

## GEOLOGICAL SURVEY CIRCULAR 488



REPORTS AND MAPS OF THE  
GEOLOGICAL SURVEY RELEASED  
ONLY IN THE OPEN FILES, 1963



**REPORTS AND MAPS OF THE GEOLOGICAL SURVEY  
RELEASED ONLY IN THE OPEN FILES, 1963**

**By Betsy A. Weld, Margaret S. Griffin, and George W. Brett**

United States Department of the Interior

STEWART L. UDALL, SECRETARY



Geological Survey

THOMAS B. NOLAN, DIRECTOR



*Free on application to the U.S. Geological Survey, Washington 25, D. C.*

# REPORTS AND MAPS OF THE GEOLOGICAL SURVEY RELEASED ONLY IN THE OPEN FILES, 1963

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## INTRODUCTION

This circular contains a list of maps and reports released by the U.S. Geological Survey during 1963 that are available for public inspection in the open files. These maps and reports may be consulted at the indicated depositories, and copies may be made upon request (at the requestor's expense).

The reports are arranged alphabetically by author; each report is preceded by a serial number that is used to identify the report in the index (p. 11), and is followed by the depositories at which it may be consulted.

### WHERE OPEN-FILE REPORTS MAY BE CONSULTED

Most open-file reports are on file in at least one of the major U.S. Geological Survey depositories listed below and (or) at depositories selected as appropriate for the individual reports. All depositories are U.S. Geological Survey offices unless a State Geological Survey or other organization is specifically indicated. The following symbols are used in the list to indicate the major depositories:

Wa	Library, Room 1033 General Services Administration Building, 18th and F Streets, NW, Washington, D. C.
Wb	1242-N, General Services Administration Building, 18th and F Streets, NW, Washington, D. C.
Da	Library, Building 25, Federal Center, Denver, Colo.

Db	Public Inquiries Office, 468 New Custom House, Denver, Colo.
M	Library, 345 Middlefield Road, Menlo Park, Calif.
A	Public Inquiries Office, 108 Skyline Building, 508 2nd Ave., Anchorage, Alaska.
LA	Public Inquiries Office, 1031 Bartlett Building, 315 W. 7th Street, Los Angeles, Calif.
S	Public Inquiries Office, South 157 Howard Street, Spokane, Wash.
SF	Public Inquiries Office, 504 Custom House, 555 Battery Street, San Francisco, Calif.
T	Public Inquiries Office, 602 Thomas Building, 1314 Wood Street, Dallas, Tex.
U	Public Inquiries Office, 8102 Federal Office Building, 125 South State Street, Salt Lake City, Utah.

### OTHER LISTS OF OPEN-FILE REPORTS

Open-file reports released during past years have been listed in the following circulars (\* indicates report is out of print):

Circular	Year(s)	Circular	Year
*56	1946-47	401	1956
*64	1948	403	1957
*149	1949-50	412	1958
*227	1951	428	1959
*263	1952	448	1960
*337	1953	463	1961
*364	1954	473	1962
379	1955	488	1963

