARCY, D.B.
- 1969, New discoveries boost Rocky Mountain drilling: *World Oil*, v. 169, no. 5, p. 142-143.
- PECK, R.E. [Raymond]
- and Craig, W.W., 1962, Lower Cretaceous nonmarine ostracods and charophytes of Wyoming and adjacent areas: *Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas*, p. 33-43.
- PECK, R.E. [Roy]
- 1969, History of uranium in Wyoming: [Governor's Uranium Conference, Casper], *Mines Mag.*, v. 59, no. 1, p. 4-5.
- PEDERSEN, K.
- 1968, Sulfide mineralization of the northwestern part of the Sunlight mining region, Park County, Wyoming: MS thesis, Univ. Wyoming.
- PERKINS, W.E.
- and Phinney, R.A., 1969, Deep reflection profiling in central Wyoming [abs.]: *EOS [Am. Geophys. Union, Trans.]*, v. 50, no. 11, p. 645.
- PERRY, K., JR.
- 1965, High-grade regional metamorphism of Precambrian gneisses and associated rocks, Paradise Basin quadrangle, Wind River Mountains, Wyoming: PhD dissert., Yale Univ.; and in [abs.] 1966: *Dissert. Abs.*, pt. B., v. 27, no. 6, p. 1989B; and in [abs.] 1968: *Geol. Soc. America, Spec. Paper* 115, p. 436-437.

PETERMAN, Z.E.

and Doe, B.R., and Prostka, H.J., 1969, Lead and strontium isotopes in rocks of the Absaroka volcanic field, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 3 [Cordilleran Section] p. 52.

PETERS, J.W.

1960, Geophysical case history of the Horse Creek Field, Laramie County, Wyoming: Geophysics, v. 25, no. 3, p. 602-616.

PETERSON, D.O.

1960, Regional stratigraphy of the Pennsylvanian system in northeastern Utah, western Wyoming, northwestern Colorado, and southeastern Idaho [abs.]: Dissert. Abs., v. 20, no. 7, p. 2757.

PETERSON, J.A.

1969, Cyclic carbonate mound facies, Permian Franson and Ervay Formations, western Wyoming and adjacent areas [abs.]: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section], p. 63.

PHILBIN, P.W.

and McCaslin, W.E., 1966, Aeromagnetic map of the Seminole Mountains and vicinity, Carbon County, Wyoming: U.S. Geol. Survey, Geophys. Inv. Map GP-558, scale 1:48,000.

PHILIP, G.M.

1963, A new regular echinoid from the Jurassic of Wyoming, U.S.A.: Jour. Paleontology, v. 37, no. 5, p. 1110-1115.

PICARD, M.D.

1. and High L.R., Jr., 1963, Mineral assemblages in the Popo Agie Member of the Chugwater Formation, west-central Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 2, p. 125-127.
2. and High, L.R., Jr., 1963, Rhythmic alternation in the Triassic Chugwater and Brunswick Formations, Wyoming and New Jersey: Univ. Wyoming, Contr. Geology, v. 2, no. 1, [S.H. Knight Issue], p. 87-99.
3. 1964, Paleomagnetic correlation of units within Chugwater (Triassic) Formation, west-central Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 3, p. 269-291.
4. and High, L.R., Jr., 1964, Pseudo rib-and-furrow marks in the Chugwater (Triassic) Formation of west-central Wyoming: Univ. Wyoming, Contr. Geology, v. 3, no. 1, p. 27-31.
5. 1965, Iron oxides and fine-grained rocks of Red Peak and Crow Mountain Members, Chugwater (Triassic) Formation, Wyoming: Jour. Sed. Petrology, v. 35, no. 2, p. 464-479.
6. and Wellman, S.S., 1965, Persistence of variegated claystone in Red Peak Member, Chugwater (Triassic) Formation, Bighorn Basin, Wyoming: Univ. Wyoming, Contr. Geology, v. 4, no. 2, p. 69-73.
7. and Beckmann, D.D., 1965, Remanent magnetism, paleocurrent directions, and fabrics in siltstones of Red Peak Member of Chugwater Formation (Triassic), central Wyoming [abs.]: Nebraska Acad. Sci., Proc., 75th Ann. Mtg., p. 16-17.
8. 1966, Iron oxides and intensity of magnetization in Chugwater Formation (Triassic), Wyoming: Royal Astron. Soc., Geophys. Jour., v. 11, no. 5, p. 557-560.
9. 1966, Petrography of Red Peak Member, Chugwater Formation (Triassic), west-central Wyoming: Jour. Sed. Petrology, v. 36, no. 4, p. 904-926.
10. and Beckmann, D.D., 1967, Non-opaque grain fabrics of siltstones in Red Peak Member (Triassic), central Wyoming - reply to discussion of 1966 paper by A.I. Rees: Jour. Sed. Petrology, v. 37, no. 2, p. 712-714.
11. 1967, Stratigraphy and depositional environments of the Red Peak Member of the Chugwater Formation (Triassic), west-central Wyoming: Univ. Wyoming, Contr. Geology, v. 6, no. 1, p. 39-67.
12. and High, L.R., Jr., 1968, Shallow marine currents on the early(?) Triassic Wyoming Shelf: Jour. Sed. Petrology, v. 38, no. 2, p. 411-423.

13. and Aadland, R., and High, L.R., Jr., 1969, Correlation and stratigraphy of Triassic Red Peak and Thaynes Formations, western Wyoming and adjacent Idaho: Am. Assoc. Petroleum Geologists, Bull., v. 58, no. 11, p. 2274-2289.
14. and Hulen, J.B., 1969, Parting lineation in siltstone: Geol. Soc. America, Bull., v. 80, no. 12, p. 2631-2636.
15. 1969, Oriented, linear-shrinkage cracks in Alcova Limestone Member (Triassic), southeastern Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 1, p. 1-7.

PIERCE, K.L.

- 1969, Evidence of north-flowing, pre-Pinedale glaciation, crest of the Washburn Range, Yellowstone National Park [abs.]: Geol. Soc. America, Spec. Paper 121, p. 621.

PIERCE, W.G.

1. 1960, The "break-away" point of the Heart Mountain detachment fault in northwestern Wyoming: U.S. Geol. Survey, Prof. Paper 400-B, p. B236-B237.
2. 1960, Reef Creek detachment fault in northwestern Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1944; and in full 1963: Geol. Soc. America, Bull., v. 74, no. 10, p. 1225-1236.
3. 1961, Permafrost and thaw depressions in a peat deposit in the Beartooth Mountains, northwestern Wyoming: U.S. Geol. Survey, Prof. Paper 424-B, art. 65, p. B154-B156.
4. 1963, Cathedral Cliffs Formation, the early acid breccia unit of northwestern Wyoming: Geol. Soc. America, Bull., v. 74, no. 1, p. 9-21.
5. 1965, Geologic map of the Clark quadrangle, Park County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-477, scale 1:62,500.
6. 1965, Geologic map of the Deep Lake quadrangle, Park County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-478, scale 1:62,500.
7. 1966, Geologic map of the Cody quadrangle, Park County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-542, scale 1:62,500.
8. 1966, Role of fluid pressure in mechanics of overthrust faulting — Discussion of paper by W.W. Rubey and M.K. Hubbert, 1965: Geol. Soc. America, Bull., v. 77, no. 5, p. 565-568.
9. 1968, The Carter Mountain landslide area, northwest Wyoming: U.S. Geol. Survey, Prof. Paper 600-D, p. 235-241.
10. and Nelson, W.H., 1968, Geologic map of the Pat O'Hara Mountain quadrangle, Park County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-755, scale 1:62,500.
11. 1968, Tectonic denudation as exemplified by the Heart Mountain fault, Wyoming: 23rd, Internat. Geol. Cong., Prague, 1968, Proc., sec. 3, Orogenic Belts, p. 191-197; and in [abs.] 1969: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section], p. 64-65.
12. 1968, Two pluvial periods indicated in large landslide mass in northwest Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 437.
13. and Nelson, W.H., 1969, Geologic map of the Wapiti quadrangle, Park County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-778.

PILLMORE, C.L.

- and Mapel, W.J., 1963, Geology of the Nefsy Divide quadrangle, Crook County, Wyoming: U.S. Geol. Survey, Bull. 1121-E, p. E1-E51.

PINTO, I.D.

- and Sanguinetti, Y.T., 1961, Observations on *Metacypsis* (Ostracoda) from the Mesozoic of North America and Africa: Porto Alegre, Escola Geologia, Bol. 9, 14 p.

PIPIRINGOS, G.N.

1. 1961, Uranium-bearing coal in the central part of the Great Divide Basin: U.S. Geol. Survey, Bull. 1099-A, p. A1-A104.

2. 1967, Jurassic and Triassic of Wyoming and southern Rockies [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1904-1905.
 3. 1968, Correlation and nomenclature of some Triassic and Jurassic rocks in south-central Wyoming: U.S. Geol. Survey, Prof. Paper 594-D, p. D1-D26.
- PITKIN, J.A.
- 1968, Airborne measurements of terrestrial radioactivity as an aid to geologic mapping: U.S. Geol. Survey, Prof. Paper 516-F, 29 p.
- PLEDGE, N.S.
- 1969, Paleoenvironments and paleoecology of part of the lower Bridger Formation (Eocene), south of Opal, Wyoming: MS thesis, Univ. Wyoming.
- POST, E.V.
- and Bell, H., III, 1961, Chilson Member of the Lakota Formation in the Black Hills, South Dakota and Wyoming: U.S. Geol. Survey, Prof. Paper 424-D, art. 349, p. D173-D178.
- POTHIER, D.E.
- 1960, Western phosphate mining: Mining Cong. Jour., v. 46, no. 7, p. 49-52.
- POTTER, N., JR.
1. 1968, Galena Creek rock glacier, northern Absaroka Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 438.
 2. 1969, Rock glaciers and mass-wastage in the Galena Creek area, northern Absaroka Mountains, Wyoming: PhD dissert., Univ. Minnesota.
 3. 1969, Tree-ring dating of snow avalanche tracks and the geomorphic activity of avalanches, northern Absaroka Mountains, Wyoming: Geol. Soc. America, Spec. Paper 123, United States Contributions to Quaternary Research, p. 141-165.
- POWELL, A.W.
- and Schumann, T.G., 1969, 1st day of field conference - Casper - Hell's Half Acre - Badwater, Lost Cabin, Moneta - Casper: Wyo. Geol. Assoc., 21st Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 211-219.
- PRIDE, D.E.
- 1969, Geochemical and petrologic investigation of the Seminoe, Atlantic City and Copper Mountain iron formation deposits, Wyoming: PhD dissert., Univ. Illinois.
- PRINZ, M.
1. 1963, Differentiated Archean metadolerite and other dike swarms in the Beartooth Mountains, Montana-Wyoming [abs.]: Geol. Soc. America, Spec. Paper 73, p. 219-220.
 2. and Bentley, R.D., 1964, Cylindrical columnar jointing in dolerite dikes, Beartooth Mountains, Montana-Wyoming: Geol. Soc. America, Bull., v. 75, no. 11, p. 1165-1168.
 3. 1964, Geologic evolution of the Beartooth Mountains, Montana and Wyoming - pt. 5, Mafic dikes swarms of the southern Beartooth Mountains: Geol. Soc. America, Bull., v. 75, no. 12, p. 1217-1245.
 4. 1965, Structural relationships of mafic dikes in the Beartooth Mountains, Montana-Wyoming: Jour. Geology, v. 73, no. 1, p. 165-174.
 5. 1967, Geologic evolution of the Beartooth Mountains, Montana and Wyoming - pt. 4, Mafic dike swarms of the southern Beartooth Mountains [abs.]: Dissert. Abs., pt. B, v. 27, no. 10, p. 3569B.
- PRIVRASKY, N.C.
- 1963, Geology of the Big Piney area, Sublette County, Wyoming: U.S. Geol. Survey, Oil and Gas Inv. Map OM-205, scale 1:31,680.
- PROCHASKA, E.J.
- 1960, Foraminifera from two sections of the Cody Shale in Fremont and Teton Counties, Wyoming: MA thesis, Univ. Wyoming.

PROCTOR, P.D.

and El-Etr, H., 1966, Layered pegmatites, southern Wind River Mountains, Fremont County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 132; and in full 1968: Econ. Geology, v. 63, no. 6, p. 595-611.

PROSTKA, H.J.

1. 1968, Lower Tertiary welded ash-flow sheets in Yellowstone National Park, Wyoming and Montana [abs.]: Geol. Soc. America, Spec. Paper 115, p. 439.
2. 1969, Facies of Eocene volcanics in northeastern Yellowstone National Park and their relations to eruptive centers [abs.]: Geol. Soc. America, Spec. Paper 121, p. 624-625.

PRUCHA, J.J.

and Graham, J.A., and Nickelsen, R.P., 1965, Basement-controlled deformation in Wyoming province of Rocky Mountains foreland: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 7, p. 966-992.

PRYOR, W.A.

1961, Petrography of Mesaverde sandstones in Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 34-46.

PURCELL, T.E.

1960, The Mesaverde Formation of the northern and central Powder River Basin, Wyoming: Shale Shaker, v. 11, no. 4, p. 2-22; and in 1961: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 219-228.

RACKLEY, R.I.

and Shockey, P.N., and Dahill, M.P., 1968, Concepts and methods of uranium exploration: Wyo. Geol. Assoc., 20th Field Conf. Guidebook, Black Hills Area, South Dakota, Montana and Wyoming, p. 115-124; reprinted from: Earth Sci. Bull., v. 1, no. 3, p. 23-24, 1968.

RADINSKY, L.B.

1. 1964, *Paleomropus*, a new early Eocene chalicothere (Mammalia, Perissodactyla), and a revision of Eocene chalicotheres: Am. Mus. Novitates, no. 2179, 28 p.
2. 1965, Evolution of the Tapiroid skeleton from *Heptodon* to *Tapirus*: Harvard Univ., Mus. Comp. Zoology, Bull., v. 134, no. 3, p. 69-106.
3. 1966, A new genus of early Eocene tapiroid (Mammalia, Perissodactyla): Jour. Paleontology, v. 40, no. 3, p. 740-742.
4. 1967, *Hyrachyus*, *Chasmodon*, and the early evolution of helaeid tapiroids: Am. Mus. Novitates, no. 2313, 23 p.

RAJENDER, G.R.

and Harmston, F.K., and Blood, D.M., 1967, A study of the resources, people, and economy of Teton County: Univ. Wyoming, College Commerce Ind., Div. Bus. Econ. Res., 66 p.

RAMARATHNAM, S.

1962, Geology and petrology of the southern part of the Laramie anorthosite, Albany County, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 97.

RANDALL, A.G.

1. 1960, Catalog of formation names for Overthrust Belt and vicinity, western Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 169-177.
2. 1961, Catalog of formation names for post-Niobrara pre-Eocene rocks of Wyoming and adjacent areas: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 9-15.
3. 1961, Pictographs and petroglyphs of the Castle Gardens area, Fremont County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 318-323.
4. 1962, Catalog of formation names for Early Cretaceous rocks of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 9-14.
5. 1962, Correlation of Lee Site artifact rock type with quarry sites, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 309-315.
6. 1963, Catalog of formation names for the northern Denver Basin and adjacent areas: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 6-22.
7. 1963, Catalog of formation names for northern Powder River Basin, Wyoming and Montana: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 169-179.

RANSOM, J.E.

1967, Big smoking waters: Explorers Jour., v. 45, no. 4, p. 245-248.

RAPP, J.R.

1962, Roll in a sandstone lenticle of the Green River Formation: U.S. Geol. Survey, Prof. Paper 450-C, p. C85-C87.

RAPP, R.H.

1968, Gravitational potential of the earth determined from a combination of satellite, observed, and model anomalies: Jour. Geophys. Research, v. 73, no. 20, p. 655-662.

RATHBONE, J.

1. and Smith, V.M., 1960, Exit road log, Farson to Rock Springs: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 284-285, revised by Kilbourne, D.E., from 1955, 10th Ann. Field Conf. Guidebook, p. 231.
2. and Smith, V.M., 1960, Exit road log, Pinedale to Farson: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 281-282, revised by Kilbourne, D.E., from 1955, 10th Ann. Field Conf. Guidebook, p. 233.

RATHBUN, F.C.

1. 1969, Abnormal pressures and conductivity anomaly, northern Green River Basin, Wyoming: MS thesis, Univ. Tulsa.
2. and Dickey, P., 1969, Abnormal pressures and conductivity anomaly, northern Green River Basin, Wyoming: Log Analyst, v. 10, no. 4, p. 3-8.

RAWLINS, J.H.

1. and Kranzler, I., and Neel, R.S., 1963, First day, Sheridan, Wyoming to Crazy Head Campgrounds, Custer National Forest, Montana: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 183-188.
2. and Cox, J., 1963, Second day, Part I. Crazy Head Campgrounds to Alzada, Montana: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 189-190.
3. and Neel, R.S., Crowson, C.W., and Lawson, D.E., 1963, Third day, Part II, Beulah to Moorcroft: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana, p. 199-202.

RAY, P.

1963, Appendix - Geophysical study of the Ferris outlier: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 26-30.

RAYMAHASHAY, B.C.

1. 1967, Hot springs and hydrothermal alteration in the Paint Pot Hills area, Yellowstone Park (Wyoming): PhD dissert., Harvard Univ.
2. 1968, A geochemical study of rock alteration by hot springs in the Paint Pot Hill area, Yellowstone Park: Geochim. et Cosmochim. Acta, v. 32, no. 5, p. 499-522.

RAYNER, J.H.

1965, Multivariate analysis of montmorillonite: Clay Minerals Bull. v. 6, no. 1, p. 59-70.

REA, B.D.

1962, Pre-Mississippian geology of Elk Basin Field, Park County, Wyoming and Carbon County, Montana: Billings Geol. Soc., 13th Ann. Field Conf., Three Forks-Belt Mountains Area and Symposium on the Devonian System of Montana and Adjacent Areas, p. 115-118.

REDMAN, D.E.

1960, Exploratory drilling practices and costs at western uranium deposits: U.S. Bur. Mines, Inf. Circ. 7944, 68 p.

REED, C.A.

and Turnbull, W.D., 1965, The mammalian genera *Arctoryctes* and *Cryptoryctes* from the Oligocene and Miocene of North America: Fieldiana - Geology, v. 15, no. 2, p. 99-170.

REED, J.C., JR.

1. 1963, Structure of Precambrian crystalline rocks in the northern part of Grand Teton National Park, Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C1-C6.

2. 1964, Recent retreat of the Teton Glacier, Grand Teton National Park, Wyoming: U.S. Geol. Survey, Prof. Paper 501-C, p. C147-C151.
 3. 1965, Rate of ice movement and estimated ice thickness in part of the Teton Glacier, Grand Teton National Park, Wyoming: U.S. Geol. Survey, Prof. Paper 525-B, p. B137-B141.
 4. 1966, Observations on the Teton Glacier, Grand Teton National Park, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 87, p. 300-301.
 5. 1967, Observations on the Teton Glacier, Grand Teton National Park, Wyoming, 1965 and 1966: U.S. Geol. Survey, Prof. Paper 575-C, p. C154-C159.
 6. 1968, Precambrian rocks: U.S. Geol. Survey, Prof. Paper 516-E, A Geophysical Study in Grand Teton National Park and Vicinity, Teton County, Wyoming, p. E12-E14.
- REED, K.M.
- 1960, Insectivores of the Middle Miocene Split Rock local fauna, Wyoming: Breviora, no. 116, 15 p.
- REES, A.I.
- 1967, Comment on a paper "Non-opaque and opaque grain fabrics of siltstones in Red Peak Member (Triassic), central Wyoming" by M. Dan Picard and Douglas D. Beckmann: Jour. Sed. Petrology, v. 37, no. 2, p. 710-711.
- REESE, D.L.
- 1968, Gas fields of Rock Springs uplift, Sweetwater County, Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 803-816.
- REEVES, C.C., JR.
- 1964, New Cambrian, Ordovician, Devonian, and Mississippian measured sections, west flank Teton Mountains, Wyoming: Mtn. Geologist, v. 1, no. 4, p. 213-225.
- REIJENSTEIN d'ACIERNO, C.E.
- 1969, Stratigraphy and economic geology of uranium-bearing sediments in the Poison Spider district, Natrona County, Wyoming: MS thesis, Univ. Missouri.
- REINKING, R.L.
- 1967, Geochemistry of the Iron Mountain magnetite deposit, Albany County, Wyoming: PhD dissert., Univ. Illinois; and in [abs.] 1968: Dissert. Abs., pt. B, v. 28, no. 8, p. 3343B-3344B.
- RENFRO, A.R.
- 1969, Uranium deposits in the Lower Cretaceous of the Black Hills: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1, [Wyoming Uranium Issue], p. 87-92.
- REYNOLDS, M.W.
1. 1966, Stratigraphic relations of Upper Cretaceous rocks, Lamont-Baird area, south-central Wyoming: U.S. Geol. Survey, Prof. Paper 550-B, p. B69-B76.
 2. 1967, Physical evidence for Late Cretaceous unconformity, south-central Wyoming: U.S. Geol. Survey, Prof. Paper 575-D, p. D24-D28.
 3. 1968, Geologic map of the Muddy Gap quadrangle, Carbon County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-771, scale 1:24,000.
 4. 1968, Geologic map of the Whiskey Peak quadrangle, Carbon, Fremont, and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-772, scale 1:24,000.
- RHODES, F.H.T.
- 1963, Conodonts from the topmost Tensleep Sandstone of the eastern Bighorn Mountains, Wyoming: Jour. Paleontology, v. 37, no. 2, p. 401-408.

RICH, E.I.

1962, Reconnaissance geology of Hiland - Clarkson Hills area, Natrona County, Wyoming: U.S. Geol. Survey, Bull. 1107-G, p. 447-540.

RICHARDS, P.W.

and Nieschmidt, C.L., 1961, The Bighorn Dolomite and correlative formations in southern Montana and northern Wyoming: U.S. Geol. Survey, Oil and Gas Inv. Map OM-202, scale 1 in. to 12 mi.

RICHARDSON, E.E.

1961, Geologic and structure map of the North Fork oil field, Kaycee dome, and vicinity, Johnson County, Wyoming: U.S. Geol. Survey, Oil and Gas Inv. Map OM-206, scale 1:24,000.

RICHMOND, G.M.

1. and Hamilton, W.B., 1960, The Late Quaternary age of obsidian-rhyolite flows in the western part of Yellowstone National Park, Wyoming: U.S. Geol. Survey, Prof. Paper 400-B, art. 99, p. B224-B225.
2. 1962, Three pre-Bull Lake tills in the Wind River Mountains, Wyoming: U.S. Geol. Survey, Prof. Paper 450-D, p. D132-D136.
3. 1964, Glacial geology of the West Yellowstone Basin and adjacent parts of Yellowstone National Park: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 223-236.
4. 1964, Three pre-Bull Lake tills in the Wind River Mountains, Wyoming - a reinterpretation: U.S. Geol. Survey, Prof. Paper 501-D, p. D104-D109.
5. and Murphy, J.F., 1965, Geologic map of the Bull Lake East quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map QQ-431, scale 1:24,000.
6. and Murphy, J.F., and Denson, N.M., 1965, Glacial chronology of the Wind River Mountains, Pt. C: Internat. Assoc. Quaternary Research, 7th Cong., U.S.A., Guidebook for Field Conference E, Northern and Middle Rocky Mountains, p. 28-37.
7. and Pierce, K.L., 1968, Late Pleistocene center of ice-accumulation over Yellowstone Lake area [abs.]: Geol. Soc. America, Spec. Paper 115, p. 441.
8. 1969, Development and stagnation of the last Pleistocene icecap in the Yellowstone Lake Basin, Yellowstone National Park, U.S.A.: Eiszeitalter Gegenw., v. 20, p. 196-203.
9. 1969, Late Pinedale and neoglacial glaciation in the Absaroka Range, east of Yellowstone Lake, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 627-628.
10. 1969, Stagnation of the Pinedale icecap in the Yellowstone Lake Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 627.

RIDGE, J.D.

editor, 1968, Ore deposits of the United States, 1933-1967: New York, A.I.M.E., two volumes, Graton-Sales volume, 1880 p.

RIECKER, R.E.

1962, Geologic interpretations of hydrocarbon fluorescence under ultraviolet light [abs.]: Geol. Soc. America, Spec. Paper 68, p. 97.

RIEDEL, D.W.

1969, Geology of the Teepee Trail Formation, Badwater area, Fremont and Natrona Counties, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 39-41.

RINEHART, J.S.

1. 1965, Earth tremors generated by Old Faithful Geyser: Science, v. 150, no. 3695, p. 494-496.
2. and Nicholls, H.R., 1966, Dynamics of geysers in Yellowstone National Park [abs.]: Am. Geophys. Union, Trans., v. 47, no. 1, p. 205.

3. 1966, Preliminary investigation of earth tremors generated by Old Faithful Geyser [abs.]: Geol. Soc. America, Spec. Paper 87, p. 333.
 4. 1966, Geyser action in Yellowstone National Park [abs.]: Tokyo, Pacific Sci. Cong., 11th, Tokyo, Proc. v. 3, Solid Earth Physics II, Sci. Council Japan, Dib. Mtg., p. 36.
 5. 1967, Activity of Old Faithful Geyser [abs.]: Colorado-Wyoming Acad. Sci. Jour., v. 5, no. 8, p. 54.
 6. 1969, Thermal and seismic indications of Old Faithful Geyser's inner workings [abs.]: Am. Geophys. Union, Trans., v. 49, no. 4, p. 758; and in full 1969: Jour. Geophys. Resources, v. 74, no. 2, p. 566-573.
 7. 1969, Mechanical and thermal effects associated with the action of natural geysers: Internat. Assoc. Volcanol. Chem. Earth's Interior, Oxford Univ., Dept. Geol. Mineral., Symposium on Volcanoes and Their Roots, Vol. Abst., p. 261.
 8. and Murphy, A., 1969, Observations on pre- and post-earthquake performance of Old Faithful Geyser: Jour. Geophys. Research, v. 74, no. 3, p. 574-575.
 9. 1969, Old Faithful Geyser performance, 1870 through 1966: Bull. Volcanol., v. 33, no. 1, p. 153-163.
 10. 1969, Thermal and seismic activity of Narcissus Geyser [abs.]: EOS [Am. Geophys. Union, Trans.], v. 50, no. 4, p. 348.
 11. 1969, Thermal behavior of Solitary Geyser [abs.]: Colorado-Wyoming Acad. Sci. Jour., v. 6, no. 2, p. 29.
- RISLEY, R.G., JR.
- 1961, The structural geology of Byron-Garland anticlines, Park and Big Horn Counties, Wyoming: MS thesis, Univ. Wyoming.
- RITZMA, H.R.
1. 1961, Geology and occurrence of gas and oil, Wamsutter arch, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 3, p. 415; and in full 1963: Am. Assoc. Petroleum Geologists, Mem. 2, Backbone of the Americas, p. 188-195.
 2. 1964, Structural and stratigraphic development, Washakie and Sand Wash Basins, Wyoming and Colorado [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1877.
 3. 1965, Fossil soil at base of Paleocene rocks, southern Rock Springs uplift, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 136-139.
 4. 1968, Geology and occurrence of gas, Wamsutter arch, Sweetwater County, Wyoming: Am. Assoc. Petroleum Geologists, Mem. 9, v. 1, Natural Gases of North America - pt. 2, Natural Gases in Rocks of Mesozoic Age, p. 817-827.
- ROBERSON, H.E.
- and Weir, A.H., and Woods, R.D., 1968, Morphology of particles in size-fractionated Na-montmorillonites: Clays and Clay Minerals, v. 16, no. 3, p. 239-247.
- ROBERTS, A.E.
- 1965, Correlation of Cretaceous and lower Tertiary rocks near Livingston, Montana, with those in other areas of Montana and Wyoming: U.S. Geol. Survey, Prof. Paper 525-B, p. B54-B63.
- ROBERTSON, D.S.
- and Douglas, R.F., 1969, The uranium exploration situation: Mining Cong. Jour., v. 55, no. 1, p. 30-33.
- ROBERTSON, H.
- 1965, Physical and topographic factors as related to short-period wind noise: Seismol. Soc. America, Bull., v. 55, no. 5, p. 863-877.
- ROBINOVE, C.J.
1. and Berry, D.W., and Connor, J.G., 1963, Availability of ground water in the Bear River Valley, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1539-V, p. VI-V44.

2. and Langford, R.H., 1963, Geology and ground-water resources of the Greybull River - Dry Creek area, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1596, 88 p.

3. and Cummings, T.R., 1963, Ground-water resources and geology of the Lyman - Mountain View area, Uinta County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1669-E, p. E1-E43.

ROBINSON, G.S.

1. and Rosholt, J.N., Jr., 1960, Apparent age and migration of uranium in deposits in sandstone based on radiochemical analyses [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1957; and in 1960: Econ. Geology, v. 55, no. 6, p. 1332.

2. 1960, Origin of Devils Tower, Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 2040.

3. and Rosholt, J.N., Jr., 1961, Uranium migration and geochemistry of uranium deposits in sandstone above, at, and below the water table - pt. 2, Relationship of uranium migration dates, geology, and chemistry of the uranium deposits: Econ. Geology, v. 56, no. 8, p. 1404-1420.

4. and Mapel, W.J., and Bergendahl, M.H., 1964, Stratigraphy and structure of the northern and western flanks of the Black Hills uplift, Wyoming, Montana, and South Dakota: U.S. Geol. Survey, Prof. Paper 404, 134 p.

ROBINSON, P.

1. 1963, Fused cervical vertebrae from the Bridger Formation (Eocene) of Wyoming: Colorado Univ. Studies, Ser. Geology, no. 1, p. 6-9.

2. and Black C.C., and Dawson, M.R., 1964, Late Eocene multituberculates and other mammals from Wyoming: Science, v. 145, no. 3634, p. 809-811.

3. 1966, Paleontology and geology of the Badwater Creek area, central Wyoming - pt. 3, Late Eocene Apatemyidae (Mammalia; Insectivora) from the Badwater area: Carnegie Mus., Annals, v. 38, art. 15, p. 317-320.

4. 1967, The mandibular dentition of *Tentonoides* (Primates, Anaptomorphidae) Carnegie Mus., Annals, v. 49, art. 14, p. 187-191.

5. 1968, Nyctitheriidae (Mammalia, Insectivora) from the Bridger Formation of Wyoming: Univ. Wyoming, Contr. Geology, v. 7, no. 2, p. 129-138.

6. 1968, The paleontology and geology of the Badwater Creek area, central Wyoming - pt. 4, Eocene primates from Badwater, Wyoming, with a discussion of material from Utah: Carnegie Mus., Annals, v. 39, art. 19, p. 307-326.

ROCKY MOUNTAIN ASSOCIATION OF GEOLOGISTS

1. 1963, Geology of the northern Denver Basin and adjacent uplifts: Rocky Mtn. Assoc. Geologists, 14th Ann. Field Conf. Guidebook, 294 p.

2. 1963, 1st day's trip - geologic road log from Boulder, Colorado, to Cheyenne, Wyoming: Rocky Mtn. Assoc. of Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 280-285.

3. 1963, 2nd day's trip - Cheyenne to Lusk, Wyoming: Rocky Mtn., Assoc. of Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 286-290.

4. 1963, 3rd day's trip - Lusk, Wyoming, to Hot Springs, South Dakota, via Lance Creek: Rocky Mtn. Assoc. of Geologists, 14th Ann. Field Conf. Guidebook, Geology of the Northern Denver Basin and Adjacent Uplifts, p. 291-294.

ROEHLER, H.W.

1. 1961, The Late Cretaceous-Tertiary boundary in the Rock Springs uplift, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 96-100.

2. 1965, Early Tertiary depositional environments in the Rock Springs uplift area: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 140-150.

3. 1965, Summary of pre-Laramide Late Cretaceous sedimentation in the Rock Springs uplift area: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook,

Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 10-12.

4. 1968, Redefinition of Tipton Shale Member of Green River Formation of Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 52, no. 11, pt. 1, p. 2249-2256.

5. 1969, Stratigraphy of oil-shale deposits of Eocene rocks in the Washakie Basin, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 197-206.

ROGOFF, M.H.

and Wender, I., 1961, Biologically active materials in coal: Nature, v. 192, no. 4800, p. 378-379.

ROHR, G.M.

1. 1965, Marine Upper Jurassic microfauna and stratigraphy of north-central Wyoming (Bighorn Basin): MS thesis, Univ Iowa.

2. and Rodenberg, K., and Trigger, J., 1965, Structural analysis of the Shell Canyon area, Bighorn Mountains, Wyoming: Iowa Acad. Sci., Proc. 1964, v. 71, p. 292-303.

ROHRER, W.L.

1. and Leopold, E.B., 1963, Fenton Pass Formation (Pleistocene?), Bighorn Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C45-C48.

2. 1964, Geology of the Sheep Mountain quadrangle, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-310, scale 1:24,000.

3. 1964, Geology of the Tatman Mountain quadrangle, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-311, scale 1:24,000.

4. 1965, Geologic map of the Adam Weiss Peak quadrangle, Hot Springs and Park Counties, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-382, scale 1:24,000.

5. and Gazin, C.L., 1965, Grey Bull and Lysite faunal zones of the Willwood Formation in the Tatman Mountain area, Bighorn Basin, Wyoming: U.S. Geol. Survey, Prof. Paper 525-D, p. D133-D138.

6. 1966, Geology of the Adam Weiss Peak quadrangle, Hot Springs and Park Counties, Wyoming: U.S. Geol. Survey, Bull. 1241-A, p. A1-A39.

7. 1966, Geologic map of the Kisinger Lake quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-527, scale 1:24,000.

8. 1968, Geologic map of the Fish Lake quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-724, scale 1:24,000.

9. and Obradovich, J.D., 1969, Age and stratigraphic relations of the Tepee Trail and Wiggins Formations, northwestern Wyoming: U.S. Geol. Survey, Prof. Paper 650-B, p. 57-62.

10. 1969, Preliminary geologic map of the Sheridan Pass quadrangle, Fremont and Teton Counties, Wyoming: U.S. Geol. Survey, Open File Map, scale 1:24,000.

11. and Smith, J.W., 1969, Tatman Formation: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 49-54.

ROLFE, B.N.

and Hadley, R.F., 1963, Weathering and transport of sediment in the Cheyenne River Basin, eastern Wyoming [abs.], in Clays and clay minerals, v. 11: 11th Nat'l Conf. Clay and Clay Minerals, 1962, Proc., [Internat. Ser. Mons. Earth Sci., v. 13], p. 83; and in full, 1964, in Clays and clay minerals, v. 12: 12th Nat'l Conf. Clay and Clay Minerals, 1963, Proc. [Internat. Ser. Mons. Earth Sci., v. 19], p. 649-670.

ROMER, A.S.

1968, An ichthyosaur skull from the Cretaceous of Wyoming: Univ. Wyoming, Contr.

ROSHOLT, J.N., JR.

1. 1961, Late Pleistocene and Recent accumulation of uranium in ground water saturated sandstone deposits: *Econ. Geology*, v. 56, no. 2, p. 423-430.
2. 1961, Uranium migration and geochemistry of uranium deposits in sandstone above, at, and below the water table, Part I, Calculation of apparent dates of uranium migration in deposits above and at the water table: *Econ. Geol.*, v. 56, p. 1392-1403.
3. and Garner, E.L., and Shields, W.R., 1964, Fractionation of uranium isotopes and daughter products in weathered granite and uranium-bearing sandstone, Wind River Basin region, Wyoming: *U.S. Geol. Survey, Prof. Paper 501-B*, p. 884-887.
4. and Harshman, E.N., Shields, W.R., and Garner, E.L., 1964, Isotopic fractionation of uranium related to roll features in sandstone, Shirley Basin, Wyoming: *Econ. Geology*, v. 59, no. 4, p. 570-585.
5. and Ferreira, C.P., 1965, Fractionation of uranium isotopes and daughter products in uranium-bearing sandstone, Gas Hills, Wyoming: *U.S. Geol. Survey, Prof. Paper 525-C*, p. C58-C62.
6. and Butler, A.P., Garner, E.L., and Shields, W.R., 1965, Isotope fractionation of uranium in sandstone, Powder River Basin, Wyoming, and Slick Rock district, Colorado: *Econ. Geology*, v. 60, no. 2, p. 199-213.
7. and Tatsumoto, M., and Dooley, J.R., Jr., 1965, Radioactive disequilibrium studies in sandstone, Powder River Basin, Wyoming, and Slick Rock district, Colorado: *Econ. Geology*, v. 60, no. 3, p. 477-484.
8. and Bartel, A.J., 1969, Uranium, thorium, and lead systematics in Granite Mountains, Wyoming: *Earth Planet. Sci. Letter*, v. 7, no. 2, p. 141-147; and in [abs.] and Peterman, Z.E., 1969, *Geol. Soc. America, Abs. 1969*, pt. 5, [Rocky Mountain Section], p. 70.

ROSS, A.R.

and St. John, J.W., 1960, *Geology of the northern Wyoming Range, Wyoming*: *Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas*, p. 44-56.

ROSS, C.P.

and Nelson, W.H., 1964, Regional seismicity and brief history of Montana earthquakes: *U.S. Geol. Survey, Prof. Paper 435*, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 25-30.

ROWE, C.M.

1963, *The land of Custer*: *Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin - Wyoming and Montana*, p. 9-16.

ROWE, J.J.

1. 1963, Releasing-addition method for the flame-photometric determination of calcium in thermal waters: *Geochim. et Cosmochim. Acta.*, v. 27, no. 8, p. 915-923.
2. and Fournier, R.O., and Morey, G.W., 1965, Use of sodium iodide to trace underground water circulation in hot springs and geysers of the Daisy Geyser group, Yellowstone National Park: *U.S. Geol. Survey, Prof. Paper 525-B*, p. B184-B186.

RUBEL, D.N.

1966, Ring dike fault complex with a vertically displaced 3000-foot central core just north of Yellowstone National Park [abs.]: *Geol. Soc. America, Spec. Paper 87*, p. 143.

RUBEY, W.W.

1. and Oriel, S.S., and Tracey, J.I., Jr., 1961, Age of Evanston Formation, western Wyoming: *U.S. Geol. Survey, Prof. Paper 424-B*, art. 64, p. B153-B154, and in 1961: *Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas*, p. 68-69.

2. 1967, Introduction: U.S. Geol. Survey, Prof. Paper 561, Chemical Composition of Sedimentary Rocks in Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming, p. 1-7.
 3. and Oriel, S.S., and Tracey, J.I., Jr., 1968, Preliminary geologic map of Kemmerer quadrangle, Lincoln County, Wyoming: U.S. Geol. Survey, Open File Map, scale 1:48,000.
 4. and Tracey, J.I., Jr., and Oriel, S.S., 1968, Preliminary geologic map of Sage quadrangle, Lincoln County, Wyoming: U.S. Geol. Survey, Open File Map, scale 1:48,000.
- RUEHR, B.B.
- 1961, Geology of the Devils Gate area, Albany and Carbon Counties, Wyoming: MS thesis, Univ. Wyoming.
- RUNGE, J.S.
- 1968, Exploration for "Dakota" oil traps, Black Hills area: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 79-82.
- RUPPEL, E.T.
1. 1969, Crowfoot Ridge and Three Rivers Peak reference sections, Yellowstone National Park, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 630-631.
 2. 1969, Structure in pre-Tertiary rocks, northern Yellowstone National Park, Wyoming, and some regional implications [abs.]: Geol. Soc. America, Spec. Paper 121, p. 631.
- RUSHFORTH, S.R.
- and Tidwell, W.D., 1968, Notes on the distribution and morphology of the fern genus *Astralopteris*: Brigham Young Univ., Geology Studies, v. 15, pt. 1, p. 109-113.
- RUTTEN, M.G.
- 1963, Acid lava flow structure (as compared to ignimbrites): Bull. Volcanol., v. 25, p. 111-121.
- RYAN, J.D.
- 1969, Late Upper Cretaceous and Early Tertiary paleocurrent patterns in the Hanna and Carbon Basins, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 7, [Annual Meeting] p. 195.

SABINS, F.F., JR.

1. and Petersen, F.A., 1961, Geology and petrography of Dead Horse Creek and Barber Creek Fields: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 301-309.
2. 1962, How do Bisti and Dead Horse Creek strat traps compare?: Oil and Gas Jour., v. 60, no. 33, p. 192-194, 196-198.
3. 1965, Review of petrographic criteria for Cretaceous depositional environments: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 27-34.

SALES, J.K.

1. 1968, Crustal mechanics of Cordilleran foreland deformation — a regional and scale-model approach: Am. Assoc. Petroleum Geologists, Bull., v. 52, no. 10, p. 2016-2044.
2. 1968, Regional tectonic setting and mechanics of origin of the Black Hills uplift: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 10-27.
3. 1969, Isolation of mechanical factors controlling Wyoming foreland deformation [abs.]: Geol. Soc. America, Spec. Paper 121, p. 632-633.

SANDBERG, C.A.

1. 1961, Distribution and thickness of Devonian rocks in the Williston Basin and in central Montana and north-central Wyoming: U.S. Geol. Survey, Bull. 1112-D, p. 105-127.
2. 1961, Widespread Beartooth Butte Formation of Early Devonian age in Montana and Wyoming and its paleogeographic significance: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 8, p. 1301-1309.
3. 1963, Dark shale unit of Devonian and Mississippian age in northern Wyoming and southern Montana: U.S. Geol. Survey, Prof. Paper 475-C, p. C17-C20.
4. 1963, Spirorbis limestone in the Souris River(?) Formation of Late Devonian age at Cottonwood Canyon, Bighorn Mountains, Wyoming: U.S. Geol. Survey, Prof. Paper 475-C, p. C14, C16.
5. 1965, Nomenclature and correlation of lithologic subdivisions of the Jefferson and Three Forks Formations of southern Montana and northern Wyoming: U.S. Geol. Survey, Bull. 1194-N, p. N1-N18.
6. 1967, Measured sections of Devonian rocks in northern Wyoming: Wyo. Geol. Survey, Bull. 52, 93 p.
7. and Klapper, G., 1967, Stratigraphy, age, and paleotectonic significance of the Cottonwood Canyon Member of the Madison Limestone in Wyoming and Montana: U.S. Geol. Survey, Bull. 1251-B, p. B1-B70.
8. and Mapel, W.J., 1968, Devonian of the northern Rocky Mountains and Plains: Alberta Soc. Petroleum Geologists, Internat. Symposium on the Devonian System, Calgary, Proc. 1967, v. 1, p. 843-877.

SANDO, W.J., JR.

