BIBLIOGRAPHY
OF
NORTH AMERICAN GEOLOGY
FOR
1914
WITH SUBJECT INDEX
BY
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INTRODUCTION.

The bibliography of North American geology, including paleontology, petrology, and mineralogy, for the year 1914 follows the plan and arrangement of its immediate predecessors, the bibliographies for 1906-7, 1908, 1909, 1910, 1911, 1912, and 1913 (Bulletins 372, 409, 444, 495, 524, 545, and 584 of the U. S. Geological Survey). It includes publications bearing on the geology of the Continent of North America and adjoining islands; also Panama and the Hawaiian Islands. Papers by American writers on the geology of other parts of the world are not included. Textbooks and papers general in character by American authors are included; those by foreign authors are excluded unless they appear in American publications.

As heretofore, the papers, with full title and medium of publication and explanatory note when the title is not fully self-explanatory, are listed under the authors, arranged in alphabetic order. The author list is followed by an index to the literature listed. In this index the entries in one alphabet are of three kinds—first, subject, with various subdivisions, to enable the specialist to ascertain readily all the papers bearing on a particular subject or area; second, titles of papers, many of them abbreviated or inverted, under their leading words; and third, cross references, which have been freely used to avoid too much repetition. The subjects have been printed in black-faced type, the titles of papers and cross references in ordinary type. As it may not be always obvious which subject headings have been adopted, a classified scheme of those used immediately precedes the index.

Miss Isabel P. Evans has given efficient assistance in the work.

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1. GENERAL.

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Classification; Nomenclature; Cartography; Technique; Field work; Surveys; Borings.
Geochemistry; Chemical analyses (list); Atmosphere; Radioactivity.
Experimental investigations; Miscellaneous.

2. REGIONAL.

The States of the Union, Alabama, etc.; the Provinces of Canada, Alberta, etc.; Greenland; Mexico; the countries of Central America; the West Indies, and the single islands; the Hawaiian Islands.

3. ECONOMIC.

Ore deposits, origin; Contact phenomena.
Gold; Placers; Black sands; Silver; Quicksilver; Nickel; Cobalt; Copper; Lead; Zinc; Iron; Magnetite; Manganese; Tin; Aluminum; Bauxite; Antimony; Bismuth; Tungsten; Wolframite; Vanadium; Uranium; Carnotite ores; Molybdenum; Molybdenite; Titanite; Rutile; Platinum; Iridium; Rhodium; Palladium; Cadmium; Monazite; Rare earths; Tantalum; Selenium; Tellurium; Zircon.
Coal; Anthracite; Coke; Peat; Lignite; Bituminous rock; Natural gas; Petroleum; Oil shales; Asphalt; Albertite; Gilsonite; Grahamite; Ozokerite.
Stone; Building stone; Granite; Bluestone; Limestone; Lime; Marble; Onyx; Sandstone; Clay; Kaolin; Bentonite; Fire clay; Ganister; Slate; Shale; Marl; Sand; Glass sand; Sand-lime brick; Gravel; Cement and cement materials; Concrete materials; Road materials; Trap; Steatite; Soapstone; Talc; Serpentine.
Precious stones; Diamonds; Sapphires; Turquoise; Tourmaline.
Abrasive materials; Corundum; Emerald; Diatomaceous earth; Tripoli; Volcanic ash; Millstones; Novaculite.
Asbestos; Feldspar; Mica; Quartz; Gypsum; Graphite; Fuller's earth; Infusorial earth; Magnesite; Mineral paint; Chromium; Chromite; Chrome; iron ore; Fluorspar; Barite; Barytes; Strontium; Arsenic; Pyrite; Sulphur; Sulphate of soda; Cryolite; Phosphorus; Phosphate; Apatite; Potash; Alunite; Glaucalite; Borax; Bromine; Salt; Natron deposits.

4. DYNAMIC AND STRUCTURAL.

Earth, genesis of; Earth, age of; Earth, interior of; Earth, temperature of.
Volcanism; Volcanoes; Earthquakes; Seismology; Seismographs; Mud volcanoes.
Isostasy; Orogeny; Changes of level.
Magmas; Intrusions; Dikes; Laccoliths; Metamorphism; Contact phenomena.
Deformation; Folding; Faulting; Unconformities.
Conglomerates; Concretions; Stalactites; Jointing; Cleavage.
Sedimentation; Denudation; Erosion; Caves; Sink holes; Erratic bowlders; Weathering; Wind work; Dunes; Loess; Landslides.
Glaciers; Glacial erosion; Eskers; Kames; Moraines; Kettle holes.
Drainage changes.
5. PHYSIOGRAPHIC.

