A Listing of North Carolina Minerals

By

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Introduction

North Carolina has long been known for its abundance and variety of minerals and rocks. Well before the first Europeans entered the region, native Americans were aware of a few of the more unusual materials and even systematically searched for some of them, especially muscovite mica, soapstone, hematite and other iron-oxide minerals, quartz, and rhyolite. These mineral commodities were fashioned into ornaments, utensils, or tools and thus occupied an important place in the local social and economic culture.

The Nation's first gold rush took place in North Carolina shortly after the discovery in 1799 of a large nugget less than 30 miles east of Charlotte in Cabarrus County. In the following years of the 19th century, the lure of gold and other potential mineral wealth, as well as scientific curiosity, led to many mineral discoveries. Some minerals were of industrial importance; for example, feldspar, zircon, and magnetite. Gemstones were found, notably the gem varieties of corundum—ruby and sapphire—and emerald, the gem variety of beryl. By 1875, 140 minerals had been identified as occurring in North Carolina. An annotated list of these minerals published in an early State Geological Survey report was accompanied by the statement: "…a variety of highly interesting and commercially important minerals and ores, which is *greater than that of any other State in the Union* [is found in North Carolina]."

At that time, minerals were identified principally by observing a substance's physical properties such as color and luster; determining hardness, specific gravity, and angular relations between a mineral's crystal faces; analyzing the chemical composition of the mineral; and noting diagnostic optical properties using special microscopes. In the early years of the 20th century, the development of X-ray techniques led to the discovery of many more individual minerals. Today, there are about 4,400 mineral species known in the world. The comprehensive list of North Carolina minerals presented here includes 475 mineral species, mineral groups, mineral series, and discredited minerals of historical significance; certainly more minerals remain to be discovered. Three minerals have been added since the last listing; rittmanite, augelite, and trolleite.

This listing was critically compiled from information published in reports of the North Carolina Geological Survey, other mineralogical and geological articles, and personal knowledge of the State's minerals. Most identifications are believed to be reliable; however, it is not feasible to confirm each identification. Undoubtedly, a few minerals known to occur in North Carolina may have been inadvertently omitted in this compilation. Spelling, diacritical marks, and mineral group nomenclature are in accord with usage recommended by the Commission on New Minerals and Mineral Names of the International Mineralogical Association, as listed in the "Fleischer's Glossary of Mineral Species 2008" by Malcolm E. Black and Joseph A. Mandarino, The Mineralogical Record, 2008.

Abhurite
Acanthite
Actinolite
Aegirine
Aeschynite-(Ce)
Aikinite
Alabandite
Albite
Allanite-(Ce)
Alleghanyite
Allophane
Almandine
Altaite
Alum-(Na)
Alunite
Alunogen
Amblygonite
Analcime
Anatase
Andalusite
Andesine
Andradite
Anglesite
Anhydrite
Ankerite
Annabergite
Anorthite
Anorthoclase
Anthophyllite
Antigorite
Antimony
Antlerite
Apatite-(CaF)
Apophyllite-(KF)
Apophyllite-(KOH)
Aragonite
Arfvedsonite
Arsenopyrite
Asbolane
Augelite
Augite
Aurichalcite
Autunite
Axinite-(Fe)
Axinite-(Mn)
Azurite
Babingtonite
Bafertisite
Bannisterite ?
Barite
Bassetite
Bavenite
Bementite
Beraunite
Bermanite
Bertrandite
Beryl
Bikitaite
Bindheimite
Biotite
Birnessite
Bismite
Bismuth
Bismuthinite
Bismutite
Bityite
Böhmite
Bornite
Boulangerite
Bournonite
Brannockite
Braunite
Brochantite
Brookite
Brucite
Bytownite
Cacoxenite
Calaverite
Calcioancylite-(Ce)
Calcioferrite
Calciosamarskite
Calcite
Caledonite
Caryopilite
Cassiterite
Cattierite
Celestine
Cerussite
Chabazite
Chalcanthite
Chalcocite
Chalcopyrite
Chamosite
Chevkinite-(Ce)
Childrenite
Chlorargyrite
Chlorite undifferentiated
Chloritoid
Chromite
Chrysoberyl
Chrysocolla
Chrysotile group
Churchite-(Y)
Clarkeite
Clinochlore
Clinozoisite
Clintonite
Cobaltite
Collinsite
Coloradoite
Columbite-(Fe)
Cookeite
Copper
Cordierite
Corrensite
Corundum
Cosalite
Covellite
Crandallite
Crocoite
Cryptomelane
Cubanite
Cummingtonite
Cuprite
Cuprotungstite
Cyrilovite
Diadochite
Diamond
Diaspore
Dickinsonite-(KMnNa)
Dickite
Diopside
Dolomite
Dravite
Dufrénite
Dumortierite
Eakerite
Earlshannonite
Edenite
Elbaite
Elyite
Enargite
Enstatite
Eosphorite
Epidote
Euclase
Eucryptite
Euxenite-(Y)
Fairfieldite
Fayalite
Ferberite
Fergusonite-(Y)
Ferrimolybdite
Ferrisicklerite
Ferro-actinolite
Ferro-eckermannite
Ferrohornblende
Ferronigerite-2N1S
Ferropargasite
Ferrorichterite
Fersmite
Fluellite
Fluor-dravite
Fluorite
Footemineite
Fosterite
Fourmarierite
Freibergite