1. 1960, Distribution of corals in the Madison Group and correlative strata in Montana, western Wyoming, and northeastern Utah: U.S. Geol. Survey, Prof. Paper 400-B, art. 100, p. B225-B227.
2. and Dutro, J.T., Jr., 1960, Stratigraphy and coral zonation of the Madison Group and Brazer Dolomite in northeastern Utah, western Wyoming, and southwestern Montana: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 117-126.
3. 1967, Madison Limestone (Mississippian), Wind River, Washakie, and Owl Creek Mountains, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 4, p. 529-557.
4. 1967, Mississippian depositional provinces in the northern Cordilleran region: U.S. Geol. Survey, Prof. Paper 575-D, p. D29-D38.
5. 1968, A new member of the Madison Limestone (Mississippian) in Wyoming: Geol. Soc. America, Bull., v. 79, no. 12, p. 1855-1857.

SAPIK, D.B.

- 1964, Occurrence of artesian water in the upper Green River Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 76, p. 292.

SARGENT, K.A.

1. 1960, Allanite occurrence in the Horn area, Bighorn Mountains, Wyoming [abs.]: Dissert. Abs., v. 21, no. 6, p. 1529.
2. 1964, Allanite in metamorphic rocks, Horn area, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 76, p. 143.

SATO, Y.

and Denson, N.M., 1967, Volcanism and tectonism as reflected by the distribution of nonopaque heavy minerals in some Tertiary rocks of Wyoming and adjacent states: U.S. Geol. Survey, Prof. Paper 575-C, p. C42-C54.

SAUL, J.M.

1969, Study of the Spanish Diggings, aboriginal flint quarries of southeastern Wyoming: Natl. Geog. Soc., Research Repts., 1964, p. 183-199.

SAULNIER, G.J.

1968, Ground water resources and geomorphology of the Pass Creek Basin area, Albany and Carbon Counties, Wyoming: MS thesis, Univ. Wyoming.

SCHAEFFER, B.

and Mangus, M., 1965, Fossil lakes from the Eocene: Nat. History, v. 74, no. 4, p. 10-21.

SCHARFF, R.

editor, 1967, Yellowstone and Grand Teton National Parks: New York, David McKay, 209 p.

SCHMIDT-COLLERUS, J.J.

1. 1967, Research in uranium geochemistry, in Investigations of the relation between organic matter and uranium deposits, Part I, Literature review: Univ. Denver, Denver Research Inst., U.S. Atomic Energy Comm., GJO-933-1, 153 p.
2. 1969, Research in uranium geochemistry, in Investigations of the relationship between organic matter and uranium deposits, Part II, Experimental investigations: Univ. Denver, Denver Research Inst., U.S. Atomic Energy Comm., GJO-933-2, 192 p.

SCHOEN, R.

1969, Rate of sulfuric acid formation in Yellowstone National Park: Geol. Soc. America, Bull., v. 80, no. 4, p. 643-649.

SCHOFIELD, A.

and Haskin, L., 1964, Rare-earth distribution patterns in eight terrestrial materials: Geochim. et Cosmochim. Acta., v. 28, no. 4, p. 437-446.

SCHRAYER, G.J.

1. and Zarrella, W.M., 1963, Organic geochemistry of shales - pt. I, Distribution of organic matter in the siliceous Mowry Shale of Wyoming: Geochim. et Cosmochim. Acta., v. 27, no. 10, p. 1033-1046; and in [abs.]: Geol. Soc. America, Spec. Paper 73, p. 235.
2. and Zarrella, W.M., 1965, Organic geochemistry of shales - pt. II - Distribution of extractable organic matter in the siliceous Mowry Shale of Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 235.
3. and Zarrella, W.M., 1966, Organic chemistry of shales - pt. 2, Distribution of extractable organic matter in the siliceous Mowry Shale, Wyoming: Geochim. et Cosmochim. Acta., v. 30, no. 4, p. 415-434.
4. and Zarrella, W.M., 1968, Organic carbon in the Mowry Formation and its relation to the occurrence of petroleum in Lower Cretaceous reservoir rocks: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 35-39.

SCHROEDER, M.L.

1. 1968, Lower Triassic foraminifera from the Thaynes Formation in southeastern Idaho and western Wyoming: Micropaleontology, v. 14, no. 1, p. 73-82.

2. 1969, Geologic map of the Teton Pass quadrangle, Teton County, Wyoming: U.S. Geol. Survey, Geol. Quad. Map GQ-793, scale 1:24,000.

SCHULTE, J.J.

- 1962, Highlights of Cenozoic geologic history of the Bighorn Canyon region, Montana and Wyoming: Billings Geol. Soc., 12th Ann. Field Conf., Float Trip - Bighorn River from Kane, Wyoming to Yellowtail Dam Site, p. 13-26.

SCHULTZ, L.G.

- and Mapel, W.J., 1961, Clays in the Inyan Kara Group (Cretaceous), Black Hills, Wyoming and South Dakota: U.S. Geol. Survey, Prof. Paper 424-C, art. 210, p. C172-C175.

SCHUSTER, R.L.

- and Everitt, M.C., 1968, Slope stability problems in Shell Canyon, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 444-445.

SCHWAB, F.L.

1. 1968, An analysis of Phanerozoic sedimentation through time, western Wyoming: PhD dissert., Harvard Univ.
2. 1969, Cyclic geosynclinal sedimentation; a petrographic evaluation: Jour. Sed. Petrology, v. 39, no. 4, p. 1325-1343.
3. 1969, Geosynclines; what contribution to the crust?: Jour. Sed. Petrology, v. 39, no. 1, p. 150-158.
4. 1969, Provenance and systematic compositional trends of Phanerozoic sandstones, western Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 269-270.

SCOTT, J.H.

1. and Dodd, P.H., 1960, Gamma-only assaying for disequilibrium corrections: U.S. Atomic Energy Comm., RME-135, 20 p.
2. 1961, A slide rule for making dead time corrections: Nucleonics, v. 19, no. 9, p. 90-92.
3. and Dodd, P.H., Drouillard, R.F., and Mudra, P.J., 1961, Quantitative interpretation of gamma-ray logs: Geophysics, v. 26, no. 2, p. 182-191.
4. 1962, The gamlog computer program: U.S. Atomic Energy Comm., RME-143, 43 p.
5. 1963, The grade computer program for calculating uranium ore reserves: U.S. Atomic Energy Comm., RME-145, 25 p.

SCOTT, R.C.

1. and Barker, F.B., 1962, Data on uranium and radium in groundwater in the United States, 1954 to 1957: U.S. Geol. Survey, Prof. Paper 426, 115 p.
2. 1964, Records of postearthquake chemical quality of groundwater: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 179-184.

SCRUTON, P.C.

- 1961, Rocky Mountain Cretaceous stratigraphy and regressive sandstones: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 242-249.

SENGBUSH, R.L.

- 1962, Stratigraphic trap study in Cottonwood Creek Field, Bighorn Basin, Wyoming: Geophysics, v. 27, no. 4, p. 427-444.

SEVERN, W.P.

- 1961, General stratigraphy of the Mesaverde Group, Bighorn Basin, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 195-199.

SHAPIRO, L.H.

- and Gries, J.P., 1968, Ore deposits in Paleozoic rocks, northern Black Hills,

South Dakota: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 179-185.

SHARP, W.N.

1. and McKay, E.J., McKeown, F.A., and White A.M., 1964, Geology and uranium deposits of the Pumpkin Buttes area of the Powder River Basin, Wyoming: U.S. Geol. Survey, Bull. 1107-H, p. 541-633.
2. and Gibbons, A.B., 1964, Geology and uranium deposits of the southern part of the Powder River Basin, Wyoming: U.S. Geol. Survey, Bull. 1147-D, p. D1-D60.

SHAW, D.R.

and Granger, H.C., 1965, Uranium ore rolls - an analysis: Econ. Geology, v. 60, no. 2, p. 240-250.

SHELDON, R.P.

1. and Maughan, E.K., and Cressman, E.R., 1962, Sedimentation in Wyoming and adjacent areas during Leonard (Permian) time [abs.]: Geol. Soc. America, Spec. Paper 68, p. 100-101; and in full 1967: Intermountain Assoc. Geologists, 15th Ann. Field Conf., Anatomy of the Western Phosphate Field, p. 1-13.
2. 1963, Physical stratigraphy and mineral resources of Permian rocks in western Wyoming: U.S. Geol. Survey, Prof. Paper 313-B, p. 49-273.
3. and Maughan, E.K., and Cressman, E.R., 1967, Paleogeography and sedimentary environments at time of maximum transgression during Leonard time in Wyoming and adjacent areas: U.S. Geol. Survey, Misc. Geol. Inv. Map I-450, Plate 11; and explanation, Environment of Wyoming and adjacent states - Interval B (pl. 11): U.S. Geol. Survey, Misc. Geol. Inv. Map I-450 [text], Paleotectonic Maps of the Permian System, p. 48-54.
4. 1967, Long-distance migration of oil in Wyoming: U.N. Econ. Comm. Asia and Far East Mineral Resources Devel. Ser. No. 26, 3rd Symposium on Development of Petroleum Resources of Asia and the Far East, Tokyo, 1965, Proc., v. 1, p. 113-117.
5. and Cressman, E.R., Cheney, T.M., and McKelvey, V.E., 1967, Middle Rocky Mountains and northeastern Great Basin: U.S. Geol. Survey, Prof. Paper 515, Paleotectonic Investigations of the Permian System in the United States, Chapter H, p. 153-170.

SHELTON, J.W.

1968, Role of contemporaneous faulting during basinal subsidence: Am. Assoc. Petroleum Geologists, Bull., v. 52, no. 3, p. 399-413.

SHERER, R.L.

1969, Nephrite deposits of the Granite, the Seminoe, and the Laramie Mountains, Wyoming: PhD dissert., Univ. Wyoming.

SHERIDAN, D.M.

and Maxwell, C.H., and Collier, J.T., 1962, Geology of the Lost Creek schroekingerite deposits, Sweetwater County, Wyoming: U.S. Geol. Survey, Bull. 1087J, p. 391-478.

SHERMAN, W.F.

1962, Engineering geology of the Cody tunnel project, Wyoming [abs]: Geol. Soc. America, Spec. Paper 68, p. 101; and in full, 1963, as Engineering geology of the Cody highway tunnels, Park County, Wyoming: Geol. Soc. America, Eng. Geology Case Histories, no. 4, p. 27-32.

SHIPP, B.G.

and Dunnewald, J.B., 1962, The Big Piney - LaBarge Frontier gas field, Sublette and Lincoln Counties, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 273-279.

SHORT, N.M.

and Earley, J.W., 1962, Correlation of Wyoming bentonites by element analysis

[abs.]: Geol. Soc. America, Spec. Paper 68, p. 269-270.

SHULTZ, C.H.

1. 1963, Petrology of Mt. Washburn, Yellowstone National Park, Wyoming [abs.]: Dissert. Abs., v. 24, no. 1, p. 251-252.
2. 1969, Mt. Washburn volcano, a major Eocene volcanic vent [abs.]: Geol. Soc. America, Spec. Paper 121, p. 635.

SINGH, S.S.

and Brydon, J.E., 1967, Precipitation of aluminum by calcium hydroxide in the presence of Wyoming bentonite and sulfate ions: Soil Sci., v. 103, no. 3, p. 162-167.

SINGLE, E.L.

1969, Pavillion Field, Fremont County, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 101-103.

SKEETERS, W.W.

1961, Gas is major target for explorers in the Green River Basin: Oil and Gas Jour., v. 59, no. 17, p. 152-154, 158.

SKINNER, R.E.

1. 1960, Proposed Kendall Sandstone Member of the Gypsum Spring Formation: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 129-130.
2. 1960, Tectonic elements of the northern Green River area of Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 86-88.

SKINNER, S.M.

and Gooris, R.J., 1966, A note on Toxotherium (Mammalia, Rhinocerotidae) from Natrona County, Wyoming: Am. Mus. Novitates, no. 2261, 12 p.

SKINNER, W.R.

1. 1963, Petrology of metamorphosed ultramafic rocks in the Highline Lakes area, Beartooth Mountains, Wyoming [abs.]: Am. Geophys. Union, Trans., v. 44, no. 1, p. 119.
2. 1966, Geologic evolution of the Beartooth Mountains, Montana and Wyoming, Part 8, Ultramafic rocks in the Highline Trail Lake area, Wyoming: PhD dissert., Columbia Univ.; and in full 1969: Geol. Soc. America, Mem. 115, Igneous and Metamorphic Geology [Arie Poldervaart Volume], p. 19-52; and in [abs.] 1969: Dissert. Abs. Int., pt. B, v. 30, no. 3, p. 1205B-1906B.
3. and Bowes, D.R., and Khoury, S.G., 1969, Polyphase deformation in the Archean basement complex, Beartooth Mountains, Montana and Wyoming: Geol. Soc. America, Bull., v. 80, no. 6, p. 1053-1060.

SLAUGHTER, M.

1. and Earley, J.W., 1962, Mineralogy and geological significance of the Mowry bentonites, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 273; and in full 1965: Geol. Soc. America, Spec. Paper 83, 95 p.
2. and Earley, J.W., 1963, Detailed field and laboratory studies on the origin and occurrence of Wyoming bentonites [abs.]: Clays and Clay Minerals, 10th Nat'l Conf. Clays and Clay Minerals, Proc., v. 10, p. 3, [Internat. Ser. Mons. Earth Sci., no. 12].
3. 1964, Petrogenesis of bentonites [abs.]: Clays and Clay Minerals, 12th Nat'l Conf. Clays and Clay Minerals, 1963, Proc., v. 12, p. 173, [Internat. Ser. Mons. Earth Sci., no. 19].

SLITOR, T.W.

1969, The petrology, petrography and structural geology of the Precambrian complex of the Torrey Creek area, Fremont County, Wyoming: MS thesis, Univ. Ohio.

SLOAN, R.E.

1966, Paleontology and geology of the Badwater Creek area, central Wyoming — pt. 2, The Badwater multituberculate: Carnegie Mus., Annals, v. 38, art. 14, p. 309-315.

SMALL, W.D.

and Slawson, W.F., 1969, Lead isotopic abundances in selected regions of Montana, Wyoming, and Idaho [abs.]: Geol. Soc. America, Spec. Paper 121, p. 638.

SMEDES, H.W.

1. 1968, Program statement for regional geologic studies in remote sensing, Yellowstone National Park: U.S. Nat. Aeronaut. Space Admin., Manned Spacecraft Cent., Earth Resources Aircraft Program, Status Review; v. I, Geology, Geography, and Sensor Studies, Sect. 15, p. 1-9.
2. 1969, Stratigraphy of Eocene volcanics in northwestern Yellowstone National Park [abs.]: Geol. Soc. America, Spec. Paper 121, p. 638-639.

SMITH, B.D.

1967, Geology and geophysical investigation of an area of Precambrian rocks, central Laramie Range, Albany County, Wyoming: MS thesis, Univ. Wyoming.

SMITH, H.T.U.

1968, "Piping" in relation to periglacial boulder concentrations: Biul. Peryglacjalny, no. 17, p. 195-204.

SMITH J.B.

1969, Strippable coal reserves of Montana, North Dakota, and Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 1, p. 214.

SMITH, J.H.

1961, A summary of stratigraphy and paleontology, Upper Colorado and Montana Groups, southcentral Wyoming, northeastern Utah, and northwestern Colorado: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 101-112; and in 1965: Wyo. Geol. Assoc., 19th Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 13-26.

SMITH, J.W.

1. and Stanfield, K.E., 1965, Oil shales of the Green River Formation in Wyoming: Wyo. Geol. Assoc., 19th Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 167-170.
2. and Trudell, L.G., 1968, Wyoming Corehole No. 1 — a potential site for production of shale oil in place: Colorado School Mines, Quart., v. 63, no. 4, Fifth Symposium on Oil Shale, p. 55-69.
3. and Trudell, L.G., and Stanfield, K.E., 1969, Characteristics of Green River Formation oil shales at Bureau of Mines Wyoming Corehole no. 1: U.S. Bur. Mines, Rept. Inv. 7172, 92 p.
4. 1969, Geochemistry of oil-shale genesis, Green River Formation, Wyoming: Wyo. Geol. Assoc., 21st Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 185-190.

SMITHSON, S.B.

1. and Ebens, R.J., 1967, Geophysical data and petrography of Precambrian rocks from a 3-km borehole, Wind River Mountains, Wyoming [abs.]: Am. Geophys. Union, Trans., v. 48, no. 1, p. 202.

2. 1968, Gravity measurements in southeastern Wyoming and west-central Colorado [abs.]: Am. Geophys. Union, Trans., v. 49, no. 4, p. 666; and in full as 1969, Gravity Measurement in Wyoming and central Colorado, (D.F. Varnes, editor): EOS, [Am. Geophys. Union, Trans.], v. 50, no. 10, Symposium on Gravity Surveys in Western North America, p. 537-538.
3. and Hodge, D.S., 1969, Petrology and geochemistry of the Laramie batholith and related metamorphic rocks of Precambrian age, eastern Wyoming - discussion: Geol. Soc. America, Bull., v. 80, no. 11, p. 2383-2384.

SOHER, H.J.

1. 1961, Wyoming, its economy, its future, its resources: Pacific Power and Light Co., Portland, 36 p.
2. 1965, Wyoming resources unlimited: Portland, Pacific Power and Light Co., p. 22-23.

SOHL, N.F.

- 1967, Upper Cretaceous gastropods from the Pierre Shale at Red Bird, Wyoming: U.S. Geol. Survey, Prof. Paper 393-B, p. B1-B46.

SOISTER, P.E.

1. 1960, Landslide debris from Cretaceous rocks in the Wind River Formation of Early Eocene age, Wind River Basin, Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1982-1983.
2. 1962, Stratigraphy of the Wind River Formation (lower Eocene), Gas Hills uranium district, Wind River Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 101-102; and in full 1968: U.S. Geol. Survey, Prof. Paper no. 594-A, p. A1-A50.
3. 1966, Geologic map of the Muskrat Basin quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-482, scale 1:24,000.
4. 1966, Geologic map of the Rongis Reservoir SE quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-483, scale 1:24,000.
5. 1966, Puddle Springs Arkose Member of Wind River Formation: U.S. Geol. Survey, Bull. 1244-A, Changes in Stratigraphic Nomenclature by the U.S. Geological Survey 1965, p. A42-A46.
6. 1967, Geology of the Puddle Springs quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Bull. 1242-C, p. C1-C36.
7. 1967, Geologic map of the Coyote Springs quadrangle, Fremont County, Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-481, scale 1:24,000.

SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY, DEPT. OF GEOLOGY AND GEOLOGICAL ENGINEERING

- 1968, General outcrop section of the Black Hills Area: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, and Wyoming, p. 6.

SPANSKI, G.T.

- 1966, Geology and geochemistry of the Trail Creek kyanite deposit, Albany County, Wyoming: PhD dissert., Univ. Illinois; and in [abs.] 1967: Dissert. Abs., pt. B, v. 27, p. 2418B-2419B.

SPEARING, D.R.

1. 1969, Stratigraphy and sedimentation of the Paleocene-Eocene Hoback Formation, western Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 65-76.
2. 1969, Stratigraphy, sedimentation and tectonic history of the Paleocene-Eocene Hoback Formation of western Wyoming: PhD dissert., Univ. Michigan; and in [abs.] 1969: Dissert. Abs. Int., pt. B, v. 30, no. 5, p. 2259B.

SPENCER, D.W.

- 1963, The interpretation of grain size distribution curves of clastic sediments: Jour. Sed. Petrology, v. 33, no. 1, p. 180-190.

STAPP, R.W.

1967, Relationship of Lower Cretaceous depositional environment to oil accumulation, northeastern Powder River Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 10, p. 2044-2055.

STARMER, R.J.

1969, Precambrian geology of the upper Big Goose area, Bighorn Mountains, Wyoming: MS thesis, Univ. Cincinnati.

STEENLAND, N.C.

1969, An aeromagnetic survey of the Uinta Mountains: Intermountain Assoc. Geologists and Utah Geol. Soc., 16th Ann. Field Conf., Geologic Guidebook of the Uinta Mountains, Utah's Maverick Range, p. 47-51.

STEIDTMANN, J.R.

1. 1968, Sedimentation, stratigraphy and tectonic history of the Early Eocene Pass Peak Formation, central-western Wyoming: PhD dissert., Univ. Michigan; and in [abs.]: Dissert. Abs., pt. 8, v. 29, no. 8, p. 2944B-2945B.
2. 1969, Environmental reconstruction from cross-stratification, an example from the Pass Peak Formation (Eocene), western Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 2, p. 168-170.
3. 1969, Origin of the Early Eocene Pass Peak Formation, central-western Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 5, [Rocky Mountain Section] p. 77-78.
4. 1969, Stratigraphy of the Early Eocene Pass Peak Formation, central-western Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 55-63.

STEIGER, R.H.

and Wasserburg, G.J., 1969, Comparative Y-Th-Pb systematics in 2.7×10^9 yr plutons of different geologic histories: Geochim. et Cosmochim. Acta, v. 33, no. 10, p. 1213-1232.

STEINBERG, M.

1969, Value and prospects of recovery of uranium from U.S. coal deposits: U.S. Atomic Energy Comm., BNL-13252, 45 p.

STEINMETZ, R.

1. 1963, Wasatch sandstones in the eastern Green River Basin [abs.]: Dissert. Abs., v. 23, no. 9, p. 3321.
2. 1969, Cross-bed variability in a single sand body [abs.]: Geol. Soc. America, Spec. Paper 121, p. 290.

STELLMACK, J.A.

1965, An alpine karst in the United States [abs.]: Ljubljana, Yugoslavia, Speleol. Soc., 4th Internat. Cong. Speleology, summ. lectures, p. 54; and in [abs.] 1966: Nat'l Speleol. Soc., Bull., v. 28, no. 2, p. 94.

STENSLAND, R.D.

1965, A tectonic analysis of the lithologic associations in the Frontier Formation (Upper Cretaceous), Big Horn County, Wyoming: MS thesis, Iowa State Univ.

STENSURUD, H.L.

1. 1962, Lake Owens mafic complex, Medicine Bow Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 103-104.
2. 1963, Geology of the Lake Owens mafic complex, Albany County, Wyoming: MA thesis, Univ. Wyoming.

STEPHENS, J.G.

and Healey, D.L., 1964, Geology and uranium deposits at Crooks Gap, Fremont County, Wyoming: U.S. Geol. Survey, Bull. 1147-F, p. F1-F82.

STEWART, R.B.

1. 1962, 1st day's trip - Casper to Lake DeSmet, northeast of Buffalo, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 319-322.
2. 1962, 2nd Day's trip - Lake DeSmet, northeast of Buffalo, Wyoming to the Medicine Wheel Campground, Big Horn National Forest, in the Bighorn Mountains via the Shell Canyon and Crystal Creek Anticline roads: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 323-327.
3. 1962, 3rd day's trip - Medicine Wheel Campground, Big Horn National Forest, to Cody Fish Hatchery, north of Cody, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 329-330.

STONE, D.S.

1. 1966, Geologic and economic evaluation of the Laramie - eastern Hanna Basin area, Wyoming: Mtn. Geologist, v. 3, no. 2, p. 55-73.
2. 1967, Theory of Paleozoic oil and gas accumulation in Bighorn Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 10, p. 2056-2114.

STONE, R.

1. 1967, The geometry and origin of the oolitic sandstone bodies of the Sundance Formation (Upper Jurassic) in the Bighorn Basin, Wyoming: MS thesis, Iowa State Univ.
2. and Vondra, C.F., 1968, Geometry and paleocurrent analysis of certain sandstone bodies in the Sundance Formation of northwestern Wyoming [abs.]: Geol. Soc. America, Spec. Paper 115, p. 215-216.

STONE, W.J.

1. 1966, Interpretation of Pennsylvanian-Permian contact in the eastern Powder River Basin region, Wyoming: Compass, v. 44, no. 1, p. 5-9.
2. 1969, Stratigraphy of the Minnelusa Formation (Pennsylvanian-Permian) along the western and northern flanks of the Black Hills, Wyoming and South Dakota: MS thesis, Kent State Univ.

STOUT, J.L.

- 1969, Reservoir volume determinations by computer analysis techniques: Louisiana Tech Univ. Ruston, Computer Technology in Subsurface Exploration, p. 109-112.

STOUT, T.M.

- 1960, Classification of Oligocene sediments in northeastern Colorado and eastern Wyoming [abs.]: Nebr. Acad. Sci., Proc., no. 101, p. 15.

STRICKER, G.D.

- 1965, Geology of the Four Bear Mountain area, Park County, Wyoming: MS thesis, Wayne State Univ.

STRICKLAND, J.W.

- 1960, Summary of Mississippian stratigraphy, western Wyoming and vicinity: Billings Geol. Soc., 11th Ann. Field Conf. Guidebook, West Yellowstone - Earthquake Area, p. 217-225.

STUART, W.J., JR.

- 1963, Stratigraphy of the Green River Formation west of the Rock Springs Uplift, Sweetwater County, Wyoming: MS thesis, Univ. Wyoming; and in 1965: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 159-166.

STUCKER, G.F.

- 1966, Mountain of the stone fishes: Natl. Parks Mag., v. 40, no. 228, p. 4-9.

STURGES, D.L.

1. and Sundin, R.E., 1967, Gross alpha and beta radiation in waters at a Wyoming mountain bog [abs.]: Am. Geophys. Union., Trans., v. 48, no. 1, p. 99; and in full 1968: Water Resources Research, v. 4, no. 1, p. 159-162.
2. 1968, Hydrologic properties of peat from a Wyoming mountain bog: Soil Sci., v. 106, no. 4, p. 262-264.

SUYDAM, R.B.

1963, Overthrusting in the South LaBarge Creek area, Lincoln and Sublette Counties, Wyoming: MA thesis, Univ. Wyoming.

SWAIN, F.M.

1964, Tertiary fresh-water Ostracoda of the Uinta Basin and related forms from southern Wyoming, western Utah, Idaho, and Nevada: Intermountain Assoc. Petroleum Geologists, 13th Ann. Field Conf. Guidebook, Geology and Mineral Resources of the Uinta Basin, p. 173-180.

SWANSON, D.C.

1967, Pennsylvanian geology of western mid-continent [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1906.

SWANSON, R.W.

1967, Geology of the western phosphate field: Montana Bur. Mines and Geology, Spec. Pub. 42, Industrial Seminar, Western Phosphate Region, 1966, Proc., p. 32-38.

SWANSON, V.E.

1960, Oil yield and uranium content of black shales: U.S. Geol. Survey, Prof. Paper 356-A, 44 p.

SWENSON, F.A.

1964, Ground-water phenomena associated with the Hebgen Lake earthquake: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August-17, 1959, p. 159-165.

SWETNAM, M.N.

1. 1961, Geology of the Pelton Creek area, Albany and Carbon Counties, Wyoming: MS thesis, Univ. Wyoming.
2. 1962, The origin of Precambrian crystalline rocks in the Pelton Creek area, Medicine Bow Mountains, Wyoming: Univ. Wyoming, Contr. Geology, v. 1, no. 1, p. 41-47.

SWIRCZYNSKI, R.P.

1968, Kitty Field, Campbell County, Wyoming: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills area, South Dakota, Montana, Wyoming, p. 67-71.

SZALAY, F.S.

1. 1965, First evidence of tooth replacement in the subclass Allotheria (Mammalia): Am. Mus. Novitates, no. 2226, 12 p.
2. 1968, Origins of the Apatemyidae (Mammalia, Insectivora): Am. Mus. Novitates, no. 2352, 11 p.
3. 1968, The Picrodontidae, a family of early primates: Am. Mus. Novitates, no. 2329, 55 p.
4. 1969, Uintasoriciane, a new subfamily of Early Tertiary mammals (Primates): Am. Mus. Novitates, no. 2363, 36 p.

TALBOT, C.

1967, Modern evaporite origin at Howell and Soap Hole Lakes, Albany County, Wyoming: MS thesis, Univ. Wyoming.

TANK, R.

1969, Clay mineral composition of the Tipton Shale Member of the Green River Formation (Eocene) of Wyoming: Jour. Sed. Petrology, v. 39, no. 4, p. 1593-1595.

TEBBUTT, G.E.

1. 1964, Lithogenesis of a distinctive Permian carbonate fabric, Big Horn and Washakie Counties, Wyoming: MS thesis, Univ. Wyoming.
2. and Conley, C.D., and Body, D.W., 1965, Lithogenesis of a distinctive carbonate rock fabric: Univ. Wyoming, Contr. Geology, v. 4, no. 1, p. 1-13.

TENNEY, C.S.

1965, Permo-Pennsylvanian deposition in Wyoming [abs.]: American Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1572; and in full as 1966, Pennsylvanian and lower Permian deposition in Wyoming and adjacent areas: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 2, p. 227-250.

TEXTORIS, D.A.

1963, Stratigraphy of the Green River Formation in the Bridger Basin, Wyoming: Ohio Jour. Sci., v. 63, no. 6, p. 241-258.

THEOBALD, P.K., JR.

and Thompson, C.E., 1968, Platinum and associated elements at the New Rambler mine and vicinity, Albany and Carbon Counties, Wyoming: U.S. Geol. Survey, Circ. 607, 14 p.

THOMAS, H.D.

1. 1961, Biennial report of the State Geologist, 1959-1961: Wyo. Geol. Survey, 18 p.
2. 1962, Some problems of the earlier Cretaceous rocks of Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 28-32.
3. 1962, Biennial report of the State Geologist, 1961-1963: Wyo. Geol. Survey, 24 p.
4. 1963, Samuel Howell Knight: Univ. Wyoming, Contr. Geology, v. 2, no. 1, p. 1-6.
5. 1965, Biennial report of the State Geologist, 1963-1965: Wyo. Geol. Survey, 25 p.
6. 1967, Biennial report of the State Geologist, 1965-1967: Wyo. Geol. Survey, 25 p.

THOMAS, L.E.

1. 1964, Generalized history of sedimentation and structural development of the Bighorn Basin [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1881.
2. 1965, Sedimentation and structural development of Bighorn Basin: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 11, p. 1867-1877.

THORNE, H.M.

and Stanfield, K.E., Dinneen, G.U., and Murphy, W.I.R., 1964, Oil-shale technology - a review: U.S. Bur. Mines, Inf. Circ. 8216, 24 p.

THORSON, T.A.

1968, Wyoming bentonite: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 195-197.

THREET, R.L.

1968, Plunging monocline — a neglected structural type [abs.]: Geol. Soc. America, Spec. Paper 101, p. 423.

TIBBETTS, B.L.

and Behrendt, J.C., and Love, J.D., 1969, Seismic-refraction measurements in Jackson Hole, Wyoming: Geol. Soc. America, Bull., v. 80, no. 6, p. 1109-1121.

TIHEN, S.S.

and Carpenter, H.C., and Sohns, H.W., 1968, Thermal conductivity and thermal diffusivity of Green River oil shale: U.S. Nat'l Bur. Standards, Spec. Pub. 302, 7th Conf., Thermal Conductivity, 1967, Proc., p. 529-535.

TISOT, P.R.

1960, Physicochemical properties of Green River oil shale — Particle-size distribution of inorganic constituents: Jour. Chem. and Eng. Data, v. 5, no. 4, p. 558-562.

TITAYEVA, N.A.

1967, Association of radium and uranium with peat: Geochem. Intl., v. 4, p. 1168-1174, translated from Geokhimiya, no. 12, p. 1493-1499.

TOBIAS, T.J.

and Ruotsala, A.P., 1966, Long-term settling characteristics of some clays: Clays and Clay Minerals, 13th Nat'l. Conf. Clay and Clay Minerals, 1964, Proc., v. 13, p. 395-398 [Internat. Ser. Mons. Earth Sci., v. 25].

TODD, T.W.

1. 1963, Post-depositional history of Tensleep Sandstone (Pennsylvanian), Bighorn Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 47, no. 4, p. 599-616.
2. 1964, Petrology of Pennsylvanian rocks, Bighorn Basin, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 7, p. 1063-1090.
3. 1966, Darton Ridge, Pennsylvanian feature of Wyoming Shelf: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 12, p. 2519-2546.

TOHILL, B.O.

1. and Picard, M.D., 1965, Sedimentary structures and paleocurrents of Crow Mountain Sandstone Member (Triassic), Bighorn and Wind River Basins, Wyoming [abs.]: Nebraska Acad. Sci., 75th Ann. Mtg., Proc., p. 18-19.
2. 1965, Stratigraphy and sedimentary structures of the Crow Mountain Member, Chugwater Formation (Triassic and Permian) of southeast Bighorn Basin, Wyoming: MS thesis, Univ. Nebraska.
3. and Picard, M.D., 1966, Stratigraphy and petrology of Crow Mountain Sandstone Member (Triassic), Chugwater Formation, northwestern Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 12, p. 2547-2565.

TOOGOOD, D.J.

1967, Repeated folding in the Precambrian basement of the Laramie Mountains, Albany and Platte Counties, Wyoming: MS thesis, Univ. Wyoming; and in [abs.]: Geol. Soc. America, Spec. Paper 115, p. 453.

TOOTS, H.

1. 1961, Beach indicators in the Mesaverde Formation: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 165-170.
2. and Cutler, J.F., 1962, Bryozoa from the "Mesaverde" Formation (Upper Cretaceous) of southeastern Wyoming: Jour. Paleontology, v. 36, no. 1, p. 81-86.
3. and Cutler, J.F., 1962, Gulf and Atlantic Coast mollusks in the Late Cretaceous Mesaverde Formation of Wyoming: Univ. Wyoming, Contr. Geology, v. 1, no. 1, p. 7-12.

4. 1962, Paleocological studies on the Mesaverde Formation in the Laramie Basin: MA thesis, Univ. Wyoming.
5. 1963, The chemistry of fossil bones from Wyoming and adjacent states: Univ. Wyoming, Contr. Geology, v. 2, no. 1, [S.H. Knight Issue], p. 69-80.
6. 1964, Reinterpretation of *Endocosteia* Whitfield: Jour. Paleontology, v. 38, no. 1, p. 85-86.
7. 1965, Orientation and distribution of fossils as environmental indicators: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 219-229.
8. 1965, Reconstruction of continental environments — the Oligocene of Wyoming: PhD dissert., Univ. Wyoming; and in [abs.] 1965: Univ. Wyoming, Pubs., v. 31, no. 3, p. 137-138.
9. 1965, Sequence of disarticulation in mammalian skeletons: Univ. Wyoming, Contr. Geology, v. 4, no. 1, p. 37-39.
10. 1967, Invertebrate burrows in the non-marine Miocene of Wyoming: Univ. Wyoming, Contr. Geology, v. 6, no. 2, p. 93-96.

TOURTELOT, H.A.

1. and Schultz, L.G., and Huffman, C., Jr., 1961, Boron in bentonite and shale from the Pierre Shale, South Dakota, Wyoming and Montana: U.S. Geol. Survey, Prof. Paper 424-C, art. 253, p. C288-C292.
2. and Frost, I.C., 1965, Extractable organic material in nonmarine and marine shales of Cretaceous age: U.S. Geol. Survey, Prof. Paper 525-D, p. D73-D81.

TOWNSEND, D.H.

- 1960, Economic report on the Kemmerer coal field: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 251-255.

TRACEY, J.I., JR.

- and Oriel, S.S., and Rubey, W.W., 1961, Diamictite facies of the Wasatch Formation in Fossil Basin, southwestern Wyoming: U.S. Geol. Survey, Prof. Paper 424-B, art. 62, p. B149-B150.

TRANter, C.E.

1. and Petter, C.K., 1963, Lower Permian and Pennsylvanian stratigraphy of the northern Rocky Mountains: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 45-53.
2. 1963, Raven Creek Field, Campbell County, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 143-146; and in [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 1, p. 118.

TREXLER, D.W.

- 1967, Stratigraphic distribution of Upper Cretaceous nannoplankton (coccoliths) in central and northern Colorado and the Black Hills region: Jour. Paleontology, v. 41, no. 6, p. 1355-1364.

TROTTER, J.F.

1. 1960, Coyote Creek Field, Wyoming, its character and significance: Am. Assoc. Petroleum Geologists, Rocky Mtn. Sec., Geol. Record, p. 27-33; and in [abs.] 1960: Am. Assoc. Petroleum Geologists, Bull., v. 44, no. 6, p. 961-962.
2. 1962, Coyote Creek Field, Powder River Basin, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 297-302.
3. 1963, The Minnelusa play of the northern Powder River Basin, Wyoming and adjacent areas: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 117-122.

TROYER, M.L.

1969, Bibliography of Wyoming geology, 1917-1945: Wyo. Geol. Survey, Bull. 53, 73 p.

TRUCHOT, J.F., JR.

1963, The Miller Creek Field, Crook County, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 129-132.

TRUDELL, L.G.

1969, Lithologic description of samples submitted for assay-core samples of the Green River Formation from Bureau of Mines Washakie Basin No. 1 corehole drilled in 1968, and 1969 in NW $\frac{1}{4}$ SW $\frac{1}{4}$ (2,277 feet N/S and 404 feet E/W) of sec. 17, T.14N., R.99W., Sweetwater County, Wyoming: U.S. Bur. Mines Laramie Petroleum Research Center, Illu. no. SBR-4181P, Laramie, 90 p.

TSCHUDY, R.H.

1960, Application of palynomorphs for the recognition of facies in the Upper Cretaceous - lower Tertiary of Colorado and Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 1994; and in full as 1961, Palynomorphs as indicators of facies environments in Upper Cretaceous and lower Tertiary strata, Colorado and Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 53-59.

TUCKER, M.M.R.

1968, Preliminary study of some Wyoming Paleozoic carbonates: Iowa Acad. Sci., Proc., v. 73 (1966), p. 234-252; and reprinted in part in 1969: Earth Sci. Bull., v. 2, no. 3, p. 21-25.

TURNBULL, W.D.

1. 1960, A Lance didelphid molar, with comments on the problems of the Lance therians: Fieldiana - Geology, v. 10, no. 36, p. 525-537.
2. and Reed, C.A., 1967, *Pseudochrysochloris*, a specialized burrowing mammal from the Early Oligocene of Wyoming: Jour. Paleontology, v. 41, no. 3, p. 623-631.

TWETO, O.

1968, Geologic setting and interrelationships of mineral deposits in the Mountain province of Colorado and south-central Wyoming: A.I.M.E., Ore deposits of the United States, 1933-1967 [Graton-Sales Volume], v. 1, p. 551-588,

UNITED STATES ATOMIC ENERGY COMMISSION

1. 1966, Airborne radiometric reconnaissance in South Dakota and Wyoming, 1952-1955: U.S. Atomic Energy Comm., RME-149, 81 p.
2. 1968, Statistical data of the uranium industry [annual]: U.S. Atomic Energy Comm., GJO-100-68, 32 p.
3. 1969, Statistical data of the uranium industry [annual]: U.S. Atomic Energy Comm., GJO-100-69, 43 p.

UNITED STATES BUREAU OF LAND MANAGEMENT

1. 1962, North Platte River Basin - classification of Natural Land Reserve: Missouri River Basin Studies, v. 1, p. 119.
2. 1967, Land status, State of Wyoming: U.S. Dept. Interior, U.S. Bur. Land Management, Wyoming State Office, Cheyenne, map, scale 1:1,000,000.

UNITED STATES BUREAU OF RECLAMATION

1. 1961, Geology and investigations for construction, Glendo Dam and power-plant and power conduit, constructed 1956-1961, Missouri River Basin Project, Glendo Unit, Wyoming: U.S. Bur. Reclamation, 295 p.
2. 1962, Geology - Chapter 2: U.S. Bur. Reclamation, Anchor Dam - Technical Record of Design and Construction, p. 11-20.
3. 1963, Technical record of design and construction, Fremont Canyon power-plant and power conduit, constructed 1956-1961, Missouri River Basin Project, Glendo Unit, Wyoming: U.S. Bur. Reclamation, 295 p.

UNITED STATES DEPARTMENT OF AGRICULTURE

and U.S. Dept. of Interior (in cooperation with States of South Dakota and Wyoming), 1967, Black Hills area resources study: Map 2, scale 1:1,000,000.

UNITED STATES DEPARTMENT OF THE INTERIOR

1966, Natural resources of Wyoming: Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 80 p.

UNITED STATES GEOLOGICAL SURVEY

1. 1960, Mineral and water resources of Wyoming: 2nd Section, 86th U.S. Cong., Senate Doc. 76, 40p.
2. 1964, Reported occurrences of selected minerals in Wyoming - includes most nonmetals; does not include mineral fuels, sodium and potassium salts, or phosphate: U.S. Geol. Survey, Mineral Inv. Res. Map MR-42, scale 1:500,000.
3. 1968, Ground-water levels in the United States, 1961-65, - northwestern States: U.S. Geol. Survey, Water-Supply Paper 1845, 199 p.
4. 1968, Radar mosaic, Yellowstone National Park: Washington, D.C., U.S. Dept. Interior, 1 sheet.
5. 1969, Water resources investigations in Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 207-210.

UPDEGRAFF, D.M.

1969, The relationship of microorganisms to uranium deposits, research in uranium geochemistry: Univ. Denver, Denver Research Inst., Final Rept., U.S. Atomic Energy Comm., GJO-932-2, 73 p.

UPSHAW, C.F.

1. 1960, Palynology of the Frontier Formation, northwestern Wind River Basin, Wyoming [abs.]: Dissert. Abs., v. 20, no. 8, p. 3262; and in full as 1964: Palynological zonation of the Upper Cretaceous Frontier Formation near Dubois, Wyoming: Soc. Econ. Paleontologists and Mineralogists, Spec. Pub. 11, Palynology In Oil Exploration - A Symposium, San Francisco, 1962, p. 153-168.
2. 1963, Occurrences of *Aequitriradites* in the Upper Cretaceous of Wyoming: Micropaleontology, v. 9, no. 4, p. 427-431.

UTHE, R.E.

and Heimlich, R.A., 1969, Geochemistry of the Hazelton Peak ortho-amphibolite, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 7, [Annual Meeting] p. 228.

VAIL, R.S.

1968, The relationship of gneiss composition to dynamic history as shown by analysis of variance of trend surface analysis, Ragged Top area, Albany County, Wyoming: MS thesis, Univ. Illinois.

VAN BLADEL, R.

and Menzel, R., 1969, A thermodynamic study of sodium-strontium exchange on Wyoming bentonite: Israel Univ. Press, v. 1, Internat. Clay Conf., p. 619-634.

VAN DE KAMP, P.C.

1969, Origin of amphibolites in the Beartooth Mountains, Wyoming and Montana; new data and interpretation: Geol. Soc. America, Bull., v. 80, no. 6, p. 1127-1135.