Geomorphology; Relief maps.
Valleys; Cirques; Deserts; Dunes; Deltas; Alluvial fans; Eskers; Kames; Mounds, natural; Natural bridges; Sink holes; Karsts.
Lakes; Swamps; Marshes; Everglades; Terraces; Beaches; Shore lines; Rivers; Meanders; Falls; Springs.

6. HISTORIC OR STRATIGRAPHIC.

Geologic history; Geologic time; Paleogeography; Paleogeographic maps; Paleoclimatology.
Geologic maps; Geologic formations described (list).
Pre-Cambrian; Paleozoic (undifferentiated); Cambrian; Ordovician; Silurian; Devonian; Carboniferous; Triassic; Jurassic; Cretaceous; Tertiary; Quaternary; Recent; Glacial geology; Glaciation; Glacial lakes; Ice ages.

7. PALEONTOLOGY.

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Invertebrata; Arthropoda; Crustacea; Trilobita; Ostracoda; Insecta; Arachnida; Myriapoda.
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8. PETROLOGY.

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Madison (?) limestone, Carboniferous, Montana: Bowen, 104.
Madison limestone, Mississippian, Idaho: Richards and Mansfield, 995.
Madison limestone, Mississippian, Montana: Stone and Bonine, 1149.
Madisonville limestone, Carboniferous, Kentucky: Crider, 284; Hutchinson, 600.
Magoffy formation, Cretaceous, Maryland: Berry, 84.
Mahoning sandstone, Carboniferous, West Virginia: Henmen and Reger, 527; Krebs and Tests, 697.
Maidment formation, Ordovician, Newfoundland: Van Ingen, 1222.
Mahat volcanics, Carboniferous?, British Columbia: Clapp, 227; Clapp and Cooke, 230.
Malden sandstone, Carboniferous, West Virginia: Krebs and Tests, 697.
Malignant Cove formation, Ordovician, Nova Scotia: Williams, 1300.
Mancos formation, Cretaceous, New Mexico: Kirk, 658; Winchester, 1234.
Mancos formation, Cretaceous, Utah: Clark, 235.
Mancos shale, Cretaceous, Utah: Lupton, 773.
Manhattes formation, Quaternary, New York: Fuller, 441.
Manhattan schist, New York: Fertik, 420.
Manhattan schist, pre-Cambrian, New York: Berkeley and Hoyle, 79.
Manigotagan granites, pre-Cambrian, Manitoba: Moore, 880.
Manitou formation, Devonian, Manitoba: MacLean and Wallace, 786.
Manitou formation, Devonian, Manitoba: Kindle, 676.
Manitoulin limestone member, Silurian, New York and Ontario: Schuchert, 1054.
Manitoulin member, Silurian, Ontario: Williams, 1301, 1303.
Manix beds, Pleistocene, California: Buwalda, 181.
Mankomen formation, Carboniferous, Alaska: Moffit, 854.
Martinus limestone, Silurian, New York: Hopkins, 571.
Manetto gravel, Quaternary, New York: Fuller, 441.
Mannington sandstone, Permo-Carboniferous, West Virginia: Krebs and Tests, 697.
Manuels formation, Cambrian, Newfoundland: Van Ingen, 1222.
Maquoketa shale, Ordovician, Illinois: Blatchley, 100; Cadly, 155; Cux, 278.
Maquoketa shale, Ordovician, Iowa: Thomas, 1165.
Maquoketa shale, Ordovician, Minnesota: Grout and Soper, 502.
Maquoketa series: Keyes, 661.
Marais des Cygnes terrane, Carboniferous, Iowa: Keyes, 661.
Marble Bay formation, Triassic or Jurassic, British Columbia: Cairns, 191; McConnell, 782.
Marble Canyon limestone, Carboniferous, British Columbia: Drysdale, 369.
Marcellus black shale, Devonian, New York: Luther, 775.
Marcellus shales, Devonian, New York: Hopkins, 571.
Marketta (Lower) sandstone, Permo-Carboniferous, West Virginia: Krebs and Tests, 697.
Marketta (Upper) sandstone, Permo-Carboniferous, West Virginia: Krebs and Tests, 697.
Marin sandstone, Jurassic?, California: Lawson, 724.
Marquettan series, pre-Cambrian, Lake Superior region: Keyes, 602.
Marshall sandstone, Mississippian, Michigan: Smith, 1108.
