Alaska Resource Data File, Beaver quadrangle, Alaska

By Joe Britton [1]

Open-File Report 00-308

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This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards or with the North American Stratigraphic Code. Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

[1] Anchorage, Alaska

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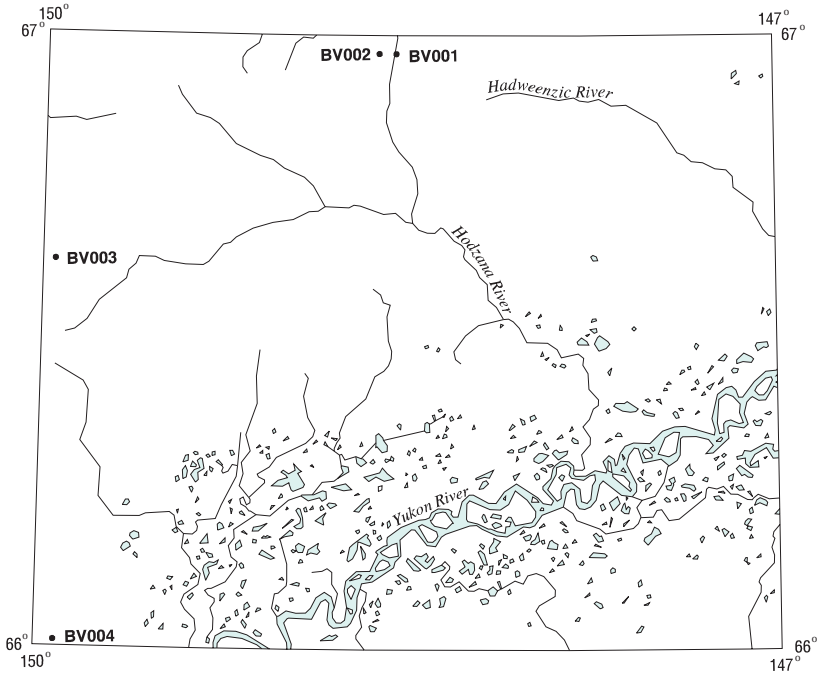
Alaska Resource Data File

Beaver quadrangle

Descriptions of the mineral occurrences shown on the accompanying figure follow. See U.S. Geological Survey (1996) for a description of the information content of each field in the records. The data presented here are maintained as part of a statewide database on mines, prospects and mineral occurrences throughout Alaska.



Distribution of mineral occurrences in the Beaver 1:250,000-scale quadrangle, Alaska

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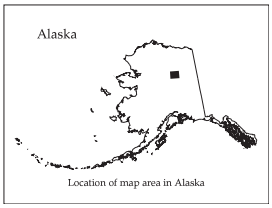

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Site name(s): Slate Creek; Trout Creek (placer); Hosiana Creek(?)

Site type: Mine

ARDF no.: BV001

Latitude: 66.97 **Quadrangle:** BV D-4

Longitude: 148.56

Location description and accuracy:

Location is only approximated in the references but is considered to be at the prospect symbol shown near the junction of Trout Creek and Slate Creek (NW1/4 sec. 25, T. 25 N., R. 5 W., of the Fairbanks Meridian). Hosiana Creek was the old name of the Hodzana River. The Hosiana Creek occurrence is included with the Trout and Slate Creek occurrences as they are the only reported placer gold occurrences in the Hodzana drainage. Location accurate within 1/2-mile radius.

Commodities:

Main: Au

Other:

Ore minerals: Gold

Gangue minerals:

Geologic description:

Placer mining was reportedly done on Slate Creek and its tributary, Trout Creek, near the junction of the two streams (Cobb, 1973, B1374). Good prospects were found on Hosiana Creek in 1910 (Ellsworth and Parker, 1911). No other descriptive information is available for this occurrence.

Alteration:

Age of mineralization:

Quaternary.

Deposit model:

Placer Au (Cox and Singer, 1986; model 39a)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):

39a

Production Status: Undetermined

Site Status: Inactive

Workings/exploration:

Surface workings. A few men reportedly worked on Trout and Slate creeks in each of several years during the 1950's and 1960's. No other information is available.

Production notes:

According to Cobb (1973; B1374) production must have been small and was probably credited to the Chandalar District

Reserves:

Additional comments:

The only mining reported in the Yukon Flats district. Stream gradient of Trout Creek is 100 ft./mi. The location of the reported occurrence on Hosiana Creek is not described in the references, but it may be at or near the Trout and Slate Creek occurrences inasmuch as they are the only reported placer gold occurrences in the Hodzana drainage.

References:

Ellsworth and Parker, 1911; Holdsworth, 1957; Berg and Cobb, 1967; Cobb, 1972 (MF-439); Cobb, 1973 (B1374); Cobb, 1978 (OFR 78-94).

Primary reference: Cobb, 1973 (B1374)

Reporter(s): J. M. Britton (Anchorage)

Last report date: 11/17/99

Site name(s): Trout Creek (Pitka Fork, Sturrock, Hodzana Valley Moly)

Site type: Occurrence

ARDF no.: BV002

Latitude: 66.97 **Quadrangle:** BV D-4

Longitude: 148.63

Location description and accuracy:
The original location is indefinite but is reported herein as locality number 1 in Cobb, 1972 (MF-439) which is about 29 miles north of Lone Mountain (junction of sections 21, 22, 27, and 28, T. 25 N., R. 5 W., of the Fairbanks Meridian). Location accurate within 1-mile radius.

Commodities:

Main: Mo, Zn

Other: Au(?)