VAN FOSSEN, G.W.

1969, Economics of Minnelusa production in the northern Powder River Basin: Montana Geol. Soc., 20th Ann. Conf., Eastern Montana Symposium, p. 71-75.

VAN HOUTEN, F.B.

1. 1961, Maps of Cenozoic depositional provinces, western United States: Am. Jour. Sci., v. 259, p. 612-621.
2. 1962, Frontier Formation, Bighorn Basin, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 221-231.
3. 1964, Tertiary geology of the Beaver Rim area, Fremont and Natrona Counties, Wyoming: U.S. Geol. Survey, Bull. 1164, 99 p.

VANLIEU, J.A.

1969, Geologic map of the Four Corners quadrangle, Wyoming and South Dakota: U.S. Geol. Survey, Misc. Geol. Inv. Map I-581, scale 1:48,000.

VAN SANT, J.N.

1961, Refractory-clay deposits of Wyoming: U.S. Bur. Mines, Rept. Inv. 5652, 105 p.

VAN SICKLE, D.H.

1968, Fish: U.S. Geol. Survey, Prof. Paper 313-D, Biostratigraphy of the Phosphoria, Park City, and Shoshone Formations, p. 591-619.

VEATCH, A.C.

1960, Early oil exploration in Uinta County, Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 189-193 [Reprinted from 1907, Geography and geology of a portion of southwestern Wyoming, with special reference to coal and oil: U.S. Geol. Survey, Prof. Paper 56, p. 139-162].

VERVILLE, G.J.

1. and Momper, J.A., 1960, Pennsylvanian fusulinids and preliminary series correlation in southwestern Wyoming: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 127-128.
2. and Thompson E.E., 1963, Desmoinesian fusulinids from the Minnelusa Formation in the southern Black Hills, South Dakota: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 61-66.

VINE, J.D.

1962, Geology of uranium in coaly carbonaceous rocks: U.S. Geol. Survey, Prof. Paper 356-D, p. 133-170.

VOORHEES, G.E.

1963, Upper Cretaceous stratigraphy and overthrusting in the Deadman, Blind Bull, and Horse Creek areas, Lincoln County, Wyoming: MS thesis, Univ. Wyoming.

VOORHIES, M.R.

1. 1965, The Carnivora of the Trail Creek fauna: Univ. Wyoming, Contr. Geology, v. 4, no. 1, p. 21-25.

2. 1968, Evidence of seasonal growth in Tertiary vertebrate fossils [abs.]: Paleont. Soc., Mem. 2, Paleobiological Aspects of Growth and Development, a Symposium; and in: Jour. Paleontology, v. 42, no. 5, supp. p. 119.

VREDENBURGH, L.D.

1968, Sulfur isotopic investigation of petroleum, Wind River Basin, Wyoming: PhD dissert., Univ. Washington; and in [abs.]: Dissert. Abs., pt. B, v. 29, no. 7, p. 2500B.

WAAGE, K.M.

1. 1961, The Fox Hills Formation in its type area, central South Dakota: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 229-240.
2. 1965, The Late Cretaceous coleoid cephalopod *Actinosepia canadensis* Whiteaves: Postilla, no. 94, 33 p.

WALDROP, H.A.

1969, Late Quaternary normal faulting near Mirror Lake, Yellowstone National Park [abs.]: Geol. Soc. America, Spec. Paper 121, p. 643-644.

WALKER, E.H.

1. 1963, Relative rates of erosion under grass and forest in a valley of western Wyoming: Northwest Sci., v. 37, no. 3, p. 104-111.
2. 1964, Glacial terraces along the Snake River in eastern Idaho and Wyoming: Northwest Sci., v. 38, no. 2, p. 33-42.
3. 1965, Ground water in the upper Star Valley, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1809-C, p. C1-C27.

WALKER, G.W.

1963, Geology of uranium-bearing veins in the conterminous United States: U.S. Geol. Survey, Prof. Paper 455-A through 455-F, 120 p.

WALTON, H.F.

1960, Uranium geochemistry in the Rockies: Chemical Engineering News Mag., v. 38, issue 25, p. 118-119.

WARD, F.N.

and Lakin, H.W., Canney, F.C., and others, 1963, Analytical methods used in geochemical exploration by the U.S. Geological Survey: U.S. Geol. Survey, Bull. 1152, 100 p.

WARE, T.

1963, Rainbow Ranch Field: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 139-141.

WARNER, A.J.

1968, The description and origin of the clastic dikes associated with Sheep Mountain anticline in the Bighorn Basin, Wyoming: MS thesis, Iowa State Univ.

WASSERSUG, R.J.

and Hecht, M.K., 1967, The status of the crocodylid genera *Procaimanoidea* and *Nassiacosuchus* in the New World: Herpetologica, v. 23, no. 1, p. 30-34.

WATERMAN, H.D.

1962, Rozet Field, Campbell County, Wyoming: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 293-296.

WATSON, B.N.

1961, Effects of the August 17, 1959 earthquake and subsequent quaking upon the thermal features of Yellowstone National Park [abs.]: Arizona Geol. Soc., Digest, v. 4, p. 195.

WAYHAN, D.A.

and McCaleb, J.A., 1969, Elk Basin Madison heterogeneity; its influence on performance: Jour. Petroleum Tech., v. 21, no. 2, p. 153-159.

WAYNE STATE UNIVERSITY

editor, and Parsons, W.H., editor, 1965, Structures and origin of volcanic rocks, Montana-Wyoming-Idaho: Wayne State Univ., Nat'l Sci. Found. Summer Conf. Guidebook, 58 p.; and in 1968: Wayne State Univ., Nat'l Sci. Found. Summer Field Course Guidebook, 74 p.

WEAVER, C.E.

- 1961, Clay mineralogy of the Late Cretaceous rocks of the Washakie Basin: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 148-154.

WEBB, M.D.

- 1969, Stratigraphic control of sandstone uranium deposits in Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 1 [Wyoming Uranium Issue], p. 121-129.

WEBER, T.J.

- 1964, The more important archaeological sites in Wyoming: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 1-7.

WEDEL, W.R.

- and Husted, W.M., and Moss, J.H., 1968, Mummy Cave — prehistoric record from Rocky Mountains of Wyoming: Science, v. 160, no. 3824, p. 184-185.

WEEKS, E.P.

- 1964, Hydrologic conditions in the Wheatland Flats area, Platte County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1783, 79 p.

WEICHMANN, B.E.

1. 1961, Regional correlation of the Mesaverde Group and related rocks in Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 29-33.
2. 1964, Geological history of the Powder River Basin, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 11, p. 1881.

WEIMER, R.J.

1. and Haun, J.D., 1960, Cretaceous stratigraphy, Rocky Mountain region, U.S.A.: 21st Internat. Geol. Cong., Copenhagen, Rept., pt. 12, p. 178-184.
2. and Guyton, J.W., 1961, Geology of the Muddy Gap - Lamont area, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 139-147.
3. 1961, Spatial dimensions of Upper Cretaceous sandstones, Rocky Mountain area: Am. Assoc. Petroleum Geologists, 45th Ann. Mtg., Atlantic City, N.J., April 25-28, 1960, Geometry of Sandstone Bodies - A Symposium, p. 82-97.
4. 1961, Uppermost Cretaceous rocks in central and southern Wyoming and northwest Colorado: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 17-28; and as, Upper Cretaceous delta and tectonic foreland, northern Colorado and southern Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 45, no. 3, p. 317.
5. 1962, Late Jurassic and Early Cretaceous correlations, south-central Wyoming and northwestern Colorado: Wyo. Geol. Assoc., 17th Ann. Field Conf. Guidebook, Symposium on Early Cretaceous Rocks of Wyoming and Adjacent Areas, p. 124-130.
6. 1965, Patrick Draw Field, Sweetwater County, Wyoming — an old stratigraphic trap [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1574-1575.
7. 1965, Stratigraphy and petroleum occurrences, Almond and Lewis Formations (Upper Cretaceous), Wamsutter Arch, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 65-80.
8. 1966, Time-stratigraphic analysis and petroleum accumulations, Patrick Draw Field, Sweetwater County, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 50, no. 10, p. 2150-2175.

WEIR, A.H.

- 1965, Potassium retention in montmorillonites: Clay Minerals Bull., v. 6, no. 1, p. 17-22.

WEISS, M.P.

and Wenden, H.E., 1965, Calcite spherulites from the Morrison Formation, Wyoming: Jour. Sed. Petrology, v. 35, no. 4, p. 985-988.

WELDER, G.E.

1. and Weeks, E.P., 1965, Hydrologic conditions near Glendo, Platte County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1791.
2. and McGreevy, L.J., 1966, Ground-water reconnaissance of the Great Divide and Washakie Basins and some adjacent areas, southwestern Wyoming: U.S. Geol. Survey, Hydrol. Inv. Atlas HA-219, 3 sheets, scale 1:250,000.
3. 1968, Ground-water reconnaissance of the Green River Basin, southwestern Wyoming: U.S. Geol. Survey, Hydrol. Inv. Atlas HA-290, 2 sheets, scale 1:250,000.

WELDON, J.P.

1965, Dillinger Ranch Field, Campbell County, Wyoming [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 9, p. 1573.

WENGER, W.J.

and Reid, B.W., 1961, Characteristics of petroleum from the Powder River Basin, Wyoming: U.S. Bur. Mines, Rept. Inv. 5723, 123 p.

WERTH, G.C.

and Herbst, R.F., 1963, Comparison of amplitudes of seismic waves from nuclear explosions in four mediums: Jour. Geophys. Research, v. 68, no. 5, p. 1463-1475.

WEST, R.M.

1. 1969, Biostratigraphy of fluvial sediments of the upper Wasatch Formation in the northern Green River Basin, Wyoming: Univ. Wyoming, Contr. Geology, v. 8, no. 2, pt. 2, p. 184-196.
2. 1969, Geology and vertebrate paleontology of the northeastern Green River Basin, Wyoming: Wyo. Geol. Assoc., 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, p. 77-92.
3. 1969, *Paramys wyomingensis*, a small rodent from the Middle Eocene of Wyoming: Jour. Paleontology, v. 43, no. 1, p. 175-178.
4. 1969, Temporal relations between tongues of the Wasatch Formation, northern Green River Basin, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 315-316.

WEST, W.E., JR.

1964, The Powder River Basin: Wyo. Geol. Assoc., Highway Geology of Wyoming, p. 22-28.

WESTERN STATES LAND-GRANT UNIVERSITIES AND COLLEGES, PULLMAN, WASHINGTON

1964, Soils of the western United States (exclusive of Hawaii and Alaska): Washington State Univ., 69 p., [Pub. in coop. with the U.S. Dept. Agric., Soil Conserv. Serv.].

WHEELER, W.H.

1961, Revision of the Uintatheres: Yale Univ., Peabody Mus. Nat. History, Bull. 14, 93 p.

WHITCOMB, H.A.

1. and Morris, D.A., 1964, Ground-water resources and geology of northern and western Crook County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1698, 92 p.
2. and Cummings, T.R., 1965, Ground-water resources and geology of Niobrara County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1788, 101 p.
3. and Cummings, T.R., and McCullough, R.A., 1966, Ground-water resources and geology of northern and central Johnson County, Wyoming: U.S. Geol. Survey, Water-Supply Paper 1806, 99 p.

4. and Lowry, M.E., 1968, Ground-water resources and geology of the Wind River Basin area, central Wyoming: U.S. Geol. Survey, Hydrol. Inv. Atlas HA-270, scale 1:250,000.

WHITE, D.E.

1. and Miller, L.D., 1968, Geothermal infrared anomalies of low intensity, Yellowstone National Park: U.S. Nat. Aeronaut. Space Admin., Manned Spacecraft Center, Houston, Earth Resources Aircraft Program, Status Review; v. 1, Geology, Geography, and Sensor Studies, Sect. 16, p. 1-4.
2. and Muffler, L.J.P., Truesdell, A.H., and Fournier, R.O., 1968, Preliminary results of research drillings in Yellowstone thermal areas [abs.]: Am. Geophys. Union, Trans., v. 49, no. 1, p. 358; and in [abs.] 1969: Geol. Soc. America, Spec. Paper 121, p. 646.
3. and Miller, L.D., 1969, Calibration of geothermal infrared anomalies of low intensity in terms of heat flow, Yellowstone National Park [abs.]: EOS [Am. Geophys. Union, Trans.], v. 50, no. 4, p. 348.
4. 1969, Rapid heat-flow surveying of geothermal areas, utilizing individual snowfalls as calorimeters: Jour. Geophys. Res., v. 74, no. 22, p. 5191-5201.

WHITE, E.J.

1. and Baptist, O.C., and Land C.S., 1962, Physical properties and clay mineral contents affecting susceptibility of oil sands to water damage, Powder River Basin, Wyoming: U.S. Bur. Mines, Rept. Inv. 6093, 20 p.
2. and Baptist, O.C., and Land, C.S., 1964, Formation damage estimated from water sensitivity tests, Patrick Draw area, Wyoming: U.S. Bur. Mines, Rept. Inv. 6520, 20 p.

WHITE, R.K.

- 1961, Foraminifera from two sections of the Cody Shale, central Wyoming: MS thesis, Univ. Wyoming.

WHITFORD, S.D., JR.

- 1963, Regional aspects of the Muddy Formation in the Wind River Basin, Wyoming: Iowa Acad. Sci., Proc. 1962, v. 69, p. 411-430.

WIED, O.J.

- 1960, Geology of the Encampment area, Carbon County, Wyoming: MS thesis, Univ. Wyoming.

WIEGMAN, R.W.

1. 1964, Late Cretaceous and early Tertiary stratigraphy of the Little Mountain area, Sweetwater County, Wyoming: MS thesis, Univ. Wyoming.
2. 1965, Spring deposits - surface expressions of the Henry's Fork fault, Sweetwater County, Wyoming: Wyo. Geol. Assoc., 19th Ann. Field Conf. Guidebook, Sedimentation of Late Cretaceous and Tertiary Outcrops, Rock Springs Uplift, p. 156-158.

WILBAND, J.T.

- 1966, Geochemistry and origin of the Wheatland sericite deposits, Platte County, Wyoming: PhD dissert., Univ. Illinois; and in [abs.] 1966: Dissert. Abs., pt. B, v. 27, no. 4, p. 861B.

WILKINS, E.K.

1. 1960, The Chinese Massacre: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 23-25.
2. 1960, Conestogas, Concorde and the Pony Express: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 16-22.
3. 1960, Esther Morris, Wyoming's most illustrious citizen: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 27-29.
4. 1960, Rendezvous on the Green: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 13-15.

WILKINSON, B.H.

1967, Paleogeology of the Permian Ervay Member of the Park City Formation in north-central Wyoming: MS thesis, Univ. Wyoming.

WILLDEN, R.

1965, Seismic-refraction measurements of crustal structure between American Falls Reservoir, Idaho, and Flaming Gorge Reservoir, Utah: U.S. Geol. Survey, Prof. Paper 525-C, p. C44-C50.

WILLIAMS, L.O., JR.

1. 1962, Geology of the Crazy Woman Canyon - Powder River Pass - Tensleep Canyon area, Bighorn Mountains, Wyoming [abs.]: Dissert. Abs., v. 23, no. 1, p. 204.
2. 1965, Structural analysis of the Crazy Woman Canyon - Powder River Pass - Tensleep Canyon area, Bighorn Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 82, p. 351.

WILLIAMS, R.L.

1963, Developments in Wyoming and Idaho in 1962: Am. Assoc. Petroleum Geologists, Bull., v. 47, no. 6, p. 1126-1132.

WILLIAMSON, D.R.

1964, Oil shales - pt. 3, The natures and origins of kerogens: Colorado School Mines, Mineral Industries Bull., v. 7, no. 5, 15 p.

WILLIAMSON, I.A.

1969, Discussion of an article by G.B. Asquith entitled "Origin of large kaolinite crystals in the lower Almond Formation in south-west Wyoming": Jour. Sed. Petrology, v. 39, no. 3, p. 1255.

WILOTH, G.J.

1961, Diagrammatic restored sections illustrating stratigraphic position of oil and gas producing intervals of Mesaverde Group and associated rocks in important fields, Green River, Washakie, Wind River, and Powder River Basins, Wyoming: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 314.

WILSON, P.C.

1962, Pennsylvanian stratigraphy of Powder River Basin: Am. Assoc. Petroleum Geologists, Pennsylvanian System in the United States - A Symposium, p. 117-158.

WILSON, W.H.

1. 1960, Petrology of the Wood River area, southern Absaroka Mountains, Park County, Wyoming [abs.]: Dissert. Abs., v. 20, no. 10, p. 4081-4082.
2. 1960, Radioactive mineral deposits of Wyoming: Wyo. Geol. Survey, Rept. Inv. 7, 41 p.
3. 1963, Correlation of volcanic rock units in the southern Absaroka Mountains, northwest Wyoming: Univ. Wyoming, Contr. Geology, v. 2, no. 1, [S.H. Knight Issue], p. 13-20.
4. 1964, Geologic reconnaissance of the southern Absaroka Mountains, northwest Wyoming - pt. 1, The Wood River-Greybull River area: Univ. Wyoming, Contr. Geology, v. 3, no. 2, p. 60-77.
5. 1964, The Kirwin mineralized area, Park County, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 2, 12 p.
6. 1965, A field guide to the rocks and minerals of Wyoming: Wyo. Geol. Survey, Bull. 51, 72 p.
7. 1966, Uranium, thorium, and rare earths, in Mineral resources of Wyoming: Wyo. Geol. Survey, Bull. 50, p. 210-129.

WING, R.S.

and Dellwig, L.F., 1969, Radar expression of Virginia Dale Precambrian ring-dike complex, Colorado-Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 2 [South Central Section], p. 35.

WISE, D.U.

1. 1962, Gravity thrusting driven by basement uplift in the Owl Creek Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 68, p. 301.
2. 1963, Keystone faulting and gravity sliding driven by basement uplift of Owl Creek Mountains, Wyoming: Am. Assoc. Petroleum Geologists, Bull., v. 47, no. 3, p. 586-598.
3. 1964, Microjointing in basement, middle Rocky Mountains of Montana and Wyoming: Geol. Soc. America, Bull., v. 75, no. 4, p. 287-305.

WISSER, E.H.

- 1960, Relation of ore deposition to doming in the North American Cordillera: Geol. Soc. America, Mem. 77, 117 p.

WITKIND, I.J.

1. 1964, Preliminary geologic map of the Tepee Creek quadrangle, Montana-Wyoming: U.S. Geol. Survey, Misc. Geol. Inv. Map I-417, scale 1:48,000.
2. and Hadley, J.B., and Nelson, W.H., 1964, Pre-Tertiary stratigraphy and structure of the Hebgen Lake area: U.S. Geol. Survey, Prof. Paper 435, The Hebgen Lake, Montana, Earthquake of August 17, 1959, p. 199-207.
3. 1969, Geology of the Tepee Creek quadrangle, Montana-Wyoming: U.S. Geol. Survey, Prof. Paper 609, 101 p.

WOLCOTT, D.E.

- and Gott, G.B., 1960, Stratigraphy of the Inyan Kara Group in the southern Black Hills, South Dakota and Wyoming [abs.]: Geol. Soc. America, Bull., v. 71, no. 12, pt. 2, p. 2043.

WOLD, J.S.

1. and Woodward, T.C., 1967, Project Thunderbird - a nuclear trigger for coal gasification: Coal Age, v. 72, no. 9, p. 64-68.
2. and Woodward, T.C., 1968, Coal makes bid to join Plowshare Nuclear Program: World Oil, v. 166, no. 6, p. 111-112, 117, and 120.
3. and Woodward, T.C., 1968, Project Thunderbird: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 147-153.

WONCIK, J.

- 1969, Recluse Field, Campbell County, Wyoming: Mtn. Geologist, v. 6, no. 4, p. 211-226.

WOOD, A.E.

- 1965, Small rodents from the Early Eocene Lysite Member, Wind River Formation of Wyoming: Jour. Paleontology, v. 39, no. 1, p. 124-134.

WOOD, C.B.

- 1966, Stratigraphy and paleontology of the Bridger Formation, northeast of Opal, Lincoln County, Wyoming: MS thesis, Univ. Wyoming.

WOOD, R.C.

- 1967, A review of the Clark Fork vertebrate fauna: Breviora, no. 257, 30 p.

WOODARD, F.W.

- 1962, Structure of Bighorn Canyon area, Montana and Wyoming: Billings Geol. Soc., 12th Ann. Field Conf., Float Trip - Bighorn River from Kane, Wyoming to Yellow-tail Dam Site, 1961, p. 67-70.

WOODFILL, R.D.

1. 1968, A gravity investigation of Precambrian crystalline rocks, Squaw Rock area, Albany and Platte Counties, Wyoming: MS thesis, Univ. Wyoming.
2. and Smithson, S.B., 1969, Gravity interpretation of structure in Precambrian rocks, Laramie Range, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 327-328.

WOODWARD, T.C.

1. 1960, Willow Creek gas field: Wyo. Geol. Assoc., 15th Ann. Field Conf. Guidebook, Overthrust Belt of Southwestern Wyoming and Adjacent Areas, p. 217-220.
2. 1969, Project Thunderbird — an in situ coal-extraction research program [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 53, no. 1, p. 124-125.

WORCESTER, P.A.

1967, The reconnaissance geology of the southwest one-quarter of the Dundee Meadows quadrangle, Fremont County, Wyoming and a petrologic study of the Wiggins Formation (Oligocene): M.S. thesis, Miami Univ., Ohio.

WORLD, R.G.

1. 1963, Superimposed deformation in Precambrian rocks near South Pass, Wyoming: MA thesis, Univ. Wyoming; and in [abs.] 1963: Univ. Wyoming, Contr. Geology, v. 2, no. 2, p. 109-116.
2. 1968, Taconite and migmatite in the northern Wind River Mountains, Fremont, Sublette, and Teton Counties, Wyoming: PhD dissert., Univ. Wyoming.
3. 1968, Taconite in the Wind River Mountains, Sublette County, Wyoming: Wyo. Geol. Survey, Prelim. Rept. 10, 15 p.
4. 1969, Migmatites of the Three Waters area, northern Wind River Mountains, Wyoming [abs.]: Geol. Soc. America, Spec. Paper 121, p. 647-648.
5. 1969, Superposed folding in Precambrian taconite, northern Wind River Mountains, Wyoming [abs.]: Geol. Soc. America, Abs. 1969, pt. 5 [Rocky Mountain Section] p. 92.

WULF, G.R.

1. 1962, Eroded oscillation ripple marks in Cretaceous Newcastle Sandstone, Wyoming and South Dakota: Jour. Sed. Petrology, v. 32, no. 2, p. 327-329.
2. 1962, Trough cross-bedding: Jour. Sed. Petrology, v. 32, no. 3, p. 472-474.
3. 1963, Late Paleozoic tectonics of northeastern Powder River Basin, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 113-116.
4. 1963, Lower Cretaceous Muddy Sandstone, northeastern Powder River Basin, Wyoming: Wyo. Geol. Assoc. and Billings Geol. Soc., 1st Joint Field Conf. Guidebook, Northern Powder River Basin, Wyoming and Montana, p. 104-106.
5. 1964, Good Dynneson sand trend may extend northeastward: World Oil, v. 158, no. 2, p. 53-55.
6. 1968, Catalog of formation names, Black Hills region: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 231-240.
7. 1968, Lower Cretaceous Muddy Sandstone in the northern Rockies: Wyo. Geol. Assoc., 20th Ann. Field Conf. Guidebook, Black Hills Area, South Dakota, Montana, Wyoming, p. 29-34.

WYOMING DEPARTMENT OF ECONOMIC PLANNING AND DEVELOPMENT

1969-, Wyoming directory of manufacturing and mining [biennial]: Wyo. Dept. Economic Planning Development, Cheyenne.

WYOMING GEOLOGICAL ASSOCIATION

1. 1960, Index map — Overthrust Belt of western Wyoming and adjacent areas of Idaho and Utah: 15th Ann. Field Conf. Guidebook, Casper, p. 10.

2. (D.P. McGookey and D.N. Miller, Jr., editors) 1960, Overthrust Belt of southwestern Wyoming and adjacent areas: 15th Ann. Field Conf. Guidebook, Casper, 282 p.
3. (G.J. Wiloth, editor) 1961, Symposium on Late Cretaceous rocks, Wyoming and adjacent areas: 16th Ann. Field Conf. Guidebook, Casper, 351 p.
4. (R.L. Enyert and W.H. Curry, III, editors) 1962, Symposium on Early Cretaceous rocks of Wyoming: 17th Ann. Field Conf. Guidebook, Casper, 337 p.
5. 1961, Supplement [1955-1960 inclusive] to the Wyoming Oil and Gas Fields Symposium (1957): Casper, 94 p., number 487-579, looseleaf [*Subsequent data on new fields published in Earth Science Bulletin.*]
6. (G.C. Cooper, D.F. Cardinal, H.W. Lorenz, and J.R. Lynn, editors), 1963, Northern Powder River Basin, Wyoming and Montana: Wyoming Geological Association and Billings Geological Society, 1st Joint Field Conference Guidebook, Casper, 204 p., [Wyo. Geol. Assoc., 18th Ann. Conf.].
7. (Technical Studies Committee) 1964, Highway geology of Wyoming — road logs of the highways, including points of geologic, economic, historic, and scenic interest, Casper, 261 p., looseleaf.
8. 1964, Road logs in the Bighorn Basin: Highway Geology of Wyoming, Casper, p. 108-157.
9. 1964, Road logs in the Denver Basin: Highway Geology of Wyoming, Casper, p. 165-203.
10. 1964, Road logs in the Green River Basin: Highway Geology of Wyoming, Casper, p. 299-361.
11. 1964, Road logs in the Hanna, Laramie, and Shirley Basins: Highway Geology of Wyoming, Casper, p. 210-245.
12. 1964, Road logs in the Powder River Basin: Highway Geology of Wyoming, Casper, p. 29-101.
13. 1964, Road logs in the Wind River Basin: Highway Geology of Wyoming, Casper, p. 257-288.
14. 1965, Geologic history of Powder River Basin: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 11, p. 1893-1907.
15. 1965, Geologic map of Casper Mountain area: Casper, scale 1 in. = 4,000 ft.
16. 1965, Resume of Minnelusa geology and history of Minnelusa play [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 49, no. 1, p. 118-119.
17. (R.H. DeVore and R.K. Bitter, editors) 1965, Sedimentation of Late Cretaceous and Tertiary outcrops, Rock Springs uplift: 19th Ann. Field Conf. Guidebook, Casper, 233 p.
18. 1966, North-south diagrammatic cross section, Casper Mountain area: Symposium on Recently Developed Geologic Principles..., Casper, p. 210.
19. 1966, Road log, Alcova Store to Fremont Canyon: Symposium on Recently Developed Geologic Principles..., Casper, p. 113-119.
20. 1966, Road log, Bates Creek to Casper: Symposium on Recently Developed Geologic Principles..., Casper, p. 113, 117.
21. 1966, Road log, Casper - Casper Mountain - Bates Hole and Alcova via Circle Drive and Highway 220: Symposium on Recently Developed Geologic Principles..., Casper, p. 113, 115-116.
22. 1966, Route map, geology field trip, Casper-Alcova area, Natrona County, Wyoming: Symposium on Recently Developed Geologic Principles..., Casper, p. 113.
23. 1966, Southwest-northeast diagrammatic cross section, Alcova to Fremont Gap anticline: Symposium on Recently Developed Geologic Principles..., Casper, p. 120.
24. (J.R. Smith, editor) 1966, Symposium on recently developed geologic principles and sedimentation of the Permo-Pennsylvanian of the Rocky Mountains: Casper, 126 p., looseleaf ("20th Annual Conference"; but see 25..).
25. (Technical Studies Committee) 1967, Bibliography of Wyoming Geological Association publications, 1946-1966: Casper, 85 p.
26. (Technical Studies Committee) 1967-1968, Key Tertiary well logs: Casper, 16 folded logs. [red Desert Basin, 2 logs; Green River Basin, 4; Wind River Basin, 2; Bighorn Basin, 4; Washakie Basin, 1; Powder River Basin, 3.]

27. (G.R. Wulf, editor) 1968, Black Hills area, South Dakota, Montana, and Wyoming: 20th Ann. Field Conf. Guidebook, Casper, 244 p.
28. (J.A. Barlow, Jr., editor) 1969, Symposium on Tertiary rocks of Wyoming: 21st Ann. Field Conf. Guidebook, Casper, 232 p.
29. (Stratigraphic Nomenclature Committee) 1969 (revision), Wyoming stratigraphic nomenclature chart: 21st Ann. Field Conf. Guidebook, Symposium on Tertiary Rocks of Wyoming, Casper, p. 7.

WYOMING GEOLOGICAL ASSOCIATION AND BILLINGS GEOLOGICAL SOCIETY: see WYOMING GEOLOGICAL ASSOCIATION, 6

WYOMING GEOLOGICAL SURVEY

- 1969, A summary of the mineral resources of Wyoming: Wyo. Geol. Survey, Inf. Circ., 14 p.

WYOMING OIL AND GAS SUPERVISOR *also see* CARLTON, J.L.

1. 1964, Production report for the twenty-five largest fields in Wyoming, 1963: Wyoming Oil and Gas Cons. Comm., 31 p.
2. 1966, Production report for the twenty-five largest fields in Wyoming, 1965: Wyoming Oil Gas Cons. Comm., 30 p.

YAGI, K.

and Matsumoto, H., 1966, Note on leucite-bearing rocks from Leucite Hills, Wyoming: Hokkaido Univ., Fac. Sci. Jour., ser. 4, v. 13, no. 3, p. 301-311.

YOCHELSON, E.L.

1968, Biostratigraphy of the Phosphoria, Park City, and Shedhorn Formations: U.S. Geol. Survey, Prof. Paper 313-D, p. 571-660.

YORK, H.F.

and Dewees, A.H., Moses, J.B., and Walch, A.F., 1961, 3rd day's trip - Riverton to Casper via Alkali Butte, Gas Hills and Waltman: Wyo. Geol. Assoc., 16th Ann. Field Conf. Guidebook, Symposium on Late Cretaceous Rocks, Wyoming and Adjacent Areas, p. 347-351.

YOUNG, G.M.

1969, Stratigraphical and sedimentological comparison of Early Proterozoic rocks of southeast Wyoming and the Great Lake region [abs.]: Oshkosh, Wisconsin State Univ., Dept. Geology, 15th Ann. Inst. Lake Superior Geology, 1969 Tech. Session Abs., p. 45-46.

YOUNG, H.B.

and Devergie, P.C., 1963, Preparation of gamma-ray log data for IBM card punching: U.S. Atomic Energy Comm., RME-144, 35 p.

YOUNG, M.

1966, Geology of a portion of the Sweetwater - Horse Creek drainages, Park County, Wyoming: MS thesis, Wayne State Univ.

YOUNG, R.G.

1967, Lower Cretaceous of Wyoming and southern Rockies [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 51, no. 9, p. 1907.

ZAKIS, W.N.

1961, Upgrade lower Minnelusa plays with lithofacies maps: World Oil, v. 153, no. 2, p. 67-72.

ZANGERL, R.

1963, Preliminary results of a restudy of *Corosaurus alcovensis* Case, the only known New World nothosaur: Univ. Wyoming, Contr. Geology, v. 2, no. 2, p. 117-123.

ZAPP, A.D.

and Cobban, W.A., 1962, Some Late Cretaceous strand lines in southern Wyoming: U.S. Geol. Survey, Prof. Paper 450-D, p. D52-D55.

ZARELLA, W.M.

and Earley, J.W., 1964, Significance of hydrocarbon disposition in petroleum exploration [abs.]: Am. Assoc. Petroleum Geologists, Bull., v. 48, no. 4, p. 552.

ZARTMAN, R.E.

and Norton, J.J., and Stern, T.W., 1964, Ancient granite gneiss in the Black Hills, South Dakota: Science, v. 145, no. 3631, p. 479-481.

ZELLER, H.D.

1. and Stephens, E.V., 1964, Geologic map of the Continental Peak quadrangle, Fremont and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-292, scale 1:24,000.
2. and Stephens, E.V., 1964, Geologic map of the Dickie Springs quadrangle, Fremont and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-293, scale 1:24,000.
3. and Stephens, E.V., 1964, Geologic map of the Hay Meadow Reservoir quadrangle, Sublette, Fremont and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-295, scale 1:24,000.
4. and Stephens, E.V., 1964, Geology of the NE $\frac{1}{4}$ of the Essex Mountain quadrangle, Sweetwater County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-285, scale 1:24,000.
5. and Stephens, E.V., 1964, Geology of the NE $\frac{1}{4}$ of Freighter Gap quadrangle, Sweetwater County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-288, scale 1:24,000.
6. and Stephens, E.V., 1964, Geology of the NW $\frac{1}{4}$ of Freighter Gap quadrangle, Sweetwater County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-289, scale 1:24,000.
7. and Stephens, E.V., 1964, Geologic map of the Pacific Springs quadrangle, Fremont and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-294, scale 1:24,000.
8. and Stephens, E.V., 1964, Geologic map of the Parting Of The Ways quadrangle, Sublette and Sweetwater Counties, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-296, scale 1:24,000.
9. and Stephens, E.V., 1964, Geologic map of the Tule Butte quadrangle, Sweetwater County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-297, scale 1:24,000.
10. and Stephens, E.V., 1964, Geology of the Pinnacles NW quadrangle, Sweetwater County, Wyoming: U.S. Geol. Survey, Mineral Inv. Field Studies Map MF-286, scale 1:24,000.
11. and Stephens, E.V., 1969, Geology of the Oregon Buttes area, Sweetwater, Sublette and Fremont Counties, southwestern Wyoming: U.S. Geol. Survey, Bull. 1256, 60 p.

ZIETZ, I.

and Bateman, P.C., Case, J.E., Crittenden, M.D., II, Griscom, A., King, E.R., Roberts, R.J., and Lorentzen, G.R., 1969, Aeromagnetic investigation of crustal structure for a strip across the western United States: Geol. Soc. America, Bull., v. 80, no. 9, p. 1703-1714.

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AVALANCHES: N.Potter 3

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GLACIATION: N.Potter 1,2; G.M.Richmond 9

KIRWIN AREA: W.H.Wilson 5

JACK CREEK AREA: C.R.Dunrud 1,2

MUMMY CAVE: J.H.Moss 2

STINKINGWATER MINING REGION: F.S.Fisher 1,2,3,4,5,6,7

STRUCTURE: W.H.Parsons 2

SUNLIGHT REGION: J.E.Dreier; W.H.Parsons 3,5; K.Pedersen

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BEARTOOTH MOUNTAINS: G.N.Hanson

BIGHORN MOUNTAINS: K.C.Condie 8; R.A.Heimlich 2,3

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LEUCITE HILLS: R.H.Johnston

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 SPANISH DIGGINGS: J.M.Saul
 WILLOW SPRING SITE: B.V.Hanson

ARIKAREE FORMATION: N.M.Denson 6; H.A.Whitcomb 2

ARLINGTON QUADRANGLE: H.J.Hyden 7

ARLINGTON THRUST FAULT: J.S.King 1,2

ARSENIC RESOURCES: F.W.Osterwald 3

ASH: G.A.Izett 4; J.D.Love 5; F.W.Osterwald 3; H.J.Prostka

ASPEN FORMATION: E.W.Heinrich; A.W.Horstman

ASPEN MOUNTAIN: J.D.Love 7

ATLANTIC CITY

AREA: R.W.Bayley 1,2,3,4,5,10; S.H.Cohlmeyer

DEPOSIT: D.E.Pride

DISTRICT: R.W.Bayley 2,4; R.S.Cannon

IRON FORMATION: T.T.Gin; D.E.Pride

(ORE) MINE: Engineering and Mining Journal

ATLANTIC CITY QUADRANGLE: R.W.Bayley 5

AUTHIGENIC FELDSPAR: J.R.Boles 1

AUTHIGENESIS: J.R.Boles 1,2; W.H.Bradley 10; J.H.Goodwin 1,2; R.L.Hay

AVALANCHES: N.Potter 3

BADLANDS: E.N.Clausen 1,2; A.W.Powell

BADWATER AREA: D.W.Riedel; P.Robinson 3,6

BADWATER CREEK AREA: C.C.Black 3,5; P.Robinson 3,6; R.E.Sloan

BADWATER UPLIFT: T.M.Gard

BAGGS AREA: L.W.Good 1

BAGGS SOUTH GAS FIELD: J.M.Cronoble

BAIROIL AREA: M.W.Reynolds 1,2

BANAKITE: J.Nicholls 2

BARBER CREEK FIELD: H.G.Goodell; D.G.Griggs; F.F.Sabins 1

BARITE RESOURCES: F.W.Osterwald 3

BARIUM MAGNESIUM CARBONATE: M.E.Mrose 1

BASALT; see also VOLCANIC ROCKS: D.L.Blackstone 4; R.L.Christiansen; C.S.Ferris 1; W.B.Hamilton 1; G.A.Joplin

BASEMENT INFLUENCE ON OVERLYING SEDIMENTS: R.A.Hodgson; R.A.Hoppin 3,4; J.C.Palmquist 3; J.J.Prucha; D.U.Wise 1,2

BASEMENT RESPONSE: C.W.Barnes; D.U.Wise 3

BASIN CREEK UPLIFT: J.D.Love 15

BATES CREEK RESERVOIR QUADRANGLE: E.N.Harshman 4

BATES HOLE - SHIRLEY BASIN AREA: N.M.Denson 7

BATHOLITHS: W.A.Bothner 1,2; K.C.Condie 9,10; D.H.Eggler 1,6; S.B.Smithson 3; R.H.Steiger

BAXTER BASIN GAS FIELDS: M.M.Fidlar 1

BEAR CREEK BASIN: M.Brunet

BEAR RIVER FORMATION: A.W.Horstman; I.D.Pinto

BEAR RIVER VALLEY: C.J.Robinove 1

BEARTOOTH BUTTE FORMATION: R.H.Denison 1,4,5; C.A.Sandberg 2; W.R.Skinner 1

BEARTOOTH MOUNTAINS: D.R.Bowes; C.A.Sandberg 6

AMPHIBOLITES: R.D.Bentley 2; J.R.Butler 1; P.C.VanDeKamp

ARCHEAN BASEMENT COMPLEX: W.R.Skinner 3

CLOVERLEAF LAKES AREA: R.D.Bentley 1,3

DIKES: M.Prinz 1,2,3,4,5

FOLDS, FAULTS: C.J.Casella 4; R.M.Foose 2; W.R.Skinner 3

GEOLOGIC EVOLUTION: R.D.Bentley 3; J.R.Butler 1,2,4; C.J.Casella 1,2; L.H.Larsen 2; W.R.Skinner 2

GLACIATION: W.G.Pierce 3; H.T.U.Smith

GRANITE GNEISS: J.R.Butler 2

HIGHLINE TRAIL LAKE AREA: W.R.Skinner 1,2

METAMORPHISM: G.N.Hanson

PRECAMBRIAN: R.D.Bentley 2; D.R.Bowes; J.R.Butler 1,2; C.J.Casella 2,4;
J.Doroshenko; W.R.Skinner 3; P.C. VanDeKamp

STRUCTURE: C.J.Casella 2; R.M.Foose 1,2; M.Prinz 4; W.R.Skinner 3

LONESOME MOUNTAIN AREA: L.H.Larsen 1,2; D.J.Leveson

TECTONICS: R.D.Bentley 3

ULTRABASIC COMPLEX: D.R.Bowes

VOLCANICS: Wayne State University

BEAVER DIVIDE AREA: K.E.Lohman

BEAVER RIM: J.R.Boles 1; F.B.VanHouten 3

BEDFORD QUADRANGLE: J.T.Dutro

BEDROCK

ALTERATION OF: J.B.Droste

LARAMIE RIVER CROSS SECTION: J.O.Duguid 1

RELATIONSHIP TO TOPOGRAPHY: D.H.Eggler 4

BEIDELLITE: A.H.Weir

BELLE FOURCHE SHALE: D.L.Eicher 5

BENGOUGH HILL QUADRANGLE: H.J.Hyden 4

BENTONITE: J.W.Alpha; Cameron Engineers 1,3; R.Chyba; D.J.Flinn; R.A.Leonard;
J.L.McAtee; W.J.Mapel 6; R.J.Menze; R.S.Mokady; S.S.Singh; M.Slaughter 2,3;
T.A.Thorson; T.J.Tobias

ALUMINUM: J.E.Brydon

BLACK HILLS: M.M.Knechtel; R.J.Menze

CLAY SPUR: J.C.Davis 1,3

CORRELATION: N.M.Short

GEOCHEMISTRY: H.Nishita; N.M.Short; M.Slaughter 2; S.S.Singh; H.A.Tourtelot 1

CATION EXCHANGE: T.E.Brown; J.S.Clark 2,3,4; W.Fertl 2; R.G.Gast;
R.C.Mackenzie; R.VanBladel

INTERLAMINAR WATER: D.M.Anderson

MANGANESE-54 RETENTION: J.D.Gassaway

MINERALOGY: D.J.Flinn; M.Slaughter 1

MOWRY SHALE: J.C.Davis 2,4; M.Slaughter 1

PIERRE SHALE: H.A.Tourtelot 1

RESOURCES: F.W.Osterwald 3; T.A.Thorson

WATER ADSORBED ON: P.Jorgensen

BERYL: R.S.Kopp 1

RESOURCES: F.W.Osterwald 3

BERYLLIUM: R.S.Kopp 1; P.D.Proctor

-BEARING PEGMATITES: H.C.Meeves

BIBLIOGRAPHIES:

COAL: Natural Resources Research Institute

GEOLOGY, 1917-45: M.L.Troyer

GEOLOGY, 1950-59: R.R.King

RADIOACTIVE DEPOSITS: A.Brown; B.G.Dean

WATER RESOURCES: J.A.Barlow 5

WYOMING GEOLOGICAL ASSOCIATION PUBLICATIONS 1946-66: Wyoming Geological Association 25