Martinez formation, Eocene, California: Lawson, 724; Waring, 1254.
Martinez group, Eocene, California: Dickerson, 340, 341, 342.
Martinsburg shale, Ordovician, New Jersey: Bayley et al., 66.
Meadall formation, Miocene, Oregon: Collier, 266.
Mayville group, Ordovician, Indiana: Cummings and Galloway, 263.
Medina formation, Silurian, New York and Ontario: Schuchert, 1054.
Medina formation, Silurian, Ontario: Williams, 1303.
Meetooch formation, Cretaceous, Wyoming: Hewett, 634.
Mendota formation, Oparkian, Upper Mississippi Valley: Walcott, 1244.
Mesamee group, Mississippian, Illinois: Blatchley, 100.
Meramec group, Mississippian, Mississippi Valley: Weller, 1270.
Merrimac schists, Mississippian, Massachusetts: Clapp, 222.
Merritt sand, Pleistocene, California: Lawson, 724.
Mesaverde formation, Cretaceous, New Mexico: Winchester, 1324.
Mesaverde formation, Cretaceous, Utah: Clark, 235.
Mesaverde series, Cretaceous, New Mexico: Kirk, 683.
Mettawee slate, Cambrian, New York: Gushing and Ruedemann, 296.
Michigan series, Mississippian, Michigan: Cook, 273; Smith, 1108.
Middendorf arkose member, Upper Cretaceous, S. Carolina: Berry, 80.
Middlesex black shale, Devonian, New York: Luther, 775.
Midway formation, Eocene, Texas: Deussen, 336.
Milford granite, Devonian, Rhode Island and Massachusetts: Warren and Powers, 1256.
Milford granite, Rhode Island: Loughlin and Hechinger, 767.
Milledgeville, Beltian, British Columbia: Daly, 306.
Monterey formation, Miocene, California: Anderson and Mansfield, 395.
Monterey group, Miocene, California: Lawson, 724.
Monterey series: Keyes, 661.
Mount Hope-Fairmount (Fairview), Ordovician, Indiana: Cumings and Galloway, 295.
Morrison formation, Jurassic: Warren and Powers, 1256.
Morrison shale, Jurassic, South Dakota: Calvert et al., 193.
Mount Selman formation, Eocene, Texas: Deussen, 336.
Monacope formation, Permian, Arizona: Gregory, 497.
Mohawkian series: Keyes, 661.
Moina granitic, pre-Cambrian, Ontario: Miller and Knight, 648.
Molas formation, Pennsylvanian, Colorado: Cross and Larsen, 290.
Monongahela series, Carboniferous, West Virginia: Hennen and Rege, 527.
Monongahela series, Pennsylvanian, West Virginia: Krebs and Teets, 697.
Monroe formation, Silurian, Michigan: Sherzer, 1081; Smith, 1108.
Monroe (Lower), Silurian, Michigan: Cook, 273; Sherzer, 1081.
"Montana granite," pre-Franciscan (Mesozoic), California: Lawson, 724.
Montana group, Cretaceous, Montana: Stebinger, 1126, 1126.
Montana group, Cretaceous, South Dakota: Calvert et al., 193.
Montanansite: Keyes, 661.
Montauk till member, Quaternary, New York: Fuller, 441.
Monteber formation, Miocene, California: Anderson and Martin, 18.
Monteberg formation, Miocene, California: Lawson, 724.
Monticello terrane, Silurian, Iowa: Keyes, 661.
Montoya limestone, Ordovician, Texas: Richards, 999.
Montrose chert, Carboniferous, Iowa: Keyes, 661.
Montrose chert bed, Mississippian, Mississippi Valley: Weller, 1270.
Mooselookum, Beltian, British Columbia: Daly, 306.
Morgan formation, Pennsylvanian, Utah: Richards and Mansfield, 995.
Morgantown sandstone, Carboniferous, West Virginia: Hennen and Rege, 527; Krebs and Teets, 697.
Mount Hope marl, Tertiary, South Carolina: Stephenson, 1129.
Mount Hope-Fairmount (Fairview), Ordovician, Indiana: Cumings and Galloway, 295.
Mount Savage fire clay, Carboniferous, West Virginia: Hennen and Rege, 527.
Mount Selman formation, Eocene, Texas: Deussen, 336.
Mount Simon formation, Upper Cambrian (St. Croixan), Upper Mississippi Valley: Walcott, 1244.
Mount Whyte formation, Cambrian, British Columbia: Allan, 5, 6.