# MAPS AND BOOK REPORTS

1. Aldridge, B. N., Floods of August 1963 in Prescott, Arizona: 9 p., 9 figs. Dec. 10, 1963. (Wb; Geology Bldg., Univ. of Arizona Campus, Tucson, Ariz.)
2. Anderson, P. W., and McCarthy, L. T., Jr., Chemical character of streams in the Delaware River basin: 11 p., 1 fig. Aug. 26, 1963. (Wb; 1302 U. S. Custom House, 2nd and Chestnut Sts., Philadelphia, Pa.)
3. Andreasen, G. E., and Bromery, R. W., Total intensity aeromagnetic profiles over northeastern Oklahoma: 1 map, in 2 parts. Aug. 22, 1963. (Wa, T; Oklahoma Geol. Survey, 163 Gould Hall, Univ. of Oklahoma, Norman, Okla.)
4. Armstrong, F. C., The Bannock thrust zone, southeastern Idaho: 95 p. July 18, 1963. (Wa.)
5. Balsley, J. R., and Joesting, H. R., Aeromagnetic map of part of the Gulf of Mexico across the Continental Shelf: 1 map. April 15, 1963. (Wa, Da, M, T; Office of the Director, Bureau of Economic Geology, Univ. of Texas, Austin, Tex.; Louisiana Geol. Survey, 153 Geology Bldg., Louisiana State Univ., Baton Rouge, La.)
6. Baltz, E. H., Abrahams, J. H., Jr., and Purtyman, W. D., Preliminary report on the geology and hydrology of Mortandad Canyon near Los Alamos, New Mexico, with reference to disposal of liquid low-level radioactive waste: 105 p., 13 figs. April 30, 1963. (Wb; 279 Geology Bldg., Univ. of New Mexico Campus, Albuquerque, N. Mex.)
7. Bannerman, H. M., Preliminary geologic map of strip along the Oswegatchie River from Little Bow to Richville, Townships of Gouverneur and DeKalb, St. Lawrence County, New York: 1 map. May 9, 1963. (Wa; Office of the State Geologist, New York State Museum, Albany, N. Y.; Gouverneur Public Library, Gouverneur, N. Y.)
8. Barnes, H. H., Jr., Floods of March 1963, Alabama to West Virginia: 75 p., 21 figs. Dec. 10, 1963. (162 Peachtree Seventh Bldg., Atlanta, Ga.)
9. Black, D. F. B., Geologic and structure map of a cryptoexplosion structure near Versailles, Kentucky: 1 map. June 12, 1963. (Wa, Da, M; Kentucky Geol. Survey, 307 Mineral Industries Bldg., 120 Graham Ave., Lexington, Ky.)
10. Brosgé, W. P., and Whittington, C. L., Preliminary geologic map of the Umiat-Maybe Creek region, Alaska: 1 map. Feb. 19, 1963. (Wa, Da, Db, M, A, LA, S, SF, T; Brooks Memorial Bldg., College, Alaska; 203 Simpson Bldg., Juneau, Alaska; Alaska Div. of Mines and Minerals, State Capitol Bldg., Juneau, Alaska)
11. Brown, R. F., and Cotter, R. D., Water and the Minnesota Iron Range: 16 p., 13 figs. March 13, 1963. (Wb; 1002 New Post Office Bldg., St. Paul, Minn.)
12. Butler, R. G., Semiannual report of water levels in selected observation wells in Utah--October 1963: 2 p., 2 figs. Nov. 5, 1963. (125 Empire Bldg., 231 East 4th South, Salt Lake City, Utah.)
13. Canney, F. C., and Post, E. V., Preliminary geochemical and geological map of part of Squarctown, Somerset County, Maine: 1 map. July 18, 1963. (Wa, Da, M; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine; Room 1, 270 Dartmouth St., Boston, Mass.)
14. Carpenter, C. H., and Young, R. A., Records of selected wells and springs, chemical analyses of ground water, water-level measurements of selected wells, selected drillers' logs of wells, and logs of test holes, Central Sevier Valley, Sanpete, Sevier, and Piute Counties, Utah: 29 p., 2 figs. Feb. 8, 1963. (Wb; 125 Empire Bldg., 231 East 4th St., Salt Lake City, Utah.)
15. Chapman, R. M., Coats, R. R., and Payne, T. G., Placer tin deposits in central Alaska: 53 p., 13 figs., 6 tables. Jan. 31, 1963. (Wa, Da, M, A, S, SF, LA, Db, T; Brooks Memorial Bldg., College, Alaska; 203 Simpson Bldg., Juneau, Alaska; Alaska Div. of Mines and Minerals, State Capitol Bldg., Juneau, Alaska.)
16. Clark, W. E., Musgrove, R. H., Menke, C. G., and Cagle, J. W., Jr., Hydrology of Brooklyn Lake near Keystone Heights, Florida: 49 p., 25 figs. Dec. 31, 1962. (Wb; Gunter Bldg., Tennessee and Woodward Sts., Tallahassee, Fla.; 244 Federal Bldg., Ocala, Fla.)
17. Clark, W. E., Musgrove, R. H., Menke, C. G., and Cagle, J. W., Jr., Water-resources data for Alachua, Bradford, Clay, and Union Counties, Florida: 162 p., 6 figs. Dec. 31, 1962. (Wb; Gunter Bldg.,

