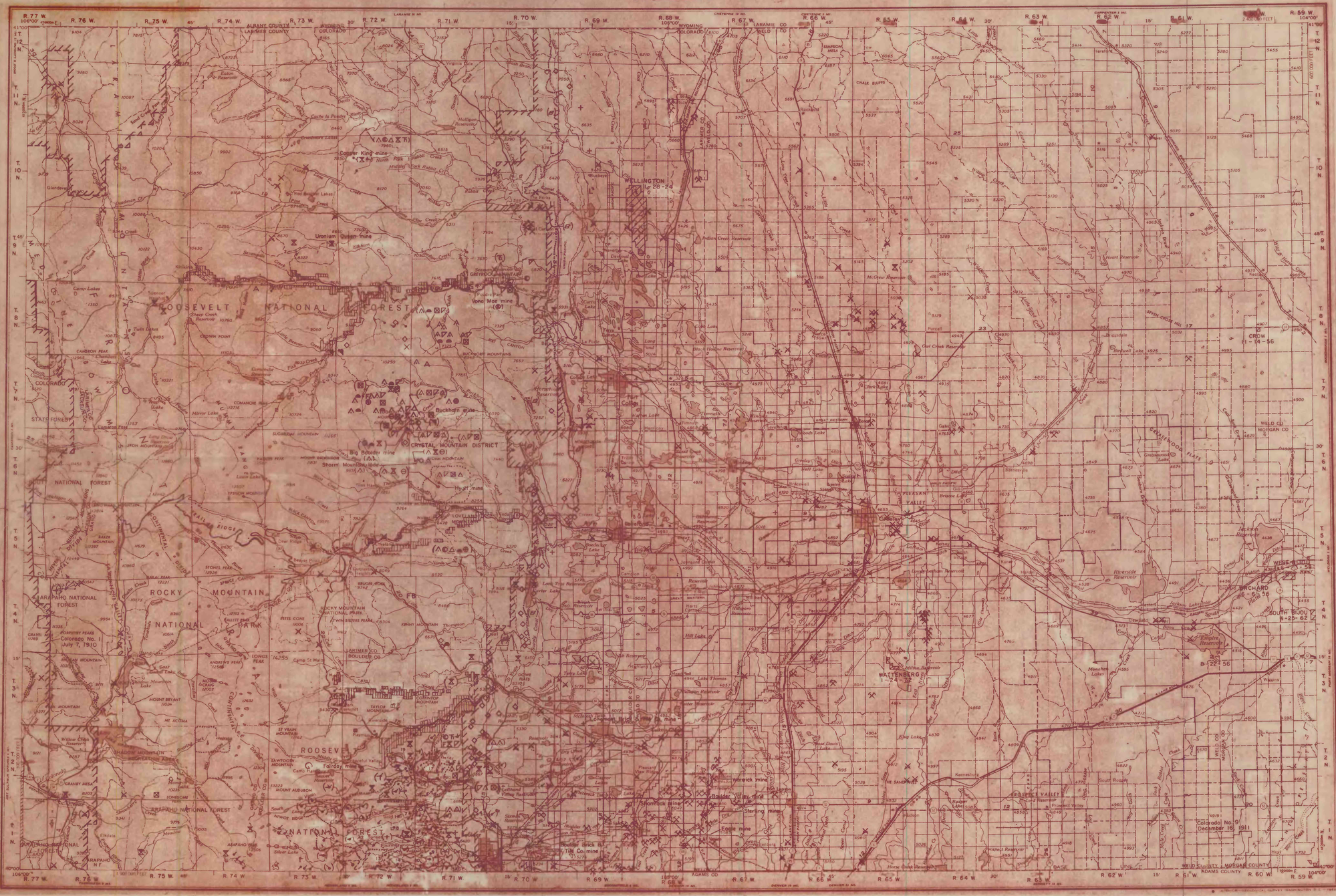
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY
CONSERVATION DIVISION