Moydart formation, Silurian, Nova Scotia: Williams, 1300.
Moyle formation, pre-Cambrian, British Columbia: Schofield, 1039.
Moyie sills, British Columbia: Schofield, 1042.
Moyie sills, pre-Cambrian, British Columbia: Schofield, 1042.
Muav limestone, Cambrian, Arizona: Hill, 539; Noble, 889.
Mud Hill series, Tertiary, California: Free, 438.
Mud Lake granite, pre-Cambrian, British Columbia: Daly, 306.
Napoleon formation, Mississippian, Michigan: Smith, 1108.
Napoleon (upper Marshall) formation, Mississippian, Michigan: Cook, 273.
Narrawaunsett series, Carboniferous, Rhode Island and Massachusetts: Warren and Powers, 1256.
Nass formation, British Columbia: McConnell, 780.
Nasseu beds, Cambrian, New York: Cushing and Ruedemann, 296.
Nation River formation, Carboniferous, Rhode Island and Massachusetts: Warren and Powers, 1256.
Nass formation, British Columbia: McConnell, 780.
Nassau beds, Cambrian, New York: Gushing and Ruedemann, 273.
Newark group, Triassic, New Jersey: Bayley et al., 66.
Newcastle formation, Cretaceous, British Columbia: Clapp, 225.
Newland ("Wallace") formation, Algonkian, Idaho and Montana: Calkins and Jones, 192.
Newman limestone, Carboniferous, Virginia: Stose, 1152.
Newman limestone, Mississippian, Kentucky: Munn, 869.
Newman limestone, Mississippian, Virginia: Butts, 179.
New Piney sandstone, Ordovician, Illinois: Cox, 278.
New Richard sandstone, Ordovician, Illinois: Cox, 278.
New Richard terrane, Cambrian, Iowa: Keyes, 661.
New Vernon sheet, Triassic, New Jersey: Bayley et al., 66.
Niagra dolomite, Ordovician, Illinois: Cox, 278.
Niagra formation, Silurian, Michigan: Sherzer, 1081.
Niagra formation, Silurian, Ontario: Williams, 1303.
Niagra limestone, Silurian, Illinois: Cady, 185.
Niagra limestone, Silurian, Michigan: Smith, 1108.
Niagaran series: Keyes, 661.
Nicholas bed, Ordovician, Kentucky: Foerste, 427.
Nicola group, Jura-Triassic, British Columbia: Drysdale, 369.
Niobrara limestones, Cretaceous, Iowa: Keyes, 655.
Niobrara terrane, Cretaceous, Iowa: Keyes, 661.
Nipissing diabase, pre-Cambrian, Ontario: Miller and Knight, 848.
Nipissing diabase, pre-Cambrian, Quebec: Wilson, 1313, 1314.
Nishnabotna sandstone, Cretaceous, Iowa: Keyes, 655.
Nishnabotna terrane, Cretaceous, Iowa: Keyes, 661.
Nox limestone, Silurian, Missouri: Keyes, 659.
Nox oolite member, Silurian, Missouri: Savage, 1051.
Noilhuchuck shale, Cambrian, Virginia: Stose, 1152.
Normanskill grit, Ordovician, New York: Cushing and Ruedemann, 296.
Northbrae rhyolite, Pliocene, California: Lawson, 724.
Northbridge gneiss, Rhode Island: Loughlin and Heechinger, 767.
Northumberland formation, Cretaceous, British Columbia: Clapp, 225.
Norton formation, Pennsylvanian, Virginia: Butts, 179, 180.
Nosoni formation, Pennsylvanian, California: Boyle, 113.
Nugget sandstone, Jurassic or Triassic, Idaho: Richards and Mansfield, 995.
Nugget sandstone, Jurassic or Triassic, Wyoming: Schultz, 1058.
Nunda sandstones, Devonian, New York: Luther, 775.
Oakland conglomerate member, Cretaceous, California: Lawson, 724.
Octoraro mica schist, Ordovician, Pennsylvania: Bliss and Jones, 101.
Ohio shale, Devonian and Carboniferous, Kentucky: Morse and Foerste, 867.
Ohio shale, Devonian, Ontario: Kindle, 677.
Ohio shales, Devonian, Ontario: Williams, 1302.
Ojo Alamo beds, Cretaceous, New Mexico: Brown, 133.
Ojo Alamo beds, Tertiary or Cretaceous, New Mexico: Sinclair and Granger, 1061.
Okaw formation, Mississippian, Illinois: Weller, 1209.
Okaw formation, Mississippian, Mississippi Valley: Weller, 1270.