- Tennessee and Woodward Sts., Tallahassee, Fla.; 244 Federal Bldg., Ocala, Fla.)
18. Cook, K. L., Hoskinson, A. J., and Shelton, G. R., Principal facts for a gravity survey made in northeastern Oklahoma and southeastern Kansas during 1948: 24 p., 1 table. Nov. 15, 1963. (Wa, Da, M; Oklahoma Geol. Survey, 163 Gould Hall, Univ. of Oklahoma, Norman, Okla.; State Geol. Survey, Univ. of Kansas, Lawrence, Kans.)
  19. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., The occurrence and quality of ground and surface water in the Mesabi and Vermilion Iron Range area, northeastern Minnesota: 63 p., 10 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg., St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  20. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., Water resources in the vicinity of municipalities on the Central Mesabi Iron Range, northeastern Minnesota: 50 p., 9 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg. St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  21. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., Water resources in the vicinity of municipalities on the East-Central Mesabi Iron Range, northeastern Minnesota: 52 p., 9 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg., St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  22. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., Water resources in the vicinity of municipalities on the Eastern Mesabi Iron Range and the Vermilion Iron Range, northeastern Minnesota: 55 p., 9 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg., St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  23. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., Water resources in the vicinity of municipalities on the West-Central Mesabi Iron Range, northeastern Minnesota: 46 p., 6 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg., St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  24. Cotter, R. D., Young, H. L., Petri, L. R., and Prior, C. H., Water resources in the vicinity of municipalities on the Western Mesabi Iron Range, northeastern Minnesota: 52 p., 6 figs. Dec. 27, 1963. (Wb; 1002 P. O. Bldg., St. Paul, Minn.; Minnesota Dept. of Iron Range Resources and Rehabilitation, State Office Bldg., St. Paul, Minn.)
  25. Cox, E. R., Effects of three irrigation wells on the flow of Rattlesnake Springs, Eddy County, New Mexico, February 1, 1961 to February 1, 1962: 37 p., 11 figs. April 30, 1963. (Wb; 279 Geology Bldg., Univ. of New Mexico Campus, Albuquerque, N. Mex.)
  26. Crain, L. J., Sources of large ground-water supplies in the vicinity of Jamestown, New York--A preliminary report: 15 p., 5 figs. July 15, 1963. (Wb; 342 Federal Bldg., Albany, N. Y.)
  27. Cronin, J. G., Follett, C. R., Shafer, G. H., and Rettman, P. L., A reconnaissance of the ground-water resources of the Brazos River basin, Texas: 228 p., 35 figs. Dec. 31, 1962. (Wb; 807 Brazos St., Vaughn Bldg., Austin, Tex.)
  28. Dobrovolsky, Ernest, Preliminary geologic map of part of the Rapid City East quadrangle, South Dakota: 1 map, 1 table. April 15, 1963. (Wa; Office of the City Engineer, Rapid City, S. Dak.)
  29. Doty, G. C., Water-supply development at the National Aeronautics and Space Agency - Apollo Propulsion System Development Facility, Dona Ana County, New Mexico: 47 p., 5 figs. Dec. 10, 1963. (Wb; Geology Bldg., Univ. of New Mexico Campus, Albuquerque, N. Mex.)
  30. Eakin, T. E., Schoff, S. L., and Cohen, Philip, Regional hydrology of a part of southern Nevada - A reconnaissance: 40 p., 3 figs. Aug. 26, 1963. (Wa, Wb, Da, Db, M, LA, SF, U; Library, Mackay School of Mines, Univ. of Nevada, Reno, Nev.)
  31. Ericksen, G. E., Geology of the salt deposits and the salt industry of northern Chile: 164 p., 36 figs., and 32 tables. Nov. 15, 1963. (Wa, Da, M.)
  32. Faul, Henry, Report on the operation of Barnaby, Summer, 1948: 32 p., 1 pl., 18 figs. Jan. 4, 1963. (Wa.)
  33. Feltis, R. D., Semiannual report of water levels in selected wells in Utah - April 1963: 2 p., 4 figs. April 30, 1963. (Wb; 125

