4640 0027

320 Item 27

NM-31-1
Au, Zn, Pb, Ag, Cu, W, As, Hg, clay, silica, pumiceous rhyolite volcanic cinder, geothermal resources

Mining District: JUMBO DISTRICT (WEST COMSTOCK DISTRICT)
GALENA DISTRICT (WASHOE VALLEY DISTRICT)
STEAMBOAT SPRINGS DISTRICT
GEIGER CLAY PIT
(Gold, Zinc, Lead, Silver, Copper, Tungsten, Arsenic, Mercury, Clay, Silica, Pumiceous Rhyolite, Volcanic Cinder, Geothermal Resources)

T. 16-17-18 N., R. 19-20 E.
Washoe County, Nevada
USGS Mt. Rose 15-min. quadrangle (1950) and Virginia City 15-min. quadrangle (1950)

GENERAL BACKGROUND

In the following discussion each district will be treated separately.

I. Jumbo District

The Jumbo area is located east of Washoe Lake on the western slope of the Virginia Range, approximately 3 miles west of Virginia City. Significant mining activity did not begin in the Jumbo area until the early 1900's, but by 1908 several mines were producing gold and silver ore. The main period of mining activity and production was between the years 1908 and 1911. Intermittent placer and small-scale lode mining was carried on between the years 1912 to 1948. Since 1948 no production has been recorded from the district. Recorded production from the district totals over 8,000 tons of lode material grossing approximately $31,000. These figures are incomplete, but total production in the area probably does not exceed $200,000 (2).

GEOLOGICAL AND TECHNICAL DATA

The oldest rocks exposed in the Jumbo area are metasedimentary and metavolcanic rocks of presumed Triassic and Jurassic age. These metamorphic rocks have been intruded by granodiorite of Cretaceous(?) age. Unconformably overlying the Mesozoic rocks are Tertiary rhyolitic ash-flows of the Hartford Hills Rhyolite. The Hartford Hills Rhyolite is overlain by andesite flows and breccias of the Alta Formation which crops out extensively here and in the Virginia City area. The flows and breccias of the Alta Formation are highly propylitized in the Jumbo area, but superficial bleaching, characteristic of other mining districts, is minor. Unaltered andesite and dacite flows and breccias of the Kate Peak Formation lie unconformably upon the Alta Formation. According to Bonham (2), intrusive granodiorite porphyry, similar to that of Mount Davidson in the Comstock District, may underlie portions of the Jumbo area.

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7. CARRINGTON NO. 1 8. MAYDAY NO. ?

III. Steamboat Springs District

The Steamboat Springs area is located at the north end of the Steamboat Hills, and south of the junction of highways 17 and 395.

Mercury was discovered at Steamboat Springs in 1875. Since the discovery, various operators have leased the property in the SW¼NE¼ of sec. 32, T. 18 N., R. 20 E., and an unknown number of flasks of mercury have been produced from the area. Approximately 25,000 tons of ore assaying from 3 to 4 pounds of mercury per ton has been delineated by the Texierra Mining Corporation of Dallas, Texas in 1965 (2).

Silica has been produced from a small open pit in the center of section 32, T. 18 N., R. 20 E. The material averaged 99 percent silica, 0.6 percent alumina, and approximately 0.04 percent iron oxide. The silica was apparently refined at the property prior to shipping (2).

The pumiceous rhyolite is located in the E½ of section 1, T. 17 N., R. 19 E. There has been no apparent production and the deposit has not been explored extensively. Bonham (2) reports the specific gravity of two samples to be 1.94 and 1.96.

Red volcanic cinder occurs in the SW¼ of section 32, T. 18 N., R. 20 E. From time to time a moderate amount of cinder has been removed from the deposit.

The Faith Clay Pit is located in the NW¼ of section 32, T. 18 N., R. 20 E. Clay from this pit was used by a Reno company to make bricks between 1940 and early 1960.

The U.S.G.S. has identified two Known Geothermal Resource Areas (KGRA) in the vicinity of Steamboat Springs. One area is at Moana Springs and the other is at Steamboat Hot Springs. On the URA-3 overlay, these two areas have been delineated by solid orange lines.

GEOLOGICAL AND TECHNICAL DATA

The oldest rocks in the Steamboat Springs area are metasedimentary rocks intruded by Cretaceous(?) granodiorite. The granodiorite probably underlies much of the Steamboat Springs area. Unconformably overlying these older rocks are volcanic flows of the Alta and Kate Peak Formations. Older alluvium of post-Kate Peak age is present over much of the area and is overlain by basaltic flows and younger rocks. Several protrusive rhyolite domes--called the Steamboat Hills Rhyolite--are present to the northeast and southwest of the active thermal area.

