Bibliography of North American Geology 1952 and 1953

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BIBLIOGRAPHY OF NORTH AMERICAN GEOLOGY
1952 and 1953

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INTRODUCTION

The current biennial volume of the bibliographic series lists publications that have appeared during 1952 and 1953 in the literature concerning the geology of the North American continent, including Greenland, West Indies, and other adjacent islands, and Hawaii, Guam, and other island possessions, but not the trust territories of the United States. In addition, a few articles published before 1952 but not included in previous volumes are cited. Articles by American authors published in foreign journals are cited if they deal with North American localities or are of a general character, but not if they deal with foreign areas. Articles by foreign authors on North America are included regardless of place of publication; those of a general character are included if they appeared in North American journals.

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

Assistance of Elisabeth S. Loud, Georgianna D. Conant, Howard R. Cramer, Barbara L. Stringfield, Jean G. Selby, Nina R. de Osejo, and Yetta C. Millman in preparation of the volume is gratefully acknowledged.

SERIALS

The following list gives both the abbreviated citation and the full name of periodicals and serials that have been most commonly cited in this bibliography. A few of the less common ones, whose place of publication appears in the citation within the bibliography proper, have not been included here. Publications that include many articles, such as guidebooks, conferences, congresses, symposia, etc., may be entered under either the editor or the society that sponsored them, with full information given there. Papers contained in them may also be cited individually in the abbreviated form, which refers the reader to the editor or author, where full information is given. Such material will not be found in this list.

Am. Scientist—American Scientist. New Haven, Conn.
Arctic. Montreal.
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Assoc. Pacific Coast Geographers Yearbook—Association of Pacific Coast Geographers Yearbook, Cheney, Wash.
Calif. Oil Fields—California Oil Fields, San Francisco.
Canada Dominion Observatory Pubs.—Canada Dominion Observatory Publications, Ottawa.
Canadian Geographer—The Canadian Geographer, Manotick, Ontario.
Canadian Inst. Mining and Metallurgy Trans.—Canadian Institute of Mining and Metallurgy Transactions, Montreal.
Canadian Min. Jour.—Canadian Mining Journal, Gardenvale, Quebec.
Canadian Pacific Synopsis. Montreal, Winnipeg and Calgary, Canada.
Ciencia. Mexico, D. F.
Colo. School Mines Quart.—Colorado School of Mines Quarterly, Golden, Colo.
Compass—The Compass, Provo, Utah.
Condor—The Condor, Berkeley, Calif.
Cushman Found. Foram. Research Contr.—Cushman Foundation for Foraminiferal Research Contributions, Washington, D. C.
Dansk Geol. Foren. Meddel.—Dansk Geologisk Forening Meddelelser, Copenhagen.
Earthquake Notes—Washington, D. C.
Earth Sci. Digest—Earth Science Digest, Chicago.
Life. Chicago.
Los Angeles County Mus. Quart.; Sci. Ser., Paleontology—Los Angeles County Museum Quarterly; Science Series, Paleontology. Los Angeles.
Mineralogist—The Mineralogist. Portland, Oreg.
Min. Eng.—Mining Engineering. New York.
Naturaliste Canadien—Le Naturaliste Canadien. Quebec, Quebec.


Ohio Jour. Sci.—Ohio Journal of Science. Columbus, Ohio.

Oil and Gas Jour.—Oil and Gas Journal. Tulsa, Okla.

Oil in Canada. Winnipeg, Manitoba.


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Petróleos Mexicanos Servicio Inf.—Petróleos Mexicanos Servicio de Información. México, D. F.

Petroleum Engineer. Dallas, Texas.

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Quebec Dept. Mines Geol. Rept.; Prelim. Rept.—Quebec Department of Mines Geological Reports; Preliminary Reports. Quebec, Quebec.