- Empire Bldg., 231 East 4th South, Salt Lake City, Utah.)
34. Frank, F. J., Olmsted, F. H., Progress report on subsurface geologic investigation in the Yuma area [Ariz.]: 7 p., 3 figs. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
  35. Gair, J. E., Thaden, R. E., and Jones, B. F., Geologic maps of the Marquette and Sands quadrangles, Michigan: 2 maps. Jan. 22, 1963. (Wa, Da, M; 222 Science Hall, Univ. of Wisconsin, Madison, Wis.; Geol. Survey Div., Michigan Dept. of Conservation, Lansing, Mich.)
  36. Gilbert, C. R., Floods on White Rock Creek above White Rock Lake at Dallas, Texas: 21 p., 3 figs. July 15, 1963. (Wb; Vaughn Bldg., 807 Brazos St., Austin, Tex.)
  37. Goldsmith, Richard, Geologic sketch map of eastern Connecticut: 1 map and section. Nov. 15, 1963. (Wa, Da, M; Connecticut Geol. and Natural History Survey, Judd Hall, Wesleyan Univ., Middletown, Conn.; Room 1, 270 Dartmouth St., Boston, Mass.)
  38. Greve, G. M., and Clement, W. G., Principal facts for gravity stations in the San Francisco Bay area, California: 1 p. explanation, 25 p. tables. May 15, 1963. (Wa, Da, LA, M, SF; Div. of Mines and Geology, Dept. of Conservation, Ferry Bldg., San Francisco, Calif.)
  39. Hannum, C. H., Floods of July 29 and 30, 1961, in eastern Kentucky: 41 p., 2 figs. March 13, 1963. (310 Center Bldg., 522 West Jefferson St., Louisville, Ky.)
  40. Hansen, A. J., Jr., Preliminary map of Block Island, Rhode Island, showing availability of ground water: 1 map. July 15, 1963. (Wb; 401-2 Federal Bldg., Providence, R. I.)
  41. Hart, D. L., Jr., Ground water in the alluvial deposits of the Washita River between Clinton and Anadarko, Oklahoma: 49 p., 12 figs. Aug. 26, 1963. (Wb; 4001 Federal Bldg. and U. S. Court House, 200 Northwest 4th St., Oklahoma City, Okla.)
  42. Hasler, J. W., Interim geological investigations in the U12e,07 tunnel, Nevada Test Site, Nye County, Nevada: 22 p., 4 figs., 5 tables. May 31, 1963. (Wa, Da, Db, M, LA, SF, U; Library, Mackay School of Mines, Univ. of Nevada, Reno, Nev.)
  43. Hastings, W. W., New advances in water-resources research: 21 p. Dec. 31, 1962. (Wb, M.)
  44. Hawley, C. C., Geology of the Pikes Peak Granite and associated ore deposits, Lake George beryllium area, Park County, Colorado: 283 p., 17 pl., 28 figs., 14 tables. July 18, 1963. (Wa, Da.)
  45. Henderson, J. R., White, W. S., and Zietz, Isidore, Preliminary interpretation of an aeromagnetic study in north-central Iowa: 27 p., 6 figs. April 3, 1963. (Wa, Da, M; Iowa Geol. Survey, Geol. Survey Bldg., Iowa City, Iowa.)
  46. Henderson, J. R., Zietz, Isidore, and White, W. S., Preliminary interpretation of an aeromagnetic survey in central and southwestern Iowa: 30 p., 6 figs. Dec. 30, 1963. (Wa, Da, M; Iowa Geol. Survey, Geol. Survey Bldg., Iowa City, Iowa.)
  47. Hilton, G. S., Klausing, R. L., and Kunkel, Fred, Geology of the Terra Bella-Lost Hills area, San Joaquin Valley, California: 64 p., 12 figs. April 30, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
  48. Hilton, G. S., McClelland, E. J., Klausing, R. L., and Kunkel, Fred, Hydrology of the Terra Bella-Lost Hills area, San Joaquin Valley, California: 74 p., 21 figs. April 30, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
  49. Hogenson, G. M., Ground water in the East Portland area, Oregon: 194 p., 6 figs. Dec. 31, 1962. (415 Old Post Office Bldg., 511 Northwest Broadway, Portland, Oreg.; Office of the Oregon State Engineer, 516 Public Service Bldg., Salem, Oreg.)
  50. Hopkins, W. B., and Taylor, O. J., Drainage and domestic water-supply investigations in the Milk River Unit, Blaine County, Montana: 112 p., 9 figs. June 5, 1963. (Wb; Bell Bldg., 2 South 7th St., West, Billings, Mont.)
  51. Hughes, G. H., A study of the evaporation from Salton Sea, California: 14 p., 9 figs. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
  52. Hyden, H. J., Geologic map of Cooper Cove and Dutton Creek oil fields and vicinity, Albany and Carbon Counties, Wyoming: 1 map. May 14, 1963. (Wa, Db.)
  53. Jenkins, C. T., Floods on St. Vrain and Lefthand Creeks at Longmont, Colorado: 32 p., 2 pls., 8 figs. Feb. 8, 1963. (Da.)
  54. Joerns, J. O., Investigation of sources of natural pollution, Wichita River basin