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There has been two periods of hot springs activity (4). The first period of thermal activity is of post-Kate Peak age and the second period has continued from early Pleistocene to the present time. Both periods of thermal activity formed several distinct types of hot spring deposits in the area. Extensive alteration and bleaching of older rock types has occurred in the vicinity of the hot springs.

The cinnabar, silica, and clay deposits are intimately associated with the hot springs activity in the Steamboat Springs area. Near surface bleaching has extensively altered the original rocks to a mixture of quartz, cristobalite, and clay containing variable amounts of cinnabar.

POTENTIAL FOR DEVELOPMENT

Substantial tonnages of low-grade mercury ore are known to exist in the Steamboat Springs area. During a period of national emergency or a price peak equivalent to the 1968 level to $500-$600 per flask it is possible that production would be forthcoming. A potential "sweetner" may lie in the association of clay and silica with the mercury ore. Should a market be available or rapidly developed, both clay and silica could be a valuable by-product of mercury production.

According to Bonham (2) the pumiceous rhyolite occurance has not been fully explored. Although the specific gravity of the material is favorable, competition from other established quarries in the area (for example the C. B. Concrete Company quarry on land leased from Curtiss-Wright 4½ miles to the northeast) make it unlikely that any production will occur in the near future. However, the production of pumice closely follows trends in the building industry and rapid urban growth within profitable marketing distances could appreciably alter this picture.

The volcanic cinder deposit will probably continue to be used intermittently in the future for markets in the Reno area.

A potential exists for the development of the geothermal resources at Moana and Steamboat Springs for the generation of electrical energy.

All of the commodities in the Steamboat Springs area are ameiable to open pit mining methods, with the exception of the geothermal energy.

COMPANIES AND CLAIMANTS ACTIVE IN AREA

The following list identifies some of the claimants in the Steamboat Springs area:

1. PUMCO Group
   C. W. Cooper
   2875 Wrandel, Reno
   Feb. 1954
   (2 placer claims)

2. SUNRISE PLACER
   L.F. Zeigler, et.al.
   5021 Ann, Reno
   Sept. 1962
   (40 a. placer claim)

3. MARGARET #1
   Margaret Kerr
   1374 S. Virginia, Reno
   Oct. 1949
   (1 lode claim)

4. MICHAEL # 1
   James Greenah
   15 E. 1st, Reno
   Oct. 1949
   (1 lode claim)

IV. Geiger Clay Pit

The Geiger Clay Pit is located in the NW¼ of section 35, T. 18 N., R. 20 E., adjacent to State Highway 17. Between the 1940's and 1963, clay from this pit was used by a Reno Company for brick production. The clay fires to a red color, and the bricks were marketed in the Reno area.

GEOLOGICAL AND TECHNICAL DATA

The clay pit is located in highly altered volcanic rocks of the Alta Formation. The degree of argillization varies from the complete alteration of the parent rock to clay to only slightly altered andesite. Quartz and illite are the predominant minerals present with subordinate kaolinite, feldspar, and other residual minerals.

POTENTIAL FOR DEVELOPMENT

The brick company that quarried clay from the Geiger Pit is no longer listed in the telephone book and presumably has gone out of business.

Clays are important in the field of ceramics and as fired materials used in the construction industry. The suitability of different clay deposits for specific applications varies appreciably, and because of the low price-high volume nature of the raw material, sources in close proximity to areas of urban expansion constitute an important future reserve. Whether production will come from the Geiger Clay Pit, other established pits, or from sources yet to be exploited is, however, not known. Indications are, however, that the demand and consequent production of clays will increase in the foreseeable future.

COMPANIES AND CLAIMANTS ACTIVE IN AREA

Unknown.

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SELECTED REFERENCES

1. Bailey and Phoenix: Quicksilver Deposits in Nevada; Univ. Nev. Bull. 5, 1944.

2. Bonham and Papke: Geology and Mineral Resources of Washoe and Storey Counties, Nevada; Nev. Bur. Mines Bull. 70, 1969. (Includes Geologic Map of Resource Area)