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- Georgia, Dahlonega Special quadrangle, iron: Brown, W. Robert.
- Gold: Park, C. F., Jr.
- Kaolin: Kesler, T. L.
- Northwestern, bauxite: White, W. S., 1.
- Thomaston-Barnesville district and outlying areas, mica: Heinrich, E. W., 1.
- Greenland: Baggild, O. B.
- Idaho, Blackbird cobalt-copper deposits: Vhay, J. S.
- Canyon-Nine Mile Creeks area, metallic minerals: Griggs, A. B.
- East-central, uranium and thorium: Trites, A. F., Jr.
Mineral deposits—Continued

Idaho—Continued

Fall Creek area, uranium-ore: Vine, J. D., 3.

Hermada deposit, antimony: Popoff, C. C., 1.

Industrial minerals: Kaufman, A. J., Jr.

Iron Mtn. district, iron: Mackin, J. H., 1.


Pend d'Oreille - Salmo area: Thompson, W. H.

Sunshine mine, uranium: Kerr, P. F., 2.

Valley County, radioactive minerals, places: Mackin, J. H., 4.

Washington County, gypsum: McDivitt, J. F.


Knox-Yingling mines, fluorite: Burmeister, H. L.

Southern, siliceous minerals: Lamar, J. E., 2.

Indiana, Jasonville quadrangle: Wier, J. M., 1.


Volcanic ash: Carey, J. S.

Kentucky, Salem area, zinc, relation to fluor spar: Osterling, W. A.

Labrador: Snelgrove, A. K.

Coastal areas: Douglas, G. V., 1.


Seal Lake area, copper: Evans, E. L.

Labrador-Quebec, Labrador trough, iron: Harrison, J. M., 1; Moss, A. E.

Ungava Peninsula: Buisson, A.

Maine, Aroostook County, manganese: Eilertsen, N. A.

Blue Hill area, manganese: Forsyth, W. T.

Bumpus quarry, pegmatite: Neumann, G. L., 1.

Manitoba, Batthy Lake area: Robertson, D. S.

Lasthope Lake area, gold: Fawley, A. P.


Oiseau (Bird) River area, chromite: Davies, J. F., 1.

Partridge Crop Lake area, copper-nickel, possibilities: Dawson, A. S., 1.

Rice Lake area, gold: Davies, J. F., 2.

Massachusetts, Betts mines area: Franks, P. C., 2.

Mexico, Avalos-Providencia district, silver-lead-zine: Triplet, W. H.

Canos district, mercury: Gallagher, D.

Mineral deposits—Continued

Mexico—Continued

Coahuila, fluorite: Schulze, G., 4.

Cobalt: Vhay, J. S., 1.

Concepción del Oro district, Zacatecas, phosphates: Rogers, C. L.

El Nacimiento deposit, Sonora, tungsten: Rocha, V. S., 2.

Filadelfia deposit, Sonora, copper: Rocha, V. S., 1.

Guadalupe silver mine, Durango, structure: Henshaw, P. C.

Guanajuato area, alunite: Larios Torres, H.


Guerrero and Oaxaca, titanium: Sánchez Mejorada, P.

Hidalgo deposit, Chihuahua, molybdenite: Schulze, G., 6.


Manganese: Park, R. D., 2.


Mercedes mine, Nuevo León, phosphate: Cady, J. G.

Morelos area, Chihuahua, tungsten: Schulze, G., 5.

Nonmetallic minerals: Flores Reyes, T., 1.

Nuevo León, phosphorite deposits: Pérez Martínez, J. J., 1.

Pachuca district, silver: Thornburg, C. L.

Phosphate: Flores Reyes, T., 2.


Reyes area, Durango, copper: Schulze, G., 3.

San Antonio mine, tin, vanadium, lead-zinc: Signer, C. M.

San José mine, San Luis Potosí, antimony: Archibald, J. C., Jr.

San Rafael mine, San Luis Potosí, sulfur: González Reyna, J. J.