- above Lake Kemp, Texas, 1951-57: 16 p., 1 fig. Dec. 31, 1962. (Wa, Da; 807 Brazos St., Vaughn Bldg., Austin, Tex.; 2936 South Pecan St., Fort Worth, Tex.; 201 Federal Land Bldg., 430 Lamar; Houston, Tex.; 1602 West Beauregard St., San Angelo, Tex.; 318-319 Federal Bldg., Wichita Falls, Tex.)
55. Joesting, H. R., and Case, J. E., Principal facts for gravity stations in the La Sal Mountains area, Grand and San Juan Counties, Utah, and Mesa and Montrose Counties, Colorado: 15 p. tables, 2 p. explanation. March 25, 1963. (Wa, Da, Db, M, U; Utah Geol. and Mineralogical Survey, 103 Civil Engineering Bldg., Salt Lake City, Utah; Colorado Metal Mining Fund Board, 204 State Office Bldg., Denver, Colo.)
56. Joesting, H. R., and Case, J. E., Principal facts for gravity stations in the Uravan area, Mesa, Montrose, and San Miguel Counties, Colorado: 19 p. tables. Jan. 22, 1963. (Wa, Da, M, U.)
57. Joesting, H. R., Case, J. E., and Plouff, Donald, Principal facts for gravity stations in the Moab-Needles area, Grand and San Juan Counties, Utah; and for the Lisbon Valley area, San Juan County, Utah, and Montrose and San Miguel Counties, Colorado: 21 p. tables. Feb. 19, 1963. (Wa, Da, M, U; Utah Geol. and Mineralogical Survey, 103 Civil Engineering Bldg., Univ. of Utah, Salt Lake City, Utah; Colorado Metal Mining Fund Board, 204 State Office Bldg., Denver, Colo.)
58. Johnson, A. I., Application of laboratory permeability data to test-hole logs: 1 p., 3 figs. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
59. Johnson, A. I., Compilation of specific yield for various materials: 1 p. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
60. Johnson, A. I., Design of well screen and filter pack: 10 p., 3 figs. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
61. Johnson, A. I., Geophysical logging of boreholes for hydrologic studies: 10 p. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
62. Johnson, A. I., The Hydrologic Laboratory: 15 p., 16 figs. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
63. Johnson, A. I., Modified Parshall flume: 6 p., 3 figs. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
64. Johnson, A. I., Outline of equipment for hydrologic studies: 6 p. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
65. Johnson, A. I., Portable equipment for borehole exploration: 24 p., 13 figs. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
66. Johnson, A. I., Symbols and definitions from soil mechanics and soil physics: 16 p. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
67. Johnson, A. I., Typical coefficients of permeability: 1 p. Oct. 1, 1963. (Wb; U. S. Geol. Survey Hydrol. Lab., Federal Center, Bldg. 25, Denver, Colo.)
68. Johnson, Arthur, Glacier observations, Glacier National Park, Montana, 1962: 30 p., 5 figs, 14 tables. Jan. 10, 1963. (Wa, S, U; 244 Federal Bldg., Tacoma, Wash.; 409 Federal Bldg., Helena, Mont.; National Park Service, 307 Federal Office Bldg., Omaha, Nebr.; Glacier National Park, West Glacier, Mont.)
69. Jones, P. H., Hydrology of waste disposal, National Reactor Testing Station, Idaho, with special reference to the Idaho Chemical Processing Plant area and the Materials Testing Reactor--Engineering Test Reactor area: 84 p., 70 figs. July 15, 1963. (Wb; Bldg. 616, Central Facilities Area, National Reactor Testing Station, Idaho; Room 205, 914 Jefferson St., Boise, Idaho.)
70. Jones, W. R., Preliminary geologic map of Fort Bayard quadrangle, Grant County, New Mexico: 1 map. May 31, 1963. (Wa, Da, M; New Mexico Western College, Silver City, N. Mex.)
71. Kane, M. F., Bromery, R. W., and Frischknecht, Frank, Exploratory geophysical traverses in the Oakfield Hills area, Smyrna Mills quadrangle, Maine: 9 p., 7 figs. April 15, 1963. (Wa, Da, M; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine; Room 1, 270 Dartmouth St., Boston, Mass.)
72. Kimrey, J. O., Description of a phosphorite unit in Beaufort County, North Carolina: 251 p., 19 figs. Nov. 5, 1963. (4th Floor, Federal Bldg., Raleigh, N. C.)