Oklahomaan series: Keyes, 661.
Olequa formation, Eocene, California and Oregon: Arnold and Hannibal, 22.
Oneida conglomerate, Devonian, New York: Clarke, 244.
Oneota dolomite, Ordovician, Illinois: Cox, 278.
Oneota dolomite, Ordovician, Minnesota: Grout and Soper, 502.
Oneota formation, Onarkinian, Upper Mississippi Valley: Wallace, 1344.
Oneota terrane, Cambrian, Iowa: Keyes, 661.
Onondaga limestones, Devonian, New York: Hopkins, 571; Houghton, 577; Luther, 775.
Onondaga limestone, Devonian, Ontario: Kindle, 677.
Open Bay group, Cretaceous or Jurassic, British Columbia: Cairnes, 191.
Orange group, Mesozoic-Pennsylvanian, Alaska and Yukon: Cairnes, 187.
Orange group, Mesozoic, Yukon and Alaska: Cairnes, 1270.
Orea group, Mesozoic, Alaska: Moffit, 854.
Oread limestone, Carboniferous, Oklahoma: Buttram, 178.
Orinda formation, Pliocene, California: Lawson, 724.
Orindan formation, Tertiary, California: Morrian, 834.
Oriskanian series: Keyes, 661.
Oriskany, Devonian, New York: Clarke, 244.
Oriskany formation, Devonian, Maine: Pirsson and Schuchert, 955.
Oriskany sandstone, Devonian, New York: Hopkins, 571; Luther, 775.
Oriskany sandstone, Devonian, Ontario: Kindle, 677.
Osage group, Mississippian, Illinois: Blatchley, 100.
Osage group, Mississippian, Mississippi Valley: Weller, 1270.
Osgood limestone, Silurian, Tennessee: Drake, 366; Wade, 1209.
Otis terrane, Devonian, Iowa: Keyes, 661.
Otter granite, Tertiary (Miocene?), British Columbia: Camsell, 197.
Ottertail formation, Cambrian, British Columbia: Allan, 6.
Ottertail limestone formation, Cambrian, British Columbia: Allan, 5.
Ouray limestone, Carboniferous and Devonian, Colorado: Cross and Larsen, 290.
Oursan sandstone, Miocene, California: Lawson, 724.
Ozarkian series: Keyes, 661.
Ozarkian series, Cambrian, Lake Superior region: Keyes, 662.
Paget formation, Cambrian, British Columbia: Allan, 5, 6.
Paint Creek formation, Mississippian, Illinois: Weller, 1269.
Paint Creek formation, Mississippian, Mississippi Valley: Weller, 1270.
Palestine formation, Mississippian, Mississippi Valley: Weller, 1270.
Palisade trap, Triassic, New Jersey: Berkey and Healey, 79.
Pamelia (upper and lower), Ordovician, Ontario: Raymond, 980.
Paris formation, Ordovician, Kentucky: Forste, 427.
Park City formation, Carboniferous, Utah: Richards and Mansfield, 995.
Parkville terrane, Carboniferous, Iowa: Keyes, 661.
Pembroke formation, Silurian, Maine: Bastin and Williams, 60.
Pennington shale, Mississippian, Kentucky: Munn, 899.
Pennington shale, Mississippian, Virginia: Butts, 179.
Pensauken formation, Pleistocene, New Jersey: Bayley et al., 66.
Pecora terrane, Pleistocene, Iowa: Keyes, 661.
Perronian stage, Pleistocene, Iowa: Hay, 522.
Perry formation, Devonian, Maine: Bastin and Williams, 60.
Perryville formation, Ordovician, Kentucky: Forste, 427; Miller, 843.
Phosphoria formation, Permian?, Montana: Stone and Bonine, 1149.
Piton (upper and lower) formation, Ordovician, Ontario: Raymond, 980.
Pierre shale, Cretaceous: Stanton, 1122.
Pierre shale, Cretaceous, Montana: Rogers, 1012.
Pierre shale, Cretaceous, South Dakota: Calvert et al., 193.
Pierre shales, Cretaceous, Canada: Brown, 133.
Pierson limestone, Mississippian, Mississippi Valley: Weller, 1270.
Pine Creek limestone, Carboniferous, West Virginia: Hennen and Reger, 527.
Pit shales, Triassic: California: Boyle, 113.
Pitkin limestone, Mississippian, Oklahoma: Smith, 108; Snider, 1114.
Pittsburgh (Little) limestone, Pennsylvania, West Virginia: Krebs and Tests, 697.