Mexico and Central America, symposium: Conv. Interam. Recursos Min.


Crystal Falls area, iron: Pettijohn, F. J., 1.

Iron River - Crystal Falls district, iron: Bacon, L. O.

Minnesota, Aitkin County, iron and manganese: Grosh, W. A.

Aitkin-Carlyon Counties, iron sulfides: Pennington, J. W.


Lake County, copper-nickel: Schwartz, G. M., 4.

Mississippi, Lafayette County, iron ore: Attaway, J. S.

Northeastern, high-alumina clays and bauxite: Reed, D. F.
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Missouri, Hayden Creek mine, lead ore in conglomerate: Ohle, E. L., Jr., 1.
Iron Mtn. alteration sequence: Allen, V. T., 2.
Southeastern, environments of precipitation, lead: James, J. A.
Clancy area, uranium: Roberts, W. A., 1.
Comet area, uranium: Beecraft, G. E., 1.
Southeastern, environments of precipitation, lead: James, J. A.
Clancy area, uranium: Roberts, W. A., 1.
Comet area, uranium: Beecraft, G. E., 1.
Corundum: Clabaugh, S. E., 1.
Crystal Mtn., fluorite: Taber, J. W.
Dunkleberg district, lead-zinc: Popoff, C. C., 2.
Elliston mining district, lead, zinc, silver, gold: Robertson, F. S., 7.
Granite County, tungsten-silver: Volin, M. E.
Industrial minerals: Kauffman, A. J., Jr.
Little Rocky Mts., Ruby Gulch, gold: Dyson, J. L., 5.
Phosphoria formation, phosphates: Swanson, R. W., 4.
Southwestern, uranium and thorium: Trites, A. F., Jr.
Yellowtail district, bentonite: Knechtel, M. M., 1.
Zosell (Emery) mining district, gold, sulfides: Robertson, F. S., 3.
Nevada, Coaldale area, uranium-bearing rhyolitic tuff: Duncan, D. C., 2.
Coaldale quadrangle: Ferguson, H. G., 3.
East Walker River area, uranium: Staatz, M. H., 1.
MacArthur deposit, Lyon County, copper: Matson, E. J.
Pilot Mts. district, mercury: Phoenix, D. A.
Reese River district: Ross, C. P., 2.
New Brunswick, northern, base metals: MacKenzie, G. S.
New Jersey, Andover mining district, iron: Sims, P. K., 1.
Dover district, magnetite: Sims, P. K., 2.
Franklin-Sterling mine, zinc: Baum, J. L.
Ringwood area, magnetite: Hotz, P. E., 3.
New Mexico, Black Hawk district, uranium: Gillerman, E., 4.
Burro Mts. area, fluor spar: Gillerman, E., 1.
Capitan Iron deposit: Kelley, V. C., 3.
Central mining district, Hanover mine, zinc: Horton, J. S.
Clay: Weber, R. H.
Grants district, uranium: Towle, C. C.
Gypsum: Jicha, H. L., Jr., 1.
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Hansonsburg district, barite-fluorite-galena: Kottlowski, F. E., 1.
Merry Widow claim, White Signal district, uranium: Granger, H. C.
Molybdenum: Kelley, V. C., 5.
Quinsta molybdenum mine, molybdenite: Schilling, J. H.
Santa Rita area: Bullmer, G. J.
Santa Rita quadrangle: Hemon, R. M.
Silver City region: Hemon, R. M.
White Signal district, uranium: Gillerman, E., 3.
Brandy Brook -Silver Pond belts, magnetite: Leonard, B. F., 3d, 1.
Clinton County, magnetite: Postel, A. W.
Guymard mine, lead-zinc: Neumann, G. L., 2.
St. Lawrence County, lead-zinc: Neumann, G. L., 3.
Sterling Lake area, magnetite: Hotz, P. E., 3.
Newfoundland: Snelgrove, A. K.
Fortune Bay, Long Harbour, fluorite: Smith, B. L.
Torbay area: Rose, E. R.
Nicaragua, La Luz mine, mineralization: Nelson, G. A.
North America, cobalt: Vhay, J. S., 1.
Manganese: Park, R. D., 2.
Tin: Ridge, J. D., 2.
Uranium: Dake, H. C., 2.
North Carolina, Blue Ridge - Piedmont, copper-zinc: Kendall, H. F.
Cashiers and Zirconia districts, pegmatites: Olson, J. C., 1.
Eastern Piedmont, high-alumina minerals: Broadhurst, S. D., 2.
Pegmatite district: Steel, W. G.
Ridgeway - Sandy Ridge district, mica: Griffitts, W. R., 2.
Shelby-Hickory district and outlying areas, mica: Griffitts, W. R., 2.
North Dakota, sodium sulfate: Binzen, E. O.
Northwest Territories, Coppermine River area, copper: Jenney, C. P.
Giant Yellowknife mine: Brown, C. E. G.
Gold: Bateman, J. D.
Giauque Lake area, gold: Tremblay, L. P.
Keevatin District: Lord, C. S., 1.
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Rankin Inlet, nickel-copper: Cole, G. E.