73. Kunkel, Fred, A brief summary of ground water in the Furnace Creek Wash area, Death Valley National Monument, California: 7 p., 3 figs. Nov. 27, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
74. Kunkel, Fred, Electric logs--A training aid: 6 p., 2 figs. June 5, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
75. Larrabee, D. M., Bedrock reconnaissance map of the Forest quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
76. Larrabee, D. M., Bedrock reconnaissance map of the Mattawamkeag quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
77. Larrabee, D. M., Bedrock reconnaissance map of the Nicatous Lake quadrangle, Maine: 2 maps. Nov. 15, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
78. Larrabee, D. M., Bedrock reconnaissance map of the northern one-third of Wesley quadrangle, Maine: 1 map. Nov. 15, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
79. Larrabee, D. M., Bedrock reconnaissance map of the Scraggly Lake quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
80. Larrabee, D. M., Bedrock reconnaissance map of the Springfield quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
81. Larrabee, D. M., Bedrock reconnaissance map of the Waite quadrangle, Maine: 1 map, 1 page. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
82. Larrabee, D. M., Bedrock reconnaissance map of the Winn quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
83. Larrabee, D. M., Bedrock reconnaissance map of the Wytopitlock quadrangle, Maine: 1 map. July 31, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Econ. Devel., Div. of Geology, State House, Augusta, Maine.)
84. Loeltz, O. J., Quantitative ground-water investigations in the Lower Colorado River area: 7 p. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
85. Lofgren, B. E., Land subsidence in the Arvin-Maricopa area, California, 1959-62: 1 map. July 15, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
86. Love, J. D., Large uraniferous springs and associated uranium minerals, Shirley Mountains, Carbon County, Wyoming--A preliminary report: 23 p., 11 figs., 1 table. July 18, 1963. (Wa, Da, M, U; Office of the State Geologist, Univ. of Wyoming, Laramie, Wyo.; 218 E. 8th Ave., Cheyenne, Wyo.)
87. Maevsky, Anthony, and Drake, J. A., Records and logs of selected wells and test holes and chemical analyses of water in southeastern Massachusetts: 50 p., 2 figs. June 5, 1963. (Room 206, 211 Congress St., Boston, Mass.)
88. Mapel, W. J., and Pillmore, C. L., Stratigraphic sections and correlation of beds in the Inyan Kara Group and Morrison Formation, north end of the Black Hills, Crook County, Wyoming, and Butte County, South Dakota: 95 p., 3 figs., 1 table. April 24, 1963. (Wa, Da, Db; 611 South Summit St., Newcastle, Wyo.; Office of the State Geologist, Univ. of Wyoming, Laramie, Wyo.; Office of the State Geologist, State Univ., Vermillion, S. Dak.; Tech. Library, Information Div., U. S. Atomic Energy Commission, Grand Junction, Colo.)
89. McClelland, E. J., Aquifer-test compilation for the central coastal region, California: 53 p., 2 figs. April 30, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 121 West de La Guerra St., Santa Barbara, Calif.)
90. McClelland, E. J., Aquifer-test compilation for the Mojave Desert region, California: 26 p., 3 figs. Feb. 8, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 221 Redondo Ave., Long Beach, Calif.)