BIG CREEK AREA: R.S.Houston 14

BIG CREEK PEGMATITE AREA: R.S.Houston 1

BIG GOOSE AREA: R.J.Starmer

BIGHORN BASIN: G.H.Halverson; L.E.Thomas 1,2

BYRON-GARLAND ANTICLINES: R.G.Risley

CARBONATE FABRIC LITHOGENESIS: G.E.Tebbutt 1,2

CENOZOIC: J.J.Schulte

CHUGWATER FORMATION: M.D.Picard 6; B.O.Tohill 1,2,3

CLOVERLY FORMATION: R.M.Moberly 1

COTTONWOOD CREEK FIELD: R.L.Sengbush

CRETACEOUS: R.M.Moberly 2

CROW MOUNTAIN SANDSTONE MEMBER, CHUGWATER FORMATION: B.O.Tohill 1,2,3

DARTON RIDGE: T.W.Todd 3

DEPOSITIONAL HISTORY AND ENVIRONMENTS: C.V.Campbell; R.A.Paull; L.E.Thomas 1,2

DEVONIAN: C.A.Sandberg 1,3,6

FENTON PASS FORMATION: W.L.Rohrer 1

FORT UNION FORMATION: D.A.Moore

FRONTIER FORMATION: F.B.VanHouten 2

GEOLOGIC HISTORY: R.M.Moberly 2; J.J.Schulte; L.E.Thomas 1,2

GOOSE EGG FORMATION, CARBONATE ROCKS: G.R.Dekoster

GROUND WATER: G.F.Dana 2

GYPSUM DEPOSITS: J.M.Bullock 1,2; M.D.Max

JURASSIC: G.M.Rohr 1

MESAVERDE GROUP, STRATIGRAPHY: W.F.Severn

MORRISON FORMATION: R.M.Moberly 1

MUDDY SANDSTONE: R.A.Paull

OIL AND GAS: J.A.Barlow 3; A.V.R.Coe; C.V.Campbell; D.E.Lawson 3,4; J.A.McCaleb 1,2,3; D.N.Miller 5; B.D.Rea; R.L.Sengbush; D.S.Stone 2; T.W.Todd 1; D.A.Wayhan

ORIGIN AND GENESIS: R.M.Moberly 2

PALEONTOLOGY: D.L.Eicher 2; C.L.Gazin 4; A.W.Powell; J.J.Prucha; R.I.Rackley; A.G.Randall 4; W.L.Rohrer 5

PENNSYLVANIAN ROCKS: T.W.Todd 1,2,3

PHOSPHORIA FORMATION: C.V.Campbell

RED PEAK MEMBER, CHUGWATER FORMATION: M.D.Picard 6

REVIEWS AND GUIDEBOOK: Billings Geological Society; R.C.Wood; Wyoming Geological Association 4

ROAD LOGS: Wyoming Geological Association 4,8

SEDIMENTARY STRUCTURES: P.D.Gingerich; R.Stone 1; B.O.Tohill 1,2

SHEEP MOUNTAIN ANTICLINE: A.J.Warner

STRUCTURE: G.M.Rohr 2; L.E.Thomas 1,2

SUNDANCE FORMATION: R.Stone 1,2

SYKES MOUNTAIN FORMATION: R.M.Moberly 1

TATMAN FORMATION: W.L.Rohrer 11

TENSLEEP SANDSTONE: J.D.Bredehoeft; T.W.Todd 1,2

TERTIARY: Wyoming Geological Association 26

WILLWOOD FORMATION: J.W.Neasham 1,2; W.L.Rohrer 5

BIGHORN CANYON AREA: C.A.Biggs; Billings Geological Society; N.Edmisten; A.M.Hanson 1,2; W.M.Husted; J.J.Schulte; F.W.Woodard

BIGHORN DOLOMITE: P.W.Richards

BIGHORN FORMATION: R.W.Macomber

BIGHORN MOUNTAINS: N.E.Cygan 1,2; T.V.Jennings; F.L.Koucky 2,3; C.M.Nelson; R.S.Nelson 1,2

AGE DATING: K.C.Condie 8; R.A.Heimlich 2,3

ALLANITE OCCURRENCE: K.A.Sargent 1,2

AMPHIBOLITE: R.E.Uthe

AMSDEN FORMATION: D.R.Gorman 2

BIG GOOSE AREA: R.J.Starmer

CAMBRIAN: N.E.Cygan 1,2; P.W.Goodwin 1; F.L.Koucky 4

CARBONATE ROCKS: C.A.Sandberg 6

CHUGWATER GROUP: R.C.McLellan

CLAY MINERALS: R.B.Furlong 1

PALEOENVIRONMENTAL SIGNIFICANCE: R.E.Ferrell

CLOVERLY FORMATION: A.Mirsky 1,2
 CRAZY WOMAN CANYON: L.O.Williams 1,2
 CRETACEOUS: A.Mirsky 1,3
 DEVONIAN: R.L.Ethington; F.L.Koucky 2
 DIKES: T.J.Armbrustmacher; R.A.Heimlich 4; G.C.Nelson
 ENGINEERING GEOLOGY: F.D.Patton; R.L.Schultz
 FAULTS AND FRACTURES: N.H.Foster 2; R.A.Hoppin 3,4; R.F.Hudson 1,2; T.V.Jennings;
 C.E.Nichols; J.C.Palmquist 4
 GYPSUM SPRING FORMATION: R.B.Furlong 1,2
 HEAVY MINERALS: A.Mirsky 2
 HORN AREA: J.C.Palmquist 1,2,3,4; K.A.Sargent 1,2
 JURASSIC: A.Mirsky 1,3; C.M.Nelson
 METAMORPHIC ROCKS: K.A.Sargent 1,2
 MORRISON FORMATION: A.Mirsky 1,2
 OIL AND GAS: J.C.Palmquist 1
 ORDOVICIAN: N.E.Cygan 1,2; F.L.Koucky 4; P.W.Goodwin 1,3
 PALEONTOLOGY: N.E.Cygan 1; R.H.Denison 2; R.L.Ethington; R.E.Ferrell; R.B.Furlong
 2; P.W.Goodwin 1; B.F.Howell; F.L.Koucky 1,4; R.W.Macomber; F.H.T.Rhodes;
 C.A.Sandberg 4
 POWDER RIVER PASS AREA: L.O.Williams 1,2
 PRECAMBRIAN: J.Doroshenko; R.A.Heimlich 1,2,3,4,5; R.A.Hoppin 1,2,3; J.C.Palmquist
 2,3,4; R.J.Starmer
 SHALE: N.W.R.Mitchell
 SOURIS RIVER(?) FORMATION: C.A.Sandberg 4
 STRUCTURE: N.H.Foster 2; R.A.Hoppin 3,4; R.F.Hudson 1,2; T.V.Jennings;
 C.E.Nichols; J.C.Palmquist 1,2,3,4
 SUNDANCE FORMATION: R.B.Furlong 1,2
 TECTONICS: J.Affleck; R.A.Hoppin 1,5; J.C.Palmquist 2,3; L.O.Williams 2
 TENSLEEP CANYON AREA: L.O.Williams 1,2
 TENSLEEP SANDSTONE: J.H.Fisher; N.L.Haskell; F.H.T.Rhodes
 BIGHORN RIVER AREA: Billings Geological Society
 BIG ISLAND TRONA MINE: J.R.Bogert
 BIG JUDSON QUADRANGLE: H.McAndrews 2
 BIG PINEY AREA: N.C.Privratsky
 BIG PINEY - LABARGE GAS FIELD: B.G.Shipp
 BIG PINEY OIL AND GAS FIELD: D.O.Asquith 2; J.B.Dunnewald; A.J.Gosar 1; F.V.Miles
 BIG SNOWY-AMSDEN INTERVAL: J.T.Dutro

BILLY CREEK FIELD: T.A.Gwynn

BIOHERMS: S.H.Knight 4,5; R.L.Williams

BIOSTRATIGRAPHY: D.L.Eicher 2; W.L.Rohrer 5; R.H.Tschudy; R.M.West 1

PHOSPHORIA, PARK CITY, AND SHEDHORN FORMATIONS: E.L.Yochelson

THERMOPOLIS, MUDDY, AND SHELL CREEK FORMATIONS: D.L.Eicher 2

BIOSTROMES: R.L.Williams

BIOTITE: C.S.Ferris 1; D.J.Leveson

BIRCH CREEK UNIT: D.O.Asquith 1,2

BISMUTH RESOURCES: F.W.Osterwald 3

BLACK HILLS: D.Campau; J.P.Gries 2; J.C.Mickelson; D.E.Pothier; J.K.Sales 2;
C.S.Robinson 4; South Dakota School of Mines and Technology, Department of
Geology and Geological Engineering; Wyoming Geological Association 27

BENTONITE: M.M.Knechtel; R.J.Menze

COAL: H.D.Levene

CRETACEOUS: J.P.Gries 1; W.J.Mapel 7; D.W.Trexler

DEADWOOD FORMATION: C.J.Gudim; J.W.Kulik 1,2

FALL RIVER FORMATION: R.R.Berg 9; R.F.Dondanville; D.N.Miller 2

FORMATION NAMES: G.R.Wulf 6

FOX HILLS FORMATION: K.M.Wagge 1

GRAVITY AND STRUCTURE: R.A.Black

HEAVY MINERALS: W.J.Mapel 7

INYAN KARA GROUP: D.W.Bolyard 1; W.J.Mapel 5; W.E.Perkins; L.G.Schultz;
D.E.Wolcott

JURASSIC: W.J.Mapel 7

LAKOTA FORMATION: W.J.Mapel 2; E.V.Post

MADISON FORMATION: J.P.Gries 6

MINERAL DEPOSITS: L.H.Shapiro; U.S. Department of Agriculture

MINNEKAHTA FORMATION: J.P.Gries 4

MINNELUSA FORMATION: C.G.Bowles 1,2; W.A.Braddock 1; F.Husain; W.J.Stone 2;
G.J.Verville 2

MORRISON FORMATION: W.J.Mapel 5

MUDDY SANDSTONE: G.R.Wulf 4,7

NEWCASTLE FORMATION: D.R.Baker

OIL AND GAS; see also POWDER RIVER BASIN, OIL AND GAS: D.W.Bolyard 1; C.Q.Cupps;
R.H.Guess; F.Husain; W.J.Mapel 4; D.N.Miller 2; C.J.Robinove 4; J.S.Runge

PALEONTOLOGY: C.H.Ellis; C.J.Gudim; D.W.Trexler; G.J.Verville 2

PRECAMBRIAN: R.E.Zartman

ROAD LOGS: Wyoming Geological Association 6,27

SEDIMENTARY STRUCTURES: R.F.Dondanville; J.P.Gries 4; W.J.Mapel 2; G.R.Wulf 2

STRUCTURE: R.A.Black; G.A.Izett 1,2; C.S.Robinson 4; J.K.Sales 2

URANIUM: C.G.Bowles 3,4; N.P.Cuppels 1; R.E.Davis; O.M.Hart; W.K.Hawkins; W.J.Mapel 6; A.R.Renfro; L.H.Shapiro; D.R.Shawe

BLACK HILLS BENTONITE DISTRICT, NORTHERN: M.M.Knechtel; R.J.Menze

BLACK JACK MINE: A.H.Weir

BLAIR FORMATION: W.B.Douglass; R.E.Keith 3

BLIND BULL AREA: G.E.Voorhees

BLUEGRASS AREA: D.S.Hodge 4

BLUE POINT MEMBER, WIGGINS FORMATION: A.R.McGrew

BLUE QUARTZ: R.B.Parker 1

BOG WATER: D.L.Sturges 1,2

BONE FRAGMENTS

FOSSIL: R.S.Houston 11; H.Toots 5

HEAVY ELEMENT CONTENT: R.S.Houston 3,7,11

BORDEAUX QUADRANGLE: L.W.McGrew 4

BORIE OIL FIELD: P.M.McMinn

BORON: H.A.Tourtlot 1

BOSLER QUADRANGLE: H.McAndrews 4

BOSWELL CREEK AREA: J.R.King

BOULDER CLUSTERS: H.T.U.Smith

BOULDER RIDGE THRUST FAULT: G.A.Nicoll

BRADLEY PEAK QUADRANGLE: R.W.Bayley 9; D.L.Blackstone 3

BRAZER DOLOMITE: W.J.Sando 2

BRECCIA: C.G.Bowles 1,2; R.A.Hoppin 5; R.D.Krushensky 3; W.H.Parsons 1,4; W.G.Pierce 4; C.R.Shultz 1

ANDESITIC: W.H.Parsons 4

BRICK CLAY RESOURCES: F.W.Osterwald 3

BRIDGER BASIN: M.R.Dawson 1; C.L.Gazin 5; E.D.Gordon 1; A.R.Hallock; K.J.Koenig; J.C.Lawrence 1,2; W.J.Stuart; D.A.Textoris

BRIDGER DINOSAUR BEDS: C.C.Mook 2

BRIDGER FORMATION: K.J.Koenig; N.S.Pledge; C.B.Wood

PALEONTOLOGY: M.R.Dawson 1; C.L.Gazin 7; M.C.McKenna 2; C.C.Mook 1,2,3; L.B.Radinsky 4; P.Robinson 1,5; W.H.Wheeler; C.B.Wood

BROADWAY MINE AREA: K.Denault

BROWNS PARK FORMATION: R.T.Buffler; W.A.Chisholm 1

BRULE FORMATION

BRULE FORMATION: L.O.Luebke

BUFFALO AREA: R.A.Hoppin 1; D.L.Koch; W.J.Mapel 1; R.S.Nelson 1,2; F.S.Szalay 1

BULL LAKE AREA: M.J.Lynch

BULL LAKE EAST QUADRANGLE: G.M.Richmond 5

BULL LAKE MORAINES: J.D.Love 12

BULL LAKE WEST QUADRANGLE: J.F.Murphy

BULL RIDGE MEMBER, MADISON LIMESTONE: W.J.Sando 5

BYRON ANTICLINE: R.G.Risley

CABIN CREEK THRUST: L.C.Furer 1; C.B.Hauf; R.B.Suydam
 CACHE THRUST AREA: C.Love
 CADMIUM RESOURCES: F.W.Osterwald 3
 CALCITE: E.S.Cheney; R.A.Gulbrandsen 1; M.P.Weiss
 RESOURCES: F.W.Osterwald 3
 CALCIUM: J.J.Rowe
 CAMBRIAN: L.H.Bell; N.E.Cygan 1,2; A.M.Hanson 1; C.Lochman-Balk 1
 CARBON, ORGANIC: E.S.Cheney 4; G.J.Schroyer 1,2,3,4
 CARBONATE MOUND FACIES: J.A.Peterson
 CARBONATE ROCKS: K.G.Bell 2; W.H.Bradley 10; E.S.Cheney 4; G.R.Dekoster; J.R.Dixon 1,2; V.N.Kholodov; C.Milton 1; R.C.Murray; C.A.Sandberg 4,6,8; G.E.Tebbutt 1,2; C.S.Tenney; M.M.R.Tucker
 CARBONATE SAND AGGREGATE: G.E.Tebbutt 1,2
 CARBON BASIN: P.S.Davidson; J.D.Ryan
 CARBON COUNTY: W.R.Barnhart; F.K.Harmston 1; F.S.Szalay 3
 CARLILE QUADRANGLE: M.H.Bergendahl
 CARNELIAN: *see* QUARTZ RESOURCES
 CARTER MOUNTAIN: W.G.Pierce 9; Wyoming Geological Association 18
 CASEBRIER HILLS QUADRANGLE: L.W.McGrew 5
 CASPER ARCH: W.F.Hooper 1,2,3; Wyoming Geological Association 4
 CASPER AREA: E.C.Booy; M.P.Dahill 1
 CASPER FORMATION: E.C.Burritt; J.H.Hoyt 2; E.K.Maughan 3; N.D.Opdyke
 CASPER MOUNTAIN AREA: Wyoming Geological Association 15,18
 CASPER SANDSTONE: D.E.Deal; S.H.Knight 1
 CASTLE GARDENS AREA: A.G.Randall 3
 CATHEDRAL BLUFFS TONGUE: J.C.Lawrence 1; W.J.Stuart
 CATHEDRAL CLIFFS FORMATION: R.D.Krushensky 3; W.G.Pierce 4
 CATHEDRAL PEAK AREA: J.R.Butler 1
 CAVES: E.Anderson 1,2; E.N.Clausen 2; J.E.Guilday 1,2; J.H.Moss 2; W.R.Wedel
 CEDAR RIDGE ANTICLINE: D.Chadeayne
 CEMENT, RAW MATERIALS FOR: Cameron Engineers 1,3
 CENOZOIC: M.L.Dickey; J.D.Love 1; R.C.Murray; J.J.Schulte; F.B.Van Houten 1
 CENTENNIAL DISTRICT: P.K.Theobald
 CENTENNIAL RIDGE DISTRICT: M.E.McCallum 7
 CERIUM: P.C.Van De Kamp
 CHABAZITE: E.W.Heinrich

CHADRON ARCH AREA: J.Maclachlan

CHADRON FORMATION: L.O.Luebke

CHALCEDONY: see QUARTZ RESOURCES

CHALK HILLS QUADRANGLE: E.N.Harshman 5

CHEROKEE RIDGE: D.I.Foster

CHERT: see QUARTZ RESOURCES

CHESTERFIELD RANGE: J.T.Dutro

CHEYENNE REGION: N.M.Denson 2; M.R.Voorhies 1

CHEYENNE RIVER BASIN: R.C.Culler; R.F.Hadley 1; B.N.Rolfe

CHICKEN CREEK UNIT NO. 1: M.W.Goering

CHILSON MEMBER, LAKOTA FORMATION: E.V.Post

CHLORITE: W.H.Bradley 7; R.Tank

CHROMIUM RESOURCES: F.W.Osterwald 3

CHRYSOPRASE: see QUARTZ RESOURCES

CHUGWATER AREA: N.S.Cook

CHUGWATER FORMATION: H.J.Gardner; L.R.High 1,2; M.D.Picard 1,2,5,6,7,8,10,11;
A.I.Rees; B.O.Tohill 1,2,3; R.Zangerl

PALEOMAGNETISM: C.E.Helsley; M.D.Picard 3,8,10; A.I.Rees

PALEONTOLOGY: D.W.Boyd 1,2; G.F.Carini; T.H.Eaton; E.H.Goldberg

PROVENANCE: M.D.Picard 5,6

RED PEAK MEMBER: M.D.Picard 2,5,6,7,8,10,11; A.I.Rees

SEDIMENTARY STRUCTURES: H.J.Gardner; M.D.Picard 4,7,14,15; B.O.Tohill 1,2

CHUGWATER GROUP: R.R.Bower; L.R.High 2,6; R.C.McLellan

CHUGWATER SANDSTONE: D.W.Collinson 2

CHURCH BUTTES GAS FIELD: M.M.Fidlar 2; V.B.Gras

CITY SPRINGS, LARAMIE: M.D.Fenton 1

CLARETON AREA, GREATER: C.Q.Cupps

CLARK FORK MEMBER, POLECAT BENCH FORMATION: R.C.Wood

CLARK FORK VERTEBRATES: R.C.Wood

CLARK QUADRANGLE: W.G.Pierce 5

CLARKSON HILLS AREA: E.I.Rich

CLASSIFICATION AND TERMINOLOGY

CHUGWATER GROUP: L.R.High 2

JEFFERSON AND THREE-FORKS FORMATION: C.A.Sandberg 5

OLIGOCENE: T.M.Stout

PERMO-PENNSYLVANIAN: J.A.Momper 1

STRATIGRAPHIC NOMENCLATURE: J.M.Delong; N.M.Denson 3,4; Wyoming Geological Association 29

TRIASSIC-JURASSIC ROCKS: G.N.Pipiringos 2,3

CLASTIC DIKES: A.J.Warner

CLAY: C.S.Land; R.S.Mokady; J.N.VanSant

RESOURCES: F.W.Osterwald 3

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NORMAL: R.S.Kopp 2; H.A.Waldrop

OVERTHRUST: H.F.Albee 1; F.C.Armstrong; R.R.Berg 4,7; D.L.Blackstone 1; G.W.Crosby 1,2,3,4,6; G.Faure; C.S.Ferris 4; R.A.Fruchey; L.C.Furer 1; C.J.Gudim; C.B.Hauf; R.F.Hudson 1,2; V.C.Kelley; R.F.Litchford; C.Love; E.W.Mountjoy; S.S.Oriel 6; W.G.Pierce 8,11; R.B.Suydam

REVERSE: C.S.Ferris 4

RING DIKE COMPLEX: D.N.Rubel

SHEAR ZONES: R.S.Houston 2; M.N.Swetnam 1

STRIKE-SLIP: G.W.Crosby 5; R.A.Hoppin 3

THRUST: D.L.Blackstone 1,3; A.J.Eardley 4; R.A.Fruchey; L.C.Furer 1; C.B.Hauf; R.F.Hudson 1,2; J.S.King 2; E.W.Mountjoy; F.E.Murray; S.S.Oriel 5,7; G.M.Rohr 2

FELDSPAR: J.R.Boles 1; J.D.Carl

POTASSIUM: J.D.Carl

RESOURCES: F.W.Osterwald 3

FENTON PASS FORMATION: W.L.Rohrer 1

FERGUSON CORNER QUADRANGLE: L.W.McGrew 6

FERGUSON SANDSTONE: D.G.Griggs

FERRIS OUTLIER: J.Chronic 1,3; P.Ray

FERROAN NORTHUPITE: C.Milton 5

FERROSEILITE: H.C.Granger 1

FIRE CLAY RESOURCES: F.W.Osterwald 3
 FIREHOLE BASIN QUADRANGLE: W.C.Culbertson 1
 FIREHOLE GEYSER BASIN: G.D.Marler 2,3
 FIREHOLE RIVER DRAINAGE: R.O.Fournier 1
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 FISH SPRINGS CREEK AREA: F.F.Bragdon
 FIVEMILE CREEK: R.F.Hadley 1; T.Maddock
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 FLAME PHOTOMETRY: *see* GEOCHEMICAL METHODS
 FLAMING GORGE AREA: W.R.Hansen 2; J.C.Roller; R.L.Threet; R.Willden
 FLATHEAD SANDSTONE: L.H.Bell; D.W.Boyd 4
 FLINT: *see* QUARTZ RESOURCES
 FLOAT TRIP LOG: Billings Geological Society
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 FLUORITE RESOURCES: F.W.Osterwald 3
 FLUORSPAR: J.D.Love 4
 FOLD; *see also* MECHANISM OF FOLDING: R.R.Berg; M.H.Bergendahl; C.J.Casella 4;
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 R.S.Kopp; M.L.Millgate; J.C.Palmquist 4
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 G.D.Johnson; W.R.Keefer 2; V.C.Kelley; G.I.W.Long; A.J.Warner
 ASYMMETRIC: M.D.Fenton 1
 BASEMENT: C.W.Barnes; J.J.Prucha; B.Schaeffer; D.J.Toogood
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 SYNCLINAL AND SYNFORMAL: D.L.Blackstone 3; C.S.Ferris 3; F.S.Fisher 5,6
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 FOOTE CREEK ANTICLINE AREA: P.B.Dimitroff
 FOOTE CREEK FORMATION: H.J.Hyden 2
 FORELLE LIMESTONE: E.K.Maughan 3

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FORT HILL QUADRANGLE: S.S.Oriel 4,6

FORT LARAMIE AREA: L.W.McGrew 2

FORT UNION FORMATION: A.R.Hallock; W.R.Keefer 3,4,12; H.A.Leffingwell 1,2;
K.R.Newman; D.A.Moore; D.W.Paape 1; H.R.Ritzma 3; W.N.Sharp; R.W.Wiegman 1;
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ISOPACHOUS MAP, BIGHORN BASIN: D.A.Moore

OIL AND GAS: D.O.Asquith 2; D.W.Pappe 1

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FOSSIL BASIN: J.I.Tracey

FOSSIL BONES: R.S.Houston 11; H.Toots 5

FOSSIL BUTTE: G.F.Stucker

FOSSIL FISH, POPULAR GUIDE: G.F.Stucker

FOSSIL HYDROCARBON: R.E.Cohenour 2

FOSSIL SOIL: H.R.Ritzma 3

FOUNTAIN FORMATION: E.K.Maughan 3

FOUR BEAR MOUNTAIN AREA: G.D.Stricker

FOUR CORNERS QUADRANGLE: J.A.Vanlieu

FOX CREEK AREA: C.J.Orback

FOX HILLS FORMATION: L.B.Kellum 2; K.M.Waage 1,2

FOX HILLS SANDSTONE: G.A.Bishop; J.C.Harms; L.B.Kellum 1; R.J.Weimer 3

FRACTURE; *see also* FAULTS: C.J.Casella 4; G.W.Devore; H.E.Hendricks;
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JOINTING: R.C.Getz; R.A.Heimlich 4; E.B.Heylman; D.U.Wise 3

MAFIC DIKE: R.A.Heimlich; M.Prinz

FRANSON FORMATION: J.A.Peterson

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FREEZEOUT MEMBER, GOOSE EGG FORMATION: E.K.Maughan 5

FREEZEOUT MOUNTAINS: D.W.Boyd 2; H.J.Gardner; H.E.Hamilton

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NORTHWEST QUARTER: H.D.Zeller 6

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FREMONT CANYON POWER PLANT AND POWER CONDUIT: U.S. Bureau of Reclamation 3

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E.K.Maughan 3; R.S.Wing



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GALENA CREEK ROCK GLACIER: N.Potter 1,2

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GARDEN PARK QUARRY: J.H.Ostrom 2

GARLAND ANTICLINE: R.G.Risley

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GAS HILLS: D.C.Anderson 2; E.S.Cheney 1,2,3,4,5; R.G.Coleman 1; R.Coulson; F.D.Everett; C.W.Field; R.R.Guillinger; J.W.King; R.I.Rackley; J.N.Rosholt 5; P.E.Solister 2; H.F.York

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CRUST: K.C.Condie; F.L.Schwab 3

DIKE, DIABASE: K.C.Condie 4,6

ECOLOGY: K.L.Diem

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GNEISS: K.C.Condie 9,10; S.B.Smithson 3

GOLD: J.C.Antweiler 3

GROUND WATER: R.H.Langford; G.W.Morey 1,2; C.J.Robinove 1,2; R.C.Scott 2; D.L.Sturges

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ORGANIC MATTER: G.J.Schroyer 3

PHOSPHORITE: R.A.Gulbrandsen 4

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SHALE: J.C.Davis 2; J.I.Fester; K.A.Kvenvolden; M.T.Murphy; G.J.Schroyer 1,2,3,4; J.W.Smith 4; P.R.Tisot; H.A.Tourtlet 1,2

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TRONA DEPOSITS AND ASSOCIATED AUTHIGENIC MINERALS, GREEN RIVER FORMATION: W.H.Bradley 10

URANIUM: K.G.Bell 2; E.S.Cheney 1,2,3,5; L.S.Evseeva 1,2; D.H.Graveson; E.N.Harshman 12; J.W.King; C.S.Robinson 1,3; J.N.Rosholt 2,3,4,5,6,7,8,9; J.J.Schmidt-Collerus 1,2; D.M.Updegraff; H.F.Walton

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BEARTOOTH MOUNTAINS: R.D.Bentley 1,3; J.R.Butler 1; C.J.Casella 1,2; L.H.Larsen 2; M.Prinz 3,5; W.R.Skinner 2

BIGHORN BASIN: R.M.Moberly 2; L.E.Thomas 2

BIGHORN CANYON: J.J.Schulte

CLOVERLEAF LAKES, BEARTOOTH MOUNTAINS: R.D.Bentley 1

ELKHEAD REGION: R.T.Buffler

FALL RIVER FORMATION: R.F.Dondanville

GREEN RIVER MINERALOGY: C.Milton 2

HANNA BASIN: S.H.Knight 3

LOST SOLDIER AREA: J.W.Guyton 2

MUMMY CAVE: J.H.Moss 2

POWDER RIVER BASIN: B.E.Weichmann 2; Wyoming Geological Association 14

PRECAMBRIAN ROCKS: K.C.Condie 7

WASHAKIE AND SAND WASH BASINS: H.R.Ritzma 2

WIND RIVER BASIN: W.R.Keefer 7,10

WYOMING: W.D.Greene 3

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GEOMORPHOLOGY: D.H.Eggler 4

GEOPHYSICAL LOGS: see WELL LOGS AND DRILL TESTS

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GLASS SHARDS: R.S.Houston 5

GLAUCONITE RESOURCES: F.W.Osterwald 3

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GLENDO UNIT, AREA: U.S. Bureau of Reclamation 1,3; G.E.Welder 1

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GRANITE GNEISS: J.R.Butler 1,2; R.E.Zartman

GRANITE LAKE PLUTON: R.S.Naylor

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GRANODIORITE: F.S.Fisher 4

GRANODIORITE GNEISS: R.B.Parker 1

GRANT VILLAGE SITE: E.D.Gordon 2

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URANIUM DEPOSITS: R.V.Bailey 2

COAL: H.Masursky; G.N.Pipiringos 1; J.D.Vine

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DEFINITIONS: J.D.Love 2

GROUND WATER: G.F.Dana 2; D.B.Sapik; G.E.Welder 2,3

OIL AND GAS: D.O.Asquith 1,2; C.T.Colson; J.M.Cronoble; J.B.Dunnewald; J.H.Earl; M.M.Fidlar 1,2; A.J.Gosar 1; V.B.Gras; J.D.Haun 1; W.C.Heppe 1,2; J.T.Kaarsberg; M.L.Krueger 1,2; C.Lackey; D.E.Lawson 1; J.C.McCaslin; D.G.McCubbin; D.P.McGookey; B.E.May; E.C.Mees 2; R.H.Michael; F.V.Miles; F.C.Rathbun 1,2; H.R.Ritzma 1; B.G.Shipp; W.W.Skeeters; J.L.Stout; R.J.Weimer 6,7,8; E.J.White 2; G.J.Wiloth; T.C.Woodward 1

OIL SHALE: P.C.Anderson; W.H.Bradley 5; O.E.Childs; W.C.Culbertson 3,4,7,8,9; J.R.Donnell 1,2; J.I.Fester; F.C.Jaffe 2; M.T.Murphy; H.W.Roehler 4; J.W.Smith 1,2,3,4; H.M.Thorne; S.S.Tihen; P.R.Tisot; L.G.Trudell; D.R.Williamson; G.J.Wiloth

PALEONTOLOGY: W.H.Bradley 8; C.L.Gazin 4; R.M.West 2

ROAD LOGS: Wyoming Geological Association 2,3,10

SALT: D.L.Deardorff

TECTONICS: R.E.Skinner 2

TRONA: *see section titled* TRONA

WASATCH FORMATION: J.C.Lawrence 1,2,3; R.Steinmetz 1,2; R.M.West 1,2,4

GREEN RIVER FORMATION: W.H.Bradley 6; W.C.Culbertson 4,8; J.R.Donnell 1; J.C.Lawrence 1,2,3; J.D.Love 10; S.S.Oriel 1; N.C.Privratsky; J.R.Rapp; H.W.Roehler 3,4; B.Schaeffer; W.J.Stuart; D.A.Textoris; R.W.Wiegman 1

CHLORITE: W.H.Bradley 7

FACIES CHANGES: W.C.Culbertson 8

LANEY SHALE MEMBER: W.C.Culbertson 2

LAZURITE: W.H.Bradley 7

OIL SHALE: P.C.Anderson; W.H.Bradley 5; O.E.Childs; W.C.Culbertson 3,4,7,8,9; J.R.Donnell 1,2; J.I.Fester; F.C.Jaffe 2; M.T.Murphy; H.W.Roehler 4; J.W.Smith 1,2,3,4; H.M.Thorne; S.S.Tihen; P.R.Tisot; L.G.Trudell; D.R.Williamson; G.J.Wiloth

MINERALOGY: J.J.Fahey 2,3; C.Milton 2,3,4

MINERALS: W.H.Bradley 3,7; D.L.Deardorff; P.E.Desautels; R.L.Hay; C.Milton 1,2,3,4,5,6; M.E.Mrose 1,2; M.T.Murphy; R.Tank

PALEONTOLOGY, PALEOLIMNOLOGY: W.H.Bradley 2,5,8,9,10; P.Brodkorb; W.D.Greene 3; G.L.Jepsen 1,2; H.W.Roehler 2; G.F.Stucker; C.B.Wood

SANDSTONE LENSES, ROLL: J.R.Rapp

SALINE MINERALS: D.E.Appleman; W.H.Bradley 8,10; J.J.Fahey 2,3; M.E.Mrose 2

SEDIMENTARY CYCLES: L.R.High 5

SILICATES: J.R.Goodwin 2; R.L.Hay; C.Milton 3

STEVENSITE: W.H.Bradley 3

STRATIGRAPHY: W.C.Culbertson 3

TALC: W.H.Bradley 7

TIPTON SHALE MEMBER: E.J.Castro; J.H.Goodwin 2; H.W.Roehler 4; W.J.Stuart; R.Tank

TOWER SANDSTONE LENTIL: W.C.Culbertson 2; R.J.Ebens 1,2,3

TRONA: J.R.Bogert; W.H.Bradley 8,10; Cameron Engineers 1,3; W.C.Culbertson 5,6,7; J.I.Fester; H.D.Hand; L.E.Mannion; Mining World; J.H.Ogg; F.W.Osterwald 3

TUFF: J.H.Goodwin 1,2; A.Iijima

WILKINS PEAK MEMBER: W.H.Bradley 8; W.C.Culbertson 1,6; W.J.Stuart

GREEN RIVER OIL SHALE: *see* GREEN RIVER FORMATION/OIL SHALE

GREYBULL RIVER AREA: C.J.Robinove 2; W.H.Wilson 4

GREYBULL VALLEY: R.D.Merrill

GRIEVE OIL FIELD: D.E.Lawson 2

GRIZZLY BUTTES: C.C.Mook 2,3

GROS VENTRE BUTTES: E.W.Heinrich

GROS VENTRE MOUNTAINS: E.S.Blasdel; W.R.Keefer 5,9

GROVE CREEK FORMATION: P.W.Goodwin 3

GROUND WATER; *see also* WATER: G.F.Dana 1,2; L.B.Leopold; G.D.Marler 3; F.A.Swenson

ARTESIAN: C.G.Bowles 4; D.B.Sapik

CRETACEOUS: J.G.Crawford

EARTHQUAKE INDICATOR: R.C.Scott 2

GEOCHEMISTRY: R.H.Langford; G.W.Morey 1,2; C.J.Robinove 1,2; R.C.Scott 2;
D.L.Sturges

GEOPHYSICAL METHODS: C.Kilburn; M.E.Lowry 1,3; L.J.McGreevy 1;
D.A.Morris; C.J.Robinove 3; E.P.Weeks

HOT SPRINGS, EFFECTS: G.D.Marler 3

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MINING GEOLOGY: S.Budo

PEAT: D.L.Sturges 1,2

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BEAR RIVER VALLEY: C.J.Robinove 1

BRIDGER BASIN: E.D.Gordon 1

CROOK COUNTY: R.H.Langford; H.A.Whitcomb 1

DRY CREEK AREA: C.J.Robinove 2

EDEN VALLEY - FARSON AREA: G.F.Dana 1

GLENDON: G.E.Welder 1

GRANT VILLAGE SITE, YELLOWSTONE NATIONAL PARK: E.D.Gordon 2

GREAT DIVIDE BASIN: E.P.Fisk; G.E.Welder 2

GREEN RIVER BASIN: G.F.Dana 2; D.B.Sapik; G.E.Welder 2,3

GREYBULL RIVER AREA: C.J.Robinove 2

HARTVILLE UPLIFT: F.O.Johnson

JACKSON LAKE AREA: L.J.McGreevy 1

JOHNSON COUNTY: H.A.Whitcomb 3

LARAMIE BASIN: E.C.Burritt

LARAMIE COUNTY: M.E.Lowry 3

LYMAN-MOUNTAIN VIEW AREA: C.J.Robinove 3

NIOBRARA COUNTY: F.O.Johnson; H.A.Whitcomb 2

OVERTHRUST BELT: E.D.Gordon 1

OWL CREEK AREA: D.W.Berry 2

PASS CREEK BASIN AREA: G.J.Saulnier

PLATTE COUNTY: D.A.Morris; E.P.Weeks

RAWLINS AREA: D.W.Berry 1

SHERIDAN COUNTY: M.E.Lowry 1

SNAKE RIVER BASIN: D.L.Crandall

STAR VALLEY: E.H.Walker 3

TETON VALLEY: C.Kilburn

WASHAKIE BASIN: G.F.Dana 2; G.E.Welder 2

WHEATLAND FLATS: E.P.Weeks

WHITE RIVER FORMATION: M.E.Lowry 2

WIND RIVER BASIN: Bishop and Spurlock; G.F.Dana 2; H.A.Whitcomb 4

WIND RIVER INDIAN RESERVATION: L.J.McGreevy 2

SPRINGS: R.W.Wiegman 2

TRACING WITH SODIUM IODIDE: J.J.Rowe 2

URANIUM: J.S.Anderson; C.G.Bowles 3,4; A.P.Butler 3; A.I.Germanov;
A.K.Lisitsin 1; J.D.Love 9; J.N.Rosholt 1,2; R.C.Scott 1; D.L.Sturges 1

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RESOURCES: F.W.Osterwald 3

GYP SUM SPRING FORMATION: J.M.Bullock 1,2; R.B.Furlong 1,2; R.W.Imlay;
R.E.Skinner 1

HAGGITE

HAGGITE: H.T.Evans

HALITE: E.K.Maughan 6

RESOURCES: F.W.Osterwald 3

HALLECK CANYON AREA: E.D.Fields

HALVERSON RANCH FIELD: R.E.Hudson

HANNA BASIN: R.D.Cody; S.H.Knight 3; J.H.Larsen; S.D.Mitchell; J.D.Ryan;
J.W.Shelton; D.S.Stone 1; Wyoming Geological Association 11

GROUND WATER: G.F.Dana 2

HARDING SANDSTONE: M.D.Allison; R.H.Denison 3

HAREBELL FORMATION: D.A.Lindsey

HARTVILLE ARCH: F.O.Johnson

HARTVILLE UPLIFT: E.K.Drouillard; J.MacIachlan; J.A.Momper 2

HAT CREEK: M.Brunet

HAY MEADOW RESERVOIR QUADRANGLE: H.D.Zeller 3

HAYSTACK RANGE: J.D.Carl; M.L.Millgate

HAZARDS, GEOLOGIC

CAVERNS: R.H.Godson

EARTHQUAKES (SEISMICITY): J.P.Eaton; J.S.Rinehart 1,3,6,8,10

HEBGEN LAKE (MONTANA): J.P.Eaton; W.A.Fischer 1,2; G.D.Marler 1,2;
S.W.Nile; C.P.Ross; R.C.Scott 2; F.A.Swenson; B.N.Watson

HOT EARTH: L.D.Miller 1,2

LANDSLIDES: P.T.Bennett; E.C.Booy; J.W.Guyton 2,3; R.H.Meade;
W.G.Pierce 9,12; W.F.Sherman; R.L.Schuster; P.E.Soister 1

ROCK GLACIERS: N.Potter 1,2

SNOW AVALANCHES: N.Potter 3

SUBSIDENCE, MINE

ROCK SPRINGS: D.L.Donner; F.P.Morgando

ROCK SPRINGS CAMP: Chen and Associates Inc.