Pittsburgh red shale, Carboniferous, West Virginia: Hennen and Reger, 527; Krebs and Tests, 697.
Pittsburgh (Lower) sandstone, Carboniferous, West Virginia: Krebs and Tests, 697.
Pittsburgh (Upper) sandstone, Carboniferous, West Virginia: Hennen and Reger, 527.
Pittsford shale, Silurian, New York: Hopkins, 671.
Platte terrane, Carboniferous, Iowa: Keyes, 661.
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Platteville limestone, Ordovician, Illinois: Cox, 278.
Platteville limestone, Ordovician, Minnesota: Grout and Soper, 502.
Platteville terrane, Ordovician, Iowa: Keyes, 661.
Plattsburg terrane, Carboniferous, Iowa: Keyes, 661.
Pleasanton formation, Carboniferous, Missouri: Groene, 494.
Pochuck gneiss, pre-Cambrian, New Jersey: Bailey et al., 65.
Pocono series, Carboniferous, West Virginia: Hennen and Reger, 527.
Point Pleasant member, Ordovician, Kentucky: Foerster, 427.
Pokomaha quartzite, Algonkian, Minnesota: Grout and Soper, 502.
Ponca sandstone, Cretaceous, Iowa: Keyes, 655.
Ponca terrane, Cretaceous, Iowa: Keyes, 661.
Pondville conglomerate, Permian?, Massachusetts: Loughlin and Hechinger, 767.
Pontiac gneiss, pre-Cambrian, Quebec: Wilson, 1313.
Pontiac series, pre-Cambrian, Quebec: Wilson, 1313.
Port Ewen beds, Devonian, New York: Clarke, 214.
Potosi formation, Cambrian, Missouri: Lees, 727.
Potsdam sandstone, Cambrian, New York: Cushing and Ruedemann, 206.
Pottsville formation, Pennsylvania, Illinois: Blatchley, 95, 100; Hinds, 543.
Pottsville series, Carboniferous, West Virginia: Hennen and Reger, 527; Krabs and Teets, 697.
Prairie du Chien series, Ordovician, Illinois: Cox, 278.
Prairie du Chien group, Ordovician, Minnesota: Grout and Soper, 502.
Price sandstone, Devonian, Virginia: Stose, 1152.
Princeton series, pre-Cambrian, Michigan: Allen, 14; Allen and Barrett, 15.
Proctor formation, Cambrian, Missouri: Lee, 727.
Prospect Hill sheet, Triassic, New Jersey: Bayley et al., 66.
Protection formation, Cretaceous, British Columbia: Clapp, 225.
Provide sand member, Upper Cretaceous, Georgia: Berry, 89.
Puerocho formation, Tertiary, New Mexico: Brown, 133; Sinclair and Granger, 1093.
Puget formation, Tertiary, Washington: Daniels, 305.
Pulaski shale, Devonian, Virginia: Stose, 1152.
Pulaskishales, Ordovician, New York: Foerster, 428.
Purcell lava, pre-Cambrian, British Columbia: Schofield, 1040.
Purcell lava formation, pre-Cambrian, British Columbia: Schofield, 1043.
Purcell series, pre-Cambrian, British Columbia: Schofield, 1039, 1040, 1042, 1043.
Purcell sills, pre-Cambrian, British Columbia: Schofield, 1039, 1040, 1042.
Purgatory conglomerate, Permian, Massachusetts: Loughlin and Hechinger, 767.
Puysallup clays, sands and gravels, Quaternary, British Columbia: Clapp, 225.
Quadrant (?) quartzite, Pennsylvania?, Montana: Stone and Bonine, 1149.
Queen Charlotte Islands formation (?), Cretaceous, British Columbia: Drysdale, 309.
Queen Charlotte series, Jurassic, British Columbia: Clapp, 227.
Queenston formation, Ordovician, New York and Ontario: Schuchert, 1654.
Queenston shales, Ordovician, Ontario: Williams, 1303.
Queninit formation, Pliocene, Washington: Lupton, 774.
Quincy granite, Massachusetts: Loughlin and Hechinger, 767.
Quoddy shale, Silurian, Maine: Rustin and Williams, 60.
Racquet group, Carboniferous, Alaska and Yukon: Cairnes, 180, 187.
Racquet series, Yukon and Alaska: Cairnes, 180.
Raisin River dolomite, Silurian, Michigan: Sherzer, 1081.
Raisin River dolomite, Silurian, Ontario: Stauffer, 1123.
Ralsion formation, Tertiary, Wyoming: Granger, 485.
Ralsion group, Carboniferous, Oklahoma: Bode, 73.