91. McClelland, E. J., Aquifer-test compilation for northern California: 20 p., 4 figs. March 13, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 221 Redondo Ave., Long Beach, Calif.)
92. McClelland, E. J., Aquifer-test compilation for the Upper Santa Ana Valley area, San Bernardino County, California: 28 p., 2 figs. March 13, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 221 Redondo Ave., Long Beach, Calif.)
93. McClelland, E. J., Methods of estimating ground-water pumpage in California: 19 p. July 15, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
94. McClelland, E. J., and Hilton, G. S., Quality of water in the Terra Bella-Lost Hills area, San Joaquin Valley, California: 48 p., 9 figs. April 30, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
95. McDonald, C. C., Progress on water resource investigations in the Lower Colorado River area: 4 p. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
96. McDonald, C. C., and Hughes, G. H., Operation of evapotranspiration tanks near Yuma, Arizona: 14 p., 1 fig. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
97. Meisler, Harold, Geology and hydrology of the carbonate rocks of the Lebanon Valley, Pennsylvania: 122 p., 24 figs. Dec. 31, 1962. (Wb; 100 North Cameron St., Harrisburg, Pa.; Pennsylvania Geol. Survey, 603 South Office Bldg., Harrisburg, Pa.)
98. Mesnier, G. N., and Becker, Edith, Exhibits available for field use: 28 p. Dec. 31, 1962. (Wb.)
99. Metzger, D. G., Progress report on geohydrologic investigations in the Parker-Blythe-Cibola area [Ariz.]: 9 p., 2 figs. March 13, 1963. (Wb; 16 West 2nd St., Yuma, Ariz.)
100. Moore, H. J., MacCormack, R. W., and Gault, D. E., Fluid impact craters and hypervelocity--high velocity impact experiments in metals and rocks: 29 p., 5 figs., 1 table. July 18, 1963. (Wa, Da, M.)
101. Moore, J. E., Doyle, A. C., Walker, G. E., and Young, R. A., Ground water test well 2, Nevada Test Site, Nye County, Nevada: 73 p., 5 figs. Aug. 26, 1963. (Wa, Wb, Da, Db, M, LA, SF, U; Library, Mackay School of Mines, Univ. of Nevada, Reno, Nev.)
102. Motts, W. S., and Cushman, R. L., An appraisal of the possibilities of artificial recharge to ground-water supplies in part of the Roswell basin, New Mexico: 222 p., 15 figs. Dec. 31, 1962. (Wb; 279 Geology Bldg., Univ. of New Mexico, Albuquerque, N. Mex.; 114 Downey Bldg., 201 Halagueno St., Carlsbad, N. Mex.; Office of the State Engineer, Santa Fe, N. Mex.; Office of the State Engineer, Roswell, N. Mex.)
103. Muir, K. S., Water levels in observation wells in Santa Barbara County, California, in 1962: 55 p., 10 figs. July 15, 1963. (Wb; 8024 Federal Bldg., 650 Capitol Ave., Sacramento, Calif.; 121 West de La Guerra St., Santa Barbara, Calif.)
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106. Page, L. V., and Seaber, P. R., Water-resources investigations and reports in the Susquehanna River basin: 1 map. Aug. 26, 1963. (Wb; 1224 Mulberry St., Harrisburg, Pa.)
107. Philbin, P. W., Meuschke, J. L., and McCaslin, W. E., Aeromagnetic map of the Roberts Mountains area, central Nevada: 1 map, in 2 parts. March 7, 1963. (Wa, Da, M, LA, U, SF; Nevada Bureau of Mines, Univ. of Nevada, Reno, Nev.)
108. Philbin, P. W., and Vargo, J. L., Aeromagnetic map of central Gogebic County, Michigan, and vicinity: 1 map. Aug. 22, 1963. (Wa, Da, M; Geol. Survey Div., Dept. of Conservation, Lansing, Mich.; Geology Dept., Michigan College of Mining and Technology, Houghton, Mich.; Geol. and Natural History Survey, 170 Science Hall, Univ. of Wisconsin, Madison, Wis.)
109. Pistrang, M. A., and Kunkel, Fred, A brief geologic and hydrologic reconnaissance of the Furnace Creek Wash area, Death Valley National Monument, California: 77 p., 5 figs. Dec. 31, 1962. (Wb; 8024 Federal Bldg.