HAZELTON PEAK AREA: G.C.Nelson; R.E.Uthe

HEART LAKE CONGLOMERATE: J.D.Love 15

HEART MOUNTAIN DETACHMENT FAULT: G.P.Brophy; W.G.Pierce 1,8,11

HEAVY ELEMENTS: H.Toots 4

IN BONE: R.S.Houston 3,7,11; H.Toots 5

HEAVY MINERALS: W.A.Chisholm 2; N.M.Denson 6,8; R.D.Hall; R.S.Houston 4;
W.J.Mapel 7; A.Mirsky 2; Y.Sato; W.N.Sharp 2; T.W.Todd

HEBGEN LAKE REGION: J.P.Eaton; R.C.Scott 2; F.A.Swenson; I.J.Witkind 2

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HELL CREEK FORMATION: R.Estes 4,6,7; F.S.Szalay 1

HELL'S HALF ACRE: A.W.Powell

HEMATITE: *see* IRON RESOURCES

HENRY'S FORK FAULT: R.W.Wiegman 2

HESSE MOUNTAIN - HAZELTON PEAK AREA: G.C.Nelson

HEULANDITE: E.W.Heinrich

HIGH PLAINS: R.F.Holmes; A.L.Lugn; F.E.Moore 2; Y.Sato

HIGHLINE TRAIL LAKE AREA: W.R.Skinner 1,2

HIGHWAY GEOLOGY; *see also* ROAD LOGS: Wyoming Geological Association
7,8,9,10,11,12,13,19,20,21,22

HILAND AREA: E.I.Rich

HILLIARD THRUST FAULT: F.E.Murray

HISTORY (NONGEOLOGIC): W.R.Barnhart; J.L.Cramer; R.A.Harnett 1; O.W.Judge;
E.McAuslan; C.M.Rowe; R.Scharff; E.K.Wilkins 1,2,3,4

COAL MINING: W.R.Barnhart; C.Patton; E.K.Wilkins 1

MINERAL EXPLORATION AND MINING: D.C.Anderson 1; S.G.Andrew; S.H.Cohlmeyer;
W.C.Culbertson 5; R.H.Guess; C.Lackey; D.P.McGookey; C.Milton 2;
R.E.Peck [Roy]; A.C.Veatch

MOUNTAINS: N.M.Denson 2

HOBACK BASIN: J.A.Dorr 1

HOBACK FORMATION: A.J.Eardley 3; R.G.Moore; D.R.Spearing 1,2

HOBACK PEAK AREA: C.Froidevaux

HOG PARK AREA: R.D.Merry

HOGSBACK UNIT: R.H.Michael

HORN AREA, BIGHORN MOUNTAINS: J.C.Palmquist 1,2,3,4; K.A.Sargent 1,2

HORNBLLENDE: G.W.Devore 2; D.J.Leveson; K.Pedersen 1

HORNED OWL CAVE: J.E.Guilday 1

HORSE CREEK AREA: G.E.Voorhees

HORSE CREEK FIELD: J.W.Peters

HORSE CREEK, SWEETWATER DRAINAGES: M.Young

HORSE PEAK QUADRANGLE: E.N.Harshman 6

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HOT EARTH, YELLOWSTONE NATIONAL PARK: L.D.Miller 1,2

HOWELL LAKE: C.Talbot

HUDSON AREA: W.W.Emmett; L.B.Leopold

HUDSON VALLEY: M.E.McCallum 7

HULETT CREEK AREA: C.S.Robinson 3

HULETT CREEK URANIUM DEPOSITS, DISTRICTS: C.S.Robinson 3; J.N.Rosholt 1

HURRICANE MESA AREA: R.D.Krushensky 1,2

HUSTON PARK AREA: L.L.Lackey

HUTTON LAKE ANTICLINE: G.A.Nicoll

HYALITE: see QUARTZ RESOURCES

HYDRATION: C.S.Land

HYDROCARBONS; see also OIL AND GAS: P.C.Anderson; J.C.Davis 7;
K.A.Kvenvolden; R.E.Riecker; G.J.Schroyer 4; W.M.Zarella

FOSSIL: R.E.Cohenour 2

HYDRODYNAMICS: J.R.Fanshawe; R.L.Hoeger

HYDROTHERMAL ALTERATION: see under ALTERATION

HYDROTHERMAL EMANATIONS: B.D.Gunter; L.J.P.Muffler

HYDROZIRCON: R.G.Coleman 1

HYPERSTHENE SYENITE: D.S.Bodge 6

ICE-AGE MAN: C.Irwin

ICE, NONGLACIAL: D.M.Anderson; J.M.deLaMontagne 3

ICE WEDGES: B.Mears 3

IDAHO-WYOMING THRUST BELT: see OVERTHRUST BELT

IDOCRASE: R.G.Worl 3

IGNEOUS ROCKS; see also PRECAMBRIAN: G.W.Devore 1,2

PROVINCES: A.J.Eardley 1

MAP: E.A.Merewether

IGNIMBRITE: H.J.Prostka 1; M.G.Rutten

ILLITE: J.D.Gassaway; R.Tank

ILMENITE: V.T.Dow 1; T.H.Murray

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INCLUSIONS: J.Chronic 4; K.Frazier

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INTRUSIVE ROCKS (INTRUSIONS): C.J.Casella 3; J.Chronic 4; K.C.Condie 9;
D.H.Eggler 2; F.S.Fisher 3,4,7; K.Frazier; J.S.King 4; M.E.McCallum 9;
M.T.Nelson; J.L.Nold; W.H.Parsons 5,6; S.B.Smithson 3; R.H.Steiger;
W.H.Wilson 4,5

INYAN KARA GROUP: M.H.Bergendahl; D.W.Bolyard 1,2; W.J.Mapel 5; A.R.Renfro;
L.G.Schultz; D.E.Wolcott

INYAN KARA MOUNTAIN QUADRANGLE: W.J.Mapel 3

IRON: R.W.Bayley 3,4,10; D.L.Blackstone 3; D.A.Carter; S.H.Cohlmeier;
V.T.Dow 1; W.H.Duhling; Engineering and Mining Journal; T.T.Gin; A.F.Hagner
2,3; C.M.Harrer; R.A.Hodgson; T.H.Murray; D.E.Pride

CONTENT OF FOSSIL BONE: R.S.Houston 11

GEOCHEMISTRY: A.F.Hagner 3; M.D.Picard 5; D.E.Pride; R.L.Reinking

ORE: Cameron Engineers 1,3

OXIDES: W.H.Duhling; M.D.Picard 5,8

RESOURCES: R.W.Bayley 10; V.T.Dow 1; C.M.Harrer; F.W.Osterwald 3

TACONITE: R.W.Bayley 1,3,4,10; D.L.Blackstone 3; S.H.Cohlmeier;
Engineering and Mining Journal; F.W.Osterwald 3; R.G.Worl 2,3,5

IRON CREEK OIL FIELD: M.P.Dahill 1

IRON MOUNTAIN AREA: V.T.Dow 1; A.F.Hagner 2,3

MAGNETITE DEPOSIT: R.L.Reinking

IRWIN QUADRANGLE: L.S.Gardner

ISOSTASY: G.W.Crosby 2,3,4

ISOTOPES: E.S.Cheney 1,2,3,4,5; G.Faure; M.D.Fenton 2; C.W.Field; I.Friedman 1,2; B.J.Giletti 4; H.Nishita; W.D.Small; R.H.Steiger; L.D.Vredenburg

ABUNDANCE: Z.E.Peterman; W.D.Small

FRACTIONATION: J.R.Dooley 2; I.Friedman 1; J.N.Rosholt 4,5,6,7;
L.D.Vredenburg

JACK CREEK AREA: C.R.Dunrud 1,2

JACKSON HOLE AREA: E.C.Booy; E.W.Heinrich; E.G.Kauffman; W.J.Koch;
D.A.Lindsey; J.D.Love 3,8,12,16; J.M.delaMontagne 2; G.M.Philip; F.L.Schwab
3; B.L.Tibbetts

JACKSON LAKE AREA: L.J.McGreevy 1

JACKSON QUADRANGLE SOUTHWEST: R.F.Boeckerman

JADE; *see also* GEMSTONE: R.C.Gosse

RESOURCES: *see* NEPHRITE

JASPER: *see* QUARTZ RESOURCES

JEFFERSON FORMATION: G.B.Newton; C.A.Sandberg 5

JEFFERSON VALLEY, MONTANA: J.H.Ostrom 1

JELM MOUNTAIN: L.W.Cramer 1

JEWEL CAVE SOUTHEAST QUADRANGLE: W.A.Braddock

JOHNSON COUNTY: H.A.Whitcomb 3

JOINTS: L.W.Cramer 1; R.C.Getz; R.A.Heimlich 4; E.B.Heylman; R.F.Hudson 1,2;
G.D.Johnson; M.Prinz 2; D.U.Wise 3

JUDITH RIVER FORMATION: R.J.Weimer 3

JULESBURG BASIN; *see also* DENVER BASIN: G.G.Anderman; L.W.McGrew 1

JURASSIC: W.A.Chisholm 2; W.H.Curry 1; B.F.Curtis; L.C.Furer 2; D.L.Koch;
G.M.Philip; G.N.Pipiringos 2,3; R.J.Weimer 5

KAOLINITE: G.B.Asquith; I.A.Williamson

KAOLIN RESOURCES: F.W.Osterwald 3

KARST: E.N.Clausen 2; W.R.Keefer 5; J.A.Stellmack; U.S. Bureau of Reclamation 2

KAYCEE DOME AREA: E.E.Richardson

KEMMERER AREA: G.W.Crosby 1; J.I.Tracey

KEMMERER COAL COMPANY: C.G.Consalus; D.H.Townsend

KEMMERER COAL FIELD: Cameron Engineers 1,2; D.H.Townsend

KEMMERER QUADRANGLE: W.W.Rubey 3

KENDALL SANDSTONE MEMBER (PROPOSED), GYPSUM SPRING FORMATION: R.E.Skinner 1

KEROGEN; see also OIL SHALE: J.I.Fester; D.R.Williamson

KEYSTONE AREA: D.R.Currey

KIMBERLITE: M.E.McCallum 9

KINDT BASIN: J.R.Davis 1

KIRWIN MINING DISTRICT: W.H.Wilson 5

KISINGER LAKES QUADRANGLE: W.L.Rohrer 7

KITTY OIL FIELD: R.P.Swirczynski

KNIGHT FORMATION: C.L.Gazin 1

KNIGHT, SAMUEL H.: V.Moore; H.D.Thomas 4

KUMMERFELD FIELD: O.P.Miles

KYANITE: G.T.Spanski

KYANITE-ANDALUSITE-SILLIMANITE: D.S.Hodge 5,7

RESOURCES: F.W.Osterwald 3

LA BARGE AREA: A.J.Gosar 1; C.B.Hauf; S.S.Oriel 3; R.B.Suydam

LA BARGE COMPLEX: A.J.Eardley 4

LA BARGE OIL AND GAS FIELD: J.B.Dunnewald; B.G.Shipp

LAKE DE SMET AND AREA: S.L.Groff; W.J.Mapel 1

LAKE IONE QUADRANGLE: H.McAndrews 6

LAKE OWENS MAFIC COMPLEX: C.J.Orback; H.L.Stensrud 1,2

LAKES:

GREEN RIVER LAKE DEPOSITS: W.H.Bradley 8,10; W.D.Greene 3; H.W.Roehler 2,3; B.Schaeffer

LAKE DE SMET: S.L.Groff

WIND RIVER MOUNTAINS, SMALL LAKE IN: J.Decosta

YELLOWSTONE LAKE: R.G.Baker 1,2; J.M.delaMontagne 3

LAKOTA CONGLOMERATE: W.F.Hooper 1,2,3

LAKOTA FORMATION: W.J.Mapel 2; E.V.Post; F.T.Mackenzie

LAMONT AREA: M.W.Reynolds 1,2; R.J.Weimer 2

LANCE CREEK AREA: W.A.Clemens 2; H.A.Leffingwell 1,2; L.O.Luebke

LANCE CREEK FIELD: R.G.Hubbell

LANCE FORMATION: W.Auffenberg; W.A.Clemens 1,2,3; R.Estes 3,6; W.R.Keefer 3; H.A.Leffingwell 1,2; M.C.McKenna 1; D.W.Paape 1; W.D.Turnbull 1;

LAND STATUS: U.S. Bureau of Land Management 2

LANDER REGION: E.H.Colbert; N.M.Denson 2

LANDER SANDSTONE: M.D.Allison

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LANEY SHALE MEMBER: W.C.Culbertson 2; R.J.Ebens 1,2; W.J.Stuart

LANTHANUM: P.C.VanDeKamp

LARAMIDE TECTONICS (OROGENY): R.R.Berg 2,4; C.J.Casella 2; G.W.Crosby 3; E.K.Drouillard; R.A.Hoppin 1,5; R.S.Houston 10; T.V.Jennings; W.R.Keefer 6,7; J.D.Love 13; D.N.Miller 3; J.C.Palmquist 3; L.E.Thomas 2; B.E.Weichmann 2; Wyoming Geological Association 14

BASEMENT RESPONSE, INFLUENCE: C.W.Barnes; J.C.Palmquist 3; J.J.Prucha

LARAMIDE SEDIMENTS: R.R.Berg 3

LARAMIDE STRUCTURE: D.L.Blackstone 2,5; C.J.Casella 2; R.A.Hoppin 1,4; R.S.Houston 14

LARAMIE ANORTHOSITE; see also ANORTHOSITE: V.T.Dow 1; A.F.Hagner 1,2,3; D.S.Hodge 3,6; M.A.Klugman 1,2,3,4; T.H.Murray; M.T.Nelson; L.B.Owen; S.Ramarathnam; R.L.Reinking

LARAMIE AREA: R.Estes 1,2; M.D.Fenton 1

LARAMIE BASIN: J.H.Larsen; D.S.Stone 1

DUTTON CREEK FORMATION: H.J.Hyden 2
 FOOTE CREEK FORMATION: H.J.Hyden 2
 GROUND WATER: E.C.Burritt; G.F.Dana 2
 HUTTON LAKE ANTICLINE AREA: G.A.Nicoll
 ICE-WEDGE PSEUDOMORPHS: B.Mears 3
 LARAMIDE STRUCTURE: D.L.Blackstone 2,5
 LEWIS FORMATION: P.S.Davidson
 MESAVERDE FORMATION: H.Toots 4
 MISSISSIPPIAN: E.K.Maughan 2
 NATURAL GAS: S.D.Mitchell
 OIL AND GAS: H.J.Hyden 1; S.D.Mitchell; D.S.Stone 1
 PERMAIN AND PENNSYLVANIAN STRATA: E.K.Maughan 3
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 STRUCTURE: D.L.Blackstone 1,5,7
 LARAMIE BATHOLITH: W.A.Bothner 2; K.C.Condie 9,10; S.B.Smithson 3
 LARAMIE COUNTY: M.E.Lowry 3
 LARAMIE MOUNTAINS, RANGE
 ANDALUSITE-KYANITE-SILLIMANITE: D.S.Hodge 5,7
 ANORTHOSITE: A.F.Hagner 1; D.S.Hodge 3,6; M.A.Klugman 1,2,3,4; T.H.Murray;
 M.T.Nelson; L.B.Owen; S.Ramarathnam
 BATHOLITH: W.A.Bothner 2; K.C.Condie 9,10; S.B.Smithson 3
 BLUEGRASS AREA: D.S.Hodge 4
 CASPER FORMATION: J.H.Hoyt 2
 CENOZOIC: F.E.Moore
 CROW TORS: F.F.Cunningham
 DIATREMES: J.Chronic 4
 ESTERBROOK AREA: M.N.Greeley
 FERRIS OUTLIER: J.Chronic 1,3; P.Ray
 FOLDING: J.S.King 3,5; D.J.Toogood
 GEOMORPHOLOGY: L.W.Cramer 2; F.F.Cunningham; F.E.Moore 1,3
 GNEISS: K.C.Condie 9,10; G.W.Devore 2; E.D.Fields; D.S.Hodge 5,7;
 J.S.King 3; S.B.Smithson 3
 GOOSE EGG FORMATION: E.K.Maughan 4,5
 GRANITE: W.A.Bothner 2; D.H.Eggler 5; C.S.Ferris 1
 GRAVITY STUDIES: D.S.Hodge 3,6
 HEAVY MINERALS: R.D.Hall

HUTTON LAKE ANTICLINE: G.A.Nicoll
 KYANITE: D.S.Hodge 5,7
 MISSISSIPPIAN ROCKS: E.K.Maughan 2
 NEPHRITE: R.L.Sherer
 PALEONTOLOGY: J.H.Hoyt 2
 PALEOZOIC OUTLIERS: J.Chronic 1,2,3
 PEDESTAL ROCKS: L.W.Cramer 2
 PERMIAN-PENNSYLVANIAN STRATA: E.K.Maughan 3
 PRECAMBRIAN ROCKS: C.S.Ferris 1; B.D.Smith
 FOLDING IN: D.J.Toogood
 SQUAW ROCK AREA: R.D.Woodfill 1,2
 ROAD LOG: F.E.Moore 3
 STRUCTURE IN: J.S.King 3; R.D.Woodfill 2
 SILLIMANITE: D.S.Hodge 5,7
 SYENITE, STRONTIUM ISOTOPE COMPOSITION: M.D.Fenton 2
 TECTONICS: D.S.Hodge 7
 TWIN MOUNTAINS, FOLDED TRANSPOSITION LAYERING: J.S.King 3,5
 VIRGINIA DALE (RING DIKE) COMPLEX: D.H.Eggler 1,2,5; R.S.Wing
 LARAMIE RIVER VALLEY: J.O.Duguid
 LAST DAY GULLY: L.B.Leopold
 LAVA: W.B.Hamilton 2; J.Nicholls 1; M.G.Rutten
 LAWS
 COAL MINING: E.C.Iverson
 OPEN CUT LAND RECLAMATION ACT: A.E.King
 LAZURITE: W.H.Bradley 7
 LEAD: K.Denault; J.E.Dreier; Z.E.Peterman; J.N.Rosholt 8; W.D.Small
 RESOURCES: F.W.Osterwald 3
 LEEFE AREA: D.L.King
 LEE SITE: A.G.Randall 5
 LEUCITE: C.E.Helsley; K.Yagi
 LEUCITE HILLS: I.S.E.Carmichael; R.H.Johnston; K.Yagi
 LEWIS FORMATION: P.S.Davidson; W.C.Heppe 1; R.J.Weimer 7
 LEWIS SHALE: J.A.Barlow 1; R.D.Cody; J.D.Haun 1
 LIBBY CREEK CANYON: M.E.McCallum 1
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LIMESTONE

LIMESTONE: M.P.Weiss

QUARRIES: G.A.Nicoll

SPIROBAL: C.A.Sandberg 4

URANIUM IN: K.G.Bell 2

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LINEATION: C.W.Barnes; M.M.Hamil; R.A.Hoppin 5; M.D.Picard 14

LINE CREEK AREA: C.J.Casella 1,2

LITHIUM RESOURCES: F.W.Osterwald 3

LITTLE BOX ELDER CAVE: E.Anderson 1,2; J.E.Guilday 2

LITTLE MOUNTAIN AREA: R.W.Wiegman 1

LIVERMORE AREA: D.H.Eggler 1

LIVINGSTON AREA, MONTANA: A.E.Roberts

LOESS: W.M.Husted; A.L.Lugn

LONESOME MOUNTAIN AREA: L.H.Larsen 1,2; L.K.Law; D.J.Leveson

LONE TREE AREA: P.Robinson 1

LOPOLITHS: H.L.Stensrud 1,2

LOST CABIN BEDS: L.B.Radinsky 3

LOST CABIN FORMATION: L.B.Radinsky 2

LOST CREEK SCHROECKINGERITE DEPOSITS: D.M.Sheridan

LOST SOLDIER AREA: J.W.Guyton 1,2

LOUGHLINITE: J.J.Fahey 1

LOUIS LAKE BATHOLITH: R.H.Steiger

LOUIS LAKE QUADRANGLE: R.W.Bayley 6

LUCKY MC URANIUM MINE: D.C.Anderson 1

LYKINS FORMATION: E.K.Maughan 3

LYMAN AREA: C.J.Robinove 3

LYSITE MEMBER, WIND RIVER FORMATION: D.A.Guthrie 1,4; A.E.Wood

LYSITE MOUNTAIN AREA: K.W.Bay; D.A.Guthrie 4

MCFADDEN QUADRANGLE: H.J.Hyden 5
 MCKELVEYITE: P.E.Desautels; C.Milton 6
 MADDEN CAVES: E.N.Clausen 2
 MADDEN GAS FIELD: W.J.Barrett
 MADISON FORMATION: J.P.Gries 6; J.A.McCaleb 2,3; D.A.Wayhan
 MADISON GROUP: N.Edmisten; N.H.Foster 1; W.J.Sando 1,2
 MADISON JUNCTION QUADRANGLE: W.B.Hamilton 2
 MADISON LIMESTONE: J.P.Gries 6; E.K.Maughan 2; C.A.Sandberg 7; W.J.Sando 3,5
 MADISON RANGE: W.B.Hamilton 2
 MADISON RIVER VALLEY: J.D.Love 12; J.M.de la Montagne
 MADUPITE: I.S.E.Carmichael
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 MAGNESIUM RESOURCES: F.W.Osterwald 3
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 MAGNETIC TACONITE: S.H.Cohlmeier
 MAGNETITE: V.T.Dow 1; A.F.Hagner 2; T.H.Murray; R.L.Reinking
 RESOURCES: *see* IRON/RESOURCES
 TITANIFEROUS: A.F.Hagner 2
 MAGNETOTELLURIC SURVEY: R.J.G.Lewis
 MAHOGANY ZONE, GREEN RIVER FORMATION: H.M.Thorne
 MAMMOTH: C.Irwin
 MAMMOTH HOT SPRINGS: I.Friedman 1,2
 MANGANESE: J.D.Gassaway
 OXIDES: D.F.Hewett
 RESOURCES: F.W.Osterwald 3
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 AEROMAGNETIC: W.J.Dempsey 1,2; P.W.Philbin
 FREMONT COUNTY, SOUTH CENTRAL: W.J.Dempsey 1
 SEMINOE MOUNTAINS AREA: P.W.Philbin
 WIND RIVER INDIAN RESERVATION, NORTHEAST: W.J.Dempsey 2
 GEOLOGICAL
 ADAM WEISS PEAK QUADRANGLE: W.L.Rohrer 4,6
 ALPINE LAKE QUADRANGLE: R.B.Barrus
 ANTELOPE GAP QUADRANGLE: L.W.McGrew 3
 ARLINGTON QUADRANGLE: H.J.Hyden 7

ATLANTIC CITY QUADRANGLE: R.W.Bayley 5
 BATES CREEK RESERVOIR QUADRANGLE: E.N.Harshman 4
 BATES HOLE - SHIRLEY BASIN AREA: N.M.Denson 7
 BEAR RIVER VALLEY: C.J.Robinove 1
 BEAVER RIM AREA: F.B.VanHouten 3
 BENGOUGH HILL QUADRANGLE: H.J.Hyden 4
 BIG JUDSON QUADRANGLE: H.McAndrews 2
 BIG PINEY AREA: N.C.Privratsky
 BLACK HILLS: C.S.Robinson 4
 BORDEAUX QUADRANGLE: L.W.McGrew 4
 BOSLER QUADRANGLE: H.McAndrews 4
 BRADLEY PEAK QUADRANGLE: R.W.Bayley 9
 BUFFALO-LAKE DE SMET AREA: W.J.Mapel 1
 BULL LAKE EAST QUADRANGLE: G.M.Richmond 5
 BULL LAKE WEST QUADRANGLE: J.F.Murphy
 CARLISLE QUADRANGLE: M.H.Bergendahl
 CASEBRIER HILL QUADRANGLE: L.W.McGrew 5
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 CODY QUADRANGLE: W.G.Pierce 7
 COKEVILLE NORTHEAST QUADRANGLE: D.H.Elliott
 CONTINENTAL PEAK QUADRANGLE: H.D.Zeller 1
 COOPER COVE OIL FIELD: H.J.Hyden 1
 COOPER LAKE NORTH QUADRANGLE: H.McAndrews 5
 COOPER LAKE SOUTH QUADRANGLE: H.McAndrews 3
 COYOTE SPRINGS QUADRANGLE: P.E.Soister 7
 CROOK COUNTY: H.A.Whitcomb 1
 CROOKS GAP: J.G.Stephens
 DEEP LAKE QUADRANGLE: W.G.Pierce 6
 DEWEY QUADRANGLE: D.A.Brobst 1
 DICKIE SPRINGS QUADRANGLE: P.E.Soister 7
 DRIGGS QUADRANGLE: E.H.Pampeyan

DUTCH JOHN QUADRANGLE: W.R.Hansen 1
 DUTTON CREEK OIL FIELD: H.J.Hyden 1
 EDEN VALLEY AREA: G.F.Dana 1
 ESSEX MOUNTAIN QUADRANGLE: H.D.Zeller 4
 FANNY PEAK QUADRANGLE: D.A.Brobst 2
 FARSON AREA: G.F.Dana 1
 FERGUSON CORNER QUADRANGLE: L.W.McGrew 6
 FISH LAKE QUADRANGLE: W.L.Rohrer 8
 FORT HILL QUADRANGLE: S.S.Oriel 4
 FORT LARAMIE AREA: L.W.McGrew 2
 FOUR CORNERS QUADRANGLE: J.A.Vanlieu
 FREIGHTER GAP QUADRANGLE, NORTHEAST QUARTER: H.D.Zeller 5
 FREIGHTER GAP QUADRANGLE, NORTHWEST QUARTER: H.D.Zeller 6
 GLENDON AREA: G.E.Welder 1
 GOSLIN MOUNTAIN QUADRANGLE: W.R.Hansen 1
 GREAT DIVIDE BASIN: G.E.Welder 2
 GREEN RIVER BASIN: G.E.Welder 3
 GREYBULL RIVER-DRY CREEK AREA: C.J.Robinove 2
 HAY MEADOW RESERVOIR QUADRANGLE: H.D.Zeller 3
 HILAND-CLARKSON HILL AREA: E.I.Rich
 HORSE PEAK QUADRANGLE: E.N.Harshman 6
 INYAN KARA MOUNTAIN QUADRANGLE: W.J.Mapel 3
 IRWIN QUADRANGLE: L.S.Gardner
 JACKSON QUADRANGLE, SOUTHWEST: R.F.Boeckerman
 JEWEL CAVE SOUTHEAST: W.A.Braddock
 JOHNSON COUNTY: H.A.Whitcomb 3
 KAYCEE DOME AND VICINITY: E.E.Richardson
 KEMMERER QUADRANGLE: W.W.Rubey 3
 KISINGER LAKES QUADRANGLE: W.L.Rohrer 7
 LAKE IONE QUADRANGLE: H.McAndrews 6
 LARAMIE COUNTY: M.E.Lowry 3
 LOUIS LAKE QUADRANGLE: R.W.Bayley 6
 LYMAN-MOUNTAIN VIEW AREA: C.J.Robinove 3
 McFADDEN QUADRANGLE: H.J.Hyden 5
 MEASEL SPRING RESERVOIR QUADRANGLE: E.N.Harshman 7

MINERS DELIGHT QUADRANGLE: R.W.Bayley 7
 MOSS AGATE RESERVOIR QUADRANGLE: E.N.Harshman 8
 MUD SPRINGS QUADRANGLE: E.N.Harshman 9
 MUDDY GAP QUADRANGLE: M.W.Reynolds 3
 MUNGER MOUNTAIN QUADRANGLE: P.E.Soister 3
 NATWICK QUADRANGLE: L.W.McGrew 7
 NEFSY DIVIDE QUADRANGLE: C.L.Fillmore
 NEWCASTLE AREA: W.J.Mapel 4
 NIOBRARA COUNTY: H.A.Whitcomb 2
 NORTH FORK OIL FIELD AND VICINITY: E.E.Richardson
 OREGON BUTTES AREA: H.D.Zeller 11
 OWL CREEK AREA: D.W.Berry 2
 PACIFIC SPRINGS QUADRANGLE: H.D.Zeller 7
 PALISADES PEAK QUADRANGLE: D.A.Jobin
 PARTING OF THE WAYS QUADRANGLE: H.D.Zeller 8
 PAT O'HARA MOUNTAIN QUADRANGLE: W.G.Pierce 10
 PIERCE RESERVOIR QUADRANGLE: H.J.Hyden 6
 PINNACLES NORTHWEST QUADRANGLE: H.D.Zeller 10
 PLATTE COUNTY: D.A.Morris
 POWDER RIVER BASIN: W.N.Sharp 2
 PUDDLE SPRINGS QUADRANGLE: P.E.Soister 5
 PUMPKIN BUTTES AREA: W.N.Sharp 1
 RAWLINS AREA: D.W.Berry 1
 RICHAU HILLS QUADRANGLE: L.W.McGrew 9
 RIDDLE CUT QUADRANGLE: H.McAndrews 1
 ROCK RIVER QUADRANGLE: H.J.Hyden 3
 ROCK SPRINGS UPLIFT: R.E.Keith 2
 RONGIS RESERVOIR SOUTHEAST QUADRANGLE: P.E.Soister 4
 SAGE QUADRANGLE: W.W.Rubey 4
 SHEEP MOUNTAIN QUADRANGLE: W.L.Rohrer 2
 SHERIDAN COUNTY: M.E.Lowry 1
 SHERIDAN PASS QUADRANGLE: W.L.Rohrer 10
 SHIRLEY BASIN AREA: N.M.Denson 7; E.N.Harshman 13
 SHOTGUN BUTTE AREA: W.R.Keefer 8
 SOUTH PASS CITY QUADRANGLE: R.W.Bayley 8

SQUAW ROCK QUADRANGLE: L.W.McGrew 10
 SQUAW SPRING QUADRANGLE: E.N.Harshman 10
 STAR VALLEY: E.H.Walker 3
 STORM HILL QUADRANGLE: G.A.Izett 3
 STRAWBERRY HILL QUADRANGLE: R.E.Davis
 TATMAN MOUNTAIN QUADRANGLE: W.L.Rohrer 3
 TEEPEE CREEK QUADRANGLE: I.J.Witkind 1
 TETON PASS QUADRANGLE: M.L.Schroeder 2
 TETON VALLEY: C.Kilburn
 THERMOPOLIS AREA, EAST: G.H.Horn
 T L RANCH QUADRANGLE: H.J.Hyden 8
 TULE BUTTE QUADRANGLE: H.D.Zeller 9
 UPTON QUADRANGLE: W.J.Mapel 6
 WAPITI QUADRANGLE: W.G.Pierce 13
 WASHAKIE BASIN: G.E.Welder 2
 WHEATLAND FLATS AREA: E.P.Weeks
 WHEATLAND QUADRANGLE: L.W.McGrew 11
 WHEATLAND NORTHEAST QUADRANGLE: L.W.McGrew 6
 WHISKEY PEAK QUADRANGLE: M.W.Reynolds 4
 WHITE ROCK CANYON QUADRANGLE: H.J.Hyden 9
 WILD IRISH RESERVOIR QUADRANGLE: E.N.Harshman 11
 WIND RIVER BASIN: W.R.Keefer 10,11; P.E.Soister 2; H.A.Whitcomb 4
 WIND RIVER INDIAN RESERVATION: L.J.McGreevy 2
 WYOMING

IGNEOUS, METAMORPHIC ROCKS: E.A.Merewether
 SOUTHWEST, AND ADJACENT STATES: W.H.Bradley 1
 URANIUM DEPOSITS: E.A.Merewether

ISOPACH:

BIGHORN DOLOMITE: P.W.Richards
 FORT UNION FORMATION, BIGHORN BASIN: D.A.Moore

MISCELLANEOUS

BATES HOLE AREA, TERTIARY ROCKS: N.M.Denson 7
 BLACK HILLS AREA, RESOURCES: U.S. Department of Agriculture
 CARTER MOUNTAIN: W.G.Pierce 9

CENOZOIC DEPOSITIONAL PROVINCES: F.B.VanHouten 1

COKEVILLE NORTHEAST QUADRANGLE, PHOTOGEOLOGIC: D.H.Elliott

SHIRLEY BASIN AREA, TERTIARY ROCKS: N.M.Denson 7

SOUTHWESTERN WYOMING: W.H.Bradley 6

STRATIFIED PRIMITIVE AREA: K.B.Ketner

SUBLETTE COUNTY, AN AREA IN: D.W.Bergman

WYOMING, WESTERN AND ADJACENT STATES: S.H.Knight 2; Wyoming Geological Association 1

RELIEF: S.H.Knight 2

SECTIONS: see CROSS SECTIONS, GEOLOGICAL

STRUCTURE

COONEY HILLS: W.A.Bothner 1

GROS VENTRE MOUNTAINS: W.R.Keefer 9

PRECAMBRIAN, GRAND TETON NATIONAL PARK: J.D.Love 10

SUBLETTE COUNTY, AN AREA IN: D.W.Bergman

URANIUM-BEARING COAL: H.Masursky; G.N.Pipiringos 1

MARBLE: M.E.McCallum 3,4

MARCASITE: see IRON/RESOURCES

MARINE ENVIRONMENT, CLASSIFICATION: D.N.Miller 4

MARLSTONE: W.H.Bradley 6

MARSH'S DINOSAUR COLLECTIONS: J.H.Ostrom 2

MATHEMATICAL, STATISTICAL, COMPUTER METHODS: J.C.Davis 3,4,6; W.T.Fox; P.D.Gingerich; D.F.Merriam; J.H.Rayner; D.W.Spencer; J.L.Stout; R.S.Vail

URANIUM: N.H.Bostick; R.J.Meehan; J.H.Scott 1,2,3,4,5; U.S. Atomic Energy Commission 2; F.N.Ward; H.B.Young

MAYOWORTH AREA: C.C.Branson 1; F.H.T.Rhodes

MEADE COMPLEX: A.J.Eardley 4

MEADE MEMBER, PHOSPHORIA FORMATION: P.J.Cook

MEADE PEAK MEMBER, PHOSPHORIA FORMATION: R.A.Gulbrandsen 3

MEASEL SPRING RESERVOIR QUADRANGLE: E.N.Harshman 7

MECHANISM OF FOLDING: G.W.Crosby 5; A.J.Eardley 4; J.Gallagher

MEDICINE BOW MOUNTAINS

AMPHIBOLITE: M.E.McCallum 5

BOSWELL CREEK AREA: J.R.King

CENOZOIC HISTORY: M.E.McCallum 6

COOPER HILL, GRAVITY SLIDE: J.S.King 2

DEVILS GATE AREA: B.B.Ruehr

FAULTS: R.S.Houston 2; J.S.King 1,2

FOX CREEK AREA: C.J.Orback

GEOCHRONOLOGY: F.A.Hills 1,2; R.S.Houston 2

GLACIATION: E.P.Kiver; M.E.McCallum 1

HOG PARK AREA: R.D.Merry

IGNEOUS INTRUSIONS: J.S.King 4

LAKE OWENS MAFIC COMPLEX: H.L.Stensrud 1,2

LARAMIDE DEFORMATION, EFFECT OF STRUCTURE ON: R.S.Houston 10

MARBLE LENSES, SHEAR-ZONE TECTONITES: M.E.McCallum 4

METAMORPHIC ROCKS: J.S.King 1; M.E.McCallum 3

MIGMATITES: M.E.McCallum 2

MULLEN CREEK - NASH FORK SHEAR ZONE: R.S.Houston 2; M.E.McCallum 2;
R.D.Merry

TECTONITES: M.E.McCallum 4

NASH FORMATION: S.H.Knight 4,5

PELTON CREEK AREA: M.N.Swetnam 1,2

POST-MISSISSIPPIAN: M.E.McCallum 3

PRECAMBRIAN ROCKS: R.S.Houston 6,10,12,14; J.S.King 1; M.E.McCallum 3;
R.D.Merry; C.J.Orback; B.B.Ruehr; M.N.Swetnam 1,2

QUARTZITE, FOLDED, STRUCTURE OF: R.S.Houston 6; S.H.Knight 4,5

STRUCTURE: R.S.Houston 1,2,6,10,12; J.S.King 1,3,5; M.E.McCallum 3

MEDICINE BOW PEAK: B.Mears 2

MEDICINE PEAK QUARTZITE: D.R.Lamb

MEDICINE WHEEL: D.Grey

MEETEETSE FORMATION: W.R.Keefer 3

MERCURY RESOURCES: F.W.Osterwald 3

MESAVERDE FORMATION: J.E.Anderson; D.O.Asquith 1,2; J.R.Barwin; J.R.Davis
1,2; R.Estes 1,2; R.Heydenburg; F.V.Miles; T.E.Purcell; H.Toots 1,2,3,4

MESAVERDE GROUP: J.A.Burger 1,2; R.D.Cody; W.B.Douglass; A.R.Hallock;
D.E.Kilbourne 1,2,3; W.A.Pryor; W.P.Severn; B.E.Weichmann 1; R.W.Wiegman 1;
G.J.Wiloth

MESAVERDE OIL: J.C.McCaslin; G.J.Wiloth

METAMORPHIC ROCKS (METAMORPHISM): D.T.Bishop; G.P.Brophy; E.J.Catanzaro;
K.C.Condie 9,10; C.S.Ferris 2,3; G.N.Hanson; F.A.Hills 1; D.S.Hodge 1,2;
J.R.King; J.S.King 1,4; R.S.Kopp 2; L.L.Lackey 1,2; M.E.McCallum 3;
E.A.Merewether; R.D.Merry; K.Perry; K.A.Sargent 1,2; S.B.Smithson 3;
M.N.Swetnam 1,2; O.J.Wied

METAZELLERITE: R.G.Coleman 2

METEOR IMPACT STRUCTURES: M.R.Dence

METHANE: B.D.Gunter

MICA: J.T.Wilband

RESOURCES: F.W.Osterwald 3

MICROCLIMATES: M.A.Melton

MICROCLINE: G.W.Devore 2

MICROPALAEONTOLOGY; *see also* PALEOBOTANY and PALEONTOLOGY: W.Duke; D.L.Eicher 1,2,3,4,5; C.H.Ellis; J.A.Eyer 1; J.W.Funkhouser; G.M.Rohr 1; R.H.Tschudy; C.F.Upshaw

MIDWEST AREA: R.Heydenburg

MIGMATITE: M.E.McCallum 2; R.G.Worl 2,3,4

MIGRATION OF OIL: R.P.Sheldon 4

MILLER CREEK OIL FIELD: R.L.Hoeger; B.Jones 1; J.F.Truchot

MINERAL DEPOSITS; *see under mineral names for individual minerals*: Cameron Engineers 1,2,3; R.S.Cannon; F.W.Osterwald 3; Ozark Mountain Gem and Mineral Society; O.Tweto; J.D.Ridge; W.H.Wilson 2; E.H.Wisser; U.S. Geological Survey 2

CARLILE QUADRANGLE: M.H.Bergendahl

HOG PARK AREA: R.D.Merry

PERMIAN ROCKS, WESTERN WYOMING: R.P.Sheldon 2

STINKINGWATER MINING REGION: F.S.Fisher 3

SUNLIGHT REGION: J.E.Dreier

MINERAL EXPLORATION; *see also* GEOCHEMICAL METHODS; WELL LOGS AND DRILL TESTS: S.G.Andrew; J.C.Antweiler 1,3; R.P.Sheldon 1; P.K.Theobald

MINERAL PRODUCTION: J.R.Bogert; Engineering and Mining Journal; H.C.Meeves; R.J.Menze

MINERAL RESERVES AND RESOURCES; *see also* COAL; OIL AND GAS; OIL SHALE; TRONA; *and names of individual minerals*: Cameron Engineers 1,2,3; F.W.Osterwald 3; H.J.Sohr 1,2; M.L.Troyer; U.S. Department of Interior; U.S. Geological Survey 1,2; W.H.Wilson 2; Wyoming Geological Survey

BEAVER RIM AREA TERTIARY: F.B.VanHouten 2

CARBON COUNTY: F.K.Harmston 2

EAST-CENTRAL WYOMING: F.K.Harmston 2

FORT LARAMIE AREA: L.W.McGrew 2

GREEN RIVER BASIN: W.C.Culbertson 7

HAYSTACK RANGE: M.L.Millgate

PERMIAN: R.P.Sheldon 2

SOUTH-CENTRAL WYOMING: R.S.Cannon

SOUTHWESTERN WYOMING: R.E.Lund

STRATIFIED PRIMITIVE AREA: K.B.Ketner

TETON COUNTY: G.R.Rajender

TONGUE RIVER BASIN: A.E.Falvey

WIND RIVER INDIAN RESERVATION: R.L.Bolmer

MINERALOGY OF THE...