Ramsay Lake conglomerate, pre-Cambrian, Ontario: Coleman, 264.
Ramsay Lake series, pre-Cambrian, Ontario: Miller and Knight, 484.
Random formation, pre-Cambrian, Newfoundland: Van Ingen, 1222.
Rapid limestone, Devonian, Iowa: Keyes, 657.
Rapid terrane, Devonian, Iowa: Keyes, 661.
Raritan formation, Cretaceous, New Jersey and Maryland: Berry, 84.
Rattlesnake formation, Pliocene, Oregon: Collier, 265.
Ravenswood granodiorite, pre-Cambrian, New York: Berkley and Healey, 79.
Red Beds, Permian, Texas: Uddeh, 1202.
Red Head formation, Carboniferous, Quebec: Hayes, 523.
Redmond formation, Ordovician, Newfoundland: Van Ingen, 1222.
Redwall limestone, Carboniferous (Mississippian), Arizona: Noble, 880.
Redwall limestone, Carboniferous, Arizona: Hill, 539.
Renault formation, Mississippian, Illinois: Weller, 1209.
Renault formation, Mississippian, Mississippi Valley: Weller, 1270.
Reneker grit, Devonian, New York: Clarke, 244.
Rennett quartzite, Algonkian, Idaho and Montana: Calkins and Jones, 192.
Rex chert member, Permian?, Idaho: Richards and Mansfield, 995.
Rhinestreet black shale, Devonian, New York: Luther, 775.
Rice Lake series, pre-Cambrian, Manitoba: Moore, 860.
Richmond group, Ordovician, Indiana: Cumings and Galloway, 296; Shideler, 1852.
Richmond group, Ordovician, Ontario: Williams, 1301.
Riverside sands, Tertiary, Iowa: Keyes, 656.
Riverside terrane, Tertiary, Iowa: Keyes, 661.
Roan gneiss series, pre-Cambrian, Georgia: Hopkins, 568.
Rochester member, Silurian, Ontario: Williams, 1303.
Rochester shale, Silurian, Michigan: Smith, 1108.
Rochester shale, Silurian, New York: Schuchert, 1054.
Rockcastle conglomerate member, Pennsylvanian, Kentucky: Mum, 889.
Rockford limestone, Mississippian, Mississippi Valley: Weller, 1270.
Rockland formation, Ordovician, Ontario: Raymond, 980.
Roxbury conglomerate, Silurian, Virginia: Stose, 1152.
Roxbury series, Massachusetts: Sayles, 1054.
Ruffner fire clay, Pennsylvanian, West Virginia: Krebs and Teets, 697.
Ruma formation, Mississippian, Illinois: Weller, 1209.
Ruma formation, Mississippian, Mississippi Valley: Weller, 1270.
Russell formation, Cambrian, Virginia: Stone, 1162.
Rustler limestone, Permian, Texas: Richardson, 999.
Ryse dorph Hill conglomerate, Ordovician, New York: Cushing and Riedemann, 296.
Sacajawea sandstone, Jurassic, British Columbia: Clapp, 277.
Sacajawea sandstone, Jurassic, British Columbia: Cady, 185; Cox, 278.
Sabula terrane, Silurian, Iowa: Keyes, 661.
Saginaw formation, Carboniferous, Michigan: Cook, 273.
Saginaw formation, Pennsylvanian, Michigan: Smith, 1108.
St. John group, Cambrian, New Brunswick: Matthews, 816.
St. John group, Cambrian, Quebec: Hayes, 523.
St. Lawrence formation, Cambrian, Minnesota: Grout and Soper, 592.
St. Lawrence formation, Upper Cambrian (St. Croixan), Upper Mississippi Valley: Walcott, 1244.
St. Lawrence terrane, Cambrian, Iowa: Keyes, 661.
St. Louis formation, Mississippian, Illinois: Blatchley, 98.
St. Louis limestone, Mississippian, Illinois: Blatchley, 100.
St. Louis limestone, Mississippian, Mississippi Valley: Weller, 1270.
St. Louis limestone, Mississippian, Tennessee: Drake, 366; Wade, 1239.
St. Louis terrane, Carboniferous or Eocene, Montgomery: Stebinger, 1124.
St. Marys formation, Miocene, Virginia: Olsson, 889.
St. Peter sandstone, Ordovician, Illinois: Blatchley, 100; Cady, 185; Cox, 278.
St. Peter sandstone, Ordovician, Minnesota: Grout and Soper, 592.
St. Peter terrane, Ordovician, Iowa: Keyes, 661.
St. Peters sandstone, Ordovician, Michigan: Smith, 1408.
