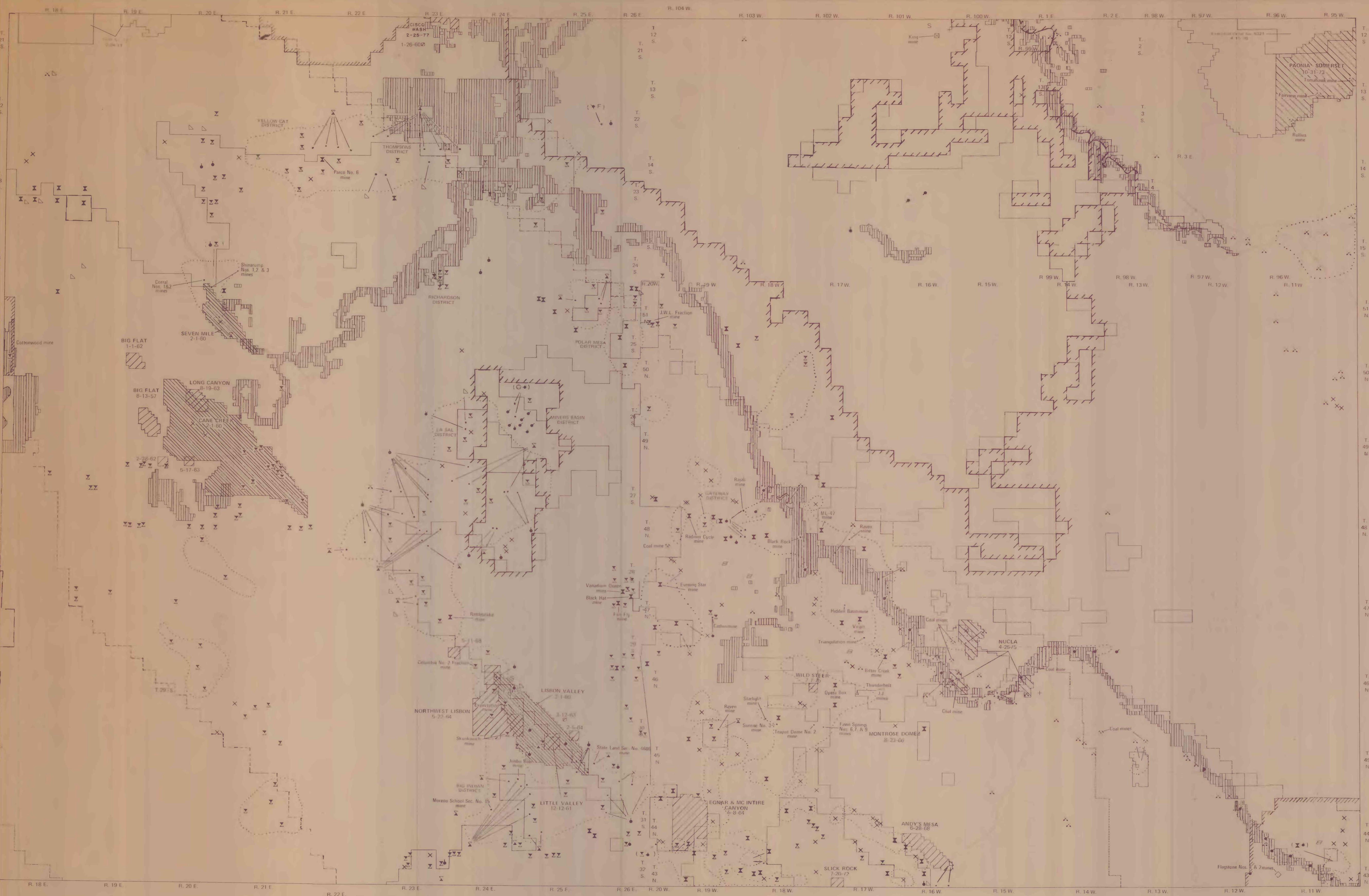


FOR LEASABLE MINERAL AND WATERPOWER LAND CLASSIFICATION MAPS  
RELEASED IN OPEN FILE

Only the land classification categories present in the quadrangle are colored in the explanation and on the map; an asterisk (\*) preceding a colored classification category in the explanation indicates that the category includes all land in the quadrangle and so, to reduce clutter, the color is omitted from the map. Categories not colored in the explanation are those for which they are withdrawn. All withdrawn lands are prospectively valuable for the mineral for which they are withdrawn. Land classification applies only to public lands within category boundaries. Leasable minerals are coal, oil and gas, and oil shale; phosphates, or phosphate rock; chlorides, sulfates, carbonates, borates, and silicates or nitrates of potassium and of sodium; sulfur in Louisiana and New Mexico; and native asphalt, solid and semisolid bitumen, and bituminous rock (including oil-impregnated rock or sands from which oil is recoverable only by special treatment after the deposit is mined or quarried). However, all minerals are leasable on Federal acquired lands and restricted allotted and tribal Indian lands. Leasable mineral outcrops are not shown. A symbol preceding a mineral name on the selected minerals list indicates the mineral is present in the map area. Active mines are not differentiated from inactive mines, the size and grade of the mineral occurrence are not indicated, and names are given hereon for only a few of the mines.



