189
Item 18

0410 0017

SW-1-1
(Au, Ag, U,
Pumice)

AREA: AURORA: (Aurora District)
(gold, silver, uranium, pumice)

T. 5 N., R. 27-28 E.
Mineral County, Nevada
U.S.G.S. Aurora, Nevada quadrangle 1:62,500

GENERAL BACKGROUND

The Aurora area is located near the California-Nevada border in the southwestern part of Mineral County, Nevada. Gold was discovered in the area in 1860 and soon the Aurora mining district was one of the most prolific gold and silver producing areas in the state. By 1864 the town of Aurora had become established and had grown to a population of 10,000 people. The camp was very prosperous and boasted 17 active amalgamation mills, the largest, containing 30 stamps. Production peaked in 1869 and declined steadily after that until operations ceased in 1882.

The district experienced a brief resumption of production from 1914-1917 mainly through the reworking of tailings and dump material. Some gold and silver was even being produced in 1940 but by 1956 all activity had ceased.

The area contains an estimated 20 miles of underground workings including one shaft about 900 feet deep and several other shafts 400 to 500 feet in depth. From these workings an estimated total of 670,000 tons of ore was extracted (Ross, 1961).

GEOLOGY AND TECHNICAL DATA

Ross (1961) describes the geology and mineralization of the Aurora area as follows:

> "At Aurora the country rock of the more important mines is an altered volcanic rock, which has been mapped as part of the pre-Esmeralda group. Hill (1915, p. 45) describes the most common rock of the district as a biotite-quartz latite".

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"It is a geenish-gray rock with phenocrysts of andesine, biotite, and pyroxene(?) set in a ground mass of andesine, abundant interstitial quartz, and K-feldspar. Intrusive into these rocks is a light-green, fine-grained porphyritic andesite made up of phenocrysts of andesine and augite set in a ground mass of the same minerals. The andesite is probably closely related in age to the quartz latite. Both rock types are altered and cut by veins of calcite and quartz."

"...a series of northeast-to-east-striking, anastomosing quartz veins, as much as 80 feet thick...are in pre-Esmeralda volcanic rocks that are exposed as a window in an area of predominantly barren younger volcanic rocks. ...At least 14 veins have been mapped (Hill, 1915, map facing p. 142), which generally strike N 40° to 50° E and dip southeast at various degrees; in the northeast part of the district the strike swings around to N 60° to 80° E. The productive area is in part overlain by barren post Esmeralda, rhyolitic and basaltic(?) rocks."

"The veins consist mostly of finely granular white quartz; which in some places has a milky-white porcelain-like appearance. The veins are commonly composed of layers of quartz of different grain sizes, and all veins contain cavities lined with clear quartz crystals."

"Hill (1915, p. 141-150)...states that the rich ore is marked by irregular wavy streaks of quartz, adularia, argentiferous tetrahedrite, small amounts of pyrite and chalcopyrite, and a soft bluish-gray mineral supposed to be a combination of gold and possibly silver with selenium. Free gold was found in the richer ore and was particularly abundant in some of the older stopes."

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> "In general the Aurora ore was low grade with the average tenor about $6 to $8 per ton although some of the richest shoots ran as high as $1,000 per ton. The gold to silver ratio ranged from 1:5 to 4:2 according to Hill (1915, p. 150), but was recorded as 1:14 by Ferguson (1929): the latter ratio probably represents a better figure for the district."

Perlite deposits exist at two known prospects in the Aurora area. The perlite occurs as pods in felsic volcanic rocks which have been bleached and altered to clay with quartz and opal. One of the reported deposits is approximately 1000 feet long and 100 feet wide (Archbold, 1966).

CURRENT ACTIVITY

No large scale exploration or development activities are underway at present in the Aurora area. However, mining claims abound and county records indicate many of the claimants are performing consistent assessment work.

ACCESS

Old unimproved roads constructed during past mining activities still afford access to most of the Aurora area. Roads lead into the area from the north from Fletcher up Bodie Creek and from the south through Alkali Valley from Route 31 just east of the Nevada-California border.