Yellowknife Bay area, gold-antimony ores: Coleman, L. C.

Nova Scotia, gypsum and anhydrite: Goodman, N. R.

Mindamar mine: Richardson, P. W.

Wolville area, barite: Crosby, D. G., Jr., 2.

Oklahoma, Lake Lawtonka area, ilmenite: Chase, G. W., 2.

Ontario, Algoma district, pyritic ore bodies: Douglas, G. V., 2.

Chibougamau area, copper-gold-zinc: Alward, G.

Copper, nickel, lead, zinc: Thomson, J. E., 1.

Craigmout comendum mine: Carlson, H. D., 1.

Errington Township: Fye, E. G.

Falconbridge ore deposit: Lockhead, D. R.


Guibord Township, gold: Prest, V. K., 3.

Harker Township: Satterly, J., 1.

Kirkland Lake area, uranium: Savage, W.


Long-Spragge Townships, uranium: Abraham, E. M.

Munro Township: Satterly, J., 2.

Munro-Beatty Townships, asbestos: Jones, W. A.

Porcupine area, gold: Jones, W. A.

Renfrew area: Quinn, H. A.

Richardson radioactive deposit, Wilberforce area: Rowe, R. B., 2.


Sudbury area: Sudbury Geologists' Comm.

Sudbury basin, nickel: LeBourdais, D. M.; Mutz, H. J.

Wilberforce, Baneroff, and Craigmout-Lake Clear areas: Meen, V. B., 3.

Oregon, industrial minerals: Kauffman, A. J., Jr.

Jackson County, copper-nickel: Hundhausen, R. J.

Scappoose area, limonite: Hotz, P. E., 2.

Southeastern, mercury: Williams, H., 6.

Pegmatitic, evaluation: Rowe, R. B., 4.

Pennsylvania, Boyertown, magnetite: Hawkes, H. E., Jr., 2.

Friedensville mine, zinc: Hoy, R. B.

South Mtn., iron-manganese: Foote, R. M., 2.

Phosphate, symposium: Saint Guilhem, P. L. R.


Puerto Rico, Comerio-Aguas Buenas area, alunite-pyrophyllite: Smith, R. J.

Iron: Killeen, P. L.

Quebec, Abitibi-East, Abitibi-West, and Rouyn-Noranda Counties: Graham, R. B., 1.

Belleterre area, gold: Auger, P. E., 1.

Brongniart-LeSureau area: Lyall, H. B.

Chibougamau region: Graham, R. B., 2.

Decoer-Garon properties, copper-zinc sulfides: Hogg, G. M.

Eastern townships, base metals: Hall, F. E.

McKenzie Township: Smith, J. R.