ATLANTIC CITY IRON FORMATION: T.T.Gin

BENTONITE, WYOMING: D.J.Flinn

MOWRY: M.Slaughter 1

BLUE POINT MEMBER, WIGGINS FORMATION: A.R.McGrew

CHUGWATER FORMATION: M.D.Picard 1

COAL, URANIUM-BEARING: T.F.Bates

GREEN RIVER FORMATION: J.J.Fahey 2; C.Milton 1,2,3,4,5,6

OIL SHALES: F.C.Jaffe

HAYSTACK RANGE FELDSPAR, MINOR ELEMENTS: J.D.Carl

LEUCITE HILLS VOLCANICS: I.S.E.Carmichael

MOWRY BENTONITES: M.Slaughter 1

OIL SHALE, GREEN RIVER FORMATION: F.C.Jaffe 2

PEGMATITES, HAYSTACK RANGE: J.D.Carl

STRATIFIED PRIMITIVE AREA: K.B.Ketner

URANIUM-BEARING COALS: T.F.Bates

VOLCANIC ROCKS, LEUCITE HILLS: I.S.E.Carmichael

WAGON BED FORMATION: J.R.Boles 2

WASHAKIE BASIN, CLAY MINERALOGY: C.E.Weaver

MINERALS, WYOMING: E.W.Heinrich; W.H.Wilson 6; Wyoming Geological Survey

MINERS DELIGHT QUADRANGLE: R.W.Bayley 7

MINE SUBSIDENCE: *see* HAZARDS, GEOLOGIC

MINING DIRECTORY: Wyoming Department of Economic Planning and Development

MINING GEOLOGY: D.C.Anderson; J.S.Anderson; R.V.Bailey 1; A.F.Butler 3; S.Budo; S.H.Cohlmeyer; R.Coulson; F.D.Everett; E.W.Grutt; W.K.Hawkins; D.L.King; Mining World; F.G.Monzon; D.E.Pothier; R.I.Rackley

MINNEKAHTA FORMATION, BLACK HILLS: J.P.Gries 4

MINNELUSA FORMATION: A.E.Allen 1,2; R.R.Berg 5,6,8; C.G.Bowles 1,2; W.A.Braddock 1; S.M.Edwards; R.E.Hudson; F.Husain; W.J.Stone 1,2; J.F.Trotter 3; G.W.VanFossen; G.J.Verville 2; Wyoming Geological Association 16; W.N.Zakis

MINNELUSA SANDSTONE: A.E.Allen 2; C.G.Bowles 1,2

MIOCENE ROCKS; *see also formation names:* N.M.Denson 3,6; R.J.Ebens 5; H.Toots 10

MIRROR LAKE, YELLOWSTONE NATIONAL PARK: H.A.Waldrop

MISSISSIPPIAN; *see also formation names*: D.R.Foutz; G.Klapper; C.C.Reeves; C.A.Sandberg 3; W.J.Sando 4; J.W.Strickland

MISSOURI RIVER BASIN PROJECT, GLENDO UNIT: U.S. Bureau of Reclamation 1,3; G.E.Welder 1

MOLYBDENUM: T.Araki; E.S.Cheney 3

RESOURCES: F.W.Osterwald 3

MONTANA GROUP: J.M.Parker 1

MONTMORILLONITE: T.E.Brown; J.E.Brydon; R.Greene-Kelly; L.R.High 1; C.S.Land; J.L.McAtee; R.C.Mackenzie; J.Mering; J.H.Rayner; H.E.Roberson; R.Tank; A.H.Weir

MOONSTONE FORMATION: J.R.Dooley 1; J.D.Love 5

MOORCROFT WEST OIL FIELD: D.E.Mettler 1,2

MORDENITE: E.W.Grutt

MORRISON FORMATION: G.Baker; C.C.Branson 1,2; F.A.Jenkins; W.J.Mapel 5; A.Mirsky 1,2; R.M.Moberly 1; J.H.Ostrom 2; M.P.Weiss

MORRISON QUARRY: J.H.Ostrom 2

MOSS AGATE RESERVOIR QUADRANGLE: E.N.Harshman 8

MOUNTAIN VIEW AREA: C.J.Robinove 3

MOUNT THOMPSON AREA: R.A.Fruchey

MOUNT WASHBURN: C.H.Shultz 1,2

MOWRY FORMATION: A.S.Romer

MOWRY SHALE: J.C.Davis 2,4,5,6,7; C.H.Ellis; A.S.Romer; G.J.Schroyer 1,2,3,4; N.M.Short; M.Slaughter 1; W.M.Zarella

MUD SPRINGS QUADRANGLE: E.N.Harshman 9

MUDDY CREEK FORMATION: D.L.Eicher 2

MUDDY FORMATION: D.L.Eicher 2; H.E.Hamilton; S.D.Whitford

MUDDY GAP AREA: R.J.Weimer 2

MUDDY GAP QUADRANGLE: M.W.Reynolds 3

MUDDY SANDSTONE: R.E.Ferrell; R.H.Guess; R.A.Paull; D.L.Reese; C.C.Reeves; G.R.Wulf 4,7

MULLEN CREEK - NASH FORK SHEAR ZONE: R.S.Houston 2; M.E.McCallum 2

MUMMY CAVE, ABSAROKA MOUNTAINS: J.H.Moss 2; W.R.Wedel

MUNGER MOUNTAIN QUADRANGLE: H.F.Albee 2

MUSKRAT BASIN QUADRANGLE: P.E.Soister 3

NARCISSUS GEYSER, YELLOWSTONE NATIONAL PARK: J.S.Rinehart 10

NASH FORMATION, MEDICINE BOW MOUNTAINS: S.H.Knight 4,5

NATRONA COUNTY: S.M.Skinner

NATURAL SLAG OR CLINKER RESOURCES (BAKED ROCK): F.W.Osterwald 3

NATWICK QUADRANGLE: L.W.McGrew 7

NATWICK SOUTHWEST QUADRANGLE: L.W.McGrew 8

NEFSY DIVIDE QUADRANGLE: C.L.Pillmore

NEPHELINE SYENITE RESOURCES: F.W.Osterwald 3

NEPHRITE

CONDITIONS OF FORMATION: R.L.Sherer

RESOURCES: F.W.Osterwald 3

NEWCASTLE AREA: W.J.Mapel 4

NEWCASTLE FORMATION: D.R.Baker; C.H.Ellis

NEWCASTLE SANDSTONE: C.Q.Cupps; G.R.Wulf 1,2

NEW FORK TONGUE: J.C.Lawrence 1,2

NEW RAMBLER COPPER-GOLD-PLATINUM DISTRICT: D.R.Currey; M.E.McCallum 8;
P.K.Theobald

NEW WORLD MINING DISTRICT: T.A.Butler

NICKEL: C.B.Koons

RESOURCES: F.W.Osterwald 3

NIOBRARA COUNTY: F.O.Johnson; H.A.Whitcomb 2

NIOBRARA FORMATION: R.A.Harnett 2

NITRATE RESOURCES: F.W.Osterwald 3

NOMENCLATURE: see CLASSIFICATION

NORSETHITE: M.E.Mrose 1

NORTH FORK OIL FIELD: E.E.Richardson

NORTH PLATTE RIVER BASIN

CLASSIFICATION OF NATIONAL LAND: U.S. Bureau of Land Management 1

WATER USE: R.T.Clark

NORTHUPITE, FERROAN: C.Milton 5

NUCLEAR METHODS AND ENERGY: J.W.Birtill; First National City Bank;
W.B.Martin; G.C.Werth; J.S.Wold 1,2,3

NUGGET SANDSTONE: N.D.Opdyke

OBSIDIAN: G.M.Richmond 1

OGALLALA FORMATION: N.M.Denson 6

OIL AND GAS; *see field names*: P.Biggs; J.L.Carlton; J.A.Kornfeld 1,2;
I.Kranzler; J.A.Masterson; E.C.Mees 1; Wyoming Geological Association 5

ALLIANCE BASIN: J.Maclachlan

ALMOND FORMATION: R.J.Weimer 7

BIG PINEY AREA: N.C.Privratsky

BIGHORN BASIN: J.A.Barlow 3; C.V.Campbell; A.V.R.Coe; D.E.Lawson 3,4;
J.A.McCaleb 1,2,3; D.N.Miller 5; B.D.Rea; R.L.Sengbush; D.S.Stone 2;
T.W.Todd 1; D.A.Wayhan

BLACK HILLS: C.Q.Cupps; D.W.Bolyard 1; R.H.Guess; F.Husain; W.J.Mapel
4; D.N.Miller 2; C.S.Robinson 4

BLACK SHALES: V.E.Swanson

CHADRON ARCH: J.Maclachlan

CLARETON AREA: C.Q.Cupps

CRETACEOUS; *see also individual formation names*: J.A.Barlow 3; R.L.Enyert;
J.D.Haun 1,2; J.D.Love 4; C.J.Nolte; R.W.Stapp; R.G.Young

DAKOTA FORMATION: J.D.Haun 3; J.S.Runge

DEFORMATION, RELATION TO: J.D.Love 4; R.W.Stapp

DENVER BASIN: W.H.Cochrane; J.D.Haun 3; L.G.Knudtson; P.M.McMinn;
C.J.Nolte; J.W.Peters

DIAGENESIS OF SEDIMENTARY AREA: D.N.Miller 6

EXPLORATION: J.D.Copen; R.F.Gosman; I.Kranzler; D.N.Miller 6

DAKOTA TRAPS: J.S.Runge

GEOCHEMICAL METHODS: J.C.Davis 6; G.J.Schrayer 4; L.D.Vredenburg

GEOLOGICAL METHODS: W.N.Zakis; W.M.Zarella

GEOPHYSICAL METHODS; *see also* GEOPHYSICAL LOGS; GEOPHYSICAL METHODS;
B.Jones 2,3,4

GREEN RIVER BASIN: W.W.Skeeters

MINNELUSA PLAYS, LITHOFACIES MAP: W.N.Zakis

POWDER RIVER BASIN: S.M.Edwards; J.F.Trotter 3; W.N.Zakis

UINTA COUNTY, EARLY: A.C.Veatch

FALL RIVER SANDSTONE RESERVOIRS: R.R.Berg 9; D.N.Miller 2

FIELDS: P.Biggs; J.L.Carlton; R.L.Enyert; D.I.Foster; R.E.Garrison;
Wyoming Geological Association 5

ARCH UNIT: D.E.Lawson 1

BAGGS SOUTH GAS FIELD: J.M.Cronoble

BARBER CREEK FIELD: H.C.Goodell; D.G.Griggs; F.F.Sabins 1

BAXTER BASIN GAS FIELDS: M.M.Fidlar 1

BIG PINEY - LA BARGE GAS FIELD: B.G.Shipp

BIG PINEY OIL AND GAS FIELD: D.O.Asquith 2; J.B.Dunnewald; A.J.Gosar 1; F.V.Miles

BILLY CREEK FIELD: T.A.Gwynn

BIRCH CREEK UNIT: D.O.Asquith 1,2

BORIE OIL FIELD: P.M.McMinn

CHICKEN CREEK UNIT NO. 1: M.W.Goering

CHURCH BUTTES GAS FIELD: M.M.Fidlar 2; V.B.Gras

CLARETON FIELD: C.Q.Cupps

COOPER COVE OIL FIELD: H.J.Hyden 1

COOPER RESERVOIR GAS FIELD: J.B.Boyd

COTTONWOOD CREEK OIL FIELD: J.A.McCaleb 1; R.L.Sengbush

COYOTE CREEK OIL FIELD: B.Jones 1; J.F.Trotter 1,2

COYOTE CREEK SOUTH OIL FIELD: E.T.Hegna

DALLAS DOME: M.D.Picard 1

DEAD HORSE CREEK FIELD: D.G.Griggs; F.F.Sabins 1,2

DESERT SPRINGS GAS FIELD: J.H.Earl; B.E.May; J.L.Stout

DILLINGER RANCH FIELD: J.P.Weldon

DRY PINEY FIELD: C.Lackey; D.P.McGookey

DUTTON CREEK OIL FIELD: H.J.Hyden 1

ELK BASIN FIELD: J.A.McCaleb 2,3; B.D.Rea; D.A.Wayhan

GRIEVE OIL FIELD: D.E.Lawson 2

HALVERSON RANCH FIELD: R.E.Hudson

HOGSBACK UNIT: R.H.Michael

HORSE CREEK FIELD: J.W.Peters

IRON CREEK OIL FIELD: M.P.Dahill 1

KITTY OIL FIELD: R.P.Swirczynski

KUMMERFELD FIELD: O.P.Miles

LA BARGE OIL AND GAS FIELDS: J.B.Dunnewald; B.G.Shipp

LANCE CREEK FIELD: R.G.Hubbell

MADDEN GAS FIELD: W.J.Barrett

MILLER CREEK OIL FIELD: B.Jones 1; R.L.Hoeger; J.F.Truchot

MOORCROFT WEST OIL FIELD: D.E.Mettler 1,2

NORTH FORK OIL FIELD: E.E.Richardson

PATRICK DRAW OIL FIELD: G.Burton; D.E.Lawson 1; D.G.McCubbin; R.J.Weimer 6,8; E.J.White 2

PAVILLION GAS FIELD: E.L.Single
 PHEASANT OIL FIELD: D.L.Amsbury
 PITCHFORK OIL FIELD: A.V.R.Coe
 PRONG CREEK FIELD: E.L.Heisey
 RAINBOW RANCH FIELD: T.Ware
 RAVEN CREEK FIELD: C.E.Tranter 2
 RECLUSE OIL FIELD: G.Hinton; J.Woncik
 ROZET OIL FIELD: H.D.Waterman
 SALT CREEK OIL FIELD: J.A.Barlow 2,4
 TABLE ROCK FIELD: E.C.Mees 2
 TIMBER CREEK FIELD: R.G.Boyd
 TIP TOP UNIT: R.H.Michael
 WALTMAN GAS FIELD: E.Arro
 WEST SIDE CANAL GAS FIELD: J.M.Cronoble
 WILLOW CREEK GAS FIELD: T.C.Woodward 1
 WIND CREEK FIELD: W.J.Mapel 5
 WOOD OIL FIELD: D.E.Mettler 2
 FORT UNION FORMATION: D.W.Paape 1
 GEOCHEMISTRY: C.B.Koons; R.S.Kopp 2; K.A.Kvenvolden; R.D.McIver;
 W.J.Wenger; L.D.Vredenburg
 GOOD DYNNESON SAND TREND: G.R.Wulf 5
 GREEN RIVER BASIN: D.O.Asquith 1,2; C.T.Colson; J.M.Cronoble;
 J.B.Dunnewald; J.H.Earl; M.M.Fidlar 1,2; A.J.Gosar 1; V.B.Gras;
 J.D.Haun 1; W.C.Heppe 1,2; J.T.Kaarsberg; M.L.Krueger 1,2; C.Lackey;
 D.E.Lawson 1; J.C.McCaslin; D.G.McCubbin; D.P.McGookey; B.E.May;
 E.C.Mees 2; R.H.Michael; F.V.Miles; E.C.Rathbun 1,2; H.R.Ritzma 1;
 B.G.Shipp; W.W.Skeeters; J.L.Stout; R.J.Weimer 6,7,8; E.J.White 2;
 C.J.Wiloth; T.C.Woodward 1
 HANNA BASIN: S.D.Mitchell; D.S.Stone 1
 HARTVILLE UPLIFT: J.Maclachlan
 HISTORY: R.A.Harnett
 INYAN KARA GROUP: D.W.Bolyard 1
 LANCE FORMATION: D.W.Paape 1
 LARAMIE BASIN: H.J.Hyden 1; S.D.Mitchell; D.S.Stone 1
 LEWIS FORMATION: R.J.Weimer 7
 MESAVERDE FORMATION: D.O.Asquith 1,2; J.C.McCaslin; G.J.Wiloth;
 METALS IN: C.A.Horr
 METHANE: B.D.Gunter

MIGRATION: R.P.Sheldon 4

MINNELUSA FORMATION: R.R.Berg 5,6,8; F.Husain; J.F.Trotter 3;
G.W.VanFossen; Wyoming Geological Association 16; W.N.Zakis

MOWRY FORMATION: J.C.Davis 7; G.J.Schrayner 1,2,3,4

MUDDY SANDSTONE: G.R.Wulf 7; R.H.Guess

NEWCASTLE AREA: W.J.Mapel 4

NEWCASTLE SANDSTONE: C.Q.Cupps

NIOBRARA-Eocene: R.E.Garrison

NIOBRARA FORMATION: R.A.Harnett 2

NUCLEAR STIMULATION, TIGHT GAS SANDS: W.B.Martin

ORIGIN: R.D.McIver

OVERTHRUST BELT: Cameron Engineers 1,2; R.E.Cohenour 2; M.W.Goering;
D.P.McGookey; R.H.Michael; A.C.Veatch; Wyoming Geological Association 1,2

PENNSYLVANIAN: D.C.Swanson

PHOSPHORIA FORMATION: C.V.Campbell

POWDER RIVER BASIN: D.L.Amsbury; J.A.Barlow 2,4; R.R.Berg 5,6,8,9;
R.G.Boyd; C.Q.Cupps; S.M.Edwards; H.G.Goodell; D.G.Griggs; T.A.Gwynn;
E.T.Hegna; E.L.Heisey; G.Hinton; R.L.Hoeger; R.G.Hubbell; R.E.Hudson;
F.Husain; B.Jones 1,3,4; J.A.Kornfeld 2; W.J.Mapel 5; D.E.Mettler 1,2;
O.P.Miles; D.B.Pearcy; E.E.Richardson; F.F.Sabins 1,2; R.W.Stapp;
R.P.Swirczynski; C.E.Tranter 2; J.F.Trotter 1,2,3; J.F.Truchot;
G.W.VanFossen; T.Ware; H.D.Waterman; J.P.Weldon; W.J.Wenger; E.J.White
1,2; G.J.Wiloth; G.R.Wulf 5; Wyoming Geological Association 14

PRODUCTION: J.L.Carlton; C.T.Colson; J.D.Copen; R.F.Gosman; R.H.Guess;
J.A.Kornfeld 1,2; J.A.McCaleb; W.B.Martin; D.B.Pearcy; G.W.VanFossen;
D.A.Wayhan; W.J.Wenger; R.L.Williams; Wyoming Oil and Gas Supervisor 1,2

RESEARCH: R.D.Law

RESERVES AND RESOURCES: P.Biggs; D.W.Bolyard 2; Cameron Engineers 1,2

RESERVOIR ANALYSIS OR ENGINEERING: C.Q.Cupps; C.H.Hewitt; C.S.Land;
J.A.McCaleb 1,2,3; J.L.Stout; E.J.White 1,2

ROCK SPRINGS UPLIFT: D.L.Reese

SAND WASH BASIN: C.T.Colson; J.D.Haun 1; C.D.Masters

SULFUR ISOTOPES: L.D.Vredenburg

TENSLEEP SANDSTONE: D.E.Lawson 3,4

TERTIARY DEPOSITION, RELATION TO: J.D.Love 4; R.W.Stapp

THERMOPOLIS AREA: G.H.Horn

TIGHT GAS SANDS: W.B.Martin

TRAPS: S.M.Edwards; D.I.Foster; A.J.Gosar 1; F.Husain; L.G.Knudtson;
D.E.Lawson 3; J.D.Love 4; D.E.Mettler 2; J.S.Runge; J.F.Trotter 3

UINTA COUNTY: A.C.Veatch

URANIUM IN: K.G.Bell 1; C.A.Horr; V.E.Swanson

VANADIUM-NICKEL RATIOS: C.B.Koons

WAGON WHEEL PROJECT: W.B.Martin

WAMSUTTER ARCH: H.R.Ritzma 1,4; R.J.Weimer 7

WASATCH FORMATION: W.C.Culbertson 4; N.C.Privasky

WASHAKIE BASIN: C.T.Colson; G.J.Wiloth

WATER SENSITIVITY TESTS: E.J.White 1,2

WIND RIVER BASIN: E.Arro; W.J.Barrett; J.B.Boyd; M.P.Dahill 1;
 W.R.Keefer 11,13; C.B.Koons; D.E.Lawson 2; D.W.Paape 1,3; M.D.Picard 1;
 L.D.Vredenburgh; G.J.Wiloth

OIL SAND: E.J.White 1

OIL SHALE: W.H.Bradley 5; Cameron Engineers 1,2; O.E.Childs; W.C.Culbertson
 3,4,7,9; J.R.Donnell 1,2; F.C.Jaffe 2; H.W.Roehler 5; J.W.Smith 1,2,3;
 V.E.Swanson; P.R.Tisot; H.M.Thorne; H.A.Tourtelot 2; L.G.Trudell

BUREAU OF MINES WYOMING COREHOLE #1: J.W.Smith 2,3

GEOCHEMISTRY: J.W.Smith 4

KEROGEN: J.I.Fester; D.R.Williamson

PARTICLE-SIZE DISTRIBUTION: P.R.Tisot

PERHYDRO-BETA-CAROTENE: M.T.Murphy

RESOURCES: W.C.Culbertson 3; J.R.Donnell 1; F.W.Osterwald 3

STERANES: P.C.Anderson

THERMAL CONDUCTIVITY, THERMAL DIFFUSIVITY: S.S.Tihen

WASHAKIE #1 COREHOLE: L.G.Trudell

OLD FAITHFUL GEYSER: R.O.Pournier 2; F.Geis; H.R.Nicholls; J.S.Rinehart
 1,2,3,4,5,6,8,9

OLIGOCENE: T.M.Stout; H.Toots 8

OLIVINE: G.W.Devore 1

OPAL: see QUARTZ RESOURCES

OPAL AREA: N.S.Pledge; C.B.Wood

OPECHE FORMATION: W.J.Stone 1

ORDOVICIAN: N.E.Cygan 1,2; R.H.Denison 3; P.W.Goodwin 1,2,3; L.F.Hintze
 1,2; J.R.Patterson; C.C.Reeves

OREGON BUTTES AREA: H.D.Zeller 11

ORENDITE: I.S.E.Carmichael; K.Yagi

OROGENY: A.J.Eardley 2,3; G.D.Johnson; C.E.Tranter 1; E.H.Wisser

ORTHOCLASE: W.A.Bassett 1

OSAGE AREA: A.S.Romer

OUTLIERS: see ALTMAN OUTLIER

OVERTHRUST BELT, WESTERN WYOMING: F.C.Armstrong; H.O.Arnold; R.E.Cohenour
 1,2; G.W.Crosby 2,3,4; J.T.Dutro; A.J.Eardley 2,3,4; C.Froidevaux;

R.A.Fruchey; L.C.Furer 1; M.W.Goering; E.D.Gordon 1; L.A.Hale 2; C.B.Hauf;
L.F.Hintze 2; V.C.Kelley; C.Lackey; J.C.Lawrence 1,2; R.F.Litchford;
C.I.W.Long; R.H.Michael; E.W.Mountjoy; F.E.Murray; S.S.Oriel 5,7;
A.G.Randall 1; R.B.Suydam; A.C.Veatch; G.E.Voorhees; Wyoming Geological
Association 1,2

OWL CREEK AREA: D.W.Berry 2; U.S. Bureau of Reclamation 2

OWL CREEK MOUNTAINS: K.C.Condie 3; W.H.Duhling; C.S.Ferris 4; J.Giozzi;
D.C.Kisling; R.H.Meade; W.J.Sando 3; D.U.Wise 1,2

OXBOW TRAPS: D.E.Mettler 2

PACIFIC SPRINGS QUADRANGLE: H.D.Zeller 7

PAINT POT HILLS, YELLOWSTONE NATIONAL PARK: B.C.Raymahashay 1,2

PALEOBOTANY: D.W.Boyd 1

FLORA, ROCKY MOUNTAINS: R.W.Brown

PALYNOLOGY: R.G.Baker 1,2; W.H.Bradley 5,9; G.S.Brush; P.N.Davis;
J.W.Funkhouser; J.R.Gill 1; V.E.Larsen; H.A.Leffingwell 1,2; W.L.Rohrer
1; R.H.Tschudy; C.F.Upshaw 1,2;

PETRIFIED FORESTS: E.Dorf 1,2; W.D.Greene 2

PLANT SYSTEMATICS

SPORAE DISPERSAE

Aequitriradites n.sp.: C.F.Upshaw 2

Aquilapollenites: J.W.Funkhouser

FUNGAE: W.H.Bradley 5,9

Entophlyctis willoughbyi: W.H.Bradley 9

Pleotrachelus askaulos: W.H.Bradley 9

Tribolites tetrastonyx: W.H.Bradley 5

ALGAE: D.W.Boyd 1 W.H.Bradley 2; G.F.Carini; K.R.Newman;
R.E.Peck[Raymond]

Botryococcus: K.R.Newman

Charophytes: R.E.Peck[Raymond]

Cyanophyta: G.E.Tebbutt 1,2

Diatoms: K.E.Lohman

Spirogyra: W.H.Bradley 2

PTERIDOPHYTA

Astralopteris: S.R.Rushforth

CYCADEOIDOPHYTA

Cycadeoidea: T.Delevoryas

GINKGOPHYTA

Ginkgo wyomingensis: S.Manum

PSEUDOFOSILS

Dendrophycus: D.W.Boyd 2; L.R.High 4

URANIUM-BEARING COAL: T.F.Bates

PALEOCENE: see also formation names: N.M.Denson 8; C.L.Gazin 2

PALEOCLIMATOLOGY: J.Decosta; E.Dorf 2; R.Estes 3; R.S.Houston 11;
W.M.Husted; J.H.Ostrom; W.G.Pierce 12; H.Toots 4; M.R.Voorhies 2

PALEOCURRENTS; see SEDIMENTARY STRUCTURES

PALEOECOLOGY: C.C.Black 3; W.H.Bradley 8; J.Decosta; D.L.Eicher 2;
R.M.Finks; R.B.Furlong 2; C.L.Gazin 6; J.H.Hoyt 5; K.E.Lohman; P.O.McGrew 4;
J.H.Ostrom; J.A.Peterson; N.S.Pledge; H.W.Roehler 2; H.Toots 4,7,8

BIOSTRATIGRAPHY: D.L.Eicher 2; E.L. Yochelson

ERVAY MEMBER, PARK CITY FORMATION: B.H.Wilkinson

MESAVERDE FORMATION: H.Toots 4

MICROPALEONTOLOGY: G.M.Rohr 1

ZOOGEOGRAPHY: J.E.Guilday 2

PALEOENVIRONMENT: J.E.Anderson; R.D.Cody; W.H.Curry; R.E.Ferrell;
R.B.Furlong 2; H.E.Hamilton; N.S.Pledge; H.W.Roehler 2; H.Toots 4,8

PALEOGEOGRAPHY: J.A.Burger 1; W.H.Curry 1; L.A.Hale 1; J.D.Love 4;
W.W.Mallory 1; E.K.Maughan 1,3,6; J.A.Momper 3; C.A.Sandberg 2; W.J.Sando 4;
R.P.Sheldon 3,5; T.M.Stout; C.S.Tenney; C.E.Tranter 1

PALEOLIMNOLOGY: W.H.Bradley 8,10

PALEOSOL: H.R.Ritzma 3

PALEOMAGNETISM: R.A.Chadwick 2; D.W.Collinson; D.H.Eggler 3; C.E.Helsley;
D.E.Kilbourne 1,2,3; W.H.Parsons 5; M.D.Picard 3,7,8,10; A.I.Rees

PALEONTOLOGY; *see also individual formations and locations:*

ANIMALS

FAUNA: C.C.Black 3; C.C.Branson 1; W.H.Curry 1; D.L.Eicher 4;
N.H.Foster 1; C.L.Gazin 3,6,7; R.E.Grant; J.E.Guilday 1; D.A.Guthrie
1,4; R.D.Hoare; P.J.Katich; W.R.Keefer 11; C.Lochman-Balk 2;
P.O.McGrew 4; R.G.Moore; G.B.Newton; C.A.Reed; K.M.Reed; P.Robinson
6; B.Schaeffer; J.H.Smith; N.F.Sohl; H.Toots 4; M.R.Voorhies 1;
C.B.Wood

INVERTEBRATES, UNSPECIFIED: C.C.Branson 1; D.L.Eicher 2;
J.A.Peterson; G.M.Rohr 1; W.J.Sando 3; E.L.Yochelson

PHYLUM PORIFERA

Actinocoelia maeandrina: R.M.Finks

PHYLUM COELENTERATA

CLASS ANTHOZOA: W.J.Sando 3

Chaetetes: J.D.C.Burgess

PHYLUM BRYOZOA: E.L.Yochelson

CLASS GYMNOLEAEMATA

Conopeum? ramosum: H.Toots 2,4

Dysnoetopora demissa: H.Toots 4

PHYLUM BRACHIOPODA: R.E.Grant; R.W.Macomber; W.J.Sando 3;
E.L.Yochelson

Composita emarginata: G.E.Tebbutt 1,2

PHYLUM MOLLUSCA: G.A.Bishop; G.F.Carini; J.R.Gill 3; P.J.Katich;
L.B.Kellum 1; J.D.Love 8; W.L.Rohrer 5; H.Toots 3; E.L.Yochelson

CLASS BIVALVIA (Pelecypoda): D.W.Boyd 5,6; R.W.Inlay

SUBCLASS PTERIOMORPHIA

Endocostea: H.Toots 4,6

Inoceramus: H.Toots 4

Inoceramus barabini: H.Toots 4

Inoceramus cobbani: L.B.Kellum 2

Inoceramus endocostea Whitfield: H.Toots 5

Inoceramus radiatus: L.B.Kellum 2

Modiolus attenuatus: H.Toots 4

Ostrea ruselli: H.Toots 4

SUBCLASS HETERODONTA

Astartella aueri: D.W.Boyd 5

Legumen ellipticum: H.Toots 4

Oriocrassatella elongata: D.W.Boyd 5

CLASS GASTROPODA: M.C.McKenna 2

Drepanochilus: N.F.Sohl

Upper Cretaceous, from Pierre Shale; N.F.Sohl

CLASS CEPHALOPODA: W.A.Cobban 2; J.R.Gill 3; R.W.Imlay;
P.J.Katich

SUBCLASS AMMONOIDEA

Ammonites: W.A.Cobban 1; J.R.Gill 3

Eocephalites primus: R.W.Imlay

Hoplitoplacenticeras: W.A.Cobban 1

Scaphites gilli: W.A.Cobban 3

Trachyscaphites: W.A.Cobban 3

SUBCLASS COLEOIDEA

Actinosepia canadensis Whiteaves: K.M.Waage 2

PHYLUM ARTHROPODA

SUBPHYLUM TRILOBITOMORPHA

CLASS TRILOBITA: R.E.Grant; C.Lochman-Balk 2

SUBPHYLUM CRUSTACEA

CLASS BRANCHIOPODA

Conchostraca: B.F.Howell

Chydoridae: J.Decosta

CLASS OSTRACODA: R.E.Peck[Raymond]; F.M.Swain

Metacypris consobrina: I.D.Pinto

Theriosynoecum wyomingense: C.C.Branson 2

PHYLUM ECHINODERMATA

CLASS CRINOIDEA

Eurysalenia minima: P.M.Kier

Parastomechinos brightoni: G.M.Philip

PHYLUM ANNELIDA

CLASS POLYCHAETA

Serpula markmani: H.Toots 4

Spirorbis: C.A.Sandberg 5

PHYLUM CONODONTIA: F.H.Behken; R.Chyba; D.L.Clark; N.E.Cygan 1;
R.L.Ethington; P.W.Goodwin 1,3; G.Klapper; F.L.Koucky 1,4;
F.H.T.Rhodes; C.A.Sandberg 7

Spathognathodus whitei: F.H.T.Rhodes

VERTEBRATES, UNSPECIFIED: G.A.Agogino; C.C.Black 6; C.C.Branson 1;
R.H.Denison 3; R.Estes 3; R.E.Ferrell; R.W.Fields; J.H.Ostrom 1,2;
W.L.Rohrer 5; H.Toots 4; R.C.Wood

PHYLUM CHORDATA

SUPERCLASS AGNATHA

CLASS OSTRACODERMI

Cardipeltis bryanti: R.H.Denison 2

Cardipeltis richardsoni: R.H.Denison 2

SUPERCLASS PISCES: R.H.Denison 2,3,4,5; R.Estes 8; G.L.Jepsen 2;
G.F.Stucker; D.H.VanSickle

CLASS PLACODERMI

Bryantolepis brachycephalus: R.H.Denison 1

CLASS CHONDRICHTHYES

Chimaeroids: R.Estes 1,2

Chimaerotheca gilli: J.C.Davis 3,4

Selachii: P.O.McGrew 4

CLASS TELEOSTOMI (=Osteichthyes)

Uranolophus wyomingensis: R.H.Denison 4,5

SUPERCLASS TETROPODA

CLASS AMPHIBIA: M.R.Hecht; C.A.M.Mesozoely

Amphiuma jepseni: R.Estes 7

Amphiumidae: R.Estes 7

Lisserpeton bairdi: R.Estes 4

Opisthotriton kayi: W.Auffenberg

Piceoerpeton willwoodensis: C.A.M.Mesozoely

Proamphiuma cretacea: R.Estes 7

Scotiophryne postulosa: R.Estes 6

CLASS REPTILIA: G.F.Carini; R.Estes 5; W.D.Greene 1;
J.H.Ostrom 2; R.J.Wassersug

SUBCLASS EURYOPSIDEA

Corosaurus: J.P.Weldon

Corosaurus alcovensis Case: R.Zangerl

SUBCLASS ICHTHYOPTERYGIA

Myopterygius petersoni: A.S.Romer

SUBCLASS ARCHOSAURIA

Allognathosuchus polyodon: C.C.Mook 2

Angistorhinus aeolamnis: T.H.Eaton

Brachyuranochampsia zangerli: C.C.Mook 3

Diplocynodon: C.C.Mook 1

Hassiacosuchus: R.J.Wassersug

Poposaurus gracilis Mehl: E.H.Colbert

Procaimanoidea: R.J.Wassersug

Sauropoda: J.H.Ostrom 2

Stegosauridae: J.H.Ostrom 2

CLASS AVES

Bathornis fricki: J.Cracraft

Neanis schucherti: P.Brodkorb

CLASS MAMMALIA: C.C.Black 3,4; J.A.Dorr; C.L.Gazin 2,3,4,6,8;
J.E.Guilday 1; D.A.Guthrie 1,4; P.Robinson 1; H.Toots 9;
M.R.Voorhies 2; R.M.West 2

ORDER UNCERTAIN

Pseudochrysochloris yoderensis: W.D.Turnbull 2

SUBCLASS UNCERTAIN

ORDER DOCODONTA

Docodon: F.A.Jenkins

SUBCLASS ALLOTHERIA: M.C.McKenna 1; F.S.Szalay 1

ORDER MULTITUBERCULATA: W.A.Clemens 2; P.Robinson 2;
R.E.Sloan

Parectypodus lovei: R.E.Sloan

SUBCLASS THERIA: W.D.Turnbull 1

ORDER MARSUPIALIA: W.A.Clemens 3

Didelphidae: W.D.Turnbull 1

ORDER INSECTIVORA: K.M.Reed

Apatemyidae: F.S.Szalay 2

Apatemys hendryi: P.Robinson 3

Aphronorus orieli: C.L.Gazin 7

Archtoryctes: C.A.Reed

Cryptoryctes: C.A.Reed

Micropternodus: C.A.Reed

Nictitheriidae: P.Robinson 5

Picrodus: P.O.McGrew 3

ORDER CHIROPTERA: M.C.McKenna 2

Icaronycteris index: G.L.Jepsen 1,2

ORDER PRIMATES

Anaptomorphidae: P.Robinson 4,6

Hemiacodon jepseni: P.Robinson 6

Mytonius hopsoni: P.Robinson 5

Omomyidae: P.Robinson 6

Phenacolemur mcgrewi: P.Robinson 6

Picrodontidae: F.S.Szalay 3

Smilodectes gracilis: C.L.Gazin 5

Tetonoides: P.Robinson 4

Uinacoricinae: F.S.Szalay 4

ORDER EDENTATA

Palaeonodon woodi: D.A.Guthrie 4

ORDER LAGOMORPHA

Leporidae: M.R.Dawson 2

Ochotonidae: M.R.Dawson 2

ORDER RODENTIA: R.A.Black 2

Cricetidae: J.E.Guilday 2

Dicrostonyx: J.E.Guilday 2

Franius lysitensis: D.A.Guthrie 4

Palustrinus Wood: C.C.Black 1

Paramyidae: A.E.Wood

Paramys wyomingensis: R.M.West 3

Sciuravidae: M.R.Dawson 1; C.L.Gazin 1; A.E.Wood

ORDER CARNIVORA: E.Anderson 2

Canidae: M.R.Voorhies 1

Creodonta: D.A.Guthrie 3,4

Dinictis: M.Brunet

Felidae: M.Brunet; M.R.Voorhies 1

Hoplophoneus: M.Brunet

Limnocyonidae: D.A.Guthrie 4

Merychippus: M.R.Voorhies 1

Miacis jepseni: D.A.Guthrie 4

Paeneprolimnocyon amissadomus: D.A.Guthrie 3

Prolimnocyon iudei: D.A.Guthrie 4

Pseudaelurus intrepidus: M.R.Voorhies 1

Towarctus rurestris: M.R.Voorhies 1

ORDER CONDYLIARTHRA

Arctocyonidae: B.Patterson

Colpoclaenus keeferi: B.Patterson

Hyopsodus: C.L.Gazin 7

Meniscotherium: C.L.Gazin 4

ORDER DINOCERATA

Uintatheriidae: W.H.Wheeler

ORDER PROBOSCIDIA

Mammoth: C.Irwin; P.O.McGrew 2

ORDER PERISSODACTYLA

Chalicotherioidea: L.B.Radinsky 1

Chasmotherium: L.B.Radinsky 4

Equus conversidens: E.Anderson 1

Helaletidae: L.B.Radinsky 4

Heptodon posticus: L.B.Radinsky 2

Hyrachyus: L.B.Radinsky 4

Hyracotherium augustidens: G.L.Jepsen 3

Paleomoropus jepseni: L.B.Radinsky 1

Rhinocerotoides: S.M.Skinner

Selenaletes scopaeus: L.B.Radinsky 3

Tapiroidea: L.B.Radinsky 2,3,4

Tapirus: L.B.Radinsky 2

Toxotherium woodi: S.M.Skinner

ORDER ARTIODACTYLA

Bunophorus sinclairi: D.A.Guthrie 2

Dichobunidae: D.A.Guthrie 2

Tarsus: D.A.Guthrie 5

FOSSIL BONES: R.S.Houston 11; H.Toots 5

FOSSIL BURROWS, *Cylindrichnis concentricus*: H.Toots 4

FOSSIL EXTRACTION: M.C.McKenna 3

FOSSIL FISH, POPULAR GUIDE: G.F.Stucker

HEAVY ELEMENTS IN BONE: R.S.Houston 7; H.Toots 5

PLANTS: see PALEOBOTANY

PROTISTA

DIVISION CHRYSOPHYTA

Coccoliths: P.J.Fritts; D.W.Trexler

Dictyocha: K.W.Klement

PHYLUM PROTOZOA

CLASS CILIOPHORA

Tintinnina: D.L.Eicher 3

CLASS SARCODINA

Ammomarginulina paterella: D.L.Eicher 4

Foraminifera: R.D.Cody; D.L.Eicher 4,5; C.H.Ellis;
E.J.Prochaska; M.L.Schroeder 1; G.J.Verville 1,2;
R.K.White

Profusulinella: J.H.Hoyt 2

RECOVERY OF FOSSILS: M.C.McKenna 3

TRACE FOSSILS

Ophiomorpha: J.H.Hoyt 5; H.Toots 1

TRACKS AND BURROWS: H.Toots 4

PALEOMAGNETISM: D.W.Collison 1,2; D.E.Kilbourne 1,2,3

PALEOTOPOGRAPHIC CONTROL: E.N.Harshman 1

PALISADES PEAK QUADRANGLE: D.A.Jobin

PALMER DRAW AREA: R.G.Worl 1

PARADISE BASIN QUADRANGLE: K.Perry

PARAGENESIS: F.D.Eckelmann; J.H.Goodwin 1; D.S.Hodge 3

PARAGONITE: R.G.Worl 1

PARK CITY FORMATION: R.M.Finks; D.E.Lawson 4; B.H.Wilkinson; E.L.Yochelson

PARKMAN SANDSTONE, MESAVERDE FORMATION: D.G.Criggs; R.Heydenburg; F.F.Sabins
1,2

PARTING OF THE WAYS QUADRANGLE: H.D.Zeller 8

PASS CREEK BASIN: J.C.Gries; G.J.Saulnier

PASS CREEK FORMATION: J.A.Dorr 2

PASS CREEK RIDGE: D.Chadeayne

PASS PEAK FORMATION: J.A.Dorr 2; J.R.Steidtmann 1,2,3,4

PATHFINDER UPLIFT AREA: W.W.Mallory 1

PAT O'HARA MOUNTAIN QUADRANGLE: W.G.Pierce 10

PATRICK DRAW OIL FIELD: G.Burton; D.E.Lawson 1; D.G.McCubbin; R.J.Weimer 6,8; E.J.White 2

PATTERNED CONE: D.W.Boyd 3

PAVILLION GAS FIELD: E.L.Single

PEAT: W.G.Pierce 3; D.L.Sturges 1,2; N.A.Titayeva

PEDRO MOUNTAIN: D.H.Graveson

PEGMATITE: J.D.Carl E.W.Heinrich; R.S.Houston 1; R.S.Kopp 1; H.C.Meeves; R.B.Parker 1; P.D.Proctor

RESOURCES: F.W.Osterwald 3

PELTON CREEK AREA: M.N.Swetnam 1,2

PENNSYLVANIAN: H.Blatt; W.W.Mallory 2; C.J.Mann; E.K.Maughan 1,3; J.A.Momper 1,3; D.O.Peterson; W.J.Stone; D.C.Swanson; G.E.Tebbutt 1,2; C.S.Tenney; C.E.Tranter 1; P.C.Wilson; Wyoming Geological Association 24

PERHYDRO-BETA-CAROTENE: M.T.Murphy

PERIGLACIAL FEATURES: H.T.U.Smith

PERMIAN: J.A.Campbell; D.L.Clark; A.M.Hanson 2; E.K.Maughan 1,3,6,7; J.A.Momper 1,3; R.P.Sheldon 1,2,3,5; G.E.Tebbutt 1,2; C.E.Tranter 1

PETROFABRIC

BEARTOOTH MOUNTAINS: C.J.Casella 2

BIGHORN MOUNTAINS: L.O.Williams 1,2

CARBONATE ROCK FABRIC: G.E.Tebbutt 1,2; M.M.R.Tucker

CROSS-LAMINATION, CASPER SANDSTONE: S.H.Knight 1

OVERTHRUST BELT: G.W.Crosby 3

PREFERRED ORIENTATION, MICROCLINE AND HORNBLENDE IN SHEAR: G.W.Devore 2

QUARTZITE, FOLDED: R.S.Houston 6

PETROGENESIS: M.Slaughter 3

PETROGRAPHIC CALENDAR: R.S.Houston 8

PETROLEUM: see OIL AND GAS

PETROLOGY:

ABSAROKA MOUNTAINS: W.H.Wilson 1

ALCOVA LIMESTONE: G.F.Carini

ATLANTIC CITY IRON FORMATION DEPOSIT: D.E.Pride

BARBER CREEK FIELD: F.F.Sabins 1

BLUEGRASS AREA: D.S.Hodge 4

BROWNS PARK FORMATION: W.A.Chisholm 1

CHUGWATER FORMATION: L.R.High 1

CLASTIC SEDIMENTS: D.W.Spencer

COONEY HILLS AREA: W.A.Bothner 1

COPPER MOUNTAIN DISTRICT

IRON FORMATION DEPOSIT: D.E.Pride

PRECAMBRIAN ROCKS: J.Gliozzi

CRETACEOUS STRATA

ROCK SPRINGS UPLIFT: F.F.Sabins 3

WESTERN INTERIOR: W.A.Chisholm 2

WESTERN WYOMING: L.C.Furer 2

CROW MOUNTAIN SANDSTONE MEMBER, CHUGWATER FORMATION: B.O.Tohill 3

DEAD HORSE CREEK AND BARBER CREEK FIELDS: F.F.Sabins 1,2

ENCAMPMENT PRECAMBRIAN ROCKS: C.S.Ferris 2

Eocene TOWER SANDSTONE LENSES, GREEN RIVER: R.J.Ebens 1

FORT UNION FORMATION: J.L.Courdin 1,2

FRONTIER FORMATION: H.G.Goodell

GEOMORPHOLOGY, USE IN: D.H.Eggler 4

GREEN RIVER FORMATION: C.Milton 4

GOOSE EGG FORMATION: G.R.Dekoster

IRON FORMATION DEPOSITS

ATLANTIC CITY: D.E.Pride

COPPER MOUNTAIN: D.E.Pride

SEMINOE: D.E.Pride

JURASSIC AND CRETACEOUS STRATA

WESTERN INTERIOR: W.A.Chisholm 2

WESTERN WYOMING: L.C.Furer 2

LAKOTA CONGLOMERATE: W.F.Hooper 3

LARAMIE ANORTHOSITE, SOUTHERN: S.Ramarathnam

LARAMIE BATHOLITH, RELATED PRECAMBRIAN METAMORPHIC ROCKS: K.C.Condie 9,10;
S.B.Smithson 3

LEUCITE HILLS VOLCANICS: I.S.E.Carmichael

MEADE PEAK MEMBER, PHOSPHORIA FORMATION: P.J.Cook: R.A.Gulbrandsen 3

MEDICINE BOW MOUNTAINS PRECAMBRIAN AND POST MISSISSIPPIAN ROCKS: J.S.King 1; M.E.McCallum 3

MESAVERDE GROUP: W.A.Pryor

MIOCENE: R.J.Ebens 5; G.A.Izett 4

MOWRY SHALE: J.C.Davis 6

NONMARINE UPPER JURASSIC - LOWER CRETACEOUS ROCKS, WESTERN WYOMING; L.C.Furer 2

PALEOZOIC CARBONATES: J.R.Dixon 1,2

PENNSYLVANIAN: T.W.Todd 2

PRECAMBRIAN ROCKS: K.C.Condie 3; R.A.Helmlich 5; J.S.King 1; L.L.Lackey 1,2; W.R.Skinner 1; S.B.Smithson 1

ANORTHOSITE: S.Ramarathnam

ATLANTIC CITY: D.E.Pride

COPPER MOUNTAIN DISTRICT: J.Gliozzi; D.E.Pride

ENCAMPMENT, SOUTHEAST OF: C.S.Ferris 2

IRON FORMATION: D.E.Pride

LARAMIE RANGE: K.C.Condie, 9,10; S.B.Smithson 3

MEDICINE BOW MOUNTAINS, NORTHEASTERN: J.S.King 1; M.E.McCallum 3

TORREY CREEK AREA COMPLEX: T.W.Slitor

WIND RIVER MOUNTAINS: R.J.Ebens 4; S.B.Smithson 1

RED PEAK MEMBER, CHUGWATER FORMATION: M.D.Picard 9,10; A.I.Rees

SEMINOE IRON FORMATION DEPOSITS: D.E.Pride

SHOSHONITE LAVAS: J.Nicholls 1

TENSLEEP FORMATION: N.L.Haskell

TERTIARY INTRUSIVES: F.S.Fisher 4

TORREY CREEK AREA, PRECAMBRIAN COMPLEX: T.W.Slitor

TOWER SANDSTONE LENSES, EOCENE: R.J.Ebens 1,3

URANIUM-BEARING COALS: T.F.Bates

URANIUM ORE ROLLS: R.K.Mills 1

VIRGINIA DALE RING-DIKE COMPLEX: D.H.Eggler 2

VOLCANIC ROCKS:

ABSAROKA MOUNTAINS: W.H.Wilson 1

LEUCITE HILLS: I.S.E.Carmichael

SEDIMENTARY: R.J.Ebens 5

YELLOWSTONE PLATEAU: W.B.Hamilton 2; C.H.Shultz 1
 WIGGINS FORMATION: P.A.Worcester
 WOOD RIVER AREA: W.H.Wilson 1
 PHANEROZOIC: F.L.Schwab 1,4
 PHEASANT OIL FIELD: D.L.Amsbury
 PHONOLITE PORPHYRY: W.A.Bassett
 PHOSPHATE: H.F.Albee 2; J.V.Beall; Cameron Engineers 1,3; F.C.Jaffe 1;
 D.L.King; V.E.Larsen; D.E.Pothier: R.W.Swanson
 LAKE BEDS: J.D.Love 10
 RESOURCES: J.S.Coffman; F.W.Osterwald 3; R.P.Sheldon 2
 PHOSPHATIC SHALE: R.A.Gulbrandsen 3
 PHOSPHORIA FORMATION: J.V.Beall; C.V.Campbell; D.L.Clark; J.S.Coffman;
 P.J.Cook; R.A.Gulbrandsen 3,4; D.E.Lawson 4; J.D.Love 6; J.A.McCaleb 1;
 A.Schofield; R.W.Swanson; G.E.Tebbutt 1,2; D.H.VanSickle: E.L.Yochelson
 PHOSPHORITE: A.Schofield
 CHEMICAL COMPOSITION: R.A.Gulbrandsen 4
 PHOTOGEOLOGY: D.H.Elliott; R.S.Wing
 CHUGWATER AREA: N.S.Cook
 COKEVILLE NORTHEAST QUADRANGLE: D.H.Elliott
 VIRGINIA DALE RING-DIKE COMPLEX: R.S.Wing
 PICEANCE CREEK BASIN: J.R.Donnell; K.W.Klement: J.D.Love 10
 PICK RANCH AREA: J.M.de la Montagne 1
 PIERCE RESERVOIR QUADRANGLE: H.J.Hyden 6
 PIERRE SHALE: G.A.Bishop; W.A.Cobban 2; J.R.Gill 1,3; P.M.Kier; N.F.Sohl;
 H.A.Tourtelot 1
 PINEDALE AREA: W.B.Martin
 PINEY CREEK (THRUST FAULT) AREA: R.F.Hudson 1,2
 PINNACLES NORTHWEST QUADRANGLE: H.D.Zeller 10
 PINYON CONGLOMERATE: E.G.Kauffman
 PINYON FORMATION: D.A.Lindsey
 PITCHFORK FORMATION: W.H.Wilson 4
 PITCHFORK OIL FIELD: A.V.R.Coe
 PLATINUM: M.E.McCallum 7,8; P.K.Theobald
 RESOURCES: F.W.Osterwald 3
 PLATTE COUNTY: D.A.Morris
 PLEISTOCENE: M.D.Fenton 1; J.E.Guilday 2
 PLIOCENE ROCKS; *see also formation names*: D.L.Blackstone 4; N.M.Denson 3,6

FLOWSHARE: *see* COAL/IN SITU UTILIZATION

POISON SPIDER DISTRICT: C.E.Reijensteind'Acerno

POLE MOUNTAIN: H.Robertson

POLECAT BENCH FORMATION: R.Estes 5,7; G.L.Jepsen 3; R.C.Wood

POPO AGIE FORMATION: R.R.Bower; M.D.Picard 15; L.R.High 3; R.Zangerl

POPO AGIE MEMBER, CHUGWATER FORMATION: L.R.High 1; M.D.Picard 1

POPO AGIE RIVER: W.W.Emmett

POPULAR GUIDES:

ANCIENT WYOMING: W.D.Greene 3

FIELD TRIP GUIDE: Ozark Gem and Mineral Society

FISH, FOSSIL: G.F.Stucker

FOSSILS, MINING FOR: M.C.McKenna 3

GEM-HUNTERS' ATLAS: H.C.Johnson

GEMSTONES: J.E.Keenan

ICE-AGE MAN, MAMMOTH: C.Irwin

ROCKS, MINERALS: W.H.Wilson 6

YELLOWSTONE, TETON NATIONAL PARKS: R.Scharff

PORE VOLUME: R.H.Meade

POTASH: K.C.Condie 5; J.T.Wilband

RESOURCES: F.W.Osterwald 3

POTASSIUM: A.H.Weir

POWDER RIVER BASIN; *see also* BLACK HILLS: H.M.Beikman; A.E.Falvey; W.E.West

COAL: Cameron Engineers 1,2; G.A.Duell; S.L.Groff; M.E.Hicks; W.J.Mapel 1; F.W.Osterwald 3; J.S.Wold 1,2,3; T.C.Woodward 2

CRETACEOUS: J.P.Gries 1

DEVONIAN SECTIONS: C.A.Sandberg 6

EAGLE FORMATION: J.M.Parker 1

FALL RIVER SANDSTONE: R.R.Berg 9; D.N.Miller 1,2

FERGUSON SANDSTONE, DEAD HORSE - BARBER CREEK AREA: D.G.Griggs; F.F.Sabins 1

FORMATION NAMES, CATALOG: A.G.Randall 7

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GROUND WATER: G.F.Dana 2

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HIGHWAY GEOLOGY: J.P.Gries 3; W.E.West

MESAVERDE FORMATION: T.E.Purcell

MINNELUSA FORMATION: R.R.Berg 5,6,8; J.F.Trotter 3; G.W.Van Fossen;
Wyoming Geological Association 16

MUDDY SANDSTONE: G.R.Wulf 4,7

OIL AND GAS: D.L.Amsbury; J.A.Barlow 2,4; R.R.Berg 5,6,8,9; R.G.Boyd;
C.Q.Cupps; S.M.Edwards; H.G.Goodell; D.G.Griggs; T.A.Gwynn; E.T.Hegna;
E.L.Heisey; G.Hinton; R.L.Hoeger; R.G.Hubbell; R.E.Hudson; F.Husain;
B.Jones 1,3,4; J.A.Kornfeld 2; W.J.Mapel 5; D.E.Mettler 1,2; O.P.Miles;
D.B.Pearcy; E.E.Richardson; F.F.Sabins 1,2; R.W.Stapp; R.P.Swirczynski;
C.E.Tranter 2; J.F.Trotter 1,2,3; J.F.Truchot; G.W.Van Fossen; T.Ware;
H.D.Waterman; J.P.Weldon; W.J.Wenger; E.J.White 1,2; G.J.Wiloth;
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OIL SANDS, SUSCEPTIBILITY TO WATER DAMAGE: E.J.White 1

PALEOGEOGRAPHY: C.S.Tenney

PARKMAN SANDSTONE, DEAD HORSE - BARBER CREEK AREA: D.G.Griggs

PENNSYLVANIAN STRATIGRAPHY: P.C.Wilson

PENNSYLVANIAN - PERMIAN CONTACT: W.J.Stone 1

RADIOACTIVE WASTE DISPOSAL: H.M.Beikman

ROAD LOGS: Wyoming Geological Association 4,6,12,28

SALT SOLUTION, SUBSIDENCE STRUCTURES: J.M.Parker 1

SHANNON MEMBER, EAGLE FORMATION: J.M.Parker 1

TECTONICS: G.R.Wulf 3

TERTIARY: Wyoming Geological Association 26,28

URANIUM: H.M.Beikman; J.F.Davis; H.C.Granger 1; R.K.Mills 1,2; V.A.Mrak;
J.N.Rosholt 6,7; W.N.Sharp 1,2

URANIUM ORE ROLLS: R.K.Mills 1

POWDER RIVER PASS: L.O.Williams 1,2

PRECAMBRIAN; *see also under locations*: M.E.Bickford; R.S.Cannon;
E.J.Catanzaro; K.C.Condie 7; G.Faure; B.J.Giletti 1,2,3,4; R.S.Houston 13;
J.W.M'Gonigle; D.U.Wise 3; G.M.Young

PRECAMBRIAN IRON FORMATION: *see IRON and TACONITE*

PRESSURE CONDUCTIVITY SURVEY: F.C.Rathbun

PREUSS FORMATION: M.E.Hileman

PROJECT THUNDERBIRD: *see under COAL*

PROJECT WAGON WHEEL: W.B.Martin

PRONG CREEK FIELD: E.L.Heisey

PROSPECT THRUST: R.A.Fruchey

PROTEROZOIC ROCKS

AGE DATES: B.J.Giletti 1,2,3

BIGHORN MOUNTAINS: R.A.Heimlich 5

GRAND TETON NATIONAL PARK: J.C.Reed 6

LARAMIE RANGE: B.D.Smith R.D.Woodfill 2

MEDICINE BOW MOUNTAINS: R.S.Houston 12,14; M.E.McCallum 3

SIERRA MADRE: C.S.Ferris 2,3

SOUTHEAST WYOMING: G.M.Young

STRONTIUM ISOTOPIC COMPOSITION: G.Faure

PROVENANCE

BIGHORN BASIN MUDDY SANDSTONE: R.A.Pauli

CHUGWATER FORMATION OXIDES, FINE-GRAINED ROCKS, CLAYSTONE: M.D.Picard 5,6

DAKOTA GROUP SANDSTONE: D.B.Mackenzie 1

FRONTIER FORMATION: H.G.Goodell

HAREBELL, PINYON FORMATION CONGLOMERATES: D.A.Lindsey

PALEOCENE, EOCENE ROCKS: N.M.Denson 8

PHANEROZOIC SANDSTONES: F.L.Schwab 1,4

TOWER SANDSTONE: R.J.Ebens 1,2,3

WIND RIVER BASIN FORT UNION: J.L.Courdin 1,2

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PSEUDOKARST FEATURES: E.N.Clausen 2

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PUDDLE SPRINGS ARKOSE MEMBER, WIND RIVER FORMATION: P.E.Soister 5

PUDDLE SPRINGS QUADRANGLE: P.E.Soister 6

PUMICITE: J.D.Love 5

RESOURCES: F.W.Osterwald 3

PUMPKIN BUTTES AREA: W.N.Sharp 1,2

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QUARRY NINE FOSSIL AMPHIBIANS: M.K.Hecht

QUARTZ, BLUE: R.B.Parker 1

QUARTZ CRYSTALS: see QUARTZ RESOURCES

QUARTZITE: M.M.Hamil; R.S.Houston 6; S.H.Knight 4,5; D.R.Lamb

QUARTZ MONZONITE: R.D.Merry; M.N.Swetnam 2

QUARTZ RESOURCES (AGATE, AMETHYST, CARNELIAN, CHALCEDONY, CRYSTOBALITE, CHRYSOPRASE, FLINT, CHERT, JASPER, HELIOTROPE, HYALITE, OPAL, TRIPOLI): F.W.Osterwald 3

RADAR SURVEY: R.F.Holmes; U.S. Geological Survey 4

RADIOACTIVE WASTE: H.M.Beikman

RADIOACTIVITY; *see also* URANIUM: H.M.Beikman; A.Brown; J.R.Dooley 2;
J.N.Rosholt 4,7; D.L.Sturges 1; W.H.Wilson 2

RADIOACTIVITY SURVEY: J.N.Rosholt 7

RADIUM: R.C.Scott 1; N.A.Titayeva

RAGGED TOP AREA: R.S.Vail

RAINBOW RANCH FIELD: T.Ware

RALSTON AREA: C.A.M.Mesozoely

RARE EARTHS: R.S.Houston 1; A.Schofield; W.H.Wilson 7

RESOURCES: F.J.Kelly; F.W.Osterwald 3

RAVEN CREEK FIELD: C.E.Tranter 2

RAWLINS AREA: D.W.Berry 1; J.W.Funkhouser; C.Irwin; P.O.McGrew 2

RECLAMATION

LAWS, OPEN CUT LAND RECLAMATION ACT: A.E.King

REVEGETATION: P.Jacoby; L.E.Lujan

SURFACE MINING: J.A.Kovats 1,2

RECLUSE OIL FIELD: G.Hinton; J.Woncik

RED BEDS: D.W.Boyd 3; J.A.Campbell; D.W.Collinson 2

RED BIRD AREA - PIERRE SHALE: J.R.Gill 3; P.M.Kier; N.F.Sohl

RED BIRD SILTY MEMBER, PIERRE SHALE: J.R.Gill 1,3

RED DESERT AREA: H.Masursky

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COAL: H.Masursky; G.N.Pipiringos 1; J.D.Vine

GROUND WATER: G.F.Dana 2

RED PEAK FORMATION: R.R.Bower; M.D.Picard 12,13,14

RED PEAK MEMBER, CHUGWATER FORMATION: M.D.Picard 2,5,6,7,8,9,10,11,13;
A.I.Rees

REEF CREEK DETACHMENT FAULT: W.G.Pierce 2

REEFS: S.H.Knight 4,5

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REMOTE SENSING: E.R.Cox; R.F.Holmes; J.H.McLerran; L.D.Miller 1,2;
H.W.Smedes 1; U.S. Geological Survey 4; D.E.White 1,3,4

RENO AREA: D.L.Amsbury

REPUBLIC MINES AREA: T.A.Butler

REVEGETATION

COAL SPOIL PILES: P.Jacoby

STRIP MINED AREA: L.E.Lujan

REX LAKE AREA: H.Toots 1

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RHYOLITE: F.R.Boyd; R.L.Christiansen; W.B.Hamilton; B.C.Raymahashay 2;
F.M.Richmond 1; M.G.Rutten

RHYOLITIC COUNTRY ROCK: B.C.Raymahashay 2

RICHEAU HILLS QUADRANGLE: L.W.McGrew 9

RICHMAN ANTICLINE: V.C.Kelley

RIDDLE CUT QUADRANGLE: H.McAndrews 1

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CRAZY HEAD CAMPGROUND TO BEULAH: C.W.Crowson 2

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FARSON TO ROCK SPRINGS: J.Rathbone 1

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 KEMMERER TO ELKOL: W.F.Gerhard 1
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 ROCK GLACIERS: N.Potter 1,2
 ROCK RIVER QUADRANGLE: H.J.Hyden 3
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 ROCK SPRINGS FORMATION: J.A.Burger 2; W.B.Douglass; R.E.Keith 3
 ROCK SPRINGS UPLIFT; see also GREEN RIVER BASIN: A.J.Gosar 2; R.E.Keith 2
 ALMOND FORMATION: G.B.Asquith; J.A.Barlow 1; A.D.Jacka 1,2; J.L.Lewis 2
 BLAIR FORMATION: W.B.Douglass; R.E.Keith 3
 CRETACEOUS: A.D.Jacka 1; H.W.Roehler 1,3; R.J.Weimer 3; Wyoming
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 LITTLE MOUNTAIN: R.W.Wiegman 1

ERICSON FORMATION: W.B.Douglass

FOSSIL SOIL, BASE OF PALEOCENE: H.R.Ritzma 3

FOX HILLS SANDSTONE: J.C.Harms

GAS FIELDS: D.L.Reese

HISTORY, MINERAL EXPLORATION: S.G.Andrew

LEWIS SHALE: J.A.Barlow 1

LITTLE MOUNTAIN CRETACEOUS: R.W.Wiegman 1

MESAVERDE GROUP: J.A.Burger 1

PALEONTOLOGY: C.L.Gazin 6; H.W.Roehler 2

ROCK SPRINGS FORMATION: J.A.Burger 2; W.B.Douglass; R.E.Keith 3

SEDIMENTARY STRUCTURES: J.H.Hoyt 6; A.D.Jacka 1,2

TERTIARY: H.W.Roehler 1,2; R.W.Wiegman 1; Wyoming Geological Association 17,26

ROCKY MOUNTAIN FORELAND: R.R.Berg 4; J.J.Prucha

ROCKY MOUNTAIN PROVINCE: R.Estes 5

ROCKY MOUNTAINS: J.A.Campbell; B.J.Giletti 4; E.K.Maughan 3; J.M.Parker 2; G.N.Pipiringos 2; Rocky Mountain Association of Geologists 1; Y.Sato; P.C.Scruton; R.P.Sheldon 1; R.J.Weimer 1,3; D.U.Wise 3; Wyoming Geological Association 24; I.Zietz

GEOCHEMISTRY: T.P.Hill; W.W.Rubey 2

OIL AND GAS: J.A.Kornfeld 1; I.Kranzler; D.B.Pearcy; G.R.Wulf 7; R.G.Young

PALEOGEOGRAPHY: W.J.Sando 4; R.P.Sheldon 3,5; C.E.Tranter 1

TECTONICS: R.S.Houston 13; E.W.Mountjoy

RONGIS RESERVOIR SOUTHEAST QUADRANGLE: P.E.Soister 4

ROZET OIL FIELD: H.D.Waterman

RUBIDIUM: P.C.Van De Kamp

RUTILE RESOURCES: F.W.Osterwald 3

SACAJAWEA FORMATION: D.J.Toogood

SAGE QUADRANGLE: W.W.Rubey 4

SAINT JOHNS COMPLEX: A.J.Eardley 4

SAINT MARY'S RIDGE: D.Chadeayne

SALINE MINERALS: D.E.Appleman; J.J.Fahey 1,2,3; M.E.Mrose 2

RESOURCES (HALITE, SODIUM SULFATE-CARONATE, EPSOMITE, TRONA): F.W.Osterwald
3

SALT: D.L.Deardorff; E.K.Maughan 6; J.M.Parker 2

SALT CREEK AREA: C.S.Land

SALT CREEK OIL FIELD: J.A.Barlow 2,4

SALT RIVER RANGE: R.A.Fruchey; L.C.Furer 1; R.B.Suydam

SALT WELLS ANTICLINE: D.A.Hartman

SAND: A.C.Donaldson; R.Steinmetz

SAND DRAW SECTION: J.C.Davis 3

SANDSTONE

ARKOSIC: R.K.Mills 2

BLACK: R.S.Houston 4

BROWNS PARK FORMATION: W.A.Chisholm 1

CRETACEOUS, UPPER: R.J.Weimer 3

DELTAIC: A.C.Donaldson; R.J.Weimer 4

DIAGENESIS: H.Blatt

FERGUSON SANDSTONE: D.G.Griggs

GENESIS: G.V.Middleton

HARDING SANDSTONE: M.D.Allison

HEAVY MINERALS IN: R.S.Houston 4; W.J.Mapel 7

LANDER SANDSTONE: M.D.Allison

LENSES: R.J.Ebens 1,2,3

MESAVERDE IN WYOMING: W.A.Pryor

PARKMAN SANDSTONE: D.G.Griggs; R.Heydenburg

PROVENANCE; *see also* PROVENANCE: J.L.Courdin 2; R.J.Ebens 2; H.G.Goodell;
R.S.Houston 9; D.B.Mackenzie 1; R.A.Paul; F.L.Schwab 4

RED: D.W.Collinson 2

RESERVOIR ENGINEERING: C.H.Hewitt

SEDIMENTARY CYCLES: A.C.Donaldson; F.L.Schwab 2

SEDIMENTARY STRUCTURES: A.D.Jacka 2; J.R.Rapp; R.Steinmetz 2; R.Stone
1,2

- TITANIFEROUS: V.T.Dow 2; R.S.Houston 4
- TOWER SANDSTONE: R.J.Ebens 1,2,3
- URANIFEROUS: R.E.Davis; J.N.Rosholt 1,2,3,4,5,6,7
- WASATCH, GREEN RIVER BASIN: R.Steinmetz 1
- WATER: J.D.Bredehoeft; A.P.Butler 3; C.S.Land; E.J.White 2
- SAND WASH BASIN AREA: C.T.Colson; J.D.Haun 1; C.D.Masters; H.R.Ritzma 2
- SATANKA FORMATION: M.D.Penton 1
- SCHIST: G.T.Spanski
- SCHROECKINGERITE: D.M.Sheridan
- SCOUR AND FILL: W.W.Emmett
- SECOND FRONTIER FORMATION: C.S.Land
- SECTION: see CROSS SECTIONS
- SEDIMENT: B.N.Rolfe
- SEDIMENTARY CYCLES
- CHUGWATER FORMATION: M.D.Picard 2
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- DEPOSITIONAL ENVIRONMENT, CRITERIA: F.F.Sabins 3
- REGRESSIVE SANDSTONES: P.C.Scruton
- DEADWOOD FORMATION, BLACK HILLS: J.W.Kulik 2
- DELTAIC: A.C.Donaldson
- GEOSYNCLINAL SEDIMENTATION: F.L.Schwab 2
- GREEN RIVER FORMATION: L.R.High 5
- MARKOV ANALYSIS OF: P.D.Gingerich
- PENNSYLVANIAN, PERMIAN, DENVER BASIN: J.A.Momper 3
- ROCK SPRINGS FORMATION, ROCK SPRINGS UPLIFT: J.A.Burger 2
- SEDIMENTARY PETROLOGY: G.B.Asquith; J.C.Davis; L.R.High 1; R.M.Moberly 2; F.L.Schwab 2; J.R.Steidtmann 3; I.A.Williamson
- SEDIMENTARY ROCKS
- ACIDS, HYDROCARBONS IN: K.A.Kvenvolden
- BARRIER ISLANDS, ROLE OF, IN PRODUCING: A.D.Jacka 1
- CHEMICAL COMPOSITION OF: T.P.Hill; W.W.Rubey 2
- DIAGENESIS OF: D.N.Miller 6
- GRAIN SIZE DISTRIBUTION CURVES: D.W.Spencer
- JACK CREEK AREA: C.R.Dunrud 1,2
- JURASSIC - CRETACEOUS PETROLOGY: L.C.Furer 2

OLIGOCENE, CLASSIFICATION OF: T.M.Stout

PALEOMAGNETIC PROPERTIES OF: D.E.Kilbourne 1

MESAVERDE GROUP: D.E.Kilbourne 2,3

PORE VOLUME IN, FACTORS INFLUENCING: R.H.Meade

STRUCTURE, RELATION OF BASEMENT STRUCTURE TO: R.A.Hodgson

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BARRIER BARS AND ISLANDS: J.H.Hoyt 6; A.D.Jacka 1,2; D.N.Miller 1; P.C.Scruton

BEACH INDICATORS: H.Toots 1

CHANNEL AGGRADATION: N.J.King

CROSS BEDDING: S.H.Knight 1; W.J.Mapel 2; H.T.Ore; J.R.Steidtmann 2; R.Steinmetz 2; G.R.Wulf 2

CROW MOUNTAIN MEMBER, CHUGWATER FORMATION: B.O.Tohill 1,2

DELTAS: A.C.Donaldson; R.J.Weimer 4

KARST: E.N.Clausen 2; J.P.Gries 4; W.R.Keefer 5; J.A.Stellmack; U.S. Bureau of Reclamation 2

LANDSLIDES AND GRAVITY SLIDES: F.T.Bennett; E.C.Booy; J.W.Guyton 2,3; J.S.King 2; W.G.Pierce 9,12; M.Prinz 3; P.E.Solister 1

OOLITES: W.B.Douglass; R.Stone 1; M.P.Weiss

PALEOCURRENTS: W.T.Fox; F.T.Mackenzie; W.J.Mapel 2; M.D.Picard 4,7,12,14; J.D.Ryan; R.Stone 2; B.O.Tohill 1; G.R.Wulf 1

PARTING LINEATION: M.D.Picard 14

PATTERNED CONES: D.W.Boyd

PERCUSSION CONES: D.R.Lamb

PLAIN DEPOSITS: D.R.Baker

POINT BARS: R.R.Berg 9; J.R.Steidtmann 2

PSEUDO RIB-AND-FURROW MARKS: M.D.Picard 4

ROLLS: J.R.Rapp

SCOUR AND FILL: W.W.Emmett

SHRINKAGE CRACKS: M.D.Picard 15

SINKHOLES: J.P.Gries 4

SPRING DEPOSITS: R.W.Wiegman 2

STRAND LINES: A.D.Zapp

SURGE MARKS, DENDRITIC: L.R.High 4

TRACKS AND TRAILS: D.W.Boyd 2,4; J.H.Hoyt 5; C.A.Sandberg 4; H.Toots 1,9

SEDIMENTATION: P.D.Gingerich; E.G.Kauffman; G.V.Middleton

ALMOND FORMATION: A.D.Jacka 2; D.G.McCubbin
 BIGHORN BASIN: L.E.Thomas 1,2
 CARBONATE: R.C.Murray
 CENOZOIC, IN WYOMING: J.D.Love 1
 CHUGWATER FORMATION: M.D.Picard 2
 HOBACK FORMATION: D.R.Spearing 1,2
 MESAVERDE FORMATION: H.Toots 4
 PASS PEAK FORMATION: J.R.Steidtmann 1
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 PHANEROZOIC: F.L.Schwab 1,4
 RED BIRD SILTY MEMBER, PIERRE SHALE: J.R.Gill 1,3
 ROCK SPRINGS PRE-LARAMIDE: H.W.Roehler 3
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 SELENIUM RESOURCES: F.W.Osterwald 3
 SEMINOE DAM QUADRANGLE: D.L.Blackstone 3
 SEMINOE FORMATION: D.L.Blackstone 3
 SEMINOE IRON DEPOSIT: D.E.Pride
 SEMINOE MOUNTAINS, AREA: D.T.Bishop; P.W.Philbin; R.L.Sherer
 SEMINOE THRUST: D.L.Blackstone 1
 SERICITE: J.T.Wilband
 RESOURCES: F.W.Osterwald 3
 SHALE: J.C.Davis 1,5; N.M.Denson 5; N.W.R.Mitchell; E.H.Pampeyan;
 C.A.Sandberg 3; J.W.Smith 1,2,3; V.E.Swanson; S.S.Tihen
 GEOCHEMISTRY: J.C.Davis 2; J.I.Fester; K.A.Kvenvolden; M.T.Murphy;
 G.J.Schroyer 1,2,3,4; J.W.Smith 4; P.R.Tisor; H.A.Tourtlot 1,2
 PHOSPHATIC: R.A.Gulbrandsen 3
 SHANNON MEMBER, EAGLE FORMATION: J.M.Parker 1
 SHEAR ZONES: R.S.Houston 2; R.D.Merry; M.N.Swetnam 1
 SHEDHORN FORMATION: E.L.Yochelson
 SHEEP CREEK FORMATION: H.Toots 9
 SHEEP CREEK THRUST: C.J.Gudim
 SHEEP MOUNTAIN: L.W.Cramer 1; J.F.Harris
 SHEEP MOUNTAIN ANTICLINE: G.D.Johnson; A.J.Warner
 SHEEP MOUNTAIN QUADRANGLE: W.L.Rohrer 2

SHELL CANYON AREA

SHELL CANYON AREA: G.M.Rohr 2; R.L.Schuster

SHELL CREEK FORMATION: D.L.Eicher 2

SHELL CREEK SHALE: R.E.Ferrell

SHELL VALLEY: G.Hauser

SHERIDAN AREA: G.R.Wulf 2

SHERIDAN COUNTY: M.E.Lowry 1; W.J.Mapel 1

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SHERMAN BATHOLITH: W.A.Bothner 2; D.H.Eggler 1,6

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URANIUM: J.S.Anderson; R.V.Bailey 1; E.S.Cheney 5; J.R.Dooley 2;
E.N.Harshman 1,2,3,12,13,14; R.E.Melin 1,2; J.N.Rosholt 4; D.R.Shawe

SHIRLEY MOUNTAINS: D.H.Graveson; D.Landau; J.D.Love 9

SHOSHONITE: G.A.Joplin; J.Nicholls 1,2

LAVA: J.Nicholls 1

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SHOTGUN FAUNA: P.O.McGrew 4

SHOTGUN MEMBER, FORT UNION FORMATION: W.R.Keefer 4

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SIERRA MADRE: C.S.Ferris 2,3; L.L.Lackey 1,2; R.D.Merry; O.J.Wied

SILICA: G.W.Morey 1,2

SILICATES: J.J.Fahey 1; J.H.Goodwin 2; R.L.Hay; C.Milton 3

SILLIMANITE: D.S.Hodge 5,7

SILTSTONE: N.M.Denson 1; M.D.Fenton 1; M.D.Picard 7,10,14; A.I.Rees

SILVER: J.E.Dreier; F.S.Fisher 7

RESOURCES: F.W.Osterwald 3

SILVER BELL PROSPECT: F.G.Monzon

SINCLAIR, NORTH OF: S.G.Andrew

SINKHOLES: J.P.Gries 4

SIXTY-SIX MOUNTAIN: C.C.Black 2
 SLOPE MORPHOLOGY: E.N.Clausen 1; R.F.Hadley 2; M.A.Melton
 SLOPE STABILITY: E.C.Booy; F.D.Patton; R.L.Schuster
 SLUMGULLION: E.C.Booy
 SNAKE RIVER BASIN: D.L.Crandall; E.H.Walker 2
 SNAKE RIVER PLAIN: R.L.Christiansen; Wayne State University
 SNAKE RIVER RANGE: H.F.Albee 1
 SNOWFALL CALORIMETRY: D.E.White 4
 SNOWY RANGE FORMATION: R.E.Grant
 SOAP HOLE LAKE: C.Talbot
 SODIUM: L.E.Mannion; R.VanBladel
 SODIUM CARBONATE: J.R.Bogert; W.C.Culbertson 5,6,7; C.Milton 4; J.H.Ogg;
 F.W.Osterwald 3
 SODIUM CHLORIDE, SODIUM SULFATE - SODIUM CARBONATE RESOURCES: F.W.Osterwald 3
 SOIL: J.S.Clark 2,3; K.Denault; K.L.Diem; H.Nishita; H.R.Ritzma 3;
 S.S.Singh; Western State Land-Grant Universities and Colleges
 SOLITARY GEYSER: J.S.Rinehart 11
 SORENSEN MINE: C.G.Consalus
 SOURIS RIVER(?) FORMATION, BIGHORN MOUNTAINS: C.A.Sandberg 4
 SOUTH BAGGS GAS FIELD: J.M.Cronoble
 SOUTH COYOTE CREEK OIL FIELD: E.T.Hegna
 SOUTH DARBY CANYON: J.A.Stellmack
 SOUTH FORK VALLEY OF OWL CREEK: U.S. Bureau of Reclamation 2
 SOUTH PASS CITY AREA: D.S.Hodge 2; R.G.Worl 1
 SOUTH PASS CITY QUADRANGLE: R.W.Bayley 8
 SOUTH PASS FORMATION: N.M.Denson 4
 SOUTHWESTERN WYOMING: R.E.Lund
 SPANISH DIGGINGS: J.M.Saul
 SPEARFISH FORMATION, BLACK HILLS: G.B.Babcock; J.P.Gries 4
 SPIROBAL LIMESTONE: C.A.Sandberg 4
 SPLIT ROCK FORMATION: M.R.Dawson 2; J.D.Love 5; C.A.Reed; K.M.Ree
 SPRINGS, URANIFEROUS: C.G.Bowles 4; J.D.Love 9
 SQUAW PEAK AREA: W.G.Pierce 2
 SQUAW ROCK AREA: R.D.Woodfill 1
 SQUAW ROCK QUADRANGLE: L.W.McGrew 10
 SQUAW SPRING QUADRANGLE: E.N.Harshman 10

STAR VALLEY: E.H.Walker 3

STEELE SHALE: W.A.Cobban; R.D.Cody

STERANE: P.C.Anderson

STEVENSITE: W.H.Bradley 3

STILLWATER COMPLEX: D.R.Bowes

STINKINGWATER MINING REGION: F.S.Fisher 1,2,3,4,7

STOCKS, GRANITE: R.G.Worl 1

STONE NET: B.Mears 2

STONE RESOURCE (CRUSHED ROCK, GRANITE, BASALT, SANDSTONE, QUARTZITE, LIMESTONE, TRAVERTINE, CEMENT ROCK, AGGREGATE, MARBLE): F.W.Osterwald 3

STORM HILL QUADRANGLE: G.A.Izett 3

STRATIFIED PRIMITIVE AREA: K.B.Ketner

STRAWBERRY HILL QUADRANGLE: R.E.Davis

STREAMS

CHEMICAL DEGRADATION BY, WIND RIVER RANGE: C.H.Hembree

CAPTURE: W.J.Koch

COPPER, LEAD, ZINC IN, BROADWAY MINE: K.Denault

DEPOSITS IN RAPIDLY AGGRADING: H.T.Ore

DENDRITIC SURGE MARKS ALONG BANKS OF: L.R.High 4

EROSION CONTROL: T.Maddock

LATERAL PLANATION SURFACES: R.D.Merrill

SCOUR AND FILL PATTERN: W.W.Emmett

TRANSPORT OF SEDIMENT IN, CHEYENNE RIVER BASIN: B.N.Rolfe

STROMATOLITES: S.H.Knight 4,5

STRONTIUM: G.Faure; M.D.Fenton 2; Z.E.Peterman; R.Van Bladel; P.C.Van De Kamp

RESOURCES: F.W.Osterwald 3

STRUCTURE: J.F.Harris; D.S.Hodge 4; R.A.Hodgson

ABSAROKA VOLCANICS: R.A.Chadwick 3; F.S.Fisher 5,6; W.H.Parsons 2,5

BASEMENT: R.A.Hodgson; I.Zietz

BEARTOOTH MOUNTAINS: R.D.Bentley 1,3; R.M.Foose 1,2; L.H.Larsen 1,2; M.Prinz 4

BIGHORN BASIN: L.E.Thomas 1,2; G.M.Rohr 2; F.W.Woodard

BIGHORN MOUNTAINS: R.A.Hoppin 1; R.F.Hudson 1,2; T.V.Jennings; J.C.Palmquist 1,2,3,4; L.O.Williams 2

BLACK HILLS UPLIFT: G.A.Izett 1,2; C.S.Robinson 4; J.K.Sales 2

BLUEGRASS AREA: D.S.Hodge 4

BYRON-GARLAND ANTICLINES: R.G.Risley
 CACHE THRUST AREA: C.Love
 COONEY HILLS: W.A.Bothner 1
 COPPER MOUNTAIN DISTRICT: J.Gliozzi; M.M.Hamil
 DENVER BASIN: L.W.McGrew 1
 ENCAMPMENT AREA: C.S.Ferris 2,3
 FOOTE CREEK ANTICLINE AREA: P.B.Dimitroff
 GRAND TETON NATIONAL PARK: J.D.Love 14
 GROS VENTRE MOUNTAINS: W.R.Keefer 9
 HEBGEN LAKE AREA: I.J.Witkind 2
 HORN AREA: J.C.Palmquist 1,2,3,4
 KAYCEE DOME: E.E.Richardson
 LARAMIE BASIN: D.L.Blackstone 2,5,7
 LARAMIE RANGE: J.S.King 3,5; R.D.Woodfill 1,2
 LONESOME MOUNTAIN AREA: L.H.Larsen 1
 MEDICINE BOW MOUNTAINS: R.S.Houston 1,2,6,10,12,14; M.E.McCallum 3
 NORTH FORK OIL FIELD: E.E.Richardson
 OVERTHRUST BELT NEAR WYOMING PEAK: R.F.Litchford
 PASS CREEK BASIN AREA: J.C.Gries
 PICK RANCH AREA: J.M.de la Montagne 1
 PRECAMBRIAN ROCKS: R.S.Houston 10
 COPPER MOUNTAIN DISTRICT: J.Gliozzi
 GRAND TETON NATIONAL PARK: J.C.Reed 1,6
 LARAMIE BASIN: D.L.Blackstone 5
 SOUTHWEST OF ENCAMPMENT: C.S.Ferris 2,3
 TORREY CREEK AREA: T.W.Slitor
 ROCK SPRINGS UPLIFT, SOUTHWEST: A.J.Gosar 2
 SAND WASH BASIN: H.R.Ritzma 2
 SALT WELLS ANTICLINE AREA: D.A.Hartman
 SHEEP MOUNTAIN ANTICLINE: G.D.Johnson
 SHIRLEY MOUNTAINS: D.Landau
 SUBLETTE COUNTY, AND AREA IN: D.W.Bergman
 TENSLEEP - BEAVER CREEK FAULT, BIGHORN MOUNTAINS: R.A.Hoppin 2
 VOLCANIC ROCKS: W.H.Parsons 2; Wayne State University
 WASHAKIE BASIN: H.R.Ritzma 2

WIND RIVER BASIN: W.R.Keefer 1,2

WIND RIVER MOUNTAINS: R.R.Berg 1,2,3,4,7

YELLOWSTONE NATIONAL PARK: C.W.Brown; W.R.Keefer 14; E.T.Ruppel 2

STUMP FORMATION: M.E.Hileman

STUMP SANDSTONE: A.Nigrini

SUBLETTE COUNTY: D.W.Bergman; R.M.West

SUBSIDENCE: see HAZARDS, GEOLOGIC

SULFATES: C.W.Field

SULFIDE: K.Pedersen

SULFUR: Cameron Engineers 1,3; E.S.Cheney 3,5; C.W.Field; H.C.Granger 2;
L.D.Vredenburgh

RESOURCES: F.W.Osterwald 3

SULFURIC ACID: R.Schoen

SUNDANCE FORMATION: H.W.Dresser; R.B.Furlong 1,2; R.C.Getz; R.W.Imlay; D.L.Koch;
R.Stone 1,2

SUNLIGHT BASIN: W.H.Parsons 3,5

SUNLIGHT REGION: J.E.Dreier; K.Pedersen

SUNRISE IRON MINE: D.A.Carter

SUPERIOR-WYOMING PROVINCE: K.C.Condie 5; R.H.Steiger

SURFACE MINING, RECLAMATION: J.A.Kovats 1,2

SURGE MARKS, DENDRITIC: D.W.Boyd 2; L.R.High 4

SWAN VALLEY: E.H.Walker 2

SWEETWATER ARCH: M.L.Dickey

SWEETWATER - HORSE CREEK DRAINAGES: M.Young

SYENITE: L.W.Cramer; M.D.Fenton 2

HYPERSTHENE: D.S.Hodge 6

NEPHELINE, RESOURCES: F.W.Osterwald 3

SYKES MOUNTAIN FORMATION: R.M.Moberly 1

SYLVAN PASS INTRUSIVE CENTER: C.J.Casella 3

TABERNACLE BUTTE: M.C.McKenna 2; F.S.Szalay 4

TABLE ROCK FIELD: E.C.Mees 2

TACONITE; see also IRON: R.W.Bayley 1,3,4,10; D.L.Blackstone 3; S.H. Cohlmeier; V.T.Dow; W.H.Duhling; Engineering and Mining Journal; T.T.Gin; C.M.Harrer; D.E.Pride; R.G.Worl 2,3,5

RESOURCES: F.W.Osterwald 3

TALC: W.H.Bradley 7

RESOURCES: F.W.Osterwald 3

TANTALITE: F.W.Osterwald 3

TAR SAND: K.G.Bell 1

TATMAN FORMATION: W.L.Rohrer 11

TATMAN MOUNTAIN AREA: W.L.Rohrer 5

TATMAN MOUNTAIN QUADRANGLE: W.L.Rohrer 3

TEACHING: B.Mears 1; V.Moore

TECTONIC DUNUDATION: W.G.Pierce 11

TECTONICS

BADWATER UPLIFT AREA: T.M.Gard

BEARTOOTH MOUNTAINS: R.D.Bentley 3

BIGHORN MOUNTAINS: J.C.Palmquist 2,3

BLACK HILLS: J.K.Sales 2

CENOZOIC: J.D.Love 1

CLOVERLEAF LAKES AREA: R.D.Bentley 1

CRETACEOUS: R.J.Weimer 4

CRUSTAL BLOCKS: J.D.Love 11

ENVIRONMENT OF ANDALUSITE-KYANITE-SILLIMANITE: D.S.Hodge 7

FRONTIER FORMATION: R.D.Stensland

GLACIATION, RELATION TO: J.D.Love 12

GREEN RIVER AREA: R.E.Skinner 2

HARTVILLE UPLIFT: E.K.Drouillard

HEART MOUNTAIN FAULT: W.G.Pierce 11

HOBACK FORMATION: D.R.Spearing 2

INFLUENCE OF, ON SEDIMENTATION, WIND RIVER BASIN: D.W.Paape 2

LARAMIDE; see LARAMIDE TECTONICS:

INFLUENCE OF BASEMENT STRUCTURE ON: J.C.Palmquist 3

MAGNETIC EXPRESSION: J.Affleck

MECHANICS: R.H.Meade; W.H.Nelson 2; W.G.Pierce 8; J.K.Sales 1,2,3; W.R.Skinner 3

- ORDOVICIAN: L.F.Hintze 2
- OVERTHRUSTING: F.C.Armstrong; G.W.Crosby 6
- PASS PEAK FORMATION: J.R.Steidtmann 1,3
- POWDER RIVER BASIN PALEOZOIC: G.R.Wulf 3
- PRECAMBRIAN: R.S.Houston 13
- PROVINCES: A.J.Eardley 1
- QUATERNARY: J.D.Love 12
- ROCKY MOUNTAINS: R.S.Houston 13; E.W.Mountjoy
- SHIRLEY MOUNTAINS: D.Landau
- STRUCTURAL GEOMETRY: D.S.Hodge 4; R.A.Hodgson
- TECTONIC PROVINCES: A.J.Eardley 1
- TORREY CREEK AREA: T.W.Slitor
- URANIUM: F.W.Osterwald 1
- VOLCANICS: W.B.Hamilton 1; J.D.Love 12 Y.Sato
- WIND RIVER BASIN: R.R.Berg 2; W.R.Keefer 1,7; D.W.Paape 2
- YELLOWSTONE: J.D.Love 15,16; W.B.Hamilton 1
- TECTONITES: M.E.Lowry 2; M.E.McCallum 4
- TELLURIUM RESOURCES: F.W.Osterwald 3
- TENSLEEP - BEAVER CREEK FAULT: R.A.Hoppin 2,3
- TENSLEEP CANYON AREA: J.D.C.Burgess; L.O.Williams 1,2
- TENSLEEP FORMATION: J.D.C.Burgess; N.L.Haskell; G.D.Johnson; T.W.Todd 2
- TENSLEEP SANDSTONE: J.D.Bredehoeft; J.H.Fisher; R.D.Hoare; D.E.Lawson 3,4; N.D.Opdyke; F.H.T.Rhodes; T.W.Todd 1,2
- TEPEE CREEK QUADRANGLE: I.J.Witkind 1,3
- TEPEE TRAIL FORMATION: D.W.Riedel; W.L.Rohrer 9
- TERRACES: J.O.Duguid; G.Hauser; M.E.McCallum 7; R.D.Merrill; D.A.Morris; R.S.Nelson 1,2; C.J.Robinove 3; E.H.Walker 2
- TERTIARY ROCKS: N.M.Denson 1,3,6,7,8; W.R.Keefer 1,10; S.H.Knight 3; J.D.Love 4; L.W.McGrew 1; A.G.Randall 2; A.E.Roberts; Y.Sato; R.H.Tschudy; Wyoming Geological Association 26,28
- TETON COUNTY: G.R.Rajender
- TETON GLACIER: J.C.Reed 2,3,4,5
- TETON MOUNTAINS, RANGE: J.R.Dixon 1,2; F.D.Eckelmann; E.W.Heinrich; J.D.Love 12; J.C.Reed 1; C.C.Reeves; J.A.Stellmack
- TETON PASS QUADRANGLE: M.L.Schroeder 2
- TETON VALLEY: C.Kilburn
- THAYNES FORMATION: M.D.Picard 13; M.L.Schroeder 1

