



EXPLANATION
MINERAL

- WITHDRAWN LANDS
- Lands withdrawn pending classification for coal
 - Lands withdrawn pending classification for coal and phosphate
 - Lands withdrawn for oil shale
 - Lands withdrawn pending classification for phosphate
 - Naval Oil Shale Reserve
 - Naval Petroleum Reserve
- CLASSIFIED LANDS
- Coal
 - Phosphate
 - Sodium
- LANDS VALUABLE PROSPECTIVELY FOR RETENTION OF FEDERAL MINERAL RIGHTS
(Inachures, where present, are on valuable side of boundaries.)
- Asphaltic materials
 - Coal
 - Geothermal resources
 - Oil and gas
 - Phosphate
 - Potassium
 - Sodium
- KNOWN LEASING AREAS
(defined and undefined)
- Known geologic structure of producing oil and gas fields
 - Known geothermal resources area
 - Known coal leasing area
 - Known oil shale leasing area
 - Known phosphate leasing area
 - Known potassium leasing area
 - Known sodium leasing area

Symbols show reported locations of mines, prospects, and occurrences of selected minerals. Inactive mines are not distinguished, nor is the size or grade of the mineral occurrence indicated. Each mineral occurrence is located to the nearest 40-acre tract within a section. Multiple occurrences of the same mineral within a quarter are not differentiated from a single occurrence. Several different minerals at the same locality are shown by symbols in parenthesis with a leader and dot:

Beryllium, tungsten, and columbium-tantalum at the same locality
Copper, gold, lead, and zinc Chromium, cobalt, and nickel Uranium and vanadium
Areas of numerous or widespread occurrences of one or more minerals are shown by a dotted outline. Symbols are shown inside the outlined area or by a leader. An isolated occurrence of a different mineral within such an area is shown by a dot and a leader. Examples are:

Bentonite occurs throughout area
Local occurrence of fluorapatite at dot within an area of widespread occurrence of beryllium, tungsten, and columbium-tantalum

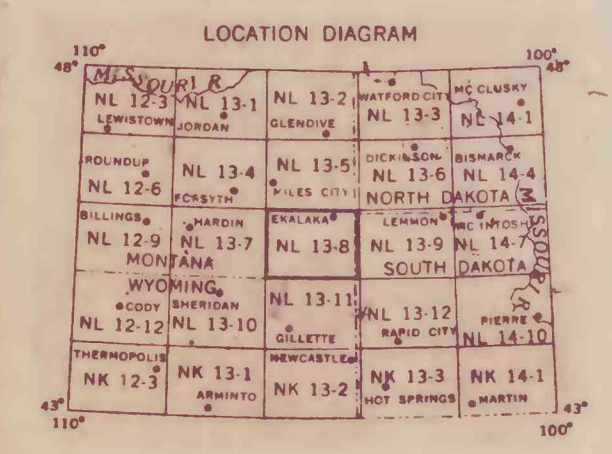
MINE (Leasable minerals only)	MINE OR PROSPECT WHERE MINERAL IS UNKNOWN	PIT (Bentonite or clay)	GRAVEL PIT	QUARRY PIT
METALS				
Aluminum	Titaniferous iron	Fuller's earth		
Antimony	Titanium	Gem and ornamental stones		
Arsenic	Tungsten	Graphite		
Beryllium	Uranium	Cypsum		
Bismuth	Vanadium	Helium		
Cadmium	Zinc	Iodine		
Cesium and Rubidium	Zirconium and Hafnium	Kaolin		
Chromium		Kyanite group		
Cobalt		Limestone		
Columbium and Tantalum		Lithium minerals		
Copper		Magnetite		
Germanium		Magnesium sulfate		
Gold		Meerschaum		
Iron		Mica		
Lead		Mineral pigments		
Manganese		Nephelite		
Mercury		Olivine		
Molybdenum		Quartz		
Nickel		Serpentine		
Platinum group		Silica sand		
Rare earths		Strontium minerals		
Silver		Sulphur		
Selenium		Talc, Soapstone		
Tellurium		Volcanic ash, Pumice, Perlite		
Thorium		Vermiculite		
Tin		Wollastonite		
		Fluorspar		
NONMETALS				
		Abrasives		
		Alunite		
		Asbestos		
		Barite		
		Bentonite		
		Borates		
		Bromine		
		Brucite		
		Calcite, optical		
		Calcium chloride		
		Carbon dioxide		
		Clay, refractory		
		Diatomite		
		Dunortierite		
		Feldspar		
		Fluorspar		

WATER

- Lands classified or withdrawn for waterpower or reservoir sites

U. S. Geological Survey
OPEN FILE REPORT
This report is preliminary and has
not been edited or reviewed for
conformity with Geological Survey
standards or nomenclature.

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LEASABLE MINERAL AND WATERPOWER LAND CLASSIFICATION MAP
EKAŁAKA QUADRANGLE, MONTANA, NORTH DAKOTA, SOUTH DAKOTA

SHOWING
LANDS WITHDRAWN, CLASSIFIED, AND VALUABLE PROSPECTIVELY FOR LEASABLE MINERALS
AND OCCURRENCES OF OTHER SELECTED MINERALS
LANDS WITHDRAWN OR CLASSIFIED FOR WATERPOWER AND RESERVOIR SITES

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Not all classification categories or mineral occurrences shown in the explanation are present in this quadrangle. Categories shown apply only to any public lands included within boundaries. The leasable minerals in public lands named in the various mineral leasing acts as amended over the years are coal, oil, gas, and oil shale; phosphates, or phosphate rock; chlorides, sulfates, carbonates, borates, silicates or nitrate of potassium and of sodium; sulphur 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). All minerals are leasable on federal acquired lands and restricted allotted and tribal Indian lands.

Lands on this sheet withdrawn for coal are in Coal Land Withdrawal Montana No. 1, July 9, 1910.

The entire quadrangle area is classified as valuable for oil and gas; no land is classified as valuable for asphaltic materials, geothermal resources, oil shale, phosphate, or potassium.

Known geologic structures and known coal leasing areas are shown on a separate overlay.

All information on this map compiled as of August 1, 1974.