St. Piran formation, Cambrian, British Columbia: Allan, 5, 6.
St. Regis formation, Algonkian, Idaho and Montana: Calkins and Jones, 192.
Ste. Genevieve limestones, Mississippian, Mississippi Valley: Weller, 1270.
Salem gabbro-diorite, post-Ordovician and pre-Silurian?, Massachusetts: Clapp, 222.
Salem limestone, Mississippian, Illinois: Blatchley, 100.
Salem limestone, Mississippian, Mississippi Valley: Weller, 1270.
Salina formation, Silurian, Michigan: Sherzer, 1081; Smith, 1108.
Salina limestone, Silurian, Ontario: Kindle, 677.
Salmon formation, pre-Cambrian?, Oregon: Winchell, 1320.
Salmon schist, California: Ferguson, 416.
Salmon Arm schist, pre-Beltian, British Columbia: Daly, 306.
Salmontrout limestone, Devonian, Alaska and Yukon: Cairnes, 188.
Saltsburgh sandstone, Carboniferous, West Virginia: Heusen and Reger, 527; Krebs and Teets, 697.
Salt Wash sandstone member, Jurassic?, Utah: Lupton, 773.
Saluda, Ordovician, Indiana: Cumings and Galloway, 205.
Saluda beds, Ordovician, Indiana: Shideler, 1082.
Salvisa limestone, Ordovician, Kentucky: Foerste, 427.
Salvisa member, Ordovician, Kentucky: Miller, 843.
San Antonio formation, Pleistocene, California: Lawson, 724.
Saugus granodiorite, post-Ordovician and pre-Silurian?, Massachusetts: Clapp, 222.
Saugus quartz diorite, post-Ordovician and pre-Silurian?, Massachusetts: Clapp, 222.
Sausalito chert, Jurassic?, California: Lawson, 724.
Savanna formation, Pennsylvanian, Arkansas and Oklahoma: Smith, 1097.
Savanna formation, Pennsylvania, Nova Scotia: Bell, 77.
Sawtooth formation, Devonian, Alberta: Allan, 5.
Shawangunk conglomerate, Carboniferous, New York: Brown, 140.
Schofield formation, Pleistocene, New York: Van Ingen, 1222.
Schoenwald series, Ordovician, New York: Cumings and Galloway, 205.
Sedimentary rocks, Ordovician, New York: Cumings and Galloway, 205.
Sedimentary rocks, pre-Cambrian, Ontario: Law-son, 721.
Seine conglomerate, pre-Cambrian, Ontario: Lawson, 721.
Selkirk series, Beltian, British Columbia: Daly, 306.
Selkirk series, pre-Cambrian, British Columbia: Schofield, 1041.
Selkirk period, pre-Cambrian, Lake Superior region: Keyes, 662.
Selma chalk, Cretaceous, Gulf States: Stephenson, 1123.
Seneca series: Keyes, 661.
Sergeant shales, Cretaceous, Iowa: Keyes, 655.
Sergeant terrane, Cretaceous, Iowa: Keyes, 661.
Sespe formation, Oligocene, California: Arnold and Garfias, 21.
Seyler shale, Ordovician, Virginia: Stose, 1152.
Sewickley sandstone, Pennsylvanian, West Virginia: Krebs and Teets, 697.
Sixton Creek limestone, Silurian, Illinois: Savage, 1031.
Shakopee dolomite, Ordovician, Illinois: Cady, 155; Cox, 278.
Shakopee dolomite, Ordovician, Minnesota: Grout and Soper, 502.
Shakopee formation, Canadian, Upper Mississippi Valley: Walcott, 1244.
Shakopee terrane, Cambrian, Iowa: Keyes, 661.
Sharon conglomerate, Carboniferous, West Virginia: Hennen and Reger, 527.
Shasta series, Cretaceous, California: Pack and English, 503.
Shawangunk conglomerate, New York: Brown, 140.
Shawangunk grit, Devonian, New York: Clarke, 244.
Shinumo quartzite, Algonkian, Arizona: Gregory, 497.
Shinumo quartzite, Algonkian, Arizona: Noble, 880.
Shingle formation, Pennsylvania, Nova Scotia: Bell, 77.
Shuswap series, British Columbia: Schofield, 1041.
Shuswap series, pre-Cambrian, British Columbia: Daly, 306.
Shuswap terrane, pre-Beltian, British Columbia: Daly, 306.
Sicamous limestone, pre-Beltian, British Columbia: Daly, 306.
Sicker shists, Jurassic or Triassic, British Columbia: Clapp, 223.
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