THERMAL GROUND: L.D.Miller 1,2

THERMAL HEAT FLOW, MEASUREMENT: *see* GEOPHYSICAL METHODS

THERMAL WATER: J.E.Ransom

GEOCHEMISTRY: T.Araki; A.J.Ellis; R.O.Fournier 3; I.Friedman 1,2; B.D.Gunter; G.W.Morey 1,2; K.Noguchi 1,2; B.C.Raymahashay 1,2; J.J.Rowe 1,2; R.Schoen

GEYSERS: *see* GEYSERS and YELLOWSTONE NATIONAL PARK/GEYSERS

HEAT FLOW, SNOW-COVERED AREAS: W.Dort 1

HOT SPRINGS: I.Friedman 1,2; T.Fukutomi; G.D.Marler 1,2,3

INFRARED ANOMALIES: D.E.White 1,3,4

MANMOTH HOT SPRINGS: I.Friedman 1,2

SEASONAL CHANGES: G.D.Marler 3

TRACING CIRCULATION BY IODIDES: J.J.Rowe 2

YELLOWSTONE NATIONAL PARK; *see also* under YELLOWSTONE NATIONAL PARK: W.Dort 1; R.O.Fournier 1,2,3; T.Fukutomi; A.D.Howard; J.H.McLerran; G.D.Marler 3; L.J.P.Muffler; B.C.Raymahashay 1,2; J.S.Rinehart 1,2,3,4,5,6,7,8,9,10, 11

DRILLING RESULTS IN: D.E.White 2

EFFECTS OF HEBGEN LAKE EARTHQUAKE: G.D.Marler 1,2; B.N.Watson

THERMOPOLIS AREA: G.H.Horn; J.E.Ransom

THERMOPOLIS SHALE: D.L.Eicher 1,2; R.E.Ferrell

THOMPSON PASS AREA: L.C.Furer 1

THORIUM: J.R.Doooley 1; J.W.Fronde; J.N.Rosholt 8; W.H.Wilson 7

RESOURCES: F.J.Kelly; F.W.Osterwald 3

THREE FORKS FORMATION: C.A.Sandberg 5

THREE RIVERS PEAK: E.T.Ruppel 1

THREE WATERS AREA: R.G.Worl 2,4

THUNDERBIRD, PROJECT: *see* under COAL

TIE SIDING AREA: J.Chronic 2; D.H.Eggler 1

TILL: G.M.Richmond 2,4

TIMBER CREEK FIELD: R.G.Boyd

TIN RESOURCES: F.W.Osterwald 3

TIPTON SHALE MEMBER, GREEN RIVER FORMATION: E.J.Castro; J.H.Goodwin 2; H.W.Roehler 3,4; W.J.Stuart; R.Tank

TIP TOP UNIT: R.H.Michael

TITANIFEROUS MAGNETITE; *see also* ANORTHOSITE: A.F.Hagner 1,2,3

TITANIFEROUS SANDSTONE: V.T.Dow 2; R.S.Houston 4

TITANITE (SPHENE) RESOURCES: F.W.Osterwald 3

TITANIUM: V.T.Dow 1,2; R.S.Houston 4; F.W.Osterwald 3

T L RANCH QUADRANGLE: H.J.Hyden 8

TONGUE RIVER BASIN, MINERAL RESOURCES: A.E.Falvey

TORREY CREEK AREA: T.W.Slitor

TORRINGTON AREA: G.A.Agogino

TOURMALINE: E.W.Heinrich

RESOURCES: F.W.Osterwald 3

TOWER SANDSTONE

LENTIL: W.C.Culbertson 2

LENSES: R.J.Ebens 1,2,3

TRACHYANDESITE: W.H.Nelson 1

TRAIL CREEK AREA: M.R.Voorhies 1

TRAIL CREEK KYANITE DEPOSIT: G.T.Spanski

TRAVERTINE: I.Friedman 1,2

TREE RING DATING: N.Potter 3

TRIASSIC: J.A.Campbell; A.M.Hanson 2; C.E.Helsley; L.R.High 3;
G.N.Pipirigos 2,3

TRIPOLI, TRIPOLITE: see QUARTZ RESOURCES

TRONA, GREEN RIVER BASIN: W.H.Bradley 8; Cameron Engineers 1,3; W.C.Culbertson
5,6,7; H.D.Hand; L.E.Mannion; Mining World; J.H.Ogg

ACIDS, OXYGEN GROUPS IN: J.I.Fester

BIG ISLAND MINE: J.R.Bogert

GEOCHEMISTRY: W.H.Bradley 10

PALEOLIMNOLOGY: W.H.Bradley 8,10

RESOURCES: F.W.Osterwald 3

TROUBLESOME CREEK AREA: S.H.Knight 3

TROUT PEAK TRACHYANDESITE: W.H.Nelson 1

TUFF: F.R.Boyd; W.H.Bradley 6; J.H.Goodwin 1; R.A.Gulbrandsen 2; A.Iijima;
D.W.Riedel

TULE BUTTE QUADRANGLE: H.D.Zeller 9

TUNGSTEN RESOURCES: F.W.Osterwald 3

TUNNEL, CODY HIGHWAY: W.F.Sherman

TWIN BUTTES AREA: B.Patterson

TWIN CREEK FORMATION: G.M.Philip

TWIN CREEK LIMESTONE: R.W.Imlay

TWIN MOUNTAINS: J.S.King 3

UINTA BASIN: J.R.Donnell 1; J.D.Love 10; P.Robinson 6; F.M.Swain

UINTA COUNTY: A.C.Veatch

UINTA FORMATION: H.D.Zeller 4

UINTA LAKE: B.Schaeffer

UINTA MOUNTAINS: J.C.Behrendt 1; W.R.Hansen 3; R.E.Marsell; N.C.Steenland

ULTRAMAFIC ROCKS: D.R.Bowes; W.R.Skinner 1,2

UNCONFORMITY, LATE CRETACEOUS: J.R.Gill 2

UPTON QUADRANGLE: W.J.Mapel 6

URANIUM; see also RADIOACTIVITY; RADIOACTIVITY SURVEY: H.H.Adler 1;
N.H.Bostick; M.E.Crew; J.C.Griffiths; R.D.Nininger; F.W.Osterwald 1,2,3;
R.B.Parker 3

AIRBORNE RADIOMETRIC SURVEYS: T.L.Boyle; R.M.Moxham; J.A.Pitkin; U.S.
Atomic Energy Commission 1

ARTESIAN WATER: C.G.Bowles 4; J.D.Love 9

BIBLIOGRAPHIES: A.Brown; B.G.Dean

CARBONATES IN: K.G.Bell 2

COAL: T.F.Bates; N.M.Denson 5; H.Masursky; G.N.Pipiringos 1;
M.Steinberg; J.D.Vine

CURIUM: H.H.Adler 1

DEPOSITS: J.W.Gableman; E.N.Harshman 14; R.S.Houston 15; L.R.Page;
W.H.Wilson 2,7

ALTERATION: E.N.Harshman 2,3; R.E.Melin 1

BLACK HILLS: C.G.Bowles 4; N.P.Cuppels 1; R.E.Davis; O.M.Hart;
A.R.Renfro; L.H.Shapiro

BLACK SHALES: V.E.Swanson

CARLILE QUADRANGLE: M.H.Bergendahl

CONTROL: E.N.Harshman 1; F.W.Osterwald 2; M.D.Webb

CROOKS GAP AREA: R.V.Bailey 2; J.G.Stephens

DEWEY QUADRANGLE: D.A.Brobst 1

EDGEMONT DISTRICT: C.G.Bowles 4

FANNY PEAK QUADRANGLE: D.A.Brobst 2

GAS HILLS: D.C.Anderson 2; E.S.Cheney 1,2,3,4,5; R.G.Coleman 1;
R.Coulson; F.D.Everett; C.W.Field; R.R.Guilinger; J.W.King;
R.I.Rackley; J.N.Rosholt 5; P.E.Solister 2; H.F.York

GRANITE MOUNTAINS: J.N.Rosholt 8

GREAT DIVIDE BASIN (RED DESERT BASIN): R.V.Bailey 2; H.Masursky;
G.N.Pipiringos 1

HILAND - CLARKSON HILLS AREA: E.I.Rich

HULETT CREEK: C.S.Robinson 3; J.N.Rosholt 1

IGNEOUS, METAMORPHIC ROCKS: E.A.Merewether

LIMESTONE: K.G.Bell 2

LUCKY MC MINE: D.C.Anderson 1

PEDRO MOUNTAINS: D.H.Graveson

PERMIAN ROCKS: R.P.Sheldon 2

PHOSPHATIC LAKE BEDS: J.D.Love 10

POISON SPIDER DISTRICT: C.E.Reijensteind'Acierno

POWDER RIVER BASIN: H.M.Beikman; J.F.Davis; H.C.Granger 1;
R.K.Mills 1,2; V.A.Mrak; J.N.Rosholt 6,7; W.N.Sharp 1,2

SHIRLEY BASIN: J.S.Anderson; R.V.Bailey 1; S.Budo; E.S.Cheney 5;
J.R.Dooley 2; E.N.Harshman 1,2,3,12,13,14; R.E.Melin 1,2;
J.N.Rosholt 4; D.R.Shawe

SHIRLEY MOUNTAINS: D.H.Graveson; J.D.Love 9

SILVER BELL PROSPECT: F.G.Monzon

STRAWBERRY HILL QUADRANGLE: R.E.Davis

VEIN: G.W.Walker

WASATCH FORMATION: J.F.Davis; H.Masursky; W.N.Sharp 2

WIND RIVER BASIN: J.N.Rosholt 3

WIND RIVER FORMATION: R.D.Adamson; R.V.Bailey 1; J.R.Dooley 2;
J.N.Rosholt 4; P.E.Solister 5

EPIGENESIS: A.P.Butler 1; L.S.Evseeva 2; W.I.Finch; A.I.Germanov;
M.F.Kashirtseva 2,3; V.N.Kholodov

EXPLORATION: H.H.Adler 3; C.G.Bowles 3; A.P.Butler 2; E.W.Grutt;
E.N.Harshman 2,3; W.K.Hawkins; R.I.Rackley; D.E.Redman; D.S.Robertson;
J.H.Scott 1,3,4; H.B.Young

GEOCHEMISTRY: K.G.Bell 2; E.S.Cheney 1,2,3,5; L.S.Evseeva 1,2;
D.H.Graveson; E.N.Harshman 12; P.B.Hostetler; J.W.King; C.S.Robinson 1,3;
J.N.Rosholt 2,3,5,6,7,8,9; J.J.Schmidt-Collerus 1,2; D.M.Updegraff;
H.F.Walton

GLOSSARY: J.W.Frondel

GROUND WATER: J.S.Anderson; C.G.Bowles 3; S.Budo; A.P.Butler 3;
A.I.Germanov; A.K.Lisitsin 1; J.D.Love 9; J.N.Rosholt 1; R.C.Scott 1;
D.L.Sturges 1

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HYPERGENESIS: L.S.Evseeva 1

INDUSTRY: J.W.Barnes; P.E.Flanagan; Governors Uranium Conference;
H.H.Hitch; E.W.Littlefield; D.A.McGee; U.S. Atomic Energy Commission 2,3

INFILTRATION: A.I.Germanov; A.N.Germanov; M.F.Kashirtseva 1

ISOTOPIC GEOLOGY: E.S.Cheney 1,2,3,4,5; J.R.Dooley 2; J.N.Rosholt 3,4,5,6

MAP OF DEPOSITS: E.A.Merewether

MATHEMATICAL, STATISTICAL, COMPUTER METHODS: N.H.Bostick; R.J.Meehan;
J.H.Scott 1,2,3,4,5; U.S. Atomic Energy Commission 2; F.N.Ward; H.B.Young

- MICROORGANISMS: A.K.Lisitsin 2; D.M.Updegraff
- MINERALS, GLOSSARY: J.W.Fron del
- MINING GEOLOGY: D.C.Anderson 1; J.S.Anderson; R.V.Bailey 1; A.P.Butler 3; R.Coulson; F.D.Everett; E.W.Grutt; W.K.Hawkins; F.G.Monzon; R.I.Rackley
- OIL AND GAS: K.G.Bell; C.A.Horr; V.E.Swanson
- ORE ROLLS: H.H.Adler 2,3,4; E.S.Cheney 5; J.R.Dooley 2; V.S.Dement'yev; H.C.Granger 1,2; P.B.Hostetler; J.W.King; R.K.Mills 1,2; C.S.Robinson 1,3; J.N.Rosholt 4,7; D.R.Shawe; M.D.Webb
- OXIDIZING ENVIRONMENT: N.P.Cuppels 1; V.S.Dement'yev
- PEAT: N.A.Titayeva
- PETROLEUM: K.G.Bell 1
- RADIOACTIVE WASTE DISPOSAL: H.M.Beikman
- RADIUM: R.C.Scott 1,2
- REPORTS: J.W.Barnes; Governor's Uranium Conference; E.W.Littlefield; D.A.McGee
- RESOURCES: A.P.Butler 2; F.W.Osterwald 3; W.H.Wilson 2,7
- REVIEWS: Cameron Engineers 1,2; M.E.Crew; R.B.Parker 3
- SOLUTION MINING: J.S.Anderson
- SPRINGS, URANIFEROUS: J.D.Love 9
- STRATIGRAPHIC CONTROL: M.D.Webb
- STRUCTURAL CONTROL: F.W.Osterwald 1,2
- TAR SAND: K.G.Bell 1
- THORIUM: J.M.Fron del; F.J.Kelly; F.W.Osterwald 3; J.N.Rosholt 8; W.H.Wilson 7
- VANADIUM: I.Araki; H.T.Evans; P.B.Hostetler; C.B.Koons; J.D.Love 6; F.W.Osterwald 3
- VEIN DEPOSITS: G.W.Walker
- ZONATION: J.W.Gableman; V.N.Kholodov; M.F.Kashirtseva 1
- URANYL CARBONATE, NEW: R.G.Coleman 2

VANADIUM: T.Araki; P.B.Hostetler; C.B.Koons; J.D.Love 6

OXIDE MINERALS: H.T.Evans

RESOURCES: F.W.Osterwald 3

VEDAUWOO: see CROW TORS

VENTIFACTS: see WIND POLISHED STONES

VEMICULITE RESOURCES: F.W.Osterwald 3

VERMILLION CREEK AREA: L.A.Hale 2

VIGIL NETWORK: L.B.Leopold

VIRGINIA DALE (RING DIKE) COMPLEX: D.H.Eggler 1,2,5; R.S.Wing

VOLCANIC ASH, PUMICE RESOURCES: J.D.Love 5; F.W.Osterwald 3

VOLCANIC ROCKS: I.S.E.Carmichael; C.R.Dunrud 1,2; R.J.Ebens 5; G.A.Joplin;
L.L.Lackey 1; W.H.Parsons 2; M.G.Rutten; Wayne State University

ABSAROKA: R.A.Chadwick 3; C.R.Dunrud 1,2; R.D.Krushensky 1,2;
W.H.Parsons 1,2,3,5; Z.E.Peterman; W.H.Wilson 1,3,4

BRECCIA: R.D.Krushensky 3; W.H.Parsons 1

INTRUSIVES: W.H.Parsons 6

PLIOCENE: D.L.Blackstone 4

STRUCTURE: W.H.Parsons 2

AGE DATING: D.L.Blackstone 4; D.W.Riedel

BRECCIA: R.D.Krushensky 3; W.H.Parsons 1,4; W.G.Pierce 4

CALC-ALKALINE, AND PRECAMBRIAN CRUST THICKNESS: K.C.Condie 5

CORRELATION: R.S.Houston 5,8; Y.Sato; W.H.Wilson 3

GALLATIN RANGE: R.A.Chadwick 1,3

GEOCHEMISTRY: R.A.Chadwick 3; A.J.Ellis; G.A.Izett 4; Z.E.Peterman

GEYSERS: R.O.Fournier 2; H.R.Nicholls; J.S.Rinehart 4,6; R.Scharff

GLACIATION, RELATION TO: R.A.Chadwick 2; J.D.Love 12

HURRICANE MESA AREA: R.D.Krushensky 1,2

LAVA: W.B.Hamilton 2; J.Nicholls 1; M.G.Rutten

LEUCITE HILLS: I.S.E.Carmichael; R.H.Johnston

MARL: C.J.Orback

OBSIDIAN: G.M.Richmond 1

PUMICITE: J.D.Love 5; F.W.Osterwald 3

SHOSHONITE: G.A.Joplin; J.Nicholls 1,2

SUNLIGHT BASIN AREA: W.H.Parsons 3,5

TECTONICS: W.B.Hamilton 1; J.D.Love 12; Y.Sato

YELLOWSTONE PLATEAU: F.R.Boyd; R.L.Christiansen; A.J.Ellis; R.O.Fournier
2; W.B.Hamilton 1,2,3; J.D.Love 12; H.R.Nicholls; J.Nicholls 1;

H.J.Prostka 1,2; G.M.Richmond 1; J.S.Rinehart 4,6; M.G.Rutten; R.Scharff;
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VOLCANICS AND GLACIATION: R.A.Chadwick 2; J.D.Love 12



WAGON BED FORMATION: J.R.Boles 2; K.E.Lohman

WAGON WHEEL, PROJECT: W.B.Martin

WALTMAN GAS FIELD: E.Arro

WALTMAN SHALE MEMBER, FORT UNION FORMATION: W.R.Keefer 4; K.R.Newman

WAMSUTTER ARCH: R.W.Fields; H.R.Ritzma 1,4; R.J.Weimer 7

WAPITI FORMATION: W.H.Nelson 1

WAPITI QUADRANGLE: W.G.Pierce 13

WASATCH FORMATION: W.C.Culbertson 4; W.T.Fox; J.C.Lawrence 1,2,3; S.S.Oriel 1,3; M.Prinz 3; D.B.Sapik; R.Steinmetz 1,2; J.L.Tracey; R.M.West 1,4; R.W.Wiegman 1

OIL AND GAS: W.C.Culbertson 4; N.C.Privratsky

URANIUM: J.F.Davis; H.Masursky; W.N.Sharp 2

WASHAKIE BASIN; *see also* GREEN RIVER BASIN:

ALMOND FORMATION: W.C.Heppe 1

BAGGS AREA: L.W.Good 1

BLAIR FORMATION: W.B.Douglass

CRETACEOUS (MONTANAN): L.A.Hale 3; G.J.Wiloth; Wyoming Geological Association 3

CLAY MINERALOGY: C.E.Weaver

DEFINITION: J.D.Love 2

ERICSON FORMATION: W.B.Douglass

GEOLOGIC HISTORY: H.R.Ritzma 2

GREEN RIVER FORMATION: L.G.Trudell

GROUND WATER: G.F.Dana 2; G.E.Welder 2

LEWIS FORMATION: W.C.Heppe 1

OIL AND GAS: C.T.Colson; G.J.Wiloth

OIL SHALE, EOCENE: H.W.Roehler 5; L.G.Trudell

ROCK SPRINGS FORMATION: W.B.Douglass

STRATIGRAPHY: C.T.Colson; H.R.Ritzma 2

STRUCTURE: H.R.Ritzma 2

TERTIARY: C.T.Colson; Wyoming Geological Association 26

WASHAKIE FORMATION: W.H.Wheeler

WASHAKIE MOUNTAINS: W.J.Sando 3

WASHBURN RANGE, YELLOWSTONE NATIONAL PARK: K.L.Pierce; C.H.Shultz 1,2

WATER; *see also* GEOCHEMICAL METHODS; GROUND WATER: R.C.Culler; G.F.Dana 1,2; J.O.Duguid 3; J.R.Fanshawe; E.D.Gordon 1; R.L.Hoefer; S.Honda; C.Kilburn; N.J.King; W.J.Koch; L.B.Leopold; T.Maddock; R.D.Merrill; D.L.Sturges 2; U.S. Geological Survey 3,5

ARTESIAN: C.G.Bowles 4; D.B.Sapik

GEOCHEMISTRY; *see also* GEOCHEMICAL METHODS: D.M.Anderson; J.G.Crawford; C.H.Hembree; P.Jorgensen; C.S.Land; C.J.Robinove 1,2; G.E.Welder 2,3

INTERLAMELLAR FLOW IN BENTONITE: D.M.Anderson

MOUNTAIN BOG: D.L.Sturges 1,2

NORTH PLATTE RIVER BASIN: R.T.Clark

PEAT: D.L.Sturges 1,2

REQUIREMENTS FOR MINERAL INDUSTRIES: M.M.Gilkey

REMOTE SENSING: E.R.Cox

RESERVES AND RESOURCES: J.A.Barlow 5; G.F.Dana 2; U.S. Geological Survey 1,3,5

BRIDGER BASIN: E.D.Gordon 1

CROOK COUNTY: H.A.Whitcomb 1

EDEN VALLEY - FARSON AREA: G.F.Dana 1

GLENDON: G.E.Welder 1

GREAT DIVIDE BASIN: E.P.Fisk; G.E.Welder 2

GREEN RIVER BASIN: G.E.Welder 3

JACKSON LAKE AREA: L.J.McGreevy 1

JOHNSON COUNTY: H.A.Whitcomb 3

LARAMIE COUNTY: M.E.Lowry 3

NIOBRARA COUNTY: H.A.Whitcomb 2

OWL CREEK AREA: D.W.Berry 2

PASS CREEK BASIN AREA: G.J.Saulnier

RAWLINS AREA: D.W.Berry 1

SHERIDAN COUNTY: M.E.Lowry 1

SNAKE RIVER BASIN: D.L.Crandall

STAR VALLEY: E.H.Walker 3

WASHAKIE BASIN: G.E.Welder 2

WHITE RIVER FORMATION: M.E.Lowry 2

WIND RIVER BASIN: Bishop and Spurlock; H.A.Whitcomb 4

WIND RIVER INDIAN RESERVATION: L.J.McGreevy 2

YELLOWSTONE NATIONAL PARK: E.R.Cox; E.D.Gordon 2

RESERVOIR VOLUME, CALCULATIONS: J.L.Stout

WEATHERING: E.N.Clausen 2; L.W.Cramer; C.H.Hembree; B.N.Rolfe

WEGSCHEIDERITE: D.E.Appleman; J.J.Fahey 3

WELL LOGS AND DRILL TESTS: S.Honda; J.G.Patchett; S.B.Smithson 1; D.E.White 2

CRETACEOUS: J.G.Patchett

MINERAL EXPLORATION: J.J.Fahey 2; R.R.Guilinger; W.K.Hawkins; B.Jones 1,2,3,4; J.A.McCaleb 3; F.C.Rathbun 1,2; J.H.Scott 1,3,4,5; H.B.Young

TERTIARY: J.G.Patchett; Wyoming Geological Association 26

WATER: S.Honda; C.Kilburn; M.E.Lowry 1,3; L.J.McGreevy 1; D.A.Morris; C.J.Robinove 2,3; E.P.Weeks; H.A.Whitcomb 1,2,3,4

WEST MOORCROFT OIL FIELD: D.E.Mettler 1,2

WEST SIDE CANAL GAS FIELD: J.M.Cronoble

WEST THUMB AREA: E.D.Gordon 2

WEST YELLOWSTONE BASIN: J.D.Love 12; G.M.Richmond 3

WEST YELLOWSTONE QUADRANGLE: W.B.Hamilton 2

WHEATLAND AREA: H.Toots 9

WHEATLAND FLATS: D.A.Morris; E.P.Weeks

WHEATLAND QUADRANGLE: L.W.McGrew 11

WHEATLAND NORTHEAST QUADRANGLE: L.W.McGrew 12

WHEATLAND SERICITE DEPOSIT: J.T.Wilband

WHIMPY LAKE: J.Decosta

WHISKEY PEAK: M.L.Dickey

WHISKEY PEAK QUADRANGLE: M.W.Reynolds 4

WHITE MOUNTAIN: G.P.Brophy; W.H.Nelson 2

WHITE RIVER FORMATION: N.M.Denson 1; M.E.Lowry 2

WHITE ROCK CANYON QUADRANGLE: H.J.Hyden 9

WIGGINS FORMATION: A.R.McGrew; W.L.Rohrer 9; W.H.Wilson 4,5; P.A.Worcester

WILD IRISH RESERVOIR QUADRANGLE: E.N.Harshman 11

WILKINS PEAK MEMBER, GREEN RIVER FORMATION: W.H.Bradley 8; W.C.Culbertson 1,6; W.J.Stuart

WILLISTON BASIN, AREA: D.W.Bolyard 1; N.M.Denson 5; D.N.Miller 6; J.M.Parker 2; C.A.Sandberg 1; G.R.Wulf 5

WILLOW CREEK AREA: R.S.Ellerby

WILLOW CREEK GAS FIELD: T.C.Woodward 1

WILLOW SPRING ARCHAEOLOGICAL SITE: B.V.Hanson

WILLWOOD FORMATION: J.W.Neasham 1,2; L.B.Radinsky 1; P.Robinson 4; W.L.Rohrer 5

WIND BLOWN DEPOSITS: see LOESS

WIND CREEK FIELD: W.J.Mapel 5

WIND NOISE: H.Robertson

WIND POLISHED STONES: J.A.Dorr 1

WIND RIVER BASIN: J.W.Erickson; W.R.Keefer 7

CRETACEOUS: W.R.Keefer 1,2,10; Wyoming Geological Association 3

LANDSLIDE DEBRIS: P.E.Soister 1

OIL AND GAS: D.W.Paape 1,3

STRUCTURE: R.R.Berg 1

CROW MOUNTAIN SANDSTONE MEMBER, CHUGWATER FORMATION: B.O.Tohill 1

DRY CREEK - WILLOW CREEK AREA: R.S.Ellerby

FOLD MECHANISMS: J.Gallagher

FORT UNION FORMATION: J.L.Courdin 1,2; W.R.Keefer 3,4,12; D.W.Paape 1

GEOLOGIC HISTORY: W.R.Keefer 7,10

GRAVITY: J.E.Case

GROUND WATER: Bishop and Spurlock; G.F.Dana 2; H.A.Whitcomb 4

INDIAN MEADOWS FORMATION: W.R.Keefer 12

LANCE FORMATION: W.R.Keefer 3

LANDSLIDE DEBRIS: P.E.Soister 1

MESAVERDE STRATIGRAPHY: J.R.Barwin

MEETEETSE FORMATION: W.R.Keefer 3

WALTMAN SHALE, SHOTGUN MEMBERS: W.R.Keefer 4

MUDDY FORMATION: S.D.Whitford

OIL AND GAS: E.Arro; W.J.Barrett; J.B.Boyd; M.P.Dahill 1; W.R.Keefer 11,13; C.B.Koons; D.E.Lawson 2; D.W.Paape 1,3; M.D.Picard 1; L.D.Vredenburgh; G.J.Wiloth

PALEONTOLOGY: C.L.Gazin 3; D.A.Guthrie 2; L.B.Radinsky 2,3; C.F.Upshaw 1

PALEOZOIC: W.R.Keefer 11

PUDDLE SPRINGS ARKOSE MEMBER: P.E.Soister 6

ROAD LOGS: Wyoming Geological Association 2,3,13

SEDIMENTARY STRUCTURES: P.E.Soister 1; B.O.Tohill 1,2

SHOTGUN BUTTE AREA: W.R.Keefer 8

STRUCTURE: W.R.Keefer 1,2

TECTONICS: W.R.Keefer 1,7; D.W.Paape 2

TERTIARY: W.R.Keefer 1,2,10; D.W.Paape 2; Wyoming Geological Association 26

WIND RIVER FORMATION: *see under* WIND RIVER FORMATION

WIND RIVER CANYON: D.W.Boyd 4; K.C.Condie 3

WIND RIVER FORMATION: S.Budo; R.G.Coleman 1; W.R.Keefer 12; P.E.Soister 1,2,5; S.D.Whitford

PALEONTOLOGY: D.A.Guthrie 1,2,3,4; A.E.Wood

URANIUM: R.D.Adamson; R.V.Bailey 1; S.Budo; J.R.Dooley 2; J.N.Rosholt 4; P.E.Soister 2

WIND RIVER INDIAN RESERVATION: R.L.Bolmer; W.J.Dempsey 2; L.J.McGreevy 2;
E.L.Single

WIND RIVER MOUNTAINS, RANGE

AGE DATES, PRECAMBRIAN: W.A.Bassett 2; R.S.Naylor

ALPINE LAKE QUADRANGLE BEDROCK: R.B.Barrus

BLUE QUARTZ: R.B.Parker 1

CARBONATES, PALEOZOIC: M.M.R.Tucker

DIKES AND SILLS: J.L.Nold

FOLDING: R.G.Worl 1,2

GEOCHEMISTRY: K.C.Condie 2; C.H.Hembree; R.H.Steiger

GLACIATION: G.M.Richmond 2,4,6

GRAVITY PROFILE: R.R.Berg 7

MADISON LIMESTONE: W.J.Sando 3

METAMORPHIC ROCKS: D.S.Hodge 1; K.Perry

MIGMATITES: R.G.Worl 2,3,4

PALEONTOLOGY: C.Lochman-Balk 2

PEGMATITES: R.B.Parker 1; P.D.Proctor

PRECAMBRIAN: S.B.Smithson 1

AGE DATES: W.A.Bassett 2

AGMATITES: R.B.Parker 2

DEFORMATION: R.G.Worl 1

FRACTURE PATTERNS: H.E.Henricks

GABBROIC DIKES, SILLS: J.L.Nold

METAMORPHISM: K.Perry

PETROGRAPHY: R.J.Ebens 4; S.B.Smithson 1

ROAD LOG: G.M.Richmond 6; Wyoming Geological Association 22,28

SOUTH PASS AREA PRECAMBRIAN DEFORMATION: R.G.Worl 1

SOUTH PASS FORMATION: N.M.Denson 4

STRUCTURE: R.R.Berg 1,3,4

TACONITE: R.G.Worl 2,3,5

TECTONICS, LARAMIDE: R.R.Berg 2

THREE WATERS AREA MIGMATITE: R.G.Worl 4

WIND RIVER THRUST, LARAMIDE SEDIMENTS: R.R.Berg 3

WIND RIVER THRUST: R.R.Berg 3

WIND RIVER UPLIFT: G.Faure

WOLLASTONITE RESOURCES: F.W.Osterwald 3

WOOD OIL FIELD: D.E.Mettler 2

WOOD RIVER AREA: W.H.Wilson 1,4

WOODSIDE: W.Duke

WYOMING: D.W.Boyd 3; R.Chyba; G.W.Crosby 5; A.J.Eardley 2; D.R.Foutz;
J.R.Gill 2; W.D.Greene 3; R.A.Gulbrandsen 2; J.W.Guyton 2; E.B.Heylman;
G.Hinton; G.A.Izett 3; W.W.Mallory 2; J.G.Patchett; A.G.Randall 3;
H.E.Roberson; J.K.Sales 3; C.A.Sandberg 8; R.Steinmetz 2; H.D.Thomas 1;
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CENTRAL: W.H.Curry 1,2; N.M.Denson 3,6; W.R.Keefer 2,6; J.D.Love 11; W.E.Perkins

EAST-CENTRAL, RESOURCES, PEOPLE, ECONOMY: F.K.Harnston 2

EASTERN: P.J.Fritts; J.Nicholls 2; S.B.Smithson 3; T.M.Stout

ECONOMY: H.J.Soher 1

GROUND WATER RECONNAISSANCE: G.F.Dana 2

MINERALS: Cameron Engineers 1,2,3; F.W.Osterwald 3

NORTH-CENTRAL: C.A.Sandberg 1; M.Slaughter 1

NORTHEAST: M.E.Hicks

NORTHERN: P.N.Davis; C.A.Sandberg 3

NORTHWEST: R.C.Getz; B.J.Giletti 3; J.D.Love 11; D.L.Mikesh

RESOURCES: Cameron Engineers 1,2,3; F.W.Osterwald 3; H.J.Soher 1,2;
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2; O.Tweto; R.J.Weimer 5

SOUTHEAST: R.J.Ebens 5; E.K.Maughan 4; S.B.Smithson 2; G.M.Young

SOUTHERN: J.Chronic 4; E.K.Maughan 1; R.J.Weimer 4; A.D.Zapp

SOUTHWEST: W.H.Bradley 1; C.L.Gazin 3; R.E.Lund; P.O.McGrew 1; C.J.Mann;
L.E.Mannion; A.Nigrini; D.W.Trexler 1; G.J.Verville

WESTERN: A.L.Benson; E.J.Catanzaro; J.M.Delong; A.J.Eardley 3; L.C.Furer 2;
S.H.Knight 2; C.Lochman-Balk 1; D.O.Peterson; F.L.Schwab 1,2,4; R.P.Sheldon 2;
J.W.Strickland; E.H.Walker 1; Wyoming Geological Association 1

GEOPHYSICAL METHODS: D.R.Mabey

TECTONICS: G.W.Crosby 2,3,4; L.F.Hintze 2

WYOMING FORELAND: J.K.Sales 3

WYOMING GEOLOGICAL SURVEY, BIENNIAL REPORTS: D.L.Blackstone 6; H.D.Thomas
1,3,5,6

WYOMING PEAK: R.F.Litchford

WYOMING PROVINCE: R.S.Houston 13; J.J.Prucha

WYOMING RANGE: H.F.Albee 1; R.A.Fruchey; L.C.Furer 1; A.R.Ross; R.B.Suydam;
G.E.Voorhees

WYOMING SHELF: J.W.M'Conigle; M.D.Picard 12; T.W.Todd 3

WYOMINGITE: I.S.E. Carmichael; K. Yagi



X-RAY DIFFRACTION: *see* GEOCHEMICAL METHODS



YELLOWSTONE BASIN: J.D.Love 4; G.M.Richmond 3

YELLOWSTONE DRILL HOLE Y-1: S.Honda

YELLOWSTONE LAKE AND YELLOWSTONE LAKE BASIN AREA: R.G.Baker 1,2; J.M. de la Montagne 3; G.M.Richmond 7,8,9,10

YELLOWSTONE NATIONAL PARK: C.W.Brown; E.D.Gordon 2; G.A.Joplin; J.D.Love 15,16; H.J.Prostka 1; G.M.Richmond 1,3; E.T.Ruppel 1,2; R.Scharff; H.W.Smedes 1

ALTERATION, HYDROTHERMAL: J.B.Droste; A.J.Ellis; S.Honda; B.C.Raymahashay 1,2; R.Schoen

FAULTS: W.R.Keefer 14; J.D.Love 3,12; E.T.Ruppel 2; H.A.Waldrop

GEOPHYSICAL METHODS: H.R.Blank; E.R.Cox; D.M.Gates; S.Honda; R.J.G.Lewis; L.D.Miller 1,2; H.W.Smedes 1; United States Geological Survey 4; D.E.White 1,2,3,4

GEYSER BASIN: S.Honda

GEYSERS; see also THERMAL WATERS: R.O.Fournier 1,2,3; F.Geis; G.D.Marler 1,2,3; G.W.Morey 1,2; L.J.P.Muffler; H.R.Nicholls; J.E.Ransom; J.S.Rinehart 1,2,3,5,6,7,8,9,10; J.J.Rowe 2; R.Scharff

ERUPTION INTERVALS: W.Dort 2; J.S.Rinehart 1,4,5,8

GEOPHYSICAL SURVEY OR METHODS: R.O.Fournier 1,2,3; J.H.McLerran; H.R.Nicholls; J.S.Rinehart 6,7,8,10,11

GLACIATION: J.P.Eaton; J.M.Good; J.D.Love 12; J.M.delaMontagne 2,3; K.L.Pierce; G.M.Richmond 3,7,8,9,10

GROUND WATER: E.D.Gordon 2

HAZARDS, GEOLOGIC: W.A.Fischer 1,2; G.D.Marler 1,2; S.W.Nile; J.S.Rinehart 8; C.P.Ross; F.A.Swenson; B.N.Watson

HOT EARTH: L.D.Miller 1,2

HYDROTHERMAL EMANATIONS: B.D.Gunter

MIRROR LAKE: H.A.Waldrop

PAINT POT HILLS: B.C.Raymahashay 1,2

PALEOBOTANY: E.Dorf 1,2

POPULAR GUIDE: R.Scharff

SEISMICITY: J.P.Eaton

STRUCTURE: C.W.Brown; W.R.Keefer 14

SULFURIC ACID: R.Schoen

RADAR MOSAIC: U.S. Geological Survey 4

THERMAL WATERS: W.Dort 1; J.B.Droste; R.O.Fournier 1,3; T.Fuktomi; A.D.Howard; J.H.McLerran; G.D.Marler 1,2,3; B.C.Raymahashay 1; J.S.Rinehart 1,2,3,4,5,6,7,8,9,10,11; D.E.White 2

GEOCHEMISTRY: T.Araki; A.J.Ellis; R.O.Fournier 3; I.Friedman 1,2; B.D.Gunter; G.W.Morey 1,2; K.Noguchi 1,2; B.C.Raymahashay 2; J.J.Rowe 1,2; R.Schoen

VOLCANICS: F.R.Boyd; A.J.Ellis; R.O.Fournier 2; W.B.Hamilton 1,2,3; J.D.Love 12; H.R.Nicholls; J.Nicholls 1,2; H.J.Prostka 1,2; G.M.Richmond 1; J.S.Rinehart 4,6; D.N.Rubel; M.G.Rutten; R.Scharff; C.H.Shultz 1,2; H.W.Smedes 2; Wayne State University

WASHBURN RANGE: K.L.Pierce; C.H.Shultz 1,2

WATER RESOURCES: E.R.Cox

YELLOWSTONE REGION: J.P.Eaton; W.B.Hamilton 1,2,3; R.S.Houston 8; J.D.Love 16; D.N.Rubel; R.Schoen; R.C.Scott 2; I.J.Witkind 2

YELLOWSTONE RHYOLITE PLATEAU: F.R.Boyd; R.L.Christiansen; W.B.Hamilton 1,2,3

YELLOWSTONE VALLEY: R.A.Chadwick 1,2; J.M.delaMontagne 2

YODER FORMATION: W.D.Turnbull 2

ZELLERITE: R.G.Coleman 2

ZEOLITES: J.R.Boles 1; J.H.Goodwin 1,2; E.W.Heinrich; A.W.Horstman

RESOURCES: F.W.Osterwald 3

ZINC: K.Denault

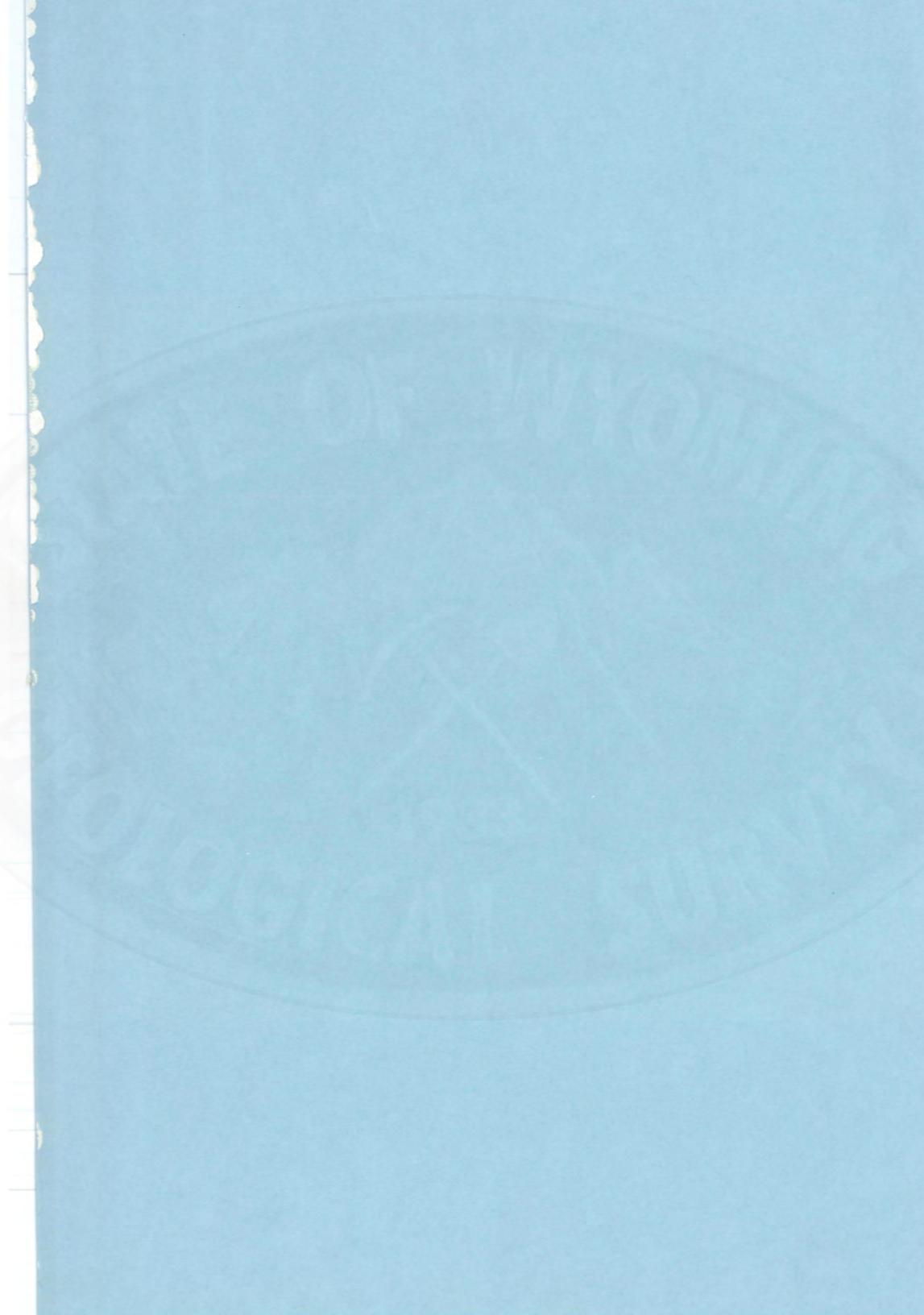
RESOURCES: F.W.Osterwald 3

ZIRCON: F.D.Eckelmann; R.S.Houston 9; R.H.Steiger

HYDROZIRCON: R.G.Coleman 1

RESOURCES: F.W.Osterwald 3





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