- and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.)
110. Prinz, W. C., Geologic maps and sections of part of the Philipsburg district, Granite County, Montana: 7 sheets. March 7, 1963. (Wa, Da, M, S; Montana Bureau of Mines and Geology, Montana School of Mines, Butte, Mont.)
  111. Quinn, A. W., Geology of the Narragansett Bay area, Rhode Island: 1 map. Sept. 26, 1963. (Wa, Da, M; Room 1, 270 Dartmouth St., Boston, Mass.; Dept. of Geology, Brown Univ., Providence, R. I.)
  112. Radbruch, D. H., and Weiler, L. M., Preliminary report on landslides in a part of the Orinda Formation, Contra Costa County, California: 35 p., 1 pl., 7 figs., 2 tables. June 19, 1963. (Wa, Da, M, La, SF.)
  113. Rawson, Jack, Quality of water from test wells in the Castolon area, Big Bend National Park, Brewster County, Texas: 11 p., 1 fig. Nov. 5, 1963. (Wb; U. S. Geol. Survey, Vaughn Bldg., 807 Brazos St., Austin, Tex.)
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  123. United States Geological Survey, Astrogeologic studies, Annual Progress Report, Aug. 25, 1961-Aug. 24, 1962: 447 p. (5 vols.) 3 pl., 87 figs., 30 tables. May 15, 1963. (Wa, Da, Db, M, A, LA, S, SF, T, U.)
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133. Watkins, J. S., Refraction seismic studies in the Miami River, Whitewater River, and Mill Creek valleys, Hamilton and Butler Counties, Ohio: 3 p., 3 figs, 15-p. tables. April 17, 1963. (Wb, Da, M; Ohio Dept. of Natural Resources, Div. of Water, 1562 West First Ave., Columbus, Ohio; The Miami Conservancy District, 38 East Monument St., Dayton, Ohio; Cincinnati Water Works, 4747 Spring Grove Ave., Cincinnati, Ohio; 554 P. O. Bldg., 85 Marconi Blvd., Columbus, Ohio.)
  134. Weeks, E. P., Hanson, G. F., and Holt, C. L. R., Jr., Movie on Little Plover River project--A study in sand-plains hydrology: 16 mm., 35 minutes, color, sound. Nov. 5, 1963. (175 Science Hall, Univ. of Wisconsin; 5232 General Services Bldg., Washington, D. C.)
  135. Weigle, J. J., Ground-water favorability map of the Nashua-Merrimack area, New Hampshire: 1 map. July 15, 1963. (Wb; Administration Bldg., Concord Airport, Concord, N. H.)
  136. Weir, J. E., Jr., Ground-water inventory for 1962, Edwards Air Force Base, California: 42 p., 7 figs. Oct. 1, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 221 Redondo Ave., Long Beach, Calif.)
  137. Weir, J. E., Jr., and Bader, J. S., Ground-water and related geology of Joshua Tree National Monument, California: 101 p., 4 figs. July 15, 1963. (Wb; 8024 Federal Bldg. and U. S. Court House, 650 Capitol Ave., Sacramento, Calif.; 221 Redondo Ave., Long Beach, Calif.)
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  141. Winograd, I. J., A summary of the ground-water hydrology of the area between the Las Vegas Valley and the Amargosa Desert, Nevada: 76 p., 2 figs. Oct. 1, 1963. (Wa, Wb, Da, Db, M, LA, SF, U; Library, Mackay School of Mines, Univ. of Nevada, Reno, Nev.)
  142. Worts, G. F., Jr., Effect of ground-water development on the pool level in Devil's Hole, Death Valley National Monument, Nye County, Nevada: 27 p., 4 pls. Dec. 10, 1963. (Wb; 222 E. Washington St., Carson City, Nev.)
  143. Young, L. L., Colbert, J. L., Neal, D. W., and Flaherty, G. M., Gross theoretical waterpower, developed and undeveloped, Snake River basin, Wyoming, Idaho, Nevada, Oregon and Washington: 2 p. text, 40 p. tables. Sept. 25, 1963. (Wa, Db, LA, S, U; 8024 Federal Bldg. and U. S. Court House, Sacramento, Calif.; 244 Federal Bldg., Tacoma, Wash.; Dept. of Interior Library, Federal Bldg., Portland, Oreg.; 319 Old Post Office Bldg., Portland, Oreg.)
  144. Young, L. L., Colbert, J. L., Neal, D. W., and Flaherty, G. M., Gross theoretical waterpower, developed and undeveloped, State of Oregon: Part I, Basin summaries; Part II, Lists of powersites: 4 p. text, 58 p. tables. Sept. 25, 1963. (Wa, Db, LA, S, SF, U; 8024 Federal Bldg. and U. S. Court House, Sacramento, Calif.; 244 Federal Bldg., Tacoma, Wash.; Dept. of Interior Library, Federal Bldg., Portland, Oreg.; 319 Old Post Office Bldg., Portland, Oreg.)
  145. Yuval, Zvi, Gravity observations and Bouguer anomalies in the Albemarle, Denton, Mt. Pleasant, and Salisbury quadrangles, North Carolina: 21 p., 1 table. Sept. 26, 1963. (Wa, Da, M; Office of the State Geologist, State Office Bldg., Raleigh, N. C.)



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