PRODUCTION STATISTICS

Early production records are incomplete but Ross (1961) reports (p. 79) that during the period 1861 to 1869 nearly $29,500,000 in gold and silver was produced from the Aurora area, mainly from the Aurora Mines Company and the Aurora Consolidated Mining Company. From 1914 to 1918 $1,850,000 in gold and silver was produced mainly by Goldfield Consolidated Mines Company.

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The last recorded production was in 1940 when 52 tons of gold and silver were mined at a value of $11,011. Total production for the Aurora district was 669,962 tons of gold and silver at a value of $31,409,013 (Couch and Carpenter, 1943, p. 100). Most of the recorded production was from patented mining claims. What proportion of production was from national resource lands is unknown.

POTENTIAL FOR DEVELOPMENT

Sufficient reserves of low grade gold and silver deposits exist in the Aurora area to define a probable subeconomic submarginal reserve (see Mineral Inventory Overlay). At present prices, costs of extraction would be too high to make the venture economic. However, if the price of gold and silver increases again the area may become economic probably for a major surface mining operation. Unless this happens though, mining in the area will probably be confined to small scale surface and underground operations.

Some individual prospecting may be expected to continue in the area but no significant exploration programs are anticipated from major companies until such time as the economics become more favorable.

MANAGEMENT OPPORTUNITIES

The opportunity exists to protect the subeconomic submarginal area within the Aurora area from exemption of mining rights under the general mining laws until such time as the deposits become economic and can be developed.

The opportunity also exists to allow further identification of the mineral deposits within the subeconomic area and also within the whole Aurora area.

Finally, the opportunity exists to protect all the lands within the Aurora area from withdrawal or restriction from location under the general mining laws to allow further exploration and discovery of potential mineral deposits.

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COMPANIES AND CLAIMANTS ACTIVE IN THE AREA

1. Annett, Norman
   P. O. Box 455 Mono Village - Bridgeport, CA 93577
   Claims: Tailings Pond No. 1
   (1 20-acre placer claim)

2. Batanian, Marie
   141 W. Fredericks - Barstow, California 92311
   Claims: Van Valien
   (lode claim)

3. Van Hafften, Alexander
   Great Basin Exploration Company
   (address unknown)
   Claims: Hornet Nos. 1, 2, 3, Wasp Nos. 1 & 2
   (5 lode claims)

4. Siskon Corporation
   P. O. Box 889 - Reno, Nevada
   Claims: Calaverite, Clinkum, Frisco Bell, Gemini Nos. 1-3, Granite Hill Tunnel, Half Moon Fraction, Hessit, Hessit Mill Site, Juniata Placer, Lucky Blunder, Lucky Mary, Lucky Star, Lucky Moon, Moon Anchor, Morning Glory, New Thought, Petsite, Philadelphia Fraction, Sunset Nos. 1 & 2
   (total 23 claims)

SELECTED REFERENCES

Hill, J.M., 1915, Some mining districts in northeastern California and northwestern Nevada: U.S. Geol. Survey Bull. 594.

Lincoln, F.C., 1923, Mining districts and mineral resources of Nevada: Reno, Nev., Newsletter Publishing Co.

Ross, D.C., 1961, Geology and mineral deposits of Mineral County, Nevada: Nevada Bur. Mines Bull. 58.

Vanderburg, W.O., 1937, Reconnaissance of mining districts in Mineral County, Nevada: U.S. Bur. Mines Inf. Circ. 6941.

Partial field examination J.R. Gilbert November 1975.