76-175



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WITHDRAWN LANDS

- Lands withdrawn pending classification for coal
- Lands withdrawn pending classification for coal and phosphate
- Lands withdrawn for oil shale
- Lands withdrawn pending classification for phosphate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
(Hachures, 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

Certain symbols such as those for gold, silver, copper, lead, zinc, tungsten, and molybdenum; chromium, cobalt, nickel, and platinum; and uranium and vanadium may be combined in a single symbol to show several different minerals at the same locality. Examples of combined symbols are:

• Copper, gold, lead, and zinc

X Chromium, cobalt, and nickel

X 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

(F)—(^ •△)

Local occurrence of fluorspar 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

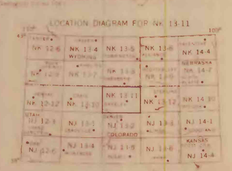
METALS		NONMETALS
Aluminum	Titaniferous iron	Fullers earth
Antimony	Titanium	Gem and ornamental stones
Arsenic	Tungsten	Graphite
Beryllium	Uranium	Gypsum
Bismuth	Vanadium	Helium
Cadmium	Zinc	Iodine
Cesium and Rubidium	Zirconium and Hafnium	Kaolin
Chromium		Kyanite group
Cobalt	NONMETALS	Limestone
Columbium and Tantalum	Abrasives	Lithium minerals
Copper	Alunite	Magnesite
Germanium	Asbestos	Magnesium sulfate
Gold	Barite	Necrachaum
Iron	Bentonite	Mica
Lead	Borates	Mineral pigments
Manganese	Bromine	Nephelite
Mercury	Brucite	Olivine
Molybdenum	Calcite, Optical	Quartz
Nickel	Calcium chloride	Serpentine
Platinum group	Carbon Dioxide	Silica sand
Rare earths	Clay, refractory	Strontium minerals
Silver	Diatomite	Sulphur
Selenium	Dumortierite	Talc, soapstone
Tellurium	Feldspar	Volcanic ash, Pumice, Perlite
Thorium	Fluorspar	Vermiculite
Tin		Wollastonite

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.

LOCATION DIAGRAM FOR NK 13-11



GOLD HILL DISTRICT MINES (GH)
1. Beryl No. 1 B 2 (^⊠◩△)
2. Ingram (◩)
3. Grand View (⊗)
4. Gold Spring, Red Cloud, Cash (◩)
5. Melvina (◩)
6. Roosevelt (⊗)
7. Slide (◩)
8. Copper King (X)

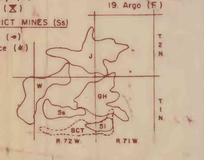
SUGARLOAF DISTRICT MINES (SI)
9. Dorothy B Katy (⊗)
10. Pueblo Belle (X)

SUNSET DISTRICT MINES (Ss)
11. Free Coinage (◩)
12. Copper Glance (◩)

BOULDER COUNTY TUNGSTEN DISTRICT MINES (BCT)
13. Oregon (⊗)
14. Eureka (⊗)

WARD DISTRICT MINES (W)
15. White Raven (•)

JAMESTOWN DISTRICT MINES (J)
16. Victory Group (X)
17. Golden Age (◩ X)
18. Columbine (^⊠◩△)
19. Argo (F)



Scale 1:250,000
5 0 5 10 15 20 Statute Miles
5 0 5 10 15 20 25 30 Kilometers

LEASABLE MINERAL AND WATERPOWER LAND CLASSIFICATION MAP
GREELEY QUADRANGLE, COLORADO, WYOMING

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

Compiled by H. L. Smith, R. D. Hettinger, and G. A. Lutz

1975

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 nitrates 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 Colorado No. 1, July 7, 1910, and Colorado No. 9, December 16, 1911.

No land in this quadrangle is classified as valuable for [redacted] oil shale, phosphate, or potassium.

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