Frohbergite
Frondelite
Gadolinite-(Y)
Gahnite
Galaxite
Galena
Gedrite
Gibbsite
Glauconite series
Goethite = limonite
Gold
Goslarite
Goyazite
Graphite
Greenockite
Grossular
Grunerite
Gudmundite
“Gummite”
Gypsum
Gyrolite
Hafnon
Halite
Halloysite
Halotrichite
Harmotome
Hastingsite
Hausmannite
Hedenbergite
Helvine
Hematite
Hemimorphite
Hercynite
Herderite
Herzenbergite
Hessite
Heterosite
Heulandite-Ca
Hisingerite
Högbomite group
Holmquistite
“Hornblende”
Hübnerite
Humite
Huntite
Huréaulite
Hydrobiotite
Hydrocerussite
Hydromagnesite
Hydroromarchite
Hydroxylherderite
Hydrozincite
Ice
Illite series
Ilmenite
Iron
Jacobsite
Jadeite
Jahnsite-(CaMnFe)
Jahnsite-(CaMnMg)
Jamesonite
Jungite
Kainosite-(Y)
Kaolinite
Kastningite
Kellyite
Kingsmountite
Kobellite
Krennerite
Kutnohorite
Kyanite
Labradorite
Laueite
Laumontite
Lawrencite
Lazulite
Lazurite
Lead
Lepidocrocite
Lepidolite series
Leucophosphate
Libethenite
Liebigite
Linarite
Lithiomarsturite
Lithiophilite
Lithiophorite
Lithiophosphate
Lizardite
Löllingite
Lucascite-(Ce)
Mackinawite
Manganogrunerite
Magnesiochromite
Magnesiohornblende
Magnesite
Magnetite
Malachite
Maldonite
Manganaxinite
Mangangordonite
Manganhumite
Manganocummingtonite
Manganogrunerite
Marcasite
Margarite
Matulaite
Meionite
Melanterite
Mesolite
Messelite
Meta-autunite
Metaswitzerite
Metatorbernite
Metavandendriesscheite
Microcline
Microlite
Milarite
Mitridatite
Molybdenite
Molybdite
Monazite-(Ce)
Monazite-(La)
Monazite-(Nd)
Montanite
Montebrasite
Montgomeryite
Montmorillonite
Moraesite
Muscovite
Nagyágite
Natrolite
Neotocite
Népouite
Neptunite
Nickeline
Niter
Nontronite
Okenite
Olenite
Oligoclase
Olivenite
Omphacite
Opal
Orthoclase
Ottrélite
Palladium
Palygorskite
Paragonite
Parascholzite
Paravauxite
Pargasite
Parsettensite
Parvowinchite
Pennantite
Pentlandite
Perovskite
Petalite
Petzite
Pharmacosiderite
Phenakite
Phillipsite group
Phlogopite
Phosphophyllite
Phosphosiderite
Phosphuranylite
Piemontite
Pigeonite

Platinum
Pokrovskite
Pollucite
Polycrase-(Y)
Powellite
Prehnite
Preiswerkite
Proustite
Pseudolaueite
Pseudomalachite
Pumpellyite group
Purpurite
Pyrargyrite
Pyrite
Pyrolusite
Pyromorphite
Pyrope
Pyrophanite
Pyrophyllite
Pyroxmangite
Pyrrhotite
Quartz
Reyerite
Rhodochrosite
Rhodonite
Riebeckite
Rittmannite
Robertsite
Rockbridgeite
Romanèchite
Romarchite
Rosasite
Roscherite
Rosenhahnite
Rucklidgeite
Rutherfordine
Rutile
Samarskite-(Y)
Sanadine
Saponite
Sapphirine
Scheelite
Scholzite
Schoonerite
Schorl
Schreibersite
Scolecite
Scorodite
Sénarmontite
Sepiolite
Serpentine Group
Siderite
Sigloite
Sillimanite
Silver
Smithsonite
Sonolite
Sperrylite
Spessartine
Sphalerite
Spinel
Spodumene
Staurolite
Steacyite
Stevensite
Stewartite
Stibnite
Stilbite-(Ca)
Stilpnomelane
Stolzite
Strengite
Strunzite
Sulphur
Swinefordite
Switzerite
Sylvanite
Talc
Tantalite-(Fe)
Tapiolite-(Fe)
Tellurantimony
Tellurium
Tennantite
Tenorite
Tephorite
Tetradymite
Tetrahedrite
Tetrawickmanite
Thaumasite
Thenardite
Thomsonite-Ca
Thorite
Thorogummite
Tinticite
Titanite
Tobermorite
Topaz
Torbernite
Tremolite
Trimerite
Triploidite
Troilite
Trolleite
Tschermakite
Tungstite
Turquoise
Tveitite-(Y)
Ulvöspinel
Uralolite
Uraninite
Uranmicrolite
Uranophane-alpha
Uranophane-beta
Uranpyrochlore
Valleriite
Vanadinite
Vandendriesscheite
Variscite
Vermiculite
Vesuvianite
Vivianite
Voglite
Wavellite
Whiteite-(MnFeMg)
Wickmanite
Willemite
Wollastonite
Wulfenite
Xanthoxenite
Xenotime-(Y)
Xonotlite
Yttrotantalite-(Y)
Zabuyelite
Zinnwaldite
Zippeite
Zircon
Zoisite
Zunyite