

MINERAL LAND CLASSIFICATION

KNOWN LEASING AREAS—Defined and undefined, showing name and effective date (month-day-year)
Note: Not all areas have been assigned names

Known geologic structure of producing oil and gas field (KGS)

Known geothermal resources area (KGRA)

☐ Known coal leasing

area (KCLA) μm^2

Known oil shale
leasing area

Known phosphate
leasing area

☐ Known potassium

leasing area

 Known sodium
leasing area

WATERPOWER LAND CLASSIFICATION

CLASSIFIED OR WITHDRAWN FOR WATERPOWER OR RESERVOIR SITES

DESCRIPTION OF MAP SYMBOLS

SELECTED MINERALS – Symbol shows location of mineral occurrence or mine 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, an occurrence may be shown by a black dot and a leader to the symbol in parentheses.

METALLICS

Aluminum	Cobalt	Mercury	Tin
Antimony	Columbium and tantalum	Molybdenum	Titaniferous iron
Arsenic	Copper	Nickel	Titanium
Beryllium	Germanium	Platinum group	Tungsten
Bismuth	Gold	Rare earths	Uranium
Cadmium	Iron	Silver	Vanadium
Cesium and rubidium	Lead	Selenium	Zinc
Chromium	Manganese	Tellurium	Zirconium and hafnium
		Thorium	

NONMETALLICS

 Abrasives	Clay, refractory	Iodine	Olivine
Alunite	Diatomite	 Kaolin	Quartz
 Asbestos	Dumortierite	Kyanite group	Serpentine
 Barite	 Feldspar	 Limestone	Silica sand
Bentonite	 Fluorspar	Lithium minerals	 Strontium minerals
Borates	Fuller's earth	Magnesite	Sulfur
Bromine	Gem and ornamental stones	Magnesium sulfate	 Talc, soapstone
Brucite		Meerschaum	 Vermiculite
 Calcite, optical	Graphite	 Mica	Volcanic ash, pumice, perlite
Calcium chloride	Gypsum	Mineral pigments	Wollastonite
Carbon dioxide	Helium	Nephelite	

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

- ✦ Copper, gold, lead, zinc
- ✕ Chromium, cobalt, nickel
- ✖ Uranium and vanadium

• (⚠️) – Beryllium, tungsten, and feldspar at same location

MINE OR PROSPECT WHERE LOCATABLE MINERAL IS KNOWN – Mine or prospect is shown with a red symbol at the location or by a black dot at the location and a leader to the symbol or in parentheses. Mine name shown in red.

▼ **Geologic mine** – Mine or prospect where geologic mineral is known

(F) **Eureka mine**—Gold, silver, lead, zinc, and fluorspar mine at location of dot
 (F) **WIDESPREAD MINERAL OCCURRENCES**—Gray pattern indicates area of numerous or widespread occurrences of one or more minerals, identified by a red symbol circled in black. An occurrence of another mineral or minerals within such an area is shown by a red symbol at the locality or by a black dot at the locality and a leader to the symbol or symbols in parentheses. Dotted lines indicate where one widespread area of mineral occurrence overlaps another.

OTHER SYMBOLS

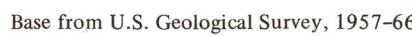
✕ Leasable mineral mine

Gravel or sand pit

+ Pit (bentonite or clay)

¹¹Areas previously designated as Known Coal Leasing Areas (KCLA's) are now designated for coal leasing as Known Recoverable Coal Resource Areas (KRCRA's) (Federal Register, v. 41, no. 189, p. 42684, Sept. 28, 1976)

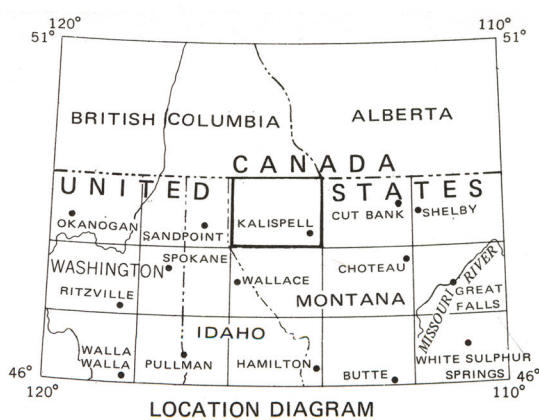
For sale by Branch of Distribution, U.S. Geological Survey,
Box 25286, Federal Center, Denver, CO 80225



SCALE 1:250 000

Interior-Geological Survey, Reston, Va.-1977-C76239

Data as of February 1, 1974



Lands withdrawn, classified, and prospectively valuable for leasable minerals;
occurrences of other selected minerals; and lands withdrawn or
classified for waterpower and reservoir sites

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