Ore minerals: Molybdenite, pyrite, sphalerite

Gangue minerals: Quartz

Geologic description:
A single lot quartz-, pyrite-, sphalerite-, and molybdenite-bearing rock specimens were submitted to the U.S. Geological Survey by a prospector in 1924 and inspected by J.B. Mertie, Jr., who felt that the mineral assemblage was a good indication of gold mineralization (Smith, 1942).

Alteration:

Age of mineralization:

Deposit model:
Polymetallic veins(?) (Cox and Singer, 1986; model 22c)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):
22c(?)

Production Status: None

Site Status: Inactive

Workings/exploration:

Production notes:

Reserves:

Additional comments:

References:
Smith, 1942; Cobb, 1973 (B1374).

Primary reference: Smith, 1942

Reporter(s): J. M. Britton (Anchorage)

Last report date: 11/17/99

Site name(s): Bonanza Creek (Beef claims)

Site type: Prospect

ARDF no.: BV003

Latitude: 66.63 **Quadrangle:** BV C-6

Longitude: 149.95

Location description and accuracy:

The reference point is located in the center of the Beef claim block, located about 12 miles northwest of Dall Mountain (sec. 21, T. 21 N., R. 11 W., of the Fairbanks Meridian); additional scattered mineral occurrences associated with this prospect are reported along a east-northeast trend through sections 20 through 23, T. 21 N., R. 11 W., of the Fairbanks Meridian, and a few somewhat more isolated occurrences in sections 27, 29, 30, and 32, T. 21 N., R. 11 W., of the Fairbanks Meridian. Location is accurate within 1/4-mile radius.

Commodities:

Main: Mo, W

Other: Cu

Ore minerals: Chalcopyrite, molybdenite, pyrrhotite, scheelite

Gangue minerals: Calc-silicate minerals, quartz

Geologic description:

Scheelite and molybdenite are reported to occur in modest amounts along the margin of the Kanuti batholith in the Bonanza Creek area (Clautice, 1983). The area studied includes a 30-square-mile project area which extends across the Beaver/Bettles quadrangle boundary. Scheelite is reported to occur most commonly as disseminated grains in a relatively sulfide-free pyroxene-garnet skarn and on fracture surfaces in calc-silicate schist, and less commonly in quartz veins. Molybdenite occurs typically as rosettes and small flakes in quartz veins associated with biotite quartz monzonite and less commonly in similar fashion with aplites, pegmatites, and calc-silicate rocks. Grab samples have returned values as high as 0.89 percent W, 300 grams Ag per ton, and 0.65 percent Cu. The granite pluton portion of the Kanuti batholith gave a K-Ar age of 90.6 Ma.

Alteration:

Calc-silicate skarn.

Age of mineralization:

Associated granite pluton is part of the Kanuti batholith, which has a K-Ar age date of 90.6 Ma (Nokleberg and others, 1987).

Deposit model:
W skarn deposit (Cox and Singer, 1986; model 14a)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):
14a

Production Status: None

Site Status: Inactive

Workings/exploration:
Some limited trenching in the area, but most of the exploration work has been just west of the Beaver quadrangle boundary.

Production notes:

Reserves:

Additional comments:

References:
Clautice, 1978; Clautice, 1983; Clautice, 1987; Nokleberg and others, 1987; Nokleberg and others, 1993; Swainbank and others, 1998.

Primary reference: Clautice, 1983

Reporter(s): J. M. Britton (Anchorage)

Last report date: 11/17/99

Site name(s): Fort Hamlin Hills pluton

Site type: Occurrence

ARDF no.: BV004

Latitude: 66.01 **Quadrangle:** BV A-6

Longitude: 149.92

Location description and accuracy:

The occurrence is located about 24 miles west of Stevens Village along a high (approximately 2500-foot level) ridge in the Fort Hamlin Hills (sec. 29, T. 14 N., R. 11 W., of the Fairbanks Meridian). Location is accurate within a 1-mile radius.

Commodities:

Main: Rb, Sn

Other: Ta, W

Ore minerals: Pyrite

Gangue minerals: Hematite, tourmaline

Geologic description:

This occurrence consists of a sample from a 5- to 8-ft.-wide tourmaline- and pyrite-bearing altered leucocratic, felsic dike which cuts biotite granite (Barker and Foley, 1986). The dike is variably stained brick-red and green and exposed for 50 feet along a north-trending strike. Alteration extends several feet into the granite, and secondary minerals in the dike and host granite include minor chlorite, sericite, tourmaline, hematite, and pyrite.

Alteration:

Secondary chlorite, sericite, tourmaline, hematite and pyrite.

Age of mineralization:

The host dike cuts (and is probably related to) a biotite granite of the Fort Hamlin Hills pluton. The Fort Hamlin Hills pluton has not been dated, but its age is likely Cretaceous, based on ages of several compositionally similar plutons in the area which have ages ranging from 106 to 112 Ma (Barker, 1991).

Deposit model:

Sn veins(?) (Cox and Singer, 1986; model 15b)

Deposit model number (After Cox and Singer, 1986 or Bliss, 1992):
15b(?)

Production Status: None

Site Status: Inactive

Workings/exploration:

Production notes:

Reserves:

Additional comments:
Occurrence consists of a single strongly anomalous sample. Sample number 181 (Barker and Foley, 1986) contained 308 ppm Sn, 1,102 ppm Rb, 29 ppm Ta, and 16 ppm W.

References:
Barker and Foley, 1986

Primary reference: Barker and Foley, 1986

Reporter(s): J. M. Britton (Anchorage)

Last report date: 11/17/99

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