Northwestern: Gilbert, J. E. J., 2.

Pontgravé-Bergeronnes area, mica: Greig, E. W.

Freissac-Lacorne region, beryl-spodumene pegmatites: Rowe, R. B., 3.

St. Magloire area, gold, nickel-copper-zinc: Bélard, J.

St. Urbain area, ilmenite: Karpoff, D.

Ungava Bay, iron formations: Auger, P. É., 3.

Wacouno River area, metallic minerals: Blair, R. A., 1.


Saskatchewan, Black Bay area, pitchblende: Hale, W. E.

Northwest: Hall, F. E.

Mckenzie Township: Smith, R. A.

Goldfields area, uranium: Macdonald, J. Ranald.


Lake Athabasca, uranium: Robinson, S. C., 1.

South Carolina, Chesterfield County, topaz: Peyton, A. L.

Hartwell district and outlying areas, mica: Griffiths, W. R., 4.


Bald Mtn. mining district, gold: Hummel, C. L.


Pegmatitic: Page, L. R., 2; Runke, S. M.

Craven Canyon area, carnitite: Page, L. R., 1.

Edgemont area, uranium-vanadium: Bales, W. E.

Lawrence County, autunite: Vickers, R. C.

Tennessee, Blue Ridge-Piedmont, copper-zinc: Kendall, H. F.

Texas, Hazel mine, copper-silver: Flawn, P. T., 2.

Trans-Pecos, Eagle Mts., fluor spar: Gil lerman, E., 2.

Van Horn area, copper, silver: King, P. B., 3.

Titanium: Barksdale, J.
Mineral deposits—Continued
United States, bauxite and high alumina clays: Allen, V. T., 1.
Bentonite: Reynolds, D. H.
Cobalt: Vhay, J. S., 1.
Columbia basin, alumina: Sohn, I. G., 1.
Iron, types: Dutton, C. E.
Lithium-bearing: Chapman, E. P., Jr.
Manganese: Park, R. D., 1.
Megashear zone, Virginia to California: Keith, B. A., 2.
Molybdenum: Kelley, V. C., 5.
Pitchblende: King, R. U., 1.
Secondary uranium: Stugard, F., Jr., 1.
Southeastern, kyanite quartzite: Espenshade, G. H., 3.
Monazite: Mertie, J. B., Jr., 1.
Relation to metamorphic rocks: Stuckey, J. L., 4.
Southeastern Piedmont, mica: Jahns, R. H., 1.
Uraniferous fluorite: Wilmarth, V. R., 1.
Uranium: Kaiser, E. P., 1; McKelvey, V. E., 6; Merritt, P. L.
Sandstones: Wyant, D. G.
Shales, lignites, limestones: Gott, G. B., 2.
Vermiculite: North, W. S.
Western, aggregates: Holland, W. Y.

Mineral deposits, origin.
Alabama, Birmingham area, iron: Thoenen, J. R.
Jumbo Basin, magnetite: Kennedy, G. C.
Sheep Mtn., gyspsum: Eckhart, R. A.
Southeastern, Chichagof Island, gyspsum: Flint, G. M., Jr.
Appalachians, hoegbomite in emery deposits: Friedman, G. M., 2.
Arizona, Cochise County, Johnson camp, copper-zinc: Baker, A., 3d.
Copper Giant claims, copper: Romalo, T. M.
Iron King mine, metallic minerals: Creasey, S. C., 1.
Ray area, copper: Clarke, O. M., Jr., 1.
San Manuel copper deposit: Schwartz, G. M., 5.
Mineral deposits, origin—Contd.

Arizona—Contd.

White Picacho district, pegmatites: Jahns, R. H., 2.

Arizona—Nevada, Lake Mead region, manganese: McKelvey, V. E., 1.

Arkansas, bauxite: Gordon, M., Jr., 1.

Western, quartz crystals: Engel, A. E. J., 1.