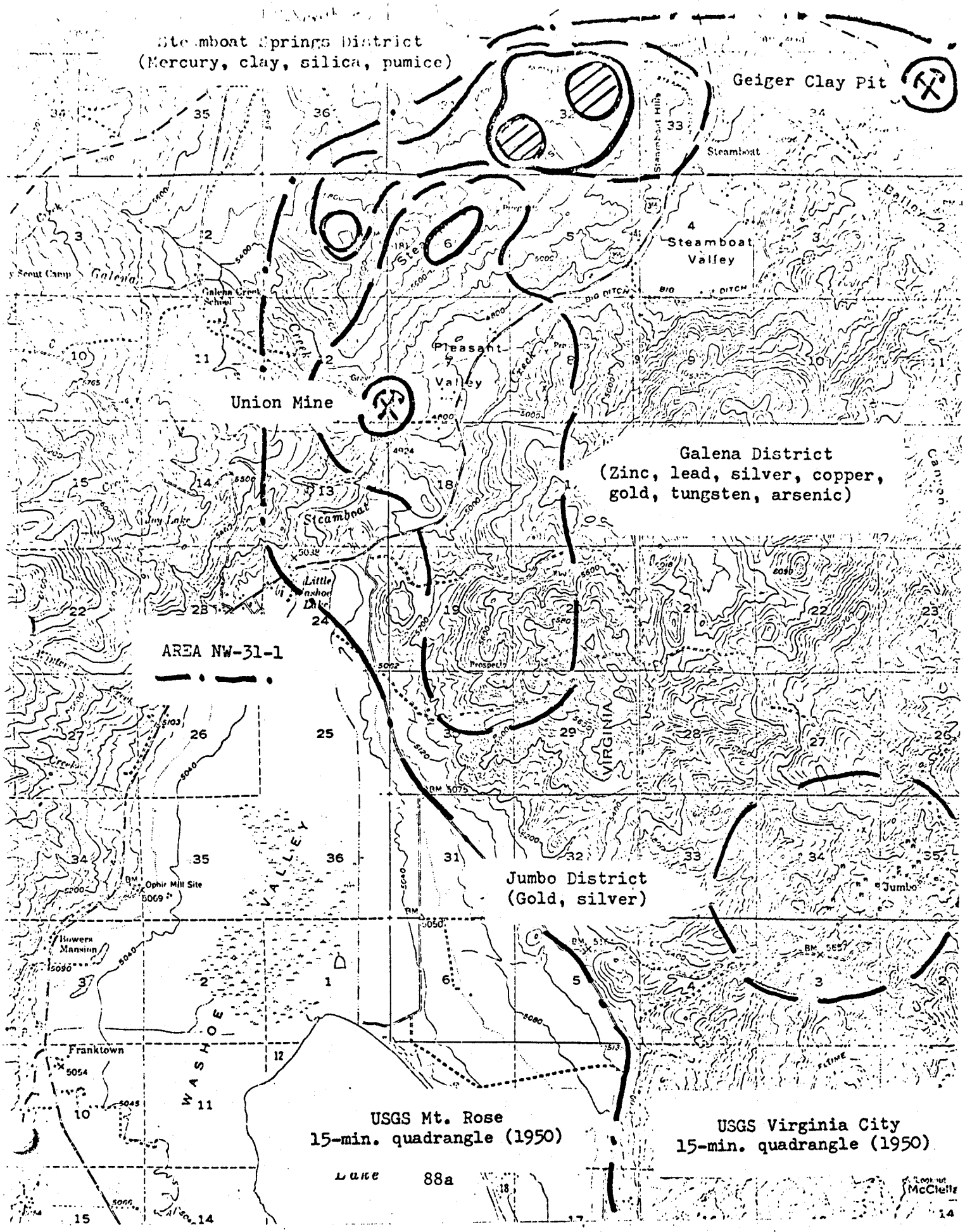
3. Godwin et al.: Classification of Public Lands Valuable for Geothermal Steam and Associated Geothermal Resources. USGS Circular 647, 1971.

4. Thompson and White: Regional Geology of the Steamboat Springs Area, Washoe County, Nevada; USGS PP 458-A, 1964.

FIELD EXAMINATION

Bennett, Oct. 1972

Bennett, Dec. 1972


Steamboat Springs District
(Mercury, clay, silica, pumice)
Geiger Clay Pit
Steamboat
Steamboat Valley
Galena
Galena Creek School
Pleasant Valley
Union Mine
Galena District
(Zinc, lead, silver, copper, gold, tungsten, arsenic)
Steamboat
Little Washoe Lake
AREA NW-31-1
VIRGINIA
Jumbo District
(Gold, silver)
Ophir Mill Site
Bowers Mansion
Franktown
WASHOE VALLEY
Jumbo
USGS Mt. Rose
15-min. quadrangle (1950)
USGS Virginia City
15-min. quadrangle (1950)

Taken from:

Mineral Resources Inventory and Analysis

of the

Pyramid Resource Area

Carson City District
Nevada and California

by

R. E. Bennett and H. W. Mallery

1973

See Washoe County-general file for the complete introduction to this report
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