**MINERAL LAND CLASSIFICATION**

Coal	Phosphate	Oil shale	Sodium
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**PROSPECTIVELY VALUABLE LANDS--hachures, where present, and color are on valuable side of boundary**

Asphaltic materials	Coal	Geothermal resources	Oil and gas	Oil shale	Phosphate	Potassium	Sodium
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**AREAS DESIGNATED FOR COAL LEASING--Showing name and effective date (month-day-year)**

Known recoverable coal resource area (KRCA)	Known geologic structure of producing oil and gas field (KGO)	Known geothermal resources area (KGRA)	Known oil shale leasing area	Known phosphate leasing area	Known potassium leasing area	Known sodium leasing area
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**WATERPOWER LAND CLASSIFICATION**

Classified or withdrawn for waterpower or reservoir sites
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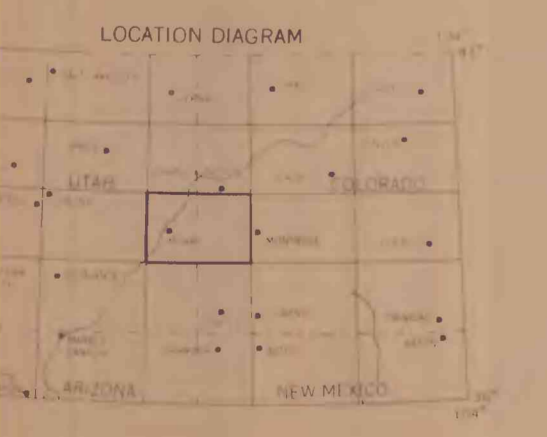
**DESCRIPTION OF MAP SYMBOLS**

**SELECTED MINERALS--Symbol shows location of mineral occurrence to the nearest 40-acre tract; multiple occurrences of a mineral within a quarter section (160 acres; 64.75 hectares) are not differentiated from a single occurrence. For cartographic reasons mineral occurrence may be shown by a dot and a leader to the symbol in parenthesis.**

<b>Metals</b>	Aluminum	Antimony	Arsenic	Beryllium	Bismuth	Cadmium	Cesium and Rubidium	Chromium	Cobalt	Columbium and Tantalum	Copper	Gallium	Germanium	Gold	Iron	Lead	Manganese	Mercury	Molybdenum	Nickel	Platinum group	Rare earths	Silver	Selenium	Tellurium	Thorium	Tin	Titaniferous iron	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium and Hafnium							
<b>Nonmetals</b>	Abrasives	Alunite	Asbestos	Barite	Bentonite	Borates	Bromine	Bruceite	Calcite, optical	Calcium chloride	Carbon dioxide	Clay, refractory	Diamantite	Demortierite	Feldspar	Fluorspar	Fuller's earth	Gen and ornamental stones	Graphite	Gypsum	Iodine	Kaolin	Kyanite group	Limestone	Lithium minerals	Magnetite	Magnesium sulfate	Meerschaum	Mica	Mineral pigments	Nephelite	Olivine	Quartz	Serpentine	Silica sand	Strontium mineral	Sulfur	Talc, Soapstone	Vermiculite	Volcanic ash, Pumice, Perlite	Wollastonite

**SYMBOL COMBINATIONS--Certain symbols (silver, lead, and zinc, or uranium and vanadium) are combined into a single symbol to show several minerals at the same locality as shown in three examples below. Where individual symbols cannot be combined into a single symbol or where cartographic reasons dictate, occurrences of several minerals at the same locality are shown by a dot at the locality and a leader to the composite symbol or series of symbols in parentheses as shown in fourth example below.**

- \* Copper, gold, lead, zinc
- ⊙ Chromium, cobalt, nickel
- ⊗ Uranium and vanadium
- ⊕ Silver, lead, zinc, and bismuth at same location
- ⊙ Mine or prospect where mineral is known--mine or prospect is shown by a mineral symbol at the location or by a dot at the location and a leader to the symbol or symbols in parentheses.
- ⊗ inactive mine--Uranium mine at location of symbol
- ⊕ Eureka mine--Gold, silver, lead, zinc, and fluorspar mine at location of dot
- WIDESPREAD MINERAL OCCURRENCES--An area of numerous or widespread occurrences of one or more minerals is shown by a dotted outline and a symbol or symbols. A single occurrence of another mineral or minerals within such an area is shown by a dot at the locality and a leader to the symbol or symbols in parentheses. An overlapping area of mineral occurrence is outlined by a short dashed line.
- OTHER SYMBOLS**
- \* Leasable mineral mine
- ⊗ Mine or prospect where mineral is not known
- + Pit (bentonite or clay)
- ⊙ Gravel or sand pit
- ⊙ Quarry



**LEASABLE MINERAL AND WATERPOWER LAND CLASSIFICATION MAP  
OF THE MOAB QUADRANGLE, UTAH, COLORADO**  
LANDS WITHDRAWN, CLASSIFIED, AND PROSPECTIVELY VALUABLE FOR LEASABLE MINERALS,  
OCCURRENCES OF OTHER SELECTED MINERALS, AND LANDS WITHDRAWN OR  
CLASSIFIED FOR WATERPOWER AND RESERVOIR SITES

Compiled by  
**D.A. DECICCO, E.M. PERA, E.G. ALLEN, and G.A. LUTZ**  
1977

All information on this map compiled as of \_\_\_\_\_

U. S. Geological Survey  
OPEN FILE REPORT  
This map has not been edited for conformity with Geological Survey editorial standards or stratigraphic nomenclature.