Bauxite, North America: Fischer, E. C.

Variations in origin, examples: Harder, E. C.

Bentonite, origin, early ideas: Knechtel, M. M., 2.

British Columbia, Omineca batholith, copper: Noel, G. A.

Salmo area, lead-zinc: Whishaw, Q. G.

Sheep Creek mining camp, gold: Mathews, W. S., 2.

South Tetsa River area, copper: Menzies, M. M.

Southern, Tertiary orogeny: White, W. Harrison.

Spillamacheen River headwaters, replacement sequence: Simpson, D. H.

Carnotite and blue-black ores: Garrels, R. M., 4.


Cosmic collision, thermal effects: Kelly, A. O., 2.


Dominican Republic, Duarte Province, iron: Zoppia, R.

Florida, land-pebble phosphate: Cathcart, J. B., Jr.

Fluid inclusion, significance: Roedder, E. W., 2.

Georgia, kaolin: Kesler, T. L.

Northwestern, bauxite: White, W. S., 1.

Gulf Coastal Plain, sulfur, isotopic abundance: Feely, H. W.

Idaho, Coeur d'Alene silver belt, ore-indicator minerals: Mitcham, T. W.

Fall Creek area, uraniferous coal: Vine, J. D., 3.


Carnotite and blue-black ores: Garrels, R. M., 4.

Uraninite: Miller, L. J., 2; Stieff, L. R., 4.

Uranium: Rason, C. A., 2; Weeks, A. D., 2.

Carnotite and blue-black ores: Garrels, R. M., 4.

Sandstone: Wright, R. J., 2.

Uranium—vanadium: Waters, A. C.

Mineral deposits, origin—Contd.

Colorado Plateau—Contd.

Salt Wash sandstone, uranium: Stokes, W. L., 10.

Uraninite: Miller, L. J., 2; Stieff, L. R., 4.

Uranium: Rason, C. A., 2; Weeks, A. D., 2.

Carnotite and blue-black ores: Garrels, R. M., 4.

Sandstone: Wright, R. J., 2.

Uranium—vanadium: Waters, A. C.
Mineral deposits, origin—Continued

Maine, Aroostook County manganese: Pavilides, L.
Rice Lake area, gold: Davies, J. F., 2.
Massachusetts, Betts mines area: Franks, P. C., 2.
Metallic minerals in limestone, synthetic replacement: Garrels, R. M., 2.
Mexico, Avalos-Providence district, silver-lead-zinc: Triplett, W. H.
Guanajuato area, alunite: Larios Torres, H.
Goldsilver: Milton, C., 2.
San Rafael mine, San Luis Potosi, fluorite: Gonzalez Reyna, J.
Michigan, copper: Broderick, T. M.
Soft iron ore, relation to oxidation: Mann, V. I.
Mineralized veins, relation to sills in volcanic formations: Schulze, G., 1.
Missouri, Hayden Creek mine, lead ore in conglomerate: Ohle, E. L., Jr., 1.
Southeastern, lead, structural environments: James, J. A.
Sterling Lake area, magnetite: Hotz, P. E., 3.

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Montana—Continued

Zoell (Emery) mining district, gold, sulfides: Robertson, F. S., 3.
Montana-North Dakota, sodium sulfate: Witkind, I. J.
Nevada, Currant Creek, magnesite district: Faust, G. T., 1.
Reece River district: Ross, C. P., 2.
New Jersey, Andover mining district, iron: Sims, P. K., 1.
Dover district, magnetite: Sims, P. K., 2.
Franklin area, geochemical control: Ridge, J. D., 1.
Ringwood area, magnetite: Hotz, P. E., 3.
New Mexico, Burro Mts. area, fluor spar: Gillerman, E., 1.
Cabalo Mts.: Kelley, V. C., 1.
Central mining district, Hanover mine, zinc: Horton, J. S.
Vanadium area zinc mines, rhodonite: Allen, V. T., 5.
Victorio Mts., beryllium minerals: Holser, W. T., 1.
White Signal district, Merry Widow claim, uranium: Granger, H. C.
Mineral deposits, origin—Continued
Northwest Territories—Continued
Giant Yellowknife mine, aurostibite: Graham, A. R., 1.
Gold: Bateman, J. D.
Giauque Lake area, gold: Tremblay, L. P., 2.
Yellowknife area, gold: Boyle, R. W., 2; Sproule, W. R.
Gold-antimony ores: Coleman, L. C.
Yellowknife-Beaulieu region, pegmatites: Rowe, R. B., 1.