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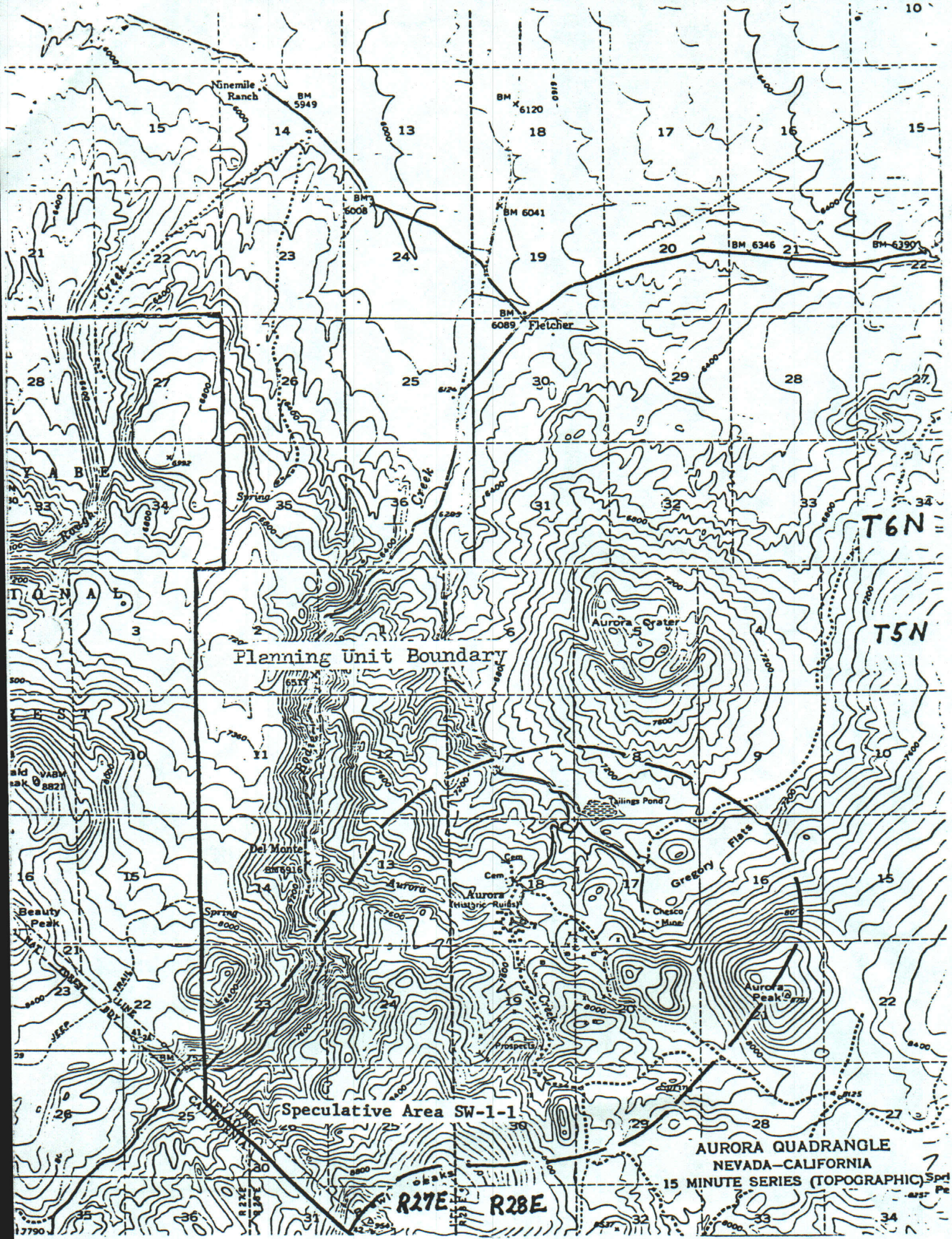
Ninemile Ranch
BM 5949
BM 6120
BM 6008
BM 6041
BM 6346
BM 6390
BM 6089
Fletcher
Creek
Spring
Range
Planning Unit Boundary
T6N
T5N
Aurora Crater
Tailings Pond
Del Monte
Aurora
Aurora (Historic Ruins)
Cem.
Gregory Flats
Chesco Mine
Beauty Peak
Aurora Peak
Prospects
Speculative Area SW-1-1
NEVADA
CALIFORNIA
R27E
R28E
AURORA QUADRANGLE
NEVADA—CALIFORNIA
15 MINUTE SERIES (TOPOGRAPHIC)

Taken from:

.42 Minerals

Inventory and Analysis of the Walker Planning Unit

Carson City District
Nevada and California

by

J. R. Gilbert
1976

see Lyon County - general file, Item 13 for general preface remarks.