Nova Scotia, gypsum and anhydrite: Goodman, N. R.
Mindamar mine, zinc-lead-copper: Watson, K. D., 2.

Ontario, Algoma district, pyritic ore bodies: Douglas, G. V., 2.
Chesterville mine, aurostibite: Graham, A. R., 1.
Chibougamau area, copper-gold-zinc: Allard, G.
Cobalt area, cobalt-arsenic: Sampson, E.
Spectrographic evidence: Hriskevich, M. E.
Craigmont corundum mine: Carlson, H. D., 1.
Errington township: Pye, E. G.
Munro township: Satterly, J., 2.
Saguenay county, titano-magnetite, spinel-group phases, intergrowth: Girault, J. P., 2.

Oregon, Scappoose area, limonite: Hotz, P. E., 2.
Pennsylvania, Mercer fire clay: Bolger, R. C., 2.
South Dakota, Black Hills, pegmatitic: Page, L. R., 2.
South Dakota, Black Hills, perthite pegmatites, metasomatism: Higasy, R. A.
Lawrence County, autunite: Vickers, R. C.
Sulfur, native: Macnamara, J.
Temperature-pressure data, possible uses: Smith, F. C., 2.
Texas, Hazel mine, copper-silver: Flawn, P. T., 2.
Presidio County, native lead: Lonsdale, J. T., 2.
Trans-Pecos, Eagle Mts., fluor spar: Gillemann, E., 2.
Van Horn area, copper, silver: King, P. B., 3.
United States, bauxite and high alumina clays: Allen, V. T., 1.
Eastern, magnetite: Friedman, G. M., 4.
Iron, types: Dutton, C. E.
Southeastern Piedmont, pegmatitic: Jahns, R. H., 3.

Quebec—Continued
Northwestern: Gilbert, J. E. J., 2.
Preissac-Lacorne region, beryl-spodumene pegmatites: Rowe, R. B., 3.
Saguenay county, titanio-magnetite, spinel-group phases, intergrowth: Girault, J. P., 2.
Ungava Bay, iron formations: Auger, P. E., 3.
West Portland township, apatite and mica: Robinson, E. G.
Relation to dolomite: Hiddle, D. W.
Relation to granitization: Goodspeed, G. E., 1.
Saskatchewan, Birch Lake deposit, copper: MacDougall, J. F.
Charlebois Lake area, uraninite: Mawdsley, J. B., 1, 3.
Goldfields area, uranium: Macdonald, J. Ranald.
Lake Athabasca, uranium: Robinson, S. C., 1.
MacLeod-Cockshutt mine, gold: Morrow, H. F.
Sillimanite-group minerals, veins, paragenesis: Heinrich, E. W., 5.
South Dakota, Black Hills, pegmatitic: Page, L. R., 2.
Black Hills, perthite pegmatites, metasomatism: Higasy, R. A.
Lawrence County, autunite: Vickers, R. C.

Uranium, general: Burwell, B.
Western, aggregates: Holland, W. Y.
Phosphoria formation, phosphorite: McKelvey, V. E., 2.
Utah, Big Indian district, San Juan County, uranium: Steen, C. A.
Bingham copper mine, mineralisation: Stringham, B. F., 2.
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